As in Life, So in Death? Identity, Gender, and Age in Neolithic Britain

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Abstract

Interpretive models for identity for the British Neolithic have been heavily focussed on group identities e.g., ancestor veneration, relational personhood, and house societies. While these theoretical frameworks for social organisation are undoubtedly important, they do not consider individual identity and the taxonomies which create it such as gender, age, and ethnicity. As identity taxonomies are deeply intertwined with social, cultural, and political factors then research into these could be crucial in improving understandings of British Neolithic society. One of the key reasons for this neglect of individual identities is the general nature of most British Neolithic funerary assemblages, i.e., commingled and disarticulated. This creates certain challenges when attempting to develop ideas regarding individual identity because specific individuals are difficult to recognise. The lack of attention to individual identities and their associated taxonomies for the period means that there is a large gap in knowledge in areas such as gender, age, status, kinship, etc.

This blind spot for individual identity in the British Neolithic is what this thesis aims to rectify. The research focuses on the two key identity taxonomies of gender and age. To access elements of individual identity within the funerary record an innovative approach was developed for analysing it. The British Neolithic funerary record in its entirety was collated into a database and data from this was separated into two areas, lifeways, and demographic representation. This enabled comparative analyses to be conducted, which assessed divergences in the health, diet, mobility, and funerary rites between males, females, and different age groups. The results of this allowed new insights to be established regarding the lifeways and deathways of different demographic groups. This was then used to propose new interpretations regarding how biological sex and age may have affected individual identities during the British Neolithic.

Table of Contents

List of Figures

List of Tables

Acknowledgements

In many ways, it has been quite a strange time to complete my PhD. In the first year, COVID-19 hit, and I was forced to change the direction of my research. As a result, I spent much of my time as a research student sitting at my desk at home not doing any of the exciting things you imagine doing a PhD would entail. Nevertheless, I persevered and finally got to the end, and I would just like to thank some people who helped me on my way. Within the university sphere, firstly, a huge thank you must go to my supervisor Penny Bickle, without her guidance, support, and attention to detail I do not think I would have made it to the end of this PhD. I would also like to the members of the thesis advisory panel, Ian Armit and Jim Leary, for the useful and insightful comments and suggestions during the TAP meetings. Thanks, must also go to Lindsey Büster, Kate Morris, and other regular participants of the funerary lunches. I found them to be a nice break from the research and a good chance to catch up with people, especially during lockdown. Finally, I would like to thank Malin Holst for providing me with some osteological data for a few sites which was really helpful.

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Declaration

I declare that this thesis is a presentation of original work, and I am the sole author. This work has not previously been presented for a degree or other qualification at this University or elsewhere. All sources are acknowledged as references.

1: Introduction

Identity is an important concept within any given society. However, it is a particularly challenging concept to define. It is an abstruse term that can refer to the uniqueness of an individual but also the uniformity and shared common features of a group (Byron 1996). Identities are constituted of several distinct parts or taxonomies. These taxonomies are often culturally defined, such as age, gender, ethnicity, class, kinship, religion, and status. When combined, these elements will form a unique identity pattern for an individual or group with endless variations. The fact that these taxonomies are culturally constructed means they are extremely interactional with other social, cultural, political and/or religious factors. An individual or group's gender, age, ethnicity, status, or social class can have a positive or negative impact on their overall identity depending on how these taxonomies are socially, culturally, and politically valued. A greater understanding of identities, and how they are formed, maintained, and perceived, leads to enhanced insights into the society they inhabit.

The complexity and uniqueness of identities can be challenging for archaeological interpretation. This has not, however, discouraged interpretations of past identities being formulated. There has been much change in how the identities of past peoples are recognised and understood within archaeology as it has matured as a discipline. The theoretical models used for these comprehensions have increased in intricacy and complexity over time, from the simple generalised group identities formulated by culture-historical archaeologists in the earlier days of the discipline (e.g., Childe 1925), through to more recent investigations surrounding individual taxonomies such as gender, age and ethnicity (e.g., Conkey & Spector 1984; Sofaer Derevenski 1997; Jones 1997; Lucy 2005; Gilchrist 2007). These developments have also had much wider implications for the understanding of social and cultural structures

that may have been present within past societies. People, and the range of identities they have, are products of the environments they inhabit, and wider social, cultural, and political factors will all influence and be influenced by these identities in varying degrees. Therefore, any formulations acquired regarding identity through archaeological research can also help in understanding much wider intricacies of the past society. This is particularly useful with regard to prehistoric groups in which there is lots of material evidence but no written records.

Interpretations of identity for the Neolithic of Britain, *circa* 4000 to 2500 cal BC, have been heavily focussed on group identities with some of the most prevalent theoretical models embracing ideas incorporating elements such as ancestor veneration (e.g., Barrett 1988; Scott 1992; Parker Pearson 2000), relational personhood (e.g., Chapman 2000; Fowler 2001; Kirk 2006), and house societies (Richards *et al.* 2016). While these theoretical frameworks for social organisation are undoubtedly important, they do not consider individual identity and the taxonomies which create it. As identity taxonomies are deeply intertwined with social, cultural, and political factors then research into these could be crucial in improving understandings of British Neolithic society. One of the key reasons for this neglect of individual identities and their associated taxonomies is the general nature of British Neolithic funerary rites and mortuary practices. There is a great deal of variation in the funerary record of Neolithic Britain, with both monumental and non-monumental site types used for the deposition of the deceased, as well as both single and multiple burials being present which can include cremated, articulated, and disarticulated remains. However, despite this diversity of both mortuary practices and funerary sites, the majority of, and some of the best researched, sites consist of commingled and disarticulated human remains (see Fig. 1.1), usually lacking grave goods.

Figure 1.1 Example of the disarticulated and commingled nature of many British Neolithic funerary assemblages from Wor Barrow, Dorset (Pitt-Rivers 1898: 83)

This creates certain challenges when attempting to develop ideas regarding individual identities and identity taxonomies from these funerary assemblages. The disarticulated and commingled nature of the deposits makes it difficult to recognise specific individuals, and a lack of grave goods that can be attached to individuals adds to this complexity. In many ways, this discourages research into the variations between different people in the British Neolithic. A big part of this is likely tied up with modern viewpoints and beliefs regarding the integrity of bodies and how individual identities can only be seen from whole bodies. The lack of attention to individual identities and their associated taxonomies for Neolithic Britain means that there is a large gap in knowledge in areas such as gender, age, status, kinship, etc. In contrast, for the Neolithic in the wider European region, as well as for later prehistoric

periods both in Britain and Europe, formulations have been able to be made regarding identities and identity taxonomies such as gender and age (e.g., Treherne 1995; Hofmann 2009; Chambon & Thomas 2010; Shepherd 2012; Holst 2013). A big contributing factor for this is that there are many more single articulated burials which include grave goods. In these cases, individuals are easier to recognise and thus variations between different demographic groups are more clearly defined. This makes theorising things such as gender, less challenging. However, the lack of this type of evidence for the British Neolithic should not mean that acquiring further knowledge on individual identities is not possible, it just means that the available evidence needs to be assessed differently.

This research aims to rectify this gap in knowledge for individual identity and its associated taxonomies in the British Neolithic. By developing an innovative approach to analysing the funerary data, then new ideas for identity can be established and proposed. It was decided that the thesis would focus on the two key identity taxonomies of gender and age. These were considered to be the most effective and easily accessible identity taxonomies to use for the type of comparative analyses that this research wished to undertake. The ageing of individuals within skeletal assemblages is a key part of osteological assessment. This means that a lot of data exists regarding different age groups, which can be compared to generate new formulations surrounding age-based identities. Gender is more complex. While it is often linked with biological sex this is not always the case. However, much like the assessment of the age of skeletons, determining the sex of them is also a crucial part of osteological analysis. Again, this means a lot of data on biological sex exists which can be compared. If there are notable divergences between males and females and different age groups, then this could imply gendered identities based on biological sex and/or age-based identities being present.

While they have seen some discussion, the taxonomies of gender and age are themselves particularly under-researched themes in the Neolithic, both in Britain and in the wider European area. Gender systems in the subsequent Bronze and Iron Ages based on biological sex have been successfully theorised, although this is still a much-debated area of research. The funerary record for these periods demonstrates easily accessible differences between males and females in a multitude of ways from divergences in health, diet, and mobility to variations in funerary treatment and mortuary practices. These differences have allowed models to be constructed which propose sex-based gendered identities. However, this dichotomy is difficult to see in the Neolithic due to the nature of the funerary record. This has led to gender being dismissed as it does not fit the criteria set out by these later prehistoric periods (Robb & Harris 2018). The main justification for the lack of interpretations surrounding gender and gendered identities is the lack of differentiation between males and females within the funerary contexts. Research for the wider European Neolithic has demonstrated some subtle divergences of note, such as possible gendered grave goods and diets (e.g., Hofmann 2009; Chambon & Thomas 2010; Hedges *et al.* 2013). However, research into the British Neolithic has not found many notable differences between males and females, although recent aDNA research looking at kinship has started to recognise that some may in fact, exist (e.g., Fowler *et al.* 2022).

Similarly, conceptions surrounding age-based identities are also rarely discussed topics for the Neolithic and prehistory in general. This is particularly the case for nonadults and different adult age groups, such as the elderly. To date, there has been no research carried out through the lens of age about adults for the European Neolithic. This means that a consideration of specific adult age groups, such as the elderly, as well as all the social and cultural mechanisms that may be tied up with that particular group, has never been cogitated. There have been a handful of studies that have deliberated nonadults within the European

Neolithic, however (e.g., Waterman & Thomas 2011; Bickle & Fibiger 2014; Le Roy *et al.* 2018), but none that have considered them in the British Neolithic. The lack of reflection on age and its association with identity has rendered certain groups, such as nonadults and the elderly to become almost invisible within wider discussions about British Neolithic society. Much literature within the social sciences (e.g., Amos & Harrell 1981; Sheehan 1990; Hockey & James 1993; James 1993; Pilcher 1995; Shahar 1997; James *et al.* 1998; Levine 1998; Cockayne 2003) demonstrates the social and cultural importance of age and ageing and its significance in the formation and maintaining of identities. A lack of consideration within this area for the Neolithic means that age and age-based identities have not been theorised, which, in turn, means that the social and cultural structures associated with them have also not been contemplated. Therefore, a potentially important part of British Neolithic society is not being deliberated within wider social and cultural interpretations of the period.

The main analytical tool used in this research is a database consisting of osteological and isotopic data derived from the British Neolithic funerary record in its entirety. When this research was initially designed, the database was not going to be this substantial. The original research plan was to include a large number of sites from different regions within Britain which had osteological and isotopic data attached to them and supplement these with some new osteological data from the reassessment of extant antiquarian collections. However, the onset of COVID-19 and its associated restrictions in early 2020 made this part of the research impossible, and the analysis had to be adjusted to a purely desk-based exercise. This presented a unique opportunity, and it was decided to catalogue osteological and isotopic data from the British Neolithic funerary record in its entirety.

The main function of the database is to comparatively analyse different demographic groups and establish whether variations exist between them. This was split into two areas. The first area focuses on demographic representation, assessing how well males, females and different

age groups are represented within the funerary record. An over or underrepresentation of one of these demographic groups within a funerary context could provide new insights into how biological sex and/or age was socially and culturally perceived. The second area looks at divergences in the lifeways of the demographic groups using osteological data to assess health, a combination of osteological and isotopic data to assess diet, and isotopic data to evaluate mobility. Differences in lifeways between the demographic groups could imply wider social divergences about factors such as social role or status. As was the case with demographic representation, this can then be used to develop a broader discussion of how biological sex and/or age may have affected identities. The data was also placed into smaller comparative groups, which looked at chronology, regionality, site types, and mortuary practices. This meant that not only could variations between the different demographic groups be seen for the British Neolithic as a whole, but also chronological and regional trends could be recognised as well as divergences in funerary practices. The data obtained from this process revealed new information regarding males, females, and different age groups in the British Neolithic, and this was then used to develop new hypotheses concerning the nature of gender, age, and identity within the period.

The thesis is split into three parts. The first section, which includes Chapters Two and Three, will initially attempt to define identity, gender, and age and propose why they are important. It will show how the theoretical models used to understand identity, gender, and age have changed and evolved within the social sciences from the early 20th century to the present. Then, it will demonstrate the changing nature of how identity, gender, and age have been recognised within archaeology, again in a chronological fashion. Following this, attention will turn to the British Neolithic, with a summary of the funerary record for the period being established as well as a review of how identity, age, and gender have been interpreted. The second section, which just includes Chapter Four, will be focussed on materials used,

methodologies, and limitations of the research. This will explain how the data was obtained and how the database was created. It will then demonstrate how the database was used and will also highlight any problems that arose during this process and how they were rectified. The third and concluding section of the thesis, which includes Chapters Five, Six, and Seven, will concentrate on presenting the results of the research and establishing new paradigms on the nature of identity in the British Neolithic. This section will initially look at the lifeways and deathways results separately but then bring them together and view them in conjunction for the concluding chapter.

This research has the potential to be an important addition to current knowledge of Neolithic Britain. Similar past research that is focussed on large bioarchaeological datasets for the period have tended to limit themselves to specific site types or regions (e.g., Long Barrows – Smith & Brickley 2009; Orkney – Lawrence 2012). However, this research combines all site types and regions into one database and it is believed that this represents the first time this has been attempted. Having data for the British Neolithic funerary record in one single place will undoubtedly be useful for researchers in the future. The results of this research do present new insights into the lifeways and deathways of males, females, and different age groups in the British Neolithic. These insights demonstrate that demographic divergences are present, and through these differences, innovative ideas surrounding identities have been able to be proposed. As a result, it is also believed that this research can help further understand the wider intricacies of British Neolithic society.

2: Theoretical Approaches to Identity, Gender, and Age

2.1: Introduction

This opening chapter provides an in-depth examination of identity, gender, and age, exploring how these themes have been understood both within the social sciences and, more specifically within archaeology. The chapter will be split into two sections, with the first half broadly exploring the chronological evolution of the theoretical approaches to identity and the two taxonomies of gender and age from across the social sciences. The second half will scrutinise the changing nature of identity, gender, and age within archaeological theory over time. While identity has been theorised through many diverse types of archaeological investigation such as material culture studies, it would not be practical to discuss all these here. Therefore, much of the discussion around the archaeological approaches to identity, gender and age will be heavily focussed on funerary archaeology because that forms the focus of this research. This chapter will underline the diverse ways in which identity, gender and age can be approached and understood and will highlight the various strengths and weaknesses of the differing interpretive models. It will also propose why identity and its associated taxonomies are a key area of study and how it can lead to insights into a society's wider social, cultural, and political elements.

2.2: Theoretical Approaches to Identity, Gender, and Age in the Social Sciences

2.2.1: Identity

Identity is a notoriously difficult concept to define, being an ambiguous term that can both refer to the uniqueness and distinctiveness of an individual, making them different from others, but can also signify the traits of uniformity and sameness an individual has with others, rendering them a group due to their shared common features (Byron 1996). This definition suggests that identity is composed of two parts: a personal identity and a collective, group or social identity. The idea of a personal identity and the concept of a "self" really comes to the forefront through the early philosophical work of Descartes. Cartesian philosophical frameworks on self-consciousness and the soul suggested that existing as a human identity is only possible because individuals are aware of themselves, and this self-consciousness is integral to having a personal identity (Descartes 1637; 1644). Descartes furthered these ideas by proposing a mind-body duality model, which stated that individuals are formed from a thinking self and a physical body. The thinking self or the soul was believed to be an immortal and conscious being that was both nonmaterial and independent of the laws of nature, whereas the physical body was a mortal entity that was material and non-thinking and controlled by laws of nature (*ibid*). Similarly, Locke (1690) also conceptualised that personal identity or the self was manifested through consciousness and self-awareness. Much like Descartes he also emphasised a duality between the self and other factors by stating that personal identities depended on consciousness and not on the substance of the body or soul (*ibid*).

