Normative, Atypical or Deviant?

Interpreting Prehistoric and Protohistoric Child Burial Practices

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For Saul (EM)

For Arzhéla and Célestine (MLR)

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Author biographies

Hala Alarashi is an archaeologist interested in the human communities that have lived and evolved under the techno-economic and environmental conditions of the Neolithisation processes in the Near East and Northeastern Africa. Through a techno-functional, morphometric and spatial approach to body ornaments (necklaces, belts, diadems, etc.) she investigates how the symbolic package of the Neolithisation process and the increased complexity of the social structures have played a key role in the development of production, circulation and consumption systems of Neolithic communities.

Alexandra Anders is a qualified (habil.) Senior Research Fellow in the Department of Archaeometry, Archaeological Heritage and Methodology, Institute of Archaeological Sciences, Eötvös Loránd University, Budapest, Hungary. Her main research field is the Neolithic of the Carpathian Basin, with a focus on the archaeology of death and the archaeology of gender. She has directed or participated in numerous excavation in the Polgár area of northeastern Hungary. Her current interests include the biosocial archaeological study and assessment of Neolithic burials discovered in this eastern Hungarian micro-region in order to gain a better understanding of the life of the communities who settled there. She is also responsible for teaching courses in museum studies and archaeological heritage at the Institute.

Ana Arzelier is a PhD candidate in Biological Anthropology at the University of Bordeaux. Through the perspective of palaeogeomics, her current doctoral research aims to study migration and social organisation of human groups during two periods representing major cultural transitions in Western Europe (Mesolithic-Neolithic and Neolithic-Bronze Age).

Marion Benz studied Prehistory, Near Eastern Archaeology and Social Anthropology at the University of Freiburg, Germany. In her PhD thesis, she designed a path-dependency model for the interlinked biological and cultural processes of Neolithisation in the Near East. Ever since, she has worked on the social, cognitive, and medial aspects of Early Neolithic communities. She has published numerous research articles and edited two volumes on this subject – *The Principle of Sharing* (2010) and *Neolithic Corporate Identities* (2017; with Trevor Watkins and Hans Georg K. Gebel). From 2018-2021, she co-directed the *Household and Death in Ba`ja* project with Hans Georg K. Gebel and Christoph Purschwitz at the Institute of Near Eastern Archaeology, Free University Berlin, coordinating the research on the burials from Ba`ja in southern Jordan.

Fiorenza Bortolami received her doctorate in Archaeology at the Ca' Foscari University of Venice in 2021. In this same University she undertook her BA (2011) and MA (2013) in Archaeology with dissertations focused on the Bronze Age in North-Eastern Italy. In 2017 she obtained her *Diploma di Specializzazione* in Archaeology form the University of Bologna. Her doctoral dissertation concerned funerary rituals and the symbolic representation of the deceased in Iron Age Veneto. Since 2017 she has been involved in the project of excavation and publication of the burials from the pre-Roman eastern necropolis of Padua carried out by the University of Venice.

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Claire-Elise Fischer is a post-doctoral research associate at the University of York. Her research focuses on palaeogenomics of Iron Age populations in Europe to better understand the populations dynamics from the Bronze Age to the Iron Age and between the Early and Late Iron Age as well as the functioning of the communities.

Hans Georg K. Gebel worked for the German Research Foundation at the University of Tübingen and the Free University of Berlin, and was the founder and chairman of the research association ex oriente e.V., Berlin: Production, Subsistence and Environment in the Near East for 25 years. He specialised in Neolithic and Late Chalcolithic social and environmental research and stone technologies. Main project directorships include the excavations and analyses of the Early Neolithic sites of Ba`ja and Basta and the Late Chalcolithic sites of Qulban Beni Murra and Rajajil in Jordan and Saudi Arabia. He has managed the publishing house ex oriente since 1994 and is the founder and co-editor of *Neo-Lithics* and two series. In terms of research policies, he currently is committed to developing the epistemic, theoretical and methodological foundations of archaeohydrology and prehistoric archaeothanatology as new disciplines.

Julia Gresky leads the anthropology unit at the Division of Natural Sciences at the German Archaeological Institute. Her research has a dual focus: palaeopathology and archaeological oriented topics, including post-depositional treatments of bones in the Neolithic Near East and Anatolia. Due to the actual debate on climate change, her work group is also engaged in investigations of different aspects of human interactions and the bioarchaeology of climate change. The strongest research emphasis, however, is on ancient rare diseases, with the idea of creating a network and a common ground for this under represented topic in paleopathology.

Ana Mercedes Herrero-Corral is a post-doctoral researcher at the Austrian Archaeological Institute ot the Austrian Academy of Sciences (Vienna). She has a master's degree in Physical Anthropology and a PhD in Prehistory from Universidad Complutense de Madrid. Her main research focuses on the social role that children of recent prehistory would have within their communities through the bioarchaeological analysis of the funerary record. Since 2017 she has been part of the Humanejos research project, one of the most important cemeteries of the III and II millennium BC in Iberia, financed by the Spanish Ministry of Culture. She is the author of *Bioarchaeological Analysis of Child Burials from the III and II millennium BC in the Upper and Middle Basins of the Tagus* (2022). She was awarded a Marie-Curie Post-doctoral Fellowship in 2022 to undertake a project on biological and non-biological kinship relationships between adults and non-adults in multiple graves of recent prehistory.

Alexia Lattard defended her PhD in archaeothanatology in 2018 at the University of Aix-Marseille. Her work focused on the study of Gallo-Roman communities of the *Forum Iulii* territory. Before starting her research on archaeothanatology, she completed two Masters degrees, one in biological anthropology (Marseille, 2012) and one in archaeology (Aix-en-Provence, 2014). She is interested in the funerary practices of the Roman and Greek communities in the Mediterranean area and participates in research excavations in Greece (Anavlochos) and Italy (Porta Nocera). She currently leads a research project on funerary space in the Alps during Classical antiquity. Her research interests include how to socially and culturally characterise Classical communities through the study of funeral practices in southern Gaul.

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Mélie Le Roy is a Lecturer in Biological Anthropology at Bournemouth University, UK. Her research centres on the social consideration of children in an archaeological context to provide insights into past social organisation. She co-edited the book *Children, Death and Burial: Archaeological Discourses* (2017; with Eileen Murphy) and was guest co-editor of a volume of the journal *Childhood in the Past* entitled *Children at Work* (2019; with Caroline Polet).

Cormac McSparron studied Archaeology and Modern History at Queen's University Belfast, graduating with a BA in 1989. He was awarded an MPhil in 2008 and a PhD in 2018 from the same institution. Since 2002, he has worked at the Centre for Archaeological Fieldwork, Centre for Community Archaeology, and Centre for GIS and Geomatics at Queen's, and he has directed and published a large number of important excavations in Northern Ireland. He is the author of the monograph, *Burials and Society in Late Chalcolithic and Early Bronze Age Ireland* (2020).

Eileen Murphy is Professor of Archaeology in the School of Natural and Built Environment, Queen's University Belfast, Northern Ireland. Her research focuses on human skeletal populations from prehistoric Russia and all periods in Ireland. She is particularly interested in the use of approaches from bioarchaeology and funerary archaeology to help further understanding of the lives and experiences of people in the past. She has published widely and is the co-editor of *Children, Death and Burial: Archaeological Discourses* (2017; with Mélie Le Roy) and *Across the Generations: The Old and the Young in Past Societies* (2018; with Grete Lillehammer). She is the founding and longstanding editor of the international journal, *Childhood in the Past*.

Caroline Partiot is a post-doctoral researcher in the Austrian Archaeological Institute at the Austrian Academy of Sciences. The aim of her research is to use bioarchaeological analyses to study the significance and meanings of the lives and deaths of children in past populations. She investigates the life trajectories of children by analysing the interactions between their skeletal development and both natural and social environments and uses this biological dimension to analyse the specifics of the funerary practices dedicated to children.

Christoph Purschwitz is a lithic specialist. He did his PhD at the Free University of Berlin on lithics of selected Early Neolithic sites of the Greater Petra Area, Jordan. He has worked for various projects in the Near East with a special focus on Southern Jordan. From 2018 to 2021 he co-directed the *Household and Death in Ba`ja* Project.

Stéphane Rottier is Maitre de Conférences, bio-anthropologist and archaeologist, at the UMR PACEA, at Bordeaux University since 2007. His research focuses on funerary practices in late European prehistory (Neolithic, Bronze and Iron Ages) and on methods and theory for archaeothanatology, with a particular interest in the use of archaeogenetic and isotopic data.

Aurore Schmitt is an archaeo-anthropologist at the CNRS, France. Her research is concerned with mortuary practices in the Neolithic and Bronze Age of the Mediterranean area and specifically explores collective burials, non-funerary practices (dead denied funerals) and cremation. She includes ethnographical data in her research. She has conducted and participates in field projects in France and Crete and she teaches and supervises Masters and PhD dissertations in biological anthropology and the archaeology of death.

Anna Serra is an archaeologist and her research focuses on the Etruscan Po Valley. She completed her studies in Etruscology and Italic Archaeology at the University of Bologna in 2017, when she finished a Specialisation School in Archaeological Heritage. She has participated in the research project on the Etruscan necropolis and the city of Valle Trebba of Spina (EOS project) and in the excavations of the Etruscan city of Marzabotto. From 2018 to 2022, she undertook her PhD at the University of Salerno with a project focused on child funerary rituals in the Etruscan Po Valley. She is currently conducting post-doctoral research on the Etruscan Po Valley at the University of Bologna.

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Dr Lynne McKerr

General Editor, SSCIP Monograph Series

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Introduction: Normative, Atypical or Deviant? Interpreting Prehistoric and Protohistoric Child Burial Practices

Eileen Murphy[1] and Mélie Le Roy[2]

When faced with a death, the response of the living is one that is intricately linked to belief systems, concern for the fate of the deceased in the afterlife, as well as a desire to protect the living and ensure they are not negatively affected as a consequence of the death. Appropriate funerary rituals are necessary to restore the natural order and these generally follow a standard recognisable format for each culture. Discussions of 'deviant' burials in the archaeological record refer specifically to funerary practices that differ from the expected common burial rites within a given society (Reynolds 2009). The term 'deviant' can be somewhat problematic, however, since its association is overtly negative. The term may have had innocent origins in the world of statistics but, within sociology, it is used to define someone whose behaviour violates social norms (Bryant 2014). It is only in a minority of cases, however, that clear evidence of a body having been treated in a negative manner is apparent in the archaeological burial record. As such, more nuance is required in the terminology used in relation to burial practices and in many cases more neutral terminology, such as atypical, irregular, or non-normative may be more appropriate (Murphy 2020, xviii).

This volume has its genesis in a session entitled 'Systemic Approaches to Juvenile Funerary Rituals. Atypical, Deviant or Normative? Going Beyond Paradigms' organised by ourselves and Ian Gonzalez Alaña at the European Association of Archaeologists' 25th annual meeting held in Bern, Switzerland, in 2019 (Figure 1). It comprises 12 papers that focus on pre- and protohistoric examples of juvenile burial from a wide geographical area, including Europe and the Near East. The contributors were challenged to consider whether they could classify child burials as normative, atypical or deviant, or indeed if this system of categorisation was too simplistic in itself.

If the study of standard mortuary practice informs on the social status and consideration of an individual within a group (Parker Pearson 1999), then atypical burials provide further information regarding the social position of an individual, either during their life or in the context of their death, thereby reflecting a more complex functioning of the society (Aspöck 2009). However, the question of atypical burials is difficult to address solely based on the archaeological record. Indeed, in archaeology one important bias affects all data that we study. By definition, the archaeological record is incomplete due to preservation issues and/or missing elements (research biases). Therefore, we must discuss this issue based on gaps rather than hard evidence. Interest in atypical burial practices first gained attention in the 1970s and 1980s through the seminal works of Arthur Saxe (1970), John O'Shea (1984) and Talia

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Figure 1: Presenters from the session entitled 'Systemic Approaches to Juvenile Funerary Rituals. Atypical, Deviant or Normative? Going Beyond Paradigms' at the European Association of Archaeologists' 25th annual meeting held in Bern in 2019 (Photograph: Colm Donnelly).

Shay (1985). Since then, many scholars have undertaken studies that focus on atypical burials across a broad geographical and temporal span and it is generally accepted that these involve special treatment of an individual in the burial record and can be identified based on features including the location of the burial, position and treatment of the body, and association with particular grave goods or furnishings amongst others (see e.g. Betsinger *et al.* 2020; Damman and Leggett 2018; Gardeła 2017; Milella *et al.* 2015; Murphy 2008; Reynolds 2009). The breadth of this body of work demonstrates that people have deliberately imbued burials of particular individuals with difference across 1000s of years. Atypical burial is thus a powerful cross-cultural phenomenon and, when the burials are carefully disentangled, it is possible to learn much about the social order and belief systems of different communities of the past.

Differentiating Between Practices

The application of social bioarchaeological approaches has positioned the deceased individual at the centre of studies of atypical burial. Previous work has identified that the age at which an individual died can have a direct impact on the nature of the burial they were afforded (e.g. Le Roy 2017; Perez 2016). The authors in the volume each demonstrate the importance of applying an integrated biocultural approach (see Betsinger *et al.* 2020) for determining why an individual was buried in an unusual way and with interpretations based on local context and associated socio-cultural considerations. The results clearly demonstrate that a dichotomous conception of deviant and normative burials conflicts with much information

derived from ethnographic research. In actuality, many societies practiced a range of different mortuary practices, which can be classified as normal, atypical or deviant depending on their characteristics (Aspöck 2009).

If we accept that many societies had a spectrum of burial practices the challenge is then to attempt to recognise which may be defined as deviant, atypical or normative. It is most straightforward to identify normative burials since these are the most common practices observed within a society and those that we use to define the burial practices of a particular culture (Duday 2009; Parker Pearson 1999), but it is more difficult to differentiate between deviant and atypical burials. Archaeology only sees the end result of the burial process and much of the evidence for the funerary rites that led up to the burial are invisible (see Murphy 2020, xvii for an example from modern Ireland). This can make the interpretation of burial practices difficult, particularly when attempting to decide whether a burial should be considered to be deviant or atypical.

Drawing upon ethnographic studies, atypical burial illustrates a funerary practice that differs from the normative scenario identified for a given society but does not necessarily imply a negative connotation. In the Dayak culture of Borneo, for example, infants who died before or around birth benefit from a well-defined mortuary practice, specific to their age group, that reflects a special status (Hertz 1970: 77). Indeed, when these young individuals die, they are deposited in a dead tree trunk or hanging from the branches. These cultures consider this act as a way of returning the infant to their origins since they died before they had a chance to integrate into the social group and therefore do not require a long and painful funeral. As such, their burials, which are impossible to identify archaeologically, involve a complete reduction of the normative practice but the intention does not bear any negative connotation. In contrast, deviant burial evokes a rather negative response, that can aim to punish the dead and/or prevent bad things happening to the living or the dead themselves. The case of the Papel children from New Guinea is a perfect illustration of deviant practice that aims to prevent harm to the living. These children are considered to be non-human (*iran* children), based on a disability, physical deformation and/or odd behaviour. They are likely to be victims of infanticide and their funerary rites are drastically reduced, involving simple deposition in a pit, separate from others in their society (Einarsdóttir 2005). In this case it would be the location of the interment and absence of a more elaborate burial that would mark them out as different in the archaeological record but, without oral history information, it would be impossible to identify them as deviant as opposed to atypical.

The ethnographic examples demonstrate that to differentiate between atypical and deviant practices it is necessary to identify the intentionality in the agency of those who undertook the burial rites. This is often impossible for the archaeological record, however, and we are reliant upon reading the physical clues of the burial and comparing these to normative practices. It is generally agreed, however, that deviant burials tend to include evidence that a lack of reverence was shown towards the deceased whereas this is not necessarily the case for atypical burial practices. The Later Anglo-Saxon execution cemeteries of England provide a good example of deviant burial practices. Within these spatially segregated sites, often located on principal administrative boundaries, the burials include ‘prone burials, multiple interments, decapitation, evidence of restraint, shallow and cramped burial and mutilation’ (Reynolds 2009: 44). The context is key to interpreting such burials and while similar practices,

such as prone or multiple burial, can be found in community burial grounds the normative context of the latter makes it less likely that the variations are deviant and it is therefore more acceptable to class them as atypical. Within Irish Medieval burial grounds, for example, the standard Christian rite would have been interment in an extended supine position with the head towards the west, but a range of variations from this formula have been observed through minority practices, including double burial (Murphy and Donnelly 2018) or the use of more reposeful positions for children (Murphy 2017). In these instances no less reverence is shown towards the deceased than in contemporary normative burials and, indeed, it is often the case that evidence of grief and emotion is all the more tangible in such burials (Murphy *et al*. 2022: 153-184).

The Specific Case of Children

The issue of differentiating between atypical, deviant and normative rites becomes even more difficult when considering children since differences are often age dependent (Le Roy 2015), thereby reflecting a specific social status within the community (Murphy and Le Roy 2017). Rites afforded to children may appear as atypical or deviant compared to adult burials but in actuality fall into the normative practice for the subadult cohort.

The unbaptised children of the Medieval Christian world can be used to illustrate the complexity of interpretation. Church teaching at the time dictated that Christians were to be buried in consecrated ground. Death prior to baptism meant these young souls should therefore not have had access to graveyards, and instead they were to be buried near houses and domestic areas (Tzortzis and Séguy 2008). However, the archaeological record reveals that, despite this strict rule, infants are still recovered from within excavations of Medieval Christian cemeteries. Historical sources and several archaeological studies have highlighted the practice of performing baptism prior to birth, or directly at the time of birth, thus assuring access to consecrated ground. In countries including France, Belgium, Germany and Austria the body of a dead infant could be taken to a 'sanctuaire à répit' (respite sanctuary) where it was placed on a warm altar and, having been seen to have miraculously 'breathed', was hastily baptised and permitted burial in consecrated ground (Carron 2016; Gélis 2006). However, not everybody could afford such practices, or the ritual did not work, and the archaeological record shows that some unbaptised infants were buried in graveyards (Tzortzis and Séguy 2008). Extensive research has identified that most of the unbaptised infants were located in a specific area of the cemetery (most often associated with a Saint Catherine Chapel – 'sanctuaire à répit'– along the walls of the cemetery or the church). It was believed that infants would benefit from the holy spirit of the building by being in direct contact with it (Carron 2016; Tzortzis and Séguy 2008). A similar but perhaps more definitive spatial segregation of unbaptised infants also occurred in Post-Medieval Ireland where the babies were interred within *cillíní* – unconsecrated children's burial grounds that were completely separate to normative graveyards (Donnelly and Murphy 2018). While this spatial segregation may be reminiscent of the Later Anglo-Saxon execution cemeteries, the burial practices afforded to the infants mirror those evident in consecrated burial grounds and therefore cannot be classed as deviant. Clear reverence and affection has been shown to the dead infants buried in *cillíní* through, for example, the association of quartz, within or on top of the graves, or even the inclusion of toys within the graves (Murphy 2011).

In these instances, infant burials practices clearly differed from the normative burial rite, essentially through the location of the burials. However, these practices became so common that they defined a new practice in itself, becoming normative among the infant cohort, though atypical for the rest of society. These examples clearly illustrate the difficulty of defining normative, deviant or atypical burial, because it is a definition depending on the point of view and this is very often adult-centric.

This complexity is mostly related to the rites of passage that occur during childhood (although such rites can also be seen during adulthood) leading to a redefinition of the social role of the individual within society (Van Gennep 1909 [1960]). As such, it is rare that juveniles are treated socially in the same way throughout the entirety of their childhood. Indeed, different biological (e.g. appearance of first tooth or puberty) along with social (weaning, ability to talk) events change the place in society of each individual. Funerary practices can reflect these different stages of childhood, with rites depending on the age at death, and thus the social position of a child (Le Roy 2015). Each culture has its own definitions of the life course and associated rites of passage, and it is important to consider these within a specific cultural context. To identify the normative practice, it is standard practice to base our observations on the adult cohort and explore how these differ for younger individuals. However, within the burials of juveniles, consistent trends can also be identified, thus defining a normative practice for a specific age cohort. The case of atypical versus deviant is then questioned in term of context and interpretation of the intentionality of the practice. The papers within this volume aim to discuss and define those differences focusing on juvenile burial practices in Europe and the Near East during recent prehistory and protohistory.

Structure of the Volume

The editors chose to present the different papers in broad chronological order to introduce a notion of changes and/or consistencies across time and within different societies. The volume commences with a paper from Marion Benz and collaborators on an extraordinary child burial discovered at the late Pre-Pottery Neolithic site of Ba`ja, in southern Jordan. The burial, of an 8±2-year-old child, possibly a girl, is outstanding in several respects regarding the burial ritual and the tomb construction compared to others from the site but also in relation to Early Neolithic juvenile burials of the Near East in general. The authors note that the display of the child in the cist grave fits within local traditions but differs because of the meticulously choreographed ritual whereby the burying community confirmed social belonging and created long lasting moments of collective memory. In the second paper, Alexandra Anders has undertaken to make visible the children of the first Neolithic communities living in the territory of Hungary and to interpret their roles within their communities. She provides an overview of graves containing juvenile burials dating from the 6th and 5th millennia BC in Hungary, and highlights a significant under-representation of the youngest individuals in the prehistoric mortuary record.

Mélie Le Roy analysed several collective burial sites – caves and megalithic tombs – dating to the end of the Neolithic and the beginning of the Bronze Age in the south of France. Through a holistic approach her chapter highlights that a special treatment (exclusion, localisation etc.) was afforded to the youngest individuals (under five years of age) suggesting a different social status and also the presence of different cultural groups. Some of these

tombs (i.e. the megalithic tombs) would have required a huge investment of time and labour in their construction and the author ponders who 'deserved' to be buried inside these tombs, focussing on the variable of age. Ana Herrerro-Corral explores the reasons that may have been responsible for the paucity of non-adults in funerary contexts compared to what should be expected in pre-industrial societies. She aims to verify the real proportion of non-adults in Copper and Bronze Age cemeteries (3rd-2nd millennia BC) from the centre of Iberia, as well as to undertake archaeological and anthropological analyses of the funerary practices afforded to children. Cormac McSparron and Eileen Murphy's paper examines how atypical burials can give nuance to the results of larger statistical studies which focus more on standard normative practices. Through the study of six unusual burials of children dated from the Irish Later Chalcolithic and Early Bronze Age period, they discuss potential emotional responses to tragedy, adding texture to an era about which more is known at a societal as opposed to individual level.

The following chapter from Fiorenza Bortolami investigates child burials in Iron Age Veneto in northeastern Italy. She discusses the differences observed in the archaeological record in terms of status, rank and the role of the deceased and his/her family and/or different ways of expressing lineage. Through the case study of the northern necropolis of Este, Padua, she aims to identify differences in grave structure, furnishing and the ritual practice of child burials from the same family group, to demonstrate how these vary even within the same household. Ana Serra's paper focuses on child burial practice in the Etruscan Po Valley of Italy from the 6th to the 3rd centuries BC. The author re-evaluates old excavations through a contextual approach. Here again, child burials appear to be strongly under-represented compared to the expected death rate. The author discusses the possibility of a differentiated burial practice for infants/children that could effectively influence the archaeological record, leading to their 'invisibility'. She further explores this idea through examination of the Valle Trebba necropolis of the city of Spina which shows different strategies of representation/integration in which child tombs play an active part. Ana Arzelier and collaborators undertook a study of a necropolis of the 2nd century BC in Urville-Nacqueville, Normandy, France. Using an osteobiographical approach on a corpus comprising 46 out of the 86 buried individuals, they aimed to assess the biological identity of the deceased and to explore the different treatments observed. The spatial and genetic data demonstrate that a specific treatment was directed towards the youngest individuals and was connected to social status among this population. The dichotomy between cremation and inhumation appears to be linked to age at death but is also suggestive of the presence of two distinct entities selecting different funerary treatments for the youngest children.

The next chapter focuses on the specificities of funeral practices related to the death of children during the Roman period. The author, Raphaël Durand, acknowledges that the term 'child' refers to very distinct realities that encompass very young children who do not yet have a societal identity; children who are fully-fledged members of the community; and adults, from a social perspective, that are still biologically immature. The paper focuses on *Avaricum*, Bourges, France, where a large corpus of child burials have been discovered that emphasise the diversity of practices afforded to children. Alexia Lattard and Aurore Schmitt question the premise that the funerary treatment of children is always described as being very specific, and sometimes atypical or deviant, compared to those of adults. The results from their study of the site *Forum Iulii*, Fréjus, Provence, France, demonstrate that juvenile

tombs mirror socio-cultural interactions stemming from the micro-local history of this *civitas*. Indeed, children are integrated into families or groups, sharing the same funerary system, and their graves convey choices made within the family's private sphere. The paper helps us to consider heterogeneous funerary practices as possible choices made within the family circle. Shaheen Christie then investigates decapitations in juvenile Romano-British burials. This practice was enforced both pre- and post-mortem on individuals of all ages, sex, origin, and health for diverse reasons as part of a sub-class of mortuary treatment expressing communal membership rather than deviant identities. The paper explores the intersecting relationships between violence, ritual and bodies, by presenting a contextual mortuary analysis of 12 juvenile decapitation burials from ten sites in western Gloucestershire and Oxfordshire, England. A life course approach is applied to determine if those communities utilised specialised mortuary rituals for decapitated juveniles; whether those practices may be classified as normative, atypical, or deviant; and, whether the social life course of juvenile bodies served to construct specialised identities in Late Roman society. Finally, Sélim Djouad and Agathe Chen revisit the case study of the site of Lunel-Viel, France, that yielded a large necropolis that was active between the 3rd and the 6th centuries AD. Within this last phase of exploitation, 19 burials were discovered most of which were associated with a network of agricultural boundary ditches. All of the burials were those of young children and illustrate the particular status of these immature burials. The paper aimed to integrate the information derived from the necropolis with that from the agricultural sector.

We hope that the present volume will help to contribute to the understanding of the complexities when dealing with interpretations of archaeological burial practices. We also hope that scholars will reflect on how our adult-centred approaches to the past influence our use of terminology. While it may be impossible to move beyond this position for practical purposes, careful consideration is needed to determine whether child burial practices are deviant or atypical. Hopefully the volume will encourage further studies that focus on discussions of the purpose and meaning of juvenile funerary rites and to go beyond paradigms.

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Moments of Memory and Belonging. A Special Child Burial from Neolithic Ba`ja, Southern Jordan

Marion Benz[1], Hala Alarashi[2], Julia Gresky[3], Christoph Purschwitz[1] and Hans Georg K. Gebel[1]

Abstract

In 2018, an extraordinary child burial was discovered at the late Pre-Pottery Neolithic site of Ba`ja, in southern Jordan. Anthropological analyses indicate that an 8±2-year-old child, most likely female, was buried in this tomb. The burial is outstanding in several respects, not least because it included a necklace of about 2600 beads and a mother-of-pearl ring. In our contribution we compare the burial ritual and the tomb construction with other burials of the site and with other lavishly decorated Early Neolithic subadult burials of the Near East. It will be shown that the display of the child in the cist grave abided – despite its elaborate grave construction and the complex necklace – to local traditions. Through the meticulously choreographed ritual – including the deliberate destruction of covering slabs and the repetitive use of red and white materials for the grave construction and for the necklace – the burying community confirmed social belonging and created long lasting moments of collective memory.

Keywords

NEOLITHIC, NEAR EAST, BURIAL RITUALS, ADORNMENTS, SUBADULTS, COLLECTIVE MEMORY

Introduction

Child burials of Early Neolithic communities in the Near East have, with few exceptions, rarely been the focus of in-depth investigations in Near Eastern prehistory (see Poulmarc'h 2008; Benz 2012; for a bio-anthropological perspective see Bocaege 2015; Gresky *et al.* 2018; Resch and Gresky 2018; Tibbetts 2017). This is surprising because social identities and structures are considered to have changed considerably when groups started to live permanently in large scale communities (e.g. Alt *et al.* 2013; Benz 2010; Benz *et al.* 2017; Gebel 2002a; Goring-Morris 2005; Kuijt 2000). The roles ascribed to children possibly changed too when people started to cultivate plants and herd animals, and developed concepts of confined group identities, as well as with increasing commodification in all areas (Gebel 2010). Probably, older children were considered to be part of a workforce, especially in times of peak workload, such as during harvest, and they also granted continuity of familial affiliation. Increasing specialisation and complexity in material culture and technology during the Pre-Pottery Neolithic (Alarashi 2016; Purschwitz 2019; Quintero 2010) may have required increasing investment in subadults to enable transmission and maintenance of specialised knowledge and skills (Purschwitz 2022). Notwithstanding this theoretical importance of children and adolescents, most of their burials seemed to be remarkably devoid

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of grave goods with a relative lack of effort invested in their burial (e.g. Byrd 2005; Gebel *et al.* 2004; Grindell 1998; Molist *et al.* 2013; Moore and Molleson 2000; Rollefson 2000). The poor preservation of children's bones in addition to a primary focus on more elaborate burial rituals, such as the plastering of skulls, may also have contributed to the neglect of child burials in Near Eastern research, despite the occurrence of some extraordinary burials containing many ornaments (Alarashi 2014; Gebel 2002b; Vasić 2020).

The discovery of a richly decorated child burial (Loc. C1:46; CG7[4]) at Ba`ja in 2018 initiated the renewed study of data on Early Neolithic child burials, in order to assess the status of this burial within contemporaneous communities of the Levant (Benz *et al.* 2020; Gebel *et al.* 2019) (Figure 1). Unfortunately, analyses of ancient DNA (aDNA) did not yield valid results due to poor preservation, we decided to call this 8±2-year-old child *Jamila* (Figure 2) and that the ornamentation of the child does not imply any gender attribution. There are some indications

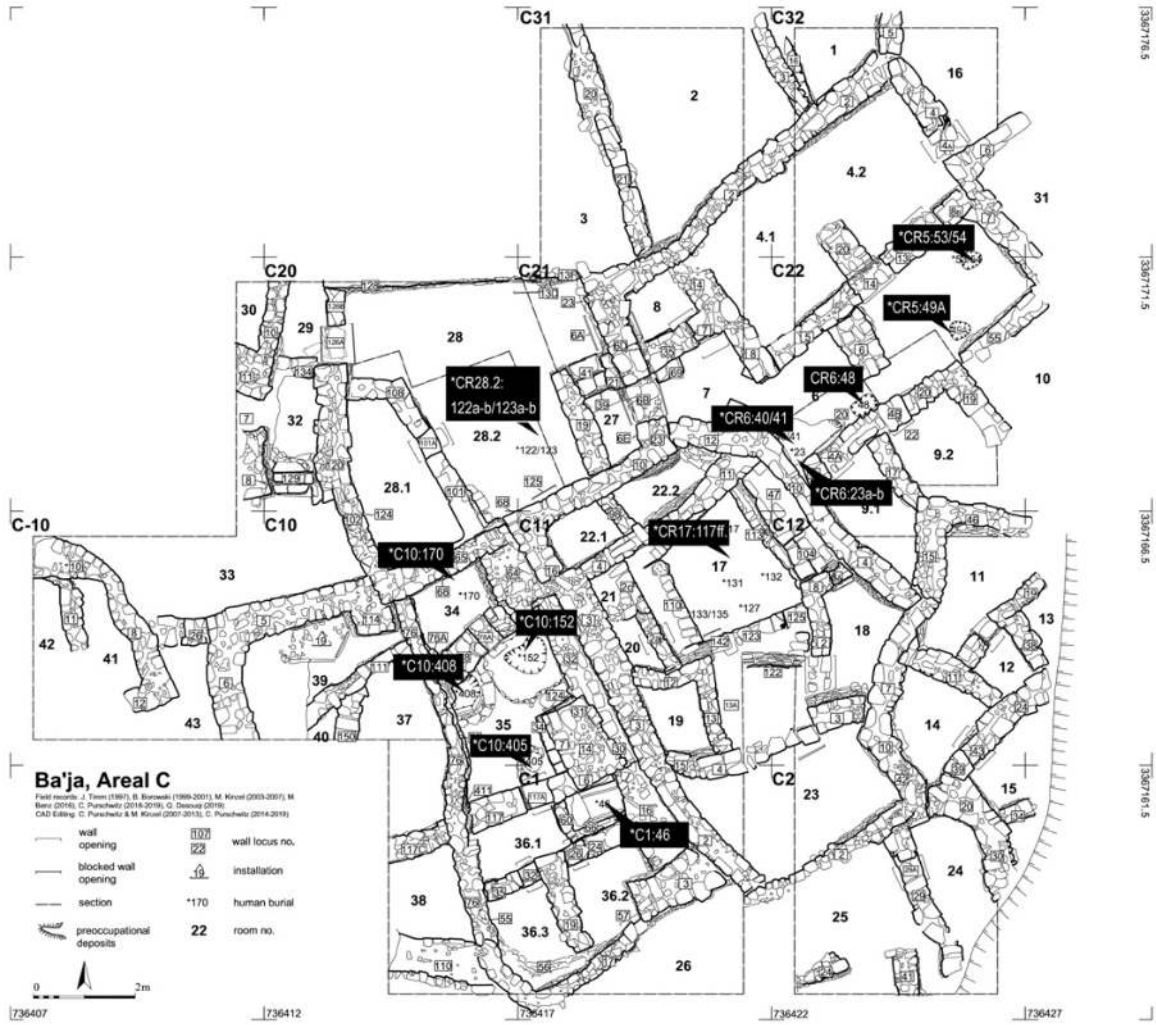

Figure 1: Locations of burials in Area C at Ba`ja, southern Jordan (Drawing: C. Purschwitz).

[4] The first letter indicates the excavation area 'C', 'D', or 'TU7'. The second letter and the number stand for the 'Grave number' (G1, etc.).

Figure 2: The lavishly decorated skeleton of the supposed 8±2-year-old girl, *Jamila* (Loc. C1.46) (Photograph: H. Alarashi).

on the mandible that it might be a female (mental protuberance), but aDNA analysis failed to confirm this due to poor preservation. So, it is important to keep in mind *Jamil* as an alternative. Meanwhile, it has turned out that *Jamila*'s burial is far from being the only single subadult burial at Ba`ja, but rather it is part of an intra-mural burial place within excavation Area C. It thus became possible to assess its outstanding appearance in a more detailed way, comparing it to 14 other burials (five single, three double and six multiple/collective burials) uncovered in previous seasons and during the *Household and Death* project (see Benz *et al.* 2019; Benz *et al.* 2020; Gebel and Hermansen 2001; Gebel and Hermansen 2003; Gebel *et al.* 2006; Gebel *et al.* 2017; Gebel *et al.* 2019; Gebel *et al.* 2020).

In this contribution, we will first present *Jamila*'s burial, highlighting the efforts invested for the burial ritual. With a focus on temporal, economic and social investment, we created a profile for every burial of the Neolithic site of Ba`ja, in order to make the burials comparable. It will be shown that – despite other lavishly decorated subadult burials and notwithstanding some aspects which show that *Jamila* was interred according to the local, rather standardised, burial ritual – the burying community attributed an extraordinary status to this child. In

a second step, in order to assess this child burial from Ba`ja within a broader perspective, we compare it to a selection of other richly decorated subadult burials of the Pre-Pottery Neolithic. As a working hypothesis we surmise that the decoration of some subadult burials with many beads was part of a supra-regional custom, creating intense moments of memory and belonging. Yet, in our view, it seems premature to speak of a hierarchisation of Neolithic communities, i.e. an institutionalised social differentiation.

The Early Neolithic Site of Ba`ja

For details of the environmental and social contexts of the burial, the reader is referred to former publications with further references (Benz *et al.* 2019; Gebel *et al.* 2017; Kinzel 2013; Purschwitz 2017). Here, only a brief description can be given. The site of Ba`ja is located on an intermontane plateau at about 1170m above sea level and is considered – despite its small surface of 1.5ha – as a settlement of the so-called Mega-Site Phenomenon (Bienert *et al.* 2004), with the main occupation dating to the Late Pre-Pottery Neolithic B (PPNB; 7500-7000 cal. BC). New radiocarbon data from two burial contexts (Table 1) indicate that the settlement was occupied for a longer period, possibly until 6600 cal. BC, and recent excavations have shown that occupation during the Final PPNB/PPNC was more important than previously thought (Gebel *et al.* 2020). However, the stratigraphic position and the burial goods confirm earlier observations that most of the burials belong to the Late Pre-Pottery Neolithic, although for two (namely TU7G1 and DG2) a more recent date is probable. Architecture and discoveries at the site have largely demonstrated that the people of Ba`ja participated in a wide network of early farming communities despite the remote location and difficult access. Similarities in building techniques, flint procurement and technology, as well as in many other artefacts point to very close cultural relationships between the Late Pre-Pottery Neolithic inhabitants of the Greater Petra Area. Despite these striking similarities, the 2018 discovery of the burial of *Jamila* seemed so outstanding (Figure 3 and Table 2) that a restoration project (CARE – Cultural Heritage, Archaeological Research, Restoration and Education) was initiated to save and conserve the grave and the unique necklace (Benz 2023).

Table 1: Radiocarbon data from two burial contexts of the early Neolithic site of Ba`ja, southern Jordan. Conventional ages (BP) were calibrated with Oxcal v. 4.3.2. (Bronk *et al.* 2017), IntCal 13 (Reimer *et al.* 2013); δ13C values were measured in the accelerator and should not be compared directly with the radiocarbon data.

Lab ID MAMS	Context Ba'ja C10, CR35	^{14}C age BP ±1σ	δ ^{13}C AMS [‰]	cal BCE 95.4% probability	C [%]	Material	Species
30314	Loc. C10:408 BP 97415	8039 ±27	-22.7±0.5	**7071**-6982 (54.3%) 6974 6911 (18.6%) 6885 **6830** (22.5%)	51.2	Charcoal	*Juniperus*
30315	Loc. C10:405 BP 97422	7928 ±29	-35.1±0.5	**7028**-6931 (19.5%) 6920-6877 (11.5%) 6860-**6684** (64.5%)	44.9	Charcoal, twig	*Juniperus*

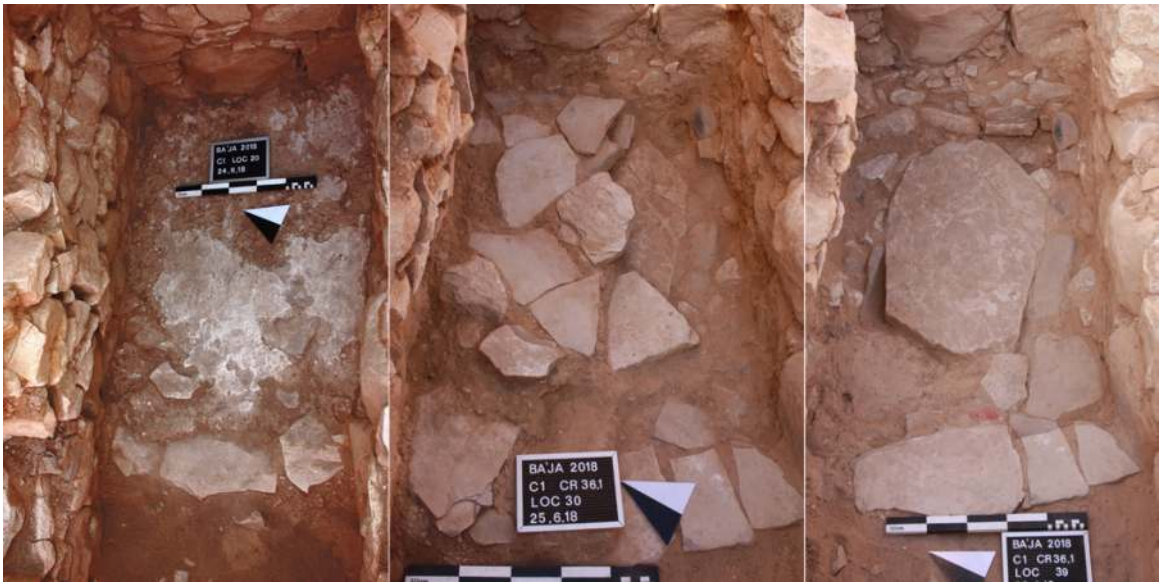

Figure 3: Burial construction of *Jamila*'s grave (Loc. C1:46: left), with the white plaster sealing (middle), with some of the white deliberately destroyed sandstone slabs (partly excavated; right), and with the large sandstone slab, the main cover of the burial cist (Photographs: M. Benz).

Table 2: Objects related to the burial of *Jamila* CG7, Loc. C1:46, in Room CR 36.1 (updated after Gebel *et al.* 2019: table 2).

Objects	Field numbers
CG7; Loc. C1:46, Room CR36.1	
In the grave cover, Loci C1:33-34	
5x Grinding tools	106004 106019 106021 106044 106047
2x small slabs, stained red, used for grinding red pigments	107912
Use retouched flint flake with notch	102019
Objects inside the grave: pigment and necklace (in total >2585 items)	
5x Turquoise disc beads	100814.Zc, Box 3 100814.117 100814.166 100814.Zb, Box 3 100814.W, Box 3, ECXXX

Objects	Field numbers
2x Hematite spherical beads	100814.E 100814.B
1x Ovoid black buckle 29.5mmx21.5mmx5mm (hematite?); double perforation (d: upside 4.7-5mm; downside 3mm)	100814.154
2337(+)x Red limestone beads (of cylindrical, ring [almost <1cm] and barrel shape)	100814
232x Barrel-shaped/ cylindrical tridacna/ spondylus beads	100814
4x Conidae	100814
2x unidentified beads	100814
1x Dentalium bead (?)	100814
1x Mother-of-pearl ring-spacer ('Paillette')	100814.20
Lump of red pigment	107907

Methods and Data

To assess the burial of *Jamila* (CG7; Loc. C1:46) within her local context and thus attempt to gain an estimation of her role within the local community, we will compare her interment with 14 other burials from the site. Given the relatively low number of burials at Ba`ja (n=15), a statistical analysis would provide no significant results. We therefore base our comparison on basic statistical descriptions but with no further analyses. For this comparison, a key was created: we attributed credits to constructional elements and grave goods, thereby prioritising the time efforts for every task and object. The scoring is described below. It is of course clear that this is an ordinal ranking. All burials were assessed according to the same criteria, but the different categories cannot be compared directly. Our estimations represent only a first, imprecise approach, since we lack information about the efforts, for example, for the procurement of exotic raw-materials, production time (e.g. for making the typical mother-of-pearl pendants/spacer), etc. It should also be kept in mind that we neither know the precise provenience of the semi-precious raw materials (a task for a future project), such as hematite, carnelian, turquoise and chrysocolla, which were used for ornaments at Ba`ja, nor do we understand possible socio-political obstacles of potentially far-reaching exchanges. Moreover, identifying the symbolic value of certain raw materials or of an object is very difficult, if possible at all. It requires integrative culture-historic analyses (see our suggestions below). Furthermore, making a bead from hard materials, such as carnelian, demanded higher skills and greater effort than a bead of a rather soft stone such as chrysocolla (Alarashi 2016). Some of the sophisticated objects, such as the rare flint daggers (Gebel *et al.* 2022) or the mother-of-pearl rings, may have required the work of specialists with profound knowledge and skills and a high input of time for the creation of a single outstanding object; other items, such as the small limestone beads, were produced *en masse* aiming at a maximal output in number per time investment (Purschwitz 2022). Despite these significant differences in procurement and production, we had to simplify the scoring for the beads, using only the number of beads in a logarithmic scale. On the one hand, for an approximate approach this seems justified, as most of the burials with ornaments either had exotic shell beads from the Red Sea or turquoise (probably from the Sinai), and chrysocolla from the Wadi Faynan Area. However, for future analyses of beads and other grave objects, aspects of provenience and technological skills should be considered more in detail.

The data on which our comparison with burials from Ba`ja is based are given in Table 3.[5] For the grave good categories, the artefacts were clustered as follows: animal bones (1); ground stone tools (2); flints (3); ornaments (4); bone artefacts (5); other objects (6); stone vessel fragments (7). It should be noted that some categories of our database – 'other flints' (i.e. all flint artefacts except for daggers and projectile points), 'animal bones' and 'sandstone ring fragments' – were not considered here, because most of these items seem to be accidental inclusions within the grave fill and no specific choice of species or animal parts was identified, except for a slight preference for young animals (Prust in press). However, only a small proportion of the animal bone assemblage has been investigated so far and it might turn out, after closer inspection of the entire corpus, that some carcasses were deposited intentionally (cf. Goring Morris 2000: 121). The same holds true for sandstone ring fragments, but they are

[5] A detailed presentation of all database entries will be published in the final publication of the *Household and Death* project.

Table 3: Comparison of burial construction and grave goods in single, double and multiple/collective burials at Ba`ja.
Key: Burial Type: 1=single; 2=double; 3=multiple/collective.
Grave construction: accumulative score: grave pit=1; segregation wall=2; segregation wall with stone slabs=3.
Grave filling/ cover: accumulative score: with sediment=1; with sterile sand=1; with large slab=2; with deliberately destroyed slabs=2; with unworked stones=1; with gravel/grit and white plaster=2.
Number of grave good types: Type numbers are given in square brackets: animals= [1] (excluded here, see next row); ground stones other than stone vessels=[2]; dagger and projectile points (other flints were not considered here)=[3]; ornaments including beads=[4]; bone tools=[5]; other objects=[6]; stone vessel fragments=[7].
Presence of animals: isolated bones=1; larger parts of animals=2; complete animals=3.
Orientation: N-S=1; NE-SW=2; E-W=3; SE-NW=4; S-N =5; SW-NE=6; W-E=7; NW-SE=8; other=9 (first mentioned direction indicates the position of the skull).

Grave	**DG2**	**CG3**	**CG4**	**CG7**	**CG10**	**TU7G1**	**CG5**	**CG8**	**CG2**	**CG6**	**CG9**	**CG11**	**CG1**	**DG1**	**CG12**
Locus	**DR19: 110**	CR5: 49A	CR6: 48	C1: 46	C10: 408	TU7: 5	CR6: 23a/b	C10: 405	CR6: 53/54	CR6: 40/ 41a-b	CR28.2: 122a-b/ 123a-b	CR17: 117ff.	C10: 152	DR26: 26	C10: 170
y=years; mon= months; f=female/ m=male Pre=preliminary	0y ±2mon	1.5-2y	7±2y	8±2y (f?)	25-35y (m)	25-50y (f)	3±1y/ 1.5-2y	3-4y 6-9mon (f)	3-4y/ 1-2y	0y/ adult/ *infans* I	2x 3-4y 2x 0y ±2mon	MNI pre: 2x adult, 1x adolesc., 11x subadult	MNI: 2x young adult (2xm?); 1x adolesc. (m?); 2y ±8mon ; 3±1y ; 1x neonatus	MNI pre: 3x adult, 9x very young infants	MNI pre: 2x *infans* II, 4x adult
Burial type	1	1	1	1	1	1	2	2	2	3	3	3	3	3	3
Grave construction	0	1	1	6	6	1	0	1	1	1	1	0	1	3	0
Grave filling/ cover	1	1	3	8	6	1	1	4	6	5	3	2	4	3	2
Number of grave goods except for beads/ pendants/ animals	0	0	1	6	18	2	0	0	1	7	3	19	8	11	12
Number of grave good types, except for animals	1[4]	1 [4]	1[3]	3 [2 ; 4;6]	5 [2; 3; 4; 5; 7]	1 [3]	3[4; 5; 6]	0	1 [2]	2 [2;4]	3 [4;6;7]	5 [2;3;4; 6;7]	5[2;3;4;5;7]	3 [2;3;4]	2 [2]
Presence of animals	0	0	1	0	1	0	1	0	1	1	0	1	0	--	2
Number of ornaments/ beads	2	4	0	2585	17	0	34	0	0	14	1158	53	17	90	1
Orientation	9	1	3	3	6	1	6; --	3;7	2; --	1; --; ---	5; 5; -	--	--	--	--

so ubiquitously distributed in household contexts and rarely in burials that they do not seem to have been placed deliberately in the grave.

The assessment of the grave construction and grave cover is based on a cumulative scoring, i.e. in the case of *Jamila*'s grave (CG7; Loc. C1:46), the score would be 8; this is because her grave was first filled with sand (1) and unworked stones (+1), then covered with two large slabs (+2), then with deliberately broken stone slabs (+2), and finally with recycled grit from the floor which had been cut through for the burial, and white plaster (+2). Fillings and covers or constructional elements with low efforts were allocated 1 point, while building materials which required more effort were scored as 2. Similarly, this system has been applied to the grave construction: digging a simple pit (+1), segregating the grave by a small wall (+2) and building a cist or chamber with larger stone slab and/or walls (+3).

Due to the different nature of the burials (single, double and multiple/collective), it was not possible in the comparison to differentiate between grave goods inside the burial pit and those in the grave cover, but we do consider this division, at least for some burials (e.g. CG2, CG6, CG7, CG9, CG10), as highly significant (see also Goring-Morris 2005). It should be emphasised that the practice of placing deliberately destroyed grinding tools or stone vessel fragments in the grave cover is an important part of the burial ritual, which might be hardly recognisable in collective burials and where – due to the mixing of bones and sediments – this division can no longer be recognised without in-depth taphonomical studies.

When it comes to the comparison of single with multiple and collective burials, it should be noted that anthropological investigations of the collective burials are still on-going, and a clear differentiation between collective burials and secondary multiple burials is not always an easy task (Haddow *et al.* 2016). Therefore, both types are considered here together, even though considerable social differences are implied between the two types. It is unfortunate that for most of these burials an individualisation of burial goods has not been possible so far and it is questionable whether it will be possible at all due to the mixing of bones and sediment. At least for the multiple burial CG9 in Room CR28.2, it was possible to attribute most of the beads to the two older 3-4-year-old children (CR28.2:122a-b), whereas the infants only had a few beads (CR28.2:123a) or no ornaments at all (CR28.2:123b). For the collective burial CG12 (C10:170), it has been recorded that 12 arrowheads were found concentrated in one area (Gebel *et al.* 2006) but, since no identification of the human bones has yet been possible, the grave goods can only be recorded together. This might cause a bias, since the rather high number of grave good types and of grave goods and beads of collective burials makes them appear 'richer'; but, in fact, the grave goods should be divided by the number of individuals. Considering the other single burials with their clear association of some selected objects with the corpse, while other objects were separated from the body (Benz *et al.* 2019, Gebel *et al.* 2020), it may even be possible that some items did not represent personal objects but were either collectively 'owned' artefacts or even ritual objects that had been – often deliberately – destroyed and discarded after their use during the ritual (see Knüsel 2021: 214). However, most of the objects seem to be rather unevenly distributed in the collective burials at Ba`ja, with only a few ornaments being very close to some isolated bones while others seem to be pushed aside and scattered due to (several) reopening(s) of the grave. Moreover, some 'grave goods' appear to have marked the final stages of the burial ritual and cannot be attributed to any specific individual.

Anthropological data for the collective burials were only available for burial C10:152 in Room CR35 (Gebel *et al.* 2006: 15-18; Klingner n.d.). The other two collective burials from former excavations were not accessible and the pending analyses of the large collective burial space in Room CR17 are beyond the scope of the *Household and Death* project. Data on this burial are therefore based on preliminary in-field observations.

Jamila's Grave

The main steps of the burial of *Jamila* (CG7, Loc. C1:46) can be summarised as follows (see Figure 3). A detailed list of her grave goods is given in Table 2. As with many other burials, the grave pit was dug through a terrazzo-like plaster floor (Loc. C1:64/68/[67?]) and through the palaeosol. Wall C1:16, which bordered the eastern side of the burial, was slightly undercut. The northern border of the pit was fixed with a stone slab and the void between Wall C10:117 backfilled with unworked stones and fixed with mortar. The southern and western sides of the grave were bordered by a small L-shaped wall (Loci C1:60/66) which was built to segregate the burial from the western part of the room. In front of the southern wall (Loc. C1:66), a second large stone slab was placed vertically in the burial pit, parallel to the northern slab, forming the grave cist. Between the western wall and the earthen pit a slightly elevated plateau was filled with unworked white chalky stones. The child was placed in the pit on her left side in a crouched position, orientated east-west, with the head facing slightly downwards to the south and with the sacrum touching the northern stone slab of the grave cist (see Figure 2). She wore a necklace of at least 2583 beads, with a white mother-of-pearl ring used as a spacer to maintain the chains, and an ovoid black buckle (Figure 4). Many beads were still laying *in situ*, although some had slipped in the area of the neck and the left shoulder. The provenience

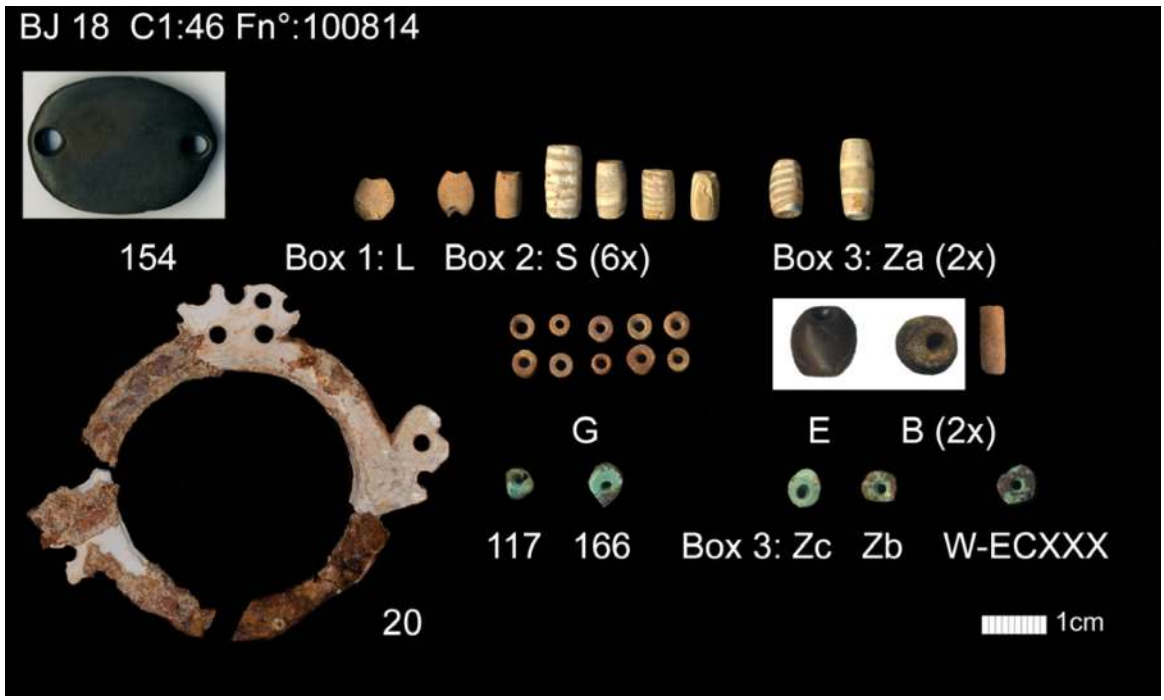

Figure 4: Ornaments from the necklace of *Jamila* (Loc. C1:46), the sub-numbers refer to the IDs of the finds with the main find number being F.no. 100814. (Photographs: H. Alarashi and A. Costes).

Figure 5: Parietal bones from *Jamila*'s skeleton. External surface of the child's parietal bones stained red (left), in contrast to the non-coloured internal surface (right) (Photograph: J. Gresky).

of the red limestone for the small ring beads has not been localised so far. Most of the other beads were of non-local origin, either from the Red Sea or the Sinai. The raw material of two beads has not been identified yet. Hematite was probably found locally.

All the child's bones were stained completely red, which may have resulted either from the use of red coloured clothing or the painting of the skin/bones (Figure 5). No serious pathologies affecting the bones have been identified. Taphonomic studies indicate that the body had been exposed to the air for an extended period prior to burial or it was dried or treated somehow in order to hamper decay. Gut bacteria did not affect the bones, as it is normally the case with individuals who are buried immediately after death (Haddow in press). Next to her legs, a red pigment stone was found, but the rest of the sediment was barely coloured. The child was then covered with reddish sterile silty sand and a very large (80 x 34 x 5cm) white sandstone slab was placed on top of the two vertical stone slabs (see Figure 3). A smaller sub-rectangular sandstone slab was fixed on top of the chalky stones. The knowledge of how to produce such large, thin slabs must have been quite advanced.

On top of these two larger slabs, three layers of white, glittery, deliberately destroyed Ordovician sandstone slabs were placed and fixed in sandy mortar (Gebel *et al.* 2019) (see Figure 3). Embedded in this grave cover and in the small walls surrounding the grave, five grinding stones were placed along with two small slabs which had been used for grinding red pigments. Finally, the entire grave, including the western front of the western Wall Loc. C1:60, was sealed with recycled grit from the cut-through floor and a white limestone finish (see Figure 3).

Before we go on to compare this burial to other interments at Ba`ja, two aspects should be mentioned briefly, because they attract attention and thus created experiences which were probably remembered more intensely than other ritualised events: the specific use of colours and the practice of deliberately destroying objects which were then put in or onto the grave.

Of Patterns and Brilliance

The grave construction, as well as the unique necklace, represent a very sophisticated selection of almost only white and red items. When freshly broken, the white Ordovician sandstone is so sparkling that it hurts the eyes when viewed in bright light. In contrast, only a little water and grinding is needed to turn the reddish-grey sandstone into an intensely red coloured surface, similar to blood. The rather pure orange-reddish sand of the grave filling and the red stained bones contrasted with the white chalky stones of the filling in the western area. Similarly, the necklace combines red limestone disc beads with white shell beads and with the shining mother-of-pearl ring. The contrast of red/white was only interrupted by two black hematite spherical beads and an ovoid flat hematite buckle. The five very small turquoise beads appear to be less prominent, but they represent a clear patterning within this extraordinary piece of art (Benz *et al.* 2020). The exotic provenience of the latter beads might have implied their significance for the prehistoric people, even though there were only five. For another adult burial, use-wear studies have shown that turquoise and amazonite beads were heavily used and recycled, thus emphasising their value for prehistoric people (Benz *et al.* 2019). In the middle of the chains, on the child's chest, the mother-of-pearl ring served as a spacer for the chains and its shimmering appearance must have been impressive. As Jones and MacGregor (2002: 14) have argued convincingly, two aspects of colour are significant from a common neuropsychological perspective, irrespective of socially embedded qualities of colours: a) the brilliance and b) patterning. Both aspects were combined in the necklace and the burial construction. The importance of white in Early Neolithic farming communities was previously highlighted by J. Clarke (2012). Data from Ba`ja corroborate her thesis: Thresholds of window-like openings and steps were often built with white sandstone slabs at Ba`ja; pendants and paillettes of mother-of-pearl were of highly symbolic meaning (Benz *et al.* 2020; Gebel and Hermansen 2001: 18; Nissen *et al.* 1987). The significance of the colour red will be the subject of another study (Gebel in prep.), but this colour was definitely important too, since red pigments – as liquids, lumps of pigment, or naturally red coloured stones – were an integral part of at least 12 graves. The remains of red stained plaster were encountered at Ba`ja in several rooms (Gebel *et al.* 2020; Purschwitz and Kinzel 2007) and, last but not least, the enigmatic fresco in Room DR26.2 combined a white surface with red designs (Gebel and Hermansen 2000: 22). The use of pigments, especially of the colour red, as a diacritical means to segregate the profane from the extraordinary was a common practice during the Neolithic, for buildings as well as in burial rituals (see e.g. Al-Nahar 2006; Gebel *et al.* 2006; Goring-Morris 2000: 109; Haddow *et al.* 2016: 8; Hodder 2006: 148, figure 7; Özbaşaran 2012: 140; Stordeur and Khawam 2007; for a possible gender specific use of yellow and red see Khawam 2014: 407). The use of cinnabar for colouring bones, especially skulls, from the Early Neolithic sites of Kfar HaHoresh, Abu Hureyra and Çatalhöyük (Goring-Morris 2005: 95-96; Haddow *et al.* 2015) illustrate the efforts people undertook to make something appear red.

Although we cannot determine whether the skin of the child was stained red, or whether she was wrapped in red clothes which had rotted but tainted the bones red, in both cases the appearance during burial would have been eye-catching.

Deliberate Destruction

The second aspect which should be mentioned here is the practice of destroying objects before or during the burial ritual, which is rather common during the Neolithic in the Near East (see Benz *et al.* 2018; Chapman 2000; Gebel *et al.* 2019). At Ba`ja, evidence for this practice was first attested in the single adult burial CG10. Two projectile points had been destroyed before they were placed in the burial cover and a mace head had been smashed with a heavy blow after it had been placed inside the burial pit (Benz *et al.* 2019). Some projectile points found in the other collective graves were also snapped at their base or damaged at their tip (Gebel *et al.* 2006: figure 8; Purschwitz pers. comm.). One of the three daggers found within grave contexts was broken into three pieces and another showed a small burination on its tip. Moreover, fragments of stone vessels which often fit together, but were found apart, are a common artefact of grave covers (CG1, CG6, CG9, CG11, CG10). In several graves at Ba`ja (CG7, Loc. C1:30/34; CG2, Loc. CR5:49; CG9, Loc CR28.2:117), white sandstone slabs must have been destroyed shortly before the burial and were then used as a grave cover. The slabs were probably destroyed only shortly before the burial since some of them fitted perfectly together with their edges showing no signs of abrasion; the broken pieces were then placed on the burial (Gebel *et al.* 2019). The slabs of *Jamila*'s grave did not show any impact from a focused blow, but rather were either broken by stamping on them or as a result of falling.

Both aspects – the salient patterns and shine and the deliberate destruction – reinforced the emotional connection of the mourners during burial rituals. They attracted the visual attention and created long lasting images due to the patterning, brilliance and possibly also noise that the destruction may have caused. The ruination of valued objects, such as the stone vessels, or the offering of such valued goods as the necklace, probably also increased feelings of belonging. Emotional attachment – both to the dead and to the burying community – was created or renewed by 'sacrificing' items that once had a value but which was lost in light of the much greater loss of a beloved person. If such 'sacrificing' was done communally, it might also have enhanced collective identities. There is good evidence for communal feasting during burial events at several sites in the Near East from the Natufian up until the Late Pre-Pottery Neolithic (e.g. Dietrich *et al.* 2012; Goring-Morris 2000; Grosman and Munro 2016). However, at Ba`ja, with the exception of layers of ash and pieces of charcoal found very close to several burials, neither an unusually high amount animal bones nor a specific choice of certain species was identified in relation to burials (Prust in press).

Comparison with Other Burials at Ba`ja

The compilation of all burials at Ba`ja shows that there was a clear idea of how a burial ritual should look, irrespective of the age of the buried person (see Gebel *et al.* 2020, table 5; figure 6). There are subadults as well as adults who were buried in elaborate grave constructions with stone slabs, segregation walls and large covering slabs. Subadults were buried in all forms of grave (single, double and multiple/collective), whereas adults have not been discovered in double burials so far. Most of the adults, except for two (CG10, TU7G1), were buried in collective burials. In contrast, double burials seem to be restricted to 3-4-year-old children with infants below 2 years. Also, in the multiple burial CG9, two 3-4-year-old children were associated with probably secondary depositions of two infants (<1 year), although this observation should be considered as preliminary due to on-going anthropological studies. The grave CG6 is a special

case, because of the association of an infant with some isolated adult and infant bones (Gebel *et al.* 2020). The latter grave needs further taphonomical studies for an in-depth evaluation. There were no exclusive body orientations at Ba`ja, but no individual was buried along the west to east and north-west to south-east axis.[6]

Most of the burials were cut through earlier floors, except for the collective burials CG12 and DG1 and the single burials TU7G1 and DG2. Excavations in CR17 are not yet finished but, at least for some depositions of human remains, a plastered floor had also been cut-through.

Whereas adults were not buried with many beads, child burials could be decorated with thousands of beads. Mother-of-pearl ring pendants and paillettes have been found exclusively in burials of subadults or associated to infants in the two collective burials (CG11 and DG1). A small cross-like mother-of-pearl pendant (see Benz *et al.* 2020; Gebel *et al.* 2020) was found in the multiple subadult burial CG9 associated with a 3-4-year-old child and on top of the chest of an adolescent individual in the collective burial CG11 (Gebel *et al.* in prep.).[7] Unfortunately, it was not possible to identify the association of a similar but larger cross-shaped pendant to a specific individual in the collective burial CG11. Five subadults (the child in burial CG4 and both individuals in the double burials: CG2 and CG8) were buried without any ornaments. No bone beads have been discovered in any of the subadult burials. The only bone beads from burial contexts (CG6) were found *in situ* next to the ulna of the adult individual (Loc. CR6:41a) and in the collective burial CG1 associated with the bones of a young adult (Gebel *et al.* 2006; Klingner n.d.). Carnelian beads are very rare in burial contexts; the only one was found in the burial of a young adult man (CG10). Other ornament types, such as upper arm rings (Gebel *et al.* 2017, figure 9), have not been found in burials of subadults.

Other grave good types are rare in burials of subadults but may occur in the cover of their graves (CG6, CG7, CG9). The only exception is a 7-8-year-old child (CG4) in whose grave a miniature arrow-head of exotic purple flint was found (Gebel *et al.* 2020). Animal bones are associated with subadults, but could not be considered here (Prust in press). Generally, only adults have other grave goods, either within the grave cover or the grave filling. Daggers and mace heads have never been found in clear association with subadults. In 12 burials, the use of red or yellow pigments was recorded; lumps of red or yellow pigments were placed in most of these burials. It should be emphasised that there is a clear distinction between very elaborate burials (CG7, CG10) and individuals who were placed in simple pits with no grave good. At this stage of excavation, no significant correlation between the burial construction/cover and body decoration with beads or ornaments was observed, although burials with many ornaments tend to have a more elaborate burial construction. However, this need not be the case, for example, in multiple burial CG9, four subadults were associated with more than 1153 beads and five mother-of-pearl pendants, but they were buried in a pit without constructional elements, whereas the double burial CG2 had a complex grave cover, but no grave goods at all.

The burial of *Jamila* (CG7) abides to the burial ritual in almost all respects, as if her burial should serve as a reference point for other burials. Only fragments of stone vessels are missing in the cover of her grave, a rather common trait of other burials. The location of her grave

[6] 11 cases could be evaluated: N-S = 3; S-N = 2; E-W = 2; SW-NE = 2; NE-SW = 2.

[7] 'Greenstone' is used in the archaeological sense of the word, including all minerals and stones of green appearance, and not in the geological sense (Maier 2008).

in proximity to the other burials highlights the close relationship to the group, although her grave takes up a rather large space. Concerning the grave construction, her burial is very similar to the young adult burial (CG10) in Room CR35, the next room to the north. Although her necklace is extraordinary in its exquisite selection of beads, its patterning and in the high number of beads (note the logarithmic scale in Figure 6), it is composed of beads which could also be acquired by others. As mentioned before, mother-of-pearl ring paillettes are rare, but they seem to be associated exclusively with some children; an almost identical item has been found both beneath the skull of a newborn in the collective burial DG1 in Room DR 26.2 at Ba`ja and in an infant burial at the contemporaneous site of Basta, about 20km to the southeast of Ba`ja (Gebel and Hermansen 2001: 18; Nissen *et al.* 1987). The ring-shaped paillette is in strong contrast to the cross-like mother-of-pearl pendants found in the multiple burial CG9 and in the collective burial CG11 (Benz *et al.* 2020). Interestingly, the choice of 'greenstone'[8] beads is significant too; whereas in the necklace of *Jamila* only turquoise beads were used from the 'greenstone' category, in CG9 there were – beside many other beads – only chrysocolla beads. Considering the closer resources of chrysocolla, these beads may have been substitutes for the more difficult to acquire turquoise.

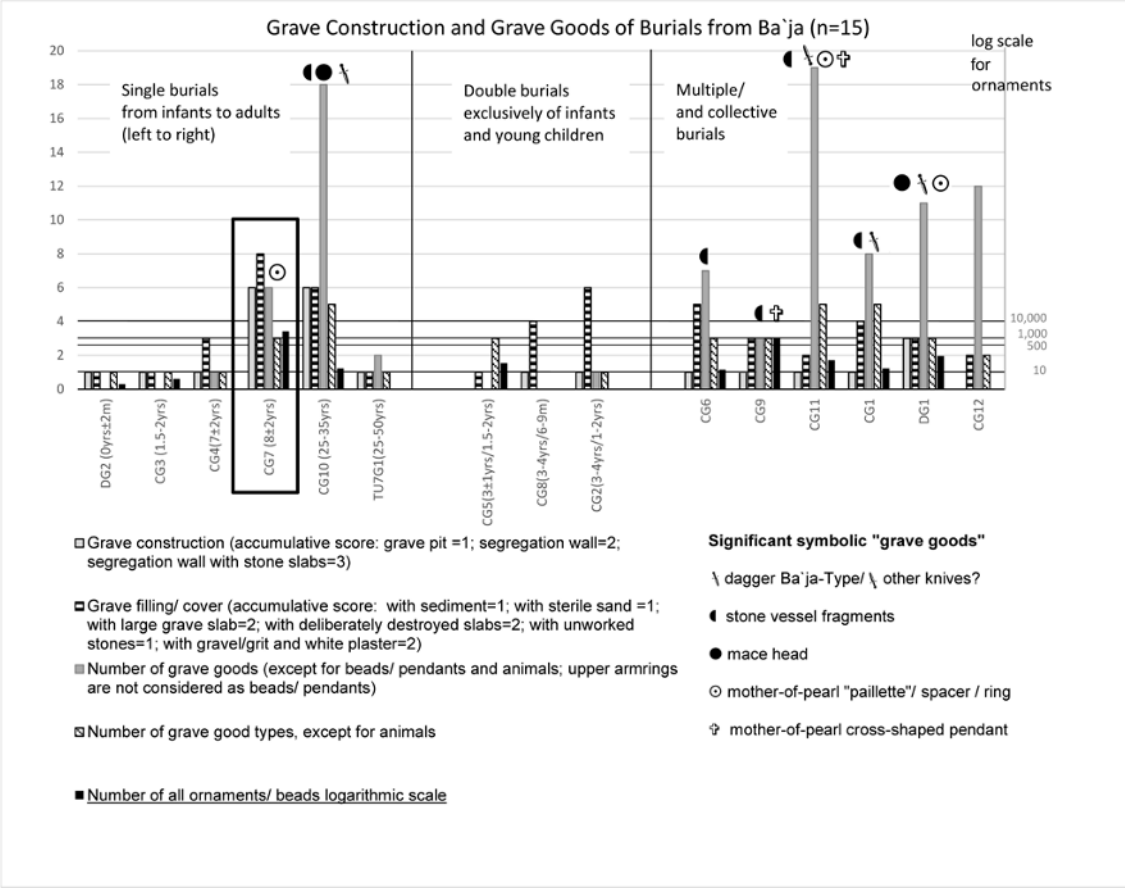

Figure 6: Comparison of the burials from the Neolithic site of Ba`ja. *Jamila*'s burial (CG7) is highlighted with the rectangle (Graph: M. Benz).

[8] Probably the status of 'juvenile' or 'adolescent' for 12-19-year-old subadults is anachronistic, with most traditional cultures attributing children during, or shortly after, puberty as adults.

Taken together, on the one hand, *Jamila*'s burial resembles the extraordinary adult burial CG10 (Loc. C10:408; Benz *et al.* 2019; Gebel *et al.* 2017), while on the other hand, the mother-of-pearl ring of the necklace seems solely to be included with children. This mixture of two age-class specific traits might underscore the progression from the status of a young child to an adolescent[9] or adult individual. As mentioned in the introduction, adolescent or older children probably became increasingly important with developing commodification and technological specialisation (Gebel 2010; Purschwitz 2022). The burial ritual for *Jamila* was so well choreographed and the carefully chosen materials – their brilliance, colouring and patterns – attest such a high degree of reverence and attention that her burial was probably remembered by the participants for a long time. The efforts invested in the production of the grave construction and the ornaments included exceed most of the other burials (see Figure 6). The grave cover had sealed the burial so firmly that it was never reopened.

A Cursory Supra-Regional Comparison

As a last step of our evaluation, we will compare the undeniably extraordinary status which was ascribed to this possible girl after her death to other subadults who were buried with ornaments, bearing in mind that most subadults were buried with no grave goods (Grindell 1998; Poulmarc'h 2008). Although many beads, and even bead workshops have been uncovered at Pre-Pottery Neolithic sites, complete ornaments remain remarkably rare in burials (e.g. Bocquentin *et al.* 2014; Byrd 2005; Goring-Morris 2005; Gubenko and Ronen 2014; Khalaily *et al.* 2008; Özbaşaran 2012; Rollefson and Parker 2002; Spatz *et al.* 2014; Thuesen and Kinzel 2018; for the exceptional site of Nahal Hemar Cave see Bar-Yosef and Alon 1988). However, the burial of some children with a lot of beads seems to be a rare but recurring trait during the Early Neolithic (Alarashi 2014; Alarashi 2016; Alarashi *et al.* 2018; Benz *et al.* 2016; Benz *et al.* 2020; Gebel *et al.* 2004; Kuijt *et al.* 2011; Vasić 2020).

At the nearby contemporary site of Basta, most of the adult burials only contained a few or no grave goods. One of the few exceptions was a multiple burial, including a newborn, close to whom more than 400 mother-of-pearl beads were discovered. Moreover, one complete mother-of-pearl ring pendant and three fragments of similar pendants were found in this burial, although a clear association either to the adult female (B) or the infant (D) remains difficult (Gebel *et al.* 2004). Another infant, buried inside a wall, was decorated with 351 *Conidae* beads and with a mother-of-pearl paillette similar to that of *Jamila* and of the collective burial DG1 (Gebel and Hermansen 2001; Nissen *et al.* 1987).

At the PPNB site of Aswad, an adolescent (10-14 years) was buried with a necklace of 45 pieces, which represents the ornament with the highest number of beads for this site (Alarashi 2014; Khawam 2014: figure V). Further north, at Halula on the Middle Euphrates, personal adornments were more common in burials, with subadults having most of the beads in all phases of the settlement (Kuijt *et al.* 2011; Molist *et al.* 2013). A subadult of the Late PPNB who was buried with 444 beads, was the most lavishly decorated individual (Alarashi 2014: table 10.1).

[9] The latter burial was uncovered only in autumn 2021 and has not been included in the comparison. For the sake of completeness, we mentioned the fragment of the cross-shaped mother-of-pearl pendant. Its analyses and description remain to be done in a future project.

In the Upper Tigris region, the amount of ornaments in burials increased enormously during the early Holocene. At Körtik Tepe and Boncuklu Tarla several thousands of beads were uncovered (Kodaş 2019; Özkaya and Coşkun 2011). Final publications from these sites are still awaited, but a first approach with a sample of 77 comprehensively investigated burials from Körtik Tepe shows that 11.6% (n=9) of the burials contained more than 1000 beads. Seven of these were of subadults of all ages, from perinatal to older children (Benz *et al.* 2016).