These early works on personal identity formed the basis of future theoretical advances. In the 19th century, philosophers such as Hegel and Nietzsche began to examine personal identity and how it interacted with the world around it. This was partly a critique of the old Cartesian frameworks that they felt were too simplistic and ignored other external factors that could influence personal identities. In his Master-Slave dialectic, Hegel (1807) suggests that the *Geist*, mind, or self, is only conscious when interacting with other minds. For personal identity, this implies that it can only occur and form when interactions with other individuals take place. Similarly, Nietzsche (1882) suggested that the soul was everchanging and influenced by many external sources. Again, for identity, this means that the soul or self is not fixed but rather a highly variable and unstable entity constructed from its surroundings. In the 19th century, collective or social identities were also brought to the forefront. For example, Marx's (1848) concept of 'class consciousness', later built upon by Lukács (1923), and Durkheim's (1894) 'collective consciousness', all describe a set of shared elements and beliefs between groups of people in a society which connect them. Further research in the earlier parts of the 20th century began to take a more in-depth analysis of diverse types of identities and how they cooperated with one another. For example, Mead (1934) found that both individual and collective identities were highly variable with both having the ability to generate and transform one another. He suggested that social conditions and structures would help create an individual's identity but equally, an individual's identity, through interactions with other individuals, could shape and change social conditions and structures, creating a reciprocal relationship between the two identity forms (*ibid*).

By the mid-20th century, identity became a much more well-studied topic. The term identity, as we understand it today, was not used within the literature before the research of one of the pioneering architects of the topic, psychologist Erikson. Erikson (1959) built upon Freud's hypotheses of the ego (Freud 1923) and theorised three types of identity within an individual,

the ego identity, sometimes called the self, personal identity, which encompass the unique parts of an individual making them different from others, and the social or cultural identity which is formed through the roles an individual has within society. He suggested that personal identity and social identity are developed through interactions with others throughout an individual's life particularly when an individual is younger, with the ego identity or sense of self being persistently unchanging regardless of outside influences (Erickson 1959). The work of Erikson was highly influential, and many used it as the basis of future endeavours to explain the formation and maintenance of identities (see Weinreich 2003 for a good summary of the various approaches).

Goffman's (1956) '*The Presentation of Self in Everyday Life',* approached identity in a different manner, which demonstrated an alternative way in which identity could be understood. He used a theatrical performance as a metaphor for individuals' interactions with one another, believing that participants within social interactions were constantly trying not to embarrass themselves or others and trying to present themselves positively to the social group (*ibid*). As an actor plays to an audience by practicing a performance and planning the sets and costumes, so too will the individual within their social interactions with other people (*ibid*). He also suggested that this could occur with groups who had similar objectives and desires, and they would effectively act together to achieve their shared goals. For identities, Goffman's self-presentation theory implies that it is the ego or self that is ultimately in charge, but it is making decisions on how to present both the personal and social identities based upon the social situation in which it resides. In many ways, this is a similar conclusion to that of Mead (1934). For Mead, both individual identity and society could influence and change one another and for Goffman's framework, while the ego was responsible for the presentation of an individual's identity, it was influenced by the society and other actors it came into contact with, and likewise could, therefore, influence society itself.

This idea is echoed in Berger & Luckmann's (1967) '*The Social Construction of Reality*'. They suggest that human beings construct a shared sense of reality including language, symbolism, rules and governance, and the formation of institutions. The implication of this, is that identity and society are comprehended as dialectically intertwined, in that identities are formed through social processes regimented by society (*ibid*). However, because society is socially constructed, individual identities are also responsible for forming it, so again, both the individual and society can be seen as opposing yet interrelated forces.

During the mid to late 20th century, anthropological approaches to identity differed from elsewhere in the social sciences. While concepts of self and selfhood were discussed in anthropological research, it was much more common to discuss identity in relation to the social and cultural mechanisms of identity and the commonalities between groups and/or categories of people (Byron 1996). But again, these demonstrated certain similarities with the abovementioned themes. For example, many studies showed how identities were social roles that were performed and were highly situational and dependent on the society in which they resided (e.g., Goodenough 1969). By the late 20th century and through to the modern-day, anthropological research, as well as much research from the other social sciences, began to be very much focused on social or cultural group identities such as gendered, ethnic, religious, and political ones.

One area of anthropological research from this period that would go on to become highly influential in attempting to understand identity in archaeology and, more specifically, the Neolithic of Britain is that of the concept of personhood. As a definition, personhood can be described as the state of being a person (Fowler 2004: 7). It is formed through social customs and practices, and relationships made with other individuals and things. It can be everchanging and transformative throughout an individual's life and through into death. In a modern Western context, the state of being a person is very much aligned around the

indivisible individual, with concepts such as individual spaces, individual responsibility, and the opinion that each individual is unique being prevalent (Harris & Cipolla 2017: 61). However, anthropological research has demonstrated that this is not always the case and there is considerable variation between types of personhoods within different temporally and geographically distinct groups.

The anthropological work of Strathern on relational personhood was a strong influence on this new direction of comprehending identities. Strathern (1988) studied groups within Melanesia (An example of one of these groups can be seen in Fig. 1.2) and recognised that, unlike the modern West, they did not see themselves as individuals with personhood formed through the making of relationships but rather as individuals whose personhood was formed by emerging out of relationships. How individuals entered and emerged out of these relationships was through the process of object exchange (*ibid*). When one individual presented an object to another, they were creating a new relationship with said person and redefining their personhood, but also by giving the object away they were emerging out of a relationship with it and giving part of their personhood away at the same time. This means that in the context of personhood in Melanesia, the person is not an undividable individual but a relational dividual with partible personhood. Strathern (1988) also demonstrated that this concept was not just unique to human beings but could also be applied to animals, objects, and natural things such as rivers and mountains. This was because personhood was formed by developing and maintaining relationships and building up a large network of connections which non-human agents could also achieve. This research certainly had implications for how identities were understood. It took the view of identity away from a Western lens and demonstrated that identities were not always fixed and could be ever-changing depending on how an individual or group conceptualised their personhood.

Figure 2.1 Cultural dance performed by individuals from Mount Hagen, Papua New Guinea, one of the regions where Strathern conducted her research (https://commons.wikimedia.org/w/index.php?curid=4874605).

The conclusions regarding the flexibility and unstable nature of identities reached by Strathern's (1988) research are also echoed elsewhere in the social sciences during the latter stages of the 20th century and the start of the postmodern period. Postmodernism, particularly the deconstructionism of postmodernist academics such as Foucault (1972); Lyotard (1984); and Sampson (1993) played a significant role in the changing of discourse surrounding identity and the development of new understandings of it. Deconstructionism is a theoretical approach initially developed by Derrida (1967) for the analysis of text. Simply put, deconstructionism proposes that things can have many meanings, and within those meanings can be a multitude of other meanings, and it is only by deconstructing and breaking them down that all these meanings can present themselves (Johnson 2010: 238). An example of how this could be applied to aspects of identity can be found in Foucault's (1978) ideas on

gender and sexual identities. He rejected the idea that biological sex and its associated gendered and sexual identities were a natural, biological factor and instead suggested they were historically bound normative constructs that were often used as a device of power. He suggests that defining sex as a biological trait and a foundational source of gendered and sexual identities instigates the normalisation of culturally, socially, or politically specific sexual and gendered identities, therefore developing a 'normal' sexuality and a 'normal' gender, which makes divergent forms of the two be 'othered' (*ibid*). By deconstructing biological sex and its associative identity taxonomies, it is demonstrated that its meaning is culturally, socially and/or politically dependent so, therefore, not universal across time and space.

Another key argument within postmodern epistemology that holds inferences for identity is that reality cannot be accurately measured or characterised and that all realities, including social reality, are socially constructed concepts (Burr 1995). Reality is socially constructed through discursive elements like language, theories, and concepts, which are culturally postulated and allow reality to be created (Schachter 2005). This means that all languages, theories, and concepts are merely differently conceived perspectives of reality from different social groups so therefore cannot be objectively proven. A further implication of this is that any claim of truth also cannot be objectively proven as the assertion can never be independent of the cultural, social, or political motives of the individual making the claim. So, using the abovementioned theoretical approaches to identity discussed at the beginning of this section as an example, the postmodernist viewpoint would be that the theories merely reflect the bias of the individual making them as they are providing the language in which to describe human experiences and understandings of others. So, the work of Erikson (1959) would be deemed to be very much based within a Western sphere of understanding for identities and only applicable within his reality.

Postmodernist approaches to identity ask a completely separate set of questions than earlier paradigms. Some have questioned the conceptions of self and its relation to identity by emphasising its dependency on cultural and historical contexts (e.g., Baumeister 1987; Danziger 1997; Holland 1997). Others have taken focus away from the theories which past research generated regarding identity, the individual, and their interactions within social and cultural contexts and instead critiqued the studies themselves, particularly the language used, and how this creates an unrepresentative and biased depiction of reality (e.g., Burman 1994; Fox & Prilleltensky 1997). Going back to the concept of deconstructionism, Lyotard (1984) wished to replace grand '*meta-narratives'* with smaller ones, and for identity, this meant rejecting the idea of a whole individual identity and instead exchanging with a collection of smaller identities such as gendered identity, ethnic identity, etc. The main aim for postmodernists in terms of identity was to deconstruct it so contributing identity taxonomies such as gender, sexuality, ethnicity, etc., could be analysed separately, and this would provide new inferences on how and why they were formed as well as what consequences they have for identity as a whole (Schachter 2005). Whereas previous theoretical models of self and associated identities were viewed as innate and stable but also relational, the postmodern formation of self and its associated identities are seen as an amalgamation of a multitude of disjointed and unpredictable selves and identities. This means that identity is effectively fluid, variable, and ever-changing or, as Baudrillard (1994) more radically puts it, a fundamentally fluid and hollow vessel which becomes momentarily filled with content that has no substance or essential meaning.

The postmodernist viewpoint on identity is not without its critics. On the face of it, the postmodernist models of identity could be perceived as being liberating and innovative way in which to study identity. One which challenges all the previously established rules and presents new limitless mechanisms. However, it unwittingly reinforces newly imposed rules

just like the paradigms before it (Hardt & Negri 2000: 138). Lyotard (1984) famously demonstrated his disdain for grand '*meta-narratives'* yet ironically the postmodernist viewpoints on identity have in effect, become so rigid that they themselves have become a grand '*meta-narrative'*. Sim (1986) suggests that the fluidity of identity in the postmodern sense causes cultural, social, and political deadlock in which no progress can be made to understand identity. Nevertheless, it cannot be denied that the fluidity of identity is a useful tool for understanding it and was used in some capacity as far back as Mead (1934). However, Zizek (1993) argues that the social, cultural, political, and historical processes that create identities must be considered much more alongside identity fluidity and not be reduced to meaningless social constructs and biases. The main critique of the postmodern theoretical approaches to identity is that by deconstructing and diffusing it to such an extent will lead to a complete lack of understanding that cannot be tested or measured. Therefore, while the postmodernist approach is undoubtedly useful and generates diverse ways of looking at identity, other theoretical frameworks and influences cannot be dismissed. The postmodernist ideas on identity should be used to complement these rather than critique them.

2.2.2: Gender

An important identity taxonomy, and one which has seen an ever-increasing level of research since the 1970s onwards, is that of gender. Much like the identity umbrella it sits under, gender is extraordinarily complex, and the systems of gender that are in place within any given group are much dependent upon many cultural, social, and even religious or ritualistic factors. Gender can be defined as the identification of an individual or group to a specific gender group, which is often founded upon culturally distinguished sexual differences (Díaz-

Andreu 2005). In many past and present cultures, the differences that construct gender categories have been elaborated through a simple binary split between biological males and females. However, this is not always inevitable; temporally and geographically distinct groups have demonstrated that many other factors and elements can be responsible for attributing a specific gender to an individual. It is crucial to remember that, while often closely intertwined, gender and biological sex are separate entities. Biological sex refers to the genetic and physical components associated with reproduction (see Voss & Schmidt 2000) whereas gender is very much a product of the culture it inhabits.

Research focussed on the concept of gender developed during the late 1960s and early 1970s, coinciding with the emerging feminist movements at the time. Studies such as Stoller's (1968) '*Sex and Gender*' and Oakley's (1972) '*Sex, Gender and Society*', were highly influential in forming modern understandings of gender and they began to separate and distinguish between biological sex and gendered identities. The concept of gender, along with feminist theory, slowly made its way over to anthropology, which, as a field of study, suffered from a male bias both in terms of the anthropologists themselves, who were mainly male and through the informants in which they obtained their information who were also largely male. It was supposed, particularly in the study of hunter-gatherer groups, that women's responsibilities and undertakings were far too vague to be researched, and their roles were generally related to child rearing (Sterling 2014). However, anthropologists inspired by feminist theory sought to counteract this through a more detailed study of women and by the mid-1970s, the seminal work '*Towards an Anthropology of Women*' by Reiter (1975) was published and paved a new direction for anthropological research to head towards.

This new anthropology of women sought to explore and analyse women's spaces much more and use women as informants to get a greater view of their societies. The research produced

during this period led to two divergent hypotheses emerging on the relationships adhered to by males and females, with one suggesting that neither male domination nor female oppression was a universal certainty, while the other assumed that the male was always dominant and the female subservient (Pine 1996). This held implications for the concept of gender, with one side hinting that binary gender roles were a constant while the other suggested that they could be variable. Much of this early work was based upon power and oppression with many researchers taking a Marxist viewpoint suggesting that the oppression of the female was a historically distinct occurrence tied in with capitalism (*ibid*). Many rejected this view as simplistic, and academics such as Lamphere (1974) began to explore other forms of power, not just political, and proposed that women held strong individual power within the domestic sphere, which could influence male activity. However, ideas such as these were built upon and used to further substantiate the view that female oppression was a universal and continuous endeavour by suggesting that they, in fact, created a dichotomy between males and females and the public and social spheres (e.g., Rosaldo 1974).

Similar dichotomies were also explored to understand gender roles and male dominance/female oppression. Following the structural anthropological ideas of Lévi-Strauss (1966) of the nature/culture dichotomy, Ortner (1974) suggested that females were sided with nature due to reproduction whereas males to culture due to their dominance in the political realms. However, she believed that these were not a certainty and were culturally generated. Edholm *et al.* (1978) sought to examine the Marxist dichotomy of production/reproduction in which males dominated the former while females the latter. They suggested that this concept was not inevitable as it would be variable in diverse types of economies. For example, in hunter-gatherer groups female productive/reproductive activities generally demonstrated little distinction, meaning females were much more valued. In a more capitalist society, however, females would be much more undervalued due to their reproductive activities being greater

than their productive activities (*ibid*). So, in this respect, the position of women is dictated through the economic associations of production and reproduction. Again, this hints at culturally, socially, and economically specific factors contributing to the gendered roles undertaken by males and females which can vary depending on the society they live within. Early gender research such as the examples suggested here, was highly influential for the future directions of gender studies. They all demonstrated a move away from biological explanations to rectify the differences between males and females in different societies. They recognised that gender was something different to biological sex and was culturally variable.

By the 1980s, theoretical approaches to gender within the social sciences, particularly in anthropology, shifted. Less emphasis was placed on the male and female dichotomy in favour of a concept of gender, and challenges to Westernised narratives were undertaken. Several researchers criticised many of the above-suggested dualisms and argued that they were products culturally and historically specific to the Western world (e.g., papers in MacCormack & Strathern 1980). Several ethnographic works were employed as evidence to show that these dichotomies and supposed universals did not exist in all societies temporally and geographically (e.g., Harris 1980; Strathern 1980).

These ideas were further built upon in the late 20th century, and these advanced the complexities surrounding gender. A good example is Strathern's (1988) research '*Gender of the Gift'* based on anthropological work in Melanesia mentioned in the previous section. As previously stated, the Melanesians regard themselves as dividuals who have a relational form of personhood built upon through an economy of gift exchange. In addition to this, she also suggests that a person is constituted of multiple gendered parts that are not reduced to the body but can include other objects and things. These parts interact together, transform, and change during social encounters and exchange scenarios depending on the recipient and provider, so in essence gender has little to do with males and females and more to do with the

structure of social encounters and relations (*ibid*). Similarly, research into Native American groups also suggested that biological sex was not the sole component of an individual's gendered identity but elements such as vocation or personality were also considered (Jacobs *et al.* 1997). The result of studies such as these reinforced the idea that gender was a symbolic construction specific to the society in which it resides. Other ethnographies also demonstrated that gendered identities were not always binary with some groups containing multiple genders within their societies (e.g., Whitehead 1981; Hollimon 2000). Further ethnographic evidence also established that gender was not permanently fixed, and individuals could have different gendered identities throughout their lives (e.g., Balzer 1996).

The 1980s also saw the beginnings of feminist-inspired post-humanist literature. Haraway's (1985) essay '*a Cyborg Manifesto'* was highly influential in this. Post-humanism can be defined as a critique of humanist, idealist, and essentialist ways of understanding the world. In her essay, Haraway suggests that what is defined as a woman is a socially constructed concept and the result of patriarchal societies. She is also extremely critical of traditional feminism, suggesting it upholds socially constructed gender roles by assuming that all men are one way and women another and that feminism needs to move away from this essentialism (*ibid*). While not specifically about gender *per se* this essay was highly influential, along with postmodernist scholars such as Foucault (1978), in setting the tone for how gender would be further theorised in the 1990s and to the modern day. Gender was now perceived as an extremely abstract and variable concept which could be equated to other similar concepts such as personhood, identity, and morality (Di Leonardo 1991). What all these new theoretical approaches had in common was their critique of the essentialist models of gender, which existed and reinforced the modern Westernised male/female dichotomy.

A key individual who was immensely important to this new postmodern approach to gender was Butler, who herself was inspired by the previously mentioned works of Foucault on

biological sex, sexuality, and gendered identities. Butler (1993) was critical of the apparent dichotomy between gender, which was a socially created concept, and biological sex, a fixed concept existing externally from social and cultural factors. She believed that portraying the world based around two fixed biological sexes ignores what she dubs heteronormativity. This is best elaborated as the thought that heterosexuality is the normal, natural state of human societies when in fact, this has been historically constructed and is responsible for the creation of current society. She developed the concept of performativity to explore how relationships, identities, and, in particular, gendered identities, functioned. She proposed that an individual was not born into a specific identity but was instead moulded and formed into it through performativity, which itself is regulated by strict standards, rules, and stereotypes of what it means to be a certain gender (Butler 1990). Using this approach as a way of understanding how gender, biological sex, and sexuality functioned suggested that all were distinctive to specific times or places. This is because performativity and its consequential regulatory ideals are always defined by precise social and cultural elements from the society it inhabits.

Much more recently the gender-related concept of sexuality has come to the fore within the social sciences. In modern Western societies in which heterosexuality is regarded as the 'norm' there is a requirement for individuals to be separated and divided into the two gender categories of male and female, which then aids in validating and reinforcing the sexual desires of the opposite gender (Voss 2006). This means that individuals with differing genders and sexualities that diverge from heterosexuality are, in effect, othered. Butler (1990: Chapter One) entitles this as the heterosexual matrix. The matrix is maintained by expressing itself against the othered gendered identities and sexual practices and consequently relies on othering them for its continuation (Butler 1993). The issue with this is the dichotomy between what is natural and what is cultural. The assumption that the characteristics of being

male and female and that heterosexuality is the normal, natural state across time and space is problematic. What is regarded as natural in relation to gender and sexuality could, in fact, be defined and organised through cultural practices (Butler 1990: 7 – 12). Foucault (1978) suggests that the presupposition of sexuality existing as a conspicuous element of social interactions and identity may be a consequence of Western modernity. This paints a challenging picture if ideas such as these are to be applied to past societies. While sexuality is linked with both gender and biological sex, this can be extremely difficult to demonstrate in archaeological contexts.

2.2.3: Age

The concept of age, ageing, and the creation of age categories used as a taxonomy for identity is, like many other identity taxonomies, very much a product of the society it inhabits. In modern Western societies, rigid age categories tend to be placed upon individuals (e.g., child, teenager, young person, elderly person), yet these terms are culturally loaded, and common behaviours and norms tend to be placed upon individuals assigned to these groups (Lucy 2005). However, these categories and their associated expectations are not universal across time and space; they are formed culturally, are very much variable, and placing modern and Western ideas and understandings of age upon geographically and historically diverse societies can be problematic (Gilchrist 2007).

The concept of age being a variable factor within different societies is first discussed within the social sciences in the field of anthropology. Van Gennep's (1909) work on rites of passage showed that age and ageing were not just related to biological factors but also cultural ones, and further research by anthropologists such as Rattray (1932), Benedict

(1935a) and Mead (1943) demonstrated divergences in how specific age groups were organised within different societies. Later in the 20th century, historians began to discuss how the concept of age was diverse within different historical periods, beginning with Ariés (1962) and his study of children. Further historical research on different age groups, such as children (e.g., Shahar 1990; Hanawalt 1993; Cunningham 1995; Hendrick 1997); adolescents (e.g., Mitterauer 1992) and the elderly (Sheehan 1990; Shahar 1997; Cockayne 2003) have all also subsequently demonstrated this. Anthropological and sociological research has endeavoured to provide theoretical models showing how age groups are constituted and how this impacts societies (e.g., Amos & Harrell 1981; James *et al.* 1998). A considerable proportion of these studies focus on the nature of childhood and how children are entrenched within the societal structure (e.g., James 1993; Levine 1998) as well as the cultural construction of old age (e.g., Hockey & James 1993; Pilcher 1995). Combined, studies such as these have contributed to the development and creation of several theoretical models and frameworks designed to understand how age-based identities are formed, how they interact with other identity taxonomies, and how they fit within societies.

Age can be broken down into three types, chronological age, which is how long the individual has been alive from birth; physiological age, which is determined by growth, maturation and then the physical degradation of the body; and social age, which is a culmination of cultural constructs and behaviours which society sets out for a given age group (Ginn & Arber 1995). In modern Western society, much emphasis is placed upon an individual's chronological age with the social age of a person strongly built around it. For example, when an individual reaches 13, they become part of the teenager category and all the stereotypes, expectations and behaviours associated with that group are placed upon them. This strict adherence to chronological age is not always inevitable universally across cultures. If the medieval period is considered, then it could be argued that much more importance was

placed upon the physiological and social ages due to their direct relation to the ability to competently perform and function in specific roles within society (see Shahar 1997: 24). Physical work was likely a major factor for the survival of communities so an individual's chronological age would be deemed much less important than whether the individual was physiologically mature enough to complete certain tasks.

Both these examples have the common theme of linking a biological component of ageing, whether it be the chronological age or physiological age, with a social one, and this is a frequent occurrence in how age groups are constructed across temporally and geographically distinct societies. Physiological milestones such as walking, talking, or reaching sexual maturity are often seen as important markers for age-based identities. Biology and culture are also often intertwined with specific rites of passage, and these can be seen as just as important as the physical act of maturity (see Van Gennep 1909). Reaching these physiological targets can have major implications for individual identities and in many cultures, individuals are not considered to have full personhood and be complete and active members of the group until they have surpassed specific physiological age-related landmarks (Hollimon 2006). These ideas are well attested for in the ethnographic record, with several ethnographies demonstrating how reaching certain milestones can change the identity of an individual, whether it be from a nonadult transitioning to an adult or an adult transitioning from one age-based identity to another (e.g., Rattray 1932; Maschio 1994: 107; Marriott 1976: 131).

The fact that chronological and/or physiological ages are so linked with cultural ages across a plethora of different societies does suggest a certain level of cross-cultural homogeneity (Schildkrout 1978). However, it is crucial to remember that while biological milestones do seem to be an essential element of social/cultural age-based identities across all societies, the milestones themselves are incredibly varied both historically and geographically, and what

may be seen as an important biological event in one group could be equally disregarded by another (La Fontaine 1985). For instance, Aboriginal people in Australia see the first menstruation of a female as an important event, believing it represents the transition to womanhood. Following the onset of menarche, the individual in question would be taken to a purpose-built hut and female-only ritual practices are undertaken, as well as being presented with practical support from other women, followed by a ceremony in which the individual's new status as a woman is recognised and celebrated (Gross 2001). In this context, the biological milestone of menarche was responsible for an aspect of the social age and identity. Conversely, in the Roman world, menarche was thought to have little importance for social age identities, and marriage was believed to be the catalyst towards 'womanhood' (Gowland 2006). So, the Aboriginal people used a physiological milestone as the catalyst to achieve a specific age-based identity, but the Romans used a cultural one.

While there are some similarities between societies with regard to the relationship between biology and culture and how these are used to formulate life stages and associated age-based identities, it is crucial to remember that the cultural interpretations of the social attributes, behaviours and responsibilities surrounding different age groups will be highly variable between different societies (Myerhoff 1984). There are a multitude of examples of divergences between how societies interpret, enforce, and understand age groups can be recognised. If the ways in which age is formulated in modern Britain are used as an example, then it can be seen that childhood is culturally expected to be a time of dependence on others, having freedom from responsibilities and lacking autonomy (Ennew 1986). The dependency nonadult individuals require from adults directly affects their identity and personhood and marginalises them from society, with their activities and opinions often being viewed as unimportant (Sofaer Derevenski 1994). Conversely, adults are the opposite; they have full independence and autonomy, granting them full personhood and changing their identity

within the social structure. Nonadults must be socialised into adulthood by adults, which grants them moral superiority and authority over them, as they are setting out the protocols and expectations that a nonadult must adhere to and learn (Jenks 1982). The elderly age group and associated age-based identity is somewhat a regression to that of the nonadult one in that individuals from this group are judged to be more dependent on others and, being elderly is often portrayed to be a negative state which, as with nonadults, marginalises the group from wider society (Hockey & James 1993).

However, this model is not universal, and the ethnographic record can provide instances of societies where this differs. For example, nonadults from Hausa society in Nigeria have more freedom and autonomy than any other age group. While their roles are not crucial to the subsistence of the group, they are important for maintaining the social, cultural, and political focuses of the adult age group (Schildkrout 1978). The freedom afforded to nonadults is a result of the females in the society observing purdah, the religious-based screening of females from males and strangers. This means that nonadults are vital in things like making purchases of goods from other people and giving and receiving messages from others, things females could not do without seeing males or strangers (*ibid*). Interestingly, older nonadults are also involved in the care of younger nonadults, which again increases their standing within society and the power they hold. Another difference can be seen with regard to the elderly. The Hausa placed strong emphasis on the link between chronological age and experience and wisdom, which means that the elderly are afforded prominent levels of respect and obedience from younger age groups (*ibid*). This is opposite to the almost childlike way in which the elderly are viewed in Britain. These two examples really accentuate the idea of variation from culture to culture between how age-based identities are formed. While many societies will use similar ways to divide and structure their group based on age, an individual's age-based identity will very much depend upon the cultural sphere it is situated within.

2.2.4: Conclusion

This section has defined what identity is and highlighted its complexities. The ways in which identity has been approached and comprehended have seen much evolution over time, from the early 20th century when the focus was on the concept of selfhood and how this related to wider society through to postmodern considerations, which sought to demonstrate the fluidity of identities through deconstructionism. While all these different approaches to understanding identity ask divergent questions and tackle the subject in a variety of ways, some general similarities and themes can be observed. First, identities are made up of multiple parts, the sense of self, the personal or individual identity and the social, group or collective identity. Social identities are identities which attempt to situate the individual within the social sphere by allocating them within groups in which they share a sameness with other individuals and are usually placed upon the individual by external forces (Snow & Corrigall-Brown 2015). Personal identities are identities that are based upon the physical and mental attributes of the individual and are more directly created and controlled by the self of the individual (*ibid*). Both these types of identity are influenced by various identity taxonomies such as gender, age, class ethnicity and social status that a person may have.

Second, all the different identity types, as well as wider social, cultural, and political processes within society, are highly changeable and can all form, maintain, and change one another through interactive processes. Society can shape and alter an individual's identity but equally an individual can shape and alter society. Finally, in the case of the postmodernist models, identity can be fluid; it is not fixed and is in a constant state of flux. This means that over the life course, an individual could go through several versions of their identity, which will be highly dependent on other temporally distinct social, cultural, and political factors.

The implications of these different approaches to understanding identities for archaeology are vast. They provide a multitude of ways in which identity can be considered for past societies and they offer a detailed set of questions that can be posed to individuals found within archaeological contexts regarding how their identity may have been constructed, perceived, and maintained.

This section has also sought to define the identity taxonomies of gender and age. Like identity, the theoretical approaches to gender have been through much development from the 1970s through to the present day. Currently, gender is understood to be a complex and multifaceted concept that is culturally, temporally, and geographically distinct. With the large corpus of material from sociological, philosophical, and anthropological research now available along with a sizeable amount of ethnographic data, lots of systems of gender and gendered identities can be recognised and understood. This is particularly useful for archaeological research. Alternative gender systems recognised in other diverse cultural groups as well as different ways of looking at gender, can assist in devising archaeological interpretations on the concept. They provide multiple frameworks in which the archaeological materials available can be tested against and offer much more depth in attempting to understand systems of gender in the past.

Research about age and ageing has demonstrated that several elements need to be considered when attempting to interpret age-based identities. These include how societies organise their life courses and how they conceptualise and form age groups. The characteristics, behaviours and expectations of specific age groups need to be clarified along with how these are symbolised. A recognition of how age-based identities interact with other identity taxonomies also needs to be considered. Finally, an understanding of how the transitions between age groups function. Obviously, this is not always straightforward to achieve, especially with regard to archaeological contexts. While both the chronological and physiological ages of an

individual can be recognised with varying degrees of accuracy through osteological analysis, the cultural elements attached to these, and even more, the social age of an individual is much more challenging to determine. It is tied up within a complex cultural system of which little is known about or understood. Therefore, wider understandings of age and ageing must be fully considered when developing interpretations of age-based identities in the past.

2.3: Theoretical Approaches to Identity, Gender, and Age in Archaeology

2.3.1: Identity

In a similar vein to the understanding of identity within the social sciences, archaeological understandings of identity have gone through a plethora of changes from the early days of archaeological research through to the present day. This is especially true of funerary archaeology. Some of the earliest formulations of identities within archaeology come from the skeletal remains found at funerary sites, and these are heavily focused upon collective identities. Craniological studies by antiquarians in the 19th century were used to propose different 'races' of 'ancient man' based upon morphological differences between crania (e.g., Schaafhausen 1861; Davis & Thurnam 1865; Thurnam 1865; Thurnam 1867; Rolleston 1869; Rolleston 1876). For early understandings of past identities within Britain, research such as this led to suggestions of two differing groups being present. A long barrow building group, which had dolichocephalic crania and was believed to be chronologically older due to a lack of metal artefacts present within the sites; and a round barrow building group, thought to be

chronologically later and which had brachycephalic shaped crania (see Davis & Thurnam 1865).

This early grouping of past people into two distinct categories, each with its own unique monument types and physical and biological features, can be regarded as one of the earliest attempts to recognise identities in the past. There were other similar assertions developed through the study of crania in the wider European region, such as in Germany (Schaafhausen 1861) and France (Thurnam 1865) which again were heavily focussed on group identities. The preference for theorising group identities may be expected due to the cultural, social, and intellectual environment these early studies inhabited. As demonstrated in the previous section, identity as a research theme, and as it is understood today, did not come to the fore until the mid-20th century. That is not to say that aspects of individual identities were not theorised by early archaeologists. For example, several researchers (e.g., Thurnam 1869; Jewitt 1870; Greenwell 1877) suggested that centrally interred males found within barrows were local chiefs, and the other accompanying individuals within the monuments were wives, children, or slaves. These presumptions would not be made today without any concrete evidence to substantiate the interpretation, but in the male-dominated society of the 19th century, this was deemed to be the most likely scenario. While suggestions such as these were quite generalised and placed contemporary expectations upon the past, they do demonstrate that individuals were considered during the infancy of archaeology.