An extraordinarily high number of beads was also recorded at the Neolithic site of Çatalhöyük for the burials of an infant and an adolescent who appeared to have either been wrapped in chains of up to 3000 beads or dressed/covered with cloths on which these beads had been sewn (Vasić 2020: 54, note 91).

Conclusions

To conclude, we surmise that the specific choice of colours, the particular composition and choice of bead types within the ornament and the elaborate grave construction emphasise the outstanding position of *Jamila*'s burial (CG7; Loc. C1:46) and support earlier suggestions of increasing social differentiation, specialisation and supra-regional networks within the early farming communities. However, it seems premature to suggest a hierarchisation of societies with inherited status since there are still major gaps in our knowledge. Above all, we have ignored the reasons for the selection of some subadults; they might have died from an unknown illness or have had special social affiliations, extraordinary spiritual capacities, or roles to play. But primarily, the comparison of *Jamila*'s burial with all other burials from Ba`ja has shown that the burial ritual and construction was strongly subject to local traditions. It is akin to the burial of a young adult man in the neighbouring room. The state of belonging to the local group was thus reinforced by the burial ritual. It has also been shown that *Jamila*'s burial displayed aspects of both adult and subadult age groups; the mother-of-pearl ring of her necklace refers to subadults, whereas the elaborate grave construction rather refers to adults.

Our cursory supra-regional comparison to other burials of subadults with ornaments leads us to suggest that, even within this special group, the burial of *Jamila* was outstanding. Nonetheless, differences were not displayed overtly. On the contrary, and as mentioned above, the burial ritual was deeply embedded in the local tradition and the chosen materials for the burial construction and the necklace were common at Ba`ja and at other sites of the Greater Petra Area. It is the great care and reverence attested in the burial ritual, the sophisticated burial construction and the exquisite necklace which testify to the outstanding status of this possible girl. The conscious choice of only two contrasting dominant colours (red and white) and the deliberate destruction of the shining white sandstone slabs were both eye-catching and probably created moments of strong memories and belonging, thereby enhancing collective identities. The results of on-going paleopathological, biochemical, and taphonomical investigations will help to better understand the reasons for this extraordinary child burial.

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The First Youngsters of a New Age: Juveniles in the Neolithic of Hungary

Alexandra Anders[1]

Abstract

In this study, I have undertaken to make visible the children of the first Neolithic communities living in the territory of Hungary and to interpret their roles within their communities. The paper provides an overview of graves containing juvenile burials from the 6th and 5th millennia BC in Hungary, a subject that was wholly absent from the discourse of earlier studies. Despite the assumed demographic profile of early agrarian populations, this age group is usually under-represented in the prehistoric mortuary record, making it a genuine challenge to gather all available mortuary data on them. Contextualising the life and afterlife of juveniles in light of the latest results of bioarchaeological investigations will also complement this information. I also explore the question of gendered children at the Late Neolithic site of Polgár-Csőszhalom, the problem of jar burials and child burials rich in Spondylus from the Middle Neolithic site of Polgár-Ferenci hát.

Key words

MORTUARY PRACTICES, CHILDREN, BIOARCHAEOLOGY, GENDER ARCHAEOLOGY, JAR BURIALS, *SPONDYLUS*

Introduction

Grete Lillehammer's (1989: 89) seminal study rightly claims that 'The child's world has been left out of archaeological research'. The year of its publication, 1989, saw the demolition of the Iron Curtain and the Berlin Wall, the material symbols of the Cold War, followed by the sudden collapse of the totalitarian regimes of Central and Eastern Europe. These political events had a significant impact on all walks of life, including the archaeological theory of the post-Soviet countries (Bartosiewicz 2017; Chapman and Palincaş 2013). Yet, some changes seem to take much longer than three decades, and Lillehammer's (1989) cited observation is still valid for Hungarian archaeological scholarship, which has failed to take even the first hesitant steps down the intellectual path to gender studies and its logical continuation, childhood studies (Baxter *et al.* 2017: 58). Aside from the occasional study, previous research of every archaeological period largely neglected issues of gender (for a summary, see Anders and Nagy 2019: 184-186) and childhood (Borzová and Molnárova 2017; Fülöp 2016; Siklósi 2013; Zalai-Gaál 2003). However, we are now witnessing some promising developments, marked by an increasing number of papers in this field (Anders and Nagy 2019; Szeverényi *et al.* 2020), among which studies on Bronze Age children should be highlighted (Melis *et al.* 2020).

In this study, I have undertaken to make visible the children of the first Neolithic societies living on the territory of Hungary and to interpret their roles within their communities. We

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formerly used the more rigid German-Hungarian system for defining age categories (Anders and Nagy 2007; Zoffmann 2012a). However, in this study, I decided to use categories that are more widely accepted and place a greater emphasis on middle childhood (Bickle and Fibiger 2014; Melis *et al*. 2020; Rebay-Salisbury and Pany-Kucera 2020). The age categories used comprised: babies (0-1 year), toddlers (1-4 years), young children (4-8 years), middle children (8-12 years) and adolescents (14-20 years). By integrating the relevant archaeological and bioarchaeological data, it is the contention that our neglect of the children's world (Lillehammer 1989: 91) was, for the most part, not a consequence of a lack of sources, but rather of the lack of an appropriate approach (Anders and Nagy 2019: 185). Despite an abundance of Neolithic child burials uncovered in the course of large-scale excavations conducted during the past decades, we are no closer to the children's world, not least because our enquiries have not departed from typochronological approaches and continue to focus on objects and skeletal remains, and thus much of the past and its actors continues to elude us.

Instead of an exhaustive review, this first tentative study offers no more than a broad sketch with a spate of remaining obscure points and a lack of fine details. The main reason for this situation is because few sites exist where archaeological, physical anthropological and stable

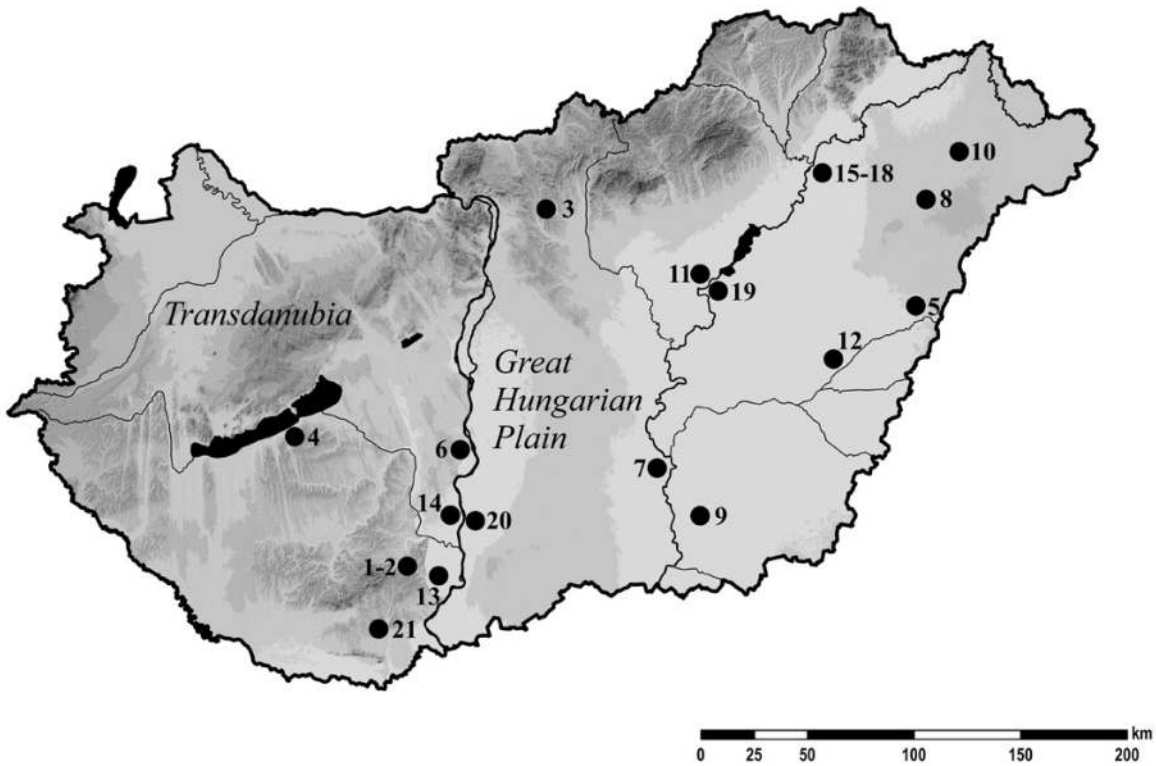

Figure 1: Map of Hungary with the main sites mentioned in the text. 1. Alsónyék-Bátaszék, 2. Alsónyék-Kanizsa-dűlő, 3. Aszód-Papi-földek, 4. Balatonszárszó-Kis-erdei-dűlő, 5. Berettyóujfalu-Herpály, 6. Bölcske-Gyűrűsvölgy, 7. Csanytelek-Újhalastó, 8. Hajdúhadház-Kucik-Bőgő, 9. Hódmezővásárhely-Gorzsa, 10. Kántorjánosi-Homoki-dűlő, 11. Kisköre-Gát, 12. Körösladány-Bikeri, 13. Mórágy-Tűzkődomb, 14. Paks-Gyapa, 15. Polgár-Csőszhalom, 16. Polgár-Ferenci-hát, 17. Polgár-Kása-domb-dűlő, 18. Polgár-Kengyel-köz, 19. Pusztataskony-Ledence, 20. Szakmár-Kisülés, 21. Szederkény-Kukorica-dűlő.

isotope studies have been conducted and published in their entirety; one or the other dataset is often omitted from publications. Additionally, considerably less information is available for the earlier compared to later phases of the Neolithic. While preparing this paper, I focused on sites with large sample sizes and a bioarchaeological evaluation, providing comparative data for general conclusions (Figure 1).

Framing the Picture

The first food-producing communities appeared in the southern part of the Carpathian Basin around 6000 BC; the period known as the Neolithic lasted until 4400 BC, the beginning of the Copper Age (Fowler *et al.* 2015: fig. 1.1). Hungarian archaeological terminology traditionally divides these 16 centuries into three major units – the Early, Middle and Late Neolithic. Within these, roughly 12 regional and chronological cultures and groups are distinguished, based mainly on ceramic styles (Visy 2003: 485). However, the investigation of changes in ceramic vessel forming methods (Gomart *et al.* 2020) and house building practices (Raczky 2006) provides a better overall view of this period. As we shall see, changes in funerary rites were also regionally less fragmented and had a calmer temporal rhythm, and therefore I shall discuss child burials according to the three major chronological units. Neolithic burials in Hungary are usually located in settlements, in either a loose or close association with buildings. Formal cemeteries separate from settlements only appear in the subsequent period, the Copper Age.

Juveniles in the Neolithic of Hungary

Children of the Early Neolithic (6000–5400 BC)

The first farming communities, groups of the Körös Culture, arrived on the Hungarian Plain (or Alföld), the central and easterly part of Hungary, at the onset of the 6th millennium BC, while in Transdanubia, the region to the west of the Danube, the first groups of the Starčevo Culture made their appearance two centuries later (Bánffy 2019). They soon occupied the areas best suited to their way of life, adapting to the local environmental and subsistence conditions. It seems that a well-balanced life spanning roughly half a millennium began, within which major changes are still difficult to discern by archaeological means. Similar settlement patterns and features, lifestyles and finds characterise the two cultural variants. Nearly 800 sites are known from the Early Neolithic period (Anders and Siklósi 2012), which yielded an amazingly rich inventory of finds comprising tons of potsherds and hundreds of figurines (Bánffy 2019: 4). However, the low number of excavated burials stands in stark contrast to the centuries-long presence and dense settlement network. A total of 185 graves (Paluch 2012: 178) have been assigned to the Körös Culture, of which 110 were subjected to physical anthropological examination (Zoffmann 2012b: 188). The number of anthropologically studied burials of the Starčevo Culture in Hungary is only 42 (of which 25 were excavated from one site, Alsónyék-Bátaszék; Köhler 2015: 4, table 1). No differences can be detected in the funerary rites of the two cultures – the dead were buried in a crouched position, often in larger pits, typically without any grave goods. Another difficulty in learning about the world of children is that only 25% of all burials contained child interments and the neonate age group is almost completely lacking (Köhler 2015, 4, 6; Zoffmann 2012b: 187-188).

Based on the currently available data, the burial rites of children and adults did not differ, even in exceptional situations, when the deceased was carefully laid to rest inside ovens no longer in use (Bánffy *et al.* 2017: 48-53).

As the proportion of burials furnished with grave goods does not reach 9% over the total distribution area of the Körös-Starčevo Culture (Paluch 2007: 253), a child's burial containing grave goods merits special attention. This exceptional interment is known from Szakmár-Kisülés, a site of the Körös Culture. The body of a young child (whose exact age at death is unknown) was placed by the side of a refuse pit, together with a small, coarsely made ceramic cup (Bánffy 2013: 80-82).

We have very little to go by regarding the lifeways and diets of children. Investigations with a fresh approach, which also focus on palaeopathological alterations, are available for the burials excavated at the Starčevo site of Alsónyék-Bátaszék. The assessment of the burials indicated that cribra orbitalia, regarded as a marker of childhood physiological stress, could be noted in two out of seven children. Enamel hypoplasia, induced by non-specific stress such as prolonged starvation, was present in 33.3% of children. Dental caries suggestive of a carbohydrate-rich diet was not observed among these individuals (Köhler 2015: 17, 20).

Children of the Middle Neolithic (5500/5400–5000/4900 BC)

The *Linearbandkeramik* (LBK) spanned the Middle Neolithic in Hungary, with settlements of their communities in both Transdanubia and on the Hungarian Plain. The difference between the two regions is most evident in the pottery traditions and even more diverse ceramic decoration styles, which also had a great temporal variability (Gomart *et al.* 2020; Raczky and Anders 2003; Whittle *et al.* 2013). The Central European LBK probably emerged in Transdanubia (Whittle *et al.* 2013: 49) and the Starčevo Culture quite certainly played a role in its formation (Bánffy 2019: 14). Likewise, influences from the easternmost Körös areas in Romania possibly contributed to the formation of the Alföld Linearbandkeramik (ALBK) (Whittle *et al.* 2013: 49). Similar to the Early Neolithic, there are major differences in the number of known burials between the two regions, which can probably be explained by the differences in their archaeological coverage. However, no major differences are evident in the burial rites – the deceased were interred in groups, which could vary in size, in the immediate proximity of, or near, the longhouses, which played a crucial role in the life of LBK communities. Although the dead were more often interred in individual grave pits, some continued to be placed in refuse pits and examples of multiple burials are also attested. In the latter cases, children and adults alike could be buried beside each other (e.g. Balatonszárszó-Kis-erdei-dűlő: Oross and Marton 2012: 271; Polgár-Kása-domb-dűlő: Dani *et al.* 2015: 17). Deposition in a crouched position remained the norm and the deceased were generally laid on their left sides (Oross and Marton 2012: 292-293). Interments inside ceramic vessels and cremation also appear sporadically.

Objects in the Grave

Compared to the Early Neolithic, substantially more objects were placed next to the dead – vessels, stone or bone tools, and personal adornments such as *Spondylus* beads and bracelets. However, a difference can also be noted between the two areas in this respect; while the

Table 1: Polgár-Ferenci-hát – Child burials with Spondylus grave goods (*age-at-death determination by Zoffmann, unpublished; **Whittle *et al.* 2013: 76-77, table 3.13).

	Grave ID	Age	Age group	$^{87}Sr/^{86}Sr$*	$\delta^{13}C$ ‰*	$\delta^{15}N$ ‰*	Pathology*	Grave goods
1.	94	0.0-1.0*	Infant	-	-	-	-	1 *Spondylus* bead (Fig. 2.1) 1 *Spondylus* bead (Fig. 2.2) 1 *Spondylus* bead (Fig. 2.3)
2.	104	0.5-1.0*	Infant	-	-	-	-	1 *Spondylus* bead (Fig.3.1) 1 *Spondylus* bead (Fig.3.2)
3.	350	6-7* 4-5**	Young children	0.70981	-19.6	10.5	-	1 stone fragment 1 *Spondylus* armring (Fig.3.3) 1 *Spondylus* bead (Fig.3.1.2) 1 shell fragment
4.	448	2.5–3.5* 2-3**	Toddler	0.70974	-20.0	13.2	-	26 *Spondylus* beads and 1 red deer canine bead (Fig. 2.1-2) 1 *Spondylus* armring (Fig. 2.3) 15 red deer canine beads and 1 *Spondylus* bead (Fig. 2.4)
5.	719	2.5-3.0* 2-3**	Toddler	-	-19.8	10.1	Cribra orbitalia	9 *Spondylus* beads (Fig. 4. 1) 11 *Spondylus* beads (Fig. 4. 3)
6.	786	1-2* c. 1**	Toddler Infant	0.70972	-19.5	14.2	-	1 *Spondylus* bead (Fig. 4.1) 1 *Spondylus* bead (Fig. 4.2)

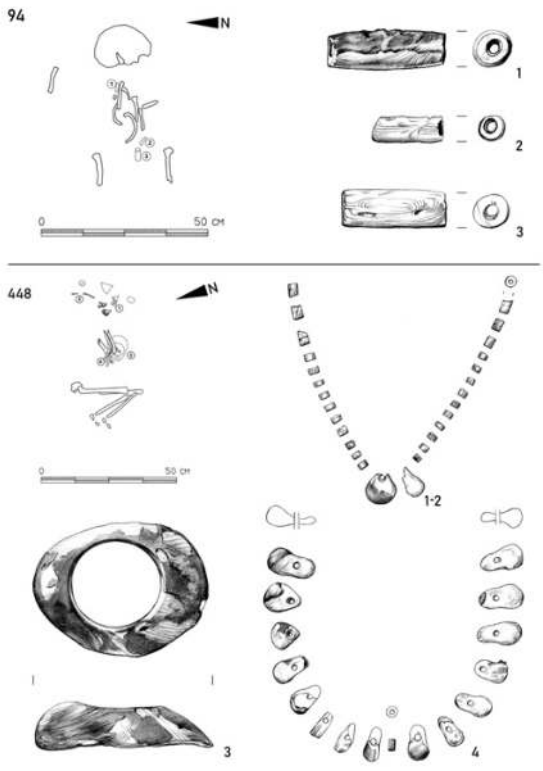

Figure 2: Polgár-Ferenci-hát – Top: Grave 94 and associated grave goods; Bottom: Grave 448 and associated grave goods (see Table 1 for details).

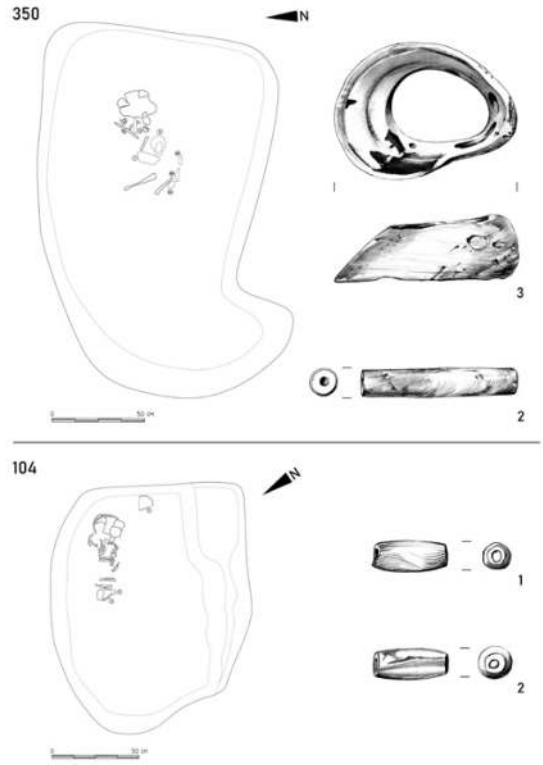

Figure 3: Polgár-Ferenci-hát – Top: Grave 350 and associated grave goods; Bottom: Grave 104 and associated grave goods (see Table 1 for details).

majority of burials did not contain any grave goods in Transdanubia (Oross and Marton 2012: 294), only 40% lacked funerary offerings on the Hungarian Plain (Oravecz 1989-1989: 58).

Most of the currently known LBK graves were excavated at Balatonszárszó-Kis-erdei-dűlő in Transdanubia, where 12 of the 43 burials were child interments. One noteworthy phenomenon is that three of the seven individuals buried with artefacts were children. Two perforated *Spondylus* ornaments had been placed beside a 5-6-year-old child (Burial 288). One is a larger oval disc, which had been perforated again after it became damaged, while the other is a smaller, oblong plaque. A bone needle fragment with an ornamented terminal was discovered in the burial of a 9-10-year-old child (Burial 289), while one-half of a globular ceramic vessel decorated with incised motifs had been placed beside a 3-5-year-old child (Burial 779) (Oross and Marton 2012: 271-272, 275, 277, 280).

According to an earlier study which surveyed the data of 211 burials from the Hungarian Plain, roughly one-half of the child burials contained one or more objects (Oravecz 1988-1989: 57-58). New observations at the Polgár-Ferenci-hát site of the ALBK confirm the findings of the study. This site yielded 113 graves from the period between 5300 and 5070 BC, 31 of which contained grave goods, mostly pottery and stone tools (Whittle *et al.* 2013: 73-78). A total of 24 neonate and child burials were excavated at the site (Anders 2017). Pots and jewellery had been placed in the graves of 12 children. The differential distribution of *Spondylus* objects is perhaps the most pronounced difference between the adult and child burials. A total of 38 such ornaments came to light from seven burials and comprised large beads, necklaces and bracelets strung of smaller beads, and arm rings. Of these, only one bead was recovered from

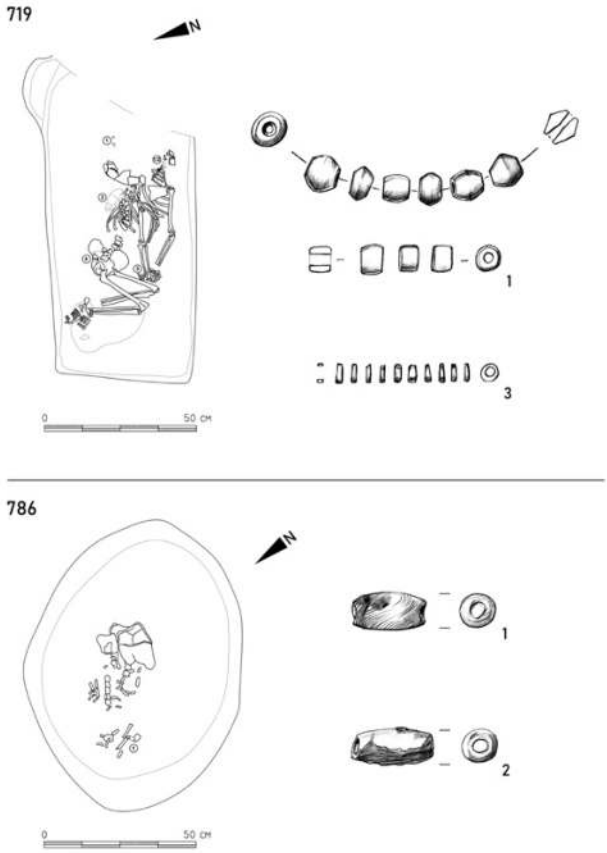

Figure 4: Polgár-Ferenci-hát – Top: Grave 719 and associated grave goods; Bottom: Grave 786 and associated grave goods (see Table 1 for details). Note the precise position of Bead 2 is unknown although it was located in the vicinity of the legs.

the burial of an adult male; the other six graves contained the burials of newborn infants and children aged less than 6-7 years (Figures 2-4; Table 1), which shall be discussed at greater length below.

The Body in the Grave

Given the uniformity of the burial rite and the limited variety of artefacts accompanying the deceased, bioarchaeological studies have gained immense prominence. Isotope geochemical and osteological analyses of a total of 131 individuals from four sites in Hungary were performed within the framework of the 'LBK Lifeways Project' (Whittle *et al.* 2013). A glimpse of the hidden details of children's lives is afforded by the above-cited two sites containing a larger number of burials.

Two young children, aged 1-5.5 years (Grave 288) and 2-4 years (Grave 871) from Polgár-Ferenci-hát on the Hungarian Plain, possibly suffered from scurvy, the development of which may be related to weaning and poor-quality diet (Whittle *et al.* 2013: 81). Two 1-year-olds (Graves 288 and 786) and two slightly older children, aged 2-3 years (Grave 448) and 2-4 years (Grave 871), had a higher-than-average $\delta^{15}N$ value implying breastfeeding. Their age difference probably indicates that children's weaning age varied in their respective communities (Whittle *et al.* 2013: 84). Graves 448 and 786 were burials rich in *Spondylus* beads (see above) (see Table 1; Whittle *et al.* 2013: 85-86).

DNA analyses, used in palaeodemographic studies, also provides data on biological sex, and is particularly useful due to the 'gender-neutral' rite of LBK burials. Thus, for example, we learnt that a grave furnished with a vessel adorned with an incised design had contained the burial of an 11-12-year-old girl (Feature 325; Gamba *et al.* 2014: 3).

At Balatonszárszó-Kis-erdei-dűlő, the $\delta^{15}N$ values of children and adults are similar, although a child aged 3-5 years (Grave 779) was probably breastfed for quite a long time (Whittle *et al.* 2013: 94).

Children of the Late Neolithic (5000/4900–4500/4400 BC)

During the period's heyday, the Late Neolithic, life became more intense, with large-scale settlements, a flourishing material culture and a rich variety of ritual activities. The Hungarian Plain was populated with the communities of the so-called Tisza-Herpály-Csőszhalom cultural complex. For the first time in the history of the Carpathian Basin, tell mounds of Anatolian origin, often ringed by a ditched enclosure, appeared in this region. In addition to the stratified mounds, single-layer settlements are also known, often in the same location. It has been suggested that the tells served as settings for collective and ritual events and thus played a pivotal role in community cohesion (Raczky 2015). In contrast, the Lengyel territory in Transdanubia (as well as in neighbouring Austria and Slovakia) was characterised by single-layer settlements. Concentric ditch-and palisade-systems are often associated with these sites, which may have had a similar function to tells (Raczky 2015). The two 'worlds' were linked by countless strands: for example, the Polgár-Csőszhalom tell was ringed by a Lengyel-style multiple enclosure of five ditches and a palisade (Raczky 2015: 240). Furthermore, there are examples of vessels decorated in the typical Lengyel style, but made from local clay, deposited in Tisza burials (Sebők 2012). Finally, mention must be made of the Aszód-Papi-földek site on the eastern fringes of the Lengyel distribution, which is bound to the Hungarian Plain by many strands, including the nature of the material culture and ritual customs (Siklósi 2013: 56). Fortunately, the number of known burials and relevant bioarchaeological data of the Late Neolithic is increasing. While burial rites did not fundamentally differ from those of the preceding period, the number of grave goods and their typological and raw material variability increased (copper also made its appearance). The cultures of Transdanubia and the Hungarian Plain became similar in several respects – differences remained local, at the level of individual sites (Osztás *et al.* 2016: 182–189; Siklósi 2013: 187-198).

Children of the Lengyel Culture in Transdanubia

Beate Siemoneit's (1997) seminal monograph on LBK child burials written from a socio-archaeological perspective may have been the main inspiration for István Zalai-Gaál (2003) to publish his study in which he meticulously analysed 132 children's graves from 11 sites of the Lengyel Culture in Transdanubia. His methodological approach was also wholly novel, as he examined the burial rites of children in comparison to adults, keeping them in their original context. His main findings can be summarised as follows – there were no differences in the treatment of adults and children,[2] and the depth of the grave pits and the orientation

[2] At the Mórágy site, juvenile sex was determined using biochemical methods, a very innovative approach at the time (Zalai-Gaál 2003: 33-37). As various concerns have since been raised about the applicability of the method, however, I do not use the results here.

were similar. The same holds true for the nature of items deposited in the burials, the single difference being the range of artefacts and their number in the case of children's burials (Zalai-Gaál 2003: 71-72).

Zalai-Gaál's overview in 2003 could hardly have included the stunning results of the excavations conducted between 2006 and 2009 at the Alsónyék-Bátaszék site, the largest currently known settlement of the Lengyel Culture with its 9000 features and very high number of burials, a total of 2300 graves, among which 92 distinct groups could be distinguished (Osztás *et al.* 2016; Zalai-Gaál *et al.* 2012a). Due to the sheer volume of data, its assessment is proceeding at an uneven pace – while 862 burials have been submitted for a full physical anthropological examination (Köhler 2015), only a preliminary archaeological assessment is available for 998 graves and much fewer graves have been assessed in detail (Zalai-Gaál *et al.* 2012a).

Of the 862 burials examined to date, 212 individuals (24.6%) had not reached adulthood and the proportion of 0-1-year-old children was negligible (1%) (Osztás *et al.* 2016: 190). They included the remains of two women and their babies who had died immediately before or during childbirth (Köhler 2012: 118). The nutritional status of the children is indicated by three pathological conditions: cribra orbitalia is particularly common, around 50%, which may be due to malnutrition or iron deficiency anaemia associated with infectious diseases (Köhler 2012: 88). Similarly, malnutrition is indicated by enamel hypoplasia, observed in 39.4% of the studied children (Osztás *et al.* 2016: 191). Surprisingly few cases of caries occurred among juveniles, and was observed in no more than two instances out of the 2000 teeth examined (Köhler 2012: 105). One unusual element of the burial rite at the Alsónyék site, previously not encountered in the Lengyel Culture, is represented by rectangular grave-pits with post-holes in the four corners containing burials that were more generously furnished than other interments (Osztás *et al.* 2016: 189). A 'negative discrimination' against the children is that none of the 123 post-framed graves contained the burial of individuals aged 0-14 years (Zalai-Gaál *et al.* 2012b: 111) and, according to the data available so far (68 cases), only two individuals in the adolescent age group (15-19 years) were buried in such graves (Köhler 2015: 42; Zalai-Gaál *et al.* 2012b: 103-104).

The stable isotope studies that supplemented a research project focusing on the high-resolution chronology of the Alsónyék-Bátaszék site offer insights regarding the children's lifestyle. The high number of excavated graves enabled the examination of the $\delta^{13}C$ and $\delta^{15}N$ values by age-group distribution. It was found that protein intake decreased with increasing age – the highest $\delta^{15}N$ values were associated with children aged 0-3 years, probably due to breastfeeding. When infants below the age of three years are compared to children in the 4-10 and 11-15 years cohorts, the $\delta^{13}C$ values gradually decrease and similar differences are evident in the $\delta^{15}N$ between these cohorts (Bayliss *et al.* 2016: 40–47, fig. 12). The significantly enriched $\delta^{15}N$ values of a 2-5-year-old child buried at Mórágy-Tűzkődomb (Grave 37) probably reflects a nursing signal (Regenye *et al.* 2020: 25-30).

Late Neolithic Children on the Great Hungarian Plain

For this period, our knowledge about the Hungarian Plain falls short of the Lengyel world with its many hues. Zsuzsanna Siklósi (2013: 166-187) has provided a socio-archaeological survey of the region's Late Neolithic burials, which also includes data on children. The

information mainly concerns interments from tell settlements. The settlement mounds – usually surrounded by ditches or enclosures – represent a long-term, planned activity. People who lived at these sites had strong beliefs in the ancestors (Raczky 2015; Siklósi 2013). These special sites that should be treated with caution as far as general conclusions are concerned, although the principal elements of the burials do not differ from those in the single-layer settlements, or in Transdanubia.

At Berettyóujfalu-Herpály, only children were buried in the different levels of the tell, usually in the immediate proximity of burnt houses. Each quarter was provided with various objects, such as vessels, stone tools, small copper items or *Spondylus* beads (Siklósi 2013: 126-127). Unfortunately, the skeletal remains have not yet undergone osteological examination.

At Hódmezővásárhely-Gorzsa, another tell settlement in the southern Hungarian Plain, 50 burials, all lying near burnt houses, were unearthed (Horváth 1987: 45-46). Although the archaeological results have yet to be published, a PhD dissertation on their osteological study is available, and contains abundant details on children (Masson 2014). Thus, we know that both a newborn and a 6-month-old child suffered from severe scurvy (Grave HGO-55) (Masson 2014: 235-237). Muriel Masson's (2014: 275) study paints a sombre picture of the Gorzsa community's health: 'The proportion of juveniles recovered ... is in itself indicative of a low health status: the fact that a third of individuals died so young is a clear sign of poor health, regardless of the presence or absence of visible pathologies on their skeletal remains'. One rarely encounters an approach in physical anthropology in Hungary that aspires to a faithful reconstruction of long-gone individuals and their appearance. Masson (2014: 184) brings 'visibility' to children's stature, for example, by estimating their growth rate: 'Compared to contemporary England, the Late Neolithic populations of Hungary grew slightly faster in the first three years, but by age six, growth was slightly slower, i.e. if the age estimates are correct, Late Neolithic juveniles would reach their full adult height slightly later than modern populations'.

Polgár-Csőszhalom – A Case Study

The burials of the Polgár-Csőszhalom site complex have already been examined from several perspectives (Anders and Nagy 2007; 2019; Raczky and Anders 2017; Zoffmann 2012a). The expression of gender is most obvious in the mortuary domain, where strict rules emerged that affected both the ritual and the grave goods. Although crouching remained the usual body placement, males were consistently laid on their right side, while females were positioned lying on their left side (a practice generally confirmed by the physical anthropological examination of the human skeletal remains).

A variety of objects were placed in the burials, some of which were part of the funeral costume and others that may have been utilitarian in nature. However, there are two types whose interpretation lies beyond these categories – bead girdles were typical pieces of the female attire, while polished stone axes were recovered from male burials. Thus, in our interpretation, crouching the body on the left side and the presence of a bead girdle expressed femaleness, while crouching on the right side with inclusion of a polished stone axe displayed maleness in this community (Anders and Nagy 2019). In this sense, the difference between female and male bodies was 'defined-within-itself', similarly as with LBK identity as suggested by Penny Bickle, drawing from the philosophical thought of Gilles Deleuze (2009). This approach

categorises the difference, not by the presence of something or the lack thereof, but rather within itself (Bickle 2019: 202-203, 214). However, we also find examples of a non-binary, fluid perception of gender in reverse orientation and grave goods distinctive of the opposite sex. In some cases, the sex of the individuals as defined by osteoarchaeological examination did not correlate with the binary division of gender roles suggested by the burial rite and the grave goods. These exceptions include a male (by sex) laid to rest on his left side and five females laid on their right sides, that is, on the gendered male side. This fluidity may have principally affected and altered female roles, since five of the six recorded cases relate to the roles of women (Anders and Nagy 2019: 190-192). Again, as is the case of the LBK (Bickle 2019: 214), the sphere of women appears to have been more permeable and more fluid (Anders and Nagy 2019: 192-193).

Our observations on the juveniles of the Polgár community can be summarised as follows. Of the 123 individuals that were examined both archaeologically and anthropologically, 31 had not lived to adulthood in the single-layer settlement: four babies (0-1 year), six toddlers (1-4 years), seven young children (4-8 years), eight in middle children (8-12 years) and six adolescents (14-20 years) (Table 2). The representation of babies and toddlers in the sample is very low, a recurring phenomenon in prehistoric populations (Osztás *et al.* 2016: 190; Zoffmann 2012a: 105). Their life remains mostly obscure to us and, with the exception of a lesion on a skull suggesting iron deficiency anaemia and poor health status (Zoffmann 2012a: 105-106), the causes of premature death are unknown. Two $\delta^{15}N$ isotope results exist for a 16-17-year-old adolescent (Grave 618) and a 6-8-year-old child (Grave 226), the latter of whose extremely low value of 5.39 is unusual throughout the region. Their $^{87}Sr/^{86}Sr$ values (0.709) indicate a local ancestry (Giblin 2020: 110, 142, 148).

The biological sex of the children was inferred based on the findings of the orientation and the customary grave goods of adults whose sex has been determined using osteological methods (see above). Although this approach has been criticised (Stratton 2016: 255), I believe that it can be useful as a working hypothesis until other, more precise juvenile sex determination methods become available. Of the 30 juveniles (where lying side and age-at-death could be determined), 20 were crouched on their right side (3 infant, 4 toddler, 3 young, 2 young/middle, 6 middle, 2 adolescent), and are assumed to be boys, while 10 individuals buried lying on their left side (4 toddler, 1 young/middle, 1 middle, 4 adolescent) are considered to be girls (Figure 5). Given that a surplus of females was observed among the adults buried in the single-layer settlement (Zoffmann 2012a: 105), the over-representation of juvenile boys is certainly noteworthy. Other interesting insights can be drawn from the fact that seven children died in middle childhood (8-14 years) and six of these were considered to be boys.

In addition to burial on the right or left side, the gendering of children can be noted from a very young age, as shown through the inclusion of bead girdles and polished stone axes as grave goods. Bead girdles were discovered around the waists of three juveniles (aged 3+ years; 6-8 years; 14-16 years) who had each been crouched on the left side, while polished stone axes were also found next to three juveniles (4-6 years, 11-12 years and 16-18 years) all of whom were crouched on the right side. A 6-8-year-old child was laid on the right side (like a man), but had a bead girdle around the waist (like a woman). This exceptional case in a relatively small sample again demonstrates the extent to which non-binary gender fluidity was present in the community, regardless of age.

Table 2: Polgár-Csőszhalom, single-layer settlement – Child burials: the osteological, isotope and archaeological data (*Zoffmann 2012a; **Giblin 2020).

Grave ID	Age*	Age group	Position of the body in the grave	Grave good	$^{87}Sr/^{86}Sr$*	$\delta^{13}C$ ‰*	$\delta^{15}N$ ‰**	Pathology*
29	9-11	Middle child	Right	-	-	-	-	-
47	17-18	Adolescent	Left	2 *Spondylus* beads	-	-	-	-
67	1-2	Toddler	Left	-	-	-	-	-
86	16-18	Adolescent	Right	1 polished stone axe	-	-	-	-
107	4-5	Young child	Right	-	-	-	-	-
126	9-10	Middle child	Right	2 *Spondylus* beads 1 polished stone axe	-	-	-	-
211	7-8	Young/ middle child	Right	-	-	-	-	-
221	1	Infant	Right	-	-	-	-	-
226	6-8	Young/ middle child	Left	1 necklace (real and imitation of red deer canine beads) 1 girdle (stone beads)	0.70964	-20.59	5.39	-
230	10-12	Middle child	Right	13 *Spondylus* beads	-	-	-	-
270	6-8	Young/ middle child	Right	1 girdle (*Spondylus* beads)	-	-	-	-
298	3-4	Toddler	Right	-	-	-	-	-
317	1.5-2.0	Toddler	?	-	-	-	-	-
381	6-7	Toddler	Right	-	-	-	-	-
382	4-5	Toddler	Left	-	-	-	-	-
492	10-12	Middle child	Right	1 string of beads on Left wrist (Spondylus beads)	-	-	-	-
493	3-4	Toddler	Left	2 *Spondylus* beads	-	-	-	-

Grave ID	Age*	Age group	Position of the body in the grave	Grave good	$^{87}Sr/^{86}Sr$*	$\delta^{13}C$ ‰*	$\delta^{15}N$ ‰**	Pathology*
502	?	?	Left	1 necklace (beads from red deer canine and *Spondylus*) 1 string of beads on left wrist (red deer canine and *Spondylus* beads) 1 girdle (*Spondyl*us beads)	-	-	-	-
503	1-3	Toddler	?	-	-	-	-	-
593	5-6	Young children	Right	-	-	-	-	*'Bürstenschädel'* Hair-on-end appearance on cranium
611	8	Middle child	Left	-	-	-	-	-
618	16-17	Adolescent	Right	1 *Spondylus* bead 1 polished stone axe	0.70962	-20.65	10.35	-
665	0.5	Infant	Right	-	-	-	-	-
666	4-6	Young child	Right	1 polished stone axe	-	-	-	-
709	14-16	Adolescent	Left	-	-	-	-	-
754	3	Toddler	Left	1 necklace (*Spondylus* beads) 1 girdle (*Spondylus* beads)	-	-	-	-
786	2	Toddler	Right	-	-	-	-	-
824	0-5	Child	Right	-	-	-	-	-
828	17-18	Adolescent	Left	1 necklace (*Spondylus* beads) 1 *Spondylus* arm ring 1 girdle (*Spondylus* beads)	-	-	-	-

Grave ID	Age*	Age group	Position of the body in the grave	Grave good	$^{87}Sr/^{86}Sr$*	$\delta^{13}C$ ‰*	$\delta^{15}N$ ‰**	Pathology*
849	10-12	Middle child	Right	-	-	-	-	-
947	2	Toddler	Right	-	-	-	-	-
1057	14-16	Adolescent	Left	1 necklace (*Spondylus* and red deer canine beads) 1 girdle (*Spondylus* and stone beads)	-	-	-	-
1181	17-18	Adolescent	Right	1 polished stone axe	-	-	-	-
1183	11-12	Middle child	Right	1 bone tool 1 polished stone axe	-	-	-	-

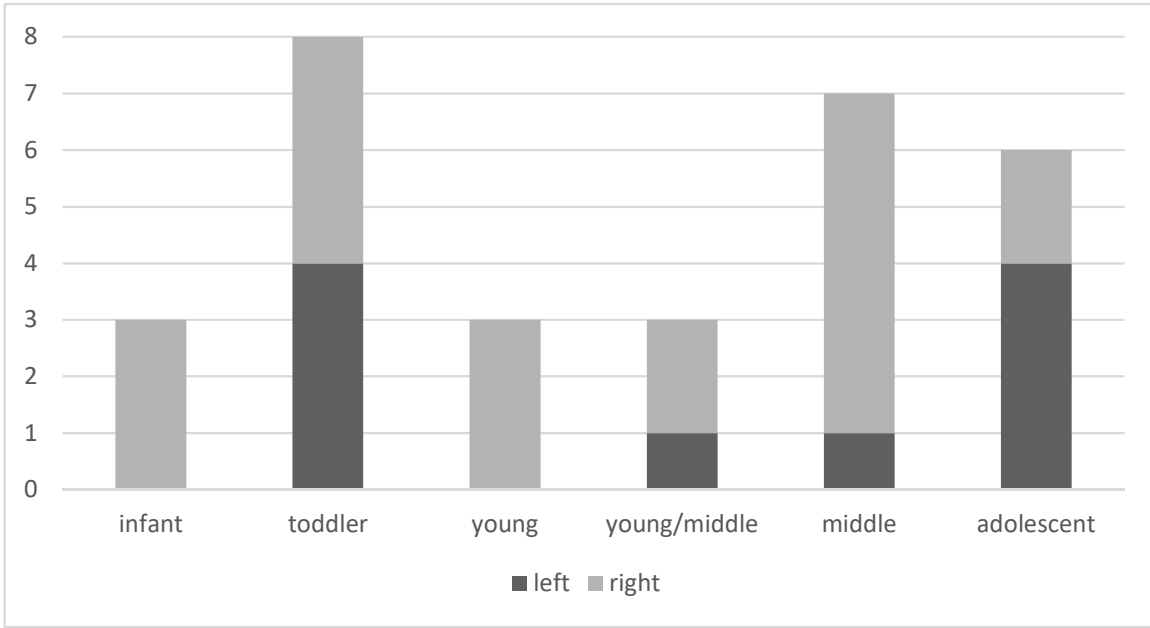

Figure 5: Polgár-Csőszhalom, single-layer settlement – Frequency of child burials by age groups and body position (n=30).

The issue of representativeness/selection has been repeatedly addressed in the interpretation of the Polgár burials (most recently by Raczky and Anders 2017). Certain individuals were buried on certain parts of the site according to a complicated set of norms, which in part still elude us. Whereas only men and boys had been buried on the tell settlement, women, men and children alike were found in the single-layer settlement. Their distribution by sex and age within the latter area is uneven – far more women and older women (Zoffmann 2012a: 106) and presumably more boys (see above) in their middle childhood were buried there. The frequencies of grave goods offer few clues in this respect, as both poorly and more richly furnished burials as well as interments lacking any artefacts have been found. The over-representation of certain sexes and age groups in the data is perhaps not a mere coincidence; however, a reassuring answer to the question requires further research.

Discussion

In the previous sections, I reviewed the data on child burials in Hungary in time (Early, Middle and Late Neolithic) and space (Transdanubia and the Hungarian Plain). Yet, do we know of cases, either more general or unique, whose interpretation points beyond these frameworks? Are there any data that exclusively relates to children?

Gendered Children

Gender construction was already begun in childhood and the process can be quite well traced in the archaeological record of the Neolithic (Anders and Nagy 2017; Bickle 2019). The children of the Late Neolithic are often provided with objects reflecting adult female and male roles, which were prominent elements in gender construction. Similarly to the young girl buried with the bead girdle (Grave 754) and the little boy with a polished stone axe (Grave 666) at Polgár-Csőszhalom, the contemporaneous Transdanubian Lengyel communities buried 6-8-year-old children with axes, artefacts usually associated with adult men (Zalai-Gaál *et al.* 2012a: 65). Similar examples can be cited from among the burials of the Aszód-Papi-földek site – the orientation of children conforms to the alignments typical of both women and men. A 'masculine' polished stone chisel was found in the grave of an infant child, while 'feminine' *Spondylus* bracelets and *Glycymeris* pendants were also found in infant graves (Siklósi 2013: 119). Social identities were created in different ways, regardless of age – just as some adults did not receive these objects, neither did each and every child.

It has been repeatedly suggested that children were closer to the social status of women than men (Siklósi 2013: 119-120; Whittle *et al.* 2013). The earliest occurrences of copper can be linked to the Middle Neolithic and copper beads were recovered from two of the period's burials. One is the grave of an adult woman uncovered at Csanytelek-Újhalastó, while the other is the burial of a 2-4-year-old child (Zoffmann 2001: 27) that contained a necklace strung of copper and shell beads, and imitations of red deer canines (Siklósi 2013: 212). The deposition of articles made of a new raw material in female and child burials was also a general practice in later periods (Siklósi 2013: 216).

Children and Pots

The practice of burying children in clay vessels, although not common, is a persistent element of the Neolithic burial rite from the Levant to the Carpathian Basin, and is in this sense part of the 'ritual Neolithic package' (Bačvarov 2008; Bánffy *et al.* 2017: 53-54; Sebők 2013). Children laid to rest on pottery sherds or covered by sherds or bowls can probably be assigned to the same cognitive realm. The known occurrences from eight sites in Hungary have been surveyed and discussed by Katalin Sebők (2013) and two new burials of this type have been recently published (Bánffy *et al.* 2017: 53-55). After reviewing these burials, I have certain reservations regarding three sites. In my view, the oft-cited anthropomorphic vessel of the Körös culture and the bones inside it from the Hódmezővásárhely-Gorzsa site cannot be assigned to the so-called jar burials. Neither the type and size of the vessel (14.2cm: Kalicz 1980: 84) nor the burnt bones support this contention since, despite the generally-held view in the archaeological literature, the bone fragments were not those of a child, but rather came from the skull of a man in his 60s. If the find is authentic, it can more likely be considered an example of a skull cult, as has already been suggested (Trogmayer 2005). Similarly, I accept Katalin Sebők's (2013: 253) reservations regarding the jar burial from Polgár-Kengyel-köz (Bačvarov 2008: 63-64). Based on the description and the published documentation (Dani *et al.* 2015: 15), the young child was placed not inside, but rather on the vessel. As regards the third possible example from the Hajdúhadház-Kucik-Bőgő site, it has been convincingly demonstrated that the sherds in question were actually the fragments of a Bronze Age urn. (Emese Gyöngyvér Nagy pers. comm.). Yet another Late Neolithic example can be cited: in the single-layer settlement of Polgár-Csőszhalom, a young woman had been placed on pottery fragments, which could be refitted into a vessel. This burial, unlike the other previously mentioned examples, contained further objects such as *Spondylus* jewellery, a flint blade and the skeleton of a puppy (Raczky and Anders 2017: 69).

In light of the above, we may contend that special cases of jar burials are attested from the Early to the Late Neolithic, both on the Hungarian Plain and in Transdanubia.[3] The strength of this tradition is indicated by the fact that two Early Copper Age occurrences are also known (Körösladány-Bikeri: Sebők 2013: 254). Based on the current record, it seems that jar burial was practiced for all juvenile age groups.

Local Children

In several cases, the treatment of children is specific to a given community. The ALBK burials uncovered at Polgár-Ferenci-hát mentioned above are also unusual because, with the exception of a single bead, all *Spondylus* objects found in them had been placed next to children (see Figures 2-4, Table 1). The artefacts themselves are also unusual, one case in point being the 10cm long cylindrical *Spondylus* bead weighing 60.2g from Grave 350 (see Figure 3.2). Arne Windler (2018) surveyed 849 *Spondylus* objects from 55 sites dating from the period between 5500 and 5000 BC in Europe. Beads longer than 8cm are known only from LBK contexts, with the longest (12 cm) coming from Halberstadt-Sonntagsfeld, Germany. No more than six 10-cm-long beads resembling the ones from Polgár are known and their occurrence

[3] Similar small, spouted vessels are known in greater numbers from the Bronze and Iron Ages (Dunne *et al.* 2019: 246, extended data fig. 1). Recent research has identified lipid residues of milk in these vessels and thus it seems reasonable to assume that they had indeed been used to feed young children during weaning (Dunne *et al.* 2019).

is not restricted to children's graves (Windler 2018: 97–98). In Hungary too, comparable beads with a maximum length of 6.5cm have only been recovered from LBK contexts (Siklósi and Csengeri 2011: 49-50, fig. 2; no age data available). The arm rings of Graves 350 and 448 of Polgár-Ferenci-hát are also unusually large with their diameter of 11cm (see Figures 2.3, 3.2). Similar pieces are also known from Bulgaria and Germany (Windler 2018: 90, 170) and, although to a considerably lesser extent, from Hungary (Siklósi and Csengeri 2011: 56). One of the Polgár arm rings (Grave 350) weighs over half a pound (263.7g). Unfortunately, weight data for the pieces from other sites are not available.

Zsuzsanna Tóth performed microscopic use-wear analysis on the arm ring and bead found in Grave 350 from Polgár (unpublished data). Polish, rounding and striations were observed on both, suggesting a soft contact material without a preferred motion orientation. These traces indicate their use as costume accessories, as personal adornments. Since the traces of heavy use-wear on these items are unlikely to have developed during the children's lives (although there is no experimental archaeological evidence to confirm this), we assume that other members of the community had worn these adornments. Remarkably, both arm rings were found on the upper arm, in the position in which they would have been worn during life (see Figure 3). These large and heavy ornaments would probably have slipped off the thin arms of a child, and thus they functioned as part of the mortuary costumes in this case (Chapman 2020: 107). Obviously, there is no way of knowing the reasons for the Polgár community's exceptional commemoration of six of its members, who were buried with *Spondylus* artefacts. Perhaps an association can be assumed between the deceased children and the social status of their families (Hofmann and Whittle 2008: 293), but this assumed link is notoriously difficult to trace, as *Spondylus* becomes virtually invisible in this community by adulthood. It is for this reason that I believe the issue goes beyond a case of a 'wealthy child' (Oravecz 1988-1989; Siklósi 2013: 122; Zalai-Gaál 2003: 66). No similar disproportion can be noted for the period's other sites, where *Spondylus* artefacts appear in all age groups (Whittle *et al.* 2013: 91-92). Likewise, jewellery items strung of perforated red deer canines were only deposited in child burials on this site. The peculiarity of these Polgár burials is further highlighted by Beate Siemoneit's (1997) comprehensive analysis of LBK burials, which found that juveniles who died between the ages of 7 and 13 years had received more funerary offerings than younger individuals, exactly the opposite of what we see at Polgár.

Other communities distinguished their children by other means. For example, children were accorded miniature vessels in the Lengyel cemetery of Mórágy-Tűzkődomb (Zalai-Gaál 2003: 43). It is noteworthy that two of these were spouted vessels placed next to a newborn and a young child of 1-2 years.[3] The high quality and elaborate nature of these vessels makes it seem unlikely that they were 'practice pieces for children' as was proposed for discoveries from some Balkan Neolithic sites (Chapman 2020: 105). It is possible that these objects could have been made by an older (10-13 years or more) experienced child, as has been suggested for Bronze Age examples (Fülöp 2016: 125), but without a direct study of the objects, this question cannot be answered. Miniature vessels accompanied adults in other places and periods too, such as a Middle Neolithic woman at Polgár-Ferenci-hát (Grave 718) (Raczky and Anders 2018) and children and women at the Aszód site of the Lengyel Culture (Siklósi 2013: 95). How should we explain these unique or exceedingly rare phenomena? Is their frequent association with child burials coincidental or intentional?

A four-legged animal figurine came to light from the grave of a roughly 9-11-year-old child at the Mórágy-Tűzkődomb site of the Lengyel Culture (Zalai-Gaál 2003: 44-45), while a bird-shaped vessel, currently without a known formal analogy, had been placed in the burial of a 6-7-year-old child at Aszód (Grave 205: Siklósi 2013: 95; Zoffmann 2015: 79). Comparable special figurines are rarely found in the context of burials. However, the aforementioned burial of a woman at the ALBK site of Polgár-Ferenci-hát site (Grave 718) contained not only miniature vessels, but also a small cattle figurine (Raczky and Anders 2018). At the Svodin settlement of the Lengyel Culture, anthropomorphic vessels were placed in the graves of an adult man and two children (Němejcová-Pavúková 1986: 146). Usually small and poorly made vessels and figurines are considered to be children's toys (Siemoneit 1997, 82; Chapman 2020, 105) and since the aforementioned artefacts are of high quality it is thought unlikely that they were toys.

Just a Child?

Physical anthropological and isotope geochemical studies offer a glimpse into the life histories of individuals; their pathologies and diet, and in the case of children, the duration of breastfeeding and weaning. Other sources reveal few such intimate and personal details about the people of the past. We have no way of telling whether the artefacts placed in children's graves had actually been used by the deceased during their lifetime, whether they were part of the mortuary costume, or whether these objects signalled social position (Chapman 2020: 107–108; Rebay-Salisbury and Pany-Kucera 2020: 4). It has also been suggested that 'the nature of the artefacts ... and the similarities between child and adult in burial could reflect the idealisation of adulthood' (Lillehammer 2000, 23).

Was there an association between the unusual jewellery and the special diet of the 6-8-year-old child interred in Grave 226 at the single-layer settlement of Polgár-Csőszhalom? The necklace of a child, assumed to be a girl on the basis of the burial rite, was strung of 80 beads imitating red deer canines in addition to a genuine one. The very composition of this necklace is unparalleled, and its microscopic examination revealed that almost every single bead had a different life history, that they had not been worn together and that their use-wear traces had developed over a longer period than the child's lifetime. Isotopic studies indicated strikingly low $\delta^{15}N$ values, reflecting a plant-based protein intake and diet (Anders and Nagy 2019: 194; Anders and Tóth in prep.; Raczky and Anders 2017: 77).

Yet, in some cases, a close connection can be assumed between deposited object(s) and the deceased. Thus, for example, a necklace made of tiny *Spondylus* beads, only a few millimetres in size, from Grave 448 at Polgár-Ferenci-hát had perhaps actually been worn by the child who died at the age of 2.5-3.5 years (see Figures 2.1-2). A child of around 2 years buried in Grave 4 at the Tisza settlement of Kisköre-Gát could have actually worn the unusually small *Spondylus* bracelet, with is outer diameter of 7.6cm and inner diameter of 5.1cm, found on the left upper arm (Korek 1989: 40; Siklósi 2013: 144). The reconstructed length of the string of beads found on the hips of a 3-year-old girl from Polgár Csőszhalom is no more than 36-45cm, suggesting that, unlike the heavy *Spondylus* jewellery buried with neonates at Polgár-Ferenci-hát, it had probably expressed her identity.

Conclusions

How should we interpret the burial practices associated with children who once lived in Hungary – normative, atypical or deviant?

Two general conclusions can be drawn from the available data. The first is that children blended into the world of adults and were included in the same mortuary practices, with the same ritual elements (placement, orientation, funerary offerings). This is particularly striking in the Late Neolithic when gender-based differentiation is attested in the funerary rite, the mortuary costume and the objects placed in the graves. Multiple burials are also special settings for children and adults to 'meet', where the commonalities become even more pronounced, as confirmed also by research in the regions neighbouring the Hungarian Neolithic, such as the Central European LBK and the Lengyel Culture in Slovakia. The second conclusion is that children are not always included in the same mortuary practices as adults – age gains prominence as a structuring principle. A 'positive discrimination' can be seen in jar burials that is independent of time and place. The child burials rich in *Spondylus* from the ALBK site of Polgár and the tell settlement of Berettyóújfalu-Herpály, where young children were interred in the tell, and the deposition of miniature vessels at Mórágy can also be assigned here. Alternatively, children could also be excluded from certain rites, as at the Late Neolithic site of Alsónyék-Bátaszék, where none of the post-framed graves contained subadult burials.

Is there truly a contradiction between the two claims? The differences occur at a local scale, between sites, with practices following the norms of the respective communities. Even the data on children's health status attest to local differences. While at Late Neolithic Hódmezővásárhely-Gorzsa the children were in remarkably poor general health, the opposite is true for those living at Polgár-Csőszhalom where they did not suffer from diseases that caused pathologies of the bones. Grave good associations were not static, as we have seen in the case of the LBK and Tisza burials (Chapman 2000: 45-74; Hofmann and Whittle 2008). This can perhaps be interpreted as reflecting horizontal differentiation and the local construction of difference between age groups (Sofaer Derevenski 2000: 6).

It seems to me that the similarities and differences do not represent a divergence from the 'normal', but provide further evidence for the diversity of the prehistoric world from the aspect of child burials. There was no single norm regarding burial (Gramsch 2013; Hofmann 2015; Müller *et al.* 1996: 93; Pechtl and Hofmann 2013; Raczky and Anders 2017), sometimes not even on one site (Hofmann 2015; Hofmann and Bickle 2011; Oross and Marton 2012: 295). The mortuary sphere was as colourful and diverse as the world of settlements, as has so often been pointed out (Hofmann 2015; Raczky and Anders 2017).

This brief overview has hopefully demonstrated that there is a considerable research potential in the burial data reported so far in terms of shedding light on the world of children. Obviously, this requires the release of additional data from the grey literature, as well as more bioarchaeological studies not only of individuals, but of the entire community of a site, as we can only understand children in the context of their environment.

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Where Do the Children Go? Funerary Treatments of Juveniles Within Collective Burial Sites in Neolithic Southern France

Mélie Le Roy[1]

Abstract

Collective burials are funerary deposits that accumulate over time with the regular or sequential addition of corpses. This was the main funerary practice towards the end of the Neolithic and during the beginning of the Bronze Age in the south of France. Some types of tombs (e.g. megalithic tombs) necessitated a huge investment of time and labour. According to ethnographic studies, these monumental tombs are generally built and managed collectively. We can thus ponder who was buried inside these tombs because some archaeological studies indicate that access to such tombs may sometimes be restricted to only certain members of the population. Indeed, ethnography highlights that access to certain tombs may be structured by variables such as kinship, social status, etc. This paper will focus on the variable of age, which is often a cause for exclusion or segregation within the burial, and therefore raises questions regarding the age at which individuals become sufficiently 'valuable' to be include in the social organisation.

While previous studies have mainly focused on architecture and the function of these monuments, there has been less consideration of the deposition process of human remains and therefore on the population profile buried inside those funerary places. Since 2012, a project was undertaken on burial sites from the south of France. The aim was to define the population profile, be they cave deposits or megalithic monuments, along with the deposition process of the bodies within the structures. These studies have highlighted that a special treatment (exclusion, localisation etc.) was afforded to the youngest individuals (under 5 years of age), suggesting they had a different social status.

Keywords

COLLECTIVE BURIALS, CHILDREN, FUNERARY PRACTICES, SOCIAL STATUS, LATE NEOLITHIC/EARLY BRONZE AGE

Introduction

Collective burials are generally defined as structures containing human remains deposited successively as the deaths occur within a human group (Boulestin 2019; Leclerc and Tarrête 1988). These structures appeared in the funerary landscape of western European societies from the Middle Neolithic (4900-3500 BC) and then spread across Europe and the world towards the end of the Neolithic (3500-2000 BC) and the beginning of the Bronze Age (2000-1300 BC).

This transition period in southern France is characterised by the emergence of many cultural traditions that have been mostly identified through ceramic analyses (Lemercier 2004). The

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main groups present are the successive groups of Ferrières (3300-2800 BC) and Fontbouisse (2900-2200 BC; Jallot and Gutherz 2014) followed by the Early Bronze Age (2300-1800 BC; Lachenal 2014).[2] They all share the same main funerary practice: collective burial, taking place either in natural (caves or shelters) or artificial (dolmens and hypogea) places (Duday 1976). This duality is made possible by the limestone nature of the Grands-Causses and Cévennes territory, which is the focus of this study (Figure 1). Grave goods found inside the different sites, as well as the rare dates available (Table 1), suggest a relative contemporaneity between the different sites (Le Roy and Recchia-Quiniou 2021). Thus, it seems that the populations of the Late Neolithic and Early Bronze Age in the valley of Montpellier and the hillforts of the Cevennes used both natural cavities and built monumental architecture in which to deposit their dead (see Figure 1). The region of interest in the current study has yielded a considerable

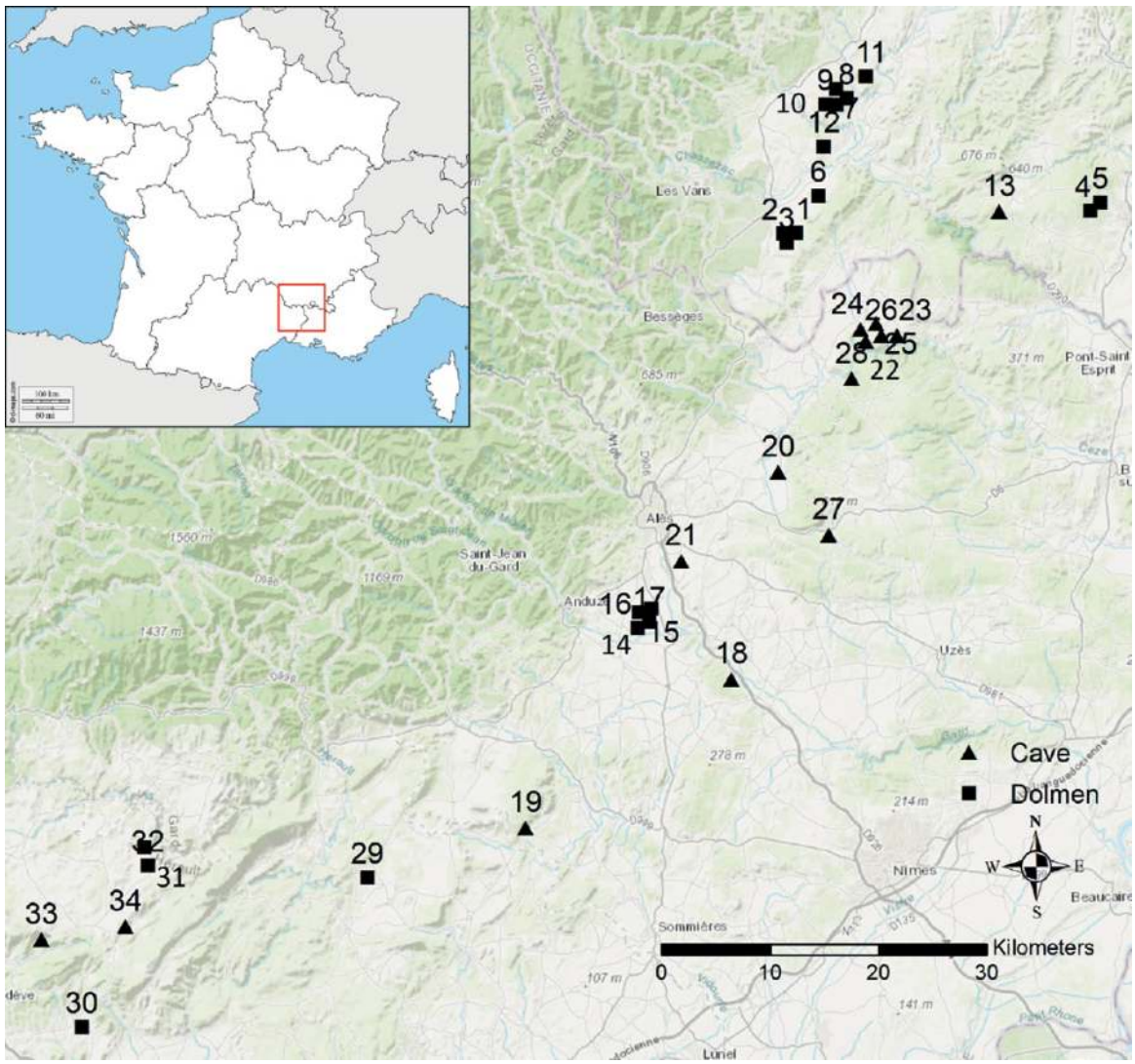


Figure 1: Spatial distribution of sites include in the sample. The numbers refer to those included in Table 1 (Mélie Le Roy).

[2] Note that the data on the campaniform groups in this area are too scarce to define their dynamic and occupational behaviour.

Table 1: List of the sites included in the study, including their geographic data, biological data, funerary selection types and references. The numbers refer to those included in Figure 1.

N°	Site	commune	Date (cal BC)	Structure	MNI	% Immature	Age classes (yrs)					Funerary selection (Le Roy *et al.* 2018)	Reference
							[0]	[1-4]	[5-9]	[10-14]	[15-19]		
1	Abrits 1	Beaulieu	2865-2500	Dolmen	22	27	3	2	1	0	0	1	Le Roy unpublished
2	Abrits 2		2623-2473	Dolmen	86	34	5	10	6	3	4	2	Bouffies *et al.* 2017
	Les Abrits	Beaulieu			108	35	8	12	7	3	4	2	
3	Cros des Grenouilles	Beaulieu	NF	Dolmen	27	33	0	3	2	1	3	2	Ravy and Clere 1993
4	Les Geandes 1	Bourg St Andeol	NF	Dolmen	78	17	0	11	7	7	0	2	Gely and Pape 2014
5	Les Geandes 2			Dolmen	25	24	0	2	2	2	0	2	Gely and Pape 2014
6	Combe de Bonne Fille	Grospierres	NF	Dolmen	11	64	0	4	2	1	0	3	Stocchetti 2020
7	Gabiane 6	Labeaume	3012-2346	Dolmen	13	31	0	0	2	0	0	2	Le Roy 2018
8	Gabiane 1		NF/BA	Dolmen	9	22	0	0	1	0	0	1	Le Roy unpublished
9	Gabiane 2			Dolmen	3	33	0	1	1	0	1	na	
10	Gabiane 3			Dolmen	12	25	0	1	3	0	0	2	
	Gabiane	Labeaume			37	10	0	2	7	*0*	*1*	2	
11	Pala 2	Chauzon	2619-2462	Dolmen	40	30	2	7	1	1	1	2	Jean *et al.* 2019
12	Dolmen des Campanes	St Alban Auriolle	NF	Dolmen	31	61	3	7	5	4	0	4	Ravy and Clere 1990
13	Archaique	St Remeze	3337-3024	Cave	3	33	0	0	1	0	0	na	Le Roy *et al.* 2019
14	Piecourt 2	Rochegude	NF/BA	Dolmen	9	33	0	1	2	0	0	2	Chateauneuf *et al.* 2010
15	Piecourt 4			Dolmen	10	40	0	2	1	1	0	2	
16	Piecourt 5			Dolmen	12	17	0	1	0	1	0	2	
17	Piecourt Nord			Dolmen	16	25	0	1	2	1	0	2	

N°	Site	commune	Date (cal BC)	Structure	MNI	% Immature	Age classes (yrs)					Funerary selection (Le Roy *et al.* 2018)	Reference
							[0]	[1-4]	[5-9]	[10-14]	[15-19]		
	Piecourt	*Rochegude*			*47*	*28*	*0*	*5*	*5*	*3*	*0*	*2*	
18	Chemin de fer	Boucoiran	3016-2362	Cave	18	38	1	3	1	2	2	2	Duday 2006
19	Aven de la Boucle	Corconne	3518-3105	Cave	75	15	1	4	1	2	3	2	Duday *et al.* 2011
20	Grotte du Redalet	Navacelles	NF/BA	Cave	7	43	1	1	0	1	0	na	Linard *et al.* 2020
21	Grotte de la Rouquette	St-Hilaire-de-Brethmas	NF/BA	Cave	14	57	2	3	1	1	1	1	Linard *et al.* 2020
22	Janna	St-Privat-de-Champclos	1877-1566	Cave	9	33	1	0	1	1	0	1	Le Roy 2017
23	Aven des Momes		NF/BA	Cave	3	33	0	0	0	1	0	na	Linard *et al.* 2020
24	Grotte des 4 Lacquets		NF/BA	Cave	4	50	0	1	1	0	0	na	
25	Grotte de l'Orage		NF/BA	Cave	4	50	0	0	0	0	2	na	
26	Grotte du Bapteme		NF/BA	Cave	12	58	1	1	4	1	0	4	
27	Grotte des 3 ours	Seynes	NF/BA	Cave	7	43	0	2	1	0	0	na	
28	Aven Ka	Tharaux	3327-3922	Cave	5	20	1	0	0	0	0	na	Le Roy 2015
29	La Caumette	Notre Dame de Londres	3359-3118	Dolmen	26	7	1	3	1	1	1	2	Bec Drelon *et al.* 2014
30	Les Isserts	St Jean de la Blaquiere	2617-2488	Dolmen	11	4	0	3	1	0	0	2	Le Roy and Bec Drelon 2016
31	La Prunarède	St Maurice de Navacelle	NF	Dolmen	51	12	2	6	2	1	1	2	Le Roy 2015
32	Dolmen de Devezas		NF	Dolmen	70	27	1	3	3	3	3	2	Millau 1958
33	Fontanilles	St-Etienne-de-Gourgas	2878-2695	Cave	28	12	1	1	5	2	1	2	Le Roy 2021
34	Azirou	La Vaquerie	NF	Cave	29	34	1	1	4	2	2	2	Le Roy unpublished

number of burial sites (Le Roy and Recchia-Quiniou 2021) but little anthropological data are available to discuss funerary practices and to biologically characterise the buried populations. Thus, a research programme of antique skeletal collections has been undertaken since 2012 to improve our knowledge of these populations at the Late Neolithic/ Early Bronze Age transition.

Collective burial is still in practice today including in Indonesia (Jeunesse and Denaire 2018; Steimer-Herbet 2018) and Madagascar (Decary 1962). Ethnographic studies, especially on the Malagasy Merina tribe, show that the construction of such monumental tombs is undertaken either by the group only, if it has enough members, or in collaboration with neighbouring tribes (Decary 1962). We can thus ponder over who was buried inside these tombs because archaeological studies indicate that access to such tombs may sometimes be restricted to selected members of the population (e.g. Chambon 2003; Fernández-Crespo and de-la-Rùa 2015; Le Roy *et al.* 2018). Indeed, ethnographic surveys highlight that access to some tombs may be structured by variables such as kinship, social status, etc. (e.g. Decary 1962; Jeunesse and Denaire 2018; Steimer-Herbet 2018). Others suggest age, origin, or even the cause of death could be a reason to exclude individuals from collective graves (Thomas 2013).

The scientific community has long wondered about the various reasons for these funerary selections within past societies especially for the end of the Neolithic era where collective burials became widespread in the funerary landscape (Schmitt *et al.* 2018). Here, I focus on the variable of age, which is often a cause for exclusion or segregation within the burial (Decary 1962; Van Gennep 1909 [1960]). Some of the ongoing theories regarding these types of structure highlight their role in the community as territorial markers or a house for the ancestors (e.g. Jones 2007; Wheatley *et al.* 2010); thus, it raises questions regarding the age of the individuals buried inside. The results allow discussion regarding the age when an individual become sufficiently 'valuable' to be include in the social organisation and therefore within a collective burial site. Is a child considered an active member of the society?

Corpus

To date, more than 1000 dolmens have been identified in the region of interest for this study (e.g. Bec Drelon 2015; Châteauneuf 2015; Gely and Pape 2014). These structures have been the subject of countless studies since the middle of the 19th century (e.g. Châteauneuf 2015; Chevalier 1984; Malbos (de) 1842; Stocchetti 2011). The focus of these previous studies was mostly about their architecture, orientation, location in the landscape, etc. Limited studies on grave goods are also available and discuss the nature of the deposits being either for one individual or the collective (see Barge 1982; Polloni 2008; Sohn 2008). Rare anthropological data are available and often lack reliable methods or deep analysis thus limiting our knowledge of the funerary practices performed within the megalithic monuments. The region under consideration also has many caves due to the limestone nature of the terrain, which yielded archaeological remains (e.g. Duday 1976; Gutherz and Jallot 1995; Le Roy and Recchia-Quiniou 2021). Speleologists have discovered most of the sites incidentally, and the field documentation is relatively limited. However, we generally observe a selection of very small cavities when only the funerary function is attested within the cave – probably to facilitate occlusion (Duday 1976; Guilaine *et al.* 2015) and the absence of soil covering the remains (Sauzade 2008).

Internal arrangements have often been highlighted suggesting a structuration of the general organisation of the funerary deposit (Duday 1987).

The corpus gathers a homogenous sample of both caves or sink-holes[3] (n=14) and megalithic structures (n=20) dated from the transition between the Late Neolithic and Early Bronze Age (see Table 1). However, dating collective graves is a complex matter (Sauzade *et al.* 2018) and it is therefore difficult to attest any strict contemporaneity for the different types of burials. Regarding the region under study, the available data allow us to assume a relative contemporaneity of the use of caves and dolmens at the end of the Neolithic and beginning of the Bronze Age based on the few dates available and the relatively homogenous grave good deposits in both types of structure (see Table 1). The second issue is the duration of use of these funerary sites since very few sites are dated over their entire lifespan (Sauzade *et al.* 2018). The majority have only been the subject of one or two radiocarbon dates for collections representing up to 80 individuals. Therefore, the duration of use, the succession of deposits, as well as their nature (primary or secondary) all raise important questions (Schmitt and Dederix 2019).

Bearing those limits in mind, only sites with well-preserved remains and solid field documentation were selected for the application of new methods when possible. However, an exception in the megalithic corpus is worth mentioning – Gabiane 2, Labeaume. Indeed, this monument shows few remains recovered from the field (MNI = 3; based on a few teeth, Le Roy unpublished), but its location immediately next to other monuments led me to include this dolmen in the entire sample. The working hypothesis is that they belong to a single occupation period of a megalithic necropolis (see below). Therefore, these prior results will not be considered alone but within the group of monuments. The sample is therefore sufficiently reliable to investigate the funerary practices afforded to children within collective burial sites from the south of France and to identify potential specific funerary practices dedicated to these younger individuals. A comparison between the types of sites (cave and dolmen) will be also performed to identify possible cultural differences and discuss the potential presence of different human groups (Le Roy and Rottier 2021).

Methodology

Fully preserved burials are rare because most structures are highly visible in the landscape (e.g. dolmens) and were visited several times since they were abandoned through to today (e.g. dolmens and caves) resulting in the loss of most of the human remains. This has made it difficult to gain a thorough knowledge of the funerary practices in use at the end of prehistory and to perform an exhaustive study on such a type of deposit. The application of new methodologies, however, can enhance our knowledge about the management and use of those collective burials.

[3] Sink-holes translates as 'avens' in French. The relevant sites analysed in this paper are named as 'aven', example 'Aven Janna', 'Aven de la Boucle'. Therefore, in order to simplify the text, I will only refer to those sites as 'aven', implying they belong to the corpus of caves.

Biologically Characterising the Populations and Reconstructing Population Profiles

For the aim of this study, I followed the same protocol for each site (e.g. Bouffiès *et al.* 2017; Le Roy *et al.* 2018; Linard *et al.* 2020) to identify anomalies within the population sample. The first step in calculating the mortality profile of the buried population is to assess the minimum number of individuals (MNI). This analysis is based on the count and lateralisation of the best-represented skeletal elements (White 1953) along with pairing and exclusions according to age at death (Poplin 1976) and finally bone coverage (Demangeot 2008; Masset 1984). For each assemblage, the age at death of the individuals was assessed, based on mineralisation and maturation of the teeth (AlQahtani *et al.* 2010; Moorrees *et al.* 1963a; 1963b), bone growth (Maresh 1970) and skeletal maturation (Fazekas and Kosa 1978; Scheuer and Black 2000). Those data were also implemented in the spatial analysis that was performed to reconstruct funerary deposits when possible (see below).

In archaeological studies, immature individuals are subdivided into age classes, which are generally used in demographic studies ([0 years], [1-4 years], [5-9 years], [10-14 years], [15-19 years]; e.g. Buchet and Séguy 2002; Masset 1987; Sellier 1996). Mortality quotients are calculated to establish a mortality profile for each burial site when the premise of a stationary population is accepted (a compensatory rate of birth and death: Halley hypothesis; Sellier 1996; Sellier 2011). This assumes a long period of occupation consistent with the collective nature of the burial site. Mortality profiles are then compared to a theoretical mortality model based on standard tables published by Ledermann (1969) corresponding to a so-called 'pre-Jennerian' population (i.e. before the industrial revolution and advances in medicine such as vaccination). This implies that the same mortality pattern is true for each prehistoric population – a low life expectancy at birth (between 25 and 35 years) with a high mortality rate for younger children (from birth to four years) and a low rate for older immature individuals (between 5 and 19 years, Ledermann 1969; Sellier 1996). Note that this method provides an 'average picture' of reality, smoothing potentially complex demographic events that may arise at specific times (Buchet and Séguy 2002). Although we do not know the exact mortality rate of ancient societies, observations on 'pre-Jennerian' populations are most likely to be comparable to Neolithic populations and follow the same pattern of archaic mortality (Masset 1984). Nevertheless, the purpose of this comparison is only to demonstrate any demographical anomalies (over- or under-representation of any given age classes). This is not proposing an accurate mortality profile for Neolithic populations. Rather, the point is to determine if all immature individuals had equal access to the collective burial sites or if some exclusions occurred and to what extent. Based on the data set it was possible to assess the mortality profiles from each site[4] and determine if some age classes were missing versus the expected theoretical values. The different sites were grouped following four types of funerary selections (see Le Roy *et al.* 2018).

- *Case 1* reflects a 'natural' population (no selection, everybody has access to the tomb).
- *Case 2* demonstrates a significant lack of the youngest individuals (exclusion of children younger than 5 years).

[4] Some sites yielded a very small numbers of individuals and therefore were ineligible for the analysis since they did not represent several generations, and thus a 'natural' population. Only sites were selected that yielded a minimum number of nine individuals (see Le Roy *et al.* 2018).

- *Case 3* shows that the youngest children under 5 years are missing and the older ones (between 5 and 19 years) are over-represented (exclusion of the youngest under 5 years and adults over 20 years or a mortality crisis).
- *Case 4* highlights an over-representation of the older immature individuals between 5 and 19 years (exclusion of adults over 20 years).

Reconstructing and Interpreting the Funerary Deposit

We have to wait until 1962 and the excavation of the Hypogeum Les Mournouards at Mesnil-Sur-Ogier, Marne, France, for archaeologists to investigate the organisation of a collective burial deposit and interpret it in terms of funerary practices (Leroi-Gourhan *et al.* 1962). By recording the position, orientation, and height of the remains (bones and artefacts), they managed to identify individual deposits and even determined the presence of shrouds that helped to preserve the anatomical integrity of the corpses. Individual grave good associations were also observed (e.g. some individuals were buried with a hunting tool kit). This study had a huge impact on our vision of such complex and 'messy' deposits (comingled).

Since then, researchers have continuously enhanced methodologies and approaches for investigating these types of burials composed of complex, comingled, and sometimes incomplete aspects (e.g. Chambon 2003). In such cases, archaeothanatology is of critical importance (Duday 2009). This method involves the detailed excavation and documentation of burial deposits to enable the reconstruction of the original deposit of the body (or several bodies) and associated funerary practices regardless of the period. Recent research has employed Geographic Information Systems (GIS) to enable computerisation of data in the field (or *a posteriori*); archaeothanatological methods can then be applied to collective burial sites (e.g. Laforest *et al.* 2017; Le Roy *et al.* 2019).

When possible, this new protocol was used to reconstruct and identify the position of the bodies within the deposits via field documentation available (see Le Roy *et al.* 2019). Such a protocol allowed the understanding and interpretation of the entire deposition process with more precision regarding the cohort of children. Indeed, due to their immature nature and their easier identification within the deposit, the remains of children benefit far more from the GIS protocol.

Results

Characterising the Population

The MNI is the first indicator regarding funerary practices in collective burial sites. The sample demonstrates some differences in terms of the number of individuals among the sites. Indeed, a smaller number of individuals are deposited in caves (range of 3 to 29; note that only one site showed a larger amount: Aven de la Boucle = 75 individuals) versus the dolmens (range of 9 to 86; excluding the Dolmen of Gabiane 2; MNI=3). While this result is not statistically significant (Figure 2), further studies should be conducted regarding the geographical distribution.

Three caves located in the southwestern part of the region of interest are burial sites that yielded a high number of individuals, whereas most of the caves located in the northeastern

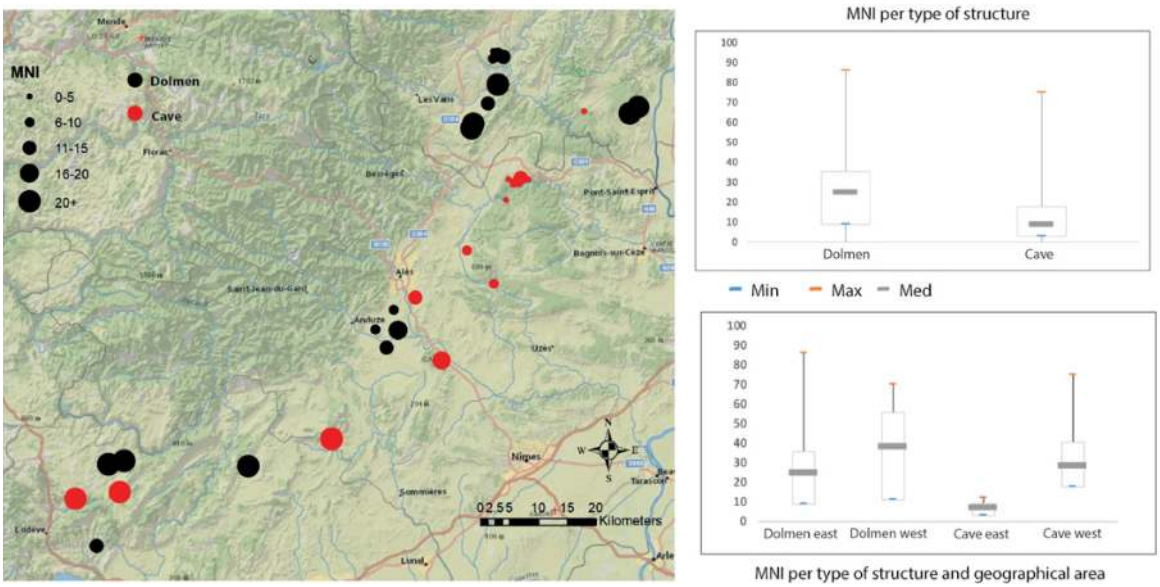


Figure 2: Graduated MNI distribution of the sites (left); Range of MNI per type of structure (top right) and geographical area (bottom right) (Mélie Le Roy).

part show a significantly smaller number of individuals (see Figure 2). The latter (except for the cave in Saint-Remèze) come from the Cèze and Verdon valleys. Previous studies highlighted biological proximity among these cave deposits based on non-metric anatomical variations (Linard *et al.* 2020), suggesting that only one population was using these caves to bury their dead. In addition, a similar funerary pattern is visible – deposition of a low number of individuals in small cavities (Galant 2016; Le Roy and Recchia-Quiniou 2021). The other sites were located in the southwest and suggest another pattern, i.e., deposition of a higher number of bodies in caves of a larger – but not necessarily significant – volume. Results from the site of the Aven de la Boucle also suggest biological proximity among the individuals buried in the cave (also based on non-metric anatomical variations), suggesting individuals belonging to the same human group (Duday *et al.* 2011). These differences suggest two distinct cultural practices and could demonstrate the potential presence of two different funerary traditions, thus two different human groups geographically distinct (see Figure 2).

Megalithic structures do not show such a clear distinction. Indeed, the overall sample suggests a higher number of individuals deposited in the megalithic structures regardless of their geographical location. However, some monuments yielded a smaller number of individuals (see Table 1). Most of these tombs are not standalone monuments but rather are grouped with others (megalithic necropolis?). Indeed, the Gabiane site shows seven monuments – only five were excavated and yielded human remains (Laforgue 1989; Le Roy 2018). The same observation can be made for the Rochegude site for which six (out of the seven monuments) presented human remains (Châteauneuf *et al.* 2010). While the whole sample for each site is incomplete, a similar number of individuals as the standalone monuments when adding the MNI from the different structures was obtained (see Table 1). Although no archaeological evidence confirms their use at the same period and by the same human group, we formulated a working hypothesis based on ethnographical surveys.

Indeed, on Sumba Island, Indonesia, the same community uses several megalithic monuments of small size (Jeunesse and Denaire 2018). In the current sample, both necropolises also present several monuments of small size, which display similar architectural types. The rare findings within the monuments indicate only one period of use, during the transition between the Late Neolithic and Early Bronze Age (Châteauneuf *et al.* 2010; Laforgue 1989). However, this is yet to be confirmed through radiocarbon dates. Nevertheless, this working hypothesis is supported in the scope of this paper but it is not possible to determine if the same group buried their dead within a single monument or simultaneously in several megaliths. They may have started a new burial monument when the prior one was full or, if a more complex selection was made, the monuments were all used at the same time (following the example of the Sumba case).

The case of the Abrits megalithic monuments shows yet another scenario. Both structures were located close to one another (300m; Le Roy 2018) and yielded a significant number of individuals (up to 86 in Les Abrits 2, the highest in our sample; Bouffiès *et al.* 2017 and 22 for les Abrits 1; Le Roy unpublished). This suggests the same hypothesis formulated for the aforementioned necropolises, but the population could have dispatched their dead in only two different monuments. Radiocarbon dates indicate a very close time of use (see Table 1) which suggests the contemporary use of both monuments.

However, the overall dataset suggests two types of megalithic collective burial sites: 1) standalone monuments with a significantly high number of individuals (large part of the population); and 2) groups of structures used simultaneously or in a close time range by the same population (the funerary selection process is still unknown). If we accept this hypothesis, then we can see that the total number of individuals included in the necropolises is quite similar to that of the standalone structures.

Identifying the Missing Individuals

Previous research has already noted a general trend which demonstrates the exclusion of the youngest individuals at the end of the Neolithic in French collective burial sites (Cases 2 and 3; see Le Roy 2017). This observation is also reflected in the current sample. However, no collective burial shows a complete absence of immature individuals (Figure 3; see Table 1). On the contrary, some of the sites (n=10; 30%), mostly caves (7/10), show a normal proportion of subadults according to expected theoretical values (36%-74%; see Blaizot *et al.* 2001). Of the 38 sites included in the sample, 19 have a significant lack of the youngest children (see Table 1; see Figure 3). Note that if the youngest individuals are significantly lacking, this does not mean that they are not present at all. Indeed, 15 sites yielded a few individuals who died before 1 year of age and some who died around (if not before) birth. Many of the sites (n=26) include individuals aged 1 to 4 years. Only four sites had no individuals aged 5 to 9 years. Finally, 21 sites presented 10- to 14-year-old individuals and 12 contained the remains of older adolescents. Therefore, we conclude that immature individuals were, in some measure, present in collective burial sites. If the overall result highlights a general exclusion of the youngest immature individuals, then caves seem to be more diverse regarding the funerary selection (see Figure 3).

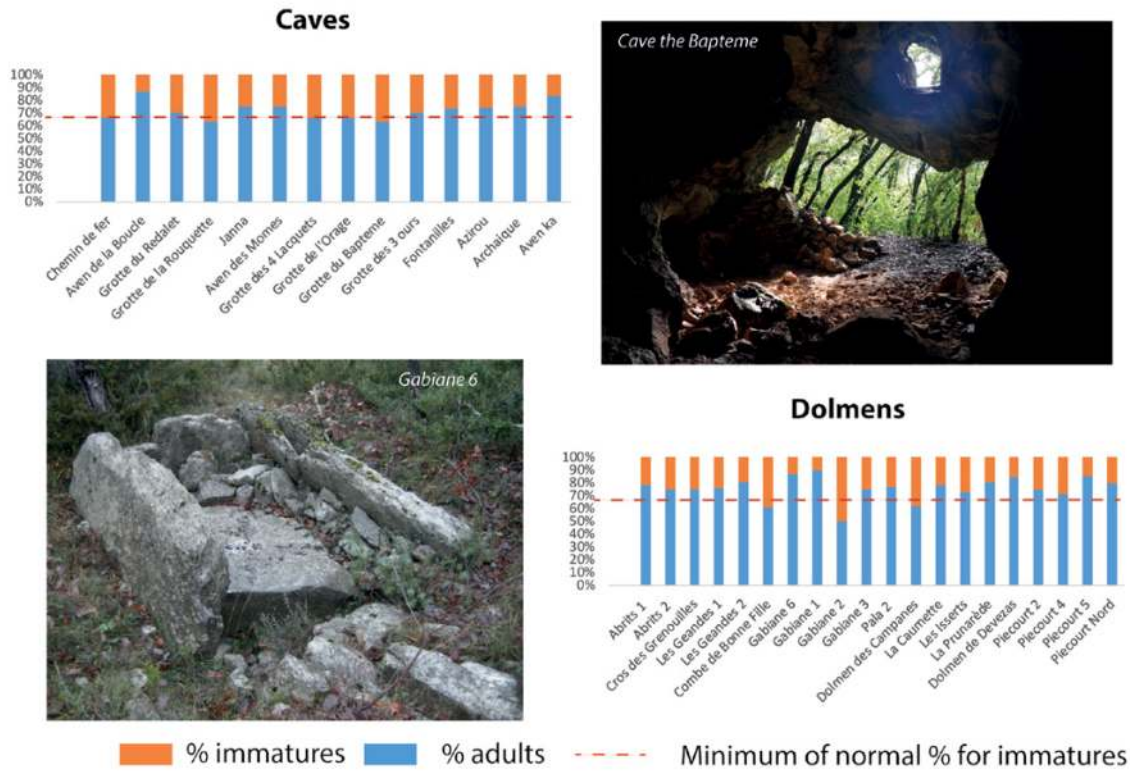


Figure 3: Percentage of immature and adult individuals per site. Cave of the Bapteme (top right; E. Tscherter); Dolmen of Gabiane 6 (bottom left; Mélie Le Roy).

The mortality profiles for each site were then calculated to better study the different age classes represented. Anomalies were detected for 30 collective burials, while the remaining sites had insufficient data (see Table 1). Overall, four different cases of demographic anomalies are present (see above; Figure 4). The sample is largely dominated by Case 2 (n=19) showing a recurrent lack of young individuals. Four sites present a natural mortality profile (Case 1), and one site shows an over-representation of the oldest subadults associated with a significant lack of the youngest individuals (Case 3). Finally, two sites display only an overrepresentation of the oldest immature individuals thus excluding adults (see Table 1; Figure 4).

The southwestern area of the sample exclusively shows the second case of funerary selection and most of the sites involve only a lack of individuals under 1 year of age regardless of the type of burial (see Table 1). Northeastern sites have a broader variability in terms of funerary selection. Therefore, the dataset points once again towards different funerary traditions, depending on the geographical areas, thereby suggesting the potential presence of different human groups.

One particular context is apparent in terms of funerary selection. Indeed, as mentioned above, the sample include groups (or necropolises) of megalithic structures (Rochegude and Gabiane). The aforementioned hypothesis was tested by combining the individuals from each structure and calculating the mortality profile for the whole site (see Table 1). Independently, each tomb shows a funerary selection that excluded the youngest individuals but yielded a

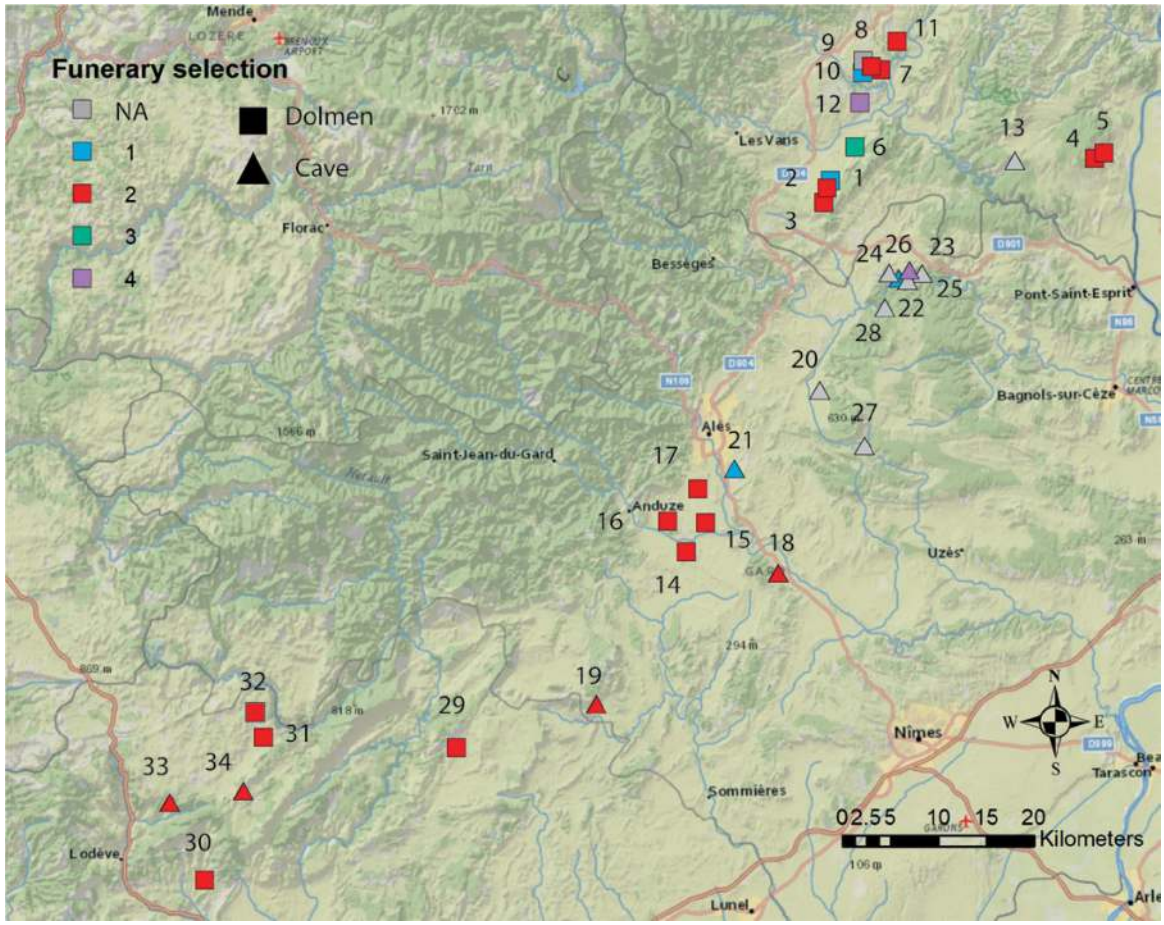


Figure 4: Spatial distribution of the funerary selection types. The numbers refer to those included in Table 1 (Mélie Le Roy).

quite low MNI (see Figure 2). Together, the sites give a similar range of MNI compared to the standalone monuments and logically show a significant lack of the youngest individuals (Case 2). The case of Les Abrits is worth mentioning. Indeed, both structures show a different funerary selection individually (Abrits 1: Case 1; Abrits 2: Case 2), but these collectively demonstrate the most common funerary selection observed in the overall dataset: Case 2 (see Table 1). This result suggests a potential different management of the two structures by the same group.

If we cannot definitely confirm the hypothesis (further data are needed), then these positive preliminary results encourage further analysis (e.g. DNA or stable isotopes analysis) to demonstrate kinship or similar origin for the different individuals buried in these megalith necropolises. A similar process has already been suggested for the caves located in the Cèze and Verdon Valleys (use of the caves by the same group and dispatching their dead in different places, Le Roy and Recchia-Quiniou 2021); however, insufficient data is currently available to further test this working hypothesis.

Funerary Deposits

Reconstructing funerary deposits helps to shine new light on the funerary practices and body deposition process within collective burial sites. However, this approach requires detailed data from the field and the laboratory, which are rare in relation to antiquarian excavations. Therefore, very few sites were eligible for such an analysis or for assessment of the spatial organisation of the funerary deposit. However, the current study and previous publications suggest that the overall corpus (both caves and dolmens) only involve disturbed primary deposits (e.g. Bouffiès *et al.* 2017; Duday *et al.* 2011; Le Roy 2018; Linard *et al.* 2020).

Spatial Organisation

The study of the management of collective burials is mainly based on the spatial analysis of the bones within the tomb. Few sites from the sample were sufficiently well documented to enable discussion of their spatial organisation. The distribution of bones was investigated according to biological data for the Abrits 2 dolmen (Bouffiès *et al.* 2017). No connection or

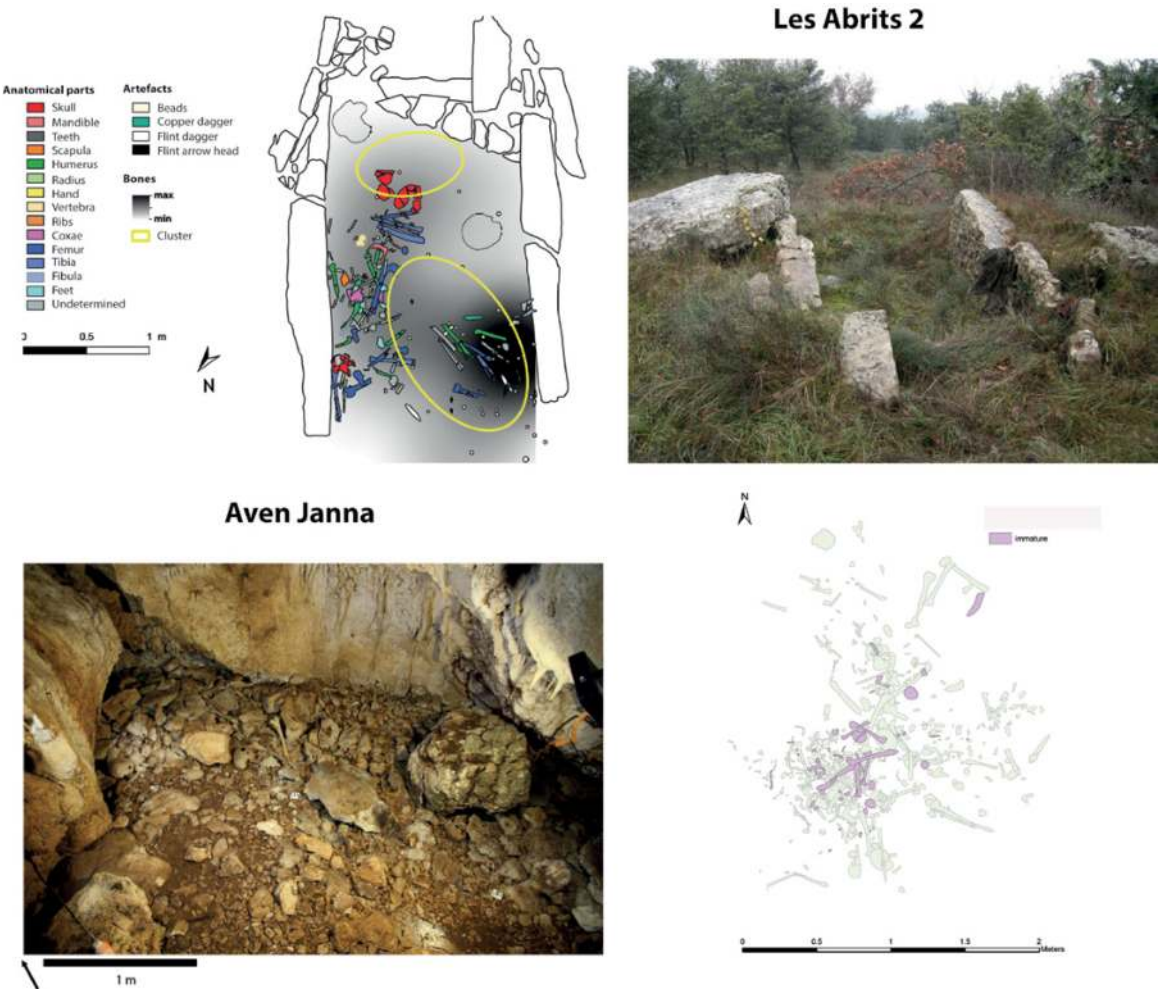


Figure 5: Spatial analysis of the distribution of the human remains in Les Abrits 2 dolmen (top; from Bouffies *et al.* 2017) and the Aven Janna cave (bottom; Mélie Le Roy).

anatomical logic was observed during the excavation (Gros and Gros 2010). Spatial analyses show no difference in the distribution, based on either anatomical parts or age at death (Figure 5). Thus, no element allows any specific organisation to be identified within the deposit. If it was present at one point, it is now no longer detectable.

Several anatomical connections were identified at the Pala 2 dolmen. The bone distribution was recorded per square metre and suggests a general perturbation of the remains (Durand 1994; Jean *et al.* 2019). Once again, there was no specific organisation according to sex or the age at death. Similar observations are mentioned in the literature for other structures in the sample – Les Géandes 1 and 2, Gély and Pape 2014; Cros des grenouilles, Ravy and Clère 1993; Les Campanes, Ravy and Clère 1990). Therefore, it was not possible to identify any specific organisation of the body deposition process in the megalithic structures; no specific area seems to have been dedicated to a particular age class. However, we cannot definitely rule out a specific treatment for the immature individuals at the time of deposition since the remains were so highly disturbed. Nevertheless, this result demonstrates that no specific treatment was afforded to immature remains over the long term. They did not benefit from a specific treatment once skeletonised.

The cave sites also only rarely have data relating to spatial organisation and body deposition processes. Very few anatomical connections have been noted (Grotte du Baptême, Linard *et al.* 2020; Aven Janna, Le Roy 2021; Aven de la Boucle, Duday *et al.* 2011). This is not surprising due to the general absence of soil covering the bones (except at the Aven de la Boucle, Les Fontanilles and Azirou) and the nature of their deposit and discovery (animal activity, sediment sliding, speleological activity, etc.). However, the ongoing fieldwork at the Aven Janna site provides reliable field documentation. The comingled nature of the deposit only allowed for the identification of a single preserved anatomical connection (associated with a very loose anatomical logic; Le Roy 2021). However, a spatial analysis of the display of the bones helped to identify one potential immature individual reconstruction (see Figure 5). If the child (aged 5-8 years) was not anatomically preserved, then the grouping of its remains suggests a deposition in the centre of the assemblage. Therefore, I propose that this individual was not treated differently to the adults deposited in the cave.

On the contrary, the Aven de la Boucle site highlighted a specific area dedicated for the immature cohort (under 10 years of age) in the northern part of the deposit under a natural alcove formed by the roof of the cave (Duday *et al.* 2011). In addition, the excavators described the deposition of an immature individual who died around birth as being separate from the other remains, but the date of this subject is still unknown (Duday *et al.* 2011). However, it would be consistent with the pattern previously observed to exclude this young child from the rest of the group. Finally, the cave of Les Fontanilles was similarly studied but there was no consistency between the field documentation and the numbers marked on the bones and, therefore, only general observations were possible. No specific organisation of the deposit was present. In addition, the skull of a child ([5-9] years of age; Le Roy 2021) suffering from hydrocephaly was found mixed with the rest of the bones. Even though it was not possible to analyse the spatial distribution, the presence of this child with a condition with potential associated mental and physical impairments leads me to suggest that exclusion was not dependant on health status – for the child or adult (Le Roy 2021).

Cave deposits seem to display a broader variety of funerary treatments regardless of the geographical area. Indeed, examples of the integration of immature individuals in the funerary deposits are evident. Other cases show a specific area dedicated to younger subjects. While it was only possible to discuss the body deposition process for a restricted number of collective burials sites, a difference between the two types of structures was observed. None of the megalithic monuments contains evidence suggesting any (preserved) specific bone distribution depending on age at death. The results show highly reshuffled deposits. Cave sites appear more diverse – one case displays a clear distinction of the location of immature individuals, while another case shows no difference in terms of location for immature individuals present in the collective burial.

Bone Removal

During analyses of the different bone collections, several sites demonstrated a discrepancy regarding the number of large skeletal elements, such as skulls, compared to the MNI (generally based on smaller elements, such as, foot/hand bones or teeth). The lack of the larger bones observed at the dolmen Les Abrits 2 could be partially explained by the strong fragmentation of the remains, but it would not entirely account for the difference (Bouffiès *et al.* 2017). However, the dental MNI is very close to the MNI provided by smaller bones suggesting that the skulls were initially present. Therefore, the deficit of the skulls (generally identified through temporal bones; usually well preserved) could be explained by possible skull removal *a posteriori*. The MNI frequencies for the Les Abrits 1 dolmen show the same trends as those observed at Les Abrits 2. Indeed, it is evident that the best represented elements are the small bones of the hands and feet and there is also a deficit of adult skulls, which again suggests bone removal. At the Pala 2 dolmen, the MNI frequency shows a clear over-representation of dental remains against a significant under-representation of skulls. The smallest bones again offer the highest scores for the MNI. Finally, the same anomaly is noted for the dolmen des Campanes (Ravy and Clère 1990) and the dolmen of the Cros des Grenouilles (Ravy and Clère 1993). Both studies explained the under-representation as a result of skull removal following decay.

Despite the lack of data available, a similar practice was identified within the megalithic structures regarding a potential mortuary treatment. The high representation of the smallest elements (teeth, bones of the hands and feet) associated with a significant lack of large skeletal elements (i.e. skulls) that cannot be explained completely through fragmentation is suggestive that a selected group of individuals had their skulls removed after decay. It should be noted that the sample only shows the removal of adult skulls.

The various deposits studied in caves do not allow in depth discussions about the management of body deposits post decay. With regard to the MNI, it is evident that the large bones are best represented for most of the sites (Linard *et al.* 2020). Note that only the Redalet cave shows a larger representation of small bones, but skulls are still very well represented. This anomaly can easily be explained because of the fragmentation – the overall skull fragment weight is consistent with the assessed number of individuals (see Linard *et al.* 2020). Therefore, there is no convincing evidence for the various cave sites to support the hypothesis of bone sampling, with the exception of Aven de la Boucle in the southwest. Indeed, the bones were overall

generally well preserved and had a significant anomaly regarding the number of skulls (Duday *et al*. 2011).

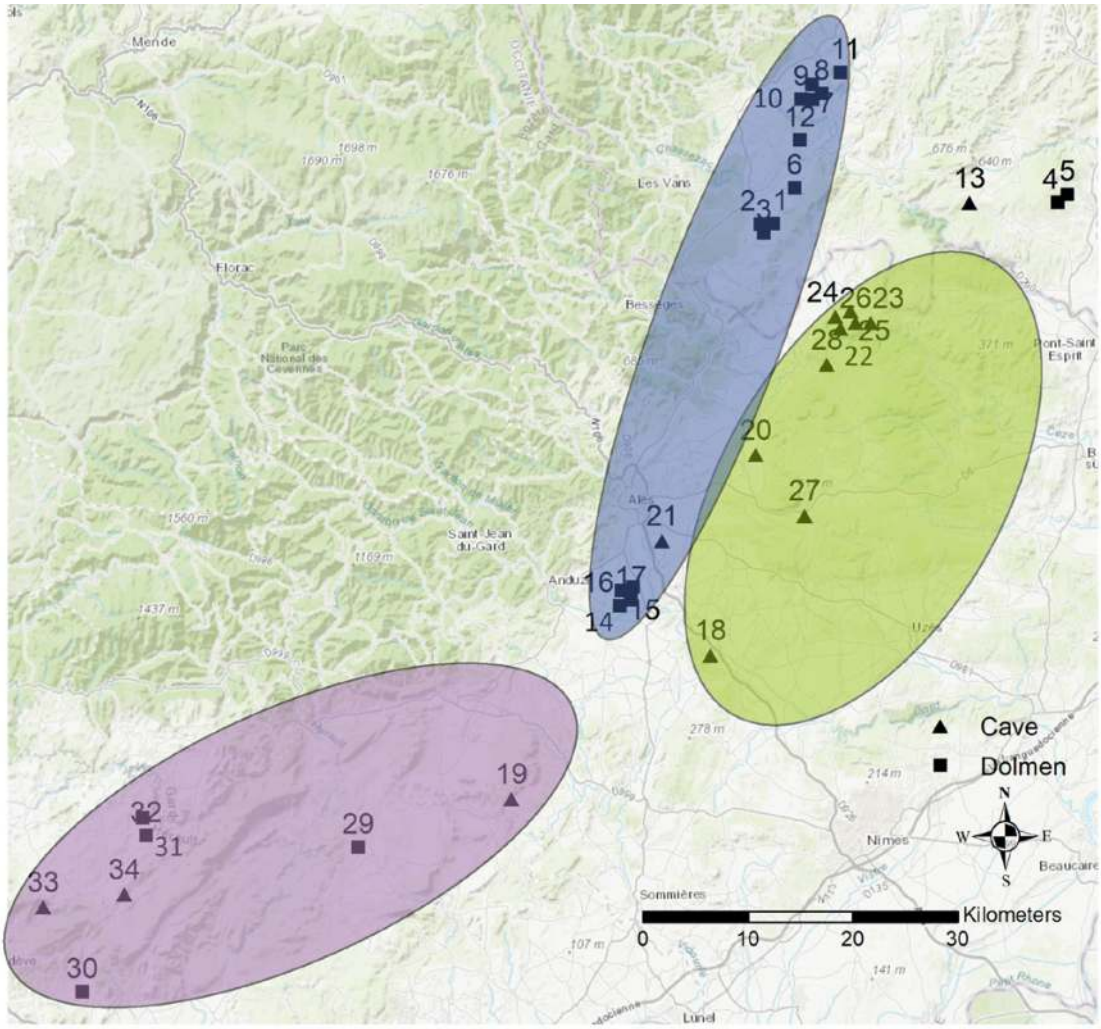
Once again, the cave sample displays a geographical dichotomy regarding the treatment of the remains post decomposition. No evidence for bone removal was noticed for caves located in the northeastern part of the geographical area, while the opposite zone displays at least one cave with skull removal from the deposit (no positive evidence was observed for Les Fontanilles and Azirou). To conclude, a difference in the management of collective burial sites is evident between caves and dolmens. The latter show frequent evidence for the removal of adult skulls once the bodies are skeletonised. Note that this practice has already been mentioned for several sites in the south of France at the end of Neolithic (e.g. Chambon 2003; Duday *et al*. 1990; Guilaine *et al*. 2015). However, this study identifies that this practice only involves adult bones and that it did not include the remains of children.

Discussion

This study shines new light on the funerary practices that were in operation at the transition between the Late Neolithic and Early Bronze Age periods in southern France. Differences between sites were highlighted and correlated with their spatial distribution or the type of sites. Indeed, three funerary traditions were identified among the collective burial sites. Although these results need further investigation, this study creates a solid base for discussing funerary practices that may appear less homogeneous than cultural groups based on artefact typologies (ceramics, lithic industry etc.).

The first funerary tradition (Number 1; Figure 6) appears geographically distinct from the other sites despite the fact that it was not possible to undertake extensive investigation on many examples. However, the southwestern sites, both in caves and megalithic monuments, show more individuals buried in standalone locations. Biological proximity among the individuals within a tomb is highly suspected, but was only demonstrated for one site (Aven de la Boucle). These funerary deposits may include specific areas dedicated to immature individuals, but this is not systematic. Removal of adult skulls following decay was also not consistent. The second funerary tradition (Number 2) defined through the analyses is located in the northern region where mostly megalithic monuments are seen (see Figure 6). Two distinctive types of sites are in use: 1) standalone monuments that contain a large number of individuals, and 2) several structures next to one another (necropolises) that each contained smaller deposits. If no spatial organisation was present in these structures, then post-decay skull removal is highly suspected for selected adult individuals. Finally, the last funerary tradition (Number 3) takes place in river valleys where numerous small caves welcomed a small number of individuals who were most likely all biologically related. No specific spatial distribution or bone removal was observed in these deposits.

Though different funerary traditions were identified, a common trend appears in the overall sample – there was a significant lack of individuals aged less than 5 years of age and infants (under 1 year of age). This aspect seems to be the 'normal' practice in place but not exclusively so. However, one can wonder if taphonomical aspects can explain such an under-representation.



Funerary tradition 1: megaliths or caves with a high number of individuals (likely related) deposition, exclusion of young individuals and possible dedicated space for the older immature, possible skull removal for a selected group of adults.

Funerary tradition 2: standalone monuments with a large number of individuals or necropolises gathering structures with small number of individuals. No spatial organisation within the tombs and skull removal for a selected group of adults.

Funerary tradition 3: numerous small cavities welcomed a small number of individuals most likely all biologically related. There was no specific spatial distribution. No bone removal was observed in these deposits.

Figure 6: Spatial distribution of the funerary traditions identified. The numbers refer to those included in Table 1 (Mélie Le Roy).

Preservation Issues?

Bone can be dissolved in certain soils. When the geological background is acidic, all traces of human remains can disappear over time. Many studies have been performed regarding the specific preservation of the remains of very young individuals. Because of their small size and

immaturity, those remains are considered more fragile than fully mature bones. However, compact bone, once mineralised, is as resistant as fully mature bone and it is only the cartilage that decays (e.g. Gordon and Buikstra 1981; Guy *et al*. 1997). Thus, this decay process can result in a less efficient identification during the biological study. Therefore, if immature bones are not recorded in the archaeological record this suggests recording by inexperienced observers rather than a differential preservation. In addition, numerous individuals of a very young age [< 1 year] were identified in some of the collective burial sites (e.g. Les Abrits 1 and 2; Le Pala 2; Chemin de Fer; Aven de la Boucle; Grotte du Redalet, see Table 1). Thus, we can exclude any local geological aspects to explain anomalies in the mortality profiles.

Antique excavations are not always reliable in terms of fieldwork methodology especially regarding small items, such as infant bones. The sample included some of those excavations, but all of them had limitations relating to excavation practices and field documentation. Even though some of the sites were not recorded in sufficient detail for the funerary deposits to be reconstructed they were still carefully excavated. The soil was sieved to collect small bones since most of the MNI values are based on those elements. We can therefore conclude that the sample is reliable and that individuals under 5 years of age were indeed lacking and excluded based on a deliberate cultural selection. However, some of the youngest individuals are present in some of the sites. Indeed, the sample includes individuals who died around the time of birth which raises some questions regarding the nature of their presence. Were those individuals deliberately buried among the rest of the population or was their presence 'accidental'?

'Accidental' Deposits

Few very young individuals have been recovered in some of the sites in the sample. Some of these appeared to have died around the time of birth, e.g. in the cave of Boucoiran (Coste *et al*. 1973), while others were never born, such as in the dolmen Les Abrits 1 (7 months *in utero*), the Aven Janna, and the Aven Ka (both had one individual aged between 4 and 5 months *in utero*). These rare discoveries suggest that it may not be the foetus him/herself who was buried in the tomb but rather a pregnant woman. However, the comingled nature of the deposits does not enable a direct association to be made between a foetus and an adult (or young adult) woman. Nevertheless, studies have shown that adults of both sexes were represented in the different sites. Therefore, although the data cannot completely discard the hypothesis of the proper deposit of a foetus with the rest of the population, it would seem more likely that the foetus was 'accidentally' buried because his/her mother died during pregnancy and *she* was buried in the collective burial site. This hypothesis raises an alternative question – the social consideration of pregnant women within Late Neolithic/Early Bronze Age communities. Ethnological surveys have demonstrated on several occasions that these women were often excluded from the rest of their group and/or behaved differently (food taboos, economic activities, etc) (Van Gennep 1909 [1960]). The current results suggest that within Late Neolithic and Early Bronze Age human groups, pregnant women were not considered differently in death but were deposited with the rest of the human group within collective burial sites.

Deviant or Atypical Behaviours?

It is difficult to give a proper definition of deviant or atypical burial because archaeology rarely recovers all kinds of practices and rites in use; thus, it is difficult to interpret their meaning depending on the context, the point of view, etc. However, it is generally accepted that a deviant burial would differ from the normative burial ritual identified for one given past society by a reduction of the ritual which can carry a negative connotation. On the contrary, an atypical ritual that also differ from the normative ritual, would demonstrates its own normative protocol without any negative connotation (Murphy 2008). This is why this question is difficult to answer regarding the archaeological record: Most of the 'deviant' or 'atypical' parts are unknown. Therefore, we must discuss this issue based on gaps rather than hard evidence and address this problem by considering two different levels within society.

First, at the population level, the study demonstrates that the normative funerary practice is the exclusion of younger individuals (under 5 years of age) from the collective burial sites. This aspect is reflected in numerous examples described in ethnographical surveys. Indeed, in the Malagasy tribes, individuals under 5 years of age are not considered 'strong enough to open the heavy door of the tomb' and therefore are more likely to be buried in direct proximity of the tomb (Decary 1962: 100). This reflects perfectly the example raised by the Aven de la Boucle where a very young immature individual was buried apart from the rest of the group. It is still unclear whether the burial is contemporaneous with the rest of the remains in the tomb, but this observation would rather fall into the 'normal' funerary tradition in place because this individual was not treated similarly to the rest of the group. The same conclusion can be observed for the quasi-systematic exclusion of the youngest members of the human group. The main issue regarding the archaeological record is therefore to characterise this as cultural choice because we do not have evidence of the nature of the alternative practice. Indeed, we do not know if their funerals would have displayed a reductionist ritual that bears a negative connotation as observed for the Papel children. These children are considered to be non-human (*iran* children) and will be involved in deviant mortuary rites (see Einarsdóttir 2005). In contrast, in the Dayak culture, infants who died benefit from a well-defined mortuary practice specific to their age group that reflects a special status (Hertz 1970). However, within our sample, some of the youngest individuals do not follow this pattern and are present within the tomb.

The presence of the younger children within the burial sites could then be considered as a deviant or atypical practice because it differs from the normative practice. These individuals were not treated similarly to the rest of their cohort (our second level of consideration). Note that foetuses or infants who died around the time of death are excluded because it has already been discussed how these cases may potentially be 'accidental' deposits. Once again, interpreting the significance of this different treatment is impossible. The reason for their integration in the collective burial sites from which they should normally be excluded is difficult to understand without further data. In our sample, no clear evidence of a different status (based on health, wealth, rank, etc.) can be identified. Therefore, we can only make conclusions based on the presence of an exception. This leads to a different funerary treatment for these selected individuals, but the nature of this selection is still unknown and thus we cannot define it as deviant or atypical but simply different.

In addition, the removal of skulls is usually considered to be a deviant practice because it does not involve a systematic intervention for all individuals. It is only present (or highly suspected) for two of the funerary traditions previously defined (funerary traditions 1 and 2). However, the reason for this action does not necessary involve a negative connotation. Indeed, an ethnographical survey documents skull removal cases of positive distinction of an important figure from the society (cult of the ancestor), an action preventing bad death, or simply a part of the ritual identifying a specific status (see Baroiller 2020). The current sample does not allow further discussion on this aspect of the funerary practice but it is possible to definitely state that such a practice does not involve children (from any age classes). Thus, it is certainly based on a specific criterion, including age at death.

Conclusion

Different funerary traditions in collective burial sites from the south of France dating from Late Neolithic/Early Bronze Age were identified. These preliminary results will provide a solid basis which will enable further investigations, such as enlarging the sample and discussing it with the other archaeosciences, including lithic industries or ceramics, to be pursued.

The results demonstrate a different treatment in death for children who died before 5 years of age. These individuals are excluded from the normative funerary practice. This exclusion does not necessarily suggest that their bodies were discarded without any rituals or consideration, but it certainly reflects a specific status within the community and hence a particular social consideration. This funerary selection highlights the fact that the youngest children were not fully included in the community and therefore did not have access to the collective burial along with the rest of the population. Older children show a different status because they can partially benefit from the same funerary practice but they are not involved in other parts of the ritual that can take place in some human groups. The presence of this exception shows the complexity of the practice in use at that time. The reason for these differences is still unknown and some answers will hopefully be provided with further analysis. However, we can suggest different stages according to age and therefore different manners of participation in the everyday life of the group which in turn impacts upon social integration as reflected in the funerary practices.

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Are They Really Missing? Non-Adult Graves of the Late Prehistory of Central Spain: An Archaeological and Bioanthropological Approach

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Abstract

Most studies of later prehistory address the scarcity of non-adults in funerary contexts in relation to what should be expected in pre-industrial societies. However, it is only rarely that the potential causes of this under-representation are explored. The aim of this research is to firstly verify the real proportion of non-adults in Copper and Bronze Age cemeteries (3rd-2nd millennia BC) in a specific area of the centre of Iberia. In particular, 268 non-adults and 329 adults from 34 sites were analysed. Despite the substantial proportion of non-adults, as is the case for most prehistoric cemeteries, children under 1 year were under-represented. Potential causes of this under-representation are discussed. The funerary treatment afforded to children is analysed using both archaeological and anthropological data and compared to that of adults from the same cemeteries. No significant differences in the funerary treatment of adults and non-adults were detected. This approach also identified some age-related patterns among children of particular periods, including the Bell Beaker period.

Keywords

CHILDREN'S GRAVES, FUNERARY PATTERNS, COPPER AGE, BRONZE AGE, IBERIA

Introduction

The examination of all demographic segments of a society can yield valuable information for understanding the structure and behaviour of past populations. However, until 30 years ago, archaeological research was mainly focused on adult males, ignoring other groups such as women, elderly people or children. The lack of publications dedicated to these groups in the literature of the last century demonstrates a disinterest in these demographics (Pawleta 2013: 9-12; Sofaer Derevenski 2000: 12). Interest in non-adults in past societies started with the emergence of Gender Archaeology, but children always seemed to be paired with women (Lillehammer 2000: 17). With the development of the Archaeology of Childhood promoted by Lillehammer's work (1989), children began to be the protagonists of their own stories, with their own identity and the ability to influence the surrounding environment (Lewis 2011:1). The earlier position has been practically overcome, as evidenced through the international journal, *Childhood in the Past* (2008-present), and the presence of children is frequently detected in both funerary and domestic contexts. However, many questions regarding the representativeness of non-adults in funerary contexts remain unanswered. As an example, most of the works address the absence of infants in prehistoric cemeteries, but

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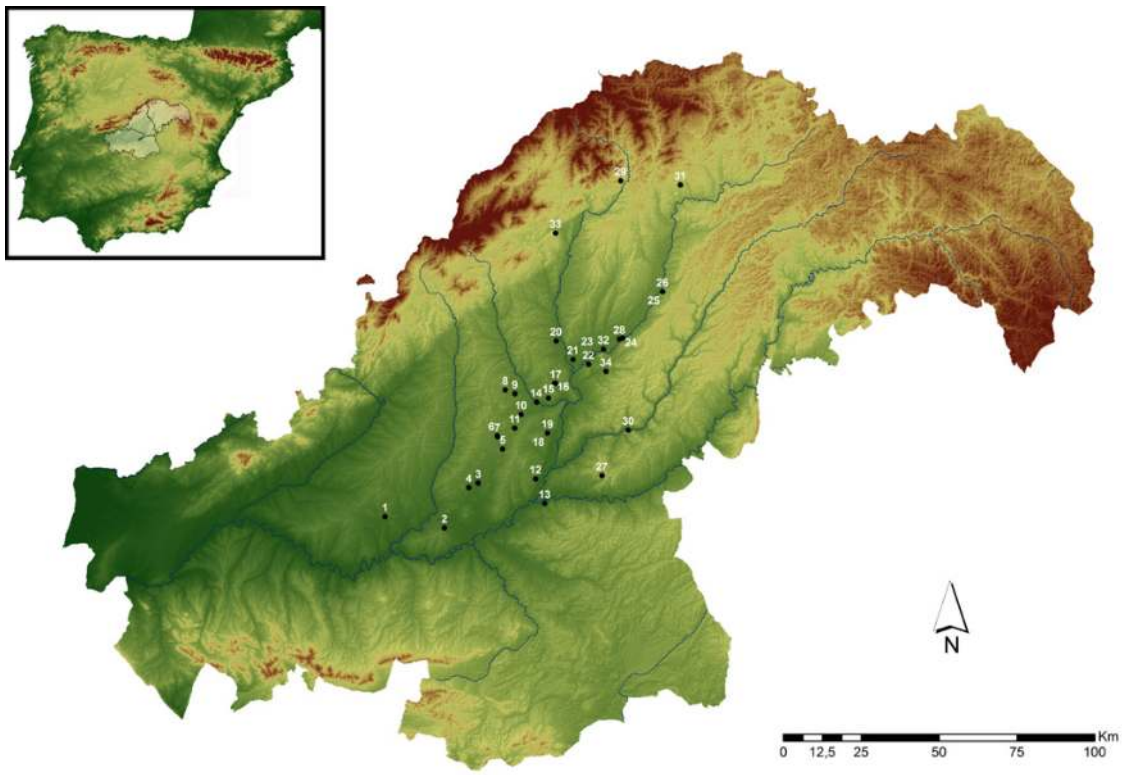

Figure 1: Map of the upper and middle Tagus Valley with the 34 sites analysed in this study. 1: Valle de las Higueras, 2: Ventaquemada, 3: Las Mayores, 4: Sector 22, 5: La Cuesta, 6: Humanejos, 7: Arroyo Humanejos, 8: Fuente de la Mora, 9: Pista de Motos, 10: El Juncal, 11: Las Olivas, 12: Reina I, 13: Príncipe 11, 14: Caserío de Perales del Río, 15: La Salmedina, 16: El Espinillo, 17: Alto de las Peñuelas, 18: Gózquez de Arriba 087, 19: Gózquez de Arriba 085, 20: El Muladar, 21: Camino de las Yeseras, 22: Cordel del Butarrón, 23: Soto del Henares, 24: La Magdalena, 25: Aguas Vivas yacimiento 6, 26: Ampliación Aguas Vivas, 27: Los Badenes, 28: La Dehesa, 29: Jarama II, 30: Juan Barbero, 31: La Loma del Lomo, 32: Las Matillas, 33: El Rebollosillo, 34: El Perdido (Ana Mercedes Herrerro-Corral).

few have empirically analysed the potential reasons for this under-representation from an anthropological (Gottlieb 2000; Lancy 2013), archaeological (Blaizot *et al.* 2003; Manifold 2013) or biological perspective (Bello *et al.* 2002; Bello *et al.* 2006; Le Roy *et al.* 2018).

To date, studies of non-adults in the funerary contexts of Late prehistoric Iberia are very limited and tend to focus on a single site (e.g. Aliaga Armela *et al.* 2015; Galán Saulnier and Sánchez Meseguer 2019; Gibaja *et al.* 2010; Lull *et al.* 2005; Molina Moreno *et al.* 2016; Nájera *et al.* 2010). Works including a larger sample or a cross-sectional review are even scarcer (Beck 2016; Cintas Peña *et al.* 2018; Gusi and Luján 2011; Herrero-Corral 2020; Waterman and Thomas 2011). The present study covers an extended period (3400-1300 BC) and systematically collects data from every site with non-adult graves from the upper and middle Tagus River basins (Figure 1). The main objective was to assess the presence of non-adults of all age groups in the Late prehistoric funerary record of central Iberia. Secondly, to compare the characteristics of both child and adult graves in an attempt to interpret the social status that these groups

would have had within their communities. Finally, age-related differential funerary patterns were assessed to determine if social inequalities existed among children.

Materials and Methods

Data from non-adult graves of the 3rd-2nd millennia BC from 34 sites of the upper and middle Tagus Valley, Spain, was collected (Table 1). In the last decade, extensive excavation of vast areas of the interior of Iberia have revealed cemeteries with a substantial number of graves. Most of these were in the region of Madrid, such as the cemeteries of Camino de las Yeseras (San Fernando de Henares Madrid) (Blasco *et al.* 2011) and Humanejos (Parla Madrid) (Flores Fernandez and Garrido-Pena 2012; Flores Fernandez and Garrido-Pena 2014; Garrido-Pena *et al.* 2019) where approximately 20 and 100 tombs respectively were excavated. Together with these two sites, other contemporary burial grounds with a smaller number of individuals from the same area were added to the study (Figure 1).

In this work, which included 268 non-adults, both archaeological and bioanthropological variables were considered and analysed by the author to avoid methodological discrepancies. Archaeological variables including the type of interment (individual, double, multiple or collective) and context (primary or secondary) were described. Other variables less frequently recorded in this type of study were also included, such as the maximum depth and width of every child grave which were recorded so their dimensions could be compared with those of adults. Since the two main objectives of this study are to determine the proportion of non-adults and to analyse the nature of their burials, adult graves from the same cemeteries were also examined to enable this comparison.

Regarding bioanthropological data, immature human remains were analysed by the author to ensure the consistency of the results. First, the state of preservation of each individual was analysed taking into account two different variables – the number of anatomical units preserved and the quality of the bones (modified from Rascón *et al.* 2011). Preservation is a fundamental variable since the rest of the osteological observations are dependent on it. Knowing the age at death of non-adults is certainly of great value for understanding different issues, such as the social role of children within each age group or the existence of rites of passage at a certain age. The concept of age is, however, complicated since it has several definitions. Most researchers agree that there are at least three different ages – physiological age, based on the biological changes of the body; chronological age, which equates to the amount of time passed between the birth and death of a person; and social or civil age, which is culturally given according to the social norms of each group (Halcrow and Tayles 2008: 192). As bioarchaeologists studying prehistoric populations, the biological age at death is the only age that can be reliably determined. Different methods were used for this estimation, based on the degree of preservation of each individual (Cardoso *et al.* 2013; Fazekas and Kósa 1978; Irurita *et al.* 2014; Ubelaker 1989; Rissech *et al.* 2012; Rissech *et al.* 2013a; Rissech *et al.* 2013b). To facilitate statistical analyses, non-adults were grouped into four age categories based on osteological criteria – children younger than 1 year, 1-5 years, 6-11 years and adolescents older than 12 years. Sex identification methods (Brůžek *et al.* 2017; Ferembach *et al.* 1980) were only applied to adolescents, although some younger children could be sexed by aDNA analyses. As the limit between childhood and adulthood is a social construction and varies from one group to another, in this study a purely biological criterion has been followed and, thus, all

Table 1: The sites considered in this study with their chronology, the number of non-adult and adult individuals analysed and their references.

Site	Location	Map fig. 1	Chronological period	C14	Non-adults	Adults	Total individuals	References
Valle de las Higueras	Huecas, Toledo	1	Copper Age	Beta-157730 3810 ± 40	13	24	37	Bueno *et al.* 2012; Bueno *et al.* 2018
Ventaquemada	Olías, Toledo	2	Bronze Age	-	7	8	15	Pulido and Walid 2010; TAR Arqueología (unpublished)
Sector 22	Yuncos, Toledo	4	Bronze Age	Beta 364013 3070 ± 40	4	0	4	Barroso *et al.* 2014
La Cuesta	Torrejón de Velasco, Madrid	5	Copper and Bronze Age	-	18	18	36	Flores-Fernández *et al.* 2014 and personal communication
Humanejos	Parla, Madrid	6	Copper and Bronze Age	GrM 15290 3910 ± 25 GrM 10862 3425 ± 20	61	76	137	Flores and Garrido 2012; Flores and Garrido 2014; Garrido *et al.* 2019; Herrero *et al.* 2019; Herrero *et al.* 2020 and personal communication
Arroyo Humanejos	Parla, Madrid	7	Copper and Bronze Age	-	2	8	10	Herrera Viñas 2010
Fuente de la Mora	Leganés, Madrid	8	Bronze Age	-	1	0	1	Vigil-Escalera Guirado 2003
Pista de Motos	Madrid, Madrid	9	Bronze Age	Fosa 960 3269 ± 21	1	3	4	Vírseda Sanz and Domínguez Alonso 2008
El Juncal	Getafe, Madrid	10	Copper Age	E-64 4548 ± 45	5	16	21	del Olmo *et al.* 2014; Martínez Calvo *et al.* 2014; Martínez Calvo *et al.* 2015
Caserío de Perales	Getafe, Madrid	14	Bronze Age	CSIC-1089 3356± 68	2	5	7	Blasco *et al.* 1991; Blasco *et al.* 1995
Las Olivas	Pinto, Madrid	11	Copper/Bronze Age	-	8	1	9	Petri 2012
Reina I	Seseña. Toledo	12	Copper/Bronze Age	Beta-290897 3680 ± 30	1	1	2	Pérez Villa 2014; TAR Arqueología (unpublished)
Príncipe 11	Aranjuez, Madrid	13	Bronze Age	-	1	0	1	Ortiz *et al.* 1999
La Salmedina	Madrid, Madrid	15	Copper Age	-	3	8	11	Flores and Berzosa 2003

Site	Location	Map fig. 1	Chronological period	C14	Non-adults	Adults	Total individuals	References
El Espinillo	Vallecas, Madrid	16	Bronze Age	CNA 2362 3370± 35	10	21	31	Aliaga and Megías 2011; Pérez Villa 2014; Vega Bermúdez 2009
Alto de las Peñuelas	Vallecas, Madrid	17	Bronze Age	CNA 2359 3585 ± 35	6	11	17	Aliaga and Megías 2011
Gózquez de Arriba 087	San Martín de la Vega, Madrid	18	Bronze Age	CNA 2354 3470 ± 35	2	1	10	Presas Vías and Consuegra 2006
El Muladar	Madrid, Madrid	20	Bronze Age	-	3	2	5	Casas Flores and Cleuvenot 2003; Galindo San-José and Sánchez Sánchez-Moreno 2003
Cordel del Butarrón	San Fernando de Henares, Madrid	22	Bronze Age	CSIC- 2311 3275 ± 58	1	9	10	León González 2007
Soto de Henares	Torrejón de Ardoz, Madrid	23	Copper and Bronze Age	Est-23501 4074 ± 35	17	9	26	Galindo San José *et al.* 2010
La Dehesa	Alcalá de Henares, Madrid	28	Bronze Age	-	4	2	6	Macarro 2000; Marinas 2014; 2016
Las Matillas	Alcalá de Henares, Madrid	32	Bronze Age	-	2	3	5	Díaz del Río *et al.* 1997
Aguas Vivas 06	Guadalajara, Guadalajara	25	Copper Age	-	2	0	2	Cuadrado Prieto 1995
Los Badenes	Colmenar de Oreja, Madrid	27	Copper Age	-	1	0	1	Penedo Cobo and Oñate Baztán 2008
Jarama II	Valdesotos, Guadalajara	29	Copper Age	UBAR-571 4185 ± 50	4	6	10	Jordá 1988; Jordá and Mestres 1999
Juan Barbero	Tielmes, Madrid	30	Copper Age	-	6	5	11	Bermúdez de Castro and Julia Pérez 1984; Martínez Navarrete 1984

Site	Location	Map fig. 1	Chronological period	C14	Non-adults	Adults	Total individuals	References
La Loma del Lomo	Cogolludo, Guadalajara	31	Bronze Age	I-14, 220 3450 ± 160	17	8	25	Valiente Malla 1987; Valiente Malla 1988; Valiente Malla 1992; Valiente Malla 2001; Valiente Malla 2003
El Rebollosillo	Torrelaguna, Madrid	33	Copper Age	CNA 4011 4007 ± 31	9	12	21	Díaz del Río *et al.* 2017
Las Mayores	Numancia de la Sagra, Toledo	3	Bronze Age	Beta-419743 3310 ± 30	11	2	13	Barroso *et al.* 2018; Perera *et al.* 2010
Gózquez de Arriba 085	San Martín de la Vega, Madrid	19	Bronze Age	CNA 2348 3355 ± 35	1	3	4	Pérez Villa 2014
Camino de las Yeseras	San Fernando de Henares, Madrid	21	Copper and Bronze Age	Ua-31312 3819 ± 30 Ua-35024 3115 ± 40	23	37	60	Blasco *et al.* 2007; Daza 2011; Gómez and Aliaga 2010; Gómez *et al.* 2011; Liesau *et al.* 2015; Liesau and Blasco 2015; Ríos 2011; Vega *et al.* 2010
La Magdalena	Alcalá de Henares, Madrid	24	Copper Age	-	2	13	15	Cabrera *et al.* 2014; Heras *et al.* 2014b; Heras *et al.* 2014c
Ampliación Aguas Vivas	Guadalajara, Guadalajara	26	Bronze Age	DSH 498 3303 ± 21	2	1	3	Cantalapiedra Jiménez and Ísmodes Ezcurra 2010
El Perdido	Torres de la Alameda, Madrid	34	Copper Age	Ua-41488 3834 ± 35	18	16	34	Heras *et al.* 2014a; Serio Tejero *et al.* 2018; Sonlleva *et al.* 2014
					268	329	597	

those individuals who presented any sign of immaturity in their skeletons were included as non-adults. Therefore, the sample comprises individuals aged between birth and 18-19 years, despite the fact that the latter would most likely have already been considered as adults by their communities. This approach, despite its limitations, guarantees that every non-adult is taken into account and also enables the detection of when the transition to adulthood would have taken place at each site.

Results and Discussion

Funerary Rituals of the 3rd and 2nd Millennia BC in the Interior of Iberia

Before investigating the funerary treatment received by non-adults, it is necessary to describe the characteristics of the main funerary practices for each period in the study area. With the beginning of the Copper Age (end of 4th millennium to beginning of 3rd millennium BC), a considerable diversification in funerary practices occurs compared to the previous period. Generally, the monumentality of the tombs is no longer the main characteristic and there is a considerable reduction in the number of individuals buried within the same structure. Although collective burials in sepulchral caves are common, most individuals are found in multiple graves within pit fields. Several bodies are usually simultaneously buried within these structures and individual graves and associated grave goods are still scarce (Herrero-Corral 2022: 29).

From the second half of the 3rd millennium BC, new variants of funerary structures, such as hypogea or artificial caves, appeared associated with Bell Beaker materials. During this period, the number of individuals buried within the same structure continued to decline, especially in tombs containing Bell Beaker objects, which usually accommodated a maximum of six individuals (Garrido-Pena 2016). In these tombs, clear associations between individuals and grave goods can be detected and single graves became more common. Contemporary graves lacking Bell Beaker objects held a greater number of individuals and their mostly collective grave goods were relatively less spectacular (Garrido-Pena *et al.* 2019: 228-229).

The transition to the 2nd millennium BC saw more limited variety in funerary rituals. In the study area, most burials were in simple pits that hosted one, two or three individuals, but single graves were very rare. In general, these tombs lacked grave goods, thereby contrasting with the previous Bell Beaker period. Finally, during the Bronze Age, a new type of burial appeared which involved interment in ceramic vessels or pot burials and was associated with non-adults (Barroso Bermejo *et al.* 2018).

The Presence of Children in the Central Iberian Funerary Record

One of the first questions to address is the representativeness of non-adults in the cemeteries of this time period compared to expected theoretical values (Ledermann 1969). When attempting to approach the demographic profile of any past society, the methodological problems that could affect the study should be assessed (Figure 2). Firstly, it should be appreciated that, under no circumstances is it possible to discuss biological populations (stationary, with constant fertility and mortality rates and closed to migrations (Wood *et al.* 2002: 130)) due to the broad chronological and geographical span. Hence, it is problematic to directly

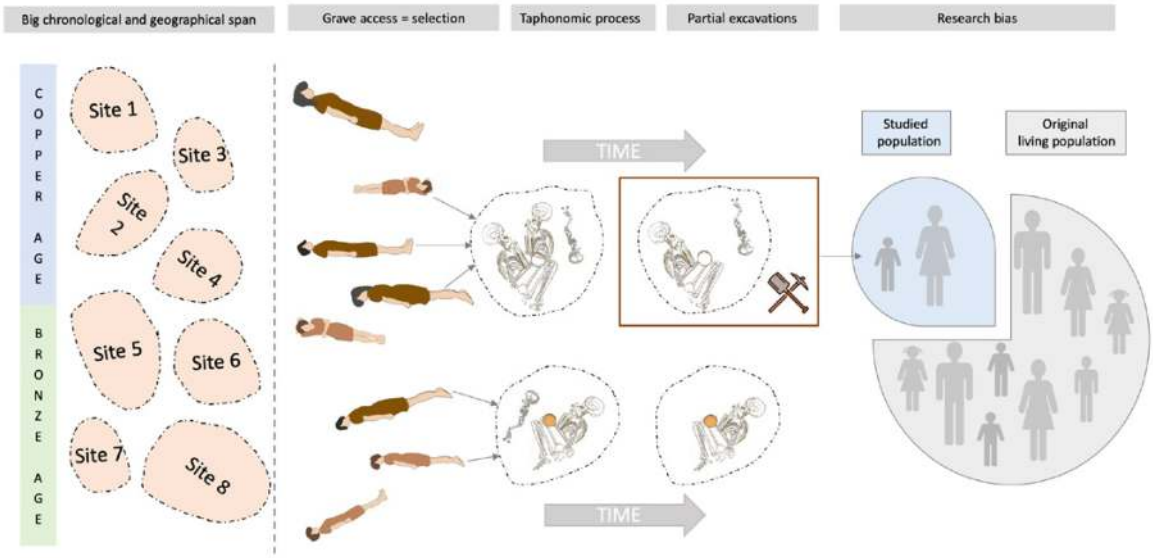

Figure 2: Methodological, archaeological and biological biases that must be considered when trying to reconstruct past societies through the analysis of human remains (Ana Mercedes Herrerro-Corral).

extrapolate our results to the original living population, having analysed just a small number of individuals who died, were buried and were then recovered and studied (Wood *et al.* 1992) (Figure 2). In addition, taphonomic and archaeological biases should be taken into account as not all those who were buried suffered the passage of time in the same way and only a few sites were extensively excavated. Despite these limitations, if we consider the total number of both adults and non-adults in most of the cemeteries of this region and time period, the main hypothesis would be that not everyone would have access to these types of burials. The size of some settlements of this era (unfortunately not associated with the cemeteries analysed in this study) are suggestive that cemeteries should have been much larger to accommodate the entire population. The inhumation ritual would, therefore, have been exclusive to certain people, while the rest would have received a different treatment that did not leave any evidence in the archaeological record.

Having clarified the limitations of these studies, from the 34 sites, 597 individuals were discovered, of which 329 were adults (55.0%) and 268 were non-adults (45.0%) (Table 1). Children therefore represent almost half of the buried population. When the sample is divided into the two main periods it is evident that in the Copper Age the proportion is slightly smaller for non-adults (40.0%), while in the Bronze Age both groups had similar proportions – 50.5% of adults and 49.5% of non-adults. Comparable results were obtained when looking at each site individually. The proportion of non-adults was always over 20.0%, with only the exception of a few sites, where the total number of individuals (including both adults and non-adults) was too small to be considered. Thus, these general results perfectly match with those expected in any population before the demographic transition, characterised by high birth rates and high fluctuating death rates, in which children should always represent more than 40.0% of all deaths (Neustupny 1983; Weiss 1973).

The next stage involved assessing whether all non-adult age groups were equally represented or if, rather, not all individuals had the same access to the burial ritual. Bearing in mind that child mortality must have been very high in those groups, especially during the first year of life (Ledermann 1969), a substantial number of newborns and babies younger than 1 year should be expected. From 1 year of age onwards, child mortality should be lower until reaching adulthood, with the only exception being a peak in mortality that would occur with weaning (Goodman and Armelagos 1989: 227). In the sample, the number of newborns and babies under 1 year is, however, extremely scarce and only represented 9.0% of non-adults buried during both millennia (Figure 3). In the Copper Age, the frequency is even lower, with only five cases out of 95 non-adult individuals (5.0%), while in the Bronze Age the proportion slightly increases (11.0%). This clear under-representation, which is common to most prehistoric cemeteries, can be interpreted in two ways – children younger than 1 year received a different funerary treatment than the rest of the population or that their bones are more fragile. The first hypothesis is supported by plenty of ethnoarchaeological surveys (e.g. Grove and Lancy 2018; Lancy 2013; Morris 2020) in which small babies were not considered as social individuals and full members of the group until they reached a certain age when their likelihood of dying decreased. Interestingly, in the next period in the region, the Iron Age, newborns started to receive a distinct funerary treatment compared to the rest of the children and adults, who were mostly cremated, and instead they were buried under the floors of the houses (Gusi and Muriel 2008). During the Copper and Bronze Age this treatment would have been different, leaving no evidence in the archaeological record as, for example, the exposure of bodies, detected in some Bronze Age sites in the interior of Iberia (see Esparza Arroyo *et al.* 2012).

However, some of the babies aged under 1 year of both periods did receive a similar funerary treatment to that of the rest of the non-adults and adults and were buried in the same structures. To understand the reasons for this choice, the characteristics of their graves (the type of structure, its dimensions, etc.) were carefully studied, paying special attention to the

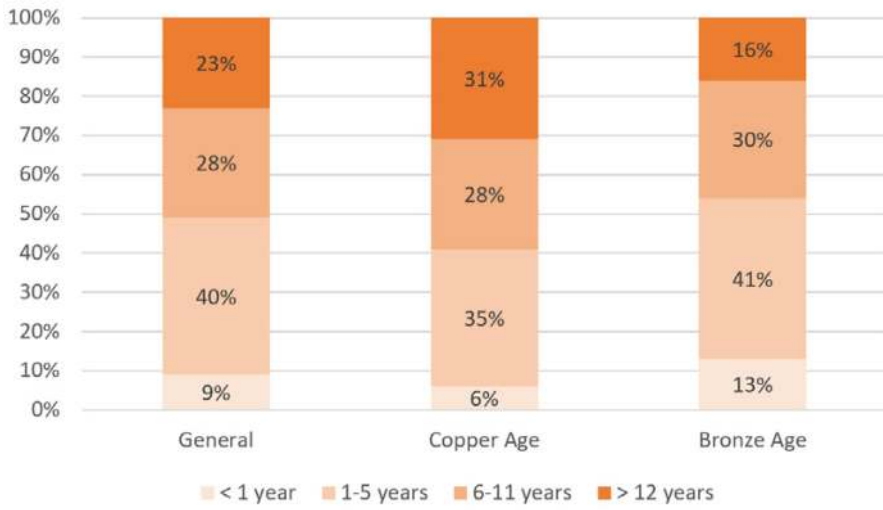

Figure 3: Proportion of every age-group in the general sample and in both periods, Copper and Bronze Age (Ana Mercedes Herrerro-Corral).

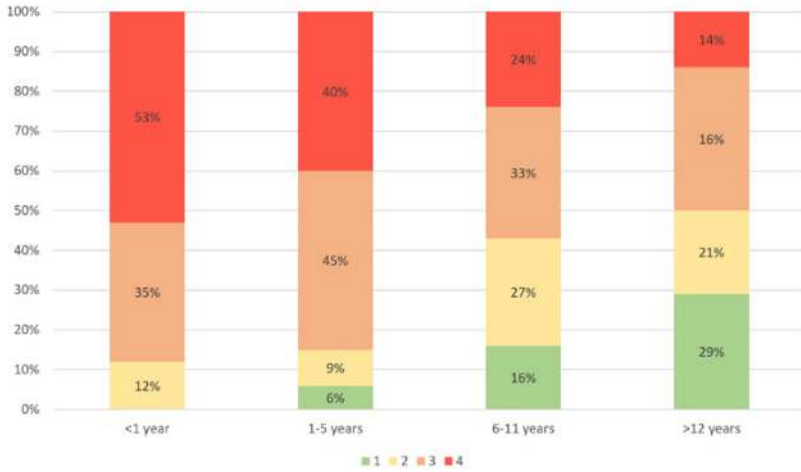

Figure 4: State of preservation of the human remains for each age group. It ranges from green (complete and well preserved skeletons) to red (incomplete and very poorly preserved) (Ana Mercedes Herrerro-Corral).