Moving into the first half of the 20th century, ideas surrounding past identities were still heavily focused on collective or group identities. The typology of artefacts began to play a significant role in ascertaining distinct groups in the past, with archaeologists such as Childe (1925) and Piggott (1954) suggesting different cultures used distinctive styles of artefact. This was very evident in studies of British prehistoric ceramics. For example, several differing styles of Neolithic pottery were identified, such as the Windmill Hill Ware,

Peterborough Ware and Grooved Ware (see Childe 1931; Piggott 1931; Warren *et al.* 1936). Piggott (1954) later suggested that these divergent pottery styles represented different secondary groups within the British Neolithic. Similarly, Childe (1925) suggested that the arrival of beaker pottery in Britain denoted the appearance of a new group and culture from the wider European area. These examples had a major effect on how identities in the past were understood. While in the previous century, individuals were simply divided into two groups based on monument type, cranial features, or artefact material (e.g., stone or metal), greater recognition of the stylistic differences between artefacts meant that these groups could be further subdivided into smaller, more distinct groups. This allowed a more nuanced understanding of past identities to be formulated.

Individual identities and identity taxonomies were also considered within archaeological research during the first half of the 20th century. However, many of these ideas were simplistic and would now be considered outdated. For example, crudely made Middle Neolithic pottery in Britain was expected to be made by females as it was assumed that they would be less skilled as potters than males (see Hawkes & Hawkes 1943: 66). There was no factual basis for this statement, and there was no way that the declaration could be proved or disproved, it was merely reflective of the mindset at the time. In the context of funerary archaeology, the sub-dividing of groups into distinct cultures led to suggestions of individuals having different ethnicities mirroring the earlier antiquarian formulations of different races. New suggestions on the rank and status of individuals were also instigated. Immense importance began to be emphasised upon valuable or prestige items, and in the context of funerary assemblages, high-status goods were linked directly to the individual they were interred with, which initiated elucidations of status and rank upon deceased individuals (Díaz-Andreu & Lucy 2005). High-status goods were almost always considered to be

'masculine' (e.g., weapons) and items considered feminine or that were associated with nonadults tended to be disregarded (*ibid*).

While interpretations of identities did increase in complexity during the first half of the 20th century, researchers continued to hold some of the same assumptions when attempting to understand and interpret archaeological materials as the earlier antiquarian ones did. Many hypotheses were still quite simplistic and were heavily influenced by the social and cultural norms of their contemporary society. It is not until the second half of the century that identities particularly individual identities, and their associated taxonomies, are really tackled. An important part of this was the increasing use of analogy as a tool for interpretation. The use of analogy can be traced back as early as the 19th century, such as Beddoe (1850) drawing on the similarities between Stoney Littleton chambered tomb in Somerset and tombs in India. From the 1950s onwards, analogy quickly became a key component in the development of new archaeological interpretations. The increase in the usage of analogy prompted much discussion, with various individuals holding both positive and negative viewpoints for its adoption within archaeological research (e.g., Hawkes 1954: 162; Childe 1958: 4; Ucko 1969). Regardless of how certain individuals viewed the use of analogy, it was not going away and became one of the driving forces behind the new archaeological approaches of the 1960s and 1970s known as processual archaeology. Processual archaeology played a crucial role in developing theoretical understandings of identities in the past. Processual archaeologists aimed to take a more scientific and positivist approach to the field and borrowed from new anthropological methods, particularly cognitive anthropology (e.g., Tyler 1969). Processual research relied heavily upon analogies and using a range of anthropologically recorded modern-day and recent historical societies which would provide structuralist and functionalist interpretations of past societies. This culminated in Binford developing his middle range theory (see Binford 1983: 19 – 31), which sought to

use observable practices in the modern day as analogies for patterns that could be seen in the archaeological record.

For funerary archaeology and considerations of identity, processual archaeology had a profound effect on how they were approached. Greatly inspired by anthropologists such as Goodenough (1969), who theorised that identities were social roles people performed, the early 1970s saw two highly influential pieces of research be released, those of Saxe's (1970) '*Social dimensions of mortuary practices'* and Binford's (1971) '*Mortuary practices: their study and their potential*'. Both these research projects consisted of cross-cultural studies of burial practices from ethnographically documented hunter-gatherers, pastoralists and settled and shifting agriculturalists and aimed to demonstrate that how deceased individuals were buried reflected their identity in life. Binford (1971) called this phenomenon the social persona. Both Saxe (1970) and Binford (1971) tested the trends established from the ethnographic data directly against funerary contexts in the archaeological record. The results of the research established that the more complex a society is, the more complex the funerary rites afforded to the deceased are, and identity taxonomies such as biological sex, age, status, etc., who an individual was in life, directly affected the funerary treatment they received. Further studies built upon these ideas that both substantiate and develop the findings (e.g., Tainter 1975; 1977; Goldstein 1976). Most, however, came to the same conclusions in that what was seen in the burial record reflected society and the identity of the individual in life.

As approaches to archaeological theory in the late 1970s and early 1980s evolved into what would eventually become known as the post-processual period, earlier research such as that of Binford and Saxe came under increasing scrutiny from both anthropologists and archaeologists who felt that the functionalist framework in which they placed themselves was merely a simplification of burial practices (e.g. Hodder 1982a; Pader 1982; Huntington & Metcalfe 1991: 16 – 19). In this regard, it was increasingly thought that the positivist

processual approach of generating hypotheses for funerary contexts, which endeavoured to find common elements and relationships between material remains and their social meanings, provided little more than generalisations. Whereas processual approaches suggested that funerary practices mirrored the social identity of the deceased in life, the new and emerging post-processual viewpoint considered other social, cultural and/or political elements that may have been at play (Parker Pearson 2001: 32). When attempting to understand identities in the past, archaeologists became increasingly influenced by the work of Bourdieu (1977) and Giddens (1979; 1984) who placed a greater emphasis on the relationships between individuals, societies and identities, and this saw a shift in how identity as a concept was approached within archaeological research. Barrett (1988) was an early advocate for these changes to archaeological theory and suggested that rather than viewing archaeological remains as a straightforward reflection of the past, they should instead be viewed as remnants of past material conditions that were ordered and controlled by past social practices.

One early post-processual study that really emphasised how funerary treatment was not a mirror image of an individual's identity and status in life was that of Parker Pearson's (1982) research of recent historical British burial customs. It was found that in the early 19th century rich and high-status individuals would have elaborate and expensive funerals as opposed to the poorer, low-status individuals who were interred simply and inexpensively. However, this changed drastically within around a century with the rich and high-status individuals opting for cheaper and more modest funerals and monuments and low-status, poorer and marginalised groups such as the traveller community having more expensive and elaborate ones (*ibid*). It is argued that the reasoning for this inversion in funerary behaviour is because the lower-status individuals had begun to emulate the expensive funerals of the high-status ones, which, in turn, made the high-status individuals begin to view expensive funerals as crass and in poor taste (see Cannon 1989). Basically, the high-status group were so

determined not to be associated with the lower-status one that they reversed their funerary practices.

This research was incredibly important in developing new understandings of how key elements of identity, such as status and rank within society, could be communicated through funerary practices and demonstrated the complete opposite of what was suggested in processual studies such as those of Saxe (1970) and Binford (1971). While it must be considered that other periods of British history and prehistory were very different to that of the recent historical ones, this research provided a new framework in which interpretations could be formulated and demonstrated that it should not be taken for granted that a rich burial automatically means the deceased individual is of high status. It established that funerary behaviour was highly dependent on other elements, with the living manipulating the mortuary practices and funerary rites to convey and communicate specific cultural, social and/or political messages which are temporally situational, and this had a huge effect on how identities were interpreted and understood in future research. It also echoed the sentiments suggested in other fields regarding identity and how it interacts with society. In this case, the identities being presented through funerary practices by both the higher- and lower-status groups were influenced by situational social factors resulting in them wanting to portray specific meanings and communicate these to the living.

The post-processual period also saw a rise in research addressing the role of individual identities and their associated taxonomies. For example, in the late 1970s, ethnicity also began to be investigated. Initial research in this area critiqued the previous earlier 20th century ideas surrounding cultures based on artefact distribution. Using approaches derived from anthropology (e.g., Barth 1969), ethnicity began to be considered as not tied to boundaries set by archaeological interpretations but instead a self-attributed concept (see Hodder 1978; Shennan 1978). Hodder's (1982a) seminal volume '*Symbols in Action*' continued and built

upon these ideas of ethnicity. Through ethnographic research, it was suggested that material culture was an active element in creating social relationships and that the context in which material items are interacted with gives them meaning. Hodder (*ibid*: 185) suggested that cultural similarity is dependent upon how groups interact, use, and manipulate material culture. So, while material culture may be similar in the archaeological record, it is not a given that the groups using it belong to the same ethnic group, as the context in which it was used may be entirely different. For funerary contexts, this meant a deeper consideration of the symbolic meanings of funerary practices and accompanying material culture, and an understanding of past beliefs was needed to interpret identity taxonomies such as ethnicity properly.

These new explorations of identity taxonomies were extremely important in the development of theoretical models for the understanding of past identities. However, during these initial stages of the post-processual period, taxonomies tended to be studied separately and this was problematic. As demonstrated in the first half of this chapter, identity taxonomies are highly interactional with one another, and they can both be influenced by and have an influence on the society in which they reside. Therefore, while looking at them in isolation has a certain degree of usefulness, it is only by considering them alongside other taxonomies that you get a good reflection of their nature, and much early post-processual research failed to deliberate this. However, attempts were made to rectify this issue in the following years (e.g., Treherne 1995).

By the 1990s and moving into the 21st century, archaeological understandings of identity began to become firmly aligned with the post-modernist concepts of identity, deconstruction, and fluidity discussed in the first half of this chapter. Past identities were no longer viewed as simple constructions that could be easily read through archaeological investigations but were instead seen as multifaceted, active, and intensely diverse (Gosselain 2000). Meskell (2007)

was a big proponent of this approach. She proposed that to progress with the understanding of identities in the past, there needs to be a deconstruction of 'identity domains,' which are viewed as the 'natural' through a modern lens (*ibid*). This is demonstrated through a study of iconography found at ancient Egyptian sites that appear to overlap and blur the lines between various aspects of identity and society, such as age, sexuality, biological sex, ritual, and social life. The research emphasises that what may be seen as 'natural' or the 'normal state' in areas such as kinship and sexuality can have many divergent meanings in different societies, and it is only by deconstructing them that one can understand how they worked and were maintained (*ibid:* 34). For funerary practices this is demonstrated by the fact that the type of mortuary practices individuals received within ancient Egypt were not dependent upon singular identity elements but were changeable both geographically and temporally which suggests that identity taxonomies were blurred and fluid with one another and all responsible in some part to the individual's identity.

While the body itself was used as early as the 19th century to imply identities (e.g., craniology) during the post-processual period, this also underwent a significant change, which would alter how identities were acknowledged through the study of skeletal remains. For example, Shanks & Tilley (1982) suggested that the body was a physical metaphor for society, acting as a small cog in a much larger social machine. Similarly, Barrett (1994) also saw the body as a social entity having strong ties to the landscape and an important part of how monuments were experienced through their spatial arrangement. While these conclusions were reached through the study of individual bodies, in some respects the research saw a move back to establishing group identities in archaeological interpretations. Foucault was also influential in developing innovative ideas regarding the body and its wider social and cultural implications, with Thomas (1989), for example, proposing that ideas of control and power are active agents visually represented through the placement and portrayal

of it. However, some were critical of these new approaches to understanding the body. Anderson (1995) suggests that Foucault's recommendations of power being etched upon bodies through discursive regulation can belittle the active physical body, downgrading and making it just an object of representation. In other words, overemphasising the symbolic nature of the body leads to the corporeality of it being neglected when both parts can be contributing factors to identity. Meskell (1996) was critical of these innovative approaches. She instead suggested that bodies were sites of interface, interaction, and resolution between biological, cultural, and personal elements.

The concept of relational identities, in particular relational personhood discussed in the first half of this chapter, also began to enter archaeological discourse during the late 1990s and early 2000s. The idea of relational personhood became of particular interest to prehistoric archaeologists, and many began to apply it to European prehistoric contexts (e.g., Busby 1997; Brück 2001; Fowler 2001; Gillespie 2001). Chapman (2000) developed the enchainment theory which focused on fragmented objects during the Neolithic period in Eastern Europe. He proposed that the objects were broken in a deliberate and specific manner, which allowed others to retrieve and take parts of the object. This would essentially be a relationship-forming exercise with the giver of the object, the object itself and the recipients of the object all going through a process of transformation by entering and exiting out of new and old relationships and thus changing part of their personhood. Many of these studies would use Melanesia and the work of Strathern (1988) as an analogy to base their hypotheses on. This led to criticism by some and was deemed to be problematic. Archaeologists such as Jones (2005) and Spriggs (2008) warned that European prehistory may begin to look like Melanesia if overused as an analogue.

Another much more recent approach to identity within archaeological theory can be found in post-humanism. Post-humanism is an umbrella term for many innovative approaches to

archaeology. It seeks to critique its reliance on humanism, idealism and overemphasis on representations or meanings for the material world (Harris 2016). Humanism places human beings separate and above all other things in the world (Thomas 2002) and the creation of this dichotomy, nature, and culture, can be problematic when trying to understand processes in the past. Humans and the rest of the world are not separate entities; they reside together, so focussing solely on humans and not the rest of the world means that fully understanding historical developments is prevented (Robb & Harris 2013). For identities in the past, this can have major implications on how they are interpreted. The focus on culture and nature is a modern Western formulation, and as such, is not always applicable across time and space. Ideas surrounding the individual, agency, and identities being socially constructed are all loaded with modern dogma and applying them to the past is an act of essentialism (Harris 2016). Also, by making other things in the world secondary with regards to how identities are formed, transforms them into inert entities that have no cultural power and agency, therefore, does not consider that identities are formed from relations with all things (*ibid*).

For archaeology, interpretations based on idealism place human understandings of the material world, such as its symbolic meaning, above the actual physical character of the object, place, or thing (see Jones 2012). For investigations on past identities, this has meant that the concepts of identity have been much more researched. While these lines of enquiry are undeniably useful and have allowed much progress to be made in understanding past identities, the issue is that too much emphasis is placed upon trying to work out what people were thinking instead of tracking physical relationships people may have had with things that would influence their identity (Olsen *et al.* 2012). Several academics have pointed out that the influence that both humanism and idealism have had on archaeology has changed the way things are understood, rather than being considered material things they are instead viewed as representations of concepts (e.g., Olsen 2010; Jones 2012; Olsen *et al.* 2012). This means that

the object or thing is not the focus, rather its meaning or what it represents is the focus. However, this is disingenuous as the sole role of objects and things is not to represent something, they act, engage, perform, reveal, disclose, and transform and affect the world around them (Harris 2016). For identities, this suggests that they are consequences of multiple relationships between humans and other material things in the world. While critical of idealism and humanism, post-humanist approaches do not wish to remove them from archaeological theory as they are incredibly useful. However, what they wish to do is place a greater recognition of other elements in the world, such as animals and objects and their contributing factor in the construction of identities as well as demonstrate that things may have deeper meanings, but they are also active and interactive parts of human existence.

In his paper on post-humanism, Harris (2016) suggests that human identity is best viewed as an assemblage, with aspects from both the human and material worlds accumulated and emerging together as an ongoing process of development. In short, identity should not be viewed as static and representational but instead as an ongoing accretion. He applies this approach to the British Bronze Age Amesbury Archer burial. Much has been made regarding what the rich assemblage of grave goods (see Fig. 2.2) represents, with aspects of status, rank, ethnicity, and gender all considered (see Fitzpatrick 2011). However, Harris (2016) approaches each aspect with a post-humanist approach. For example, he suggests that the arrows and body, when viewed together, create an enactment of archery and by extension echo scenes of hunting, wounding, and killing. So rather than viewing the arrows and body separately and simply ascribing the terms hunter or warrior to the individual, they are viewed together as a single connected entity that recognises the material world's vital role in this aspect of identity (*ibid:* 29).