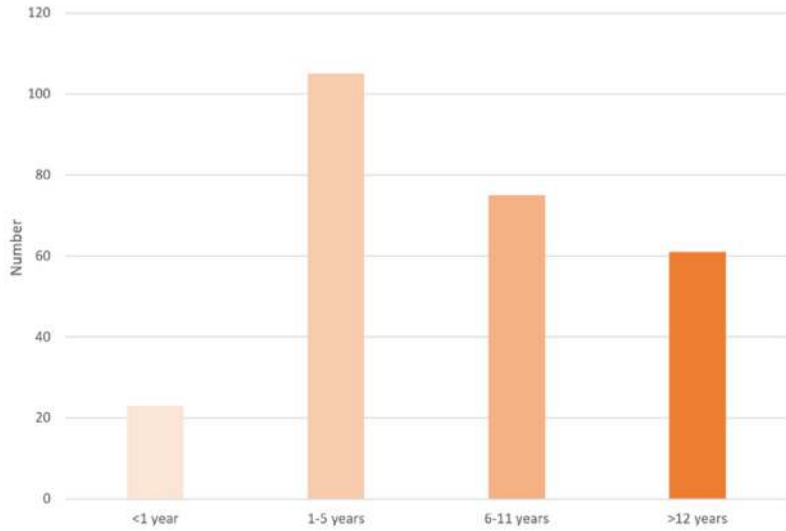

Figure 5: Number of non-adults by age groups in the general sample (Ana Mercedes Herrerro-Corral).

people who accompanied them and their grave goods. As expected, for both periods most of the babies (75.0%) were buried in double or multiple graves either with other non-adults (22.0%) or with both adults and children (72.0%), while only 25.0% appeared in single burials. Newborns were also buried in the same funerary structures as others and, when they were interred in single graves, the dimensions of these were not smaller than the average. On the other hand, analyses of grave goods showed that not a single object could be directly associated with a baby under 1 year. If grave goods can be considered as a sign of high status or, at least an attempt by the family group to show a certain position during the funerary ritual (number of objects, valuable raw material, amount of work time invested), then the 'selected' buried babies would not have belonged to one of those groups, or perhaps the simple fact of being buried was already a distinctive mark.

To test the second hypothesis, the differential preservation of this age group, the state of preservation of the skeletons was evaluated measuring both the quality of the bones and number of anatomical units preserved. Children under 1 year were indeed the worst preserved, with 53.0% classified as very poorly preserved. Furthermore, as age increases the state of preservation improves, with adolescents (>12 years old) being the best preserved (Figure 4). With this data, which is also consistent with previous studies that showed that the bones of the youngest children were less preserved (Bello *et al.* 2002; Bello *et al.* 2006; Djuric *et al.* 2011), differential preservation seems to be the main cause of the under-representation of small children. However, the recovery of some individuals of this age group in a good state of preservation is suggestive that a combination of both biological and social factors might account for the under-representation and, therefore, existence of a differential funerary treatment for this age group should not be completely rejected.

With the exception of the aforementioned newborns and babies under 1 year, the rest of the age groups in the sample have a normal distribution according to pre-transitional demography, characterised by high birth rates, and high fluctuating death rates. Children aged 1-5 years are the most numerous (43.0%), followed by the 6-11-year-olds (28.0%) and adolescents over 12 years (21.0%) (Figure 5). Although we cannot talk about a natural population, due to the broad geographical and chronological span of the sample, these results, excluding newborns and children under 1 year, could show a normal mortality distribution of an ancient population, and thus must be analysed and interpreted just like the rest of the society.

Child Versus Adult: Same Funerary Treatment?

If we understand the funerary act as a representation of the social position that an individual would have had within the group, the study of the characteristics of child graves is a good way to approach the social role that boys and girls had in their communities. Not only can the social position of both adults and children be compared but differences among non-adults due to age-related or social reasons can also be explored. Regarding the first issue, every variable involved in children's funerary ritual was considered and compared with those of adults of the same period. Surprisingly, no relevant differences were detected and the funerary treatment received by both groups was the same in every period and regional area. The only significant differences were observed in the number of individual tombs and in certain type of grave goods.

Although children had access to individual tombs from a very early age (before 1 year), adults were more frequently buried in this type of grave. This contrast is equally significant in both periods. During the Copper Age, only 9.0% of non-adults were buried in single graves compared with 22.0% of adults. In the Bronze Age the use of single graves increased, but the differences between age groups was also notable, with 42.0% of children and 61.0% of adults buried in individual graves. We do not know the meaning that single graves would have had for those people, so the fact that children are less often buried in these structures can be interpreted in two ways. Firstly, it is clear that burying a child in a pre-existing grave requires less effort than making a new one to be used just by him or her. Although most non-adults were buried with other children or adults, some were associated with important grave goods, and this would seem incompatible with the multiple burial being for purely practical purposes or as a consequence of a catastrophic event (Duday *et al*. 1990: 46). This fact could be understood

as boys and girls being more socially linked in life to other members of the community, not necessarily just their family. However, some of the youngest children do appear in single graves which would refute, at least partially, the social-connection hypothesis. In any case, it should be remembered that non-adults do have access to individual graves from a very early age, despite a greater frequency occurring in multiple graves (91.0% in Copper Age and 58.0% in Bronze Age).

Other differences have been detected in certain types of grave goods, particularly in metal objects and adornments. When the proportion of children and adults withand without offerings was analysed, the results were exactly the same for both age groups – 14.0% of children (n=37) and 14.0% of adults (n=45) had personal grave goods. When the sample was split into the two main periods, the proportions are slightly different during the Copper Age, with more adults (24.0%) than children (18.0%) with associated objects. However, the biggest discrepancy was detected in the Bronze Age, with a considerably higher proportion of grave goods with children (19.0%) compared to adults (5.0%). Both age groups can have any kind of offerings, but metal objects were more frequently found with adults (19.0%) than with children (11.0%). The difference is also evident in the number of metal objects and their typology. While children only had a single element, which was always a simple copper awl, adults could be buried with more than one object of different types, especially during the Copper Age (dagger/knife, axe, chisel, spearhead halberd, etc.). Adornments, made of different materials, such as bone, shell or variscite, were, however, more frequent in child graves (30.0% of children with offerings) than in those of adults (19.0%), but the number of beads and their quality is lower in non-adult graves. For example, the largest concentrations of ivory beads were detected in Copper Age adult graves with Bell Beaker elements (Garrido-Pena *et al.* 2019; Liesau Von Lettow-Vorbeck 2016), as was the case for gold ornaments that were exclusive to adults (Garrido-Pena and Herrero-Corral 2014-2015).

Age-Related Patterns in Copper Age Children's Graves

Once it was determined that non-adults and adults generally shared the same funerary treatment in every period, it was investigated if this pattern existed for every age group within childhood. This study could only be undertaken for Copper Age burials with Bell Beaker elements, as some of the characteristics of their funerary practices (standardised grave goods, limited number of individuals, mainly primary contexts) enabled a detailed comparison of the funerary treatment received by children in every age group. This study identified a clear differential treatment depending on age (Herrero-Corral *et al.* 2019) (Figure 6). First of all, newborns and children under 6 years were always buried in multiple graves with adults and very occasionally had access to personal offerings. In such cases, the objects were always adapted or reduced in size (e.g. miniature beakers, wrist guards) (Garrido-Pena and Herrero-Corral 2015). Children older than 6 years could, however, be buried in single graves, but the typology of the structures was very limited and only comprised simple pits. When they were buried in much more complex structures, such as hypogea, they were always accompanied by someone else. If they had grave goods, they were still smaller modified objects, and metal items were extremely rare. Finally, the burials of adolescents older than 16 years had the same characteristics as those of adults, and involved access to every form of funerary structure, the possibility of being in single graves and of having metal objects and gold ornaments.

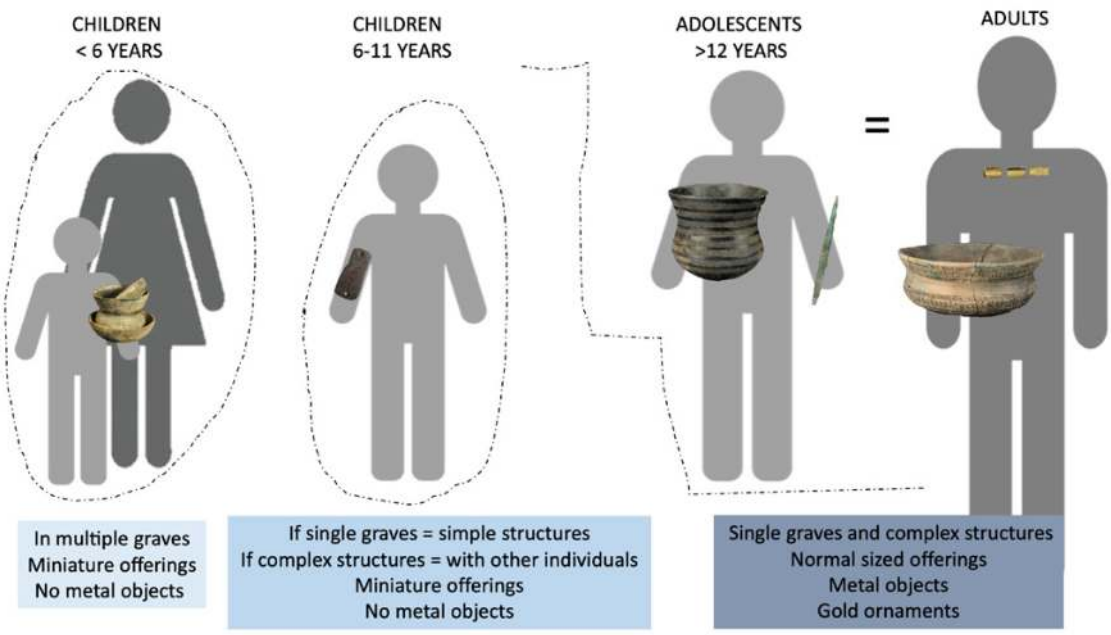

Figure 6: Age-related funerary patterns detected in non-adult Bell Beaker graves (Ana Mercedes Herrerro-Corral).

Therefore, older non-adults were viewed as adults in their burial treatment and were possibly also considered as such in their social life (Herrero-Corral *et al.* 2019).

Unfortunately, this approach did not reveal any results for the other periods where child graves did not follow any specific pattern and non-adults, just like adults, could be found in any kind of burial regardless of their age group. Thus, differences in funerary patterns for non-Bell Beaker periods were due to diverse factors other than age, such as local trends or hierarchical structures.

Concluding Remarks

In this paper, the high frequency of non-adults in the funerary contexts of Late prehistoric central Iberia has been demonstrated. Far from being scarce, children were buried in similar frequencies to adults in most of the analysed sites (see Table 1) and their distribution by age at death groups coincides with what would be expected in a pre-transitional demographic model. It can, therefore, be concluded that in the chronological and geographical frame studied, non-adults had the same access to funerary rituals as the adults of their communities. Moreover, if we consider that the recovered graves are not representative of the estimated size of the living population, it is clear that there was selective access to this known funerary ritual that involved both children and adults. Restrictions did not affect children as an age group, as was previously thought, but rather only certain individuals due to unknown criteria other than age. The only exception is for newborns and children under 1 year of age, both of which are clearly under-represented. Although it has been proven that differential preservation affects this age group the most, it cannot completely explain such an acute scarcity. These individuals would therefore have received a different funerary treatment that has left no trace in the

archaeological record. Numerous ethnographic studies have recorded communities from around the world in which babies did not become complete group members until they attained certain skills (e.g. Lancy 2013; Van Gennep 1909 [1981]: 62-64, 71-74). If a newborn died during this period, he or she did not receive the same funerary treatment as the rest of the community, but rather an exclusive one, which varied from one group to another. Furthermore, we know that from the end of the 2nd millennium BC, the cremation ritual becomes widespread throughout Iberia and, once again, the smallest children were not included in this ritual but were buried within settlements. It seems, therefore, that during the Copper Age and Bronze Age in central Iberia newborns and children under 1 year did receive a different funerary treatment than the rest of the group.

Another key finding of the study is that children of this period did not have a funerary treatment adapted to their age group but, in general, were buried in the same way as adults. The differences observed between tombs are not age-related, but rather due to a distinction in the ritual of each period, the community or the social status. This means that, in a certain period, children could be buried with or without offerings, within simple or complex structures, or in primary or secondary contexts, but these differences were also detected in adult graves of the same sites.

Due to the similarities documented between child and adult graves it was not possible to detect substantial changes in the funerary treatment that would indicate when the passage to adulthood took place. This was only possible in tombs with Bell Beaker elements, in which clear funerary patterns were detected for each age group. Thus, adolescents older than 16 years old were already buried as adults, which means that they were probably also considered as adults within their community.

In sum, in this paper, it has been demonstrated that, first, according to the funerary record, non-adults would have had at least the same access to the burial ritual as adults of the same chronology and territory and that, in most cases, they both shared the same funerary characteristics. Although we cannot be certain that inhumation was the most practiced rite, if we understand the funerary act as a gesture of recognition by their social environment, then children would also have had a relevant position within their group. The systematic study of their graves therefore provides valuable information about the structure and composition of past societies. It is clear that this is still an active area of research in Iberian prehistory with potential for a broad and prolific field of study. A much greater number of samples is necessary to clarify the multiple unknowns and open questions, which were posed in the current paper.

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Juvenile Burial Practices in Chalcolithic and Early Bronze Age Ireland: Interpretations of the Atypical

Cormac McSparron and Eileen Murphy[1]

Abstract

Examinations of atypical burials can give nuance to the results of larger statistical studies which, by definition, look more at typical practice, and focus more on structure, at the expense of agency. This paper examines six unusual burials of children of the single burial tradition of the Irish later Chalcolithic and Early Bronze Age. In some cases these atypical burials seem to be displaying an emotional response to tragedy, in others they may demonstrate a practical response to unexpected events. One of the burials discussed appears to indicate some form of exhumation and reburial, possibly the result of migration, while another hints at the scale of polities which emerged in the Early Bronze Age. Taken collectively, they add texture to an era about which we know more at a societal level than at the level of the individual.

Keywords

PREHISTORIC, CHILDREN, GRAVE GOODS, INHUMATION, CREMATION

Introduction

At some time around 2200 BC, in the latter part of the Chalcolithic, or Copper Age, a new burial tradition – the single burial tradition – appeared in Ireland. Inhumation burials of single or small groups of people initially placed in stone boxes called cists, rapidly became the normal burial ritual across Ulster, Leinster and Connaught. Although sometimes found singly, the likelihood is that most burials were part of larger cemeteries. The bodies were typically placed in the grave on their side in a crouched position and seem, at first, to have always been accompanied by a funerary pot or pots. This initial phase of the single burial tradition has been called Phase A and lasted from about 2200 to 2050 BC (McSparron 2020: 57–58, figure 5.6). As the late Chalcolithic period developed and gave way to the Early Bronze Age, the burial ritual began to evolve. Cremation was introduced and eventually became the dominant practice. Simple pits dug into the ground came to be used as well as cists as a receptacle for the dead, and the placement of a funerary vessel with the deceased became an option rather than a requirement. The single burial tradition also spread to Munster during this time, now encompassing the entirety of the island. Significantly, as new practices were integrated into the single burial tradition, old practices were not discarded. On the contrary, the degree of choice and complexity in the rituals of the single burial tradition increased. This new elaborated version of the single burial tradition, referred to as Phase B, lasted from approximately 2050 to 1950 BC (McSparron 2020: 57-58, figure 5.6). Around 1950 BC another shift occurred in the rituals of the single burial tradition – Phase C – when cremation burials

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began to be placed within several distinct variants of large funerary urns. These urn burials dominated the single burial tradition for the next 400 years but again, never entirely displaced the other forms of single burial. Phase C of the single burial tradition lasted until around 1600 BC, or possibly a little later (McSparron 2020: 57-58, figure 5.6). As such, the era of the single burial tradition is one characterised by gradually increasing ritual complexity, with relatively simple ritual activity in the Late Chalcolithic (Phase A) being augmented with more and more choices and options for the burial of the deceased during the Early Bronze Age (Phase B and C). Many archaeologists (e.g. Binford 1971; Brown 1995; Peebles and Kus 1977; Saxe 1970), influenced by French sociologist Emile Durkheim (1912), suggest that the complexity of burial rituals, and the range of available burial practices, is directly linked to the complexity of the society in which the burial practices exist and to the degree of ranking within that society. Using the typology of multilinear social evolution (Fried 1967; Wason 1994), the increasing complexity of burial ritual in the Later Chalcolithic and Early Bronze Age seems to indicate a society that changed from one that was egalitarian, or unranked, to a ranked society, with the emergence of a number of true chiefdoms and a well-defined aristocratic class across Ireland around 1950 BC.

It is possible to use burial ritual as a way to examine the society which produces the ritual behaviour. A very simple unranked society, with a correspondingly simple economy, and little surplus or craft specialisation, is more likely to have a simple set of funerary rituals but, conversely, a society with greater ranking and a correspondingly more complex economy, with well-defined trades, roles and classes, is more likely to have elaborate rituals. There are exceptions to this general rule, however, and sometimes societies can use death as a way of hiding status inequality, by emphasising the levelling aspect of death (Parker Pearson 1982). Furthermore, there is always some room for personal agency even within the most strictly observed rituals (e.g. MacDonald 2001; Murphy 2011). In the majority of ancient societies, however, there is a direct relationship between the manner in which society is structured and funerary ritual (Kamp 1998; O'Shea 1984; Wason 1994).

The treatment of children in death also tends to vary depending on the nature of the society. In many societies children are treated in a different manner to adults. In very simple egalitarian and unranked societies an individual's burial will not reflect the roles and status which they inherited but rather the roles and status that they accrued through their own abilities and efforts during life. The most impressive or opulent burials may, in this kind of scenario, be reserved only for mature adults who have had time to achieve their full potential. Children's burials may be simple, if they appear in the burial record at all. In more hierarchical, ranked, societies, status is achieved, not through talent or hard work, but through inheritance and family lineage. In these societies a newborn might be afforded a high status burial, because of who the baby was, not because of the role they occupied or what they had achieved in life (Peebles and Kus 1977). Hierarchical societies also seem more intent on enforcing funerary ritual orthodoxy than egalitarian societies, perhaps because of a second function of funerary ritual. As well as reflecting role and status in life, funerary ritual plays an important function in emphasising the unchanging continuity of society. In hierarchical societies, where inequality might be challenged, funerary ritual applies a soothing balm to tensions between social groups by suggesting there is a timeless and unchanging nature to the social order (Bloch and Parry 1982; Parker Pearson 1982). In egalitarian societies, where this degree of ideological control

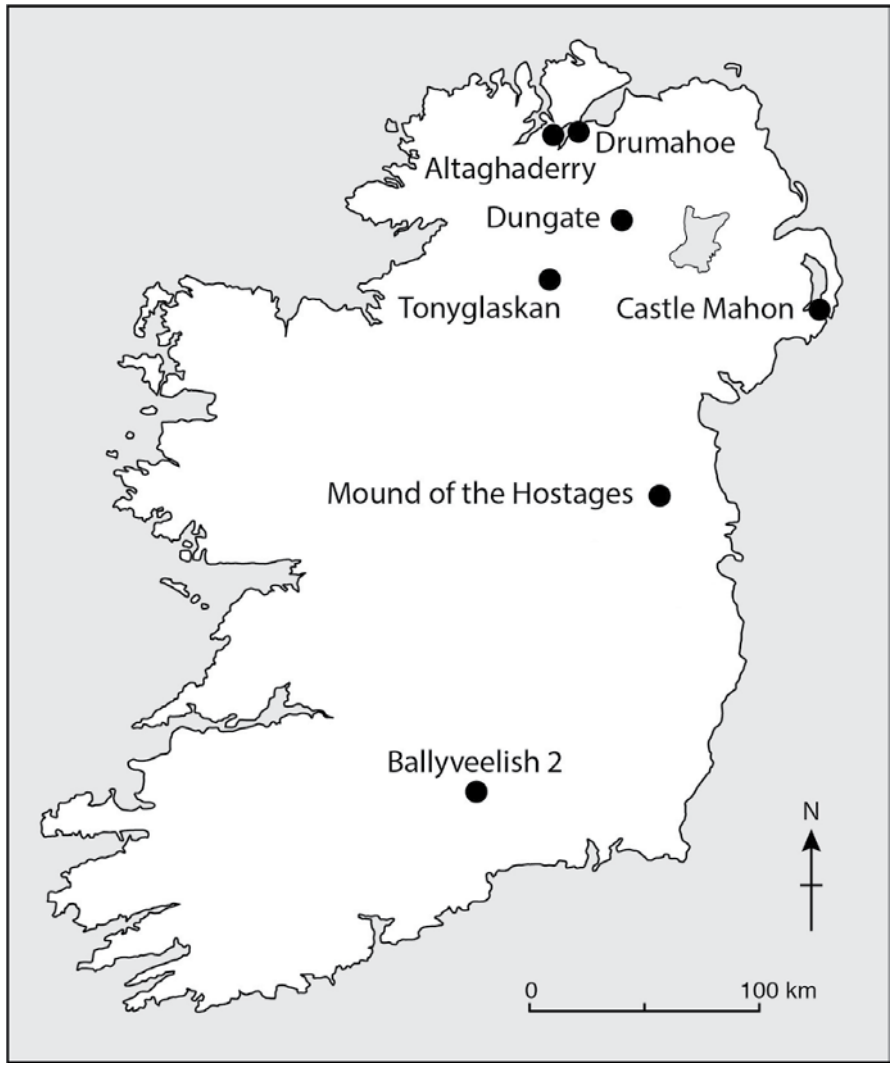

Figure 1: Map showing the location of the case study sites (drawn by Libby Mulqueeny).

of society is not required, there is more opportunity for the emotions of the mourners to influence the funerary ritual, and thus more space for the personal touch (MacDonald 2001).

The burial of juveniles in Ireland during this era is very interesting both in relation to the aesthetics of the burials themselves and what they can tell us about the societies in which they occurred. In each of the three phases of the Later Chalcolithic and Early Bronze Age, the burials of children (0-12 years) and adolescents (13-17 years) display considerable differences, both in the nature of the mortuary rituals, and in comparison to those of other individuals in society. The data derives from a larger study of the single burial tradition that included a total of 603 individuals and comprised 58.0% adults (n=350), 27.4% juveniles aged less than 18 years (n=165) and 14.6% individuals of indeterminable age (n=88) (McSparron 2020). When burials of indeterminate age are removed the number of children under 18 years rises to 32.0% of the persons interred. This is somewhat less than the figure of 40.0% suggested by Chamberlain

(2006, 61) for simple agriculturalists, and there may be ritual or taphonomic processes at work of which we are unaware. There does not, however, seem to be any basis for considering that children are especially likely to be denied burial at this time. There is a strong association in the single burial tradition between the burials of younger children (0-5 years) and multiple burial, with 80.4% (41/51) of younger children found in multiple burials, a finding which has been shown to be statistically significant (McSparron 2020: appendix 3, table 33).

The evidence for child burials in the three phases will be outlined in the sections below. It should be noted that in some cases the radiocarbon date resulted in the burial straddling two phases but other evidence is used to assign each interment to a particular phase. The overall trends for each phase will be presented, followed by case studies that outline the features of certain atypical juvenile burials and discussion of what they can reveal about the broader societies in Ireland in which these young people lived and died (Figure 1).

Chalcolithic Burials (Phase A)

The earliest phase (Phase A) of the single burial tradition in Ireland lasted from approximately 2200 to 2050 BC and burial consisted exclusively of inhumations placed into a stone cist or sometimes, towards the end of the phase, a pit cut into the earth. The body was accompanied by a pottery funerary vessel, and occasionally other grave goods. This was an era when burial evidence suggests that society was relatively egalitarian. Compared to later phases of the Early Bronze Age there was a relatively simple and uniform set of burial rituals. That is not to say that individuals did not vary in status, but this was dependant, not on lineage or inheritance, but rather on role in society, personal attributes, and achievements. In the short life of a child, especially a younger child, there will have been little or no opportunity to have achieved status.

During the later Chalcolithic and Early Bronze Age, burial practices tended to accrue. New elements, including cremation, were added to the burial ritual without earlier practices, such as inhumation, disappearing. It can therefore be difficult, without additional information such as radiocarbon dates, to state with certainty if a burial belongs to Phase A, or is a Phase A style burial actually dating to Phase B. Burials which can with certainty be ascribed to Phase A, comprised 37 individuals, of which some 16.2% (n=6) were juveniles aged less than 18 years and 2.7% (n=1) were adolescent. There were an additional 17 individuals whose burial probably dated to Phase A, but which could potentially date to Phase B, of which 17.6% (n=3) are juveniles and 11.8% (n=2) adolescents. When both the burials which are definitely Phase A or probably Phase A are combined (n=54 individuals), 24.1% are of children under 18 years (n=9) and 5.6% (n=3) are adolescents. Across both of these sets of burials – Phase A and Phase A/B – the burials of nine younger children (0-5 years) were present, all of which were found in multiple burials. Older children (5-12 years), however, were sometimes buried individually at this time (3/5). It should be noted that the categorisation of juvenile ages is adapted from McSparron (2020) and is based on statistical utility rather than osteoarchaeological conventions.

An atypical burial, which stands out somewhat from other burials of Phase A, is the burial of an adult male and an infant discovered in Cist 1 at Dungate, Co. Tyrone (Figure 2a; Waterman and Brennan 1977). A second cist grave, Cist 2, was found a few metres east of Cist 1 and

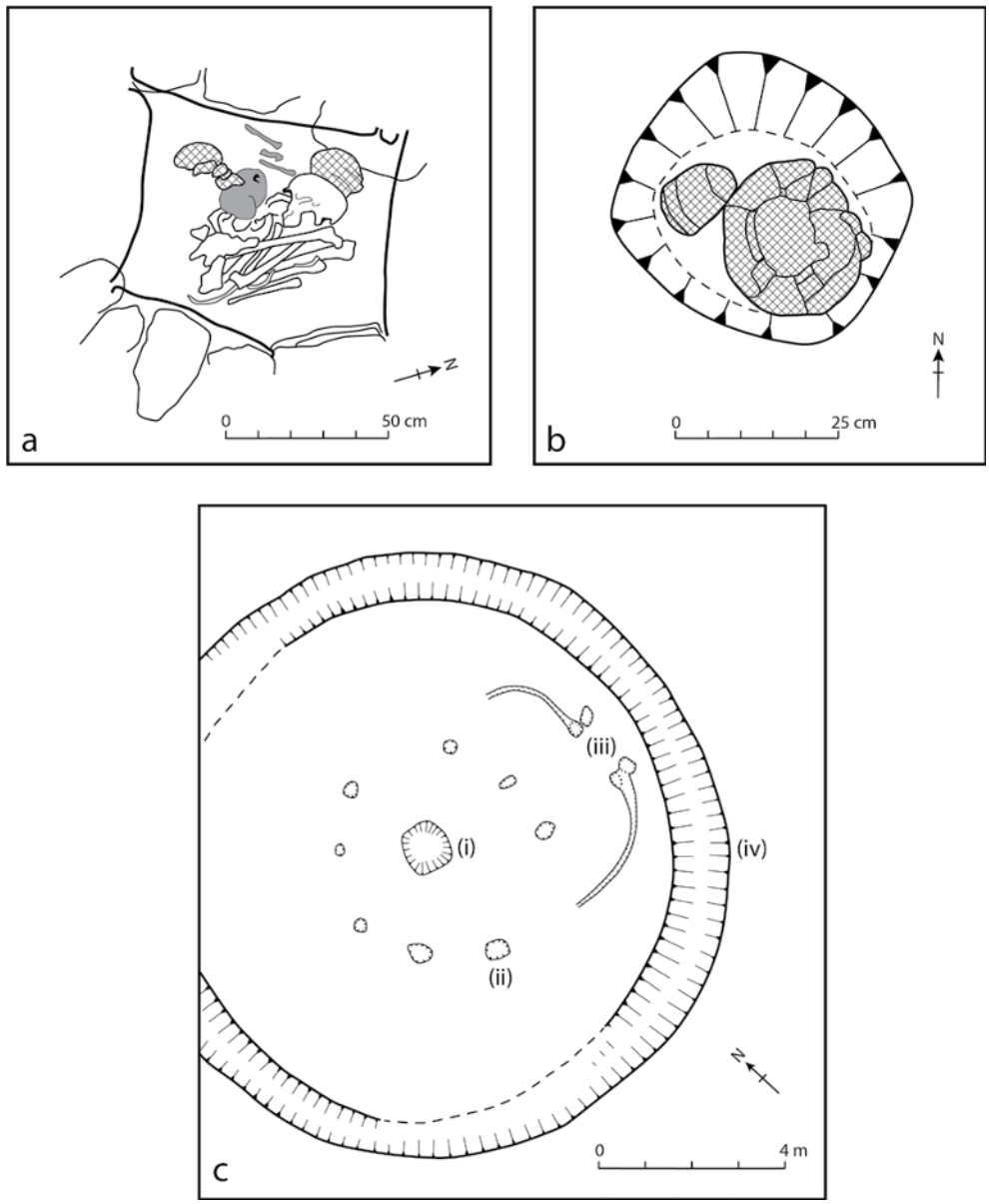

Figure 2: a. Plan of Cist 1 from Dungate, Co. Tyrone, which included the disarticulated remains of a young child (grey) and a middle-aged adult male (white). Both individuals were associated with a tripartite bowl (crossed lines) (after Waterman and Brennan 1977: figure 1); b. Plan of a pit (F32, Site 7, Area A) from Lisneal, Drumahoe, Co. Derry, which contained the inverted remains of a tripartite vase and a miniature vase (crossed lines), both of which overlay the cremated remains of an older child and two younger children as well as a plano-convex flint knife and a fragment of a decorated hollow tube made from bird bone (after Donnelly and Ward 2010: figure 30); and c. Plan of a polygonal stone cist (F143) which contained a large encrusted urn, within which were the cremated remains of two children aged around one and five years, an adolescent of approximately 14 years, an adult male and female, fragments of a large dog or wolf, two miniature vessels and a plano-convex knife (i).The cist was surrounded by eight post-holes (ii) and a defined entrance (iii) that were interpreted as the remains of a mortuary house, as well as a ring ditch (iv) (after Doody 1988: figure 1) (drawn by Libby Mulqueeny).

contained two or more cremations. The remains in Cist 1 had been placed in a cist measuring 80cm long, by 60cm wide and 60cm deep. Resting on the centre of the paved floor of the cist were the disarticulated, but almost complete, remains of an adult male aged between 38 and 50 years, whose long bones were described as 'carefully arranged in a bundle', with the skull located at the north-west of the bundle in contact with a tripartite bowl lying on its side. A careful examination of the original field drawings and a series of unpublished sketches by Waterman, which he later summarised in his publication drawing, appear to indicate that this was indeed a disarticulated skeleton, and not an articulated skeleton which had been tightly bound. The incomplete remains of the skeleton of a 3-year-old young child lay to the west of the adult burial. A second, but broken and incomplete, tripartite bowl was associated with the child. The two vessels were similar in form and decoration, although that of the young child was slightly larger.

This burial can be considered as atypical due to the indications that both individuals had been placed in the cist after the corpses had fully decomposed and the skeletons had become disarticulated. The disarticulated nature of the skeletons is unusual in the single burial tradition where, typically, the remains were placed into the grave while the corpse was intact and the bones still articulated or, with later burials, after cremation. It is also worth noting that, despite the grave being found fully intact and undisturbed, only one of the pots, that associated with the adult, was complete. The vessel adjacent to the young child was not just broken, it was incomplete, suggesting that it may have been broken elsewhere. It seems reasonable to suggest that the remains of this adult and child may have been stored elsewhere for a considerable period of time before being placed in the cist in a disarticulated condition. It is difficult to know why this may have been the case but it could have been due to the mobility of the group. Perhaps they moved to a different location, for a reason now indeterminable. Iron Age mobile pastoralists in southern Siberia, for example, processed and stored the defleshed and disarticulated remains of those who died during the summer months when they were far from their tribal cemetery at Aymyrlyg. When the group returned to the cemetery in the autumn the remains were then interred. This seasonal pattern of mobility resulted in communal burials at the site containing a mixture of articulated and disarticulated burials (Murphy 2000). Alternatively, it is possible that the original burial location became no longer suitable for some unknown reason.

It is interesting that both the adult and child were treated in the same manner suggesting that their remains were viewed as being of equal significance to society. The remains of the dead were clearly important to these people, even when the deceased had been dead for some time. Anthropological accounts of death, such as those of Hertz (2009 [1907]), tend to emphasise the necessity of carrying out the appropriate funerary rituals to ensure the migration of the soul to the afterlife, but in most societies this is believed to have happened by the time the corpse had decomposed. Other theorists, like Bloch and Parry (1982) emphasise the role of the funerary ritual in ensuring the stable continuity of the social order and the fertility of the land through the intercession of the ancestors, but in this case the appropriate funerary rituals must already have been carried out to ensure social cohesion and the souls of the deceased, presumably, had already become ancestors. The incomplete nature of the vessel associated with the child may be an indication that the pots were moved with the human remains from the original burial site rather than representing new insertions with the disarticulated remains. It is therefore possible that the rituals involved in the deposition of

the funerary vessels at the time of initial burial were not repeated upon the movement of the bodies. It is possible that fear of the ancestors ensured that remains considered to be at risk were moved to a new, more appropriate, location. It is perhaps unwise to rule out a simple emotional response to a situation, however, which saw a group bringing their loved ones with them as they moved; emotion sometimes trumping strict funerary convention, especially in more egalitarian societies (see e.g. Murphy 2011). The burial of children with adults is what we would expect in an unranked society. The child has had little time and agency in which to develop an independent identity from their parents or other family members. Because lineage may not be important as a definer of social roles or status, however, there may also be more room for an individual response to grief through ritual.

Early Bronze Age – Phase B

At around 2050 BC burial ritual begins to change in Ireland, a shift which probably reflects wider social change in the form of an increasingly complex society in which ranking is beginning to emerge. Cremation appears and, quite rapidly, becomes the dominant burial ritual, although inhumation continues at a rate that reduces over time. The presence of a funerary vessel accompanying an inhumation or cremation, previously *de rigueur*, now seems to simply become an option. The phenomenon of the pot-less burial emerges in Phase B (*c.* 2050 to 1950 BC). Phase B burials included 140 individuals, some 26.4% (n=37) of which were juveniles aged less than 18 years. Of the Phase B burials, 79.3% (n=111) were cremation burials and 20.7% (n=29) were inhumations. Burials of younger children (0-5 years) in Phase B continue to be multiple burials (9/9).

An interesting example of an atypical inhumation burial of a child, with neither an accompanying adult nor a funerary vessel, comes from Cist B at Tonyglaskan, Co. Fermanagh, part of a group of three cists found in a quarry (Hurl 2004; Murphy 2004). The child was aged 5-7 years, putting it into the older child category (5-12 years). It was buried lying on the left side in a tightly flexed position with its head to the north-east, within a cist measuring 60cm in length by 48cm wide and 63cm in depth (Figure 3). The individual was not accompanied by a pottery vessel, but was described as 'clutching a flint flake to its chest' (Hurl 2004: 21). While it is difficult to be certain that this is the case due to the state of preservation of the bones, the flint flake was certainly located at the chest of the child. A radiocarbon date obtained from a fragment of bone provided a date of 3667 ± 36 BP (UB-6600) which, when calibrated in OxCal 4.4.4 (Bronk Ramsey 2021) using Intcal 20 (Reimer *et al.* 2020), has a 95.4% chance of dating to 2192-1943 BC. The date range extends across Phases A and B of the Irish single burial tradition, but the absence of a pottery vessel probably puts it within the latter phase, Phase B (McSparron 2020: 56, table 5.11).

This burial was one of comparatively few Phase A or B burials to be interred with a grave good which was not a funerary vessel of some sort. In this case the child was buried with a small flint blade, held in its hands which were pulled up to the chest. This burial is also an individual burial. In Phase B, older children (5-12 years) are commonly buried individually (9/15). The fact that it is a single burial shows that the child is being interred as an individual, without direct connection to the status of an accompanying adult. The placement of the flint flake in the grave suggests that the child was given an object to hold in death which denotes something about their identity. This may not, necessarily, be an identity that the child has

Figure 3: Cist B at Tonyglaskan, Co. Tyrone, that contained the remains of a child, aged 5-7 years, described as 'clutching a flint flake to its chest' (Hurl 2004: 21) © Crown DfC Historic Environment Division.

themselves adopted, rather it may be one placed upon them by the mourners, society or both (see e.g. Cave 2017). Phase B is an era when the beginnings of greater social ranking are just starting to become evident, with increasing complexity in burial, reflecting a more complex society. While this was perhaps not a fully ranked, lineage based, social structure, there may have been positions of influence and authority in society which gave prestige and which were competed for by individuals. The placement of this child alone in a cist with a flint flake may have shown a hope that, if they had lived, they would have fulfilled a defined role in society, perhaps in a craft that required cutting tools, or perhaps as a user of weapons; a hope that they would have become someone of importance.

Most burials in the single burial tradition, as the name suggests, are single burials, or burials of a very small group of persons. There are only a small number (2.8%) of burials with more than three interred individuals (14/498 graves have more than three interred individuals). One substantial group burial comes from Altaghaderry, Co. Donegal, where the cremated remains of 11 persons were found within a single, isolated, cist (Halpin and Roche 2011). The cist was not particularly large, measuring 80cm in length by 62cm wide and 51cm deep. Three possible cup marks were evident on one of the cist side stones. The burial was uncovered by a farmer

while ploughing and had been disturbed on one or more occasions prior to its excavation. As such, the remains were analysed as a single group and it was not possible to determine if the individuals had been deposited during one or more events. The 11 individuals comprised five adults, including two definite males and a definite female, two children under seven years, an infant of 7-11 months, a newborn baby and two foetuses both aged five gestational months (Buckley 2011: 110).

A radiocarbon date from one of the cremated fragments of bone provided a date of 3610 ± 70 BP (GrA-24174) which, when calibrated, has a 95.4% chance of dating to between 2196 and 1767 BC (Bronk Ramsey 2021; Reimer *et al.* 2020). The broad calibrated range suggests the burial could date to anywhere between Phase A and C, although the fact that the remains in this grave are all cremations and the suggestion from wider radiocarbon analyses that cremation only appears, and rapidly becomes dominant, in Phase B, indicates that this is a Phase B or C grave.

Four funerary vessels – bipartite vases, which are taller than bowls with a pronounced shoulder – were discovered in the grave, one of which was almost complete, while the other three were partially preserved (Halpin and Roche 2011). The incomplete nature of the vessels is probably due to disturbance of the burial in the past. The four vessels all had the same general body form but were quite different in terms of decoration, suggesting they may have been made at different times and may represent four separate interments. It is possible that the Altaghaderry cist *could* represent a family burial plot but, nevertheless, it contains many more burials than is typical for this era. The grave may have been used initially for a single burial of a small number of individuals, but was then re-opened for an unexpected event when several persons may have died in a single incident, or over a brief time period, with perhaps insufficient time for the preparation of another grave. The age profile of the group is very interesting since it shows that young children were equally afforded burial in a cist. While the two foetuses, and perhaps even the neonatal infant, may have gone onto the funerary pyre *in utero*, this was clearly not the case for the two young children who were deliberate inclusions in the cist.

This burial, along with most burials of younger children from the single burial tradition, is a multiple burial. The construction of a grave takes time and energy and, in Phases A and B, this effort is not expended on a young child's individual burial. The fact that we do not encounter young children in individual graves at this time is probably an indication that this is not a ranked society where status is attributed at birth because of lineage. Rather it is one where status is earned, through personal achievements or roles fulfilled, something young children are unlikely to have had an opportunity to do.

Early Bronze Age – Phase C

In Phase C the placement of cremated remains within a funerary urn becomes common. The first urn burials involve vase urns, which probably commence in use towards the end of Phase B. As with the previous phases, a considerable overlap is evident in burial practices, with many continuing from Phase B to Phase C. Cremation burials with bowls and vases, as well as pot-less burials, all continue into Phase C. Many burials, particularly those that lack pots and are without additional dating evidence, can be difficult to individually assign to Phase

B or Phase C. As such, some 267 Phase B/C burials were identified, which cannot easily be attributed to either phase, of which 28.1% (n=75) are juveniles aged under 18 years.

Encrusted urns, collared urns and cordoned urns are firmly attributable to Phase C, however, and small numbers of ribbed bowls, vases and pot-less burials can also be shown to be definitively Phase C, either through radiocarbon dating or the inclusion of other artefacts in the grave. There are 142 Phase C burials of which 27.5% (n=39) are burials of juveniles aged under 18 years. Although most Phase C burials were cremations, many of which were placed within funerary urns, occasional inhumation burials continued throughout the era (14.8%; 21/142). Compared to the previous phases, a greater emphasis was placed on grave goods, with jewellery, elaborate bone pins, and copper alloy objects found in graves of this period. The greater variety in burial ritual, and the increasing evidence for elaborate grave goods in Phase C are probable indicators of increasing social complexity and ranking, where status is largely inherited. This is probably an era when chiefdoms emerged, where there is an elite separated by lineage from the bulk of the population (McSparron 2020: 138-145). One significant change in Phase C are indications of younger children being afforded individual burials in 16.7% (2/12) of cases. This is a sign of further ranking within society, young children (0-5 years) now being afforded a status which cannot have been earned in their short lives, but which must have been inherited. Individual burial remained common for older children and children of uncertain age, with almost half (18/38) buried individually.

An atypical child burial at Castle Mahon, Co. Down, was interesting, not just for the contents of the grave itself, but because it was a single grave located at the centre of a stone circle (Collins 1956). Despite being an iconic symbol of prehistoric Ireland and the focus of antiquarian and archaeological attention for centuries, stone circles are still imperfectly understood monuments, although it is possible to make some assumptions about them. They are generally quite large; a significant group could either assemble within, or around, their exterior suggesting they might have been used for collective purposes where all, or at least a significant part, of the community could have been present (Grove 2011). The limited excavation that has occurred at stone circles shows little evidence of internal use with only occasional, ritually associated, structures found, suggesting they were viewed as sacred spaces. Stone circles are sometimes found enclosing earlier Neolithic monuments suggesting they post-date this era, and a general period of construction from the Early to Late Bronze Age seems most probable (Pilcher 1969; Roche 2004). The stone circle at Castle Mahon has six stones forming a rough circle of about 20m in diameter and a pit found during the excavation along the line of the circle may have been a socket of a seventh stone. A large pit, some 1.9m in diameter and 0.6m deep, with fire reddened sides, capped by stone slabs and containing a substantial quantity of charcoal in its fills, was located at the centre of the circle. A small burial cist was discovered approximately 1.2m to the north of the fire pit. Unfortunately, this had been disturbed by treasure hunters, but it was probably originally polygonal in shape, with a diameter of about 40cm and a depth of around 15cm. The small cist contained the cremated remains of a child of uncertain age and a plano-convex flint knife which showed evidence of having been burnt in the funeral pyre. No sign of a funerary vessel was evident, and the size of the cist makes it unlikely that it ever contained one (Collins 1956: 6; Morton 1956: 10). No radiocarbon date is available for the burial, but the fact that it is a cremation in a polygonal cist accompanied by a plano-convex flint knife suggests that it is a Phase B (*c.* 2050-1950 BC) or Phase C (*c.* 1950-1600 BC) burial. Radiocarbon dating of polygonal cists

generally suggests they appear during Phase B and continue into Phase C, probably falling out of use in the mid-18th century BC (McSparron 2020: 52-53; table 5.8). A further probable example of a single burial tradition interment at a stone circle was found at Castledamph, Co. Tyrone, where a very disturbed cist set within a small cairn was found at the centre of the stone circle. Small amounts of cremated bone were found close to, but not within the cist, one fragment of which, a tooth, was identified as coming from a person of around 18 years of age (Davies 1938). Given the relatively small number of stone circles which have been excavated in Ireland it is possible that the occurrence of a later Chalcolithic or Early Bronze Age burial within, or even centrally placed within the circle, is not an uncommon occurrence. It is not certain from the results of the excavations if these burials were primary depositions at the time of construction of the stone circles, or if the burials were themselves in some way distinguished by the decision to place them at the centre of a monument. Either way, their positions suggests a public ritual, that elevated either the deceased, the stone circles themselves, or both. The fact that no other burials were uncovered within these stone circles implies these were very special one-off rituals and it is tempting to think of them as part of a dedicatory ceremony for the stone circle.

Another atypical burial which may be contemporary with the Castle Mahon burial, but is probably a little later, was an isolated pit burial found at Liseal, Drumahoe, Co. Derry (Donnelly and Ward 2010). The pit (F32, Site 7, Area A) was small, about 40cm in diameter and 28cm deep, and contained a tripartite vase and a miniature vase, both of which were inverted over cremated remains (Figure 2b). The cremations included the remains of three children – an older child aged 8-10 years and two younger children aged 1-5 years (Buckley 2010: 124). A plano-convex flint knife and a small piece of a decorated hollow tube made from bird bone were recovered from amongst the cremated remains (Donnelly and Ward 2010: 31). A radiocarbon date from a fragment of bone from the burial provided a date of 3433 ± 34 BP (UBA-13455) which, when calibrated, has a 95.4% chance of dating to 1877-1626 BC (Bronk Ramsey 2021; Reimer *et al.* 2020), placing it comfortably within Phase C.

Features evident in this burial reveal interesting insights concerning societal attitudes to the interred children. The burial is largely contained within the tripartite vase, which functioned as a small funerary urn. A flint plano-convex knife, similar to that found at Castle Mahon discussed above, was present. This is an object which is not a trivial item to casually dispose of since it requires a considerable amount of time to manufacture. During Phase C, non-pottery grave goods become much more common in single burial tradition burials in Ireland. The implication of the inclusion of a plano-convex knife in both of these burials is suggestive of prescribed ritual behaviour appropriate for the interment of children. Similarly, inclusion of the decorated bird bone tube was a deliberate act. The object measured approximately 5cm in length and had been worked to make a clear lip around the top. Tubes like this made from animal bone are known from at least five burials of this period in Ireland (McSparron 2020: 81). In every case these burials have included juveniles, although the example from Drumahoe is the only case where they have been recovered from an exclusively juvenile interment. Bone tubes discovered within Early Bronze Age burials in Britain have been interpreted as whistles (Woodward and Hunter 2015: 117) and it seems reasonable to assume the same may also be the case in Ireland. The definitive association with juveniles in the Drumahoe burial, and potential association with this age group in other burials, makes it possible that these items were specifically associated with children and were perhaps used as toys.

The significance of the aforementioned child burials comes from their treatment as adults – they are interred in graves that lack adults and are associated with funerary vessels and appropriate grave goods. Given the young ages of the children, especially the two children aged five years or younger, it seems unlikely their status is based on their achievements or abilities during life, and it is clearly not obtained by direct association with an adult interred in the grave with them. Rather, it is fixed for them, ascribed by society, and defined by the structure of that society. This is an indication of an increasingly hierarchical society, where there are specific rules of behaviour that provide ideological support to the social structure, and where children may be treated as persons of worth in society; the equivalent of adults, based on their inherited social position (Peebles and Kus 1977: 431).

An isolated Phase C burial from Ballyveelish, Co. Tipperary, displayed a number of atypical features. The grave comprised a polygonal stone cist (F143) placed centrally within a circular shallow ditch, 11m in diameter, averaging 1m wide and 65 cm deep (Figure 2c). While not common, ring ditches surrounding burials are not unknown in Phase C (8/142 surrounded by ring ditches). More unusually, however, the grave was surrounded by a circular structure, with a diameter of 4.5m and composed of eight post-holes with an entrance way defined by two further post-holes and two curving construction slots due east. The excavated features seem to represent the remains of a roofed building, but one that lacked evidence of occupation and was therefore interpreted as a mortuary house (Doody 1988). The cist contained a large, encrusted urn, within which were the cremated remains of two children aged around one and five years, an adolescent of approximately 14 years, and an adult male and female. The grave goods consisted of two miniature vessels (5.5cm in height) and a plano-convex knife. Some bone fragments within the grave were identified as those of a large dog or wolf (Doody 1988; McCormick 1987).

Two radiocarbon dates were obtained from the site, one from the grave and another from charcoal derived from the circular ditch, which the excavator believed was associated with the burning of the mortuary house. The bone sample from the grave provided a date of 3580 ± 50 BP (GrN-11657) which, when calibrated, gave a date range with a 95.4% chance of dating to 2127-1768 BC. The charcoal from the ditch provided a date of 3485 ± 40 BP (GrN-11659) which, when calibrated, has a 95.4% chance of dating to 1923-1690 BC (Bronk Ramsey 2021; Reimer *et al.* 2020). Both dates have considerable overlap and are statistically compatible and, taken with the other attributes of the grave, in particular the encrusted urn and miniature vessels, a date after 1950 BC is very likely.

The combination of two young children, an adolescent, as well as a male and female adult in this burial is suggestive of a family group (Doody 1988). Unfortunately, there is no indication of how they died or if they all died at the same time. It is perhaps possible that the cremated remains of the group had been curated until they were all deceased, before their final deposition. Given the number of interred and their age spread, however, it seems more likely that a single event had led to the tragic demise of perhaps an entire group through disease, accident or violence. The addition of the ring ditch to the burial is not particularly unusual, but the erection of the mortuary house over the remains is very much atypical, with only one other uncertain mortuary structure, at Altanagh, Co. Tyrone, known from the entire single burial tradition (Williams 1986). The uniqueness of the Ballyveelish burial may be an indication that these individuals, or the manner of their death, was also atypical and perhaps a reflection

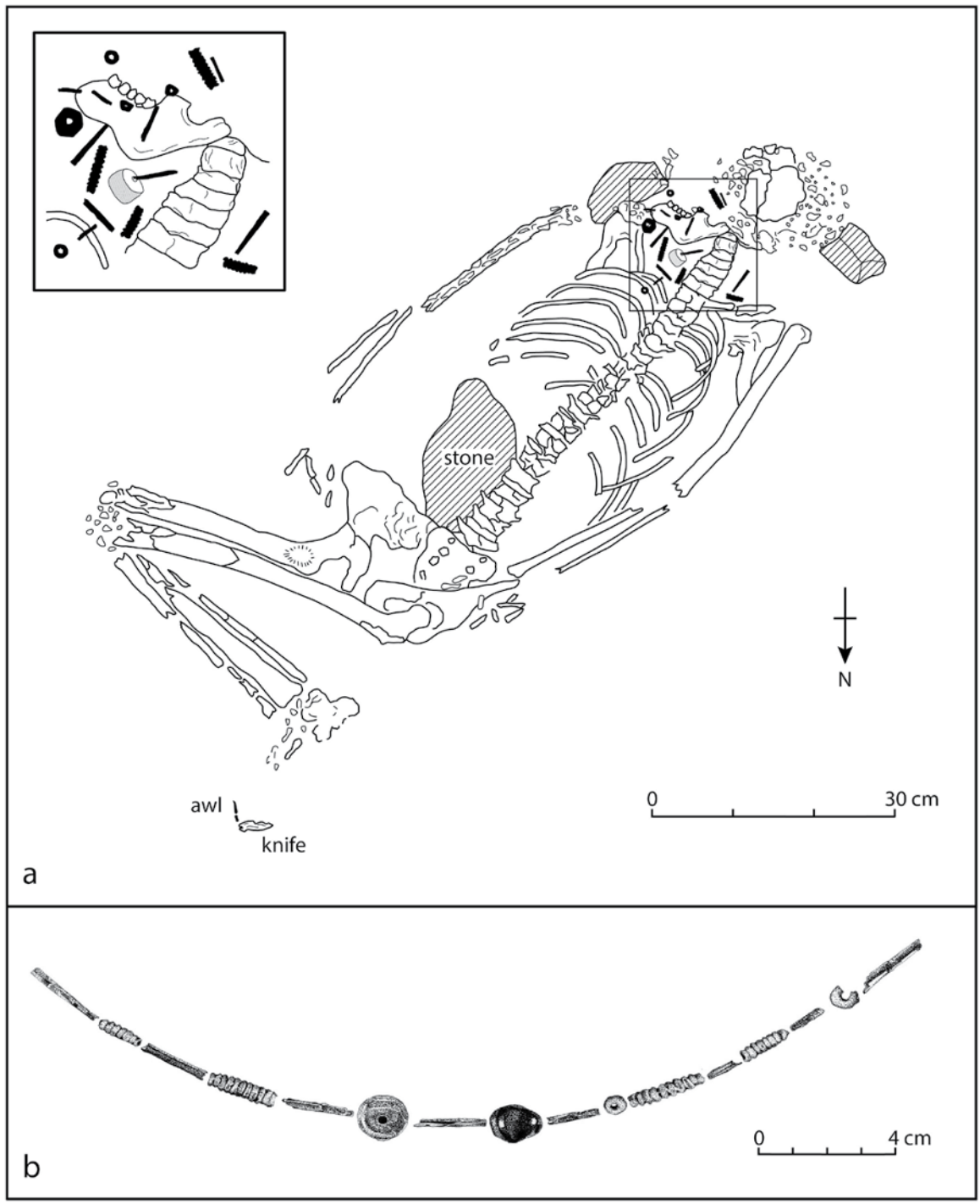

Figure 4: a. Plan of the 'Tara Boy' (Burial 30), an adolescent male of 14-15 years, found in a pit inserted into the cairn of the earlier passage tomb, the Mound of the Hostages, at Tara, Co. Meath, buried with a bronze knife or razor, a bronze awl and an intricate necklace made from multiple jet, amber and faience beads and narrow bronze tubes (after Ó Ríordáin 1955, figure 1; and b. Reconstruction of the necklace (after Sheridan *et al.* 2013: figure 8) (drawn by Libby Mulqueeny).

of unusual, even tragic, events. It is tempting to agree with Doody's (1988) interpretation of this as a family group but the atypical nature of these burials, even the possibility of tragedy or sudden death, all raise the possibility that unusual events could have resulted in the burial of a group of individuals who were not biologically related.

A number of late Phase C inhumations have been found inserted into pits. All of these are simple inhumation burials that display little ostentation with one, very notable, exception – the so-called 'Tara Boy' (Burial 30) – found in a pit inserted into the cairn of the earlier passage tomb, the Mound of the Hostages, at Tara, Co. Meath (Figure 4). It should be noted that, in addition to earlier Neolithic burials within the tomb, and later Bronze Age burials, at least 17 single burial tradition burials were inserted into the Neolithic tomb. Several of these were opulent Phase C cremation burials, although none were quite as opulent as the burial of the 'Tara Boy' (O'Sullivan 2005). The anatomist, Professor Edward Keenan, who examined the individual in the 1950s determined it was that of a male adolescent, aged 14 to 15 years, with a stature of approximately 1.5m. These age and sex determinations have been recently verified using modern osteological methods (Sheridan *et al.* 2013: 208). He had been placed on his back with his legs flexed to the right and his head orientated south-west. Strontium and oxygen isotopic analysis of the remains has shown that he did not live most of his life in the Tara area, but was probably from the west or south-west of Ireland (Sheridan *et al.* 2013). He was accompanied by one of the most impressive collections of grave goods from any burial of the single burial tradition, with the remains of a bronze knife or razor, a bronze awl and an intricate necklace made from multiple jet, amber and faience beads and narrow bronze tubes. A fragment of bone from the burial provided a date of 3370 ± 60 BP (GrA-19180) which, when calibrated in OxCal 4.4.4 (Bronk Ramsey 2021) using Intcal 20 (Reimer *et al.* 2020), has a 95.4% chance of dating to 1873-1507 BC probably placing it in the latter half of Phase C. This date was refined using Bayesian modelling to between 1700 and 1600 BC (Bayliss and O'Sullivan 2013).

This burial has unsurprisingly attracted a good deal of discussion. The presence of the awl in the burial has been noted as unusual by Sheridan *et al.* (2013) who observe that, in 14 British burials with bronze awls where sex could be identified, ten were female burials (Woodward and Hunter 2015). It has been suggested this may indicate there was something non-binary about the 'Tara boy' (Sheridan *et al.* 2013). The association with bronze awls and female burials may not be as strong in an Irish context, however, where approximately half of bronze awls have been found in male burials (McSparron 2020: 81-82). Sheridan and colleagues (2013) have also noted that the type of small bronze knife found in the burial would typically be found in contemporary female burials in Scotland and also, that in a British context, the necklace would be an object typical for inclusion in a female burial. They commented upon the similarity of the amber and faience in the necklace, and its overall form, to British comparators and suggested that the 'Tara Boy' may have made a trip to the Wiltshire area, to the famous Wessex Culture centred around Salisbury Plain and acquired these goods there. They suggest that these objects, whether acquired directly by a visit to the Wessex Culture, or through trade or gift exchange, display cosmological acquisition, where exotic objects from afar have a cachet of importance and sacredness because of their rarity and novelty. These concepts are stimulating and may be important to our understanding of the story, yet the chronology of the 'Tara Boy', who probably died between 1700 and 1600 BC does not entirely match with the most dynamic part of the Wessex Culture which occurred a couple of centuries earlier.

Perhaps 'Tara Boy' through referencing Wessex was trying to appropriate some of the antique prestige of a Wessex now in decline to legitimise his position.

The apparent origin of the 'Tara Boy', identified by strontium and oxygen isotopic analysis as being in the west or south-west of Ireland, is very interesting. During Phase C of the single burial tradition there is evidence of an increasingly ranked society in Ireland. The data is suggestive of the existence of a well-defined elite and it is possible that a number of regional chiefdoms emerged across Ireland after 1900 BC (McSparron 2020: 149). Although 'Tara Boy' was biologically immature we need to be cautious about making assumptions about his social age. Today, someone aged 14-15 years would still be viewed as a child, but concepts of childhood are known to differ between cultures, past and present (Halcrow and Tayles 2008: 200). Bearing this in mind, the attention lavished on someone quite young may be indicative of ascribed status, gained from being a member of an important lineage, as opposed to status accrued through personal achievement. 'Tara Boy' comes from a site whose name cascades through the centuries as the pre-eminent place in ancient Ireland, the *caput Scotorum*, capital of the Irish in the Early Medieval period, noted in early biographies of St Patrick, and a place where the leading provincial dynasties were, or claimed to have once been, kings (Bhreathnach 1996). If there was a set of emerging chiefdoms in Ireland during Phase C in the Early Bronze Age, as these chiefdoms became more established, more fully in control of their regional territories, more regional king, rather than local chief, then there would of necessity have been a raft of ideological and coercive control needed to ensure the stability of the kingdoms. Elite burial and the emergence of purpose-built weaponry all suggest this happened on an island wide scale in Phase C. Could the fact that the 'Tara Boy' might have lived most of his short life in another part of Ireland, perhaps 160km away from his burial place at Tara hint at the emergence of centres of all island importance? Might it indicate the reach of a dynasty becoming dominant over their rivals and perhaps achieving overlordship across large swathes of Ireland?

Conclusions

When we wish to study society as a whole we must look at the everyday, the typical, and as much as archaeology can, the summed total of human behaviours and physical variation. Through large scale statistically based studies, operating within a theoretical framework that understands the underlying link between economic base, societal complexity and the consequent complexity of ritual behaviours, such as funerary rites, it is possible to gain insights about how ancient societies were organised and structured.

By examining the single burial tradition of the later Chalcolithic and Early Bronze Age in Ireland we can see an increase in social complexity, over several centuries, indicating a progressively ranked society. Children of all ages are represented in the burial record of this era. In the earlier parts, Phase A (*c.* 2200 to 2025 BC) and Phase B (*c.* 2050 to 1950 BC), young children (0-5 years) seem to be buried in multiple burials usually with an adult of parental age. Older children and adolescents are sometimes buried in individual graves in Phase A and B, occasionally with grave goods. In Phase C (*c.* 1950-1600 BC), a change occurs in child burial ritual with young children being sometimes interred individually. This is indicative of a significant ideological change in Early Bronze Age society. Young children, who cannot have achieved status through their own achievements or abilities, are being ascribed status. The

only likely mechanism for this status ascription is lineage based social ranking, where the child has status conferred on it by its ancestry. These types of studies necessarily, however, paint the past with a broad brush. It is the atypical that can reveal the detail, demonstrate personal agency, and perhaps even give an inkling as to the identities of the great actors, whose actions, within the bounds that the wider studies define, wrote the narratives of the past. The examples presented above illuminate aspects of life in the later Chalcolithic and Early Bronze Age of Ireland, which are difficult to detect in wide statistical studies of the quotidian.

The Dungate, Co. Tyrone (Waterman and Brennan 1977) burials of the man and child, disarticulated before interment, are very unusual for this era. It is unlikely that they represent a multi-phased burial ritual where the remains of the dead are allowed to decompose in a provisional burial, the 'intermediary period', before the 'final ceremony', when they are committed to their final resting place (Hertz 2009 [1907]). If this were the case, however, we might expect to see burials of disarticulated remains more frequently in the contemporary burial record. It seems likely that these remains were relocated to a new burial place because of unexpected events. Is this an emotional response, such as a family or larger group who moves to a new area, but wants to bring the remains of their deceased loved ones with them? Or is it a ritual act? If a group relocates *must* they bring the remains of their deceased loved ones with them, or perhaps a symbolic set of their remains? We cannot know for certain but evidently there were occasions where the relocation of human remains was appropriate and, presumably, licensed by society, and circumstances, such as migration, might precipitate this action.

Unexpected and possibly tragic events, and the response of those who survived, may also be indicated by the burials at Altaghaderry and Ballyveelish. The burial of 11 individuals at Altaghaderry, Co. Donegal (Halpin and Roche 2011), in a single cist grave is exceptional for the era. It seems likely that a pre-existing burial was reused to bury a group, possibly a family, killed in some uncertain event, perhaps disease, famine or violence. Likewise, the very unusual burial of a group of adult, adolescent and child burials within what seems to be a burnt mortuary structure at Ballyveelish, Co. Tipperary (Doody 1988), may indicate a tragedy. We cannot be certain they all died at the same time, or within a short time frame, but the composition of the group – an adult male and female, two children and an adolescent – *looks superficially* like a snapshot of a family at the time of death. If this is a family group then the mortuary house may be symbolic of the home, committed by fire to the afterlife like the cremated individuals themselves. Perhaps the deceased, ripped from their domestic life by tragedy, were provided with a mortuary house to give them a domestic unity in death which they had been denied in life. Alternatively we may be seeing a ceremony in which the cohesion of a wider group than the family is being reflected in ritual.

Examinations of social structure are impersonal, but unusual burials can put the human face on the social construct. The burial at Tonyglaskan, Co. Fermanagh (Hurl 2004; Murphy 2004), may show societies transitioning. The placement of a flint flake at the chest area of a child buried on their own at Tonyglaskan occurs during a period at the start of the Early Bronze Age when social ranking may just have been emerging. The burial of the child alone with a flint flake, at a time when most burials had no grave goods, apart from funerary pottery, might indicate an expectation that, if the child had lived, they would have fulfilled a well-

defined adult role within that society. At the other end of the scale to the simple burial at Tonyglaskan is the burial of the so-called 'Tara Boy' (Sheridan *et al.* 2013). This is one of the most opulent prehistoric burials ever discovered in Ireland. His burial is clearly marked out as special compared to almost every other burial of the era. In one sense, during a period in which it is believed ranked chiefdoms had developed, it is not surprising that unusually elaborate burials of individuals might be occasionally encountered. What makes this burial even more interesting, however, is the isotopic evidence which suggests he lived much of his life in south-west Ireland, while his burial place was at Tara, approximately 160km from where he grew up. Does this imply ranked polities occupying large parts of the island, perhaps comparable in scale to later provinces? Could he have been fostered in a neighbouring polity or been a young husband in a society which practised matrilocal marriage? May it imply island wide institutions in the Early Bronze Age, or a ritual centre at Tara to which, as in later years, the regions looked? Each of these is possible and in fact none of them are mutually exclusive. What he does show is the existence of shared elites with island wide reach and importance and, if Sheridan and colleagues' (2013) suggestion of a Wessex connection are accepted, a reach and importance that also extended to Britain.

The analysis has demonstrated the importance of assessing the full spectrum of burial practices for an era since it is sometimes from the atypical that wider inferences about society can be made.

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Sweet Child O' Mine. Family Ties, Inheritance System and Representation of Infants in Iron Age Veneto: The Case of Mound L from Este, Padua

Fiorenza Bortolami[1]

Abstract

The knowledge of child burials in Iron Age Veneto, north-eastern Italy, is mainly derived from two kinds of data: 1) osteological analysis and 2) study of the composition of grave goods. Based on the analysis of different contexts, it can currently be assumed that children's burials reflect different levels of complexity in terms of the funerary representation – some graves seem to be complex while others are simpler, and others again are almost 'invisible'. These differences in archaeological visibility could represent different levels of the status, rank and role of the deceased and his/her family and/or different ways of expressing lineage. Taking these points into consideration, a selected group of burials from the northern necropolis of Este, Padua, are examined in the paper, with a focus on the rituals and grave assemblages that characterised children's graves. The aim is to identify differences in grave structure, furnishing and the ritual practice of child burials from the same family group, to demonstrate how these vary even within the same household. The social significance of the funerary treatment of infants within the community is also explored.

Keywords

NORTH-EAST ITALY, IRON AGE, CHILD BURIALS, FUNERARY TREATMENT

Introduction

In recent years there have been important developments in the archaeology and anthropological study of infants (e.g. Bacvarov 2008; Baxter 2005; Baxter and Ellis 2018; Beaumont *et al.* 2020; Crawford *et al.* 2018; Lally and Moore 2011; Mays *et al.* 2017; Murphy and Le Roy 2017; Parker Pearson 1999: 102-104; Sánchez *et al.* 2015; Scott 1999; Sofaer-Derevensky 2000). The study of childhood has been a subject of interest in Italy too, particularly due to advances in osteological studies and to multidisciplinary analyses of certain important burial grounds (Bietti Sestieri 1992; Cuozzo 2003; Di Lorenzo *et al.* 2016; Modica 2007; Muggia 2004; Nizzo 2011; Perego 2020; Tabolli 2018; van Rossenberg 2008).

The identification of children's tombs is mainly the result of osteological analysis and certain features in the composition and dimensions of grave goods, which help to distinguish child burials from those of adults. Research undertaken in various areas of protohistoric Italy has revealed a wide range of depositions concerning sub-adult (individuals from 0 to 14 years)[2]

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[2] As reported by Chamberlain (2000: 207): 'A demographic convention is to define children as individuals less than 15 years of age. This convention recognises that at least in traditional societies, individuals of about 15 years of age have the potential for economic and reproductive self-sufficiency, whereas prior to that age they are, to a greater or lesser

burials in both settlements and necropolises: some graves seem to be complex and particularly elaborate, while others are simpler, and some are almost 'invisible' in the archaeological record (Piergrossi and Tabolli 2018: 17-18. For anomalous burials see also Perego 2016: 289-290; Zanoni 2016). These differences in archaeological visibility could represent different levels of status, rank and the role of the deceased and his/her household and/or different ways of expressing lineage. This paper focuses specifically on the differences in funerary representation of sub-adults in Iron Age Veneto by analysing a group of burials from the necropolis of ancient Este. The aim is to examine the different levels of funerary representation, how these vary even within the same group or family and explore the social significance of the funerary treatment of children within the community.

Chronological and Geographical Framework

The Veneto region is located in north-eastern Italy, a strategic area due to its location at the crossroads between the Adriatic and the Mediterranean Worlds on one hand and the Alpine

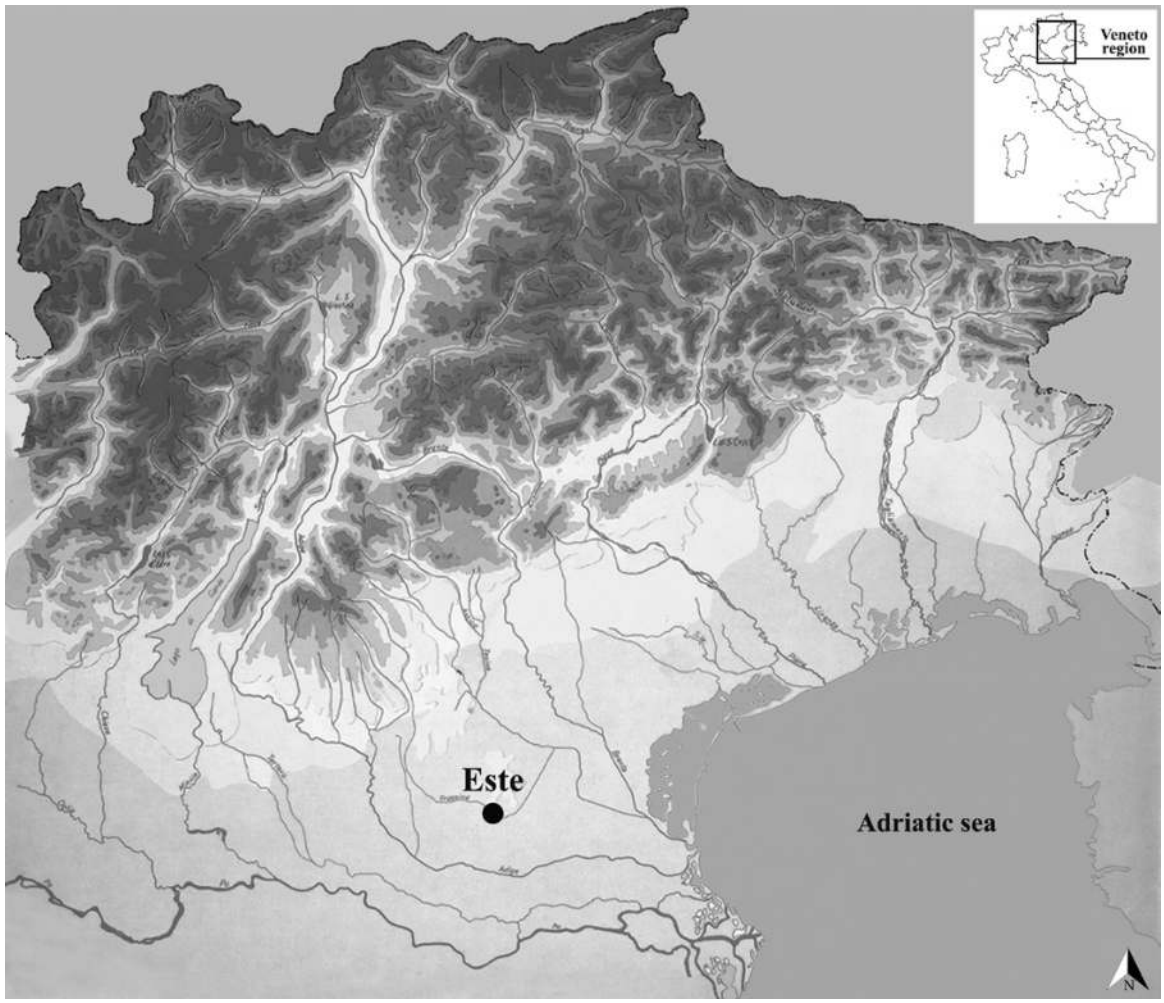

Figure 1: Map of the Veneto region showing the site of Este (prepared by the author).

extent, dependants of their parents and other adult kin'.

region and Central Europe on the other (Figure 1). All of the different geomorphological areas in the region were strategically occupied, showing a clear hierarchy between main sites, such as Este and Padua in the plain on one side, and smaller villages in peripheral districts on the other side (Capuis and Gambacurta 2015).

In this territory the ancient Veneti civilization developed from the middle of the 10th century BC to the end of 2nd century BC, when the process of Romanisation began. Since the earliest phases, the level of organisation and complexity of the ancient Veneti has been expressed by the management of the territory, the planning of settlements and necropolises and the production of a material culture with local specificities (Capuis 1993; Gamba *et al.* 2013; Gambacurta 2021).

Archaeological research conducted since the middle of the last century, both in hamlets and necropolises, has enabled the collection of a substantial amount of information about population dynamics, settlement patterns, the social organisation of the communities, material culture and so on. Among these themes, one of the most fruitful fields of studies is the archaeology of death, which has developed since the 1980s as a result of the identification and excavation of many burial grounds. The study of these cemeteries has enabled the identification of the principal features of the necropolises and the reconstruction of funerary rituals (see Balista *et al.* 1988; Bianchin *et al.* 1998; Capuis 1986; Capuis and Chieco Bianchi 2013; Gamba *et al.* 2014; Gamba *et al.* 2015; Gambacurta and Ruta Serafini 1998a; Gambacurta and Ruta Serafini 1998b; Gambacurta *et al.* 2005; Nascimbene 2013; Peroni 1981; Ruta Serafini 2013; Vanzetti 1992).

Features of Iron Age Necropolises

Ancient Veneti necropolises were built outside hamlets, usually on the opposite side of a watercourse and along extra-urban road axes. This position had a high symbolic meaning because it represented the separation between the world of the living and that of the dead; the passage from life to death was emphasised by crossing the ford (Capuis 1993: 62, 75-76, 114-120; Gambacurta 2020: 139; Ruta Serafini 2013: 93).

In cemeteries, graves were concentrated in a cluster or mound. The long-term use of these collective burial structures and the heterogeneous composition of the deceased – pairs, or more, of adults of both sexes along with sub-adults – allow one to hypothesise the occurrence of social/family groups (Gambacurta and Ruta Serafini 1998a; Ruta Serafini 2013: 93). In the earliest phases (9th-7th centuries BC) burial mounds enclosed two or three potential family units, presumably belonging to the same extended household, while from the 6th century BC they contained several dozen tombs in larger formations resembling *gens*, larger groups consisting of several households descended from common ancestors (Gamba *et al.* 2015; Gambacurta *et al.* 2005). In terms of funerary rituals, cremation was the dominant mortuary rite, although inhumation was also practiced, especially in the earliest phase (Gamba and Voltolini 2018). Rituals were complex and consisted of several actions that could vary from site to site or according to different chronological phases (Capuis 1993: 76-84; Ruta Serafini 2013).

Recent osteological and microstratigraphic analyses have revealed that a typical and frequent feature of Venetic funerary rituals was the reopening of burials in order to reunite the cremated remains of two or more individuals (Balista *et al.* 1988; Gambacurta and Ruta Serafini 1998b; Millo and Voltolini 2015; Vanzetti 1992). Indicators of re-opening after primary deposition may consist of stratigraphic evidence – two or more levels of pyre debris separated by different layers and/or two or more stratigraphic cuts for the grave pit and its reopening – and grave goods evidence, such as the occurrence of double grave goods in one single burial or the presence in the same tomb of items from different chronological phases. The reunification can take place by the mixing of bones within the same urn or through the insertion of other urns within the same box. Combinations of an adult with children, adults of different gender and two/three same-sex individuals are the most commonly documented combinations. The main interpretation for this practice within the literature views these reunions as evidence of a desire to recreate a link between the deceased, perhaps a reflection of family ties, following a custom known in other contexts of protohistoric Italy (Capuis 1993: 81-82; Gambacurta and Ruta Serafini 1998b: 97; Manzoli *et al*. 2015; Perego 2012; Ruta Serafini 2013: 94-95).