For the other items, which can be described as prestige items, a simplified interpretation would state they represent status. However, it is instead suggested that they create the status.

The diverse materials and provenance of the items, as well as the skill needed to create and maintain them, generate an interweaving of material, person, skill, and performance which all contribute to the creation of the deceased's identity. Another consideration put forward is the individual's body itself. Missing a right patella (see McKinley 2011) would have changed the way the deceased moved and thus interacted with the world which would have been a component of his identity. When viewed together as one entity rather than separate ones in the humanist and idealist traditions, the identity of the deceased becomes much more complex and takes on new meanings. No longer does material placed within graves or tombs have to have specific separate meanings and represent specific aspects of identity but can be a small part of a much larger, fluid, and ongoing process of identity formation and maintenance.

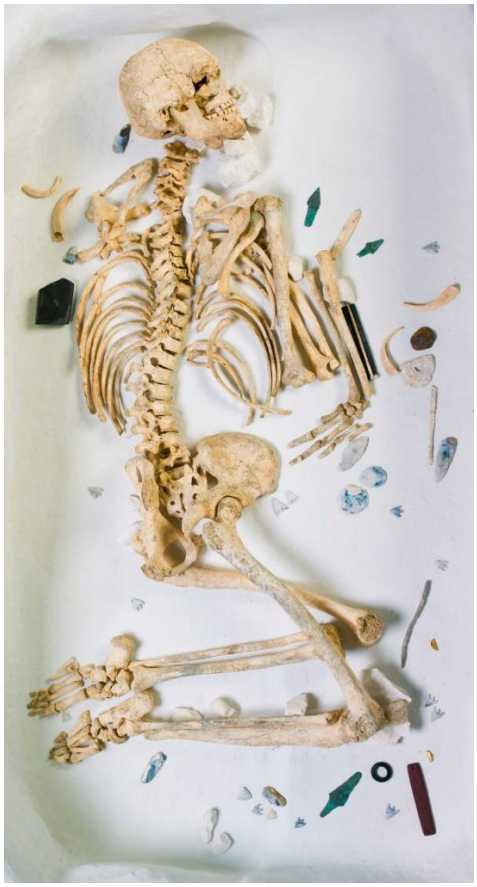

Figure 2.2 Amesbury archer with accompanying grave goods (https://www.wessexmuseums.org.uk/collections-showcase/amesbury-archer).

2.3.2: Gender

Similarly, to anthropology and other fields within the social sciences, archaeology also suffered from a male bias in the earlier parts of the 20th century. This was manifested in both the archaeologists themselves, who were largely male, and through the interpretations they made about past societies. For the female archaeologists of the 1960s and 1970s funding was denied to them for large archaeological projects, and they were instead reduced to completing much smaller projects such as pottery analysis or, as Gero (1985) suggests, 'archaeological housework'. Social structuring and expectations of femininity were responsible for the environment in which they found themselves. The expectation that a female would get married and have children meant that they were encouraged to do archaeological housework, as it was deemed that they would not be able to run large projects in the future once this happened. However, feminist movements, literature, and activism in the 1970s were highly influential in changing this, and a change in attitudes towards females within the discipline was demanded and suggestions of what needed to be improved upon were proposed (Sørensen 2000: 17).

The fight for equality within the discipline also led to changes in how interpretations of past societies were formulated. The interpretations of past societies at the time experienced strong male bias, situating people in the past in male-dominated worlds with males being the active members of society responsible for forging and maintaining the social structures and females being the passive members in the background (Harris & Cipolla 2017: 54). Looking at this retrospectively it is obvious to recognise how interpretations would suffer due to this, as it effectively erases half the population. Inspired by works in other fields, the early 1980s saw archaeologists counteract these approaches, begin to place women in their proper contexts

and explore gender much more in the past. With the release of Conkey & Spector's (1984) seminal '*Archaeology and the Study of Gender*,' the potential for gender studies within the discipline began to be realised, and new ways of examining the past began to be developed. Initially, research would focus on women and gender, but it was soon realised that femininity could not be understood without also recognising masculinity (Díaz-Andreu 2005). The new archaeology of gender analysed the diverse ways male and female identities were formulated in the past while also trying to distance gendered identities from biological determinism (Robb & Harris 2018). Funerary contexts began to be crucial in this regard and newly developed ideas surrounding gender and gendered material culture began to be recognised and used to infer gender in the past (Parker Pearson 2001: 105). This was not merely confined to material culture however, the assessment of skeletal remains and the divergences demonstrated between biological males and females was also used to propose differing gender roles in the past. For example, Cohen & Bennett (1993) suggested that differing levels of severity of degenerative arthritis between males and females from prehistoric assemblages could be interpreted to mean that opposing labour pursuits were undertaken and thus differing gender roles were present.

Later archaeological work in the late 1990s through to the modern day on gender began to become heavily inspired by postmodernist literature, and in particular, Butler's (1990; 1993) work became highly influential. An excellent example of this is Joyce's (2000) research on the production and materiality of gender in Mesoamerica. Historical ethnographic data from groups linked with those found within archaeological contexts demonstrated that children were progressively formed into their gendered adult identities, which included a male, female and third gender, through the introduction of different clothing and jewellery, body modifications, specific hairstyles and being taught to move in specific ways. Thus, they were being taught how to perform their gendered identity and to recognise their own regulatory

ideals. Using the ideas of Butler (1993) and the ethnographic data, new interpretations were able to be formed regarding the archaeological material culture from the region. For instance, items such as jewellery were able to be recognised as gendered items used for the formation and reinforcement of gendered identities. Many sites produced highly detailed figurines which presented an array of differing dress and hairstyles, and these were able to be categorised, and it was determined that they each represented differing age groupings and distinct parts of a child's transition into their gendered identity.

2.3.3: Age

An archaeology of age is a recent phenomenon within archaeological research. Much like gender has historically suffered from androcentrism, which has skewed interpretations of the past, age has also previously been interpreted with modern Western biases. Archaeologists seemed reluctant to recognise the variety of age groups present within past populations, particularly the young and the old, which has resulted in the past being populated, more or less, entirely by adults (Lucy 2005). This is problematic when trying to comprehend how societies functioned historically as it disregards a large section of the population. In the last 20 to 30 years, archaeologists have begun to consider age much more within their research and at present, there is a plethora of literature on age-related topics such as nonadults and childhood and, but much less so, on adult age groups (e.g., Sofaer Derevenski 1994; 2000; Moore & Scott 1997; Lucy 2005; Welinder 2001; Gowland 2006; Appleby 2010; Coşkunsu 2015; Appleby 2018).

2.3.3.1: Nonadults

A major issue encountered in identifying and interpreting age groups within the archaeological record is their lack of visibility. This has particularly been the case with nonadult individuals. One of the best ways of recognising age groups within the archaeological record is through the study of human remains within funerary contexts. However, nonadults are often underrepresented at many funerary sites, which complicates this. There are many explanations for the lack of nonadult individuals within funerary assemblages. In practical terms, it could be merely due to preservation issues, with smaller,

and more fragile nonadult bones less likely to survive in certain conditions. Skill levels of excavators must also be considered, it may be that their surviving skeletal material is disregarded or missed during excavation. Another explanation is that nonadult individuals may have had completely different mortuary treatment from adult individuals and are therefore not present within the same funerary contexts. This is documented within both the ethnographic and archaeological records (e.g., Hertz 1907; Gowland 2001; Chapa 2003: 119 – 121; Finlay 2000).

If this is the case, then it could be argued that the lack of nonadults within the funerary population is beneficial to interpretations of age-based identities. Differing mortuary treatment between adults and nonadults demonstrates a clear divergence between the two groups. This suggests that an individual's age directly contributed to their mortuary treatment, which holds implications for age-based identities. For example, the Ashanti in Ghana have specific physiological age-based milestones which dictate the degree of personhood they have, with individuals not reaching these milestones are not considered full persons (Rattray 1932). This also affects their funerary behaviour, with the individuals yet to achieve full personhood undergoing differential funerary treatment to the rest of the population who have (*ibid*). So, in an archaeological context, divergent mortuary practices between different age groups, such as adults and nonadults, could be representative of similar systems being in place, which, in turn, demonstrates crucial information about the age-based identities present.

As well as through funerary contexts, nonadults have also been recognised in the past through material culture evidence such as a child's sandal uncovered from a Roman context in London (Finlay 1997). There have also been smaller versions of everyday items found on many temporally and geographically distinct sites (e.g., Medieval contexts in Bergen – Lillehammer 1989). These have often been labelled toys, a name that many have pointed out

is not always helpful (see Sofaer Derevenski 1994). Lillehammer (1989) suggests that calling small items toys may, in fact, reflect modern biases within interpretations about children and childhood and that the items themselves may be fully functioning 'real' items, just designed for smaller individuals. It has been suggested that items such as these may be crucial elements in forming roles and identities (Sofaer Derevenski 2000). By using these items, nonadults could be effectively learning how to be an adult, which has implications for the social construction of age-based identities. This has been proven to be the case in the ethnoarchaeological research carried out by Park (1998) in which he was able to show that small artefacts taken from archaeological Inuit contexts initially thought to be ritualistic and associated with shamans were, in fact, smaller items used by nonadults learning how to be adults.

As well as being recognised through material culture used by nonadults, nonadult individuals have also been acknowledged in the production of material culture. For example, nonadult tooth impressions were found upon a piece of Mesolithic resin in Norway (Finlay 1997) and nonadult fingerprints have been found on ceramics (e.g., Kamp *et al.* 1999). Instances such as these could again suggest that some nonadults are being taught certain roles and identities within society and guided into maturation and the next phase of the ageing process. This is attested to in the ethnographic record with regards to ceramics, with nonadults sharing work with their adult counterparts, completing tasks of increasing difficulty as their skill level and proficiency improve, thus being trained and moulded into the adult role and identity of a potter (see Crown 2007).

While nonadult bodies may not always be physically visible within the archaeological record, their identities and social roles can be interpreted through other means. However, regardless of these new advances in the acknowledgement of nonadults in the past, adults are still overwhelmingly viewed as the primary age group within past societies. This does diminish

the importance of nonadults within social groups, as well as unifying the adult age group into one form of identity when adults go through many different stages of ageing and age-based identities. There is a multitude of ethnographic evidence that demonstrates that nonadults can be an important economic factor within certain social groups (e.g., Draper 1975; Friedl 1975; Hockey & James 1993). Nonadults being economically active members of society has also been suggested for archaeological contexts such as nonadults in Neolithic Iberia who, it is suggested, may have been of equal rank to their adult counterparts (see Waterman & Thomas 2011).

2.3.3.2: Adults

Considering adults are viewed as the primary actors in the past, there is little research regarding adulthood itself as well as specific adult age groups. One reason for this could be the presumption that individuals died younger in the past and therefore research on older age groups was not worth doing. While it is true that average mortality rates were lower in the past, this is largely due to high rates of childhood mortality rather than adults dying younger; if childhood were survived, then there was every chance an individual could reach an advanced age (see Laslett 1995). Another major contributing factor as to why older adult age groups are disregarded is the ability to recognise them through osteological analysis. The age determination of a skeleton is part of standard procedures within the osteological examination and, overall, is thought to be relatively accurate (see Ubelaker & Khosrowshahi 2019). However, the ages of older individuals are frequently underestimated, rendering them invisible and forgotten when it comes to interpretations (Gilchrist 2007). This was highlighted during the analysis of the Post-Medieval burial site of Spitalfields, London. Many

of the coffins at this site included nameplates which meant individuals could be found within the substantial surviving burial records and detailed information such as age at death was known. As an experiment, osteologists were tasked with ageing the skeletons without viewing the records. The results demonstrated widespread under-ageing of individuals, with some being aged up to 20 years younger than they were (Molleson & Cox 1993). This highlights the inconsistency that could be present with the ageing of skeletons. There may be many older individuals present within archaeological assemblages, but they have been under-aged during the examination.

There has been a minimal amount of research on specific adult age groups over recent years. For example, Gowland (2006), in her analysis of Anglo-Saxon burials, found that older adults had a reduced amount of grave goods compared to younger adults. Interestingly grave goods also were gendered with distinct types of artefacts associated with males and females, which links back to the ideas of interconnected identity taxonomies proposed at the beginning of this chapter. In recent years Welinder (2001) and Appleby (2010; 2018) have attempted to generate approaches for an archaeology of old age. One way in which they did this was to consider the processes the body goes through with ageing and acknowledge the relationships between continuity and decline that the body undergoes. Appleby (2018) suggests four elements that can be assessed to recognise these factors in the funerary record. Changes ageing may have on appearance, changes ageing has on bodily function, age-based diseases (e.g., degenerative joint changes) and changes the ageing process may have on skillset and proficiency. All these factors are interconnected and can be interpreted from the osteological analysis of skeletal remains, thus rejecting the idea of the elderly being archaeologically invisible and presenting an innovative approach for future analyses to follow (*ibid*).

2.3.4: Conclusion

How identities have been understood within archaeology has gone through many changes from the early days of the discipline through to the present day. Initially, identities were focused upon the recognition of different 'races' in the 19th century, followed by distinct cultures in the earlier parts of the 20th century. With the emergence of the processual period of archaeology the way in which past identities were approached and formulated altered. For funerary archaeology, it was now thought that how individuals were buried reflected their identity in life. When the post-processual period arrived, new theoretical models were developed, and identity began to be explored in much more depth. Burials in the funerary record were no longer seen as mirror images of life but instead as symbolic representations of specific parts of identity. It is also during this period that identity taxonomies begin to be explored much more, and it is now understood that these should not be viewed as separate isolated entities but elements of identity that are fluid, interacting and building upon one another. More recent work has attempted to scale back the ideas of symbolic representation as well as humanist and idealist approaches often found in post-processual literature and endeavoured to use new ontological approaches in how identity is constructed. That is not to say that these elements have been totally rejected. Instead, they are viewed as part of a larger mechanism of identity construction that is ever-changing and ongoing.

Gender is a key element of archaeological theory with a multitude of literature surrounding it. Archaeologically, gender can often be difficult to recognise, with direct evidence from the archaeological record being obscure, however, not considering it at all would be irresponsible (Díaz-Andreu 2005). The first half of this chapter demonstrated that gender is a key component of identity and one on which most societies place significant importance. It can

also reveal crucial information regarding a society's wider social and cultural elements. Therefore, attempting to understand gender and the gendered identities of individuals in the past will also allow further comprehension of the society in which the individual resides to be made. It is also crucial to remember that the study of gender is not just the study of women in the past. To fully understand gender, all types of gendered identities need to be assessed as they all work together in conjunction. It is also vital to remember that while a sizeable proportion of societies do appear to have a binary system of gender, which is not the case in all societies, and groups in the past may very well have had multiple gendered or gender-fluid identities. Overall, the understanding of gender has made much progress within archaeology over the past 25 years or so, and it is now at a point in which interesting and meaningful assertions surrounding gendered identities in the past can be made using a variety of theoretical approaches to generate interpretations.

While the acknowledgement of age, ageing and age-based identities is a recent phenomenon in archaeology, it has already made tremendous progress over the past 20 years or so. It is now established that age, ageing and age-based identities are culturally, socially, and geographically unique within the archaeological record. While skeletal evidence does seem to be the best source of information surrounding age and age groups, various research has shown that material culture can also be a good indicator of divergent age groups and age-based identities being present. Also, in the case of nonadults, their lack of visibility may be an indicator of differential mortuary treatments present, and their age being a crucial element of their identity. The recent work by Appleby exhibits the need to take more than one factor into account when interpreting age for archaeological contexts. It is not enough to simply give the individual an arbitrary age-at-death number. Other factors should also be considered, such as health and how these may affect the individual on both a physiological and social age basis. A multifaceted approach should be undertaken to gain the most information possible

about age, ageing, and age-based identities. The age of the skeleton is only one aspect of the individual's age-based social identity; many other factors are also just as crucial, such as accompanying material culture, health, and funerary practices.