Childhood Burials in Iron Age Veneto

The systematic investigation of child burials in Iron Age Veneto is still in progress (Bortolami and Gambacurta 2021). At this stage, however, it is possible to highlight some general features, based mainly on published data. The first is related to the under-representation of sub-adults in the necropolis. It is generally known that child burials, within a mixed necropolis, are under-represented. As noted by many authors this is a common and widespread issue all over the ancient Mediterranean world (e.g. Bartoloni 2003: 103–105; Fulminante 2018; Lillie 1997; Lucy 1994; Nizzo 2018: 22; Parker Pearson 1999: 103; Piergrossi and Tabolli 2018: 18; Rega 1997; van Rossenberg 2008). Generally, in most prehistoric populations, the percentage of childhood mortality is expected to be at least 50% in a community (Chamberlain 2000: 207–210; Morris 1987: 57– 62). The investigation of many Venetian burial grounds has revealed the number of child burials to be much lower than the expected value (Bortolami and Gambacurta 2021; Drusini *et al.* 1998: 39-40; Onisto 2014: 227).[3] This suggests that some children were excluded from normative mortuary rituals and did not have access to the necropolis of their community, thereby indicating that the right to burial was selective (Cuozzo 2016: 8; Nizzo 2018: 21).

The second point concerns the presence of specific indicators of childhood. The study of grave goods, combined with osteological analysis, has allowed the identification of some specific and exclusive archaeological markers of child burials. These comprise small and peculiar pots that were employed as urns, as well as miniature objects and typical childish items that may have been used as toys (shells, *astragali*) or amulets (small jewels, pendants) (Muggia 2004; Ruta Serafini 2013: 96).

Research Methods: Questions, Data and Methodology

The starting point to discuss the theme of burials and funerary representation of sub-adults is the assumption that a necropolis mirrors the society it serves. It reflects, often not in a linear way, the image of a community as perceived by those who buried the dead (Parker Pearson

[3] In the sample considered in this paper (necropolis of Este – Casa di Ricovero), child burials comprised 36.3% of the total number of individuals.

1999: 3). Therefore, burials and funerary rituals are the result of an interpretation based on both identities of the participants at the funeral and their relationship to the deceased (in our case, the children) (Sayer 2010: 60-63). However, who are the living actors of this process? The social organisation in Early Iron Age Veneto was made up of family units and the community was based on a kinship structure, therefore these people (the living actors) were most likely members of the same households (Gamba *et al.* 2015: 94-96). As such, the research presented in this paper starts from three questions:

1. Were children of the same family treated in the same way or were there different codes/levels of representation?
2. Were there standard funeral treatments for children in a given community?
3. How can this be linked to community structure?

In order to answer these questions a relevant case study has been selected for which I have considered all available data. In particular this included data from spatial organisation of the burials, information from the funerary ritual and the composition of grave goods and, finally, data from osteological analyses that provide information on the number of individuals and age at death.

Regarding spatial organisation, the position of sub-adult graves in relation to those of adults was examined. In addition, another point to consider is the presence/absence of another individual in the same tomb. It is therefore necessary to observe and distinguish individual burials (single deposition in an individual grave pit where the deceased is buried alone) from collective burials (multiple depositions comprising two or more individuals). In relation to the grave goods, the number of items and their quality in terms of rarity and preciousness, and where and how these objects were placed in the grave, were all considered. In fact, the positioning of items in the grave enables the personal belongings of the deceased in life (usually placed inside the urn, sometimes after being burnt with the deceased on the funeral pyre) to be differentiated from an additional set of grave goods expressing the 'symbolic representation' of the deceased (external to the urn) (Gambacurta and Ruta Serafini 1998a: 94-98; Ruta Serafini 2013: 95). Lastly, with regards to the anthropological examination of individuals, it is known that sex estimation of sub-adult remains is not possible by osteological analysis due to the absence of features of sexual dimorphism in immature individuals. Therefore, the determination of sex can only be done archaeologically. As a result, in the case study I will refer to gender as deduced from archaeological indicators, a social construct that could be different from biological sex (Lewis 2011: 4-5; Sofaer-Derevensky 1997). Concerning age at death, in line with other authors (Di Lorenzo *et al.* 2016: 115), children were classed within three conventional age groups on the basis of osteological data: *infans* 1 (under 3 years at death), *infans* 2 (3-7 years) and *infans* 3 (7-14 years).

Taking all of these points into account, a selected group of burials is examined with a focus on the rituals and grave assemblages that characterise children's graves. The aim is to identify possible differences in grave structure, furnishing and ritual practice that characterise child burials of this group.

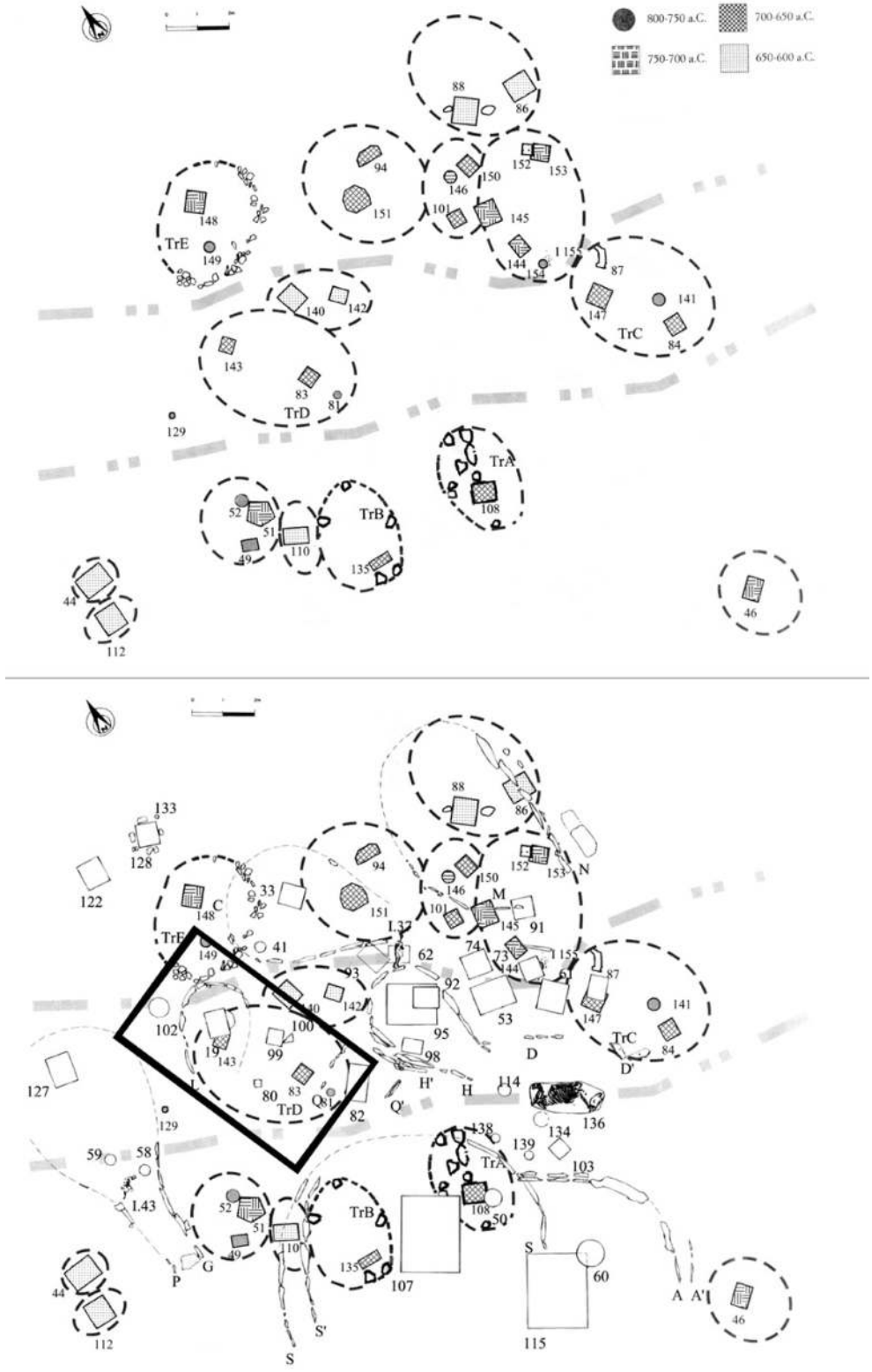

Figure 2: Este, necropolis of Casa di Ricovero. The analysed sample is contained within the black rectangle (after Balista and Ruta Serafini 1998, modified by the author).

A Case Study: Mound L from Este

The selected case study consists of a group of burials from the necropolis of Casa di Ricovero, at the north of Este, a town near Padua at the foot of the Euganean Hills. This necropolis, in use from the 8th century BC until the 3rd century BC, is characterised by core burial clusters and mounds, that can be interpreted as family or kin units (Figure 2). The spatial organisation of the burials shows an evident intention to organise the tombs in aggregations of social proximity and to gather together all family members (Balista and Ruta Serafini 1998).

The group of burials analysed is located in the central-western area of the necropolis and is characterised by two chronological phases (extending from the 8th century to the 6th century BC) marked by the construction of a mound (Tr. D) that evolves, at a later stage, into a more complex funerary structure (Mound L) (Figure 3). Individuals of different ages buried in close proximity to each other and the presence of a number of collective tombs are two main indicators of an articulated family group, defined as a group of people that shares biological

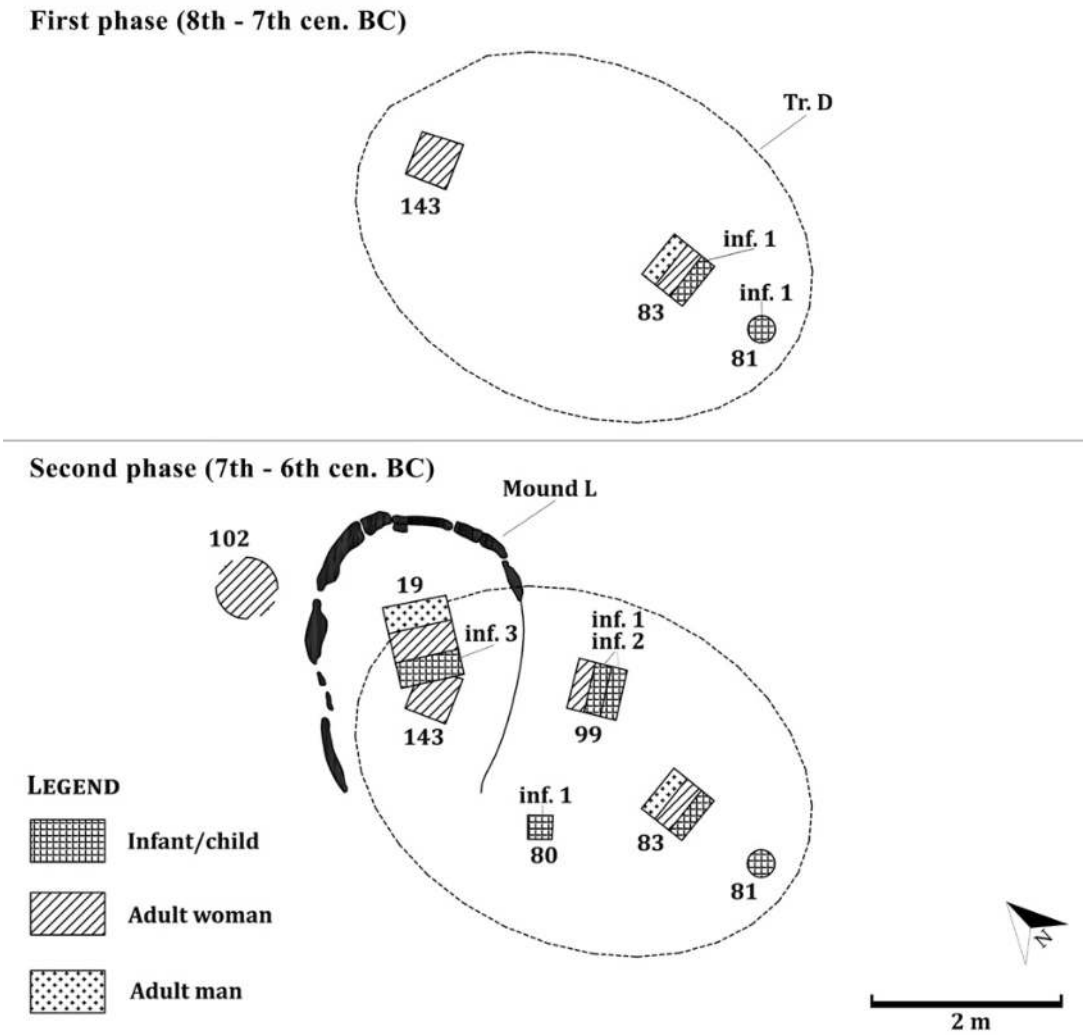

Figure 3: Este, necropolis of Casa di Ricovero, showing Mounds Tr. D and L (prepared by the author).

and/or social kinship relationships (Gamba *et al.* 2015: 94-95; for a general perspective see also Kendall and Kendall 2021). Osteological analyses were carried out on all of the individuals of the group (Drusini *et al.* 1998). A total of 12 individuals, all of whom were cremated, were represented. The osteological findings of each individual are provided in the description of each grave below and summarised in Table 1.

1st phase (8th-7th century BC)

Three tombs were present in a single mound referred to as Tr. D (see Figure 3). A multiple burial (tb. 83) is central, while two individuals lay on either side of it. Two infants were present, one of whom is buried with adults while one is on his/her own. More precise details of the three tombs are provided below:

- Tomb 83: This is a collective burial of an adult man with an adult woman and an *infans* 1 (3-9 months), suggesting a very close tie between the three members (possibly parents

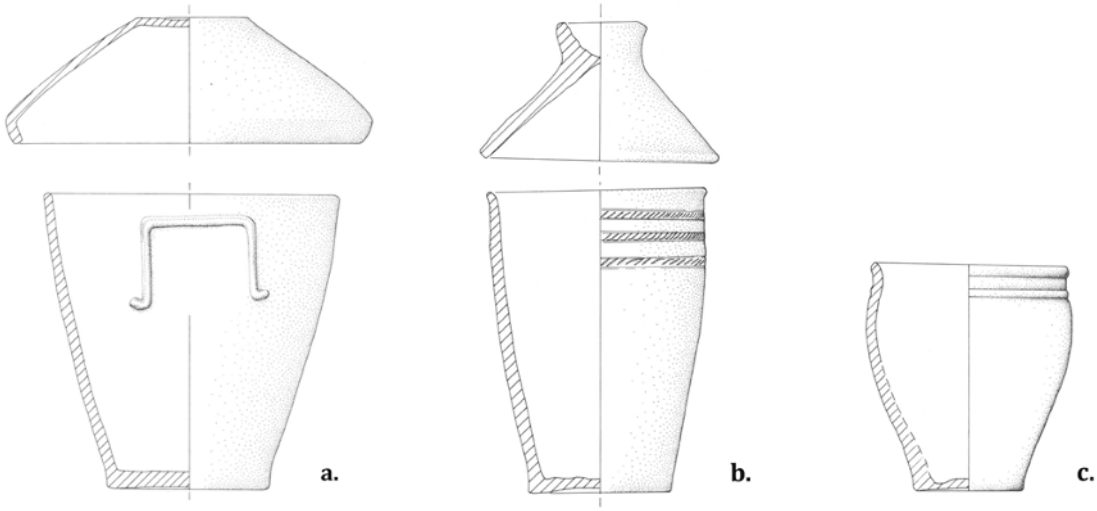

Figure 4: Este, necropolis of Casa di Ricovero, showing the urns of children buried in Tombs 81 (a), 80 (b) and 99 (c) (metric scale 1:3; prepared by the author).

Table 1. Composition of the group buried in Mounds Tr. D and L: M = male, F = female, nd = not determined (prepared by the author).

Tomb	Date (BC)	Mound	Type of burial	Adult	Children	Grave goods
81	800–750	Tr. D	Single	-	1 nd (*infans* 1)	No
83	750–675	Tr. D	Collective	1 M + 1 F	1 nd (*infans* 1)	Only adults
143	650–600	Tr. D	Single	1 young F	-	Yes
19	625–550	L	Collective	1 young M 1 young F	1 F (*infans* 3)	Yes
99	550–500	L	Collective	1 F	1 nd (*infans* 1) 1 F (*infans* 2)	Only adult woman and *infans* 2
80	550–500	L	Single	-	1 nd (*infans* 1)	No
102	550–500	L	Single	1 F	-	No

– child?). The excavation data do not allow us to identify if the three individuals were buried at the same time or in different moments. The infant is laid in an urn together with the woman, while the man was buried alone in another pot. The study of the grave goods suggests the following attribution of the objects: the man was interred with a brooch and a bone handle, while the woman and the infant were buried with two *armillae*, bronze bracelets usually worn by adult women. These *armillae* are probably related to the woman (Bortolami 2021, appendix 1, n. 27).

- Tomb 81: This contained an individual burial of an *infans* 1 (3-9 months). The tomb is an individual grave containing a pit within which lay a wooden and stone box that contained an ossuary with a lid. No grave goods were present and the ossuary comprised a small jar, typical of childhood burials (Figure 4a) (Capuis and Chieco Bianchi 1985; Capuis and Chieco Bianchi 2006).
- Tomb 143: This was an individual burial of a young woman (13–19 years) which contained partially preserved grave goods consisting of vases and ornamental objects such as bone beads and little bronze rings from a necklace, a clay spindle and a bronze needle.

In this first group, one clear point is that two infants of the same age (3–9 months) are characterised by two different funerary treatments. Both lack grave goods but one (tb. 83) is buried together with an adult, while the other (tb. 81) is deposited individually within a personal ossuary.

2nd phase (end of the 7th – 6th century BC)

At the end of the seventh century there is a marked change in the organisation of the burials and a new pear-shaped *tumulus* with a *dromos*, called L, is built over the earlier mound and becomes the focus around which new burials are located (see Figure 3). The excavation data indicated that, at the same time as the foundation of the new mound, the cremated bones of the young woman from Tomb 143 were removed from the ossuary and then laid in a new burial (Tomb 19) in the middle of the *tumulus* (Bagolan and Michelini 1998; Michelini 1998). So, she probably represents the founding figure of this new cluster and later a young man and an infant are buried with her. Therefore, a collective burial with three individuals is placed inside the mound (tb. 19), while other tombs are placed in a peripheral position (tb. 80, tb. 99 and tb. 102). There are four burials of children, three of whom are buried with adults and one that is individual.

- Tomb 19: This is the central burial and contains the remains of two people (a male and a female) placed in the same urn with some grave goods (a bronze fibula for the woman and an awl and a knife, both in bronze, for the man). In the same box, but within a different urn, there is an *infans* 3 (7–13 years) whose grave goods comprise a small-sized pot used as urn and miniature jewellery, including bronze fibulae, bronze pendants and a necklace made of bone, glass past and coral beads (Figure 5a, c-g, i). This combination of objects, which is usually typical of women, would suggest the child was female (Bagolan and Michelini 1998: 139). In addition, two 'adult sized' objects were present: a particular type of fibula with an arch marked by a deep C section, called a *navicella*-shaped fibula, and fragments of an *armilla* whose other half was contained among the young woman's grave goods in the other ossuary of Tomb 19 (ex 143) (Figure

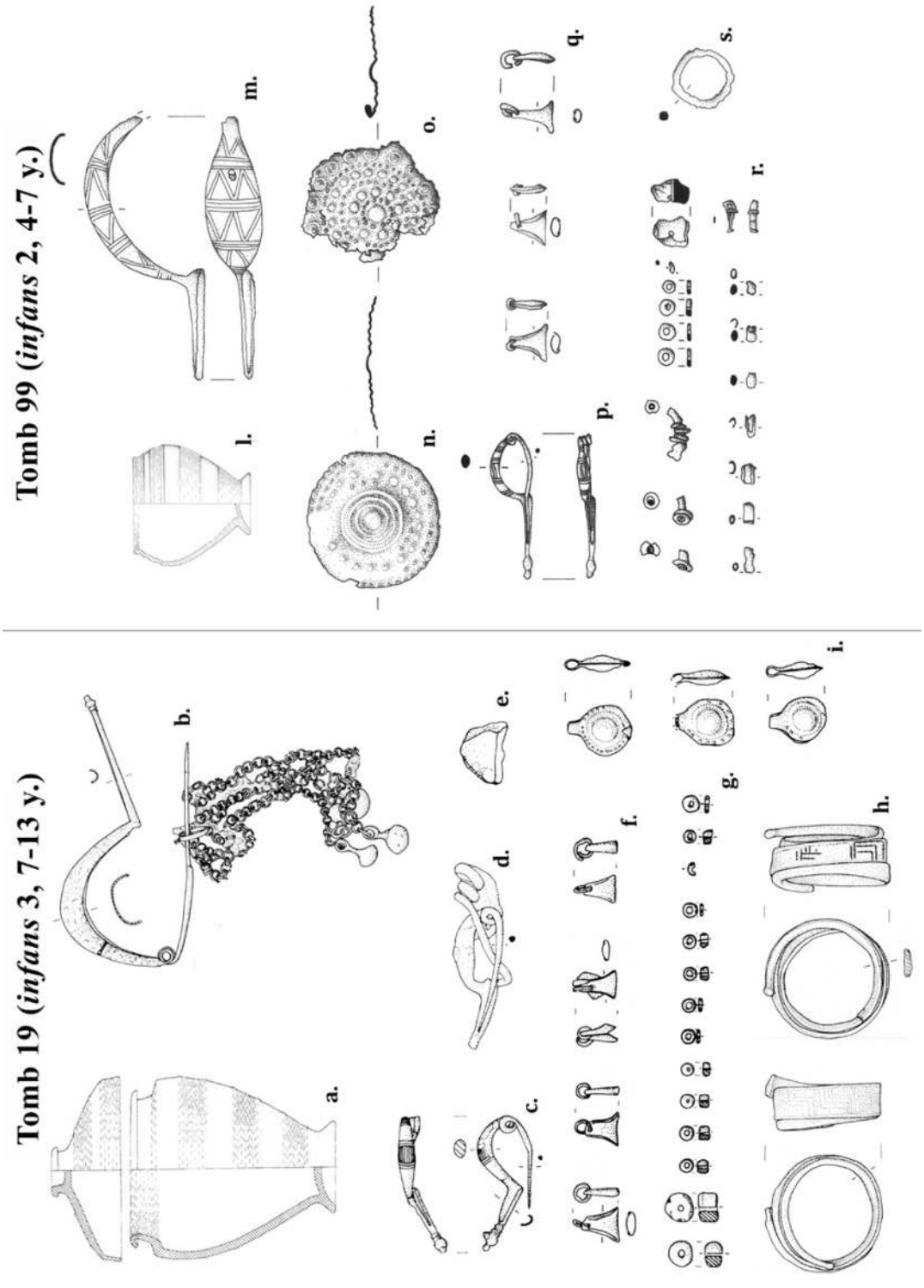

Figure 5: Este, necropolis of Casa di Ricovero, Mounds Tr. D and L, showing the grave goods of two girls buried in Tombs 19 and 99 (metric scale of pottery 1:8, metric scale of other materials 1:2; prepared by the author).

5b, h). These two items are therefore adult objects that were placed specifically in the child's burial. This could be interpreted as a transfer of objects from one ossuary to another or a form of inheritance from adult to child (Bagolan and Michelini 1998: 139; Gambacurta and Ruta Serafini 1998a: 81).

- Tomb 99: This is a collective burial located outside the mound containing a woman and two children, an *infans* 1 (3-9 months) and an *infans* 2 (4-7 years). All three individuals are laid out in separate urns, but which are contained within the same box. The woman's grave goods comprise bronze fibulae and bronze rings. The youngest child (*infans* 1) is placed in a little jar without a lid and has no grave goods (see Figure 4c), while the older one (*infans* 2) has a small-sized urn and miniature jewellery: a bronze fibula and bronze pendants, two miniature bronze disks and a necklace made of coral and glass paste beads (Figure 5n-s). In addition to these objects, which are typical of infants, there is a large broken *navicella*-shaped fibula like the one discussed above (child of Tomb 19) (Figure 5m). In this case, the archaeological gender indicators are suggestive that the older child was a young girl.
- Tomb 80: This is a very simple individual burial placed outside the mound in a peripheral position. Osteological analyses have identified that the bones are those of an infant of a few months old (*infans* 1), while the grave goods consist only of a small-sized jar that was used as urn and a lid (see Figure 4b).
- Tomb 102: This is another very simple individual grave, located outside the mound, containing the remains of an elderly woman who was only associated with an ossuary and a lid.

Within this group we can also observe differential treatments reserved for sub-adults – some are placed in single ossuaries but inside collective graves (Tombs 19 and 99), while another is buried outside the mound in a single tomb with a personal urn (Tomb 80).

Discussion and Conclusion

On the basis of these data, it is possible to identify some key points concerning the funeral treatment of sub-adults in this group and the implications that the death of a child could have had on the family and on the whole society in a given time period (from the 8th to 6th centuries BC).

Firstly, in this sample it seems that the funeral treatment of children does not differ from that of adults in terms of grave structure, funerary ritual and the composition of grave goods – children are buried in the same funerary area as adults, they are cremated and placed in ossuaries within coffins like adults and many of them have personal grave goods like older individuals. In this case, it would seem that the funerary representation of adults and sub-adults is based on shared norms, which is a similar situation to other Venetic contexts, such as Padua, Altino, Oderzo and Montebelluna (Bortolami and Gambacurta in press). This means that children were not considered as a separate category but rather as members of the family/community who were treated as such from an early age.

Secondly, in this group children do not have a single and unique funeral treatment. If we sub-divide the Mound L sample by age groups, it is evident that all *infans* 1 are lacking any kind of funerary assemblage to represent them, while *infans* 2 and 3 have more complex grave goods

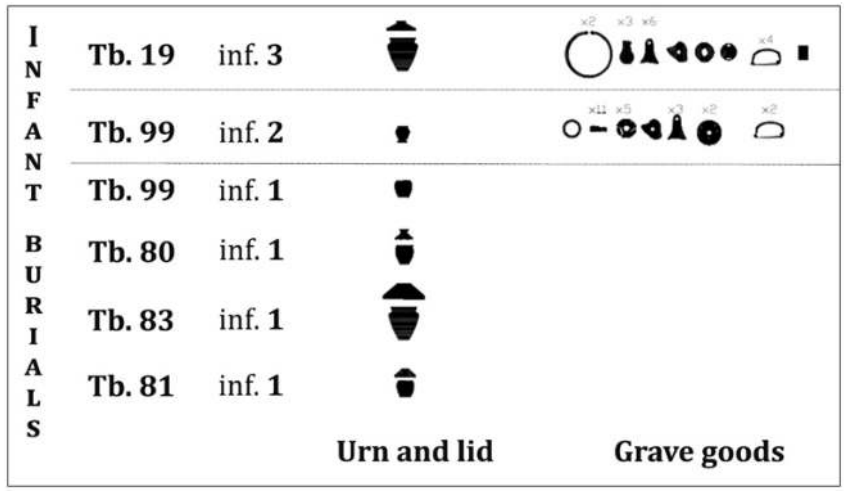

Figure 6: Schematic composition of infant grave goods by age class (prepared by the author).

(Figure 6). So, in this cluster, a first difference in the funeral representation could be due to age which is similar to other examples from pre-Roman Italy (Cuozzo 2003: 205-207; Fulminante 2018: 38; Nizzo 2011; Nizzo 2018). Moreover, if we look at the different composition of the grave goods in relation to the topographic position of the tombs, it is clear that children with more elaborate and extensive grave goods are those laid in collective burials both inside and right outside the mound. Therefore, it is possible that in this group another difference in the various levels of funerary representation was linked to a hierarchical structure or different lineage and rank within the same household, as has also been proposed for other contexts in the region (Bortolami and Gambacurta 2021; Gamba *et al.* 2015: 94-95; Ruta Serafini 2013: 93). The option of placing children in single or collective burials probably had a precise meaning, which is not clearly identifiable and requires further studies.

In this case study, it is possible to detect the existence of relationships among the deceased. A limitation of the work is the absence of aDNA analyses to identify biological ties between individuals, due to unsuitability of cremated remains for this analysis (Crellin and Harris 2020). However, the study of grave goods and the topographical position of burials allow one to identify individual role differences within the group found in Mound L. Here, in fact, the household was made up of a most important group (located inside the mound) consisting of a man, a woman and a child. Outside, but near, the structure, there is the collective burial of an adult woman and two infants, possibly related to the central group on the basis of certain similarities of the grave goods. In addition, two simple and individual burials of an old woman and an infant, both of whom lacked grave goods and were perhaps linked by less evident ties, were located in more peripheral position. This organisation is confirmed by the previous hypothesis that the community who first settled in Este from the beginning of the 8th century BC was structured in socially stratified nuclear families (Balista and Ruta Serafini 1998: 18–24; Gamba *et al.* 2015: 94-95). This social organisation changed from the 6th century BC, when larger and more extensive groups of individuals are documented in the necropolises of major sites such as Este and Padua (Balista and Ruta Serafini 1998: 24-27; Gamba *et al.* 2015: 95-96; Gambacurta *et al.* 2005).

Finally, on the basis of the archaeological data, females are much better represented than males. In fact, some female burials, both of adult women and infants, have a greater level of jewels and ornaments compared to those of the males that have few indicators of gender. This issue is common in the Iron Age Veneto, where female burials seem to have greater relevance, representing the *medium* for the exhibition of family wealth and the central role of women in the line of descent (Capuis and Chieco Bianchi 2013). In addition, in the sample considered, some children were symbolically represented as 'little adults'. This is clear in the case of two little girls (tb. 19 and tb. 99) who are associated with personal ornaments, usually linked to adults, and were symbolically represented as 'miniature woman'. In particular, the *navicella*-shaped fibula is a typical object of adult women: included among the grave goods of the two girls as a gift or form of inheritance, it could be a strong marker to represent a role (that of an adult) not achieved due to death. The occurrence of adult-related objects, frequently 'defunctionalised', in sub-adult graves is also a recurrent feature in other areas of pre-Roman Italy (Cuozzo 2003: 208-210; Di Lorenzo *et al.* 2016; Fulminante 2018; Nizzo 2011: 58–66; Nizzo 2018; Pacciarelli 2010: 31; Perego and Scopacasa 2018: 169; Weidig and Bruni 2018: 73). The inclusion of objects that represent adulthood is an event that occurred during the funerary ceremony and represents a wish of the family or social group that could be interpreted as a reflection of social expectations about the child's future role and *status*. In this case, the emphasis given to the funeral treatment of the two girls indicates the important value they had in family continuity and the role they should have had in the community.

Another relevant feature in these two burials is that the furnishings of both have an identical combination of objects of the same type: a miniature fibula, a *navicella*-shaped fibula, triangular pendants and a necklace. This indicates the existence of a code of funerary representation shared by the members of this group and is a possible indicator of the ties between these two burials.

In conclusion, the analysis of Mound L allows the identification of a cluster (possibly a family group) that had an inner hierarchy probably defined on the basis of different lineage lines. The overall examination of the entire northern necropolis of Este – Casa di Ricovero, which is still in progress, will clarify how the other groups were organised and will contribute to determining the social organisation of this site between the 8th and 6th centuries BC. However, during this phase, a similar arrangement is documented in Padua, where recent studies have identified small mounds that contained nuclear families (Gamba *et al.* 2014), while other sites are presently under investigation.[4]

As such, to conclude, Mound L reflected the structure of a limited group of individuals through the topographical distribution of the burials, different arrangement of grave goods and anthropological composition. Several indicators (proximity of burials, heterogeneous composition of individuals, recurrence of particular objects) make it possible to interpret the burials as a family unit extended over time. The analysis of this limited case-study, which will need further investigation and comparison with other contexts, allows the observation that children of this group were accepted members of the community, and similar to the situation also observed in other necropolises in Italy during the 1st millennium BC (Cuozzo 2003: 203–204; Di Lorenzo *et al.* 2016; Nizzo 2011; 2018; Pacciarelli 2010: 29-31; Perego and Scopacasa

[4] The topic of composition and evolution over time of households in Iron Age Veneto was part of my doctoral research at Ca' Foscari University in Venice.

2018; van Rossenberg 2008; Weidig and Bruni 2018). The funerary rituals and symbolic representation of sub-adults were the same as those of adults and became an essential part of the funeral communication system. As a result, the *status* of the family and the prerogatives of each member were established at birth and transmitted by inheritance through different lines of lineage, according to a process that involved all components of the household. The funerary treatment of certain children thus became a way to emphasise and highlight the importance of family ties, and therefore of *status*, in front of the whole community.

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An Integrated Approach Towards the Analysis of Child Burials in the Etruscan Po Valley, Italy (6th-3rd century BC): Representation and Spatial Choices

Anna Serra[1]

Abstract

The paper focuses on child burial practice in the Etruscan Po Valley from the 6th to the 3rd century BC and re-evaluates old excavations through a contextual approach. The excavation data collected from the region's main necropolises (Bologna, Marzabotto, Spina) has been integrated with osteological data to overcome issues related to the fragmented state of contemporary documentation. The analysis has focused chiefly on the spatial location of child burials and their occurrence within the burial grounds. Based on published records, child burials appear to be strongly under-represented compared to the expected death rate. The quality of the available documentation and the focus on atypical burial practices could have affected the number of tombs recovered. In this regard, the possibility of a differentiated burial practice for infants/children could effectively influence the archaeological record, leading to their 'invisibility'. The paper further explores this topic focusing on the possibility of a diversified location, comparing these observations with recent excavation data. Then, the paper investigates an example of normative spatial choice, concentrating on a specific case study, the Valle Trebba Necropolis of the city of Spina. A systematic contextual study of the necropolis has been carried out in recent years, allowing the reconstruction of the 'necropolis system' and its internal dynamics. Considering child burial practice, analysis of the organisation of the necropolis has shed light on the complexity of the site, showing different strategies of representations/integration in which child tombs play an active part.

Keywords

FUNERARY ARCHAEOLOGY, BIOARCHAEOLOGY, CHILD UNDER-REPRESENTATION, 6TH-3RD CENTURY BC, ETRUSCAN PO VALLEY, VALLE TREBBA NECROPOLIS, SYSTEMIC APPROACH

Introduction: The Etruscan Po Valley

In the 6th century BC, the territorial system based on the central city of Bologna-*Felsina* reached its economic and cultural apex due to its strategic position within the trade routes between Central Italy and Europe. The region was re-organised through the foundation of new cities (Marzabotto, Spina, Forcello di Bagnolo di San Vito) and the expansion of the previous ones, creating an interconnected commercial system of agricultural exploitation of the fertile Po Valley. This acquired balance reached a crisis point during the 4th century BC due to multiple causes related to both alterations within the Mediterranean trade routes and political instability, exacerbated by the Celtic invasion. At the beginning of the century,

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the migration of Celtic groups led to a new equilibrium in the communication system. Some ancient Etruscan cities survived, adapting to the socio-economic changes (Sassatelli 1990; Sassatelli 2001).

The study of child funerary rituals is part of a broader research project dedicated to inhabited areas and necropolises of the Etruscan Po Valley, coordinated firstly by Giuseppe Sassatelli and now by Elisabetta Govi, the Chair of Etruscan Studies of the University of Bologna. It focused on examining burial areas based on a systematic and contextual approach aimed at reconstructing funerary customs and the re-evaluation of old excavations. The project resulted in the study of many necropolises: Marzabotto (Marchesi 2005; Morpurgo and Pozzi 2009), Bologna (Govi 1998; Govi 1999; Guidi 2005; Macellari 2002; Morpurgo 2018), Galassina di Castelvetro near Modena (Pizzirani 2009a), Valle Trebba at Spina (Gaucci *et al.* 2018; Govi 2017a) and Adria (Gaucci 2016; Gaucci 2017).

Excluding the Valle Trebba Necropolis (Muggia 2004a), child funerary practice has not been systematically addressed in this area. The significant amount of data collected from the necropolises (more than 4000 burials in Bologna, Spina and Adria) made it possible to consider undertaking an analysis of child burial practice. The interest increased further due to the recent discovery of an 'atypical' burial during the excavation of the city of Marzabotto (see below).

Recent studies have proposed the possibility of re-interpreting old excavations by focusing primarily on children as part of the context using a systemic approach. These analyses are usually supported by a rigorous data revision and, possibly, by a multidisciplinary approach integrated with bioarchaeology. This integrated approach was applied mainly to the analysis of necropolises in Tyrrhenian Etruria (Becker 2011; Cuozzo 2003; Fulminante and Stoddart 2021; Hladikova 2013; Nizzo 2018a; Piergrossi and Tabolli 2018; Tabolli 2018). However, older excavations typically neither recorded anthropological data nor collected osteological remains (on this issue, see Rubini *et al.* 1997: 435). In this regard, new data are fundamental for studying funerary practices, especially in the case of extensive and systemic excavations such as occurred at the site of Pontecagnano (Cerchiai *et al.* 2018; Cuozzo and Guidi 2013: 69-71) and Osteria dell'Osa in *Latium vetus* (Bietti Sestieri 1992). Today, the topic of child burial holds a great interest in national research on funerary archaeology during pre-Roman times (Bergaglio *et al.* 2020; Boccuccia *et al.* 2020; Govi 2021; Lambrugo 2019; Tabolli 2018).

During the analysis of child funerary practice in the Etruscan Po Valley, the re-evaluation of the regional context was supported by the revision of old excavation data, the collection of recent data, and, when possible, the integration of bioarchaeology. During the study, a homogeneous and systematic methodology was applied to the multisite perspective, and, at the same time, attention was paid to local variations. The possibility of observing funerary practice on a macro-perspective permitted re-evaluation of the topic on a large scale, allowing exploration of the normative and, at the same time, deviant practices. This paper will outline the 'normative' funeral treatment for subadults in this region, mainly focusing on burial location and spatial distribution.

Definition: What Does the Term 'Subadult' Mean?

Definition of the age range is a necessity from the start when comparing heterogeneous data from various sites. In anthropological and archaeological literature, the definition of age groups can be interpreted in different ways depending on the social, chronological, and cultural context and considering the parameters used to define the age at death, physical growth, and social status (Buchet and Seguy 2008; Dasen 2010: 19-20). Terms such as 'infant', 'child' and 'adolescent' have different meanings through time and space (Fahlander 2011; Halcrow and Tayles 2011: 346-351; Kamp 2001; La Fontaine 1978; Sofaer 2006: 117-124).

A brief survey of the most recent publication on the topic indicates a heterogeneous definition of age categories; sometimes suggesting an overlap of ritual practice, social stages, and physical growth (see Boccuccia *et al.* 2020). Most anthropological data have been lost for the Etruscan Po Valley because of old excavation methods or misplacement of osteological remains. Thus, osteological analyses were only occasionally conducted (Bologna: Facchini and Evangelisti 1975; Facchini and Brasili 1997; Valle Trebba of Spina: Serra *et al.* 2021). In this paper, age categories are classified into 'fœtal', 'infant' (0-1 years), 'child' (1-12 years), 'adolescent I' (12-15 years) and 'adolescent II' (15-20 years) as in Baker and colleagues (2005). In this way, it was possible to separate individuals aged 15-20 years from the other subadult categories to verify the impact of puberty on social age construction.

In the absence of osteological remains, the general definition of 'subadult' was used for individuals <15 years of age. Their identification depended on the excavation records (dimensions of burials and skeletons) and the descriptions made at the time of discovery. Hence, it was impossible to define a specific age category, and the identification of 'adolescents' was challenging. Young children were more easily recognised during the excavations, and the low numbers of older children or adolescents at some sites is probably related to this bias.

'Visibility' and Representation Within the Common Burial Ground

From the 6th to the 4th-3rd centuries BC, most subadult tombs in the Etruscan Po Valley were recovered in common burial areas (Figure 1). However, inside these necropolises, the deposition of child burials and their relationship with other tombs/groups varied greatly, displaying different dynamics such as integration/marginalisation/isolation. In this regard, the analysis conducted in the necropolis of Valle Trebba showed that different strategies were used simultaneously (see below).

Overall, the numbers of subadults within burial grounds proved to be far lower than the expected death rate. Between the 6th and the 3rd century BC, the general percentage within the burial areas of the main Etruscan settlements appears to be around 10-20% (Table 1), as shown by a brief survey of the old excavations at Bologna (Macellari 2002; Morpurgo 2018; Riccioni 1952-1953; Zannoni 1876-1884), Marzabotto (Marchesi 2005), and Valle Trebba of Spina (see below). The collected archaeological data differs from the ethnographic and historical reconstruction of child death rates, which are estimated to reach the highest levels during the first years until weaning (*c.* 40-60%), subsequently decreasing to 10-15% (Becker 2011: 25-26; Chamberlain 1997: 249; Chamberlain 2000; Muggia 2004a: 26; Scilabra 2013: 22; Scott 1999). Weaning represented a challenging period, and the osteological material often

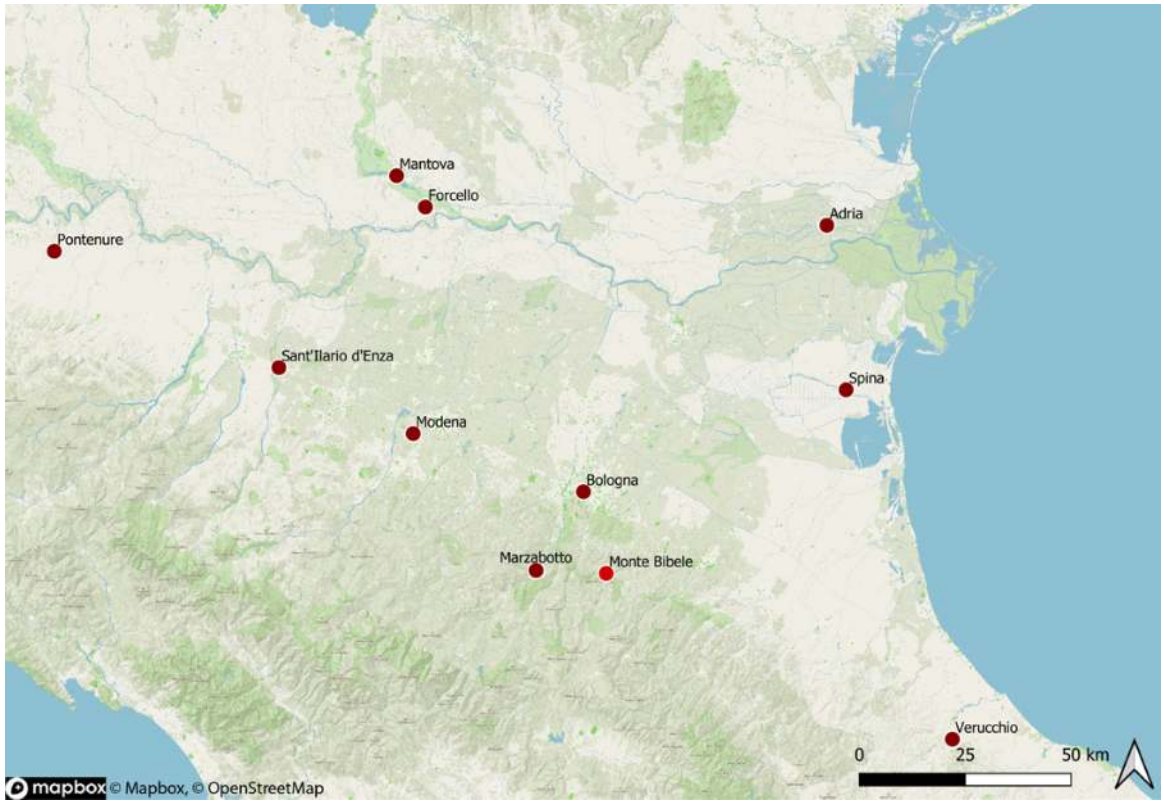

Figure 1: The main cities of the Etruscan Po Valley (author's elaboration based on map data from Mapbox and OpenStreetMap and their data sources).

Table 1: Table with the percentage of subadult burials in the necropolises mentioned in the text.

City	Necropolis	Excavation dates	%	n. of child burials
Bologna	Certosa	1870-77	9.1%	37
Bologna	Arnoaldi	1871-86	10.3%	15
Bologna	De Luca - Battistini	1875, 1895	2.4%	3
Bologna	Aureli - Aureli/ Bassi	1896, 1906	13.0%	5
Bologna	Giardini Margherita	1876, 1887, 1889, 1916, 1962	3.3%	7
Bologna	Giardini Margherita	1986	c. 20.0%	4
Bologna	Reggiani	1906	20%	1
Bologna	Via Saffi	2008	c. 30.0%	3
Mar-zabotto	Norther necropolis	1841	1.8%	2
Mar-zabotto	Eastern necropolis	1867-74	1.6%	2
Spina	Valle Trebba	1922-35	11.6%	141

indicates inflammations, malnutrition, and infections that lead to general poor health at this time (Lambrugo and Cattaneo 2019: 229; on weaning see Dubois 2019; Jaeggi-Richoz 2020; Pedrucci 2019).

The under-representation of children finds comparison in other Etruscan settlements, where re-evaluation of old excavations integrated with bioarchaeological data indicates similar trends (Becker 2011; Hladikova 2013; Piergrossi and Tabolli 2018: 18; Rubini *et al.* 2000). Indeed, correspondence with the expected death rate is rarely recorded, such as in a sector of Pontecagnano Necropolis dating to the 6th-5th century BC (Pellegrino 2004). The absence of subadults is particularly evident for infants and small children under the age of three years (Fulminante 2018: 29-31; Nizzo 2011; Nizzo 2018a).

The systematic under-representation of children is common in funerary archaeology and is customarily connected to multiple causes, mainly recovery bias or ritual choices (Becker 2011; on subadult visibility/invisibility see Perego *et al.* 2020). The first group includes all aspects relative to the preservation, recording, excavation methods, and interpretation. The preservation and visibility of the osteological remains could vary according to physical growth, leading to underestimation of newborns and very young children, generally buried without grave goods or evident tomb structures. Moreover, specific studies have observed a tendency to overlook infants or children inside multiple burials due to the better preserved and easily recognisable adult bones (Chamberlain 2000). Even the excavation methods generated issues differing from site to site; most of the necropolises analysed in this paper were excavated between the end of the 19th and the beginning of the 20th centuries. Furthermore, the sites had been damaged by illegal excavations that compromised entire burial sectors. Little attention was paid to the osteological remains that were mainly misplaced, causing the almost total absence of anthropological data. Lastly, many sites have not been systematically studied and published, leading to fragmented regional knowledge.

Therefore, it appears necessary to outline the documentary issues and their limits, considering each site in a specific context. For example, even if the data from Bologna's necropolises came from old excavations, recent discoveries suggest a higher incidence of children although not as high as the expected death rate (Brasili Gualandi *et al.* 1994; Desantis 2015; Pelliccioni 1987). Thus, the under-representation probably depended not only on conservation/methodological issues but indicated ritual discrimination that partially precluded formal burial for subadults.

The impact of rituality on the visibility and presence of subadults is more challenging to define. Divergent burial practices could lead to anomalies and exceptions up to the 'negation' of death through 'non-burial' and the annihilation of personhood (Nizzo 2018b). To understand the significance of this deviation in burial practice, V. Nizzo has explored the fundamental role of 'intentionality' and the 'gestures' or actions that led to the construction of the archaeological deposit. This aspect could, indeed, lead to various forms of 'deviancies' from the normative burial practice due to the presence of accidental occurrences ('atypical death'), of ideological/social/ethnical/cultural discrimination of the deceased ('atypical individual') or, at least of ritual practices connected to the perception of peculiar individuals, as in necrophobia ('atypical rite').

The near complete absence of infants could depend on ritual discrimination due to the deceased's peculiar identity within its social/cultural context. In this case, that particular choice could have affected access to a formal burial within a common burial ground or defined different burial practices, e.g.:

- The existence of dedicated burial places that recalls the spatial discrimination of a social group in the funerary practice (d'Agostino 1990). A similar hypothesis has been inferred in the territory of Tarquinia based on the absence of infants and children under 4-5 years of age (Becker 2011); however, no similar evidence has been recorded in the Etruscan Po Valley.
- A differentiated or discriminated funerary treatment that leads to the 'invisibility' of children in the archaeological record, due to dispersal of the remains. In that instance, the archaeological approach cannot be applied to the analysis of funerary treatment (Bietti Sestieri 1992: 44). Another less extreme aspect could lead to a similar 'invisibility' in the funerary record: for example, preservation issues or simple deposition in an unmarked and unrecognisable grave.
- Interment in areas not generally used as burial grounds, such habitation sites. This aspect suggests a different perception of premature death, an 'abnormality' that influenced the funeral custom leading to different treatment and/or discriminations compared to the more normative adult burials.

The latter observation represents a debated issue (see Bartoloni and Benedettini 2007-2008). The documentation of several settlements of the region derives mostly from fragmented urban excavations due to the continuity of the urban areas during this period. Thus, the identification of infant and child burials in connection with habitation structures is complicated. In Bologna-*Felsina*, the only known infant tombs from habitation areas were dated to the 9th-7th centuries BC (Govi 2018: 627; Zanoni 2012: 636). The bones were recovered in deposits or pits with animal bones or next to the remains of hearths. No evidence of child burial was recovered for the Certosa period (mid-6th-4th century BC). A loose perinatal human bone was discovered among the faunal assemblage from Castenaso, a settlement near Bologna dated from the 9th to the early 6th century BC (Farello 1994).

More data came from the systemic analysis of animal bone assemblages from the settlement of Forcello (Bagnolo San Vito) and 100 human bones representing a minimum of 33 individuals were recovered during the analysis (Trentacoste *et al.* 2018). The bones were those of perinatal babies up until infants (<1 year of age), who had mostly died at 39-40 weeks gestation. They were found in different types of contexts, such as construction fills, refuse areas, or the fill of fire pits, which were all located near or within houses. A similar discovery was made at Poggio Civitate, an Etruscan settlement dating to the 8th-6th centuries BC (Trentacoste *et al.* 2018), where at least 19 perinatal infants were identified.

Perinatal or infant burials were not recovered from other Etruscan habitation areas or in other Etruscan faunal assemblages (Trentacoste *et al.* 2018). This data contrasts with the evidence in northern Italy from Venetic and Fritzens-Sanzeno Cultures (Zanoni 2012; Zanoni *et al.* 2018) and in *Latium*, where the burial of perinatal individuals/infants represented a regular practice (Fulminante 2018; Modica 1993; Modica 2007).

Further examination and excavations will probably shed light on this topic but at the moment, the absence of evidence in the Etruscan settlements is particularly notable for the 6th-4th centuries BC. This data is even more striking considering the absence of perinatal individuals and infants from burial grounds. Spatial and ritual choices related to child burials changed among pre-Roman populations. Thus, it is possible that child funerary treatments and their access to formal burial within common necropolises showed local variations. Many scholars state that mortuary practices present a metaphorical image of society; therefore, social interpretation of funerary data should be extremely cautious (d'Agostino 1985; d'Agostino 1990; Morris 1992). Thus, only the comprehensive analysis of each context could unravel the underlying strategies and the metaphorical language.

Offerings and 'Non-Burial': The Urban Sanctuary at Marzabotto

As previously stated, deposition outside burial grounds represents deviance in the local burial practices. In this regard, the discovery of an infant burial recently made during the annual excavation campaign within the urban sanctuary in the city of Marzabotto represented an exceptional anomaly (Govi 2018; first section in Govi 2021).

The city was founded in the second half of the 6th century in the Reno Valley. From the moment of its discovery in the 19th century, the settlement has been thoroughly excavated,

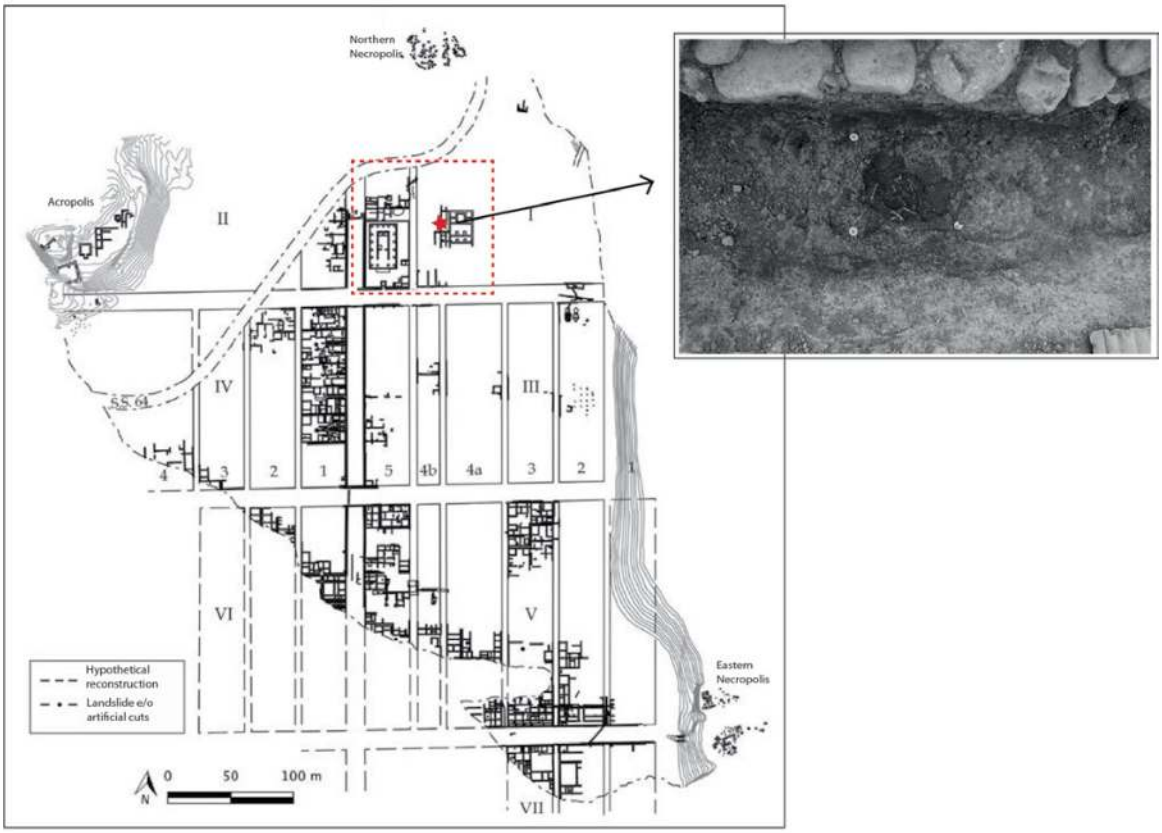

Figure 2: Plan of the city of Marzabotto-*Kainua*; on the right, the infant burial found in the foundation pit of the *Temenos* (modified by the author from Govi 2018).

bringing to light the complete layout of the ancient city – the acropolis, the urban sanctuary, houses, workshops, and necropolises. In the northern sector of the city, two temples were discovered: a peripteros temple dedicated to the main god of the Etruscan pantheon, *Tinia*, and a Tuscan temple dedicated to *Uni*, a matronly goddess connected to marriage and birth (Govi 2017b). In an enclosed area adjacent to the Temple of *Uni*, the goddess *Vei* was probably worshipped, an ancestral and chthonic divinity similar to Demeter and Ceres, and connected to fertility (Bellelli 2012). An infant was deposited in the foundation pit of the northwestern wall of the Temple of *Uni*'s *temenos*, the sacred wall that enclosed the sanctuary (Figure 2). Bioarchaeological analysis indicated an age at death around 38-40 gestational weeks. The infant was placed in a simple pit with no containment or associated funeral kit.

Thus, the infant burial was located within the sacred area, a piece of extraordinary evidence in Etruria and pre-Roman Italy. This type of interment cannot be classified or associated with typical burial in residential areas. Similar subadult burials have only been recovered in the sacred-monumental complex of Pianoro Della Civita at Tarquinia, where repeated burials (four adults and six children), dated to between the 9th and 6th centuries BC were interpreted as part of ritual activities (Bagnasco Gianni *et al.* 2019; Bonghi Jovino 2001; Fornaciari and Mallegni 1986).

The discovery at Marzabotto, which is currently under study as part of the research project *BIRTH: Burial/Infant/Ritual Theme* (first section in Govi 2021), represented a complete anomaly for the regional scenario. Because of the location and the funeral treatment, the infant should not be identified as a true 'burial'; if anything, the intentionality indicates its 'informal' character (Duday 2018). The infant was deposited as part of a complex system of actions related to the demolition and reconstruction of the sanctuary *temenos* (Govi 2018). Within the holy precinct, on the bottom and in the fill of the foundation pits, other elements indicate the execution of rituals: a pottery sherd engraved with an oriented crux and another with the inscription *Vei*. Around the infant, traces of olive pits were recovered, probably evidence that a substance containing olive oil had been poured on the burial. E. Govi interpreted the infant as a propitiatory rite connected to the modification of the sacred space. The infant burial was, therefore, part of a system of ritual actions connected to the 're-foundation' of the sanctuary, and necessary to re-establish its *sanctitas* after the violation/modification of its boundaries (for the anthropological analysis of the infant see Di Fazio 2001: 482-491). Therefore, this extraordinary context has provided new evidence about infant death in Etruscan rites.

A 'Normative' Case Study: The Necropolis of Valle Trebba (Spina)

The Valle Trebba Necropolis is located along a tributary of the Po River, known as Po Spinete, and was excavated during the Po Delta reclamation project in the 1920s. The site was part of a vast burial area, that included the southern Valle Pega Necropolis, dating from the end of the 6th to the 3rd centuries BC (Gaucci 2015: 118-120). The burials were positioned on offshore sandbanks, located between the sea and the hinterland, where the city of Spina was located. The almost 4000 tombs, which demonstrated the harbour's prosperity, projected towards the Adriatic Sea and Mediterranean trade routes. Despite the general crisis of the 4th century BC (see above), the city preserved a prominent role in the new economic balance and would be gradually abandoned only in the late 3rd century due to Roman expansion and the port's progressive infilling (Gaucci 2013; Govi 2006).

Figure 3: The Valle Trebba Necropolis in QGIS. The dashed areas indicate grave robbing. On the right, Field 52: the areas marked with rectangles are mentioned in the text (modified by the author; topographic definitions from Romagnoli 2017).

Unfortunately, the swampy nature of the soil and the upwelling of water hindered the excavation and made documentation of the burials difficult. Furthermore, the acidic soil compromised the preservation of osteological remains which were sometimes scarcely perceivable (as recalled by the title in Muggia 2004a). Moreover, vast sectors were illegally excavated and looted, mainly in Areas II and III (Figure 3). Hence, the systematic reconstruction of the burials is highly complex, even if the detailed documentation ensured the rescue of a substantial amount of information.

The necropolis is a perfect example of how the re-evaluation of old excavations using a comprehensive and integrated analysis can lead to new interpretations. The research approach was based on retrieving all anthropological data contained within the excavation documentation. A. Muggia (2004a) conducted the first study of subadult burial customs of the site, an exceptional example of a first systemic analysis aimed at defining the funerary customs and diachronic evolution within the site. However, the necropolis was mainly unpublished at the time and, therefore, the child and adolescent burials were considered separate from the context. A research project coordinated by the University of Bologna offered the chance to revisit the topic because of the advances made in the study of the necropolis (Govi 2017a), and enabled consideration of how subadult burials related to the context and other age classes within the same funerary area.

Re-Interpretation of Old Data: Quantification and Funerary Rituality

The entire context has now been systematically revisited, starting with collection of anthropological data from the documentation (i.e. descriptions, drawings, photographs, measurements). Furthermore, a collaboration with the Archaeological National Museum of Ferrara and the Laboratory of Bio-Archaeology and Forensic Anthropology of the University of Ferrara will enable study of the preserved osteological remains (189 tombs, 15.5% of the total burials; for the preliminary results on subadults see Serra *et al.* 2021).

A quarter of the burials (384 tombs) were classified into age groups, a sample that constituted the starting point for a diachronic analysis of the funerary practice related to age and rites (Figure 4). The loss of the majority of the osteological remains did not permit the specific identification of each burial, an aspect that represents a clear limitation to research on the site. The treatment afforded to subadults was compared to local funerary practice. The integration of data has allowed us to identify nearly 141 subadult burials (11.6%). The new interpretation slightly exceeds the first estimate proposed by A. Muggia (2004a: 34-35), from a minimum of 5.8% up to 7.8%. A. Muggia also suggested the possibility that some subadult burials had not been identified during the excavations; this hypothesis was confirmed by recent bioarchaeological analysis that recovered other subadults among the collected samples (Serra *et al.* 2021). Moreover, the data is comparable to the general child and adolescence under-representation in the region, indicating discriminatory access to formal burial based on age, and precluded to the majority of subadults.

As to the burial rites evident in the necropolis, a preference is given to inhumation (685 tombs, 56.4%) over cremation (490 tombs, 40.3%), although variations are evident through time. Both approaches were applied to subadults, but inhumation was decisively more documented (*c.* 81.0%, 112 burials). This discrepancy could be related to both rituality and issues with documentation. On the one hand, the rite of cremation is usually more documented for adult burials; ancient authors recorded the general exclusion of children under the age of three years from the cremation rite (Pliny the Elder, *Naturalis Historia*, 7.16.72; Decimus Junius Juvenalis *Satires*, vv. 139-140), a practice sometimes documented within Etruscan necropolises (Turfa 2018: 6; on this topic see also Lambrugo and Cattaneo 2019: 235). On the other hand, the less 'visible' and recognisable cremated remains could have led to an under identification during the excavation (a hypothesis suggested for Tarquinian tombs in Becker 2016: 186-187). The divergent collection of bones also confirms that lesser attention was paid to cremated remains; only 5.0% of cremated remains (42 tombs) were preserved compared to 19.0% from inhumations (144 tombs). The apparent discrepancy between the two funerary rites might not have been so notable in reality, but only the comparison with the nearby Valle Pega Necropolis (at the moment largely unpublished) will shed more light on this matter.

Spatial Dynamics within the Necropolis

Given the general trends, the presence and distribution of children and adolescents compared to the adult age groups within the Valle Trebba Necropolis represents a pivotal aspect of the research. Subadults were generally buried in single depositions, located among the other burials. Only 13 tombs held more than one individual – mainly an adult and a subadult, rarely of two subadults or two adults. Usually, the tombs included a funeral kit, which could vary

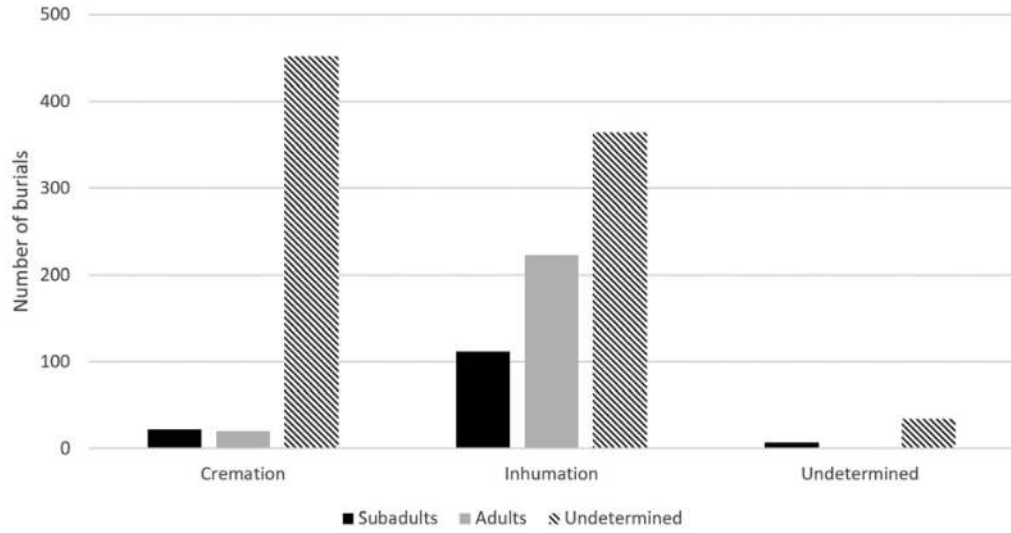

Figure 4: Age groups identified from bioarchaeological analyses, excavation data, and burial practices. In the diagram also the tombs destroyed by grave robbing were considered (180 inhumations, 36 cremations), even though they are mostly of indetermined age and sex due to their poor preservation.

significantly in composition, quantity and quality. Tombs with no grave goods were extremely rare and were not exclusive of children. Only further research will shed light on the possible value and significance of concurrent funeral treatments, which cannot be correlated only to gender or age categories.

A preliminary analysis of the placement of child burials has shown an absence of spatial discrimination related to age (Muggia 2004a: 166-167). However, previous studies have detected that burials were organised into groups around the most ancient tombs (d'Agostino 1998). The tombs inside a group/plot shared a common rituality indicating their affinity, which could be related to multiple elements, such as kinship, ethnicity, shared religious practices, or status (Colonna 1993; Gaucci 2015: 125-133; Gaucci and Pozzi 2009: 56; Govi 2017a: 101-102; Muggia 2004b; Pizzirani 2009b: 43-45; Pizzirani 2017: 121-122). This grouping system revealed the complexity of the necropolis based on the presence of various coeval representational strategies. In order to undertake a systematic spatial analysis, a geographic information system (GIS) was developed, which collected data from funerary rituality, anthropological analysis, and the ancient landscape (Gaucci 2015; Gaucci and Mancuso 2016: 42-43). The GIS has enabled several strategies concerning subadults to be detected, which indicate the presence of different spatial choices and interactions among groups. Even if the inclusion of subadult tombs reflected a 'normative' practice, the funerary practice displayed different strategies connected to their 'perception'. The sections below will focus on two peculiar cases – a cohesive group based on kinship (Tombs 456-457) followed by an example of marginalisation (Tomb 1161).

An Aristocratic Plot: 'Memory' and Familiarity Through Generations

The southern area of the necropolis (Field 52, Sandbank I.E) was selected as the first burial area (see Figures 3 and 5). The tombs, dating back to the end of the 6th century, documented high-level ritual practices with reference to Greek rituality, the display of imported goods and the typical selection of the cremation rite (Gaucci 2015; Govi 2017a). In the 5th century, a cohesive and substantial group developed around the most ancient tombs (Tombs 467, 485, 488); these burials were characterised by a standard display of the practice of *symposium* (the collective consumption of wine during the ceremony of the banquet) and references to chthonic cults. The southern part of the sandbank has been identified as an aristocratic extended family, probably ascribable to one of the 'founder' groups of the city (Govi 2017a; Romagnoli 2014-2015). This plot was one of the most significant and long-lasting, amassing more than 50 tombs over the 5th and 4th centuries BC, a period that marked a general discontinuity in the development of the necropolis.

This area is an ideal case study for observing the spatial disposition and interactions among age groups because of the high percentage of subadults throughout the centuries (24 burials). Tombs belonging to both sexes have been identified based on the grave goods and the osteological analyses (Marcozzi and Cesare 1969). As a consequence of their more distinctive features, such as personal ornaments and toiletries, a high number of female burials have been recognised, as opposed to the only two certain male tombs. Even if the loss of skeletal evidence does not allow us to classify all of the burials, the plot's composition reflects standard social articulations related to sex and age.

As for the spatial arrangement, subadult interments were perfectly integrated into the ritual strategies and dynamics applied to adults; over the generations, the more recent tombs are placed among the previous tombs, both in empty and perimetral areas, showing no evidence of differentiation. The same north-west/south-east orientation of pits suggests shared planning

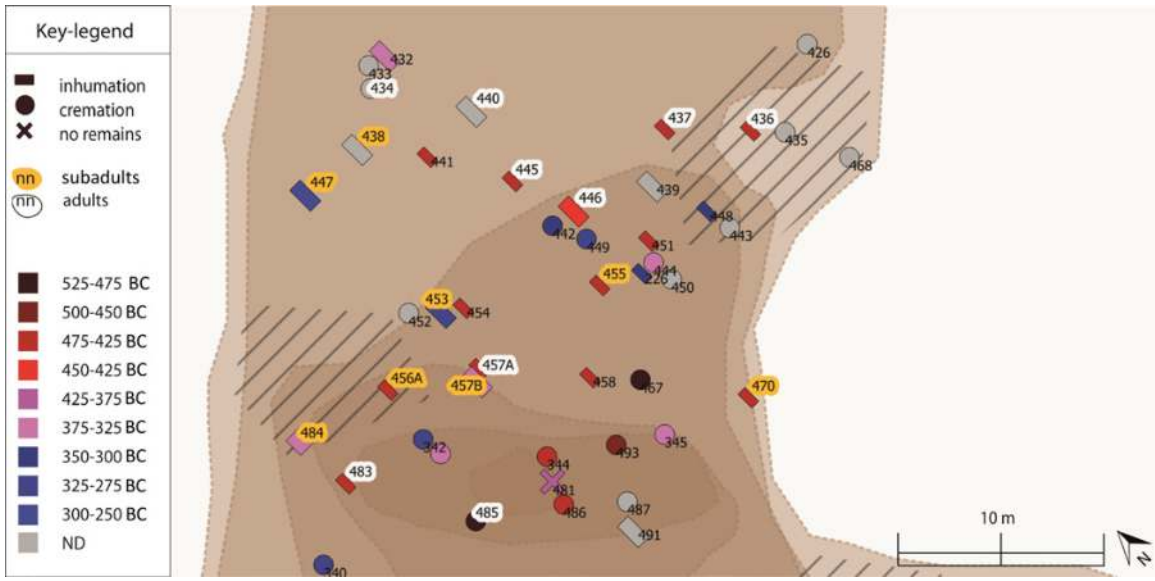

Figure 5: QGIS map of Area I, Sandbank I.E (Anna Serra).

Figure 6: Sketch of T. 457 (modified by the author after the excavation journals – Proni 1925).

of this sector's organisation, with a progressive distribution of burials from the ridge to the slopes of the sandbar, confirmed by the chronology of the grave goods. Integration between age groups is represented by the two double entombments located in the central area of the group. Tomb 457 belonged to an adult woman and dated to the first half of the 5th century BC (Muggia 2004a: 86-87; Romagnoli 2014-2015: 617-625, pls. CXI-CXII; Serra *et al.* 2021). The burial was reopened in the second quarter of the 4th century BC to add an infant/young child (<3 years of age). The grave goods (an Attic krater, an Attic *kylix*, and an Attic *skyphos*) and the funeral treatment of the woman were perfectly consistent with adult rituality of the 5th century, and the central vase (the krater) was placed near the head, a common custom in the necropolis. The child's grave goods were comparable with those of other child burials of the middle of the 4th century and characterised by an abundance of perfume containers (Figure 6). No interference in the display of the woman's body and her funeral kit was recorded, and the treatment of the older burial shows that the woman was treated with great respect and care. The reopening of the burials and the placement of the second body suggests a strong connection between the two deceased. The double burial was interpreted as a 'family reunification' (Muggia 2004a: 170), however, it is impossible to confirm this hypothesis due to the absence of ancient DNA data. The location and identity of the woman's burial would need to have been known to justify this connection, a hypothesis that is supported by the continuity of the group over the century.

Completely divergent is the nearby Tomb 456, which shows a more direct relationship between the child and the adult. In this case, only one body was recognised during the excavation, even though the description of the bones suggested the presence of a young person. Osteological analysis confirmed the occurrence of a double entombment, comprising a woman and a child of 3-5 years of age, dating back to the second quarter of the 5th century BC (Muggia 2004a: 83-86, 214; Romagnoli 2014-2015: 604-614, pl. CIX; Serra *et al.* 2021). Grave goods, consisting of a couple of Attic jugs, an Attic *cup-skyphos* and *skyphos*, multiple bowls, and *unguentaria*, were grouped on the right side of the body and were perfectly coherent with the coeval rituality. A small, lidded *olla* made of local fine ware could have belonged exclusively to the child because similar vessels were recovered in other child burials in the same necropolis. This vase was customarily placed near the head as the main container of offerings, recalling the krater's position in adult burials at the site. Even if the child's body was not recorded during

the excavation and their presence was discovered only during the osteological analysis, the coherent chronology of the grave goods supports the hypothesis of a double entombment, in which the burials were contemporary or near-contemporary. This tomb is a prime example of the tendency to overlook children within common burials during excavation. In this instance, the child has been acknowledged only as a result of the osteological analysis.

The two double burials occupied a central place, near the most ancient tombs of the site identified as the 'founders', and both displayed the same internal configuration (adult woman + infant/child). Nevertheless, a fundamental difference occurred regarding the length of time between the two individuals within each tomb – delayed or concomitant – indicating a different relation between the occupants of each tomb. In both cases, kinship seems to be the most probable option, however, in Tomb 457, this relationship connects two individuals as part of the same group over a period of almost 100 years. As previously stated, this group is coherent in terms of funerary practices and represents one of the most ancient and numerous clusters of the necropolis (Govi 2017a: 103). Moreover, its composition (higher number of subadults, the presence of both genders) could indicate a group based on kinship rather than religious or social status, as has been identified in other areas of the necropolis (Pizzirani 2009b: 43-45; Pizzirani 2017: 121-122).

Tomb 456 seems to recall a more direct connection between the two individuals (perhaps mother – child?), while Tomb 457 suggests a more distant relationship. In the latter case, the familiar link is expressed through reference to an ancestral burial place, evoking the group's memory, which is one of the main themes of an aristocratic ideology. This dynamic reproduces the same spatial principle that governed the positioning of the burials around the most ancient ones – the direct connection to an 'important' ancestor as proof of status and kinship. Moreover, similar cases are documented in other areas of the necropolis in the 4th century BC as, for example, in the overlap of two subadult burials in Tomb 772 in the northern Sandbank I.F (Muggia 2004a: 122). In other burials, the treatment could also recall 'ideologically' the funeral treatment of older tombs, for example, through the integration of ancient objects into the funeral kit (Gaucci *et al.* 2018: 664-668).

The Expansion of the Necropolis: Isolation Versus Group Dynamics

The second case study is located in Area III (see Figures 3 and 7). Despite illegal grave robbing, the trenches excavated in 1922-1923 and 1932 allowed the reconstruction of the necropolis' northern limit and confirmed the absence of other tombs beyond this sector (Romagnoli 2017). The first burial in this sector is Tomb 1161, dating from 450-425 BC (Muggia 2004a: 150; Serra *et al.* 2021). The original osteological analysis identified a child (Muggia 2004a: 214); however, more recent analysis had identified a double burial of an adult (of unknown age and sex) and a child (6-10 years of age). Only the presence of the adult was recorded during the excavation and the child had probably been overlooked because of the more visible adult. The body and grave goods were placed inside a wooden case, a burial structure that generally characterised high-profile adult tombs in the same period. Overall, wooden structures were rare (198 tombs) and were exclusive to adult burial until the second half of the 5th century. On the right side of the body was a red-figured Attic pitcher with the depiction of a woman holding a basket and six plates and bowls (Figure 8). Attic jugs, probably used for libations and liquid offerings, were the most recurrent vases in both adult and child inhumations during the 5th century

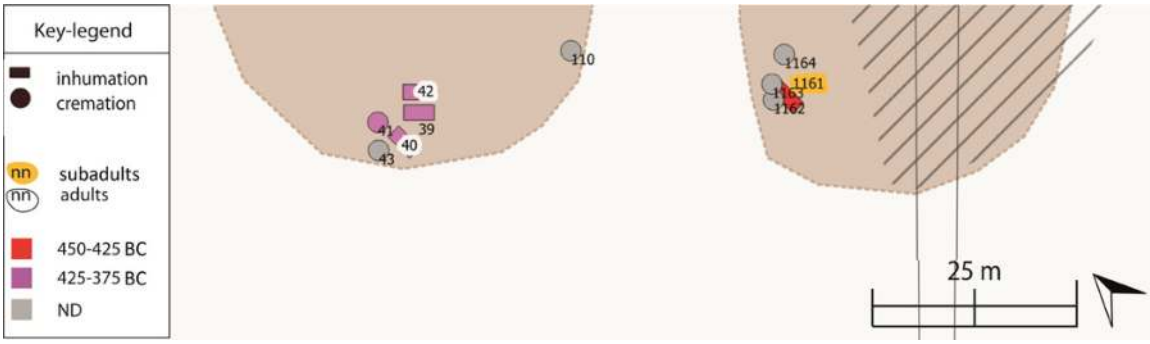

Figure 7: QGIS map of Area III, Sandbank III.A-B (Anna Serra).

(Govi 2017a: 106). The presence of a personal ornament (an amber pendant) and the wooden structure indicated a display of status not common in contemporary child burials, but which is perhaps more compatible with a double burial containing the remains of an adult.

The tomb was placed on a sandbank along a navigable canal that crossed the necropolis from north to south. The waterway was probably part of a complex fluvial system that connected Spina in the south to the northern Etruscan city of Adria, a commercial hub within north Adriatic trade routes (Gaucci and Mancuso 2016: 43). In the southern sector of the necropolis, the first tombs were laid out on sandbars along the canal shores. This planning favoured highly visible positions near the canal, where the most ancient and important tombs were placed (Gaucci 2015: 125; Govi 2006: 120).

Tomb 1161 recalls the same strategy: this sector was empty, as the nearest tombs were located 300 metres away. The spatial choice appears even more significant considering that this tomb remained isolated for nearly three generations (Gaucci and Mancuso 2016: 42; Romagnoli 2017). Isolated tombs represent a rare exception to the typical group disposition and are usually applied to extraordinary contexts to enhance their importance (Gaucci 2015: 131; Pizzirani 2017: 123). In this case, the strategy was applied to a highly isolated area near the northern limit of the necropolis. The isolation expresses a particular choice, differing strongly from the nearest coeval group, the southern Area II, similarly occupied around 450 BC. Here, Tomb 3, the double inhumation of a child and an adult (age and sex unknown) (Muggia 2004a: 53-54, 214; Serra *et al.* 2021), and Tomb 0 constituted the first nucleus of a group with a continuity until the 4th century. Both sets of grave goods included a red-figured Attic *krater*, a shape generally connected to the *symposium* and its ideological value (on the topic see Govi 2017a: 106-107), which was recovered in half of adult burials dating to the 5th century. The column-krater of Tomb 3 (Figure 9) depicts a scene with four young people exchanging gifts; a gesture interpreted as courtship (for discussion of the hare-rabbit as a symbol of pederasty and sexual tension see Schnapp 1986).

Lastly, Tomb 1161 permits one final observation on memory. Ancient burial destructions or depredations were frequent, suggesting a discontinuity in the necropolis development with the abandonment and loss to memory of older tombs/plots. In these cases, older grave goods from destroyed burials were sometimes included inside recent tombs or moved to

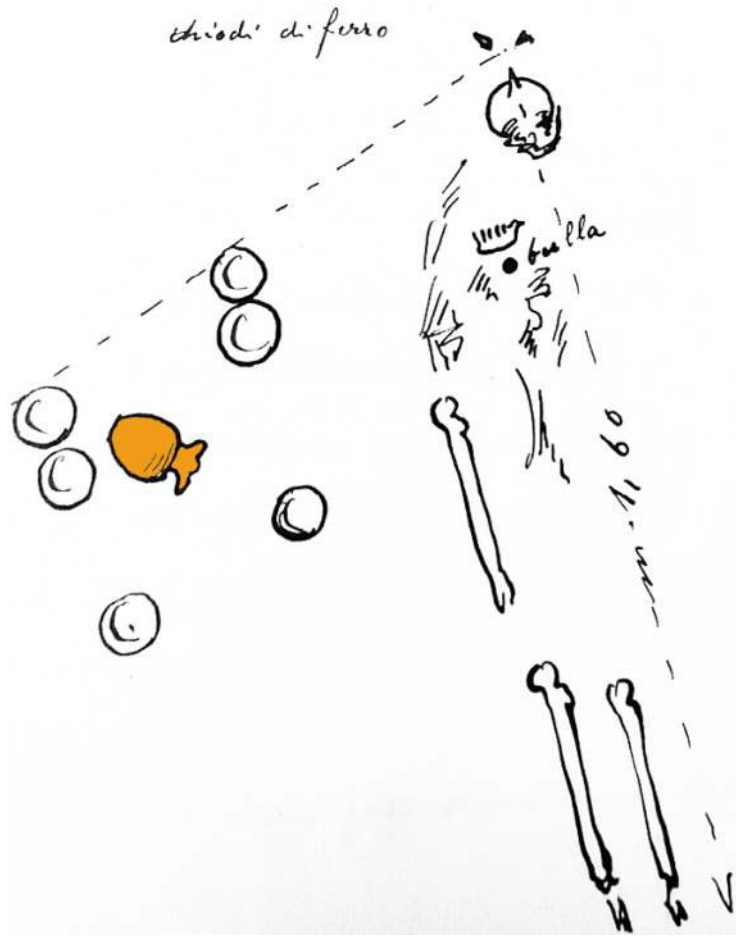

Figure 8: Sketch of T. 1161 (modified by the author after the excavation journals – Proni 1925).

Figure 9: The red-figured column-krater of the Leningrad Painter from T. 3 (475-450 BC) (Anna Serra).

other ancient burials. Despite its long period of isolation, Tomb 1161 was not tampered with, and subsequent burials preserved this area and were laid out on the opposite shore of the canal. Perhaps, this choice demonstrated the respect shown to the ancient tomb even after generations. The visibility and the remembrance of the burial could also have been enhanced through the use of an external grave marker made of perishable material (see Gaucci 2015: 141 for a similar hypothesis).

Conclusions

The preliminary collection of data concerning child/adolescent burials within the Etruscan Po Valley has underlined the importance of re-evaluating old contexts. Despite its preliminary character as part of ongoing research, the paper aimed to explore the funerary treatment of subadults in the region, focusing primarily on regional representation and spatial selection. The regional perspective had also favoured a broader view on the topic, focusing not on singular practice in isolation but rather as part of a more comprehensive system.

In the first place, these observations allowed normative treatment to be identified, which generally included the presence of children's burials within common burial grounds, sharing the normative procedures used for adults. However, the data collected displayed an under-representation of younger age groups implying discriminatory access to formal burial based on age. A similar treatment had already been noted in many other Etruscan necropolises, even though exceptions and local variations are documented, suggesting the importance of a contextual approach to the topic. Nevertheless, the under-representation observed in each necropolis considered indicates that not every child could access a formal burial within the common areas. It may be suggested that the funeral treatment of subadults imposed a spatial distinction, even though this age group was not entirely excluded from burial grounds. Therefore, it is possible that the distinction did not solely depend on age at death but also on other social features, such as gender, kinship, status, ethnicity, health, and religious affiliations.

Further research will help unravel this still debated aspect but, at the moment, no evidence of secluded/dedicated burial grounds or a systematic burial within residential areas has been documented for subadults in the Etruscan Po Valley during the 6th-4th centuries BC, with the exception of the Forcello (Trentacoste *et al.* 2018). The addition of data from new excavations, conducted using systematic methods and modern osteological analytical approaches, will be crucial for further developing this topic. Similarly, the infant burial recovered in the urban sanctuary at Marzabotto represents a unique case study, which diverges from the normative treatment of subadults in the region. Its interpretation should be strictly associated with the context, however, it shed light on a different scenario, which provided a new perspective on the treatment and significance of immature death.

Secondly, the paper focused on a single case study, the Valle Trebba Necropolis, and applied a contextual analysis to define child presence as part of a normative burial system. Despite the discriminatory access to the necropolis, children were firmly integrated into the ideology of the groups and played an active part in defining the funerary area. More specifically, the paper focused on various areas of the necropolis to explore how group dynamics and ideology influenced subadult access to the necropolis. The analysis of double burials represented a non-

normative burial practice within this specific context, and was afforded to individuals because of their specific relationships or ideological motives. These burials allow us to highlight the different interactions among the deceased, both through the definition of time (concurrent/delayed) and space (marginalisation/inclusion). Subadult participation in these dynamics suggests that their presence was perceived actively in the social construction strategies of the different groups that composed the necropolis. Furthermore, it is possible to identify the presence of 'minority' burial practices (e.g. isolation) that indicate the coexistence of many variations within the same context, highlighting the complexity of the burial practice.

To sum up, the paper has demonstrated the potential new information to be gained from the re-evaluation of old contexts. Further research will also focus on the other burial grounds and settlements to better define still unsolved issues, such as the under-representation of subadults and the possible influence of local/diachronic variation in their funeral treatment.

Acknowledgements

This paper introduces the results of a PhD project which was undertaken at the University of Salerno and dedicated to the mortuary treatments of subadults in the Etruscan Po Valley. This publication has been a great opportunity to present a preliminary analysis of the funeral practice in the region and I am sincerely grateful to the editors of the volume for accepting my participation. Moreover, I would like to thank Professor E. Govi, Professor C. Pellegrino and Professor A. Gaucci for their guidance and support during the analysis. My gratitude goes also to Direzione Regionale Musei, Emilia-Romagna (Mi'C), and Paola Desantis, the Director of the National Archaeological Museum of Ferrara, for the support in the study of the unpublished archaeological material of the necropolis of Valle Trebba.

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Burying Children in Iron Age Normandy: The Unusual Case of the Necropolis of Urville-Nacqueville, Second Century BC

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Abstract

Ten kilometres west of Cherbourg, Normandy, the shore of Urville-Nacqueville houses a major necropolis of the second century BC. The excavations revealed 112 graves, including 80 particularly well-preserved immature individuals with both cremation and inhumation being used contemporaneously. Using an osteobiographical approach on a corpus composed of 46 of the 86 inhumed individuals, the present work aims to assess the biological identity of the deceased and to question the different treatments observed. The spatial and genetic data highlight a specific treatment directed towards the youngest individuals and connected to social status among this population. The dichotomy between cremation and inhumation appears to be linked to age at death but also points towards the presence of two distinct entities which selected different funerary treatments for the youngest children. The use by these two entities of the same space adds a further layer of complexity to the study of immature individuals.

Keywords

IMMATURE INDIVIDUALS, FUNERARY RITUALS, IRON AGE, CREMATION, INHUMATION

Introduction

In Western Europe, and more precisely France, Late Iron Age funerary contexts illustrate an evolution of body treatment choices. As inhumation burials are gradually abandoned, the La Tène period is characterised by a steep increase in the use of fire in corpse disposal. In northern Gaul, by the end of the third century BC, inhumation becomes a marginal treatment and cremation is found almost exclusively (Chanson *et al.* 2010: 50; Fitzpatrick 2010: 15).

However, this phenomenon is mostly expressed through burials dedicated to individuals over five years of age. Indeed, mortuary practices dedicated to young children remain poorly documented in Late Iron Age northern France.

Urville-Nacqueville is a Late Iron Age cemetery located near Cherbourg, Normandy, at the centre of the French Channel Coast (Figure 1). This large cemetery lies 500m to the west of a

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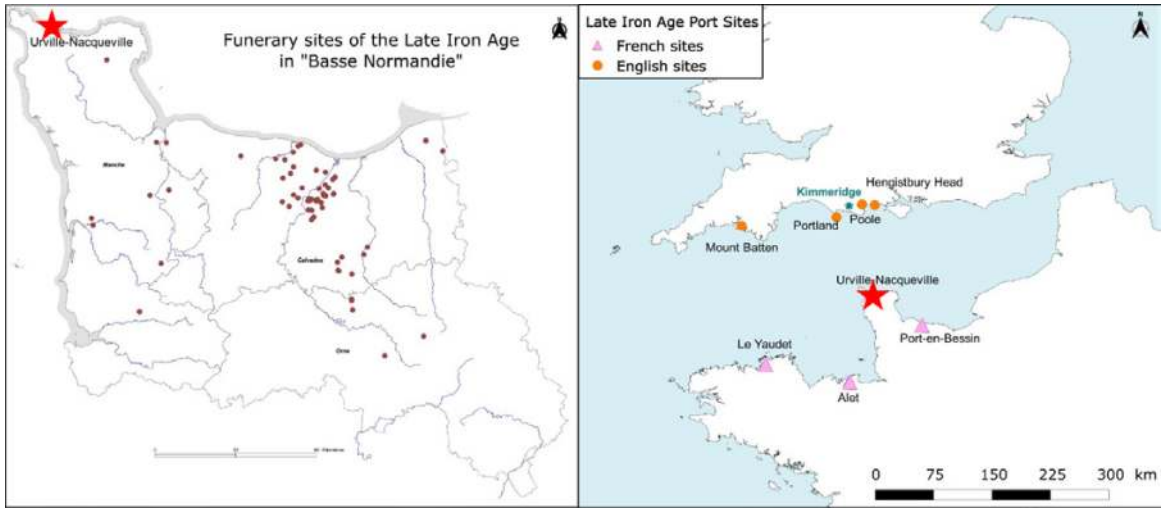

Figure 1: Location of Urville-Nacqueville. A) with Late Iron Age necropolises in Lower Normandy and B) with Late Iron Age port sites along the Channel (Fischer *et al.* 2018).

Figure 2: Urville-Nacqueville Necropolis: Spatial distribution of individuals targeted in this study.

contemporary open settlement and craft area occupied between 120 and 80 BC (Fischer *et al.* 2018: 19; Lefort 2015: 370; Lefort and Fischer 2017: 51; Lefort and Rottier 2014: 66). Since 2011, the necropolis has been at the core of an interdisciplinary research programme that explores archaeological, osteological and genetic data. Although partially destroyed by coastal erosion at its northern area and locally hidden by dune at its southern part, the cemetery revealed 112 graves, with a minimum number of 127 individuals. Two contemporary types of burials were

evident – 34 urned cremation burials (MNI=41) and 78 formal inhumation burials (MNI=86), including 80 particularly well preserved immature skeletons.

The funerary space is organised through a square enclosure of approximately 16m in length in its north-eastern part, demarcating an area of 250m² and a zone dedicated to cremation, with three large pyres, in its western part (Fischer *et al.* 2018: 19; Lefort and Rottier 2014: 66). However, cremation and inhumation burials are found both inside and outside the enclosure (Figure 2). Even if cremations are found in higher density near the pyres, there is no visible spatial organisation strictly tied to the choice of corpse treatment (Lefort and Rottier 2014: 66).

Different aspects express the uniqueness of Urville-Nacqueville in the funerary landscape of Late Iron Age Normandy. This ensemble is of considerable dimension and thus differs from other local contemporary sites that generally contain less than 40 burials (Chanson *et al.* 2010: 50). The combination of two body treatments and the significance of the burials is also open for debate as cremation is almost exclusive in the local archaeological context. Finally, the importance of immature individuals is also unique, as Late Iron Age excavations in northern France are generally characterised by a significant lack of archaeological data regarding young children. Among the other contemporary funerary sites discovered, only Jort (Calvados) illustrates a similar population composition (Delrue *et al.* 2018: 1). Consequently, the chronological and cultural characteristics of the Urville-Nacqueville necropolis, combined with the substantial number of human remains discovered offers a unique opportunity to document funerary practices dedicated to children in a Late Iron Age community from Western Europe.

The unusual proportion of immature individuals raises several issues, in particular regarding the interpretation of the site and the funerary treatments undertaken by the living. This last matter begs the question of social stratification, which could be illustrated by funerary distinctions inside a single age group. As a result, a key area of exploration is the influence of social status and its potential evolution during childhood on funerary rites.

The present study aims to provide insight into the funerary practices used by this coastal Iron Age group on a corpus composed of 46 of the 86 interred individuals. Here, we present results on the demography of the population as well as spatial, funerary and genetic data and demonstrate how the used of these combined data can provide insights about the interred community at Urville-Nacqueville.

Material and Methods

Selection Process

The study explores the funerary practices of 46 of the 86 buried individuals, including 40 immature individuals and six adults. The selection process was established on several criteria, the first being the state of preservation of the skeletal remains. Thirty-two individuals were excluded from the study due to poor skeletal representation and preservation, preventing an extensive osteological study and precise age group attribution.

To reduce bias linked to any selection process among the overall number of skeletal remains, the sample had to include individuals from multiple age groups. In this way no age related selection was conducted, and a selection of immature individuals from various age groups, and all buried adults available were included. Secondly, in order to investigate the funerary practices used by the population, the corpus also had to regroup individuals buried both inside and outside the enclosure and belonging to certain groups of burials (see Figure 2).

Osteological Study

Standard osteological techniques were applied for sex and age at death assessments of adult individuals. The sex assessment was performed using two methods – probabilistic primary sexual diagnosis (Murail *et al.* 2005: 169) and the morphological observation method (Bruzek, 2002: 167). For immature individuals, sex was not established on osteological criteria, since no sufficiently reliable method is available (Bruzek and Murail 2006: 235). However in seven cases, the genetic data gathered allowed sex attribution for immature individuals and this data was added to the osteological information available for adults (Fischer 2019). Two females and seven males were identified among the six adults and three individuals aged 15 years or above. Genetic analysis enabled a further seven males to be identified among the immature individuals aged less than 15 years. The sex of a total of 30 individuals remained unidentified within the corpus.

All individuals under 20 years thus presenting incomplete dental or bone maturation were considered as immature individuals, and are also referred to as non-adult individuals. Adults were divided into two categories. The first corresponds to individuals aged between 20 and 30 years, whose maturation state differs from immature individuals (i.e. fusion of vertebral epiphyseal discs, synostosis of the spheno-occipital synchondrosis). Yet the incomplete state of skeletal maturation, i.e. incomplete fusion of the sternal end of the clavicle, of these individuals enabled them to be differentiated from the remainder of adult individuals thereby allowing more precise age at death estimations (Schmitt and Georges 2008: 11). These individuals were designated as young adults, as opposed to individuals who died at an age greater than 30 years (i.e. skeletons in which the growth process was complete and all epiphyses were fused) and who are designated as adults in the present paper.

The age at death of immature individuals was assessed according to the maturational stages of the deciduous and/or permanent teeth (Moorrees *et al.* 1963a: 1492; 1963b: 205). In cases, when dental remains were not available, bone growth and maturation were also used (Coqueugniot *et al.* 2010: 10; Maresh 1970: 200) for age determination. For the youngest individuals, from the foetal stage to one year, age at death assessment was based on the maximum intermetaphyseal lengths of the long bones, using the method of Fazekas and Kosa (1978: 413) updated by Sellier and published in Schmitt and Georges (Schmitt and Georges 2008: 272; Sellier *et al.* 1997: 82). Age determinations of young adults were estimated using late maturation indicators (Buckberry and Chamberlain 2002: 8; Owings-Webb and Suchey 1985: 461; Schmitt 2005: 92; Schmitt and Georges 2008: 272). For adults the skeletal age estimations were based on the observation of the iliac sacro-pelvic surface (Schmitt 2005: 92). All individuals were assigned to the following age groups – [0]; [1-4]; [5-9]; [10-14]; [15-19]; >20. Among the 46 individuals in the corpus, six had died after 20 years of age, three had died aged between 15 and 20 years and 37 had died when they were less than 15 years of age.

Funerary, Spatial and Statistical Study

Through an osteobiographical approach using archaeothanathology and field excavation data, treatments of the bodies were reconstructed (Duday 2009: 158). The funerary study includes the type of funerary deposits, burial architecture, body position and treatment and grave goods.

With the exception of one individual (Individual 40-1), all skeletons belong to primary graves, i.e. the undecayed bodies were deposited in the graves where they decomposed. A large majority of individuals were laid in single graves (n=34), while four structures revealed the presence of multiple individuals. In ten cases, decay took place in a void, but the majority of corpses decomposed in filled spaces, and a delay occurred in the filling in 80% of cases.

Regarding the internal arrangements of the graves, two scenarios were identified: (1) the body was laid directly on the ground and the grave was filled (n=5) and (2) organic elements separated the body from the base of the pit and an internal arrangement, such as wood or mulch, may have been installed before the grave was sealed (n=38). Both immature and adult individuals exhibited very diverse burial positions. The general positioning of the bodies assumed various forms, but flexed lower limbs was the most recurrent choice (63%). Grave goods were found associated with ten burials in the corpus, the majority consisting of faunal remains, with the exception of two copper alloy adornments associated with Individuals 20 and 87-A.

Statistical Analysis and GIS

All statistical tests were conducted using the R software (R core Team, 2019). In order to examine the link between funerary disposal and age at death, Multiple Correspondence Analysis (MCA) was undertaken (Cornillon *et al.* 2010: 300). In this test, nine funerary traits or arrangements were considered – earthen grave; presence of wood; presence of wooden boards; presence of a complete wooden receptacle; absence of wood but internal organisation detected; presence of non-woody organic plant matter; presence of mulch above and below the deceased; presence of a shale paving stone and presence of a shroud. For each trait, two solutions were tested (yes/no).

A spatial analysis was performed using ArcGIS software. This approach facilitated the rapid performance of a high number of cartographic and statistical analyses and the subsequent simultaneous testing of numerous hypotheses. Potential statistically significant spatial associations between each specific and combined funerary/osteological data and each maternal haplogroup were checked (Le Roy *et al.* 2016: 47). To analyse the dispersion of the burial pits inside the necropolis of Urville-Nacqueville, a centroid that represents each individual's average x- and y-coordinates was calculated. The global characteristics of the site were defined according to the standard deviational ellipse and used to compare the distributions of selected data. Then, the standard deviation ellipse of each funerary, osteological and genetic finding was measured. The orientation and size of the ellipse indicated how the studied data were distributed, at one standard deviation. Next, spatial distance analysis was used to highlight clusters within the entire area of the necropolis. The nearest neighbour index was measured to identify the difference of the mean distance from the expected distance compared with

the mean distance for a hypothetical random distribution. This index is calculated using the ratio between the two mean distances. According to the results, the distribution can be clustered, random, or dispersed (Zaninetti, 2005: 320). In order to identify these aggregates, we used the K Ripley's and Hotspot Analysis using Nearest Neighbour Hierarchical spatial clustering (Zaninetti 2005: 320). These statistics allowed us to only consider the geographical coordinates of chosen data and were used only on osteological and archaeological data to identify significant spatial clusters that could then be interpreted in terms of social practice (e.g. individuals sharing a common funerary trait, age at death or genetic kinship). In the present study, correlations were examined between the detected osteological/archaeological cluster and the maternal haplogroups groups. Two levels were considered, first the necropolis as a whole and secondly inside/outside the enclosure.

Genetic Analysis

Genetic data obtained by C.-E. Fischer (2019) during her PhD research was combined with osteological and archaeological data analysed in the present study. The genetic analyses targeted 51 inhumed individuals distributed across the entire funerary space, both inside and outside the enclosure, and aimed to explore the genetic composition of the Urville-Nacqueville population as a whole. The genetic analysis first targeted uniparental markers such as mitochondrial DNA and Y-chromosomes (Fischer *et al*. 2019: 9). For the best preserved remains, low-coverage genomes and capture data were also performed (Fischer *et al*. in prep.).

Results and Discussion

Demography

To study the demographic profile of the Urville-Nacqueville population, we considered the 138 individuals identified during the excavations. We compiled newly generated data with the age group attributions available for the remaining individuals outside our corpus, particularly less well-preserved individuals and the cremated group. However, a certain lack of data was noted, especially because some structures remained unstudied or because it was not possible to establish age at death. Some 30 individuals or identified structures corresponding to these gaps were excluded from the demographic report which was based on 108 individuals from both cremation and inhumation burials.

The mortality profiles obtained were compared to the natural mortality pattern expected for a pre-Jennerian (i.e. pre-vaccination) community based on standard tables created by Ledermann (1969) (Séguy and Buchet 2013: 431). This theoretical archaic mortality profile is characterised by a low life expectancy at birth and between 25 and 35 years old; a high mortality rate for children from birth to 4 years and a lower mortality rate for older children, between 10 and 14 years.

Some individuals could not be attributed to one particular age group and overlapped multiple age groups. To overcome the conflict between age assessments and demographic study, we applied the principle of minimisation of anomalies (Sellier 1996: 124). This method allows redistribution of overlapping immature individuals between the different age groups used to obtain the mortality profiles, according to the greatest theoretical probability of belonging

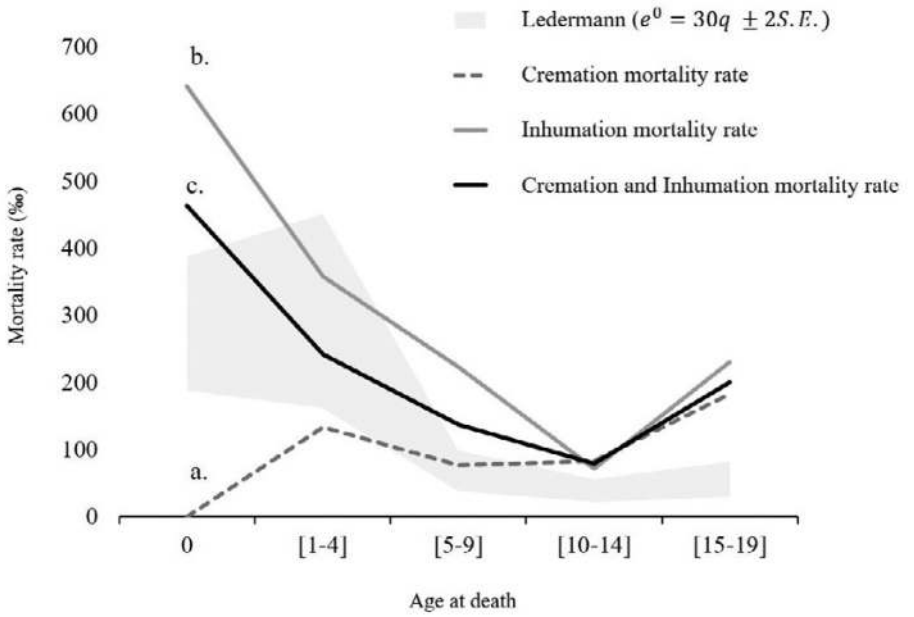

Figure 3: Mortality rates distribution by age at death and funerary treatment (a. Cremation; b. Inhumation; c. Cremation and Inhumation).

Table 1: Urville-Nacqueville mortality rates separated according to funerary treatment.

Age at death	Cremation		Inhumation		Cremation and Inhumation		Outside the enclosure		Inside the enclosure	
	Number of deaths D(x)	Mortality rate q(x)	Number of deaths D(x)	Mortality rate q(x)	Number of deaths D(x)	Mortality rate q(x)	Number of deaths D(x)	Mortality rate q(x)	Number of deaths D(x)	Mortality rate q(x)
0	0	0	50	641.03	50	462.96	16	275.9	24	666.7
[1-4]	4	133.33	10	357.14	14	241.38	3	71.4	3	250
[5-9]	2	76.92	4	222.22	6	136.36	11	282.1	3	333.3
[10-14]	2	83.33	1	71.43	3	78.95	1	35.7	2	333.3
[15-19]	4	181.82	3	230.77	7	200	4	148.1	2	500
[20-90]	18	1000	10	1000	28	1000	23	1000	2	1000
Total of deaths	30		78		108		58		36	

Table 2: Redistribution of overlapping immature individuals between the different age groups.

Age at death	Number of individuals	
	Observed	Redistributed
[0]	42	50
[0-4]	**9**	
[1-4]	3	14
[1-9]	**14**	
[5-9]	1	6
[5-14]	**4**	
[10-14]	3	3
[10-19]	**4**	
[15-19]	3	7

to the theoretical archaic mortality model. Thus, the persisting demographic anomalies are considered undeniable, and not introduced by age assessment methods (Le Roy *et al.* 2018: 24; Sellier 1996: 124). The mortality profiles and redistribution of overlapping individuals are presented in Figure 3 and Table 2.

The population represented by the cumulation of individuals, either buried or cremated, tends towards a natural mortality – high mortality rates for young children up to 4 years and lower mortality rates for older immature individuals (5-19 years) (see Figure 3 b.). This population composition indicates no exclusion of a specific age group and suggests that access to the necropolis was not governed by age at death. There is an over representation, however, of both individuals less than 1 year and between 15 and 19 years of age. This could be explained by a lower life expectancy, less than 25 years of age, or by a selective bias that may have been cultural in nature. However, we must consider that the remains recovered from the excavations represent only a sample of the population, as the necropolis is partially destroyed at its northern and southern ends. Therefore, redistribution of missing individuals, notably adults, could balance out these anomalies (Le Roy 2015: 611). In any case, this type of distribution is rarely encountered in this local archaeological context and this specificity could be linked to the function of the site, which may have been intended as a dedicated funerary space for children. During the first century AD, the development of such funerary spaces is indeed attested in northern France, at Sommesous and Caurel in the Marne region (Le Goff *et al.* 2011: 173).

Two separate body treatments are used contemporaneously – cremation and inhumation. The contemporary use of the different body treatments is confirmed by the presence of several tombs that contained the remains of both buried and cremated individuals. We isolated the groups of individuals concerned by each treatment, and examined the corresponding mortality rates. This exercise highlighted the different composition of the cremated and buried groups

of the community. Among the cremated group (see Figure 3 a.), there is a complete absence of individuals who died during their first year of life. Conversely, when the buried group is considered (see Figure 3 c.), an over-representation of those same individuals is observed.

A Fisher's exact test, focusing on two age groups: [0] and [>20], was undertaken to check if the choice of body treatment according to age at death was random. The P-value corresponding to the hypothesis: 'Age at death and body treatment are independent variables' is $6.17E^{-11}$, demonstrating that the distribution of these age groups according to body treatment is not random. However, in certain cases, some immature individuals were cremated. The distinction between non-adults regarding body treatment could be explained by a social distinction between these few individuals and the rest of the immature group. Such social differentiations could have been connected to rites of passage. We can imagine, for instance, that some non-adults in a biological sense had already attained adulthood in the eyes of their community (Van Gennep 1909 [1981]: 288). These individuals would therefore have been subjected to similar social conventions to those applicable to biological adults. This is supported by both the complete absence of children who died during the first year of life in the cremated group and the under representation of adults in the buried group. This phenomenon could therefore be explained by consideration of age as a social category. In other words, the existence of a social group specific to adults, who had access to cremation and another specific to non-adults, who were destined to be buried.

Yet 14 adults or immature individuals, aged between 15 and 19 years, were also found buried in formal inhumation graves and were not treated with the conventional cremation. In these instances, the choice of body treatment was not only based on age at death but on additional elements, such as affiliation to a certain group and social status within the community. At Urville-Nacqueville it is therefore possible to consider two distinct entities – one that exclusively used inhumation and another that contemporaneously employed inhumation for the younger individuals and cremation for those considered adults or 'of age'. Thus, among this group, children who died in their first year of life seem to have been viewed as a separate social group, and were not afforded a formal cremation burial, which might be considered as the normative funerary practice.

Although we can only speculate about the underlying symbolic motives justifying this differentiation, similar scenarios are illustrated in other protohistoric cemeteries from northern Italy. The funerary data from Frattesina, a site occupied between the Late Bronze Age and Early Iron Age, as well as later Iron Age settlements in Veneto, showed that foetuses and neonates often did not have access to fire treatment and, in contrast to the remainder of the community, were given inhumation burials (Perego *et al.* 2015: 30).

In Iron Age funerary contexts, funerary differentiation of the youngest individuals is often explained by the fact that infants were not yet considered members of the group, and their death was handled within the household (Dedet 2011: 142). However, at Urville-Nacqueville the situation appears to differ from a strict funerary marginalisation based on age at death. For immature individuals, access to the necropolis is not restricted to multiple burials, in which they would have rested alongside adults. Such an association would have explained the presence of immature individuals inside the communal mortuary spaces, being in a way 'validated' by the co-presence of adults in the same grave. On the contrary, immature

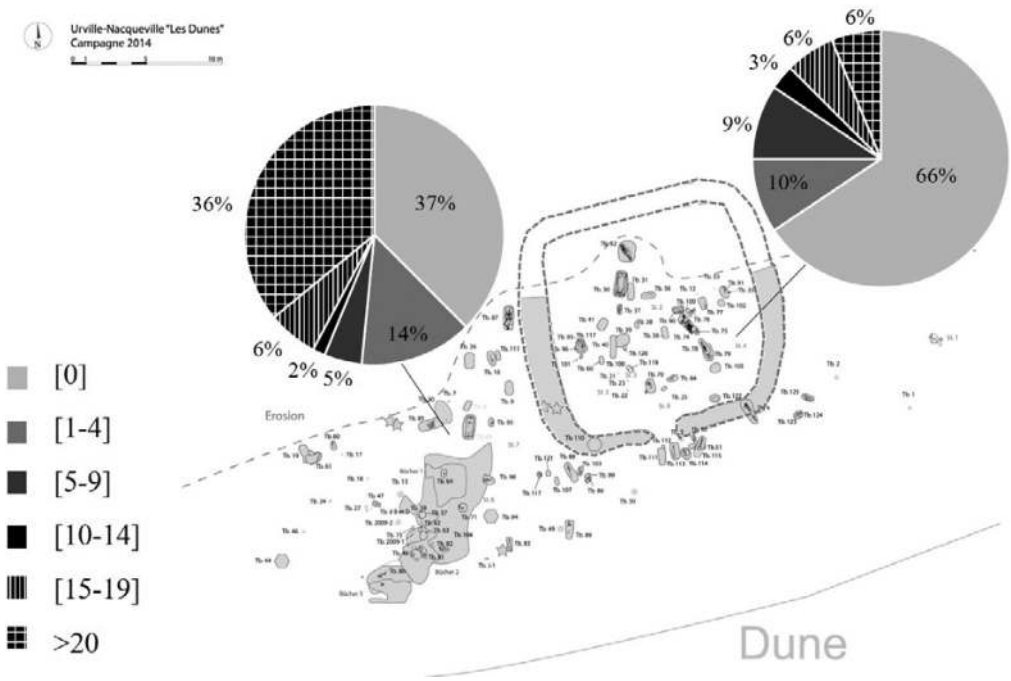

Figure 4: Map of the Urville-Nacqueville necropolis and age at death distribution on both sides of the enclosure.

individuals were, in most cases, laid in single graves and had access to the same burial spaces as adults. They were not preferentially installed in a marginalised area, such as closer to the settlement.

Spatial Organisation

The dichotomy between inhumation and cremation burials is also reflected in the spatial organisation. The majority of cremated individuals were located outside the enclosure, near the cremation area in the western part of the necropolis (see Figure 2).

The enclosure appears to play a structuring role inside the funerary space. The distribution of the different age groups was evident both inside and outside the enclosure (Figure 4). To minimise the bias linked to the evolution of use of the enclosure, 11 burials were excluded from the study, since they either affected the enclosure stratigraphically (n=2) or appeared too close to the ditch to be contemporary to its use (n=9). This approach allowed the identification of an under-representation of individuals older than 20 years inside the enclosure. Furthermore, this inner space appears to have been dominated by individuals who died at less than one year of age. A Fisher's exact test was conducted to check if the positioning of individuals inside or outside the enclosure was random. The P-value corresponding to the hypothesis: 'Age at death and positioning in relation to the enclosure are independent variables' is 0.001447 for individuals over 20 years old and 0.003674 for children under one year, thereby demonstrating that the distribution of these age groups on each side of the enclosure is not random. A sectorisation linked to age at death can therefore be detected.

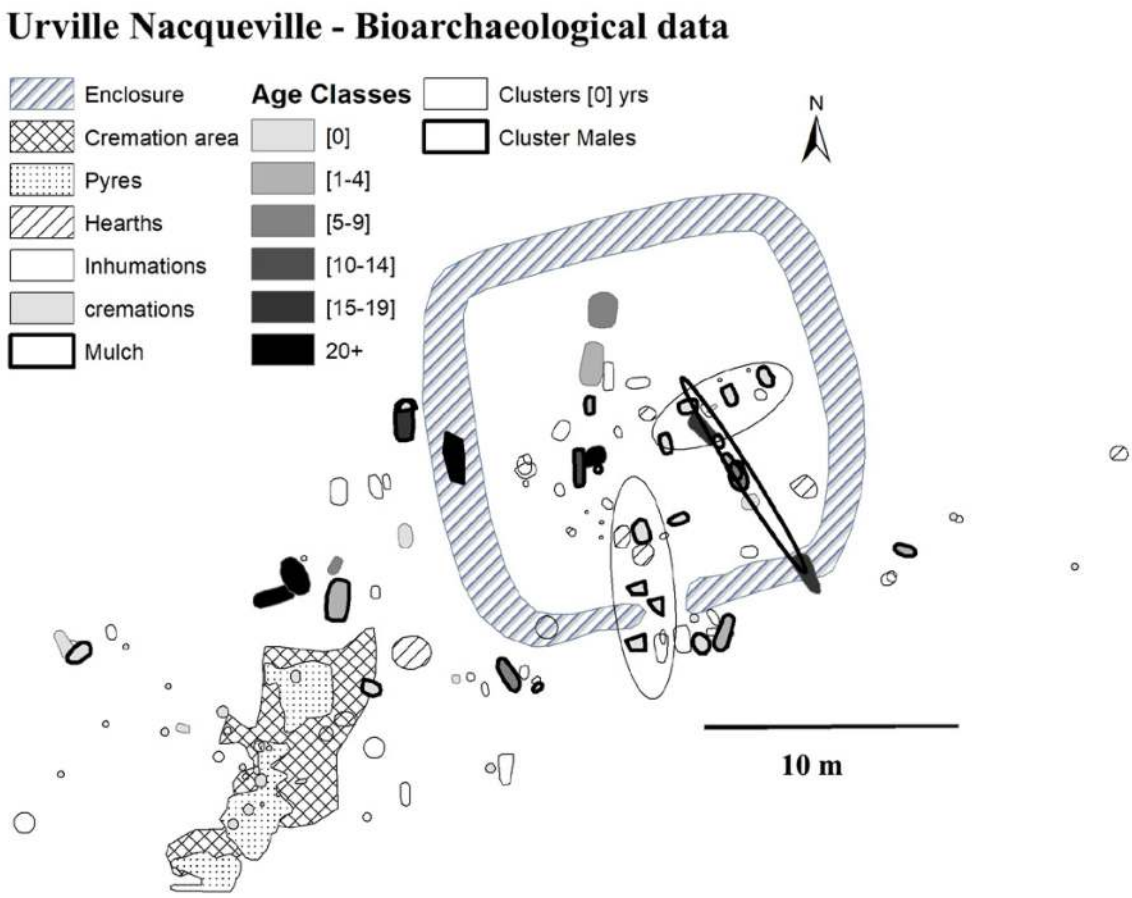

Figure 5: Localisation of spatially defined clusters based on biological and archaeological data.

An analysis of spatial distribution and concentration was conducted based on biological and archaeological criteria. The majority of the different criteria analysed do not present any spatial distribution differences compared to the general distribution of the burials. From a biological perspective, only the [15-19] group appears to be concentrated inside the enclosure. However, the low number of individuals concerned (n=3) has to be considered as a potential bias. Other criteria, from an archaeological perspective, are centred on or are in close relation to the enclosure. This includes earthen graves (n=5) and graves where decay occurred in a filled space (n=6) as well as graves presenting traces of organic mulch (n=27) either beneath the deceased (n=6) or both under and over the deceased (n=21). Similarly, regarding body positioning two criteria appear strictly tied to the inner space of the enclosure – the lateral right position (n=6) and the upper limbs supine position (n=15). Conversely, only burials lacking wood are strictly found outside the enclosure. However, due to the low numbers, no significant clusters can be identified, thereby limiting our interpretations.

Three main concentrations were identified, all of which only involve immature individuals (Figure 5). The first cluster is composed of four burials comprising five male individuals, all of

whom are immature and form a north-west to south-east oriented alignment. All burials are found inside or overlap the enclosure. The only common thread between these individuals, however, is the absence of wooden elements, a shale paving stone, faunal or metal grave goods and mulching over the deceased. The other two clusters both focus on individuals who died during the first year of life exclusively. The first cluster is located near the entrance to the enclosure and form a north-south oriented alignment. It consists of four individuals, three of which died before 44 weeks of amenorrhea (w.a. – the number of weeks since the first day of the last menstrual period) and one individual who died 1.5 months after birth. All burials showed the presence of mulch both under and over the deceased and an absence of grave goods. The second cluster form an east-west oriented alignment in the eastern part of the enclosure. It consists of six individuals, all deceased before 44 w.a. In the same way, all individuals exhibit the presence of mulch under and over the body and an absence of grave goods, as well as the lower limbs in a flexed position.

The preponderance of young children and lack of older individuals within the enclosure raises the question of the interpretation of this inner space, and its possible focus of use towards a specific age group. The development of funerary spaces dedicated to young children is identified by the first century AD in the Champagne region. At Sommesous (Marne), the sectorisation of young children is active during a specific time era of the occupation period of the necropolis (Le Goff *et al*. 2011: 171). To arrive at a similar interpretation in the case of Urville-Nacqueville it would be necessary to demonstrate a chronological phase associated with the prevalence of young children.

To an extent, a certain chronological order is detected. The enclosure is associated with the start of the necropolis, and the first years of occupation. It is covered by a layer of sand comprising faunal remains and a series of hearths. The use of these structures is therefore after the filling of the enclosure and possibly represents the end of its use. This overlying layer also included several inhumation burials, that therefore occurred following the filling of the enclosure's ditch. However, the short occupation period of the necropolis corresponds to three to four generations. The organisation of the funerary spaces cannot be considered as the sole reflection of chronological phases.

Analyses of ancient mitochondrial DNA have provided persuasive evidence for genetic differentiation between the buried individuals found outside versus inside the enclosure (Fischer 2019). The diversity of mitochondrial lineages is significantly higher outside the enclosure and it appears that some lineages (T and J) were excluded from the inner space.

Yet, if only age at death controlled access to the enclosure, the lower diversity inside the enclosure would not be relevant. Indeed, individuals less than 1 year old are also found outside the enclosure, which does not cluster all the youngest children (see Figure 3). However, these elements raise the idea of a funerary space organisation either linked to social structuration of the community or to distinct origins of the funerary groups (Fischer 2019). Therefore, the enclosure could be a way to concentrate young children of only a specific part of this population, illustrating a sectorisation based on both age at death and social status.

Figure 6: Illustration of plant matter mulching, with A) Overhead view and drawing of Burial 129 (Photograph: O. Morin, Drawing: A. Lefort) and B) Overhead view of Burial 87-B (Photograph: S. Rottier).

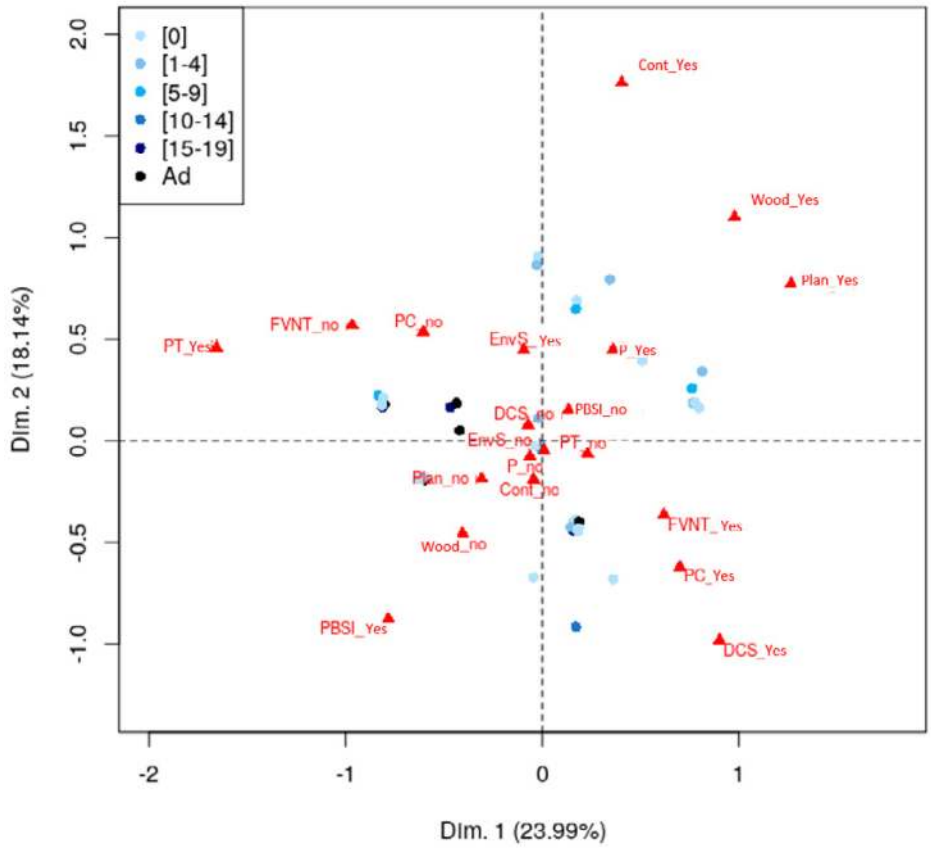

Figure 7: Multiple Correspondence Analysis testing relations between burial arrangements and age at death. Triangles indicate active variables: arrangements (Presence = Yes, absence = no). PT: earthen grave; Wood: Presence of wood; Plan: wood boards; Cont: Receptacle; PBSI: Internal organisation no wood; FVNT: Non-woody Organic plant matter; PC: Mulch under and over the body; DCS: Shale paving stone; EnvS: Shroud.

Internal Organisation of Burials

Burial Architecture and Internal Organisation

Regarding funerary data, the research focused on the inner organisation of the inhumation burials, notably to explore the funerary solutions employed in terms of age at death but also regarding the enclosure and a possible funerary distinction inside this population. With one exception, all individuals studied belong to primary burials. A large majority of the individuals were deposited in single oval-shaped pit graves, filled with the surrounding sand. The graves can also include an internal arrangement made of perishable organic materials which were recorded in 38 cases. A great diversity of funerary arrangements were employed, however, the presence of non-woody organic plant matter seems to be the most recurrent aspect. The organic plant matter appears in the form of mattresses, composed from bunches of ferns and armfuls of straw and twigs with no visible organisation in their style of deposition. In some cases these were deposited beneath and sometimes also over the deceased (Figure 6).

We could not identify any gradient in the sepulchral arrangements linked to age at death (Figure 7). The complexity of the internal organisation of inhumation burials does not increase with age. Organic plant matter for instance, appears to be used regardless of the age of the deceased, and the slight variations visible in their 'style of deposition' are most likely linked to the size of the deceased. It was also not possible to note the prevalence of any kind of arrangement related to either side of the enclosure. Nevertheless, among the arrangements observed, the use of wood in the internal space is restricted to immature burials. Traces of wood were observed inside the burials of 12 individuals out of a total of 38 observable arrangements. This type of arrangement is not, however, directed toward a specific age group. The use of wood was identified for three age groups – [0], [1-4] and [5-9] – but wood is not the exclusive treatment dedicated to these individuals. The burials containing traces of wood are divided in two categories – those for which a complete monoxyle receptacle was identified, and those for which only wooden planks were observed. Neither of these categories are linked to age at death.

Grave Goods

Grave goods are relatively scarce at Urville-Nacqueville and only ten burials included such items in the sample. The only recurrent element identified so far is the deposition of goat legs in a few immature burials. The position of these elements inside the graves is not standardised but always involves the upper part of the body. The four individuals associated with this type of offerings have lived longer than the first month of life but did not survive to the tenth year. With one exception, the individuals all exhibit a north-south orientation and are concentrated in the southwestern part of the necropolis.

The elements deposited differ from the food offerings encountered in contemporary funerary contexts but are also unusual in terms of species, as pig and poultry are preferentially selected deposits in burial contexts during the second and first centuries BC (Méniel 2002: 14). Thus, the interpretation of this type of grave goods is open to discussion but could still be included in the practice of funerary feasts, attested on the site by hearths and associated faunal remains and pottery sherds (Lefort *et al*. 2015: 493).

Body Positioning

Two groups of body positioning were identified – individuals buried in a flexed position and those interred in a supine position. Among the 29 individuals deposited in a flexed position, six were older than 15 years. The flexed position given to adults or immature individuals aged between 15 and 19 years was previously compared to the characteristics of 'Durotrigan burials' in the southwestern English county of Dorset (Lefort and Fischer 2017: 51). A clear standardisation was indeed identified in this type of burial practice. The deceased are laid in earthen oval-shaped pit graves in a crouched position, often on their right side, with the head towards the east (Whimster 1981: 457). When grave goods are deposited, they are modest (food offerings and Durotrigan pottery). Both male and female are afforded these practices, as well as immature individuals, without any apparent distinction in the style of deposition. The comparison between the adult individuals of Urville-Nacqueville and the Durotrigan burials should therefore include the 23 individuals younger than 15 years, who had also been interred in a flexed position.

The prevalence of inhumation in a region and period dominated by cremation suggests the presence of a culturally distinct entity using the necropolis. The documentation of numerous markers of cross-Channel cultural exchanges and the evidence of significant continuous gene-flow tends to support the presence of individuals originating from Britain at Urville-Nacqueville (Fischer *et al.* 2018: 19; Lefort 2015: 377; Lefort *et al.* 2015). It is necessary to acknowledge, however, that there is no persuasive evidence that the inhumation burials at Urville-Nacqueville are strictly speaking 'Durotrigian burials'. Several elements observed differ from the characteristics described as part of these funerary practices. The Durotrigian tradition was described as highly standardised, yet an absence of homogeneity in the body positioning itself and in the orientations of the individuals of Urville Nacqueville is evident. For instance, the deceased are not preferentially deposited on their right side. The superior limbs show a wide range of positions and are rarely found in a hyper-flexed position with the hands towards the skull, as is observed on the other side of the Channel (Whimster 1981: 457). Preliminary results from low-coverage genomes, however, highlighted a strong affinity between three individuals buried in the so-called Durotrigian position and samples from Iron Age Britain therefore reinforcing the possibility of a link between funerary practice and geographical origins (Fischer *et al.* in prep.).

Conclusion

At Urville-Nacqueville, the dichotomy between inhumation and cremation shows the existence of the evolution of social status during childhood. This phenomenon is, however, visible for only part of this population. This dichotomy points towards the presence of two distinct entities selecting different funerary treatments for their young. The use of the same funerary space by those two distinct entities added a further layer of complexity to the study of the immature individuals. With spatial and genetic data, what transpires at Urville-Nacqueville is a specific treatment directed towards the youngest individuals and linked to social status among this population.

On the scale of solely inhumation, discussion around the atypical character of immature burials is more challenging. The practice is not standardised and it was not possible to identify

any normative treatment. It is possible, however, to determine that the complexity of internal organisation of burials does not increase with age. The interpretation of these elements and the place of immature individuals is also difficult giving the lack of comparative data. With the burials of Jort, we can already state that Urville-Nacqueville is not a unique example of the integration of young children in funerary spaces in northwestern France. However, it is fundamental for this comparison to be extended beyond the mortality profile to question the spatial and internal organisation of immature inhumation burials. This will provide input to determine if immature burials can indeed be considered atypical, differing from a normative practice defined by adults in late Iron Age funerary contexts in northwestern France.

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Funerary Rituals for Juveniles in Gaul. Specificities and Standards of Infant Burials in *Avaricum* from the 1st to 5th Centuries AD

Raphaël Durand[1]

Abstract

During antiquity, and more particularly the Roman period, the specificities of funeral practices related to the death of children are extensively documented, especially for the youngest, i.e. those who died before one year of age. Indeed, under the term 'child' are grouped together distinct realities which include the very young child, especially those who died before 1 year, and did not yet have a societal identity, and those that are biologically immature but had the status of a social adult since the age of 12 years. Avaricum in Bourges, France, has so far revealed a large corpus of children's burials dated from the Early Roman Empire to the end of late antiquity. Although these burials respect the localisation and organisation characteristics usually recognised in Roman Gaul, they nevertheless underline the diversity of gestures devoted to children. From graves in domestic settings, outside community graveyards, to sarcophagus burials inside funerary buildings within the main urban necropolis, the contexts of discovery and the organisation of burials vary significantly in time and space. Beyond funerary perspectives, data from osteoarchaeology considered alongside contemporary historical sources indicate that those developments kept pace with structural, social and ideological transformations known from the 1st to the end of the 5th centuries in the capital of Biturigi Cubii.

Keywords

FUNERARY ARCHAEOLOGY, CHILDHOOD ARCHAEOLOGY, BIOARCHAEOLOGY, GRAVE GOODS, ROMAN PERIOD

Introduction

The increased use of archaeothanatology, which places the dead at the centre of funerary rituals, serves to remind us that the deceased individual was the main focus of mortuary activity in the past. However, this principle can be moderated for the Roman period. Certainly, death is the trigger of a normalised funerary process, but this *modus operandi* may vary depending on the deceased and also on the community that provided the funeral. A category of individual that stands out clearly in ancient Roman burial practices is children, especially the very young. Indeed, depending on their age at death, children may be the subject of different considerations. This observation is valid in all provinces of the Roman Empire. In Roman Gaul, these graves have been the subject of numerous monographic or synthetic publications illustrating their particularities from one region to another (e.g. Alfonso and Blaizot 2004; Baills-Talbi and Blanchard 2006; Blaizot 2009; Durand 2005; Ferdière 1993; Moliner 2012). These successive works have gradually allowed a greater understanding to be gained in relation to the burial practices afforded to children. The child, especially the youngest, may appear as a

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not-yet-person on the margins of society, excluded from some of the burial practices usually devoted to their contemporaries.

Recently, following enhancements in field methods applied to burials of children, multidisciplinary approaches have redefined a new paradigm in which the child, whatever his or her age, becomes again the axiom of the funerary event, *lato sensu* (in a broad sense; e.g. Blaizot 2007; Carroll 2011; Moliner 2012; Huber *et al.* 2018; Tremlin 2018). The emotional dimension of parenthood and grief is no longer confronted, to laws, social rules or demographic realities as well as their interpretation through a wide variety of contexts. Indeed, several funerary, urban and suburban ensembles offer a varied vision of funerary practices devoted to children. Clearly, the youngest are at the centre of a specific funerary strategy, which is not necessarily linear. Particularly, and this is not unique to Bourges, some of these practices seem exclusive, while others correspond to an adaptation of gestures also noted in adults. Thus, the definition of funerary practices devoted to children is based above all on their more or less significant and recurring differences compared to those applied to adults. Among the significant discoveries of Bourges and its nearby surroundings, the dissimilarities relate mainly to three aspects – the location of the burial sites, the treatment of the body and the funeral architecture used, and finally the composition of the demographic realities.

Following this approach, and strongly encouraged by work carried out in Italy and in the south of Gaul (Baills-Barré and Tirel 2017; Bérard 2016; Blaizot *et al.* 2003; Carroll 2018; Pearce 2001), the reinterpretation of ancient excavations or recent discoveries in Bourges allows us to observe the funerary grave goods and/or the presence of ornamental elements. Age at death seems to influence funeral protocol, probably in resonance with the stages of childhood as they were known to Roman and, by extension, Gallo-Roman society. However, it does not involve a complete reinterpretation of a complex mechanism in which rules, rites, traditions and emotions interact making it impossible to evaluate the influence of each one archaeologically.

A Child, Children, a Bunch of Kids

If it is usual to recall the distinction between its biological and social meanings, it is because age possesses a very strong determinism in the study of funeral practices devoted to immature individuals. It is now established that certain stages of physical development naturally coincide with phases of social evolution. However, this concordance is not evident for all periods of childhood and adolescence in the Roman World. Social and metabolic events are not necessarily synchronous but their expressions are equally important in defining the child and its place in the community (Fraschetti 1996; Néraudau 1984; Tremlin 2018). For example, the *dies lustricus* ceremony, during which the father names the child, takes place a few days after birth (eight for girls, nine for boys), at a time when the child is considered viable (Cazanove 2011: 12), at about the time the residue of the umbilical cord naturally detaches. The simultaneity of the two events is impossible to demonstrate archaeo-anthropologically yet this ceremony ensures that the child is recognised by their people, their *gens*, and becomes a full member of society (Carroll 2011: 116). This change in status, whether actual or symbolic, could be enough to redefine the funeral acts dedicated to the child. Then it will have to wait seven more years to achieve a new milestone and pass from the status of *infans*, literally the one who does not know how to speak, to that of *puer* who has reached the age of instruction

(Cazanove 2011; Valette-Cagnac 2003: 50-52). Later, the destinies of girls and boys differ. From the first period, during puberty, girls become *nubiles,* while boys waited until the age of 15/16 years before they could put on the manly gown and access the status of citizen. At this point, our inability to differentiate between adolescent males and females limits our perception of funeral rites. Moreover, what has been described is an ideal representation, perhaps idealised, that probably does not concern the entire population. As M. Carroll (2011: 102) points out, ancient sources distort our perception through a prism strictly orientated towards the behaviour of the upper classes. Slaves, or individuals of modest extraction, experience equivalent biological destiny but their social counterpart is much more discreet, even imperceptible, in ancient literature.

If mortality is considered, a point must be raised. Indeed, immature mortality rates, particularly for individuals who died before 5 years, and even more so before 1 year, between 40% and 50% of pre-industrial individuals, with a life expectancy at birth between 30 and 35 years (Corvisier and Suder 2000: 96; Hopkins 1966: 245; Konigsberg and Frankenberg 2002: 302-303; Laubry 2016; Sellier 1996; Wiedemann 1989: 15). Such values necessarily induce a high number of remains but an extremely large proportion of children's graves are missing, with the first age groups, 0 and 1-4 years, being regularly the most under-represented, regardless of the social background of the corpus (Blaizot *et al.* 2003; Durand 2008). Thus accessible and studied samples are undoubtedly very far from the original composition of the populations as a whole. The causes of deficits are multiple and highlight the differences not only between regions or provinces, but also within the same geographic area.

As such, when considering burials of immature individuals in Roman and Gallo-Roman antiquity it is therefore necessary to consider not one but several categories of children. The various monographic or synthetic works published to date highlight the concordance between this sub-division of the immature population and a certain typology of its burials (e.g. Bel 2012; Blaizot *et al.* 2003; Tranoy 2007). The differences between the tombs seem to change according to the age at the death of the deceased and indicate a clearer social integration related to the number of years lived. Integration into the community funerary space, installation in a grave whose architecture is identical to those of adults, having an accompanying furniture that corresponds to existing funeral practices, are symbolic, cultic or cultural facts with variations or adaptations that do not question the general framework of the rite. On the other hand, the duration and intensity of the role or involvement in society may have influenced the funeral treatment: for newborns a simplified protocol based on their brief and marginal role in the community but with a concern for the preservation of the tomb and the remains; for adolescents, similar, if not identical, practices to those of adults. Between these two periods of childhood, a transitional zone exists with *a priori* significant stages from which the funerary protocol evolves and tends to join that of adults.

Reserved Areas and Topographical Specificities

In Bourges (*Avaricum*), in central France, the distribution of child burials is uneven quantitatively, chronologically and topographically. This last point is not a surprise since it is dependent on the uncertainties of chance in archaeological discoveries but it has also long been established that specific burial locations, inside or outside community areas, were reserved for children, especially those who died at a young age (Baills 2016: 168-169; Blaizot *et*

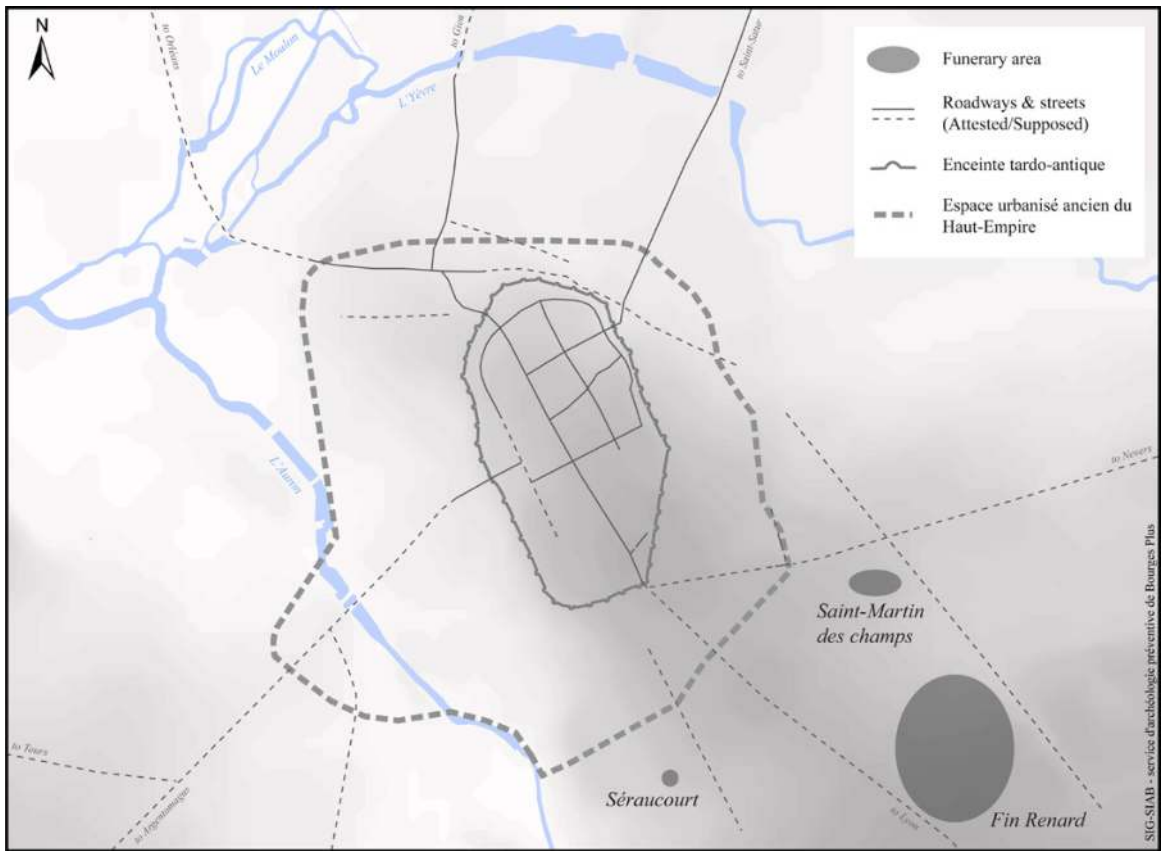

Figure 1: Funerary areas in the immediate outskirts of Avaricum during the early Roman Empire and Late Roman period (CAD Mélanie Fondrillon, Xavier Rolland, Raphaël Durand © Service d'Archéologie préventive Bourges Plus)

al. 2003: 52; Durand 2013). Some of those children were excluded from funerary areas and were buried in spaces devoted to other activities, mainly domestic or craft, unless they were buried more or less in the periphery of residential areas. Known in the Italian domain as *suggrundaria*, this practice refers to the banning of children, who died before their 40th day of life, from the same funerary protocols granted to the majority of the population and their integration in domestic settlements, close to the facades, if possible under the awnings (Fabius Planciades, *Expositio sermonum antiquorum*, 7). This relative topographical distancing perhaps also recalls protohistoric traditions whose symbolic, apotropaic or magical character may sometimes be evoked but for the moment this is unsubstantiated (Bailles-Barré and Tirel 2017; Bailles-Talbi and Blanchard 2006; Dedet 2008; Dedet 2013; Perrin 2007: 108).

The ancient city of *Avaricum* experienced two major phases of urbanisation (Figure 1). The first during the early Roman Empire (27 BC to AD 192) led to the peak of the city in terms of its dimensions, extension and monumental adornment. For this period, funerary spaces are poorly understood and little documented, being especially informed by many ancient discoveries made during works in often private grounds. The large complex known as 'Nécropole du Fin Renard' is, strictly speaking, the only funerary urban area excavated (Pic and Durand 2000: 89). Nevertheless, its limits are at present speculative. This burial ground was mainly identified from numerous isolated discoveries, the most recent of which date

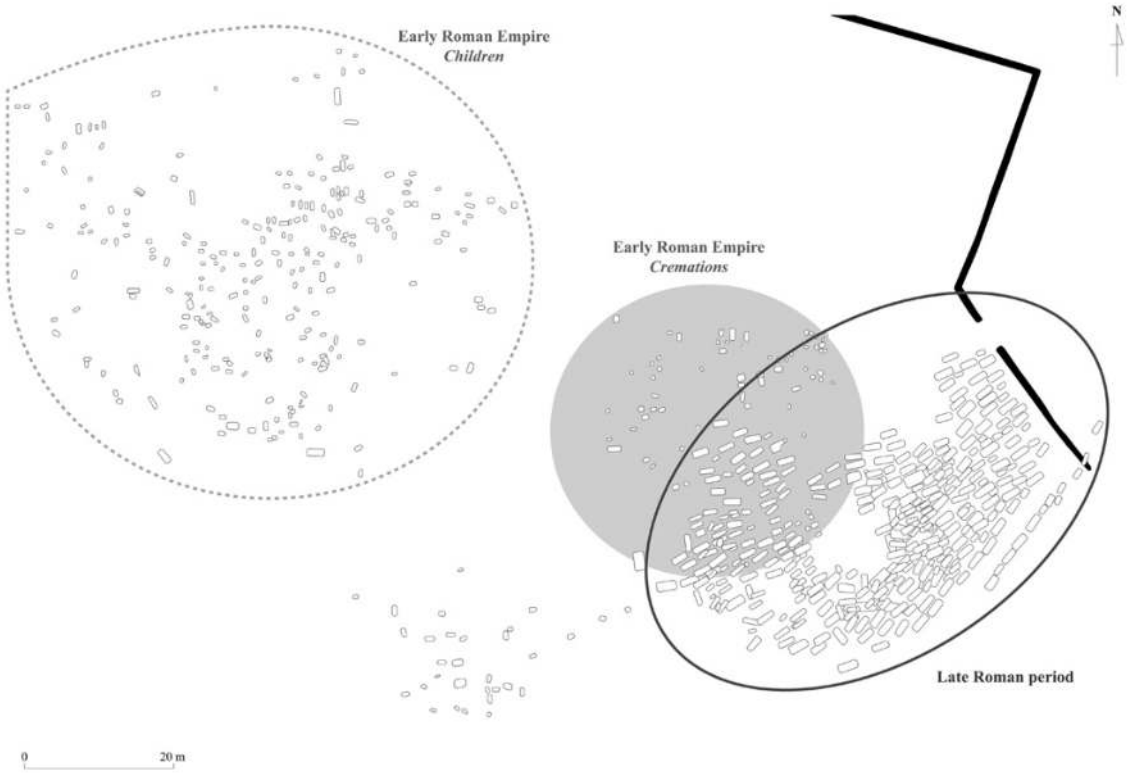

Figure 2: Necropolis of Lazenay, Bourges, France, and its distinct funerary areas (CAD Raphaël Durand © Service d'Archéologie préventive Bourges Plus)

from the 1970s and for which field records and conservation of the finds are very uneven. From the discoveries that are described in the literature, a general inventory may be made of burials, mainly cremated, steles and furniture usually associated with the funerary tradition (Escolivet 2005). In the Fin Renard area, a small complex excavated in 1964 resulted in the discovery of 69 burials, 52 of which comprised cremations while 17 were inhumations. From those 17 burials, only three of the individuals were adults with the rest comprising subadults. The short descriptions available in the field documentation and a text published immediately after fieldwork (and before post-excavation analyses) indicate that no specific organisation could be detected (Mennessier 1973); cremations and inhumations seem to share the funerary area without sectors dedicated to one or other of the practices.

In the end, within the confines of the city of the Early Roman Empire, for the moment, children's burials largely escape archaeological investigations. Recently, excavation of the Place Séraucourt allowed the discovery of two graves of children who died before 1 year of age (Fondrillon 2020: 341-345). They were buried in graves dug within a dark soil sequence dating from the Augustan period (27 BC – AD 14), in an intensely utilised area, probably close to an area of domestic activities. Apart from any identified funerary area, this location later became occupied by masonry constructions and thus was more characteristic of a residential area rather than a necropolis.

The Lazenay necropolis, located in a suburban sector of *Avaricum*, should also receive attention. It was part of an agricultural establishment located on the immediate outskirts of the city and operated from the end of the Gaulish period (end of 1st century BC to the 4th century AD). Its complete excavation has demonstrated that it was in continuous use during the five centuries of existence of the farm (Durand 2005: 125-127). Several distinct funerary areas were defined, including two dated from the Early Roman Empire (1st and 2nd centuries AD) that were used at the same time. One comprised an area dedicated to cinerary deposits while the other was an area reserved for the burials of children who died before, or shortly after, 1 year of age (Figure 2). The funerary area dedicated to cremation deposits included 150 burials, while 271 burials were discovered in the area dedicated to young children who died during infancy. This quantity of burials in addition to the absence of overlap or intrusion of later burials is evidence of the management of these areas which necessarily had to work with a method of perennial signalling, although archaeological evidence of its presence has not been preserved (Troadec 1993: 317).

From the second half of the 3rd century, the city is the subject of a period of intense work that redistributed a large proportion of the sectors of activities. Funerary areas for this period are more numerous and better documented and include the necropolis of Saint-Martin-des-Champs excavated in the 1990s and the site of Monin identified in 2018 and then excavated in 2019 (Durand 2005; Durand *et al.* 2018). In addition, in the suburban sector, the last phase of use of the necropolis of Lazenay as well as a small synchronous deposit, the site of Grand Mazières, date to this period (Durand and Maçon 2013). The funerary complexes known in *Avaricum* for

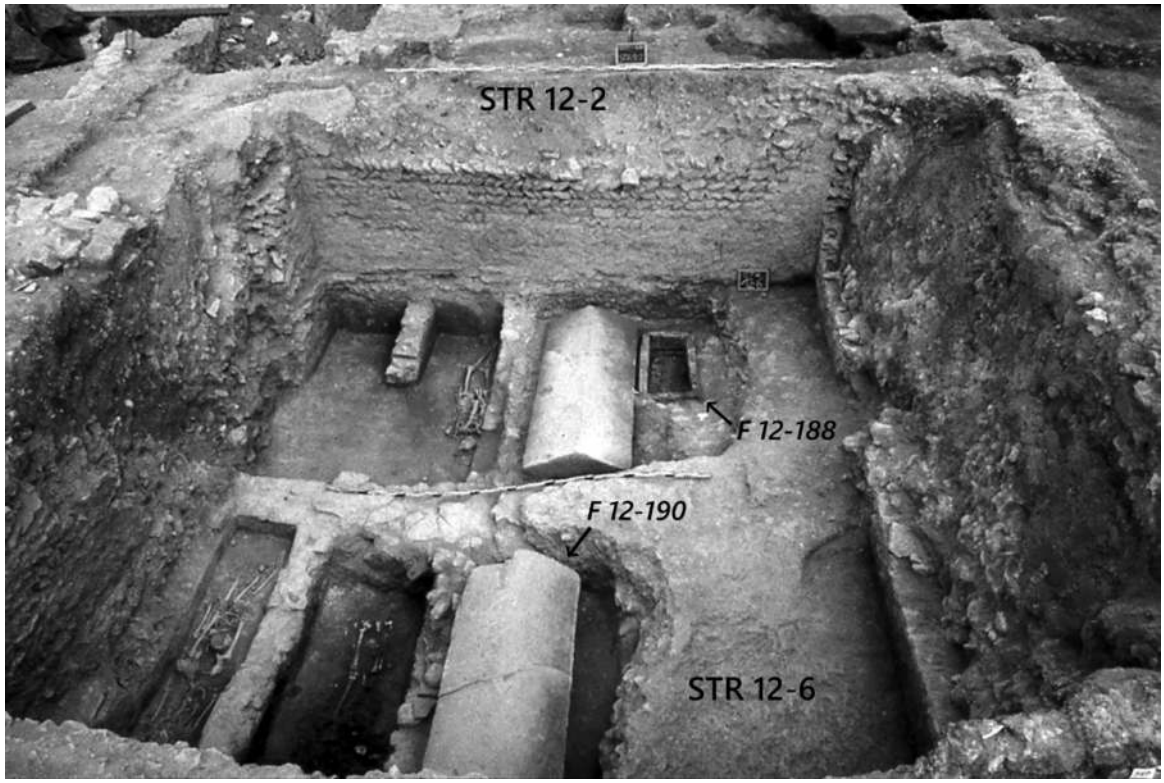

Figure 3: Hypogeum STR 12-6 installed in the mausoleum STR 12-2 of the necropolis of Saint-Martin-des-Champs, Bourges, France (Photo © Service d'Archéologie Municipal de Bourges-Avaricum)

this period received burials of children who died at an early age in the same areas as those of adults but following different rites. The most common, and also the simplest, is a grave formally at all points identical to those of adults with the exception of the dimensions and depth of the pits, which are smaller and shallower (Durand 2005: 305). This last characteristic has probably resulted in the disappearance of a large number of burials which may have been destroyed by contemporary and especially later occupations, both funerary and secular in nature. Usually, the deceased is installed in a wooden chest or coffin. Depending on the quality of the archaeological records, the distinction can only rarely be made for ancient excavations. Above all, it is sometimes impossible to verify if the deceased was buried directly in the ground, surrounded by a shroud, without a container.