2.4: Conclusion

This chapter has demonstrated the complex and multifaceted nature of identity. It has presented an overview of the evolution of the theoretical approaches used for understanding identity both within the social sciences and, more specifically, within archaeology. It has shown that to fully comprehend identity, two key elements must be considered. First, identity itself is composed of multiple parts, often a personal or individual identity along with a collective, group or social identity, with these also being constituted of several other taxonomies that are all interactive with one another. Second, it is crucial to recognise that identities are very much socially constructed and are situated within the social, cultural, and political framework they inhabit. Paradoxically, however, identities have the power to change and influence these spheres and thus transform the structures in which they exist. These ideas have influenced archaeology and led to a recognition within the discipline of how varied identities may have been in the past. It has become increasingly crucial for interpretative models of identity to endeavour to move away from modern Western biases of how identity is formed and maintained and instead deconstruct past identities so that alternative viewpoints on what is ‘normal’ or ‘natural’ can be acquired.

Much like identity as a whole, both gendered and age-based identities are also intricate and multidimensional. For gender, the disentangling of biological sex with gendered identities has been crucial in recognising this. Gender is a culturally constructed taxonomy of identity

which is tied up within social, cultural, and political systems. Gendered identities are learned behaviours created and maintained within these frameworks. Gender is also not a simple binary split based upon biological sex, there can be a multitude of gendered identities depending on the society. For age and ageing, these complexities are highlighted through the recognition of the diverse types of age, chronological, physiological, and social. The acknowledgement that these three types of ageing are geographically, culturally, and temporally distinct has been a crucial element in understanding how age affects an identity. While there are obvious links between biological aspects of age and ageing with socially constructed age-based identities across all cultures, these themselves are incredibly divergent. One biological marker could signify completely different things between differing groups; likewise, one socially constructed marker could do the same. For archaeology, these inferences have played an enormous influence on how age and gender have been theorised in past societies. Age and gender, as well as other identity taxonomies, are now understood to be part of a wider dynamic, fluctuating and fluid social framework that creates, maintains, and evolves identities over time, with taxonomies complimenting and working in conjunction with one another, and this is reflected in the most recent theoretical models.

The one constant within all the various approaches to identity, age and gender is the importance wider society has upon it. The social, cultural, and political systems in place within a society are all crucial in both setting out the rules and regulations in which identities and taxonomies can be formed and in how they can be maintained and evolved. This is a key concept to consider for archaeological understandings. A vital element of archaeological research is attempting to comprehend how past societies work. This is not always straightforward, as the archaeological record usually only presents a limited amount of material to work with. However, this is where a greater understanding of identities could be crucial. Since identities are formed and operate within the rules that society dictates, then

furthering the knowledge of them will by extension, allow more inferences to be made about the society itself, and more information about past societies will lead to a greater understanding of identities. This reciprocal relationship of interpretations can be fundamental in future archaeological research on not only identity but of past societies themselves.

3: Death, Burial, and Identity in Neolithic Britain

3.1: Introduction

This chapter will now shift focus onto the British Neolithic. The chapter will begin by summarising the funerary rites individuals received during the period. This will include both assessments of how bodies were treated after death and what types of sites individuals were being deposited at. The key interpretations formulated from previous research on the British Neolithic funerary archaeology will also be critically analysed. This will place the British Neolithic funerary record in its current context and demonstrate what data the present research must work with. Next, it will look more specifically at identity, gender, and age in the Neolithic of Britain. It will critically assess what identity-based theoretical models have been proposed for the period and highlight their strengths and weaknesses.

With both the present state of the British Neolithic funerary record and how it has been interpreted in relation to identity being ascertained, the concluding section of the chapter will aim to reinforce where the gaps in knowledge are for identity in the Neolithic of Britain are and propose how this research will rectify this. It will demonstrate that while much research has improved understandings of identity within the period and suggested innovative approaches to comprehending it, much of this is firmly in relation to group identities. It will also show that identity taxonomies, such as gender and age, are extremely understudied and not considered much at all. As the previous chapter demonstrated, research into individual identities and identity taxonomies is invaluable in recognising wider social, cultural, and political factors within societies. Therefore, new information within this area for Neolithic

Britain could be crucial in furthering knowledge of wider social, cultural, and political elements in the British Neolithic.

3.2: Death and Burial in Neolithic Britain

When the Neolithic arrived in Britain, *circa* 4000 cal BC, it brought with it many cultural, technological, and social changes. One area which really demonstrates these transformations is the funerary rites individuals received during the period. A diverse range of mortuary practices were used, often concluded over an extended period and had multiple stages. Similarly, a large variety of site types, both monumental and non-monumental, were employed to house the dead once funerary rites were complete. A considerable amount of time and resources were placed into both the mortuary practices the dead received as well as the construction of monuments to deposit them into. Together, this suggests that death and the associated rites and rituals surrounding it were a culturally important part of British Neolithic society. There is some chronological variation in funerary practices in the British Neolithic. The Early (4000 to 3500 cal BC) and Middle Neolithic (3500 to 3000 cal BC) see the largest proportion of funerary activity within the period, but by the Late Neolithic (3000 to 2500 cal BC) evidence for funerary activity within the archaeological record becomes much less prominent. This could imply that a shift in mortuary practices occurred during the final parts of the British Neolithic, possibly into practices that are less visible archaeologically. Table 3.1 summarises the nature of burial practices in the Early, Middle and Late Neolithic by demonstrating the types of mortuary practices used in each of the three chronological stages as well as the types of sites used for funerary purposes.

Chronological Stage	Treatment of the Dead (Number of Sites Accounted For)	Places for the Dead (Number of Site Accounted For)	Description
Early Neolithic	Single Burial (60); Multiple Burial (254); Articulated Deposits (87); Disarticulated Deposits (226); Inhumation (254); Cremation (65)	Long Barrow/Cairn (108); Round Barrow/Cairn (4); Causewayed Enclosure (12); Chambered Tomb (94); Non-Monumental Context (14); Natural Context (39); Annular Monument (2)	In the Early Neolithic, a broad range of mortuary practices are found. Bodies are deposited in cremated, articulated, and disarticulated states, although the latter is most prominent. Both single and multiple burials are found with multiple being much more common. The high number of disarticulated remains suggests that complex and multifaceted mortuary practices occurred e.g., excarnation, multi-stage burial, successive burial, and the rearrangement of human remains within sites. Several new types of monumental architecture were constructed to house the dead such as long barrows and cairns, chambered tombs, and causewayed enclosures as well as the use of natural contexts such as caves.
Middle Neolithic	Single Burial (77); Multiple Burial (210); Articulated Deposits (102); Disarticulated Deposits (149); Inhumation (210); Cremation (81)	Long Barrow/Cairn (7); Round Barrow/Cairn (67); Causewayed Enclosure (5); Chambered Tomb (59); Cist (3); Cursus (4); Dolmen (1); Natural Context (49); Non-Monumental Context (28); Annular Monument (32)	The Middle Neolithic is in many ways a continuation of the Early Neolithic, albeit with a few notable differences. Mortuary practices remain remarkably similar with a broad range accounted for. However, there is an increase in articulated deposits and single burials as well as a marginal increase in cremation. A small number of long barrows and cairns and causewayed enclosures continued to be used for funerary rites and natural contexts were also once again utilised. Chambered tombs continued to be constructed albeit with some having stylistic differences to those in the earlier parts of the period. The construction of annular monuments and round barrows and cairns increased in the Middle Neolithic, and these were used much more for funerary purposes.

Late Neolithic	Single Burial (37); Multiple Burial (73); Articulated Deposits (25); Disarticulated Deposits (52); Inhumation (73); Cremation (46)	Long Barrow/Cairn (3); Round Barrow/Cairn (7); Causewayed Enclosure (1); Chambered Tomb (18); Cist (2); Natural Context (21); Non-Monumental Context (32); Standing Stone (1); Annular Monument (18)	In the Late Neolithic evidence for funerary practices decreases significantly with much fewer sites dated to this part of the period accounted for. This could suggest that new mortuary practices that leave little to no trace archaeologically were beginning to be used. Burials dated to the Late Neolithic do share some affinities with the earlier parts of the period in that a large variety of mortuary practices appear to be present. However, a notable increase in cremation as well as an increase in single burials does highlight this chronological stage as being a period of change. There was no new funerary-specific monumental architecture constructed in the Late Neolithic but funerary sites from earlier in the period are sometimes reused. Natural and non-monumental contexts continue to be used for funerary practices with the latter seeing a marginal increase. Annular monuments continued to be constructed in greater numbers during the Late Neolithic, but these sites were only sporadically utilised for funerary purposes.

Table 3.1 Summary of the nature of burial for each of the chronological stages of the Neolithic

3.2.1: Treatment of the Dead

Burials in Neolithic Britain can be broken into two broad categories, single and multiple. Single burials are the least well-represented of the two. Formal cemeteries consisting of multiple flat single graves are a rarity, with just three inhumation cemeteries recognised within this research (Strathern Lodge, Leicestershire – Liddle 1982; Barrow Hills, Oxfordshire – Barclay & Halpin 1997; Balevullin, Tiree, Hebrides – Armit *et al.* 2015). There are also two cremation cemeteries acknowledged within England (Biddenham Loop 1, Bedfordshire – Luke & Dawson 1997; Bulleigh Meadow, Devon – Berridge & Simpson 1992), and a further seven suggested in the Isle of Man (see Burrow 1997). Single inhumations in isolated flat graves are found (e.g., Dorney Lake, Buckinghamshire – Allen *et al.* 2000; Prestatyn, Denbighshire – Schulting & Gonzalez 2008; Yabsley Street, London – Coles *et al.* 2008) and single primary inhumations have also been documented at sites where other divergent mortuary practices are taking place such as at causewayed enclosures (e.g., Offham Hill, Sussex – Drewitt 1977; Hambledon Hill, Dorset – Mercer & Healy 2008; Windmill Hill, Wiltshire – Whittle *et al.* 1999) and in barrows (e.g., Whitegrounds, Yorkshire – Brewster 1969; 1984; Nutbane, Hampshire – Morgan 1958). The secondary deposition of disarticulated human bone elements from single individuals is also noted (e.g., Handley Hill, Dorset – Piggott 1936; Cadbury Castle, Devon – Alcock 1972; Battersea, London – Bradley & Gordon 1988), as well as the interment of cremated remains from a single individual (e.g., Dorchester, Oxfordshire – Atkinson *et al.* 1951; Woodhenge, Wiltshire – Pollard 1995). Multiple burial is a much more dominant funerary practice during the Neolithic, particularly throughout the fourth millennium. If single and multiple burials are viewed chronologically, it can be seen that while single ones are consistently in the minority, they do increase in number throughout the Neolithic, as highlighted in Figure 3.1.

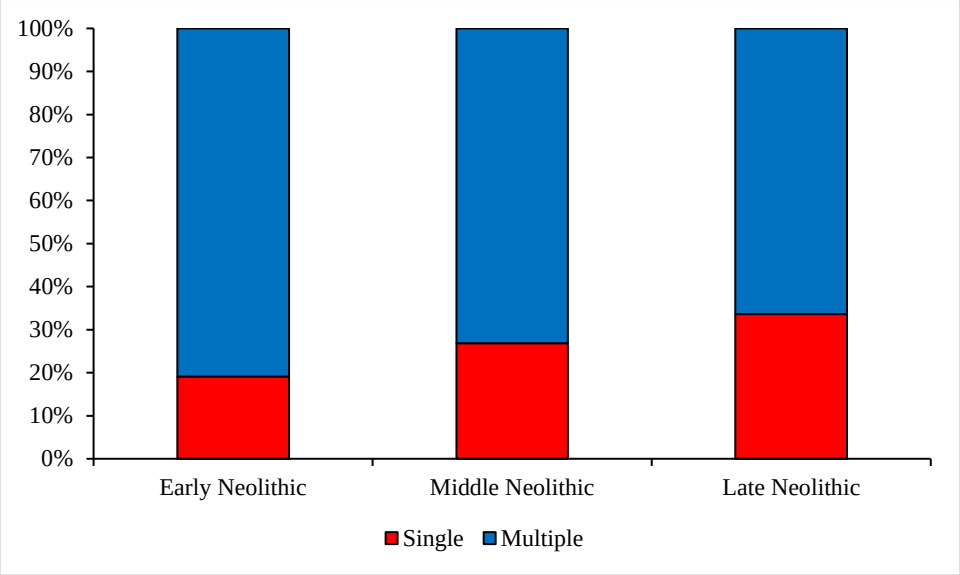

Figure 3.1 - The levels of single and multiple burials in each of the three chronological stages of the British Neolithic.

Articulated and disarticulated deposits are both represented within the British Neolithic funerary record; however, it is the latter which are in the majority. There does appear to be some chronological variation within this. Figure 3.2 demonstrates that both the Early and Late Neolithic have similar levels of articulated burials, but the Middle Neolithic sees the largest number. This is likely due to the increase of single crouched inhumations both with accompanying grave goods, and without, in round barrows and other contexts that emerge during this stage (see Loveday & Barclay 2010). Both cremation and inhumation are also represented. Inhumation is a much more common occurrence, particularly in the earlier parts of the period; however, cremation does seem to increase as the period progresses (see Fig. 3.3). So, while both single and multiple burials are present within the British Neolithic, as well as articulated, disarticulated, and cremated remains, most burials do appear to consist of disarticulated and commingled assemblages.

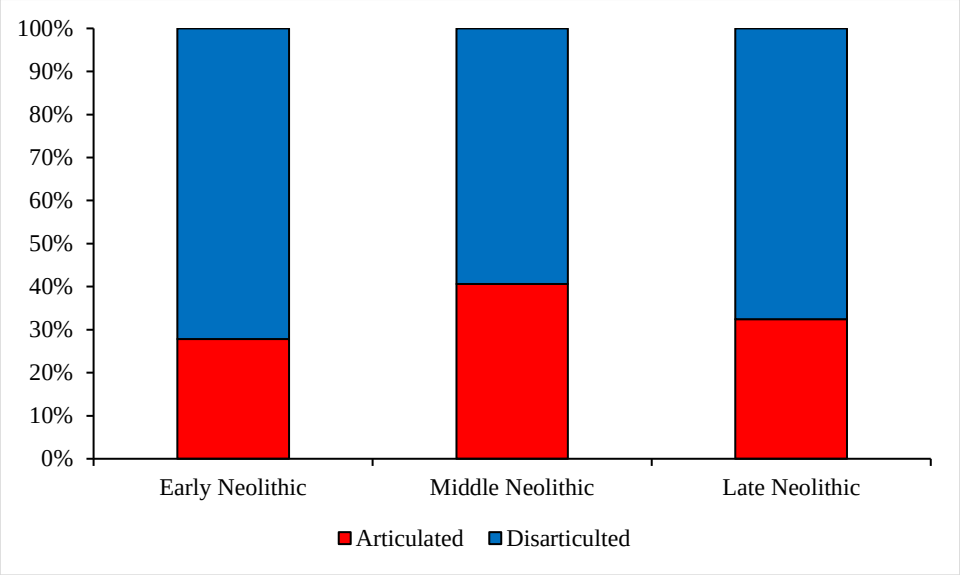

Figure 3.2 - The levels of articulated and disarticulated human remains in each of the three chronological stages of the British Neolithic.

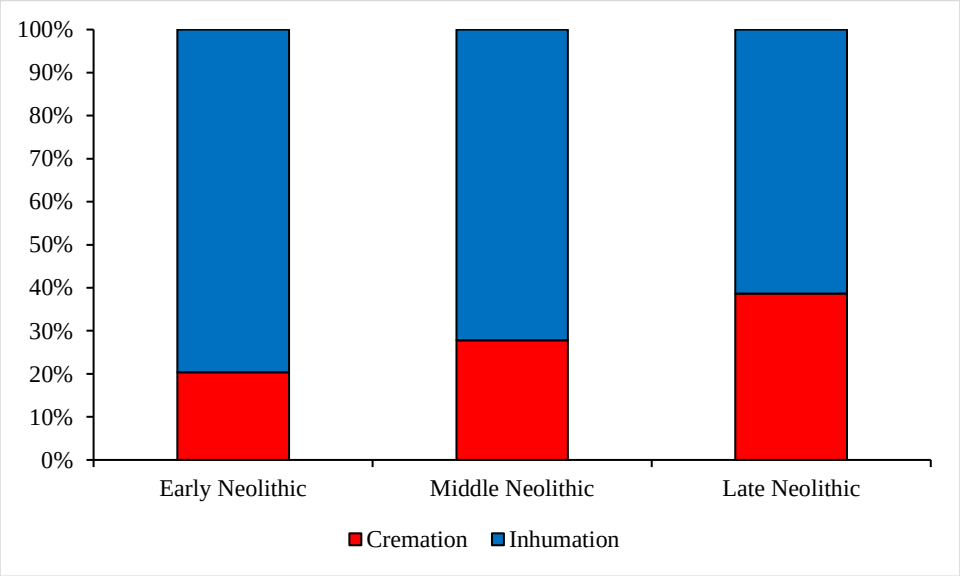

Figure 3.3 - The levels of inhumation and cremation in each of the three chronological stages of the British Neolithic.

Osteological analysis of human remains in the British Neolithic demonstrates that complex and multifaceted mortuary practices are likely being performed before the final deposition of the individual. The defleshing or excarnation of human bones appears to be an important part of this process, and a few different methods of excarnation have been proposed. One method

suggested is excarnation through exposure. The basic principle of excarnation through exposure is to leave the deceased out in the open to naturally become skeletonised. It is a practice that is well-known ethnographically and is still undertaken by some groups in the modern day, e.g., Tibetan sky burials (see Joyce & Williamson 2003). At Adlestrop, Gloucestershire human bone elements had markings that appeared to be created through canid gnawing, strongly suggesting they were placed in an open area and exposed for the local wildlife to remove the flesh from the bones (Smith 2006). Similarly, at Parc le Breos Cwm, Glamorganshire up to 50% of the human bone material presented evidence of weathering and gnawing (Whittle & Wysocki 1998), and further examples can be found at Hambledon Hill, Dorset (Mercer & Healy 2008) and Etton, Cambridgeshire (Armour-Chelu 1998).

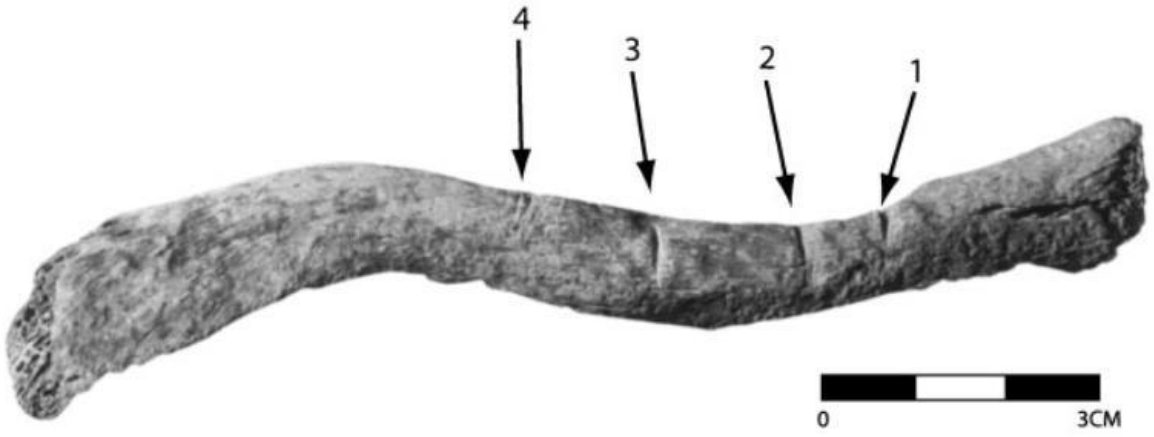

Figure 3.4 Example of anthropogenic cut marks on human bone, in this case, West Tump, Gloucestershire (Smith & Brickley 2004: 23).

Anthropogenic cut marks have been observed on Neolithic skeletal material, which could also suggest the manual removal of flesh from bones. For example, the chambered tomb at West Tump, Gloucestershire, contained an adult clavicle which had striations, as highlighted

in figure 3.4, probably made by a flint-based tool (see Smith & Brickley 2004). While acknowledged, the manual removal of flesh does appear to be a rarity. Experimental research by Smith & Brickley (2009: 49) suggests that the instances in which cut marks are observed on human remains may be from occasions where other methods of defleshing have not been successful, meaning bones needed to be manually cleaned and separated. At Hambledon Hill, evidence for both excarnation through exposure and the manual defleshing of bones is present, although the former is much more abundant (Mercer & Healy 2008). This could substantiate the idea that the manual removal of flesh is circumstantial and dependent on other factors.

Another method of excarnation is the prior burial of an individual at one site followed by the exhumation and redeposition of the disarticulated remains at a second site. Research at Fussell's Lodge long barrow, Wiltshire has demonstrated that the human remains may have been buried elsewhere before their final deposition at the site. In the original osteological report, Brothwell & Blake (1966) observed a lack of smaller bones, such as those of the hands and feet in the assemblage and proposed that this was because they were defleshed and brought from elsewhere. Later analysis of the soil found on the bones by Wysocki *et al.* (2007) demonstrated that it was highly variable and did not always match the soil from the site, which suggested that the bones were retrieved from separate places before being interred. Added to this was the fact that none of the human bone displayed any signs of weathering, gnawing or anthropogenic cut-marks, ruling out other forms of defleshing (*ibid*).

A method of excarnation which is becoming increasingly recognised is that of excarnation *in situ*. This involves the deposition of the deceased into the funerary site in a fully articulated form then later moving and rearranging the skeleton once it has become defleshed. This has been noted at Windmill Hill, Wiltshire, in which an individual was placed under the outer bank, and then once the soft tissue had decayed, the bones were rearranged and sealed under

the bank (Whittle *et al.* 1999). Similarly, osteological analysis of tombs in Orkney has revealed that individuals were placed into them fully fleshed and articulated but were later manipulated and moved once they had become skeletonised, possibly to make room for new individuals to be interred (e.g., Reilly 2003; Crozier 2018). Further inferences along these lines have been suggested at other sites such as Hazleton North, Gloucestershire (Saville 1990) and Wayland's Smithy, Oxfordshire (Whittle *et al.* 2007). The increasing recognition of excarnation *in situ* does suggest that successive burial was more common than was originally thought and possibly a more normative practice than secondary burial (Peterson 2019: 42 – 46). Regardless of whether deposits were secondary or successive, what can be seen through the analysis of human bone at Neolithic sites is that the manipulation does appear to be a regular occurrence. For example, at Hambledon Hill and Lanhill chambered tomb, Wiltshire crania are placed with mandibles from different individuals (see Mercer & Healy 2008; Keiller & Piggott 1938). At Fussell's Lodge long barrow, Wiltshire composite piles of bones created from different individuals are constructed (Ashbee 1966), and a similar practice is found at Penywyrlod, Brecknockshire and Pipton, Brecknockshire (see Wysocki & Whittle 2000).

This summary of the key mortuary practices found within the British Neolithic demonstrates the complexities and multifaceted nature of funerary rites during the period. While the funerary practices do show a lot of variation, it could be argued that most are linked to the transformation of the body. The idea of transformation in death has its roots in anthropological study. Two important early 20th century studies, those of Van Gennep (1909) and Hertz (1907), have been key to many of the subsequent formulations surrounding death, transformation, and its associated rituals. Through ethnographic research, Van Gennep (1909) theorised that rituals, including ones related to death, were tripartite processes containing a rite of separation followed by a rite of liminality and finishing with a rite of reintegration.

Similarly, Hertz' (1907) ethnographic research on funerary rites suggested that mortuary processes came in two parts, the preliminary burial, and the final burial, with the two stages being separated by a period of liminality.

The two seminal works of Bloch & Parry (1982) and Metcalfe & Huntington (1991), inspired by these concepts, both explored death as a transformative, multi-stage endeavour. These further enhanced theoretical viewpoints regarding death, demonstrating that it was not instantaneous but a complex, often temporally dependent, and geographically diverse process. The complex and multi-faceted nature of British Neolithic funerary rites lent itself to these concepts well. Barrett (1988) suggested that the transformative stages, or liminal period, of the funerary process, such as excarnation or cremation, should be deemed just as important as the final burial and that the entirety of the process of death was full of ritualistic and cultural significance. It can be seen ethnographically that the period of liminality is crucial to the rituals associated with death in many different geographically and temporally distinct groups (see Metcalfe & Huntington 1991). However, it could also be argued that a period of liminality could play a more functional role in relation to funerary rites and be a period which allows resources to accumulate and arrangements to be made (e.g., Ucko 1969).

Once bodies were transformed, whether through excarnation or cremation, they would be placed within the landscape, and it has also been argued that this act is deeply tied up in complex cultural and social processes. In his discussion on British Neolithic funerary practices, Fowler (2010b) suggests that placing the dead into a living landscape causes them to become indistinguishable from the site in which they are placed and the other remains accompanying them, creating a distinctive and symbolic location and community (Fowler 2010b). So, in the case of this interpretation, the funerary practices are used to generate a new group identity for the dead, one which almost strips them of their individuality. Once they are transformed into their final state after death, they are introduced to the landscape to become a

community of the deceased. However, a recognition of aspects of individual identities could further enhance these ideas. It could be that specific individuals with certain identity taxonomies were purposely chosen for inclusion at a site. Understanding what these may be can help develop perceptions of identity in Neolithic Britain.

The commingling and manipulation of human remains during the British Neolithic has generated much discussion. As mentioned above, there could be functional explanations for this, such as moving bones aside to make room for new deposits. However, this does not account for the complex spatial arrangements of skeletal material. In Chapman's (2000) analysis of fragmented and commingled human remains in Neolithic Eastern Europe, he suggests that the mixing and fragmentation of human bones could be symbolic of and substantiate relationships between the dead, the living, and the landscape. Again, this implies that individuality is taken away after death in favour of reintegration into a new anonymous state of being, emphasising their connection to their ancestors and ancestral land. This interpretation has found substantiation within the ethnographic records. Bloch's (1971; 1982) study of the Merina in Madagascar demonstrates that an initial burial in a simple grave is met by the mourning and loss of the individual. In contrast, the final burial is seen as a celebration. The skeletonised individual is exhumed and reinterred in an ancestral tomb and their disarticulated remains are mixed with other individuals at the tomb, thus removing their individual identity and becoming part of a wider, more abstract ancestral identity (*ibid*). Successive burials found in Neolithic Britain are quite comparable to these practices. Taphonomic analyses by Crozier (2014) draw parallels with Bloch's (1971; 1982) work and suggest a similar practice occurring at Orcadian chambered tombs.

It cannot be denied that the disarticulation and manipulation of human remains lends itself well to ideas surrounding group identities and generating a community of the dead/ancestors which emphasises social and cultural factors. However, there are aspects of the funerary rites

which may also suggest that the individual identities of these people were also important. There is evidence to suggest that skeletal elements were purposefully removed from or not included at sites. Several sites demonstrate that larger skeletal elements, such as femora, crania, etc., are missing from the assemblages (e.g., Wayland's Smithy, Oxfordshire – Atkinson 1965; Hazleton North, Gloucestershire – Saville 1990). Smith & Brickley (2009: 69 – 70) suggest that this may be indicative of the skeletal elements either not being included at the site during the initial deposition or being removed from the site post-deposition. The skeletal elements missing from these assemblages may have held important symbolic resonance. For example, the skull is thought to be highly significant due to its associations with speech, sight, and hearing, basically how the world is experienced (Fowler 2004: 136) and in some Mesoamerican cultures, the sacra and pelvic bones are symbolic of reproduction, fertility, and reincarnation (Stross 2007: 4).

The identity of the individual may have amplified the importance of these bones. Certain bones from particular individuals who had specific identities in life may have held important social and cultural significance to the living. If this was the case, then further knowledge of who these individuals were in life could be crucial in broadening interpretations. The idea of a community of the dead/ancestors may very well have been an important social/cultural element of Neolithic funerary practices but equally the types of individuals who were chosen to be added to this ancestor realm may also be crucial. This would suggest that both a group identity, i.e., the ancestors, as well as individual identities, were essential for the social/cultural message the living were attempting to communicate through their funerary rites. Therefore, it is key that both are considered within interpretations. It is not enough to simply state that these individuals represent the ancestors, who these individuals were in life, their role, status, etc., must also be considered to gain a more comprehensive understanding of the funerary assemblage and why these particular people were included.

While this review of British Neolithic mortuary practices summarises a lot of research, it does demonstrate that how bodies were treated after death during the period shows great diversity. However, what can be seen is that disarticulation, manipulation, and commingling of human bones were the major mortuary practices during the period. This section has briefly touched upon some of the more general interpretations of what these practices could mean, and this will be built upon much more in the second part of this chapter. However, what can be deduced here from some of the more universal ideas is that they do not seem to consider the individual identities of the deceased. They endeavour to demonstrate universal and collective cultural and ritualistic explanations regarding the nature of the mortuary practices exhibited. This means that individual identity and the taxonomies that establish it are disregarded in archaeological interpretation. As a result, there is a large chasm in the understanding of the social and cultural structures that were adhered to within the Neolithic period and how individual identities were formed and interacted within these social and cultural structures. Further information on this could improve and build upon archaeological interpretations surrounding the period.

3.2.2: Places for the Dead

There is great diversity in the types of sites used to deposit the deceased during the British Neolithic. While most of these sites are anthropogenic, some natural contexts are also used. These mostly consist of cave and rockshelter sites, although some instances in which human remains were discovered in water contexts such as palaeochannels are present. Caves were used for the deposition of the deceased throughout the Neolithic period. The number of individuals present within cave sites is incredibly varied with some containing a substantial

amount of skeletal material such as Little Hoyle Cave, Pembrokeshire having an estimated 18 individuals (Green 1986) and some containing just one or two individuals, such as Fox Holes Rock Shelter, Yorkshire (Leach 2006). Both articulated and disarticulated human remains have been recognised within cave sites, sometimes these can be in conjunction with one another e.g., Jubilee Cave, Yorkshire (Leach 2006: 192). Mortuary practices within caves do seem to follow a chronological pattern. In the Early Neolithic, the funerary treatment is remarkably diverse, with possible mummification, primary burial, secondary burial, successive burial, and multi-stage burial all recognised, but by the Middle and Late Neolithic, this seems to have been formalised with successive burial becoming the dominant practice (Peterson 2019).

Considering the frequency in which Neolithic human remains are encountered within caves in Britain, there is a lack of research into cave sites. Leach (2006) and Papakonstantinou (2009) have analysed Neolithic remains from two areas within Britain, Yorkshire, and the Peak District. However, these pieces of research treat caves as a separate entity in the Neolithic funerary landscape. Considering much Neolithic cave and rockshelter burials are contemporaries with other monumental site types, as well as the fact that the mortuary practices demonstrated at cave sites are also being used at other site types, it would make sense to contemplate them side by side. Recent research by Peterson (2019) achieved this through comparative analysis of securely dated cave and rockshelter assemblages in Britain with collective assemblages from other site types within the archaeological record. It was found that while the mortuary practices recognised within cave sites were broadly like those which are acknowledged at other funerary site types, the funerary process is more long-lasting. Peterson (*ibid*) suggests that the caves acted as gradual, transformative spaces in which the agency of the living, the dead and the cave itself all interacted to create a distinctive and unique funerary tradition.

The lack of research related to caves for the British Neolithic means that important demographic and/or lifeways information available for the period is not being accessed. These data obtained from individuals found in caves could be an invaluable source of evidence for sex- and age-based identities through the completion of large-scale comparative analyses. Considering caves and their use as funerary spaces appear to be spread throughout the period, they should really be held in the same regard as their anthropogenic equivalents. They are an important part of the funerary landscape and certainly must be considered when assessing Neolithic funerary archaeology.