Some specificities also appear in these funerary complexes. Thus, in the necropolis of Saint-Martin-des-Champs, juveniles were associated with adults and shared the same burial. This phenomenon can also manifest itself in the grouping of children and adults within the same funerary building. This was for example the case of a hypogeum built within a mausoleum (Figure 3). This monumental building, for which only the excavated parts were preserved, housed burials mainly in sarcophagi. In one case, a child who died between 2 and 4 months of age was placed with an adult woman (F 12-190) but it was not possible to determine whether these two deposits were simultaneous or not. Another sarcophagus (F 12-188) in this building was very particular since its morphology indicated that it had been clearly constructed to hold the remains of young children. Three of the four children found within it were sufficiently well preserved to enable age at death to be determined. All had died within one year of age – 2-4 months, 7-9 months, and, 11 months to 1 year and 1 month. The positions of the bones presented taphonomical features indicative of a succession of time-spaced deposits, which sometimes required manipulations of skeletonised bodies to make room for each new occupant. The building also underwent two phases of construction, one main (the hypogeum) and one later (required when the hypogeum could not receive any more deposits), which allowed it to be enlarged by means of a small extension which flanked one of its sides. This new phase of construction allowed the building to be enlarged by means of a small extension which flanked one of its sides. Two graves of perinatal individuals were found inside the extension (Durand 2005: 315-316). A few kilometres away, in the complexes of Lazenay and Grand Mazières, the burials of young children and adults are mixed without sectoral division or particular organisation of the funeral areas. On the other hand, however, associations between adults and children do not occur (Durand and Maçon 2013).

The presence of children among adults in these three Bourges burials grounds must not mask the paleodemographic reality (see Ledermann 1969). Indeed, for all these deposits, the population of children who died before one year is significantly deficient, with absences that can be estimated at several hundred individuals. Thus, even if areas reserved for the burial of young children in late antiquity in *Avaricum* have not been found, the study of known funerary spaces suggests they must exist (Alfonso and Blaizot 2004; Durand 2013; Portat *et al*. 2016: 113).

Prepare and Protect: Last Contacts, Last Resting Places

Among all of the reactions that death triggers, the management of the corpse holds a special place, especially when it comes to the remains of a child. During the Early Roman Empire, the dominant use of cremation was not systematically applied to children. Mainly, before the

age of one year, the bodies of the youngest did not pass through the pyre and were buried (Tranoy 2007: 156). Numerous and well-known written sources explain that the bodies of deceased children were not burned because of certain temporal or biological indicators. Pliny the Elder (*Naturalis Historia*, 7.70–2), Decimus Junius Juvenalis (*Satires*, XV, 139-140) and Fabius Planciades (*Expositio sermonum antiquorum*, 7), amongst others, evoke a delay of 40 days or the eruption of the first teeth. Forensics, archaeo-anthropologists and dentists will note the great variability existing from one child to another regarding this event which takes place at 6 months on average, but cases of early onset, including the presence of one or two teeth from birth, also exist, as well as instances of delayed eruption, when the first tooth of some children does not erupt until the age of 14 months (AlQahtani *et al.* 2010; Cameron 2004; Scheuer and Black 2016). According to this pattern, a significant proportion of children aged over 6 months of age should be the subject of a standard funeral rite including cremation. Nevertheless, children of this age often represent one of, if not the, smallest sample of contingents in the funerary areas of Roman Gaul from the 1st to the middle of the 3rd century (Blaizot *et al.* 2003: 49; Tranoy 2007: 156). No discovery in Bourges has yet denied this differentiation of practice. However, the burials of the Lazenay necropolis indicate that the dedicated area for children's burials was not reserved only for the youngest individuals. Among the 271 burials, more than half (n=152) belonged to children who died before the first year of life, but 109 burials were of individuals who died between 1 and 4 years (Durand 2005: 180). Finally, 10 burials contained the remains of significantly older children, probably 5-9 years (five burials) and 10-14 years (five burials). For the latter two categories, the estimated age implies sufficient growth for several teeth to have erupted in the mouth. Indeed, the rule here has been adapted and arranged while respecting the main issue of the ancient funeral rite: the burial of the body or its remains. It is the support of the rite, *lato sensu*, which defines the functioning of the community, group, or family in accordance with its rules, laws, beliefs, and superstitions. Although in the case of adolescents and adults, it is shown that the burned remains represent only a limited and selected part of the skeleton, known as the *pars pro toto*, their burial is necessary to consecrate the grave, making it a *locus religious* (Laubry 2016: 6). For younger children, the almost total disappearance of the body at the end of the cremation would avoid this earthing and therefore the whole process, not only in terms of ritual, but also legal aspects.

Regarding the installation of these bodies and the protection of the tombs, the devices vary logically according to the state of the interred body. Although there are few cases of immature cremations, the bone piles recovered from the pyre were deposited in ceramic or perishable material containers (Durand 2005: 267-280). For the youngest individuals, buried without cremation, the majority are placed within a wooden casket or coffin.

The generalisation of burial and the abandonment of cremation during late antiquity are accompanied by a standardisation of containers and also the appearance of new, rarer funerary devices. Denying the existence of an exclusive model, the typology which can be roughly established from the Grand Mazières, Lazenay and Saint-Martin-des-Champs necropoli, distributes these various funeral devices according to the ease and cost of their implementation. Coffins and chests can be supplemented by stone wedges on the periphery of wooden containers; the number, size and disposition of stones varying significantly from one grave to another (Durand 2005: 320-334; Durand and Maçon 2013: 183).

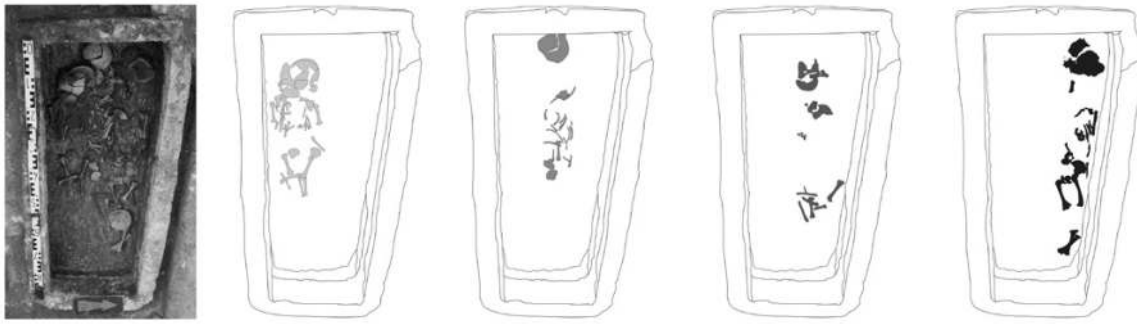

Figure 4: Spatial distribution of children in the casket of sarcophagus F 12-188 of the necropolis of Saint-Martin-des-Champs, Bourges, France (CAD Raphaël Durand & Photo © Service d'Archéologie préventive Bourges Plus)

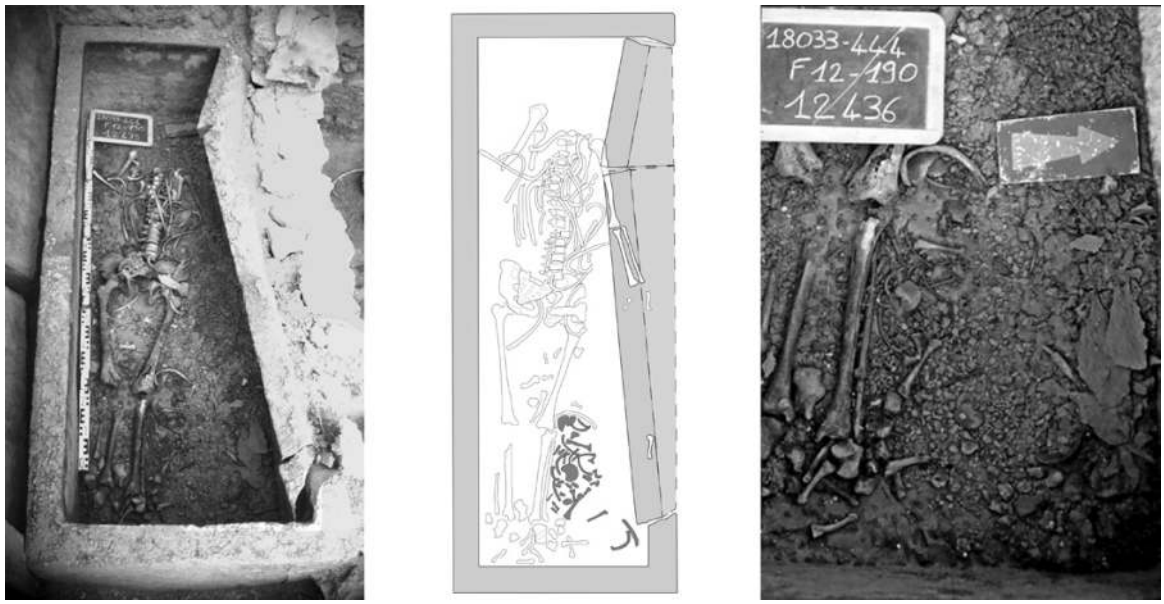

Figure 5: A woman and a child, aged 2-4 months, in sarcophagus F 12-190 of the necropolis of Saint-Martin-des-Champs, Bourges, France (Photo © Service d'Archéologie préventive Bourges Plus)

The use of stone sarcophagi also appears in this period. In *Avaricum*, the corpus is limited to the discoveries of the necropolis of Saint-Martin-des-Champs. The interior of a stone sarcophagus may contain the remains of one or more children or, sometimes, a child with an adult (Durand 2005: 315-316). The dimensions of some leave no doubt about the size of the individual(s) for whom they were intended. Installed in a funerary building in a hypogeum, a sarcophagus (F 12-188) was made in local limestone and included a domed lid and a quadrangular tank only 86cm long and 49cm wide. The size of this container does not result from reuse, rather it was created for the purpose of being a receptacle for the remains of children and it contained the skeletons of four children aged less than one year (Figure 4). Despite severe disturbance and poor skeletal preservation, taphonomical analysis determined that the deposits succeeded each other at intervals sufficiently long for each new addition to disturb the skeletal remains of the previously interred individual (Durand 1999: 68-70).

Within this mausoleum, this sarcophagus presents the characteristics of a collective burial ensuring a space reserved for very young children in this funerary, very probably family, arrangement. In this same necropolis, another sarcophagus (F 12-190) contained the skeleton of an adult woman associated with that of a child aged from 2 to 4 months (Figure 5). The state of preservation of the skeletons requires caution in our interpretation of the chronology of the deposits since their simultaneity cannot be demonstrated from the field documentation. Nevertheless, it appears that the child was placed in a space arranged by positioning the woman diagonally, leaving just enough room for the little corpse alongside her lower limbs, suggesting simultaneous deposition (Durand 2005: 316).

Beyond the original character of these deposits, the containers raise the question of the social status of the young deceased and especially of their parents because sarcophagi would have had a high cost out of reach for the majority of the population (Gillet 2011; Pluton-Kliesch *et al.* 2013: 334; Tranoy 2007: 156). This question is even more prominent when considering the case of the mummy of the Fin Renard necropolis. This mummy was discovered in 1908 during construction work (Mater and Témoin 1910) and comprised the naturally mummified remains of a child who died at the age of 2-3 years (Thillaud *et al.* 2003). The remains had been mummified due to their burial within a lead coffin that had been placed inside a stone sarcophagus. The use of such a compound funeral container, in the period from the end of the 5th century to the beginning of the 6th century, is also known in the necropolis of Saint-Martin-des-Champs through both ancient and recent discoveries. It was likely used for individuals from an emerging ruling class with a military vocation and certainly high level of wealth. In the case of the mummified young child from Fin Renard, his/her social status and the influence which this had on the organisation of its grave, and probably also of the funeral, seems, if not obvious, at least more than plausible. Also, it expresses the care, and maybe the grief of his/her family that is transcended within the funerary apparel and could have been completed by the funeral.

Funerary Deposits: Dealing with Rites and Rules and Honouring the Dead

While common during the first three centuries AD, deposits tend to become progressively rarer in burials from the end of the 3rd century AD, following the evolution of beliefs and ideologies underlying funeral practices. Thus, while it served as a material support for a set of rites and metaphysically defined the tomb, allowing purification of the living and assuring the transformation of the deceased in order to receive funeral services (Lepetz and Van Andringa 2004; Scheid 1984), the fundamental religious changes that characterise the Late Roman period are accompanied by a decrease, then a disappearance, of funeral deposits.

In Bourges' necropolis, this evolution is particularly perceptible. In Lazenay, funerary deposits were observed in 176 of the children's graves of the Early Roman Empire, but 100 tombs lacked a deposit. The deposits did not systematically belong to the youngest children and no age limit seems to correlate with their presence or absence. When present, the deposit comprises essentially ceramic assemblages, made up of various shapes, with a strong predominance of vases intended to receive liquids (Figure 6). The 484 containers are distributed in single, double or triple deposits. In 15 cases, this number is more numerous, amounting to eight containers in each of these graves (Fourré 2003). All of the deposits are related to the libation rites conducted at the funeral and then to the numerous celebrations dedicated to the

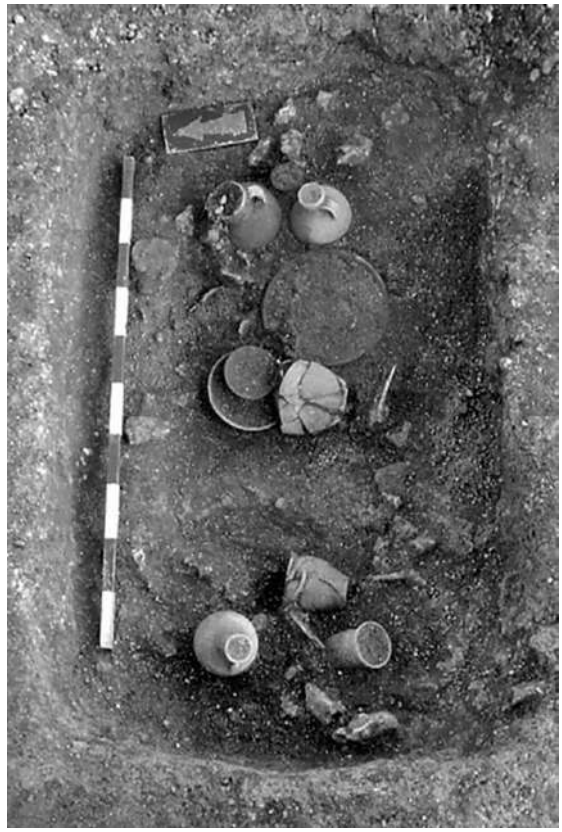

Figure 6: Example of a deposit of ceramic objects in F 7-214 child's grave in the necropolis of Lazenay, Bourges, France, from the early Roman Empire. Containers for liquid and solid foods are associated with a lower presence of those for beverages (Photo © Service d'Archéologie Municipal de Bourges-Avaricum)

Figure 7: Isolated Grave F 628 for a newborn who had been buried with two containers, a small jug and a glass vial in the suburban settlement of Séraucourt, Bourges, France (Photo © Service d'Archéologie préventive Bourges Plus)

Figure 8: Late Roman period burial F 31-2 for a newborn with ceramic and glass objects deposit in Grand Mazières, Bourges, France (Photo © Service d'Archéologie préventive Bourges Plus)

deceased and the ancestors throughout the year (Troadec 1993: 317). For older individuals, the service is completed by containers for eating, including plates, cups and pots. It should also be noted that not all synchronous cremation graves, whether adult or adolescent, contained a funeral deposit. In this case, the rites practiced may seem more accomplished for some very young people than for older individuals. Thus, the number of years lived may not have been a criterion for discriminating the quality and/or the completeness of the funeral process.

The objects accompanying children are sometimes attached to the sphere of childhood while, in other cases, they derive more or less from adaptation of the rite as it is known and practiced for the majority, although variations are evident depending on the period. The isolated burials of Séraucourt show that the importance of deposits is not necessarily correlated with their location (Fondrillon 2020: 341-345). Although outside a common funerary area, one of these tombs (F 628) contained a deposit consisting of two containers, a small jug and a glass vial (Figure 7). Such objects are regularly encountered in immature burials during the first two centuries of our era. This deposit accompanied a newborn infant and confirmed the application of the rite to very young individuals.

Figure 9: Deposit in Early Roman Empire's child's grave F 7-229 in the necropolis of Lazenay, Bourges, France. Deposited with this child who died during his first month of existence, it includes among other things two glass vials and a toy, a ceramic figurine of a horse (Photo © Service d'Archéologie préventive Bourges Plus)

More or less elaborate funerary deposits continued during the Late Roman period, but the number of objects was less important. These were still primarily composed of ceramics but, in the vast majority of cases, comprised only a single object and the variety of forms also tended to be simplified. Nearby Lazenay, the synchronous site of Grand Mazières hosted only ten burials of which four were children – three had died before 1 year and, while two had died between 1 and 4 years (Durand and Maçon 2013). Each of these burials contained a deposit, ranging from one to five objects and including ceramic and glass containers (Figure 8). It is interesting to note that the single deposits are for older individuals, while the largest deposit is for the youngest individual, who probably died during the perinatal or post-neonatal period.

Thus, within these two rural funerary spaces belonging to two communities of very different dimensions, the rites afforded to the youngest witnessed the same level of care. The quality of the deposits was often good, and the presence of lesser quality objects is rare. However, it is not uncommon to find used, 'recycled' goods. Some elements are occasionally added to ceramic deposits and connect these tombs directly to the world of childhood and perhaps the child to the life they had just left, whether it is a toy or objects related to hygiene such as balsams containing perfumes, oils or ointments (Figure 9).

Conversely, dated to the end of Late Roman period (4th-6th centuries AD), the necropolis of Saint-Martin-des-Champs adds little information since funerary deposits are rare and then totally disappear. The majority of excavations were related to old operations or survey

archaeology, and the protocols used to excavate the graves did not include specific sampling strategies to detect the possible presence of perishable materials, such as plant or organic remains. Deposits of wooden objects, fabrics, and flowers, can therefore only be imagined and not demonstrated.

Conclusion

The children's burials of *Avaricum*, especially those of the youngest individuals, do not depart from the observations made in Roman Gaul in general. They show the same care and, above all, the same respect for the main rules governing funeral rites. Differences to the burial of adults mostly involve an adaptation of the funeral practices. These adjustments are mainly correlated with age at death of the children, socially based on their involvement in their community and more pragmatically based on their size. This last point translates into two major characteristics – pit and container sizes. The first danger concerning these small remains is that their graves are degraded or violated due to their small dimensions, including the depth of the pit. If the death constitutes in itself a first social disorder, it is regulated by the funeral process as a whole. Damage or violation of the grave would constitute a second, much more serious disorder. In *Avaricum*, methods of dealing with this hazard are varied: separate location, *ex humo*/surface signalling, and/or *in humo*/buried signalling elements installed above the funerary container, for example. The protection of the graves of the youngest seems to have favoured the choice of a safer, possibly not funerary, place where the risks of re-intervention or disturbance are less. With the exception of sarcophagi during the Late Roman period, the use of specific containers has not yet been revealed. For example, the practice of enchytrism, i.e. burial of infants in a jar, is known in *Bituriges Cubes* and neighbouring *civitas* (Durand 2005: 311-313), such as that of *Carnutes* (Portat *et al.* 2016: 129-140), but has not yet been identified in *Avaricum*. The existence of reserved funerary areas represents a first topographical security but at Lazenay also correlated with the differentiated treatment of bodies. This specialisation of a part of the funerary area does not also exclude the use of signalling as well but excavations in the immediate surroundings of the burials have not so far revealed any significant evidence of such devices.

Surrounding the city, where space is more constrained, the development of a specific area for child burial by the urban population seems more difficult to envisage and, if it exists, has for the moment escaped archaeological investigations. Only the corpus of funerary *stelae* from the necropolis of Fin Renard attest to the use of signs to indicate the presence of burials of children and adolescents. Portrayed at almost full-length, all of the children depicted on the screens no longer belonged to the world of early childhood, suggesting that, for younger children, the signs may be more basic. Burial in domestic or artisanal contexts evoke the possibility of protection of the tomb inherent to its topographical situation, i.e. in a place where the succession of grave installations, if possible, must be carried out with a lower frequency than in a burial area. Nonetheless, this distancing and the care of the moment also underlie a form of ritual and memorial erasure, some children belonging to the sphere of the dead but not to those of the *Manes*, the revered ancestors.

In fact, these different modes of burial for the most part tend to separate the deceased youngest children from their parents, at least during the first three centuries of our era. If family burial plots existed, they therefore only accommodated a proportion of the relatives. The change of

funeral registers during the Late Roman period reintegrated children as a whole, *lato sensu*, with an increase in sepulchral associations with adults.

For most child burials, the deposition of the bodies is achieved in containers similar to those of adults. Only the size is adjusted according to the stature of the deceased. The sarcophagus appeared during the 3rd century and is a new container which was also used for the burial of children. It testifies to the financial means of the family and their willingness to use it to honour one of its members, no matter how young they were. This question of the funerary economy is also significant regarding the deposits. The composition of deposits dedicated to children seems to change according to their age at death, in order to gradually correspond to those devoted to adults. If one can imagine that this enrichment harmonises with the pace of integration and the place taken by the individual in their community, one must also accept some variations whose origin cannot always be determined. Nevertheless, over time, the funerary device was gradually simplified thereby limiting the archaeological clues that may express the nature of the attachment and wealth of those organising the funeral.

The originality of children's burials long presented as an expression of a distance in affection, sometimes socially imposed (Cicerone, *Tusculanes*, 1.39; Plutarch, *Moralia*, 11), has for 30 years been abundantly documented throughout Roman Gaul. The funerary landscape now described presents 'anomalies', still defined by comparison with adult burials, as a standard within a paradigm that partly restores Gallo-Roman social structure without systematically evading the empathy of adults for their children. Archaeology reveals through the burials of these children many variations, adaptations and interpretations within different communities but linked by similar conceptions of the afterlife.

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A Childhood Cut Short? The Mortuary Analysis of Subadult Decapitation Burials in Western Roman Britain

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Abstract

Archaeological investigations of Romano-British burials have revealed a range of diverse forms of burial treatments. Previous studies show decapitation was enforced, both pre-and post-mortem, on individuals of all ages, sex, origin, and health for diverse reasons (infanticide, judicial execution, trophy taking, fear of the dead, veneration, or an 'outsider' status) as part of a sub-class of mortuary treatment expressing communal membership rather than deviant identities. Mortuary analysis of Late Roman period (3rd-5th century AD) decapitation burials in central and southern Britain revealed a continuation of Late Iron Age (100 BC-AD 43) fragmentation rites, namely intentional breaking and scattering of human remains in burials or deposits. This paper explores the intersecting relationships between violence, ritual and bodies, by presenting a contextual mortuary analysis of 12 subadult decapitation burials from ten sites in western Gloucestershire and Oxfordshire. The aim is to use a life course approach to determine if those communities utilised specialised mortuary rituals for decapitated subadults, whether those practices may be classified as normative, atypical, or deviant, and, whether the social life course of subadult bodies served to construct specialised identities or conceptions of time in Late Roman society.

Keywords

DEVIANT, IDENTITY, BIOARCHAEOLOGY, OSTEOBIOGRAPHY, DEATH, VIOLENCE

Introduction

The study of the lives of children in the ancient and more recent historical past has rapidly increased in the archaeological literature in the past three decades, providing a welcomed expansion of our understandings of the experiences of children. Drawing on textual, epigraphic, iconographic (Figure 1), material, and skeletal evidence in various cultural contexts (e.g. Baxter 2005; Crawford *et al.* 2018; Gowland 2001; Harlow and Laurence 2002; Rawson 2003), archaeologists explore the cultural construction of childhood and its defined stages through the life course approach. Studies in bioarchaeology have produced an increasing awareness of the significance of subadult remains to the study of health, care, trauma, and death (both over time and specific events) (e.g. Halcrow and Tayles 2008; Lewis 2007; Mays *et al.* 2017). Our understanding of the richness of childhood in the Roman World has been hampered, in some cases, due to bias in the preservation and recovery of subadult human remains, and a lack of documentary evidence in the outer provinces. Considering the limitations of those types of data, the analysis of mortuary treatment evidence and skeletal remains using interdisciplinary methods are key to our efforts of understanding the biological, social, and

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Figure 1: Roman era marble sarcophagus for young boy showing children playing with nuts (front view). Ostia, Italy, 3rd century AD (© The Trustees of the British Museum).

cultural experiences of children, particularly when those archaeological data are associated with deviance. A parallel development to the rise in childhood studies began in the 1970s with the seminal theoretical and methodological archaeological literature identifying deviancy or the social 'other' in ancient and contemporary societies (Binford 1971; O'Shea 1984; Pader 1980; Pader 1982; Saxe 1970; Shay 1985). In the past two decades, the interpretive models have moved toward recognising that labels such as deviant, atypical, or normative must be interrogated through holistic, contextualised, or multi-scalar quantitative and qualitative approaches. The results of those methodological and social theoretical developments have contributed to the recognition of specific nuanced, localised manifestations of the range of cultural phenomena that may be qualified as normative, as a sub-class of minority rites, or deviant, once situated in the broader temporal and regional social system of a specific culture (Aspöck 2008; Crerar 2012; Harding 2015; Leggett and Damman 2018; Murphy 2008). The confluence of these studies has contributed to new lines of inquiry in Roman mortuary archaeology, embracing or renewing interest in complex research themes such as dispersal of the dead; death as a process; memory and monumentality; life course and osteobiographical approaches; archaeothanatology; discrepant identities; post-mortem agency; embodiment; performance theory; and contextual archaeology.

Mortuary and funerary traditions categorised previously in the archaeological literature as deviant include: 'decapitation, prone burial, unusually secure graves, signs of unusual violence unconnected to warfare, dismembered remains (especially heads)' with the potential associations with 'human sacrifice, execution, *poena post mortem* (punishment after death), witchcraft/fear of ghosts, a cult of relics, infanticide' (Taylor 2008: 92). A through-line in

much of the commentary regarding the potential motivations for the application of the rite of decapitation revolved around the head as the seat of the life force or an association between the head and an after-death experience. Decapitation and other forms of body manipulation occurred in many locations throughout Roman Britain, particularly in the southern and central regions, to individuals of all demographic profiles (although adult males appear to have experienced these practices more often than adult females and subadults) (Figure 2) (Crerar 2016; Montgomery *et al.* 2011; Smith 2018; Tucker 2012; Tucker 2014; Tucker 2016). These performative acts, in some cases, have been associated with a negative status and, as a result, have perhaps skewed our understandings of the dead (Aspöck 2008; Taylor 2008). The recent developments in deviant burial studies allow for new questions of those sub-groups, often historically overlooked, to be explored.

This paper examines the mortuary evidence recovered from the 12 known subadult decapitation inhumation burials from ten sites dated to the Late Roman period in Gloucestershire and Oxfordshire (Figure 3) to highlight some of the complex ways bodies and performative violence may have intersected in those mortuary contexts. A contextualised assessment of those subadult decapitation burials from a life course approach allows for a greater understanding of the ways those communities conceptualised children and connected to the dead through mortuary spaces and funerary traditions to express idealised social processes. In this paper, I discuss some of the similarities and differences between the mortuary treatment

Figure 2: Decapitation inhumation burial (Grave 5417, SK5411) from Great Western Park, Didcot, Oxfordshire (Hayden *et al.* 2019: figure 11.1).

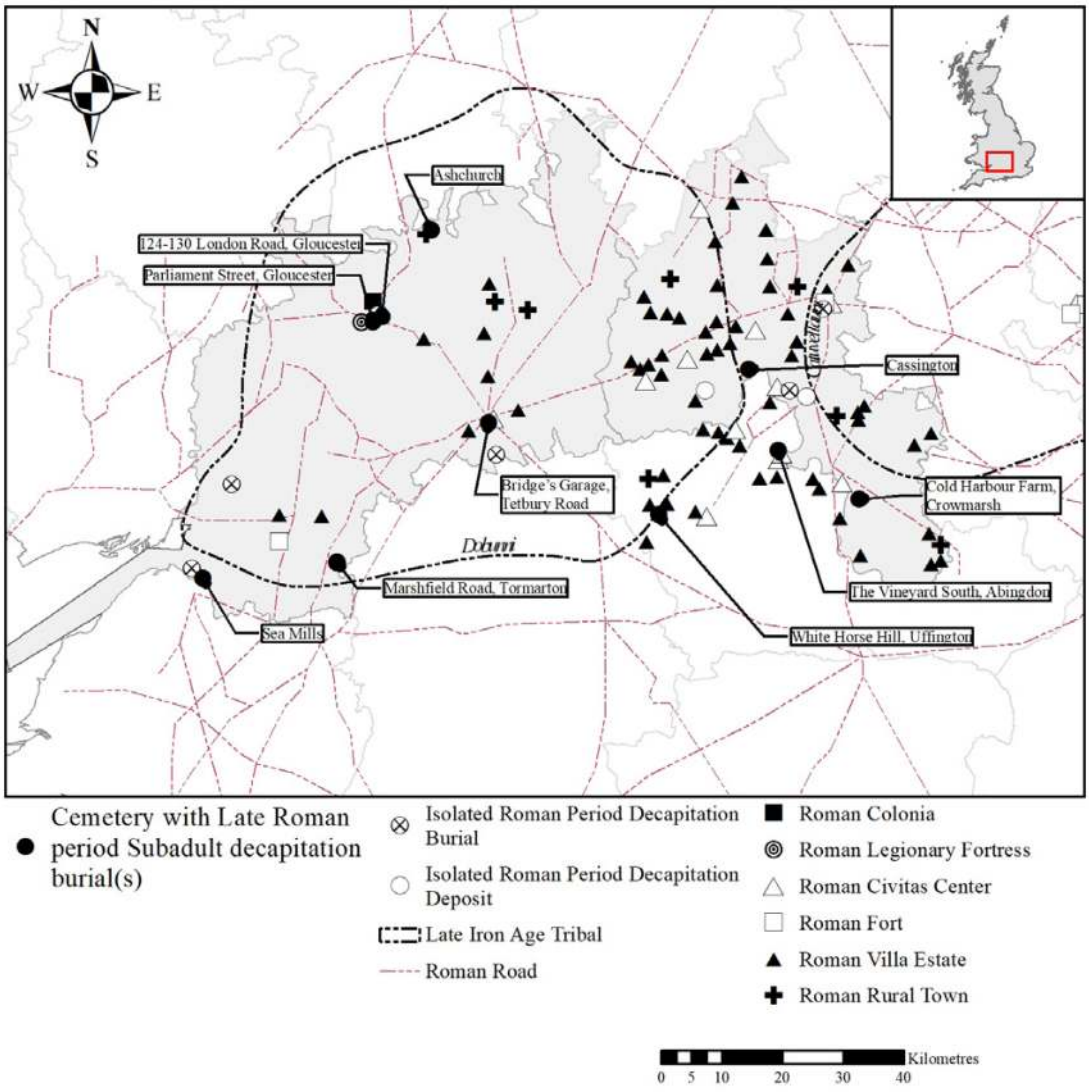

Figure 3: Late Roman period sites in Gloucestershire and Oxfordshire in Britain with subadult decapitation burials and deposits (prepared by the author).

of subadult decapitation burials and situate those trends against broader Roman life course burial trends in western Britain. This paper attempts to offer insight as to whether those subadult decapitation burials may be classified as deviant, atypical, or normative in western Late Roman Britain.

Late Pre-Roman Iron Age and Roman Period Burial Trends

During the Middle to Late Iron Age in Britain (400-100 BC), the emergence of exposure, cremation, crouched and extended inhumation burials can be observed in pits, ramparts, ditches, caves, and cists (Armit 2012; Brun 2018: 15; Redfern 2020; Rogers 2018: 12; Whimster 1981: 75-77, 87-97, 194). The practice of cremating the dead increased at the end of the 2nd

century BC in southeastern areas of England and became more established during the 1st century BC. During the Early Roman period (AD 43-200/250), there was a broad shift from exposure of the dead and subsequent dispersal of bones in features, structured deposits or waterways, and cremation burials, to extended or crouched inhumation burials in large and small urban and rural cemeteries during the 2nd century AD (Harding 2015; Keegan 2002: 3-4; Pearce 2010: 82; Philpott 1991: 8; Smith 2018: 209). By the 3rd century AD, cemeteries containing inhumations of all age groups predominately became the norm (with some exception for neonates and infants), consisting of supine, predominantly east-west coffined burials with few or no grave goods (Booth *et al.* 2007: 228-229; Pearce 1999: 26; Philpott 1991: 53; Rohnbogner 2018: 326-329; Smith 2018: 219; Toynbee 1971: 40). Burials found in ditches, wells, caves, and other isolated deposits dating to the 4th century AD continue to be found. These discoveries impede the view of 'Romanised' burial practices and funerary rituals overriding those from the Late pre-Roman Iron Age and the Early Roman period and imply communities exercised continual deliberate engagement with the dead through complex and flexible social systems (Pearce 2000; Pearce and Weekes 2017; Philpott 1991: 111; Smith 2018: 213-216). The following section explores Roman attitudes to age and gender and those forms of evidence used to construct the broad trajectory of the idealised subadult life course in the study area.

The Roman Life Course

The Roman life course was heterogenous socially and biologically throughout the provinces over time, and the idealised roles of males and females of all ages are represented on monuments and tombstones (Harlow and Laurence 2007: 9-10, 12-19; Huskinson 2007; Huskinson 2018; Lusnia 2020; Revell 2005; Toynbee 1971), through material culture (Allason-Jones 2004: 273-276, 279-282, 284-286; Carroll 2006; 2013), and legal documents (Taylor 2016: 349-361). Studies indicate that age identity at the beginning and end of the life span was influenced by social organisation and gender construction as part of the socialisation process (Allison 2018: 165-169; Baxter 2005; Grove and Lancy 2018). The attitudes and expectations towards these social sub-groups in the Roman World reflect the prevalent social hierarchy and cultural expectations of gender (Carroll 2018: 155-159; Rosten 2007: 17-19; Saller and Shaw 1984: 117-132, 134-138; Sofaer Derevenski 1997). By examining the Roman life course of populations in Oxfordshire and Gloucestershire, it may be possible to determine whether those concepts of social age or gender were significant influences in the treatment of subadult decapitation burials, or if those burial contexts contain similarities or differences compared to subadult non-decapitation burials in the area.

Moore's (2009) detailed thesis on perceptions of the young and old in Roman society revealed the regionally specific life course for the Roman Cotswolds may be broken down into four stages (infancy and early childhood, older childhood, adulthood, and elderly adulthood). Those burial characteristics identified in the thesis associated with the first and second life course stages were used to help delineate the range of variable mortuary treatment of all subadult burials in the study area (Table 1). The burial characteristics represented in this range were used to compare against the mortuary treatment observed in the subadult decapitation burials to contextualise whether age or gender may have influenced their burial treatment. To further contextualise the nature of those subadult decapitation burials, as well as the application of the rite as part of the death process in a broader social system, a range

Table 1: Descriptions of the subadult stages of the Roman life course identified in the urban and rural cemeteries and isolated deposits from sites in western Roman Britain (after Moore 2009).

Subadult life course stages in western Roman Britain		
Stage	Age (years)	Burial characteristics of all subadult burials
Infancy and Early Childhood	0-5	- Exclusion from formal cemetery contexts for ages 0-1 years - Inclusion into formal cemetery contexts between 1-2 years and increased rate from 2-5 years - Infants under 1 year in a crouched burial position - Subadults 1-5 years in extended supine burial position - A degree of informality in grave treatment - Limited quantities of grave goods - Grave good provision increased in early childhood, particularly in urban contexts - Up to 1 year, 60.0% of infants interred in shallow pits - After 1 year, 67.0% of subadults interred in inhumation burials
Older Childhood	6-15	- High average number of grave goods - Wide range of material culture - Extended supine inhumation burials as the norm - Distinct urban and rural differences in grave goods between urban and rural samples: there was a sharp increase in grave good average at 6-10 years (jewellery with females), and that rate doubled at the age range of 11-15 years in the rural sample (suggesting a strong contextual difference in the subadult identity) - Urban and rural gender differences present: the average number of grave goods with males (11-49) was higher in the urban sample (gender was more strongly polarised in the form of grave goods in urban contexts), suggesting that a gendered identity was defining of urban burial

of common funerary phases observed more broadly in Romano-British burial traditions will be discussed (Weekes 2017).

Age

The first stage (infancy and early childhood) of the western life course was characterised by restricted levels of grave good provision, simple grave treatment and, during the first year of life, burial in non-cemetery contexts (households, wells, ditches, foundation pits, for example). This first age category, known as *infantia*, extends from infancy to seven years, where the main concerns for parents were the early development of the infant, and later, the education, discipline, and social development of the young child (Allison 2013: 252-253, 325-327; Allison 2018: 166, 170). The second stage (older childhood) was characterised by a high proportion of grave goods and an increased formality in mortuary treatment and burial practice. Within this age group, known as *puerita*, freeborn children would leave the household to attend school during the day and may have participated in other social activities alongside their parents in the home, such as dining together. For freeborn children of non-elite families, it is suggested at this stage they may have stayed with their parents or began apprenticeships, completing household chores or learning a trade, particularly in provincial regions of the Roman World (Laes 2011: 107-147, 126-128, 191-195). Children born into slavery at this stage were likely minimally educated or trained to perform household tasks or other laborious activities in the public sphere at a later stage (Allison 2018: 168). Around the age of 14 years, freeborn boys in urban contexts may have been expected to 'leave their *bulla* on the *laraium*, don the *toga*

virilis, and begin lessons in philosophy and rhetoric' to be increasingly involved in the lives of their fathers (Laes 2011: 132-137; Rawson 2003: 145-153). In rural contexts, it is likely that adolescent boys continued to perform laborious tasks alongside adult males in their family or community, particularly trade or farm-related activities (Rohnbogner 2018). The *puerita* stage ended a little earlier for freeborn girls, around the age of 12 years, when they were deemed of marriage eligibility, while girl slaves may have performed work chores around the age of 5 years in some cases (Allason-Jones 2004: 280-281; Harlow and Laurence 2002: 61).

Gender

The expression of the female life course was centered around reaching puberty, fertility and the social duties of marriage, or its biological potential, and the role of motherhood was a pivotal event often commemorated in funerary or burial contexts (Allison 2018: 169; Carroll 2013: 562; Puttock 2002: 41-55). The western life course indicates that high levels of grave good provision across older childhood-adult age stages, particularly ages 11-39 years, defined an emphasis in the female life course. Among the female burials from rural sites, the expression of gender was represented through a feminine burial assemblage comprised particularly of jewellery and dress accessories. In cases where the individual was deemed beyond fertility, either biologically or socially, the female life course was ambiguous in some respects (such as burial position), although elderly women were at times provided with personal items rather than functional or votive items (this transition is marked in the 40-49 years range) (Moore 2009: 177-178, 205-206). In some cases, it appears that elderly female burials shared similarities in burial treatment with female subadults (6-10 years range), particularly the high concentration of grave goods. If this patterning was symbolic of a subadult status, it may suggest a potential link between adult females, subadults, and elderly females, identity groups that were marginalised in contrast to the young male social identity in Roman Britain (Moore 2009: 211). It may be possible that the gendered identity of the female, and the ambiguity of the elderly, may have signified a degree of social marginalisation or a reduction in the need to visually showcase those with identities aligned to function as part of the private social fabric in Roman society (Carroll 2013: 572; Gowland 2008: 167; McGovern 2019: 63-65).

Roman Life Course Assessment

Moore suggests the burial of subadults and elderly adults was a primary method for both regional and local expression of individual and cultural identity with ambiguous reference at times to the life course (Moore 2009: 184-185, 211). The subadult burials in urban and rural locations suggest the first and second stages provide insight into the public and private conceptions of personhood and status. As an individual developed within a specific community, aspects of their age identity were tied to their physical and social growth. The burial treatment patterns of subadults in the second stage reveal increasing grave good provisions and inclusion into formal burial spaces and other treatment, in contrast to infants and young children in the first stage (Moore 2009: 154-155). This suggests in the study area that older subadults (6-15 years) may have been afforded greater emphasis in burial treatment due to their familial and public social value, as contributors to the future of socio-economic prosperity (McGovern 2019: 63; Rohnbogner 2018), while infants and young children in specific communities were afforded burial treatment on a spectrum more closely associated with conceptions of the

rebirth, fertility, prosperity, or otherwise negotiated ideologies associated with potential at the beginning of the life cycle.

Subadult Decapitation Mortuary Treatment Data

A total of 123 decapitation inhumation burials and isolated deposits (adult and subadult combined) from 44 sites in Oxfordshire and Gloucestershire have been recorded from excavation reports and publications, representing 7.9% of the entire burial population. Within the sample, a total of 12 subadult decapitation burials were identified from ten sites, representing 9.7% of the decapitation burial population and comprising the two subadult life course stages (Table 2). From the ten sites, a total of 35 subadult non-decapitation burials were present, indicating that the decapitation burials represent 25.5% of the total subadult burial population from those sites. Across all of the sites, a total of 243 subadult burials were discovered, therefore the 12 subadult decapitation burials represent 4.9% of the subadult burial population. The subadult decapitation burial population (9.7%) in this region of the Thames and Avon Vales may represent a gradual decline in the occurrence of decapitation toward subadults compared to its prevalence in Iron Age Britain (14.9%) as described by Tucker (2012: 54). Factors relating to excavation, recording, and preservation bias, as well as the limited and imbalanced age groups in the sample, pose a challenge in the analysis of the mortuary and osteological details in this dataset. However, a contextual resolution to this sub-set of the decapitation burial population in the study area will be attempted below.[2]

The mortuary and bioarchaeological evidence recovered from the 12 subadult decapitation burials may reveal variability in the mortuary treatment between the first and second life course stages (Table 3). There may be similarities and differences in the mortuary treatment patterns of the subadult decapitation burials compared to those common burial characteristic trends associated with the subadult life course data results discussed in the previous section.

Within the subadult decapitation sample, there were no infants (0-1 years) present. Although only two burials represent the early childhood stage (2-5 years) in the sample, their characteristics show similarities with the non-decapitation subadult burial practices in the burial position (extended), location, grave good provision, and the burial side (supine) of the body. However, differences were noted in the decapitation burials through the presence of a coffin and intentional manipulation of the body. Grave good provisions (a complete pot, two pieces of iron, and a piece of flint associated with the jaw) were observed in the shallow

Table 2: Age distribution of subadult decapitation burials in Oxfordshire and Gloucestershire.

Number of subadult decapitation burials by life course stages			
Stage	Infant and Early Child (0-5 years)	Older Child (6-15 years)	Indeterminate
Total	2	9	1

[2] In my doctoral thesis, the decapitation burial population in the study area were also compared to the adult sub-set and non-decapitation sub-set in the same sites (Christie 2023).

Table 3: Main burial characteristics identified in the subadult decapitation burials from Oxfordshire and Gloucestershire.

Subadult decapitation burial characteristics by life course stages			
Mortuary Treatment Variable	**Infant (0-1 years) and Early Child (2-5 years)**	**Older Child (6-15 years)**	**Indeterminate**
Burial Position and Side	Supine, extended	Supine, extended (1 prone)	Supine, extended
Grave Goods	Possible	Yes (iron nails, hobnails, pottery)	No
Burial Location	Deposit or cemetery	Quarry or cemetery	Cemetery
Coffin	Possible	Yes	No
Intentional manipulation (repositioning, removal, or fragmentation)	Yes	Yes	Yes
Total	2	9	1

scoop grave of a two-year-old from Cold Harbour Farm, Crowmarsh, Oxfordshire (Burial C), while a coffin was revealed in the grave of a four-year-old in 124-130 London Road, Gloucester, Gloucestershire (SK687). Both burials contained evidence for intentional manipulation of the bodies. For example, in Burial C, fragments of the crania were discovered 85cm from the burial in a pit that once contained a lead coffin; and, in the grave of SK687, the cranium was repositioned on top of the knees (Clarke 1996; Ellis and King 2014; Stuart *et al.* 2016). Within the older childhood stage (6-15 years), the burial characteristics associated with the nine burials in this life stage show similarities with the burial position, burial location, and burial form variables when compared to the non-decapitation subadult burials. There was a decline in the number and type of grave good provisions compared to the common trends identified in the western life course (three burials, SK4036 and SK4039 from White Horse Hill, Uffington (Barclay *et al.* 2003), and D6 from Sea Mills, Bristol, had none (Bennett 1985: 18-20). A higher average number of grave goods, particularly jewellery, hobnails, and pottery, among the 6-10 years or 11-15 years ranges was expected during the second life stage, although this trend was only observed in the older child burial of SK880 (aged 11-12 years) from Bridges Garage, Tetbury Road, Gloucestershire (Figure 4) (Holbrook *et al.* 2016). Only one of the 12 decapitation burials was found to be in the prone position in a coffin rather than the common extended supine position (SK4058, aged 7-9 years, from 124-130 London Road, Gloucestershire) (Ellis and King 2014: 69, 79).

A notable difference in the mortuary treatment observed in ten of the 12 subadult decapitation burials compared to the common mortuary characteristics of the subadult non-decapitation burials was the evidence for intentional manipulation of the body in addition to decapitation. The three types of manipulation observed from most to least common were: 1) repositioning of element(s); 2) removal of specific element(s) from the burial; and 3) fragmentation of

Figure 4: Subadult from decapitation inhumation burial (Grave 881, SK880) from the Western Cemetery at Bridges Garage, Tetbury Road, Gloucestershire (prepared by the author).

element(s). The selection of the crania and vertebrae for one or more types of manipulation was observed consistently in all 12 of the burials. Five of the 12 burials showed evidence for more than one type of manipulation activity, for example, the subadult D6 (aged 6-7 years) from Sea Mills, Bristol, was reported to have cranial fragments positioned on the femora and pelvis (Bennett 1985: 18-20; Clarke 1979; Rogers 1985: 55). In the case of the subadult SK678 (aged 12-14 years) from the British Gas site south of the Vineyard, Abingdon, Oxfordshire, despite the space where the cranium should have been anatomically being undisturbed, the crania and upper vertebrae were missing, and are believed to have been deposited in a nearby pit (1700; SK614 and SK640) (Clough 2007). The manipulation pattern observed in the subadult decapitation burials is similar to the pattern evident in the adult decapitation burials, although in the adult sample removal of the crania or other element(s) was most common, followed by repositioning of an element(s), and replacement of an element(s) with an object(s)/another skeletal element (least common). The final type, replacement, is not observed in the subadult decapitation burial sample. While there were no differences in the types of manipulation patterns observed between infants, young children, and older children, there was an increase in the number of burials with evidence for more than one type of manipulation present in the burials of older children (5/10).

The localised mortuary patterns observed in the subadult decapitation burials may be further contextualised by comparing them against the funerary phases and traditions commonly observed in Roman Britain. As outlined by Weekes (2017: 91-109), the phases most commonly observed in Romano-British mortuary contexts include: 1) selection; 2) preparation; 3) modification; 4) location; 5) deposition; and 6) commemoration. These funerary phases have been used in previous studies to quantify or qualify aspects of the expected range of mortuary practices and behaviours associated with the death process throughout the Early and Late Roman periods. As a result, our analytical framework has been hindered to a degree as it relates to qualifying what is considered normative versus deviant in Romano-British mortuary contexts. More recent contextual studies, however, have revealed multi-scalar approaches to evaluate patterns on an intra- and inter-site basis, revealing sub-classes of minority rites that were previously unaccounted for in a systematic way (Crerar 2016; Smith 2018).

By comparing the burial characteristics of the subadult decapitation burials described in the previous section against the common broad funerary phases, a categorical 'relativity of normality' or spectrum of the localised sense of normative, minority, or deviant rites may be developed. This approach stipulates that burials considered deviant should be analysed along a spectrum of characteristics deemed specific to the funerary structures of the community at the time (Aspöck 2009: 107; Pearce 2013; Pearce and Weekes 2017). An analysis of the mortuary treatment patterns associated with the subadult decapitation burials reveals similarities in the selection, preparation, modification, and location phases of the funerary spectrum (with some heterogeneity in the two latter phases), and differences in the deposition and potential commemoration phases. In the deposition phase, 50.0% of the burials had evidence for the provision of grave good materials, some of which may have been for commemorative purposes. In the final phase, three of the 12 subadult decapitation burials have evidence for commemoration, although seven more may contain possible evidence, especially those with evidence for either disturbance to the burials in the form of intentional repositioning of the crania, disturbance of another body element, or removal of a body part from the grave. In the modification and deposition phases, greater variability is noted, and it may be worth considering if the presence of both grave good provisions and intentional modification of the body in this final phase of the funerary structure are representative of localised forms of marking an individual's high status, an important milestone, or a specific level of exposure to childhood stress (Rohnbogner 2018: 329-333). The absence or lack of grave good provisions need not rule out the possibility for commemoration, particularly if the burial or deposit is located near a ritual or communal space of significance to the community (for example, the Grange Farm, Marshfield burial) (Smith 2018). The modification and deposition phases also presented the opportunity to express care for the dead, engage with the space of deposition (in one or more burial or deposit contexts), and potentially negotiate power over their memory by fragmenting select elements of their bodies to spread, redeposit, curate, or destroy the remains in ways similar to those observed during the Iron Age (Armit 2017: 171; Booth *et al.* 2007).

In assessing the mortuary treatment of the subadult burial sample along the burial spectrum, five of the burials differed from the others in one or more of the funerary phases: Burial C from Cold Harbour Farm, Crowmarsh (modification, deposition, commemoration); SK4036 and SK4039 from White Horse Hill, Uffington (preparation, modification, and deposition); SK N/A from Grange Farm, Marshfield (modification, location, and deposition); and SK4058

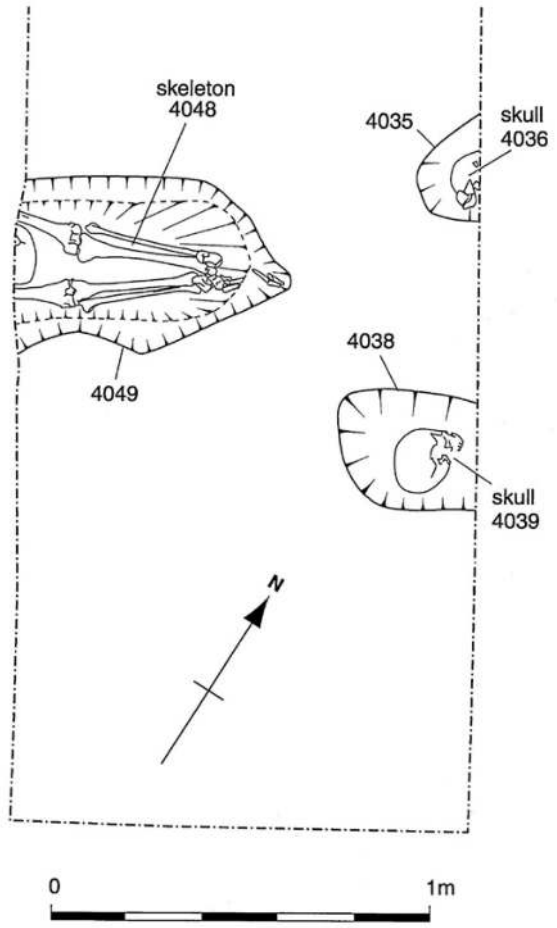

Figure 5: Illustration of subadult decapitation deposit (Grave 4038, SK4039) from White Horse Hill, Uffington (Barclay *et al.* 2003: figure 4.10. © Oxford Archaeology).

from 124-130 London Road, Gloucestershire (preparation, deposition). Each of these burials contains characteristics of mortuary treatment uncommon in the western life course burial trends identified previously, and they contain greater variability in their treatment during the funerary phases compared to the other seven subadult decapitation burials. Not only do these five burials represent a part of the small percentage of subadults selected for decapitation in the study area (4.9% of the entire subadult burial population, and 9.7% of the entire decapitation burial population), but they were further distinguished in the funerary and death process that followed. For example, SK N/A from Grange Farm, Marshfield, could have been commemorative, representing prosperity, social membership, and potentially the individual status of the deceased. However, the circumstances by which SK4036 and SK4039 (Figure 5) were buried suggests much less care or social connection with the community, given the irregularity of the burial cut, disassociation with the other elements of the body, and a lack of grave provisions compared to other subadults, including decapitated subadults, in the study area.

Conclusions

These findings suggest an osteobiographical approach could be applied to define the biocultural narratives more clearly, as well as to connect them to within the broader social and cosmological systems of the Late Roman period. The selection of these subadults for decapitation is noteworthy, however, seven of the 12 burials had similar patterns of mortuary treatment across the funerary phases and similar burial characteristics associated with their respective life course stages. Based on the similarity of evidence for the presence of intentional modification to the body (aside from decapitation) across the subadult decapitation burial sample, we may suggest that this variable does not qualify those burial contexts as deviant, but rather as a minority rite. This was intended to showcase a regional expectation of engagement with those individuals wherein the expression of care and specialised uses for the body (pre- or post-mortem) by the living was acted upon during one or more of the funerary phases. In addition, on a site-by-site basis, identifiable types of intentional manipulation were observed as part of the modification, or later, deposition phases of the funerary ritual. Constructing a spectrum of burial treatment and identifying the phases where the living intentionally engaged with the dead through manipulation of their bodies would be beneficial analytically. It may be possible to use such a spectrum to aid in delineating specific motivations behind the mortuary rites and improve our understanding of how decapitation and violence more broadly were incorporated into the death process of different communities beyond western Roman Britain.

Within the study sample, the five remaining subadult decapitation burials noted above may be considered as a part of a minority rite or deviant category of burial; however, a final determination of those category designations should be withheld until a comparative analysis of the adult decapitation burial sample in the study area can be completed, and until the application of the osteobiographical approach and/or a 'Web of Violence' approach (Turpin and Kurtz 1997 [cited in Redfern 2017]) is applied to the analysis as far as the data allows. It can also be noted that the evidence for localised types of modification, deposition, and location present in each of the five burials should be considered before grouping the burials in one burial category with a homogenised association. An osteobiographical approach of the decapitation burials would allow for a case-by-case analysis within a specific place and time, making it possible to learn more about those mortuary contexts and the interplay of social identities and cultural behaviours enacted to express them through burial treatment within a specific funerary structure. The application of a multi-scalar approach such as the 'Web of Violence' will allow for the prevalence of violence in communities to be addressed, and the negotiation of power over bodies/body parts, memory, and membership to be explored. This scholarship will further contextualise the use and variability in the application of the decapitation rite and other fragmentation activities observed in the archaeological record.

Future studies examining disarticulated or scattered human remains in diverse locations throughout the Iron Age and Romano-British periods would provide a welcome expansion to our understanding of the presence of fragmentation and cultural modification practices when archaeological, taphonomical, bioarchaeological, and funerary evidence of those practices appear. Establishing a baseline of evidence for those burial practices cannot only raise new questions from previously published finds but will allow us to formulate new stories of the lives of people in the complex spheres they occupied in life and death in the past. These

efforts are likely to uncover a vast network of minority rites that may expand our view of the social role that people of all ages and genders played in society as part of the active death process. On a broader level, the articulation of these studies alongside conversations of the structural ways violence and painful behaviours pervaded the lives of the Roman people may shed greater light on whether actions such as decapitation were considered in a negative light, or if the practice was merely part of a wider network of structural violence to be enacted or performed when situationally appropriate. It is hoped that by deconstructing the mortuary contexts, applying an adapted life course approach to the contextual analysis, and identifying those burials in the study area that may have received atypical treatment due to their social and cultural identity, that I have demonstrated the need for deeper levels of contextualisation that are less reliant upon traditional approaches and potentially biased interpretations of the processes of death in western Late Roman Britain.

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Mors Immatura in the *Civitas* of *Forum Iulii*, Narbonnensis Gaul: An Archaeothanatological Approach

Alexia Lattard[1] and Aurore Schmitt[2]

Abstract

During the Roman period, the funerary treatment of children is always described as being very specific, and sometimes atypical, or deviant, compared to that of adults. In Forum Iulii, the graves analysed, including both cremations and inhumations, indicate clear specific gestures towards this age category. However, the inter- and intra-site comparative analysis also reveals heterogeneous funerary practices despite common tomb designs. Advances in field methods help interpret this variability. The diversity highlights some specific treatments which depend mostly on social parameters. In order to understand the practices toward young individuals, which are related to choices made within the family circle, the treatment of adults belonging to the same group also needs to be considered. This paper also investigates the origin and identity of the populations settled in the territory of this civitas during the High Empire, using additional historical and epigraphic sources. The study reveals how children are integrated into families or groups, sharing the same funerary system, and their graves convey the choices made within the family's private sphere (location, deposit or body treatment). These tombs mirror socio-cultural interactions stemming from the micro-local history of this civitas, in particular the settlement of foreign populations (Italic groups) during the Augustan Age.

Keywords

CHILDREN, GRAVES, SOCIAL STATUS, BURIAL PRACTICES, ROMAN GAUL

Introduction

The *civitas* of *Forum Iulii* (Fréjus, Provence, France) was located in the province of Gallia Narbonnensis, a well defined administrative and legal territory during the Roman period (Figure 1). This province was at a strategic point along a major road in Southern Gaul, the *Via Julia Augusta* (*Via Aurelia*), between Italy and Spain. Along the east-west axis, the territory was structured into a few small urban areas, the two *mutationes* of *Forum Voconii* (Cannet-des-Maures) and *Matavo* (Cabasse). The town of *Forum Iulii* (now Fréjus) was founded *ex nihilo* by Caesar and benefitted from a significant economic development from the Augustan period onwards. The city became a Roman colony around 31 BC and welcomed several contingents of foreign populations. During the first half of the first century AD, it rose to the rank of *civitas*, cut across by a new major communication axis oriented east-west, the extension of the *Via Aurelia*, which connected Rome to the Iberian Peninsula. Secondary settlements, established

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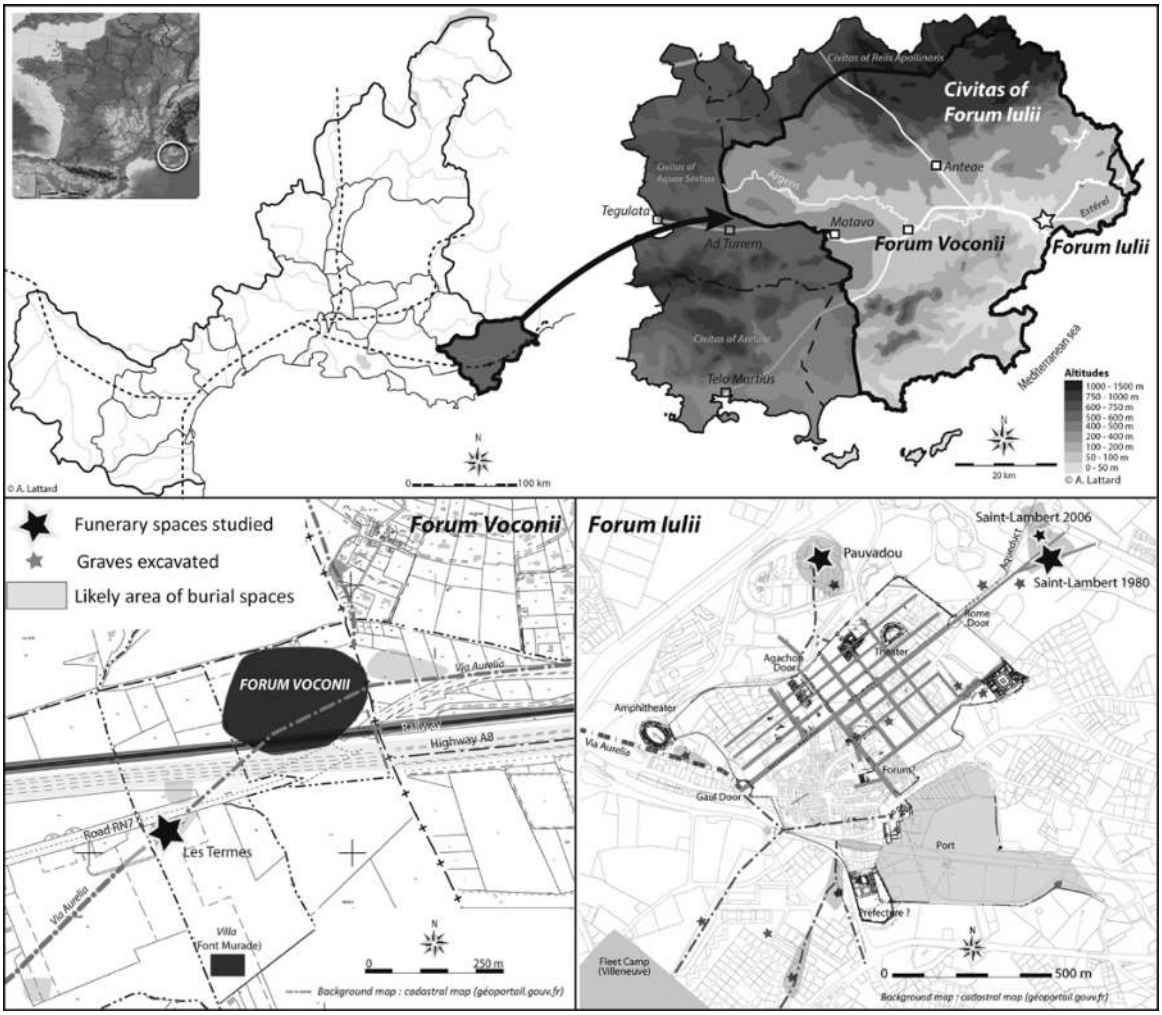

Figure 1: The funerary spaces within the territory of the civitas *Forum Iulii* (A. Lattard 2020; Map: F. Laurier 2018 (SDAV); Gébara 2012; Rivet *et al.* 2000: 456, fig. 829).

along the road, redistributed the centralised agricultural production (*Anteae* in Draguignan; *Matavo* in Cabasse; *Forum Voconii* in Le Cannet-des-Maures).

This *civitas* enabled human, material and ideological exchanges. The multiplication of contacts with the Romans and their migration during the foundation of these cities led to a new institutional framework (Gascou and Janon 1985). Consequently, the territory was occupied by different groups mentioned in ancient texts and some epigraphic documents (Christol 2015). The local population faced newcomers, the Italics, whose presence is attested by epigraphic and onomastic testimonies but also by the texts evoking veterans from the Roman army.

In the last thirty years, several funerary areas have been discovered and excavated. During the Roman Empire, the preferred means for individuals to express the social status of the deceased was through funeral ceremonies or the grave itself. The funerary rites performed in the tomb

(where the remains of the deceased were buried) marked it as a *locus religiosus* regulated by well-defined legal and religious standards (Van Andringa 2018). Moreover, this period was characterised by two different treatments of the corpse: cremation and inhumation.

Archaeologists have long been interested in children's graves, especially in Provincia Narbonnensis (Bel 2012; Moliner 2012) and Fréjus (Béraud and Gébara 1993). Notwithstanding, despite these studies' focus on cultural questions, they systematically describe generalities from an assemblage based on several sites which in turn is considered valuable for the whole series. Unfortunately, this approach does not consider social groups which are an important parameter in the choice of treatment afforded to the deceased.

Furthermore, over the last two decades, whatever the chrono-cultural period and the geographic area, studies of children's graves, compared to those of adults, show that they received a different treatment and had a different status than adults, especially during Classical Antiquity. This issue has improved the archaeological study of juvenile remains and spurred the creation and development of an independent research area. However, inevitably, limitations remain. First, the specificities of children's funerary treatments during the Roman period have long been studied through ancient texts. Consequently, archaeologists have found it difficult to study the data objectively and to consider these graves holistically, including the familial or the communitarian tombs around them, manifest in the polynuclear functioning of funerary spaces. Secondly, the differences in body treatment during the Roman period (cremation or inhumation, which have been described as fashion trends; Scheid 2013: 452) involve two different methods of studying human remains. It is, therefore, difficult to compare the results from studies of cremated individuals with those from analyses of buried individuals. Thirdly, in European research, child graves are studied according to a binary scheme: are they normative or deviant? But, this view is based on questionable postulates, as demonstrated by B. Boulestin (2016): to be able to distinguish normative funerary practices from non-normative ones presupposes that in ancient societies funerary practices were established according to this opposition. Yet, this perspective hinders an interpretation of the variability observed which could be more informative. Variability should be understood through the contrasts between the tombs.

To overcome these limitations, the aim of the present analysis was to understand the funerary treatment reserved for juveniles by considering all of the different contexts associated with such burials in a micro-regional scale, including rural areas and settlements (Lattard 2018). The funerary practices reserved for these young individuals were the result of choices made within the family circle. The treatment placed the deceased in the otherness of death, while at the same time emphasising the deceased's social place in the realm of childhood. Despite sharing a common standard for the design of the tomb throughout the territory, the inter-site comparative analysis revealed heterogeneous practices. This diversity, both in architecture and body deposits, highlights specific treatments depending on the social group. The large amount of archaeological data associated with methodological advances in archaeothanatology facilitates interpretation of this variability. This approach also considers the origins and identities of the populations of the territory of the *civitas*.

Context and Corpus

Forum Iulii: Main City of the Territory

Forum Iulii was founded on the Mediterranean coast by Julius Caesar and, from the beginning of the Augustan Age, the city grew (see Figure 1). It was equipped with monumental architecture: an amphitheatre, theatre, thermal baths, walls and gates. *Forum Iulii* also received contingents of foreign populations on several occasions. Octavius repatriated the fleet taken from Mark Antony after the Battle of Actium in 31 BC. The city was elevated to a colony between 29 and 27 BC and welcomed the veterans of the eighth legion, and later those of the ninth and twenty-first (Christol 2015; Gébara 2012; Pasqualini 2011; Rivet *et al.* 2000). As dictated by the ancient Law of the Twelve Tables, several vast funerary spaces circumscribed the city walls. These were 3.7 km long and covered an area of 35 hectares. The oldest funerary remains have been found in the eastern funerary space of Saint-Lambert, to the north-east, in an extension of the *decumanus*, beyond the Porte de Rome, the access to the ancient city. The funerary sites, excavated from the 1980s to 2006, were situated on both sides of an important crossroads: the littoral axe (*Via per Alpes Maritimas*) and the *Via Aurelia* (Figure 2). More than 350 funerary features have been discovered, mostly dating from the end of the 1st century BC to the end of

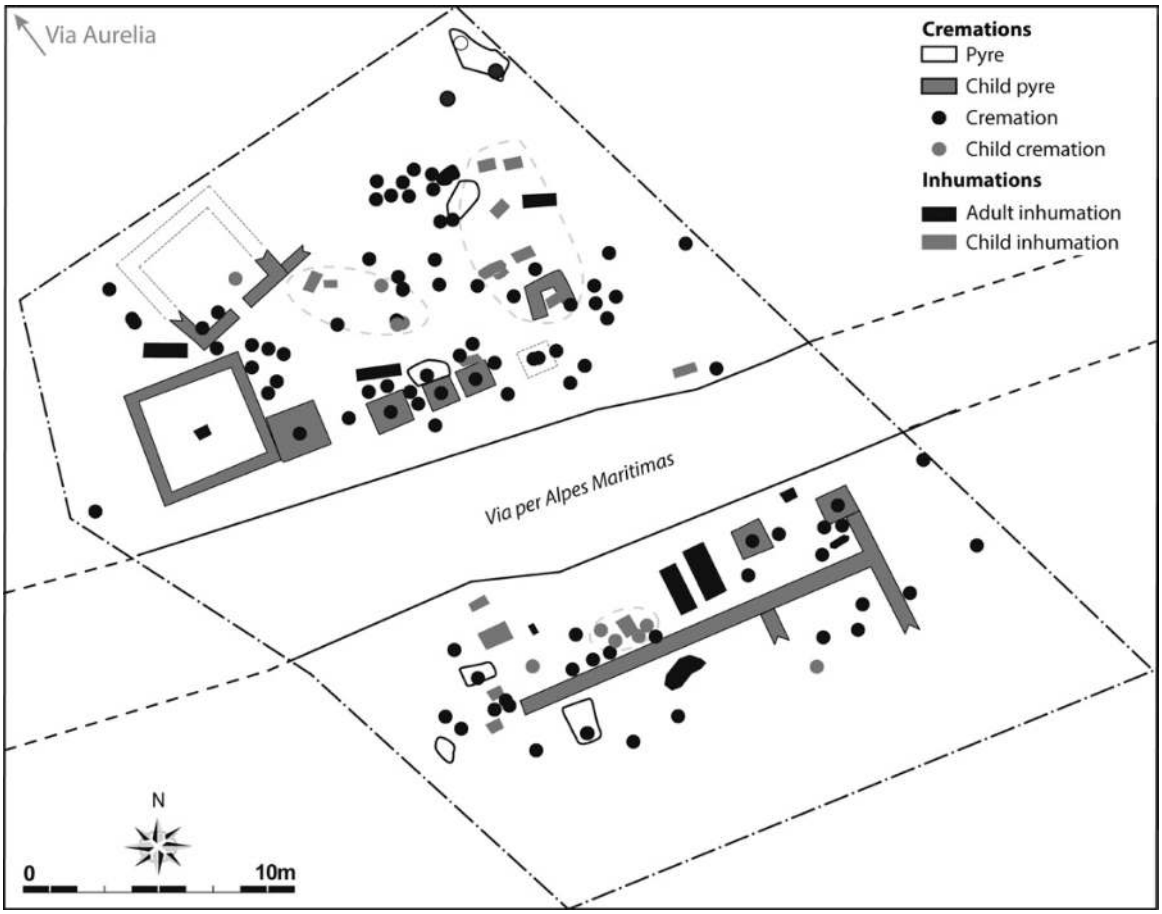

Figure 2: Child graves in the site of Saint-Lambert at *Forum Iulii* – Sector 2 (A. Lattard 2020; Map: F. Laurier, C. Gebara 2018 (SDAV)).

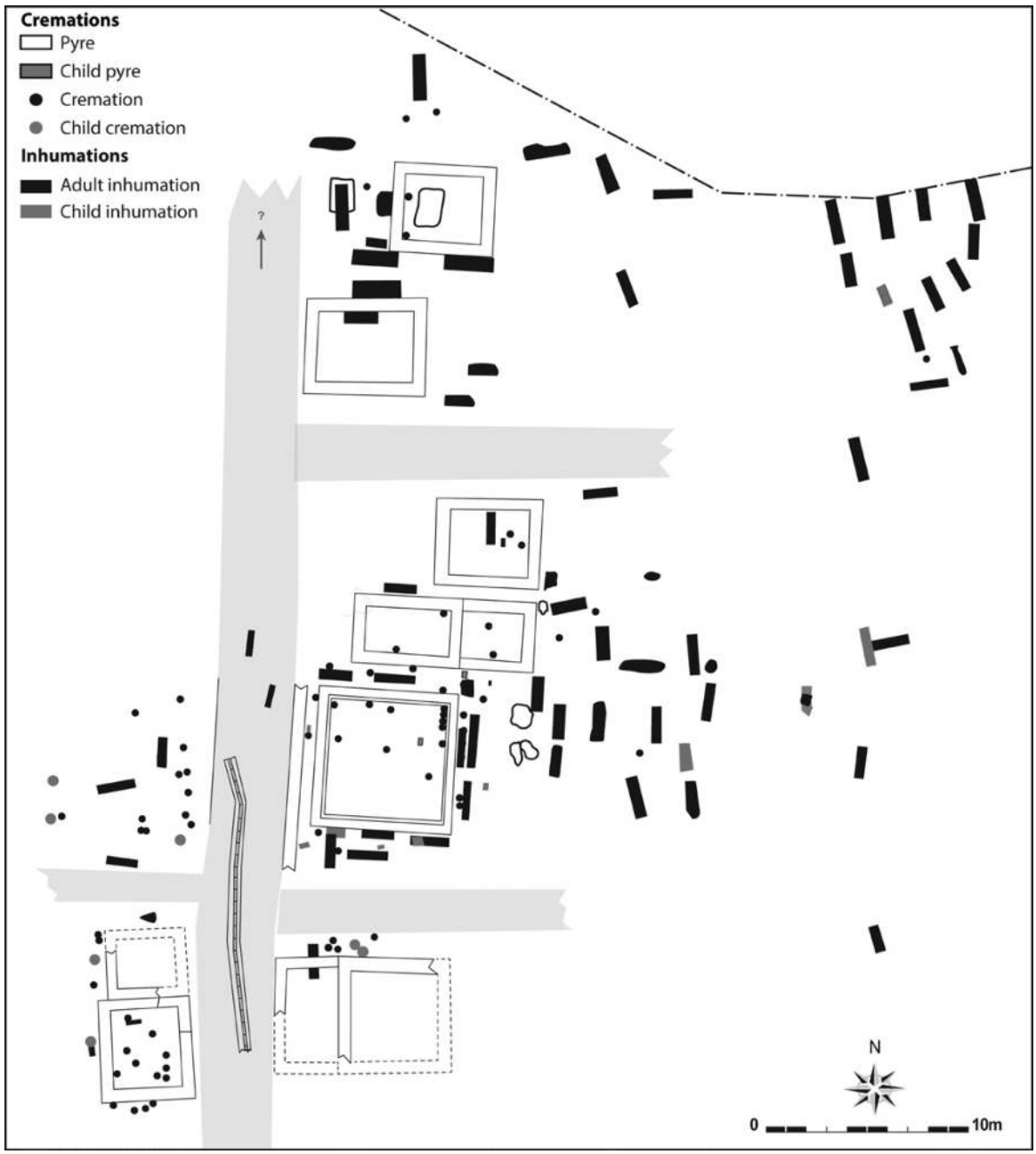

Figure 3: Child graves in the site of Le Pauvadou at *Forum Iulii* (A. Lattard 2020; Map: F. Laurier, C. Gebara 2018 (SDAV)).

the 3rd century AD. The other funerary area, Le Pauvadou, was in the north, beyond the Porte d'Agachon, on a vast plateau stretching up to the Reyran, a stream running north along the city (Figure 3). In this site, 170 tombs (88 cremations and 82 inhumations) were found, dating from the middle of the 1st century BC to the beginning of the 4th century AD.

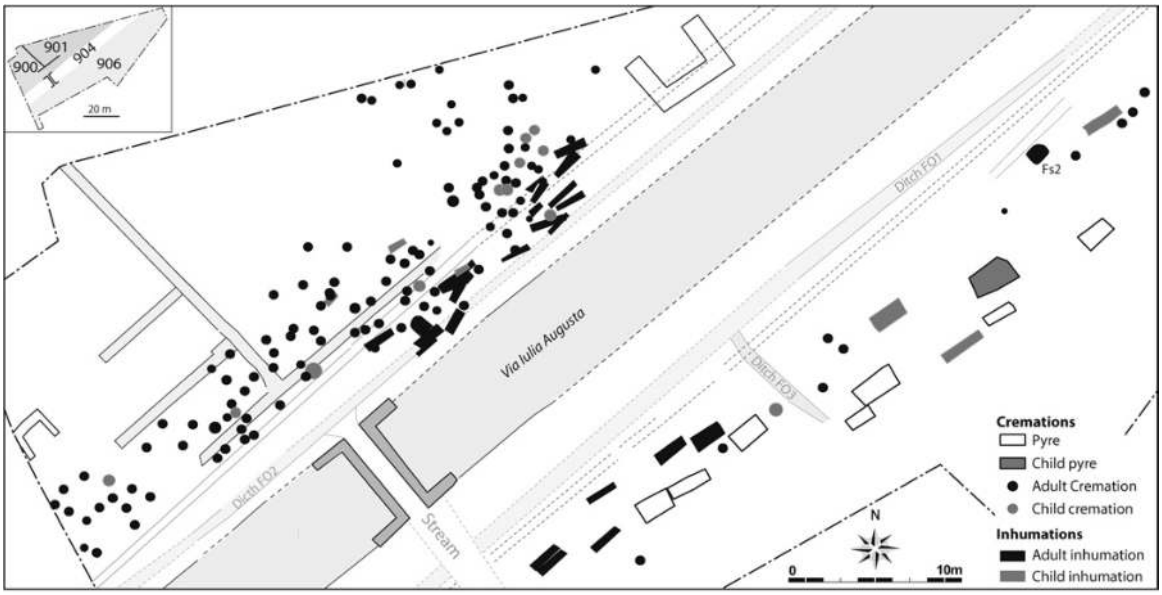

Figure 4: Child graves in the site of Les Termes at *Forum Voconii* (A. Lattard 2020; Map: F. Laurier 2018 (SDAV)).

Table 1: Distribution of juveniles by site.

City		*Forum Iulii*			*Forum Voconii*	Total
Site		Saint-Lambert		Pauvadou	Les Termes	
Years of excavation		1983-1987	2006	1982-1984	2007-2008	
Chronology		Ist-3rd c. AD	Ist-3rd c. AD	Ist-4th c. AD	Ist-3rd c. AD	
Cremation	0-1 year	1	0	1	0	2
	Infans I	13	4	2	4	23
	Infans II	5	1	2	4	12
	Infans I-II	9	2	2	2	15
	Total	**2**	**0**	**0**	**0**	**2**
Inhumation	0-1 year	30	7	7	10	54
	Infans I	13	2	5	3	23
	Infans II	8	2	3	0	13
	Infans I-II	0	2	2	1	5
	Not observable	0	0	0	0	0
	Total	**21**	**6**	**10**	**4**	**41**
Total		**51**	**13**	**17**	**14**	**95**

Forum Voconii: A Secondary Town

The ancient settlement of *Forum Voconii* was located on the *Via Julia Augusta* (a section of the Aurelian road; see Figure 1). Founded probably around the beginning of the 1st century BC, the title *Forum* referred to its function as an economic, legal and religious place. Rome regulated indigenous economic activities by redirecting a part of its production for the benefit of its legions (Brun 1999: 134; Pasqualini 2011). Cited as *oppidum latinum* by Pliny (*Natural History*, 3: 37), the city was probably granted *Ius latii* before being included in *Forum Iulii* (Bertoncello and Codou 2003: 168; Gascou and Janon 1985). The city's remains were only discovered during the 20th century at Le Cannet-des-Maures. From the end of the 1990s, archaeological excavations[3] have helped establish the extent of the ancient occupation and revealed structures following an orthogonal urbanised grid, with two housing sectors, a plaza, a public thermal building, shops and a portico along the Aurelian way, which crossed the city. This site dates from the 1st century BC to the beginning of the 3rd century BC (Congès and Martos 2002).

In 2006-2007, agricultural work led to a new archaeological study. These excavations uncovered 183 funerary features on either side of a section of the *Via Iulia Augusta* (Martos *et al.* 2010; Figure 4). Of these 183 funerary features, 23 inhumations were situated at the north of the road, dating from the middle of the 1st century to the end of the 3rd century AD. Most of the other remaining inhumations were grouped in the eastern part, except for two juvenile graves found in road ditches and lacking grave goods. These two individuals were both either buried in a wooden coffin or simply covered by earth. The 133 cremation features of this area, established along the road, conversely, contained a lot of grave goods. Occupied from the beginning of the 2nd century AD, the southern area yielded another 19 cremation features (including eight pyres) and eight inhumations.

In the main city (*Forum Iulii*) or secondary town (*Forum Voconii*) of the territory, three funerary spaces, excavated between 1980 and 2008, provided an assemblage of more than 700 funerary features, mostly cremations and dated between the end of the 1st century BC and the beginning of the 4th century AD. Ninety-five juvenile graves were studied (Table 1). Some cremations, however, contained the remains of several individuals, often adults mixed with juveniles. These contexts were examined one by one. Any additional partial juvenile remains, either intrusive or residual from a previous cremation, were excluded.

Methods: The Archaeothanatological Approach

This study employed the archaeothanatological approach (Boulestin and Duday 2006; Duday 2009). Field methods and biological anthropology are essential tools in the analysis of human remains, providing the biological identity of the deceased (age at death, sex, health status) and enabling a reconstruction of the actions that led to the archaeological assemblage. These data are combined with other archaeological data (set of objects, elements of the tomb, stratigraphy, topography, its position in relation to the landscape, etc.) to study the funerary gestures made during and after the deposit of the remains (cadaver or bones). Finally, archaeothanatology enables an optimal understanding of funerary practices by integrating the socio-cultural characterisation of communities (Zemour 2016: 24) and aims at better

[3] These excavations were carried out by the Var Archaeological Centre (CAV), the Var Departmental Archaeological Service (SDA83) and the Regional Archaeological Service (SRA) and overseen by F. Martos.

understanding the system of social representations specific to a community, faced with the death of one of its members.

Archaeothanatology includes different interconnected steps. This study first assessed the age at death of each individual, studying the bones in the laboratory through biological methods. It is important to emphasise the difference between biological and social immaturity. This distinction varies considerably from one community to another. Written sources describe the evolution of an adult's attitude towards children according to their age but also their gender during Roman times (Néraudeau 1996: 21-58). According to Roman law, the legal majority was between 12 and 14 years for girls and between 14 and 17 years for boys (Néraudeau 1996: 24-28). Childhood included individuals who had not reached puberty. Consequently, juveniles under 12 years of age were selected for this study.

The biological analysis of human remains in the laboratory will depend on the body's treatment by the community (cremation or inhumation). For an age at death assessment, several methods based on maturation and growth were applied. The association of several methods for a single individual is advised in order to compensate for differential bone preservation. In the better preserved cases, for individuals younger than 12-13 years of age, the stages of dental calcification established by C.F.A. Moorrees and collaborators (1963a; 1963b) were used. This reliable method is especially useful for cremations because it can be applied to incomplete teeth. The diaphyseal measurements of long bones were also used to estimate age at death (Scheuer and Black 2000), especially when teeth were missing. For adolescents, a method relying on maturation by scoring the stages of epiphyseal fusion was used (Brothwell 1981). For cremated individuals, gaps in dentition (bursting of the enamel because of the heat) and deformation, retraction and bone fragmentation greatly limited the age at death assessment. Methods for unburnt individuals were implemented on a case by case basis according to the skeletal elements presence and the state of preservation. The fusion of ossification points observed was compared with the data provided by the tables of L. Scheuer and S. Black (2000) and sometimes completed with sufficiently well-preserved teeth (Depierre 2014: 191). Dental eruption stages provided by D.H. Ubelaker (1989) complemented the method of Moorrees and his co-authors (1963a; 1963b).

However, most of the time, because of the poor preservation of juvenile remains, broad age categories, between 0 and 12 years, were used rather than more precise age intervals (Depierre 2014: 563; Duday *et al.* 2000). The ages were categorised as follows:

- 0-1 year – individuals who died before the end of their first year of life;
- *Infans* I – individuals from 1 year up to the eruption of the first permanent molar, i.e. approximately 6 years old;
- *Infans* II – from the eruption of the permanent first molar to the eruption of the permanent second molar, i.e. approximately 6 to 12 years old.

These large age categories are relatively well aligned to the different stages of the social integration of juveniles in Roman society. The first age group, 0-1 year, designates the world of early childhood with very specific risks and high infant mortality. The *Infans* I category designates the early childhood phase with a still fairly high level of risk for the youngest

individuals. *Infans* II refers to the end of childhood and these children display increased autonomy (Séguy and Buchet 2008: 33).

From an archaeothanatological perspective, the funerary practices were reconstructed by analysing the taphonomic process (reconstruction of decay process and burial modalities) and incorporating biological parameters (age and sex). These different studies were then correlated with archaeological data such as accompanying grave goods. The graves were considered a particularly well suited area for studying the adoption of new socio-cultural practices. Variability could be present within a single funerary zone, in an urban context or a more rural area. From one space to another, the differences observed in how the graves were set up testified to different tomb designs for these populations. Beyond the entity of the tomb (the type of structure and all of its contents), the analysis follows different scales (1) inter- and intra-site to identify different groups, (2) cities and then (3) the territory.

Results

Under-representation of Child Graves

In the assemblage of the civitas of *Forum Iulii* child graves seem to be under-represented.[4] In Saint-Lambert 1980, there are 51 graves for juveniles (24%) and 206 for adults. In Saint-Lambert 2006, only 13 graves are dedicated to juveniles (14%), while 94 were of adults. Seventeen child graves (11%) and 153 adult graves were identified in Le Pauvadou. At Les Termes, 14 child graves (8%) among 183 funerary structures were excavated. In the study of ancient funerary spaces, this under-representation has long been debated. Archaeologists interpreted it as a consequence of poor preservation due to taphonomic causes (physicochemical alterations of the bones) or, more recently, as a choice made by the community to exclude the youngest individuals from the funerary area (Blaizot *et al.* 2003). Although these two arguments are now played down, they cannot, however, be fully ruled out, since a difference in bone preservation between adult and juvenile remains has been highlighted for the three sites (Lattard 2018). Moreover, the sites were not excavated exhaustively. Children may have been buried in a special area situated outside the excavation limits in an unexcavated area of the funerary zone, in a place especially dedicated to them. As already mentioned, the historiography of the 20th century developed the belief of an emotional and social disinterest for children – especially those who died very young – who consequently were not integrated into the community. From protohistoric times, it is known that children who died around birth were buried in domestic or artisanal areas, underneath houses, for instance (Blaizot *et al.* 2003; Dedet 2008). However, despite many excavations in both cities (urban areas or large ceramic production units), only one perinatal tomb has been discovered in a cellar in *Forum Iulii*.

In this study, the cause seems to be related to emergency archaeological protocols, as these are unsuited for the meticulous excavation required for graves and may have particularly impacted upon the graves of juveniles. First, because the space required for a juvenile burial is smaller and shallower than that for an adult and, secondly, because the more modest structures and, therefore, the most vulnerable, are more difficult to discern and consequently

[4] In preindustrial societies juveniles represent around 50% of the deceased compared to adults, and have a life expectancy at birth between 25 and 35 years old (Sellier 1996).

their graves could have been missed when the top layers were removed with a mechanical shovel (Guy *et al.* 1997: 223).

Within the same site or from one site to another, child graves were situated in various locations depending on the age at death of the individuals. The tombs were rarely placed near roads during the 1st and 2nd centuries. This privileged and exposed area was mainly devoted to adults, whose graves were sometimes covered by a monument. As documented in The Valladas site (Bel 2002: 56), child graves of the *civitas of Forum Iulii* were more often situated in an unexposed area although they were still integrated into the private and family funerary group (Lattard 2018). In the area of study, they appear absent from the funerary space, especially between the end of the 2nd century and the beginning of the 3rd century.

When juveniles were cremated, whether in the town or in rural areas, their burial was systematically found among those of adults who had received the same body treatment. When a tomb yielded a perinatal with an adult (probably a result of death during childbirth for both individuals), the place of burial was established according to the rules defined by the group to which the adult belonged. The perinatal individual 'followed' his/her mother into the grave.

The rules also do not appear constant throughout the time of occupation of a site. For example, while Saint-Lambert 2006 still contained burials, no more juveniles were present in the area at the beginning of the 3rd century. The same trend was documented for the 3rd and the beginning of the 4th centuries AD in Le Pauvadou, where the number of child graves decreased considerably (only two juvenile graves (0-1 year *Infans* 1) inhumed in an amphora). At *Forum Voconii*, the graves of very young children were no longer present south of the road. In both cases, they seemed to have been excluded from the funerary space. An area dedicated to children was observed in two sites. In Saint-Lambert 1980, an area away from the road included juveniles under 5 years old, while the surrounding area was devoted to funerary monuments sheltering adult graves (Béraud and Gébara 1993). A similar configuration was visible south of the road, where juveniles (cremations and one inhumation) had been concentrated. Once again, the tombs were not located directly at the edge of the road, left vacant (public space), but rather against a wall.

No markers were found on the children's graves. Nonetheless, three stelae were discovered at Fréjus dedicated to three children (Gascou and Janon 1985: *ILN* n°34, 43 and 62). Two of these, dated to the Julio-Claudian period, were for two boys (Caius Vibius Ligur and Marcus Coelius Agricola, 8 years old) while the third, later stela, was dedicated to a girl, Siliana Vera (6 years old). The materials and decorations were similar to those of the adult stelae. Given the low number of tomb overlaps, it is plausible that something could have marked their location (a perennial or perishable material).

No features highlighting deposits after funerals, during commemorative celebrations, were discovered. However, the historic surface levels were destroyed by agricultural activities. A libation tube – consisting of two collapsed *imbrices* – was undoubtedly related to one tomb at Le Pauvadou, where a perinatal individual was commingled with his/her cremated mother.

Body Treatment

Single, Collective or Multiple Grave?

Whether buried or burnt, most of the children had an individual grave. However, some tombs contained the remains of several individuals, often a few adult bone fragments whose allometric ratio is incompatible with those of the child. These bones suggest that the deceased were burnt in areas of collective use. However, true association of two deceased is also documented. At Les Termes, a pyre (SP 906 108) was associated with the bones of an adult and an *Infans* II. There is no doubt that cremation was common for both, but the reason for gathering the individuals within the same structure remains elusive (a simultaneous death?). In six other cases (two in Saint-Lambert, two in Le Pauvadou, two at Les Termes), a perinatal individual was associated with an adult: the deaths occurred during or around birth and led to the death of the mother, either simultaneously or within a very short period of time (hours or days). They were both buried at Les Termes and deposited in a single grave among a group of adults, one against the other with no grave goods (SP 901 418). In the Le Pauvadou site, in grave SP 52, the individuals were deposited in a tile container. In these last two deposits, the adults are female. In the other cases, both individuals were cremated. The first example was identified in Le Pauvadou (SP 32): the remains of the deceased were in the same urn. It was, therefore, not possible to know whether the mother had delivered the child or not. Conversely, in another grave (SP 161 in Saint-Lambert), the death occurred after birth, and the two deceased were cremated separately. Their remains were deposited in two separate bone containers.

Different treatment was observed for two individuals in a single grave. Some adults were cremated, while the perinatal individual was buried in the same manner as for other perinatal individuals at the site. At Les Termes, a perinatal individual (SP 901 106) was placed on the tiled roof of an adult grave (SP 901 133). In Le Pauvadou, the perinatal individual in SP 19B was placed on the probable ossuary of his/her mother in the same pit.

Choice Between the Two Body Treatments: Cremation or Inhumation?

In *Forum Voconii* or in *Forum Iulii*, children under one year old were inhumed (except for one case cited above). The reasons for this choice were varied. Some ancient authors suggest that such individuals were too young for cremation.[5] From a practical point of view, setting up a pyre for individuals with such fragile health and high mortality rates may have been considered inappropriate.

Beyond the first year of life, the treatment of juveniles was diverse. While the practice of cremation is documented frequently in Narbonnensis starting in protohistory, the transition to inhumation took place during the 2nd century AD in urban contexts and later in rural contexts (3rd century AD; Blaizot 2009: 19–25). The data from *Forum Iulii* and its territory corroborate this pattern. In Saint-Lambert, when considering all of the site, children above two years old were preferentially cremated during the 1st and 2nd centuries AD (13 cremations and five inhumations among the dated graves). However, an early introduction of inhumation,

[5] Two main references are regularly cited: Pliny the Elder (*Natural History*, 7: 72) or Decimus Junius Juvenalis (*Satires*, 15: 136-140).

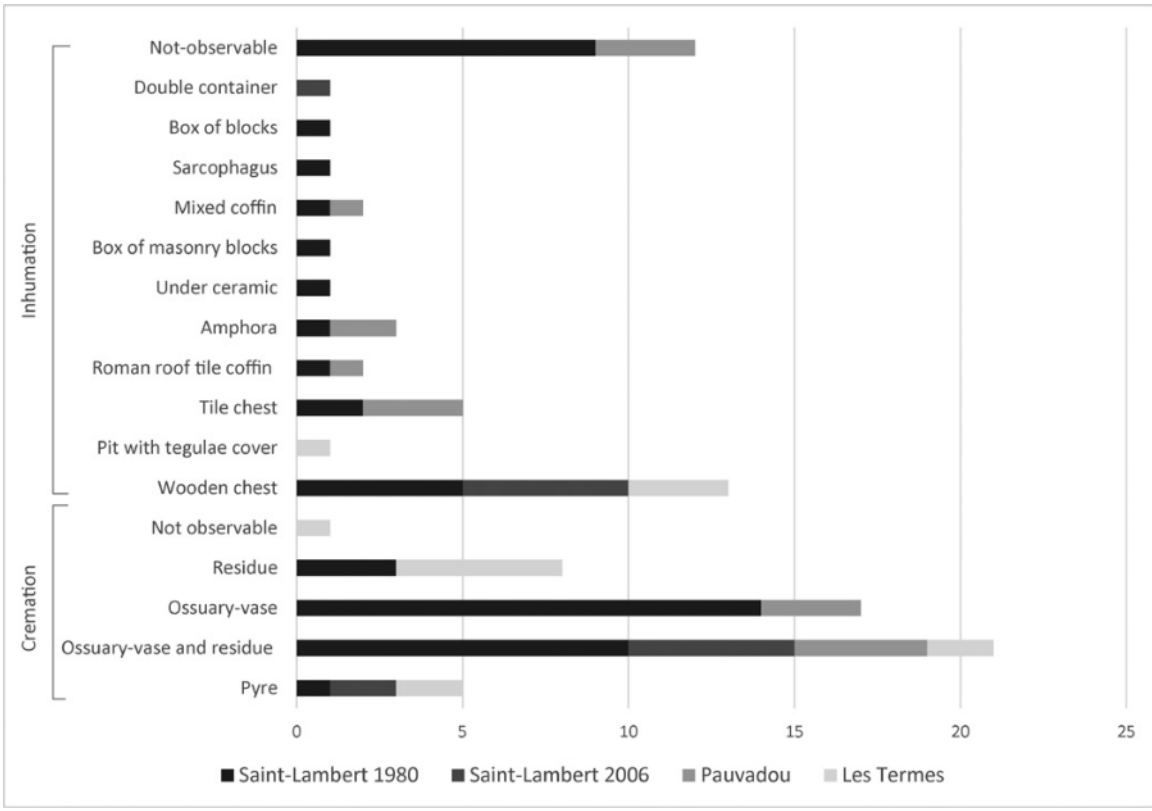

Figure 5: Chart of the variability of child graves from the sites studied (Photographs of Saint-Lambert and Pauvadou; SDAV).

related to the presence of foreign populations as early as the Augustan Age, is observed through the architecture and use of Italic deposits. Children in the *Infans* I-II categories and even adolescents were buried in the same manner as some adults in the same funerary areas, while other groups chose cremation. The containers used for these individuals were also rare according to the regional documentation pertaining to the Augustan Age (sarcophagus, box of masonry blocks or *tegulae*; Figures 5 and 6) but correspond to similar observations for burnt or buried adults within the same area.

In Le Pauvadou, burials for children only became more common from the 2nd century AD, following the general trend in Narbonnensis. In these cases, the deceased were protected by *tegulae*, wooden chests and an amphora (Table 2). In Les Termes, wooden chests were used in perinatal burials. In both sites, during the first two centuries, children in the *Infans* I category were cremated or buried. It therefore seems that for the inhabitants of *Forum Iulii*, body treatment was not clearly related to a precise age category. On the other hand, at Les Termes, the children were systematically burnt as soon as they exceeded the first year of life.

In the three sites, child graves were organised similarly to those belonging to adults. However, graves directly set in the pyre after cremation were not common for children. Only two cases were observed in the *Infans* II category. At *Forum Iulii*, this practice reflects those introduced by the Italics during the phase of occupation. The second case in Les Termes is evidence of a practice that spread in rural areas from the 2nd/3rd centuries AD. This pyre is next to the

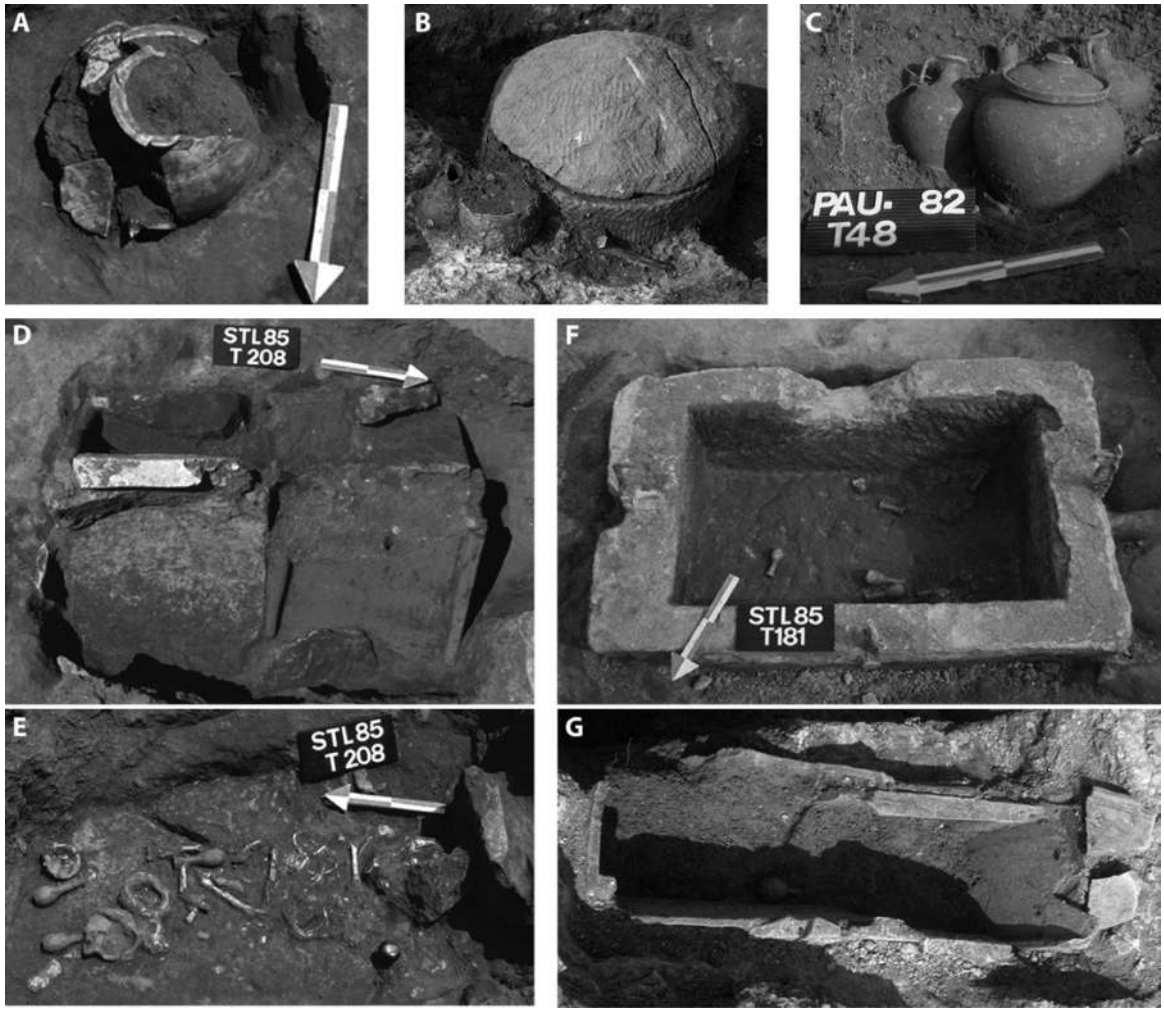

Figure 6: Some examples of the variability of child graves from the sites studied. A-B: Cinerary urn in ceramic and stone from Saint-Lambert 1980 (SP 202 and 218); C: Cinerary urn excavated in Pauvadou (SP 48); D-E: Roman slopping roof tile coffin found in Saint-Lambert 1980 (SP 208); F: Sarcophagus excavated in Saint-Lambert 1980 (SP 281); G: Roman roof tile coffin from Saint-Lambert 1980 (SP 89) (Photographs of Saint-Lambert and Pauvadou; SDAV).

grave of another juvenile (10-14 years) who was buried in the same manner as the adults in the group (a tile cover, similar accompanying deposit), as well as another child (4-6 years) who was burnt but deposited in a secondary grave disassociated from the pyre. The treatment of juvenile bodies on this site expresses the variability of treatments already observed for adults, whether they are buried or cremated.

Deposits

For this study, the graves associating a child with an adult were not included. Burnt and unburnt deposits were included. Whether the individuals were buried or cremated, the majority of children (75%; 66/88) were associated with an accompanying deposit varying in

Table 2: Distribution of the typology for each site.

		Forum Iulii			*Forum Voconii*
		Saint-Lambert 1980	Saint-Lambert 2006	Pauvadou	Les Termes
Cremation	Pyre	1	2		2
	Ossuary-vase and residue	10	5	4	2
	Ossuary-vase	14		3	
	Pyre debris	3			5
	Not observable				1
Inhumation	Wooden chest	5	5		3
	Pit with tegulae cover				1
	Tile chest	2		3	
	Roman roof tile coffin	1		1	
	Amphora	1		2	
	Under ceramic	1			
	Box of masonry blocks	1			
	Mixed coffin	1		1	
	Sarcophagus	1			
	Box of blocks	1			
	Double container		1		
	Not-observable	9		3	
	Total	**51**	**13**	**17**	**14**

quality and quantity, according to several parameters: age at death, the chronology and the group to which the child belonged (Table 3).

The tombs of Saint-Lambert were distinct since they contained grave goods which were infrequent in the two other sites studied (Figure 7). Only children under one year were associated with personal items. The objects were characteristic of early childhood: *tintinnabulum*, glass pearls or pendants (phallic, wild boar tusk). These deposits, undoubtedly amulets, had apotropaic symbolic functions (Béraud and Gébara 1993: 334). An *intaglio* representing an owl placed on a crater (drinking vessel) and a spear was discovered with an *Infans* I-II juvenile. The choice of this iconography from Greek culture was symbolic for a child who had reached or was going to reach adulthood, signified by wisdom (the owl), courage (the spear) and access to the symposium (according to the type of vessel). Other objects came from the personal sphere of the parents, showing their involvement in the death of their child and their emotional attachment. A terracotta figurine of a *togatus*, very worn, was discovered with a cremated child aged between three and six years. This game token, representing a character

Table 3: Comparison of deposits in child graves versus those in adult graves.

City	Site	Age classes	N graves	N with artefact	Number of graves with each kind of artefact											
					Jug	Goblet		Cup/Bowl		Plate	Cooking pot	Lamp	Balsamaria		Money	Personal items
					Crm	Crm	Glass	Crm	Glass	Crm	Crm	Crm	Crm	Glass		
Forum Iulii	Saint-Lambert 1980	0-1 year	13	6	1	1						3	1	4	1	3
		Infans I	18	16	6	1	2	5		3	1	3	8	12	7	11
		Infans II	5	3	1			1				1	1	2	1	2
		Infans I-II	9	8	1	1		1		1		2	3	4	1	4
		Not obs.	4	1				1					1			
		Total	**49**	**34 (69%)**	**9 (18%)**	**6 (12%)**	**2 (4%)**	**8 (23%)**	**0**	**4 (8%)**	**1 (2%)**	**9 (18%)**	**14 (29%)**	**22 (45%)**	**10 (20%)**	**20 (41%)**
		Adult	**203**	147 (72%)	51 (25%)	11 (5%)	7 (3%)	44 (22%)	3 (1%)	19 (9%)	0	29 (14%)	41 (20%)	61 (30 %)	16 (8%)	45 (22%)
	Saint-Lambert 2006	0-1 year	2	2		1		1				2			1	1
		Infans I	6	5	2	2	1			1				3	2	1
		Infans II	3	2	2			1			1	1			2	
		Infans I-II	2	2	1									2		
		Total	**13**	**11 (85%)**	**4 (31%)**	**3 (23%)**	**1 (8%)**	**2 (15%)**	**0**	**1 (8%)**	**1 (8%)**	**3 (23%)**	**0**	**5 (38%)**	**5 (38%)**	**2 (15%)**
		Adult	**94**	**59 (62 %)**	29 (31 %)	17 (18%)	4 (4%)	8 (9%)	0	3 (3%)	2 (2%)	13 (14 %)	6 (6%)	16 (17 %)	16 (17 %)	5 (5%)

City	Site	Age classes	N graves	N with artefact	Number of graves with each kind of artefact															
					Jug		Goblet		Cup/Bowl		Plate	Cooking pot	Lamp	Balsamaria		Money		Personal items
					Crm		Crm	Glass	Crm	Glass	Crm	Crm	Crm	Crm	Glass			
Forum Iulii	Pauvadou	0-1 year	3	1					1						1			1
		Infans I	5	4	1				1							1		2
		Infans II	4	3	2			1	2				2	2	2	2		1
		Infans I-II	2	2	1			1	1							1		1
		Total	**14**	**10 (71%)**	**4 (29%)**		**0**	**2 (14%)**	**5 (36%)**	**0**	**0**	**0**	**2 (14%)**	**2 (14%)**	**3 (21%)**	**4 (29%)**		**5 (36%)**
		Adult	**150**	113 (75 %)	83 (55%)		2 (1%)	19 (13%)	32 (21%)	0	9 (6%)	1 (1%)	50 (33%)	0	13 (9%)	40 (27%)		14 (9%)
Forum Vocontii	Les Termes	0-1 year	2	2											2			
		Infans I	4	2	1		2		1		1	1		2	2			
		Infans II	5	5	4		2	1	2		1		1		2	3		1
		Infans I-II	1	1					1						1			
		Total	**12**	**11 (92%)**	**5 (42 %)**		**4 (33%)**	**1 (8%)**	**4(33%)**	**0**	**2 (17%)**	**1 (8%)**	**1 (8%)**	**2 (17%)**	**7 (58 %)**	**3 (25%)**		**1 (8%)**
		Adult	169	**147 (87 %)**	82 (49%)		43 (25%)	9 (5%)	55 (33%)	9 (5%)	22 (13%)	6 (4%)	67 (40%)	17 (10 %)	73 (43 %)	47 (28%)		15 (9%)
Total for the children (all sites)			**88**	**66 (75 %)**	**22**		**13**	**6**	**19**	**0**	**7**	**3**	**15**	**18**	**37**	**2**		**28**

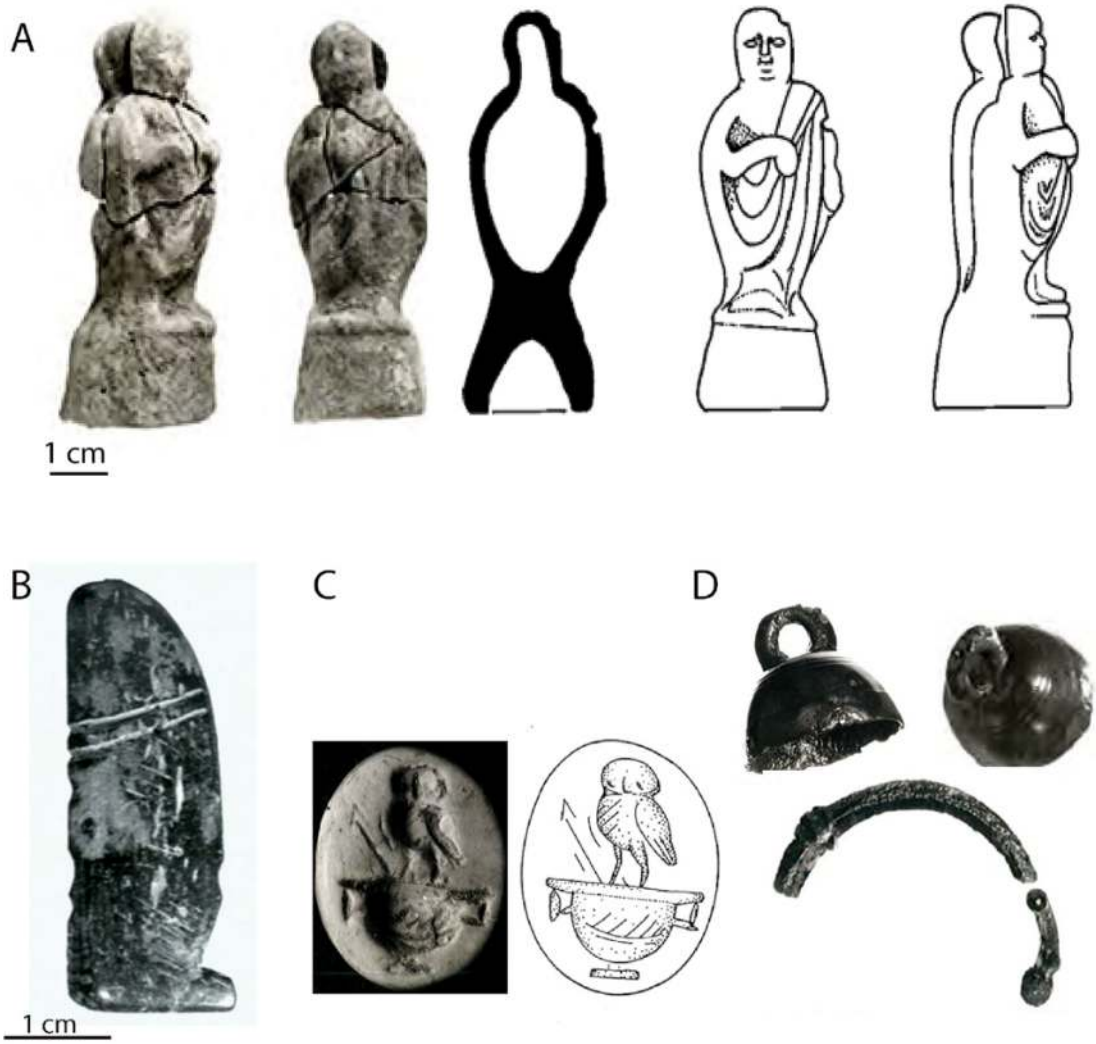

Figure 7: Grave goods from child graves. Sector 2 of the site of Saint-Lambert, dated between the end of the 1st century BC and the beginning of the 2nd century AD. A: Terracotta figurine (togatus) found in grave SP 307 (Pictures: CCJ-CNRS; Drawing: C. Gébara); B: Phallic amulet from SP 13 (Pictures: CCJ-CNRS); C: Intaglio from SP 316 (Picture/drawing: SDAV); D: Tintinnabulum, bracelet and token from grave SP 245 (Pictures: SDAV and CCJ-CNRS).

dressed in a *toga*, was a symbol of Romanness. References to childhood tended to disappear when the individuals were older, especially more than ten years old.

The main distinction in Saint-Lambert concerns the specificity of the object which is linked to the world of early childhood, mainly devoted to the children between birth and seven years. This remains remarkably uncommon in Le Pauvadou and is not present in Les Termes, where the youngest children received only balsamaria (little glass perfume vases).

The set of vessels chosen by parents for their offspring were adapted to their diet. Vessels were infrequent for the very young (especially the 0-1 year group), with the exception of cups which may relate to his/her first meals. Grave goods were similar to those of adults belonging

to the same group and the distinctions decreased as children grew. This is particularly the case for the *Infans* II category. These children were associated with the same deposits as the adults of the group to which they belonged. Older children (*Infans* I around 5-7 years and *Infans* II) received more deposits, especially items for holding liquids, such as pitchers and goblets.

However, intra-site disparities are evident. For example, the grave goods were different between individuals of the *Infants* I category at Les Termes. One tomb received only a bowl and several balsamaria. A second, later deposit (2nd to 3rd century AD) received two pitchers (SP 906 041), a practice observed in adult tombs of the group, where this kind of deposit was frequent (zone 906). However, the pitchers were not associated with other vessels, suggesting a more simplified rite for the child. The absence of intentional breakage on the items corroborates this hypothesis, whereas this gesture was frequent in adult graves (cremations and inhumations). It appears that it was more important to emphasise that the child belonged to the social group, through the similarity of the deposits with the adults, than to highlight that the individual was a child.

One type of dominant object in Saint-Lambert and Les Termes was the perfume vase, especially for the *Infans* I category. This tendency was observed also in adult tombs. In Le Pauvadou, whatever the kind of deposits, the quantity of objects was rather low for both children and adults.

Coins were usually associated with the oldest children and the adults, like the lamps at Le Pauvadou and Les Termes. Saint-Lambert was once again the exception. Most of the coins were pierced and did not correspond to the Charon's obol. This last term refers to the coin placed in the mouth or the hand of a dead person before burial as a payment for Charon, the ferryman who conveyed souls across the Styx to join the world of the dead. A Capricorn bronze discovered in the tomb of a buried child, who died between 1 and 2 years old (SP 2066), and in the nearby tomb of Julius Nessus, triarch of the imperial fleet, was likely used to maintain an established family link between the two individuals even though it was invisible and intimate. Beyond its pecuniary value, it was a vector for the identity and personal history of the deceased since the currency had been stamped for the fleet settlement in *Forum Iulii*.

Discussion: Child Graves, From Intimacy to Socio-cultural Practices

Like other Narbonnensis sites in Roman Gaul, the data presented here on child graves within this civitas are very diverse. This can be observed at several levels, including the topography, treatment of the body, tomb design and the grave goods. Variability not only relates to chronological criteria, even if an evolution of practices during the High Empire is documented in southern Gaul (Blaizot 2009: 19-20). Differences in practices are also documented within the same city (*Forum Iulii*) and between the two cities (*Forum Iulii* and *Forum Voconii*). It offers the opportunity to work on the identity of the populations settled in this territory – exogenous populations installed by Rome at *Forum Iulii* facing local populations progressively Romanised – using historical, epigraphic and archaeological datasets.

First of all, different groups were identified in *Forum Iulii*. The Augustan tombs at Saint-Lambert were characterised by a strong Mediterranean influence. Many containers or grave goods found had never before been identified in other regional or supra-regional contexts at the end

of the 1st century BC. However, ancient texts and recent archaeological excavations indicate that two groups were installed by Rome within the settlement: the sailors of the Pompey fleet partly originating from Egypt or Orient, but also veterans from Roman legions, who had initially been recruited in Italy. Among the deposits discovered in child graves, from the end of the 1st century BC, the ceramic balsamaria from Italic productions and oil lamps should be emphasised. These are two Roman symbols having a particular role in Roman funerary practices (light and perfume in opposition to the darkness and putrefaction of death). Other objects show oriental influences: the *intaglio* described above, representing a crater with a crater surmounted by an owl, a lance and a funerary stela including two Greek elegiac couplets. It is also in these tombs that deposits of personal objects were the most important. The adult tombs discovered in this space had the same characteristics and contained many items. Italic vessels or local productions modelled from the Italic repertoire were common in these graves. Children beyond the first year of life and adults were not systematically burnt. The practice of inhumation for adults appeared early in Saint Lambert, from the end of the 1st century BC, in a geographical area where cremation had dominated for centuries. It provides evidence of an exogenous practice, using sometimes complex coffins for both adults and children (lead chests lined with tiles). In addition, children were gathered at the back of the *monumenta* dedicated to adults, who in turn were located in privileged areas along the road. These constructions are characterised by their chronology and by specificities when compared to *Forum Voconii* but also other Narbonnensis groups. They recall typical 'Italic' funerary monuments. There were markers of funerary plots deployed behind, or around, the monuments used to define the relations between the private (family) and public spheres. The stela, for example, through its *titulus*, was addressed to passers-by on the road as a means of bringing the deceased into the collective social memory (Christol 2002; Van Andringa 2018). They were in use for a short time and their spatial distribution was limited: no specimens were identified at either *Forum Voconii* or *Forum Iulii* after the 2nd century AD. Inside this exogenous group, practices were not necessarily homogeneous. The funerary plot of Julius Nessus, whose social identity (triarch) was known through his stela and organised around a monument, demonstrates that body treatment was a personal choice dependent on the group to which the individual belonged. Two children (1-2 and 3-7 years old) in this plot were buried, whereas typically during this period adults and children over one year old were preferentially burnt.

Beyond the end of the 1st century AD, the evolution of practices became more homogeneous, whether in Saint-Lambert or in Le Pauvadou. The funerary complexes were gradually structured by enclosures, probably for family use, and children were sometimes integrated within. Children received fewer grave goods and these were less variable. The treatment afforded to children followed those of adults whose graves were installed nearby. Cremation decreased at *Forum Iulii* in the 2nd century AD and children were systematically buried. This is likely the result of funerary syncretism, in the absence of important groups of exogenous newcomers.

However, in the site of Les Termes at *Forum Voconii*, the general organisation of funerary spaces and practices differed completely compared to the situation at *Forum Iulii*. No funerary monument was precisely identified and children were poorly represented. The youngest were buried and their graves were set apart from the funerary area, except when they died around birth and were buried with an adult. The rule during the first phase of occupation, for children beyond the first year of life, was cremation. This treatment was also largely reserved for adults

during this period. Unlike the chief town of the *civitas*, the burial of adults, during the first phase, was likely dedicated to individuals whose social status prevented access to cremation (no grave goods, lack of care, placed in the road ditches). The tombs, including cremations, received objects deliberately deteriorated, reminiscent of previous local practices. Ritual breakage has been attested in cultural contexts in this area since the Iron Age. This gesture has not been observed at *Forum Iulii* on the funerary vessels. Children received objects similar to those of adults showing they were integrated into the community. However, they were undoubtedly the object of simplified rites as shown by the lesser amount of deposits or the scarcity of breakage. During the 3rd century AD, cremation persisted alongside burial both for adults and children unlike the situation for *Forum Iulii*. In many respects, the customs in this site differed from those at *Forum Iulii* because of their different histories. The populations, recently Romanised, developed their own funerary treatment in the grave, a combination of Italic fashion and previous local traditions. The funerary practices observed on this site were, therefore, no more Gallic than Roman.

Conclusion

To conclude, the burial practices observed for children differed globally from those developed for adults in the *civitas* of *Forum Iulii* and show a great diversity of gestures and deposits, contrary to the homogeneity conveyed in the ancient texts (Blaizot *et al.* 2003; Blaizot *et al.* 2009: 69). Our study highlights that the conception of the tomb was not focused necessarily on bones as ruled by Roman law. Deposits decreased at *Forum Iulii* but remained numerous at *Forum Voconii* indicating a different relationship to the dead within the same geographic entity, especially in practices dedicated to children.

Investigating the norm is deceptive. The phenomena described as atypical provide, on the contrary, evidence for how difficult it is to interpret gestures since these are based on current perceptions which are likely different to those of ancient societies. The variability observed in child graves, confusing at first, makes sense when adult graves are considered in order to incorporate socio-cultural criteria. The polysemy of the deposits, whose meanings are specific to each group or family, shows the significant links that exist between the different tombs. Rather than managed by laws or rules, children are integrated into the family or group, sharing the same funerary system. Their treatment relates to the choices made within the family's private sphere, with a high degree of flexibility in terms of location, the accompanying grave goods and the body treatment. When interpreting these findings, it is also crucial to consider the local history of the population and its origins. Within this vast territory, protohistoric funerary practices are still largely unknown. Consequently, it remains difficult in this assemblage to define continuity or discontinuity with protohistoric funerary practices, such as the ritual breakage only observed at Les Termes, a parameter that needs to be studied further. The diverse funerary practices dedicated to juveniles, above all, relate to socio-cultural projections and should be studied by integrating the micro-local history of the civitas from the Augustan Age to the dawn of the 4th century AD.

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The Late Antiquity Burials of Verdier Nord, Lunel-Viel, Hérault, France: Graves on the Outskirts of the Necropolis

Sélim Djouad[1] and Agathe Chen[2]

Abstract

The township of Lunel-Viel, in southern France, has been the focus of many archaeological investigations during the last 35 years. In the 1980s, Claude Raynaud's works led to the unearthing of a large necropolis that was active between the 3rd and 6th centuries AD. In 2014, a rescue archaeology operation took place on the outskirts of the nearby necropolis and highlighted two principal modes of occupation throughout Roman times: a vineyard from the Early Empire and rural exploitation during the Late Empire period. The rural development intensified during Late Antiquity and became organised into well-delimited units of occupation. Within this last phase of exploitation, 19 burials were discovered. The majority of these tombs shared the common characteristic of being located near a ditch-like structure, and some were positioned in a strategic layout, i.e. in the angles or at the ends of ditches. They all harboured the remains of young children, post-neonatal or perinatal individuals. The funerary architecture was variable but always neat. The seemingly particular status of these immature funerary deposits is intriguing given their location – outside the nearby and contemporary necropolis – where people of the same age were interred. The paper will describe these recent discoveries from a perspective that integrates the burial evidence from the margins of the contemporary necropolis with that of the agricultural area.

Keywords

CHEST GRAVES, INFANT BURIALS, PERINATAL, POST-NEONATAL, RURAL EXPLOITATION, SOUTHERN FRANCE

Introduction

The township of Lunel-Viel is located in southern France, halfway between Nîmes and Montpellier (Figure 1). Many previous archaeological surveys have documented the occupation of the area, which consisted of rural settlement and urbanisation processes from the Roman Era until the Middle Ages and Modern period (Favory *et al.* 1994; Garnier *et al.* 1995; Raynaud 1982; Raynaud 1986; Raynaud 1988; Raynaud 1989; Raynaud 1990; Raynaud 2007; Raynaud 2010). During the 1980s, a research programme focused on understanding the development of a particular Roman agglomeration within Verdier Nord, a neighbourhood of Lunel-Viel (Raynaud 2007; Raynaud 2010). Previous excavations revealed a public building, thermal baths, a residential quarter and an agrarian sector dating to around AD 50-80. Later, a Late Antiquity habitation was found in the suburbs (Figure 2). Between 1980 and 1989, Raynaud's work led to the unearthing of a large necropolis that was used from the end of the 3rd century up until the 6th century. Remarkably, it has been completely excavated (Raynaud

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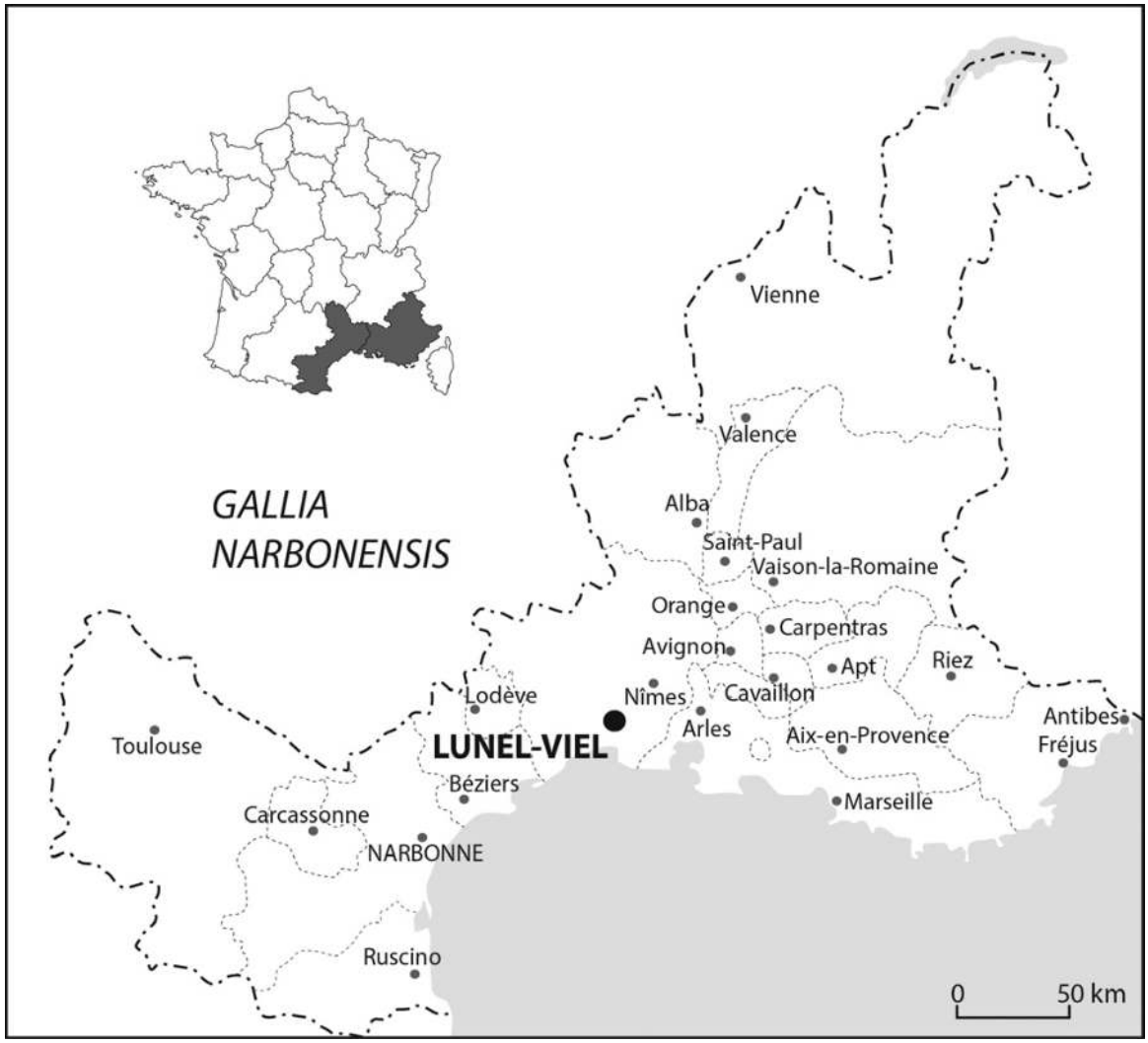

Figure 1: Location of Lunel-Viel, France, on the map of the Roman province of *Narbonnensis* (Prepared by A. Chen).

2010). In 2014, a rescue archaeological operation was also carried out in the outskirts of this necropolis. It highlighted an occupation with two main modes of exploitation: a vineyard from the Early Empire and a rural exploitation linked to craft production during the Late Empire (Calmès and Raynaud 2018). Herein, we describe the structures and results of this last exploration (Figure 3).

Archaeological Context

1980-1989 Excavations: The Necropolis of Verdier Nord

The exhaustive excavation of the Verdier necropolis in the 1980s, located a few hundred metres south-east of our site, yielded 361 burials (Figure 2). On the basis of radiocarbon dating and artefacts, the chronology of the funeral area was determined to extend from the end of the 3rd century until the beginning of the 6th century (Raynaud 2010). It is located on the

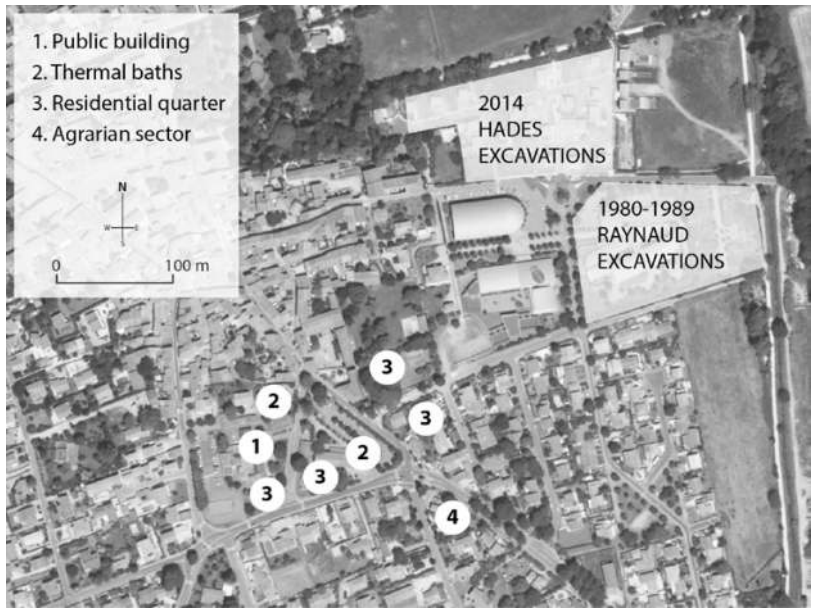

Figure 2: Location of the archaeological excavations and sites in Lunel Viel from 1989 to 2014 (Prepared by A. Chen after Raynaud 2010: fig. 3).

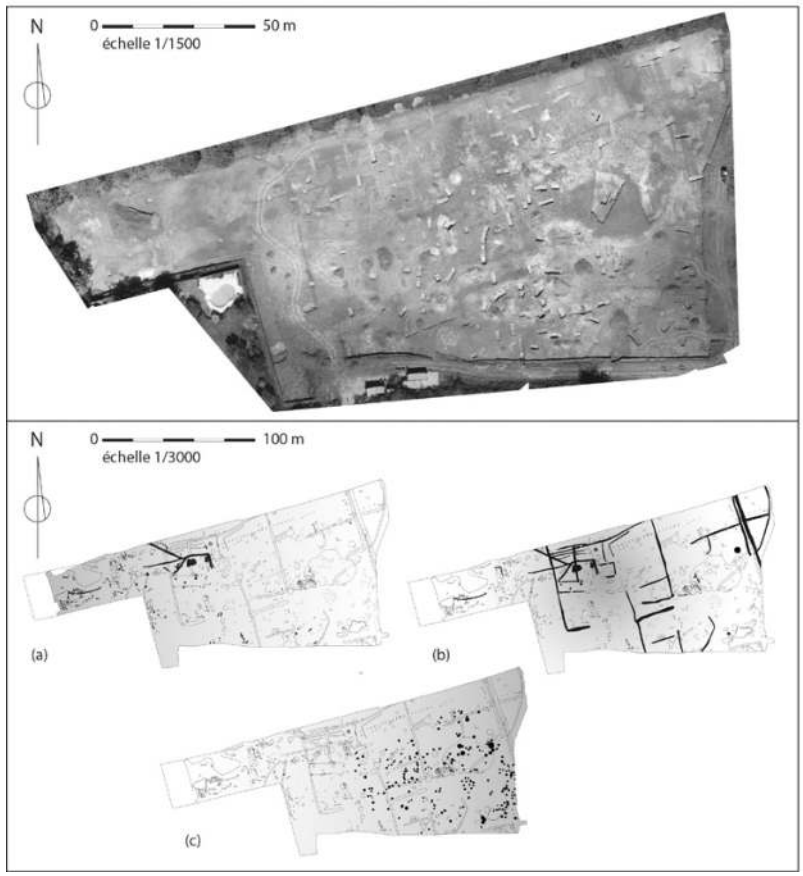

Figure 3: Chronological occupations in Verdier Nord, Lunel Viel – 3a: Vineyard, Roman period; 3b: Agricultural buildings and division ditches, Late Antiquity; 3c: Storage area, Medieval period (Prepared by A. Chen after Calmès 2018: fig. 128).

northern edge of a road, at the crossroads of paths recognised since the Roman period on the fringes of the rural agglomeration. The scope of this excavation has made it possible to understand its evolution during Late Antiquity and to make it a reference for this period in the south-east of Gaul (Colardelle *et al.* 1996; Raynaud 2010). This research revealed a large variability in the funerary practices: in the disposition of the body (north-south orientation, east-west orientation, varied head position); the layout and architecture of the tomb (coffin, wooden chest, tile chest, mixed chest, masonry tomb, roof-like cover, rock tomb or *amphora*); the objects and deposits associated with the deceased; and in the marking of the grave. Overall bone preservation does not allow an in-depth anthropological study. However, the better preserved portion of the remains suggests a relative demographic conformity to a normal profile for an ancient population (adult women and men, and immature individuals). All phases combined, the immature population represents 36.0% of the buried population, 42.0% of the individuals of known age, and thus does not denote the quotients of mortality accepted for archaic patterns (Ledermann 1969). Demographers estimate that between 40.0% and 45.0% of deaths were among children and adolescents in the early centuries of our era (Castex 1994). Although the estimation of age at death is distributed among perinatal subjects, children and adolescents, an under-representation of neonatal deaths remains nonetheless present (Raynaud 2010). The example of the Verdier necropolis illustrates the continuous evolution of a funerary area in a rural context. The analysis of the artefact deposits and the typology of the tombs are concordant with the neighbouring habitation (similarity of the materials used). The burials are modest in nature which may reflect the humble standards of a rural population (Raynaud 2010).

Previous archaeological interventions in the direct vicinity of the necropolis yielded five additional *amphora* burials in an ancient agricultural area (Raynaud 2010). These *amphora* burials were those of perinatal individuals, positioned within the dividing ditches, on the fringes and contemporary to the necropolis (Raynaud 2010). Altogether, these burials enable questions to be asked about the funerary treatment reserved for immature individuals in a local agrarian environment and the atypical status of these marginal deposits.

2014 Excavations: Site Description

As expected, considering the regional context, the archaeological occupation of the site reflected the evolution of habitation between the Roman and Medieval periods on territories with agricultural vocations (Raynaud 2007). The beginning of the Roman period harboured numerous planting pits associated with a network of drainage ditches. They were allocated to a vineyard, whose extensions and related plots have also been frequently found in adjacent excavations (Figure 3a). Then, the last centuries of the Roman period witnessed the amplification of the layout with a diversification of activities. The foundations of a building were identified at the centre of an enclosure. Evidence of an exterior cross wall and the width of the remains of the foundations are suggestive of a two-storey building with a 104m^2 interior space. This building was connected, about 10m south-west, to another construction represented by two parallel foundation walls whose function remains difficult to interpret (109m^2 – agricultural building in the broad sense; Figure 3b). Other large pits between 6m^2 and 12m^2 complete this occupation. They indicate lightweight constructions characteristic of Roman establishment (with an agricultural function as well – Brun 1999; Henry *et al.* 2010; Lebrun *et al.* 2017). A well at the rear of the building would have supplied water. The central

building could be a representative of a tower-type building in a rural context; these are widely represented in Gaul (Pellegrino *et al.* 2017) with an intermediate function between domestic use and storage. They are dated to between the 4th and 5th centuries, and ceramic remains recovered from the trenches of the two buildings and the pits also date to between the 4th and late 5th centuries (between mid-3rd and early 5th centuries for the large excavated pits – radiocarbon dating AD 255-412, 95.4%, Poz-77547, 2 sigma). A network of ditches framed this agricultural complex (see Figure 3b). Stratigraphic relationships and observed overlaps within the network indicate several states of land divisions during Late Antiquity. They seem to obey an orthogonal configuration and the last formation, including the two agrarian edifices previously described, comprised plots of at least 52 x 43m. The multiple ditches that made up the layout of the set can be interpreted as a space that was partitioned for various activities related to agriculture or livestock (Adam 2017). Some of the ditches seem to have been reused in Late Antiquity from Early Roman times when the land would have been used as vineyards. The majority of ditch fillings provide material from the 5th century, but a hypothesis of a perennial plot division in the form of planted hedges cannot be rejected (Favory *et al.* 1994).

Observations from the Verdier Nord excavations indicate a relatively stable landscape at the end of the Roman era. This may have consisted of filled ditches that constantly marked the landscape. Artisanal activities undertaken during this occupation are mainly represented by the presence of a limekiln to the east of the site (Vaschalde 2013). Subsequent abandonment of the agricultural enclosure was followed by substantial Early Medieval occupation materialised mainly by a large storage area on the eastern half of a right-of-way with more than 220 identified silos and about 200 pits of indeterminate nature (Figure 3c). The chronological indices provided a wide range between the 7th and the 9th centuries. This storage activity is associated with a 'bakery'-like structure represented by a group of several semi-buried ovens within a large rectangular pit (57 m^2). The alignment of some of the silos with the Roman dividing ditches, despite their infilled status, leads to questions about the sustainability of the ditch networks and, thus, of the ancient plot (Calmès and Raynaud 2018).

Presentation of Late Antiquity Burials

During the Late Antiquity period, the development of the agricultural unit – the first identified in Lunel-Viel – consisted of a network of well-defined ditches. A milestone dating from the end of the 4th to the beginning of the 5th centuries was discovered at the end of one of the ditches (FSE 251: 370-430).

Nine structures identified as individual burials were discovered within the fill of the ditches (Figure 4). Two perinatal individuals[3] were placed in tile chests, arranged with a gabled roof-like cover (SEP 648 and SEP 649). Another perinatal individual was found in a parallel piped chest of *tegulae*, the bottom of which consisted of a fragmented *amphora*'s belly (SEP 663). Six other immature individuals were buried within *amphorae* (Table 1): four were perinatal or post-neonatal (SEP 580, SEP 679, SEP 680, SEP 720), while two were post-neonatal (SEP 678, SEP 693) (Calmès and Raynaud 2018). No grave goods were associated with any of the individuals and, unfortunately, bone preservation was too poor for body positions to be ascertained.

[3] We consider infant individuals (class [0-1] year) in two categories: perinatal individuals, including stillborns and newborns [22 weeks after the last menstrual period (LMP)-1 month postpartum] and post-neonatal individuals [1 month-1 year] (Castex *et al.* 1996).

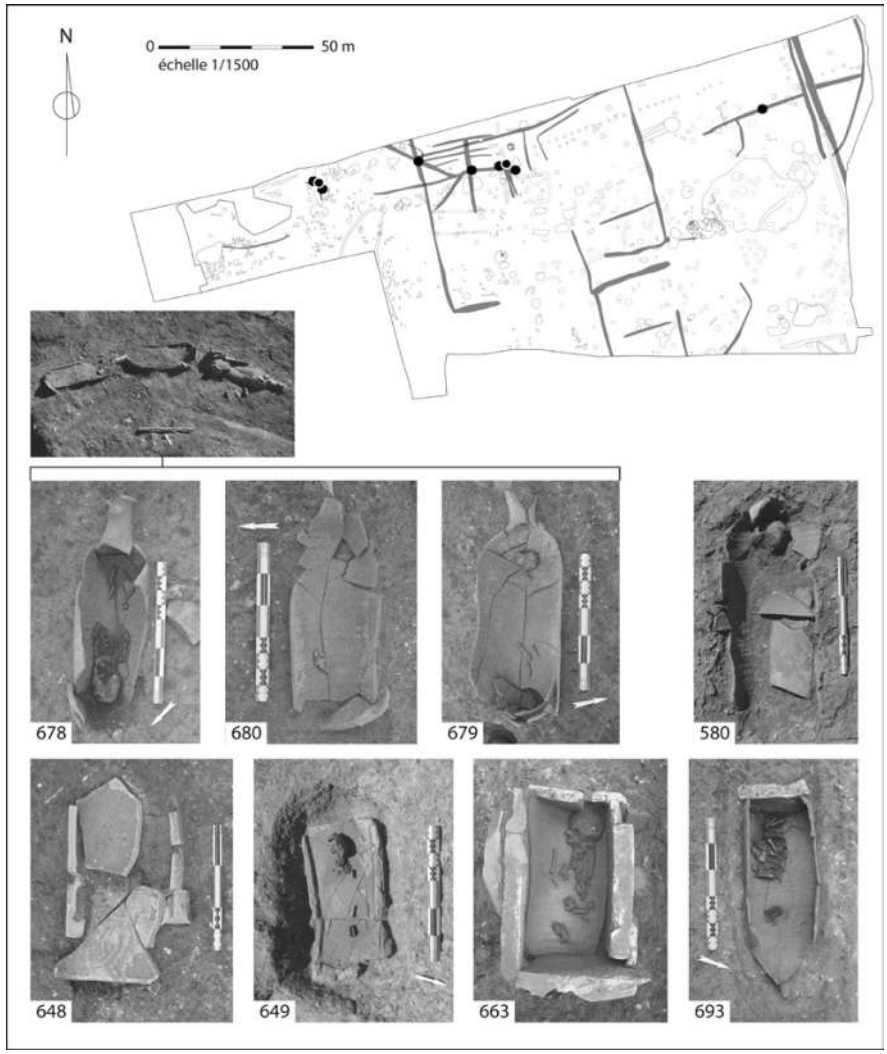

Figure 4: The infant burials discovered at Verdier Nord, and their locations within the division ditches. Note that because burial SEP 720 was excavated during the final days of the excavation, it was collected in bulk and analysed in the laboratory. As such, there is no picture *in situ* (Prepared by A. Chen after Calmès 2018: fig. 89).

Table 1: Lunel-Viel burial inventory – age category linked to the typology of the graves and the associated ditches.

Burial	Age category	Age	Typology of graves	Associated ditches
SEP 580	Perinatal or post-neonatal	NA	*Amphora*	FSE 309
SEP 648	Perinatal or post-neonatal	NA	Tiles chest, roof-like cover	FSE 308
SEP 649	Perinatal or post-neonatal	< 6 months	Tiles chest, roof-like cover	FSE 308
SEP 663	Perinatal or post-neonatal	40 weeks *in utero* – 1.5 month	Tegulae chest	FSE 308
SEP 678	Post-neonatal	3-9 months	*Amphora*	FSE 682
SEP 679	Perinatal or post-neonatal	0-6 months	*Amphora*	FSE 682
SEP 680	Perinatal or post-neonatal	NA	*Amphora*	FSE 682
SEP 693	Post-neonatal	3-12 months	*Amphora*	FSE 88
SEP 720	Perinatal or post-neonatal	0-6 months	*Amphora*	FSE 164 / FSE 165

The *amphora* fragments or complete *amphorae* identified in graves SEP 580, SEP 663, SEP 678 and SEP 680 belonged to the family of 'medium-sized cylindrical African *amphorae*', probably of the Keay 25 or 27 type – characteristic productions of the 4th and first half of the 5th centuries. The collar of an amphora had been severed for burial SEP 693. Then, a fragment of baetic *amphora* Dressel 23, examples of which were also found in burials SEP 678, SEP 680 and SEP 693, probably closed the opening of the *amphora*. Similar fragments were used in the arrangement of the chest walls of the graves of SEP 648 and SEP 649. The *amphora* of burial SEP 678 was broken at the lower part, and retained its collar, which is attributable to the African type Keay 25/3. That of burial SEP 679 has retained its African type Keay 27a collar, and was associated with a large fragment of cylindrical *amphora* with Lusitanian paste marked with strong grooves probably constituting the closure (Raynaud 2018). In summary, four *amphorae* had been cut up to the bottom to enable the placement of the deceased (SEP 580, SEP 678, SEP 679 and SEP 680), while two were fractured at the shoulders (SEP 693 and SEP 720). The seven burials in *amphorae*, or which contained an *amphora* shard, were estimated to date to the second half of the 4th and the first half of the 5th centuries. In parallel with the nearby Verdier necropolis, the burials in chests (SEP 648 and SEP 649) made of *tegulae*, were generally dated to between the second half of the 3rd and the first half of the 5th centuries (Raynaud 2010).

The individuals were all aged less than 1 year (see Table 1). The accuracy with which age at death was estimated was dependent on the state of preservation of the skeletons. The location of these nine burials, i.e. at interconnections among plots within an agricultural environment, is noteworthy. This agricultural occupation ranges from the end of the 3rd to the first half of the 5th centuries AD. The burials were all discovered in the immediate vicinity of ditch structures and displayed a similar orientation to these (see Figure 4). A group of three graves (SEP 678, SEP 679 and SEP 680) had been installed end to end and the arrangement of the burials perfectly followed the angle of Ditch 682. The precise location of each of the graves was apparently carefully considered and, thus, suggests a particular choice in their location – often at plot angles, at intersections of plot boundaries or at the end of ditches. The fact that the graves coincided with the filling of the ditches does not mean that these no longer marked the boundaries of the plots. On the contrary, the location of the burials shows that, while the ditches were filled, the land divisions remained visible in the landscape and, thus, were probably still in use. We can also assume that other demarcating elements were used on the surface, such as hedges, or lithic or ceramic markers, strengthened by the discovery of a marker at the edge of Ditch 251 (Djouad 2018).

Discussion

Funerary Practices for Immature Individuals during Late Antiquity

Infant burials similar to those of Verdier Nord have also been found in other Roman sites, such as Bruères-Allichamps (Cher, France; Hugoniot *et al.* 1975; Baills-Talbi and Blanchard 2006), where graves of infants dated to the 3rd century AD were discovered both within and outside the necropolis. Inside the burial complex, some infants were interred in a localised area, while others were scattered among the adults. On the outskirts of the necropolis, infant graves were placed in the upper filling of ditches.

Figure 5: Funerary stone of the 'child of Laetus', discovered in 1831 in Bordeaux, France, depicting a girl with a dog and a rooster, 2nd century AD, Musée d'Aquitaine, Bordeaux (Photograph S. Djouad).

Numerous archaeological and textual resources document the chrono-cultural context of Late Antiquity. This can create a false impression of a good understanding of society, and their rites and practices. In this context, it might seem straightforward to consider the burials documented herein as being atypical or deviant compared to 'normal' funeral rites. On a broader scale, the burial of infants in domestic, craft or agricultural environments is known to have taken place as early as the Neolithic throughout the Mediterranean basin (Baills 2016). This practice, highly developed during the Iron Age in Languedoc, lasted throughout the Roman period (Baills 2016). Throughout protohistory and the Roman period in Gaul, the extremely young age of the individuals (not exceeding one year and almost exclusively under six months of age) is one of the most striking features of burials discovered outside necropolises (Baills-Talbi and Blanchard 2006).

Contemporary authors pointed to the importance given to certain biological stages considered as rites of passage. For example, the names of children were only attributed on the *Lustrici Dies*, the eighth day after birth for girls and the ninth for boys, because after this period the child was considered more likely to survive (Festus – end of the 2nd century AD,

De Verborum Significatione, Book X). A second stage corresponds to the appearance of the first tooth, around six or seven months of age. This brought about a change in social status and, in fact, funerary practices. In the 1st century AD, Pliny the Elder (*Naturalis Historia*, VII, XXV: 63) argues that a dead infant should not be cremated before the first tooth has erupted.[4] From an archaeological point of view, this exclusion is particularly visible for the region we consider during a period when the predominant funeral rite was cremation (Early Empire period), as the vast majority of the deceased under six months of age are indeed buried (95.5% buried infants; Bailles 2012; Bailles 2016). Most of the time, when individuals under one year of age were discovered, those over six months of age were entitled to different treatment, that included more careful arrangements and a more frequent presence of furniture in their graves (Blaizot *et al.* 2003; Duday *et al.* 1995).

According to historians, the Romans feared the souls of the deceased who died violently or prematurely.[5] Among the latter were young children, because dying before they had lived caused their souls to wander between two worlds, jealous of the living and wishing to cause them harm (Bailles-Talbi and Dasen 2008; Jobbé-Duval 1924). Ethnologists such as van Gennep (1909) have described this fact as a universal invariant of human societies (Bailles-Talbi and Dasen 2008). This fear is said to have manifested itself through the application of preventive measures designed to protect the living from these potentially dangerous souls (Bailles-Talbi and Blanchard 2006). Such measures included exclusion and purification rites, expressed through the use of perfumes designed to keep insects away and purify the graves, the use of psychopomp animals (birds and dogs in particular), and specific body treatments. This led researchers to interpret differences in the treatment of infants and their burial outside funerary complexes as exclusionary practices linked to their bad death (Cumont 1949; Deonna 1955 in Bailles-Talbin and Dasen 2008). Children who died during the perinatal period were clearly treated differently, often associated with psychopomp animals, as at the site of Montaury, Nîmes, Gard, where dog graves were discovered among the perinatal and infant burials.[6] (Granier and Pellé 2021). This association is sometimes symbolic, as on the stele of 'the child of Laetus' (Figure 5), which depicts a little girl with a rooster and a dog.[7] However, their interpretation as dangerous souls is based solely on ethnological parallels (Bailles-Talbi and Blanchard 2006) and no antique source supports this assertion, to the best of our knowledge.

On the other hand, if exclusion of the perinatal dead was linked to the fear they inspired in their contemporaries, how can we explain the fact that many of them were buried in living spaces, or even inside buildings still in use? At Sallèles-d'Aude, Aude, for example, the majority of the infants discovered had been deposited during the 1st century AD inside a potter's workshop (Duday *et al.* 1995). Moreover, during the 6th century AD, according to Fulgence (*Expositio Sermonum Antiquorum* 560: 13), young children less than 40 days of age were buried under the

[4] '*Contra in laeva. Hominem prius quam genito dente cremari mos gentium non est*'. – 'It is not the custom in any country to burn in a funeral fire the dead corpse of any infant before his teeth be come up' (cited here from Mayhoff 1906).

[5] '*Aiunt et immatura morte praeventas eo usque vagari istic, donec reliquatio compleatur aetatis, quamtum pervixissent, if not untimely obissent*'. – 'They also say that those souls which are taken away by a premature death wander about hither and thither until they have completed the residue of the years which they would have lived through, had it not been for their untimely fate' – (Tertullian, *De anima*, 56 – between AD 208 and 211).

[6] Sixty deceased infants under 6 months of age and four dogs from the end of the 1st century AD until the beginning of the 3rd century AD.

[7] Funerary stone discovered in Bordeaux, from the 2nd century AD (Musée d' Aquitaine, Bordeaux).

awnings of houses. This again illustrates the modification of the rite applied to the youngest dead, but their proximity to living places does not support the idea of social exclusion.

In terms of archaeological evidence, a great diversity of locations was used for the burials of the youngest individuals – along the walls of buildings, fences, ditches, paths, within the common burial areas, etc. This multitude of contexts cannot be interpreted in a single way and is at least partly idiosyncratic. However, one spatial characteristic of being positioned within boundaries between spaces seems to be shared by the majority of the burials discovered. We might be tempted to make this positioning coincide with the idea of individuals between two worlds, as described by Virgil in the *Aeneid* (VI: 179). Aeneas heard at the gates of hell the cries of children's souls, dead to the threshold of existence before having lived. We can assume that differences in treatment illustrate the collision between the particular relationships of living individuals with their dead and the official rites of an era. Textual sources therefore present only part of the reality of a culture and, as a result, modern archaeology can add nuances to what we thought we knew about the rite through the reading of Roman authors and ancient excavations.

The arrangement of the Verdier Nord burials along dividing ditches is perfectly coherent with the notion of a symbolic boundary between two spaces. It can also be observed that the burials were particularly installed at the intersection of two ditches or at their ends. It is possible that their location was not only symbolic, but that their grave markers may have physically delimited the boundaries (Favory *et al.* 1994). Although still poorly understood, each new discovery contributes to a better understanding of this apparently not so atypical practice. In any case, all of the elements at our disposal today tend to modify the rather negative vision of the low status of these burials as being rejected by society simply because they died too early.

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