Much like natural contexts, a category of site type developed for this research, non-monumental contexts, also see funerary usage throughout the entire Neolithic. This grouping of sites is quite diverse and includes cemeteries (both inhumation and cremation), flat single graves, pit burials, burials in settlement contexts, and burials in flint mineshafts. These sites also demonstrate a broad range of mortuary practices with articulated, disarticulated, and cremated remains all present. The variety of sites and mortuary practices that are found within this group makes it difficult to attribute specific interpretations of what these funerary contexts can elaborate regarding identity. It is best to view them on a site-by-site basis. However, it is important to remember that these sites are part of a larger funerary landscape alongside other anthropogenic and natural contexts, and the information gained from these in combination with other funerary sites can be crucial in improving understanding of lifeways and deathways.

Once the Neolithic begins in Britain, monumental architecture very quickly emerges, and human remains are often deposited at many of these newly formed structures. Some of the earliest types of monuments, and some of the most widespread, are the long barrow and cairn. Long barrows and cairns have a long history of research and their form, function and date are well documented within the archaeological record. While long barrows and cairns were

recognised as a distinctive monument type as far back as the 19th century, with excavations taking place throughout that period and into the 20th century, it was not until the later 20th century that they were fully analysed as a collective group. Both Ashbee (1984) and Kinnes (1992) were instrumental in this. Both helped to establish what variations in both the forms and functions of long barrows and cairns were present. Later research by individuals such as Darvill (2004) and Field (2006) built upon this, taking into consideration elements such as monuments' relationships with other contemporary anthropogenic structures and their role in the wider landscape. The work of Smith & Brickley (2009) shifted focus away from the monuments themselves and instead assessed the individuals who were interred at the sites, which added a new dimension of understanding to long barrows and cairns. Thanks to several radiocarbon dating projects, particularly in the 2000s (e.g., Bayliss *et al.* 2007; Whittle *et al.* 2007; Wysocki *et al.* 2007), a secure timescale for the construction and use of long barrows and cairns is established, placing them firmly in the Early Neolithic, with some seeing continued use into the Middle part of the period.

Long barrows are long, roughly trapezoidal mounds of earth of varying size and are found in their largest concentration towards the east of Britain, although examples are also found across the region. While they are variable in both size and shape (see Fig. 3.5), they all share some common characteristics such as an entrance or façade, the use of full and half split tree trunks, flanking ditches, a burial area, and a covering mound which may be added much later than the earlier elements (Lynch 1997: 16). Long cairns are similar but with a mound of stones instead of earth and are confined to Scotland and northern England. The mounds of long barrows and cairns were large, both in length and height and would have been an imposing sight, with some up to 3m high and 70m long (Field 2006: 22). They also followed the natural features in the landscape such as rivers and the contours of hills, linking the anthropogenic with the natural. Darvill (2004: 132) suggests that all these components that

contribute to the formation of a long barrow likely had specific symbolic meanings which were linked to key elements of life, death, myths and beliefs.

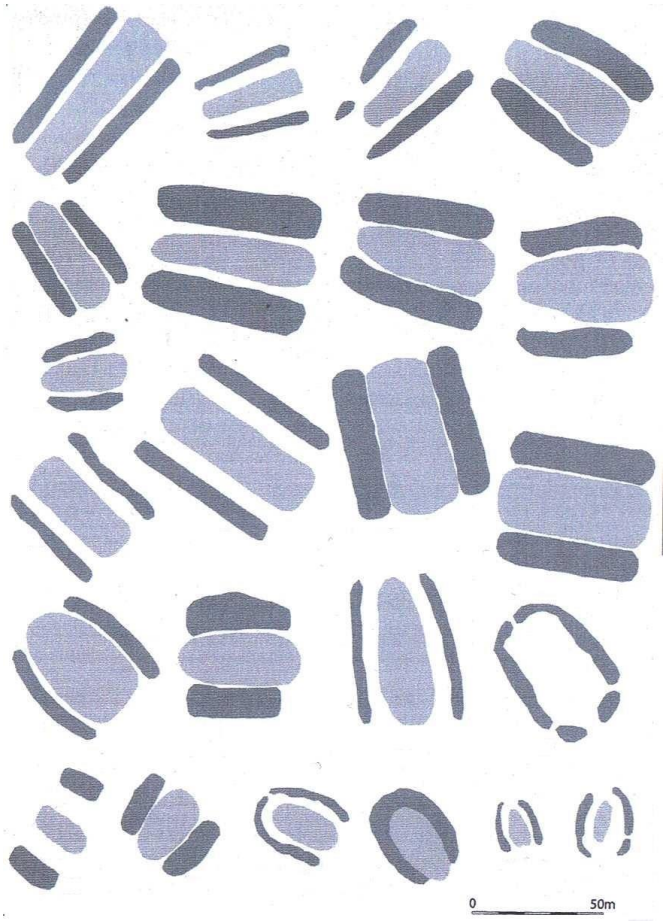

Figure 3.5 Examples of the diverse forms of long barrows (Field 2006).

The construction of long barrows and cairns is a lengthy, complex, and multi-faceted process with archaeological evidence from underneath the mounds demonstrating former structures and features being present on the site before the final erection of the mound. When human remains are found at these sites, they are often placed within these areas of activity. A range of features have been recognised underneath the mounds of long barrows and cairns ranging from stone and wooden structures to other elements such as pits, platforms, and bays. Stone is employed to construct cists within some long cairns and, to a lesser extent, long barrows, many of which have been found to contain human remains. (e.g., Whitwell, Derbyshire –

Vyner 2011). Stone is also used to form platforms and bays such as at Giants' Hill 1, Lincolnshire (Phillips 1936) and South Street, Wiltshire (see Ashbee *et al.* 1979).

Wooden "mortuary" structures are also observed and, due to the abundance of human remains present within these, a major function of these was the deposition of the dead. A good example of one of these structures can be found at Fussell's Lodge, Wiltshire. A trapezoidal structure made from tree trunk posts and smaller wooden posts formed an enclosure in which disarticulated human remains were found (Ashbee 1958; 1966). The structure was subsequently filled in and destroyed with the erection of the mound. Similarly, at the Haddenham long barrow in Cambridgeshire, a roughly rectangular wooden structure was present. The structure was split into two sections by a half-split tree trunk post and access to the chamber appeared to be blocked by a façade comprised of further split tree trunk posts (Evans & Hodder 2006). Interestingly the floor of the structure was also mostly covered by a large wooden plank and the remains of five individuals were present within it. It is suggested that the structure had four phases of construction. The first included two post pits and a palisade (which presented indications that it had been burnt down) and ditches; the second included the construction of the main structure as well as a mound being placed at the eastern end; the third phase saw the structure being destroyed, mainly through burning, but also a bank placed over the facade; and the final phase saw the erection of the long mound (*ibid*).

A likewise construction can be seen at the long cairn at Street House, North Yorkshire which was comprised of both stone and wood. This structure included two large half-split tree trunk posts at both ends, and this was flanked by further wooden posts down each side (Vyner 1984). Slightly to the west of this was a stone kerbed enclosure. Vyner (1984) suggested that the enclosure part of the monument may have been used for the excarnation of the deceased, who would then be moved into the wooden structure following sufficient decomposition. As

was the case with Fussell's Lodge, the structures were then destroyed before the construction of the mound. Like with Haddenham, this was achieved through burning, with the human remains still inside. Figure 3.6 exhibits an artist's impression of both of these phases of Street House. This burning of 'mortuary' structures appears to be a common part of the funerary process in northern England with many long barrows and cairns, as well as some round barrows, exhibiting similar practices, e.g., Westow, Yorkshire (Greenwell 1877: 491), Raisthorpe, Yorkshire (Mortimer 1905: 18) and Copt Hill, Northumbria (Treechmann 1914).

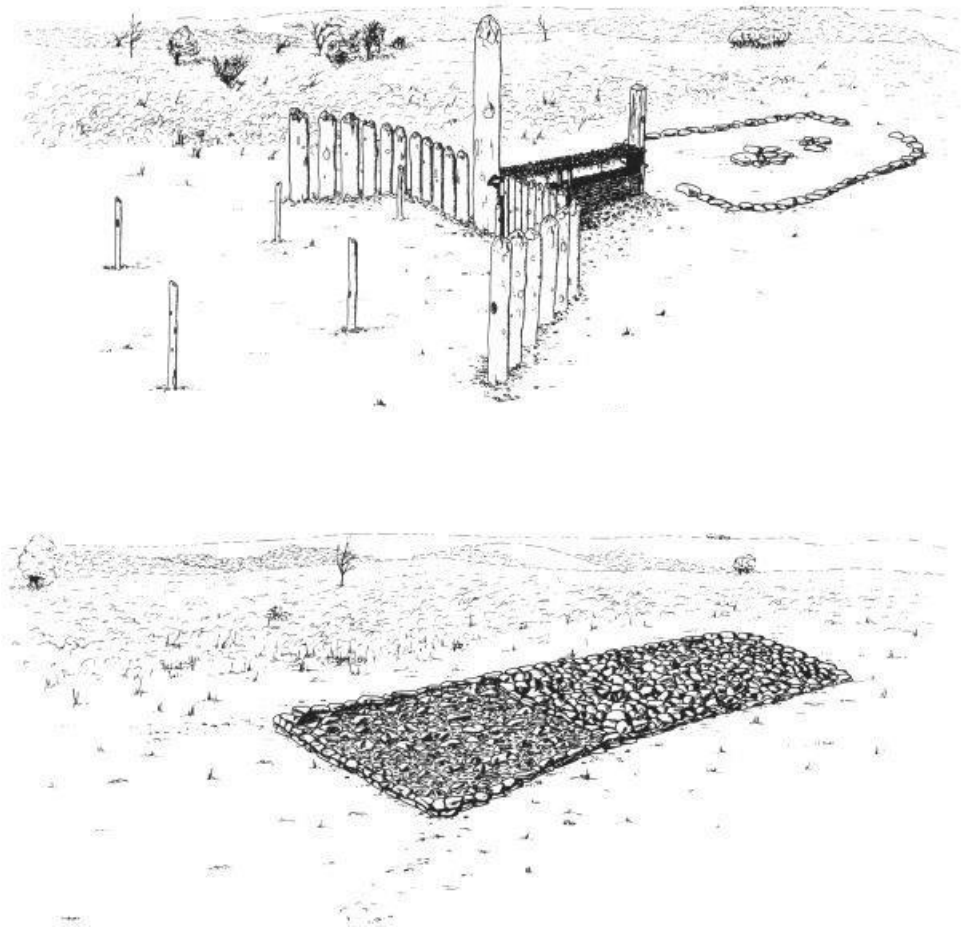

Figure 3.6 Artist's impression of the two phases of Street House, Yorkshire (Vyner 1984: 165).

Human remains are found in various states within long barrows and cairns ranging from articulated to disarticulated and cremated and, in the case of the northern English sites

discussed above, burnt, and partially burnt. There is much evidence that suggests that skeletal material was also carefully sorted and arranged before the completion of the monument suggesting either secondary deposition or successive burial practices being present at the sites. For example, at Chute, Wiltshire, crania appear to have been arranged circularly (see Passmore 1942). As suggested above, the deposition of human remains is just one aspect of the construction of long barrows and cairns. This is highlighted by the fact that some do not contain any human remains at all (e.g., Beckhampton Road, Wiltshire – Ashbee *et al.* 1979; Skelmore Heads, Cumbria – Powell 1963) but also by the low levels of human remains found at the sites. Cummings (2017: 113) suggests that what is found at long barrows and cairns, as well as at many other Neolithic site types, could in fact, represent dedicatory deposits and that the key factor behind the deposition was not the individuals themselves but the ancestral link they brought to the site. However, this interpretation does not consider the importance individual identities and identity taxonomies may play in the decision-making processes surrounding who was chosen for deposition. While it may very well be important to create strong ancestral links, the types of individuals introduced into the sites and their identities in life may also have been an important part of this.

Another prominent monument type used in the Neolithic is chambered tombs. These monuments appear to be very much regionally and chronologically distinct in style and form, although do share some common features. These include an entranceway or façade and forecourt with some tombs, particularly in southwest England, also having a false portal. This is where a tomb has all the above-mentioned features, but the place where the entrance should be is sealed. The actual entrance to the tomb is usually found laterally on the tomb mound (e.g., Belas Knap, Gloucestershire – Grinsell 1966; Rodmarton, Gloucestershire – Saville 1989). An example of this can be found in Figure 3.7 which shows both the false portal and lateral entrances to the Belas Knap chambered tomb. The earliest forms of chambered tombs

are usually surrounded by a long mound of earth or stone. As the name suggests, all these monuments have a chamber or chambers in which human remains are usually deposited. These are stone-built and can vary in form such as rectangular chambers (e.g., Coldrum, Kent – Jessup 1930), rectangular stalled chambers (e.g., Cairnholy, Wigtownshire – Piggott & Powell 1948; Midhowe, Rousay, Orkney – Callander & Grant 1934), and transepted chambers (e.g., Nympsfield, Gloucestershire – Saville 1979). Chambered tombs can also include a passageway which is used for access to the chamber/s (e.g., West Kennet, Wiltshire – Piggott 1962; Parc le Breos Cwm, Glamorganshire – Whittle & Wysocki 1998). Many of the earlier chambered tombs can be grouped geographically due to stylistic variations. These groupings include the Cotswold-Severn group, which encompasses southwestern England and south Wales. In the southeast of England, the Medway group is found. In southwestern and western Scotland is the Clyde cairn group, while in the northeast of Scotland, including Orkney and Shetland is the stalled cairn group.

Figure 3.7 Belas Knap chambered tomb, Gloucestershire which has both a false portal and lateral entrances (https://www.english-heritage.org.uk/siteassets/home/visit/places-to-visit/belas-knap-long-barrow/belas-knap-hero.jpg).

Much like long barrows and cairns, the final form of the early chambered tombs was not always the original one. This has been noted in the Clyde cairn group in Scotland, where the sequence of several tombs seems to suggest that they began life as small cists surrounded by a small circular mound which were later converted to the more recognisable final form (e.g., Blasthill, Argyll – Cummings & Robinson 2015; Mid Gleniron, Wigtownshire – Corcoran 1969a). A similar sequence can also be seen in the Cotswold-Severn group with sites such as Notgrove, Gloucestershire (Clifford 1937) and Ty Isaf, Brecknockshire (Grimes 1939). There is evidence to suggest long barrows could also be converted into chambered tombs. For example, at Wayland's Smithy, Oxfordshire, the initial first phase saw an oval-shaped barrow with a mortuary structure, like what is seen at Fussell's Lodge and Street House, consisting of a stone pavement at the base with large half-split tree trunk posts at either end, which formed the basis of a 'low ridge-tent' like structure (Whittle *et al*. 1991). The second phase saw the monument changed to a long trapezoidal barrow with a façade and a transepted stone chamber (*ibid).*

From the Middle Neolithic through to the end of the period, new forms of chambered tombs begin to be constructed. Rather than the long trapezoidal variations seen in the earlier parts of the period, these tombs tend to be circular or subcircular in shape. Many seem to incorporate passageways leading to the chambers, and these have been coined passage tombs or graves. Passage tombs share some common features, including a round mound, a stone-built passageway, a stone-built chamber, or collection of chambers and on a small number of sites a kerbing around the edge of the mound. The passageway itself can differ in size with some passageways being accessible and some being too small for entry. Also, the chambers have a variety of differing sizes and forms; they can be cruciform in shape (e.g. Barclodiad y Gawres, Anglesey – Powell & Daniel 1956; Maeshowe, Orkney – Childe 1955), rectangular with many sub-chambers attached (e.g. Quoyness, Orkney – Renfrew *et al.* 1976), simple

rectangular chambers (e.g. Knackyboy Cairn, Scilly – O'Neil 1952), or stalled chambers as was seen in the earlier parts of the period (e.g. Achnacree, Argyll – Henshall 1972). Several later chambered tombs in Orkney also feature artwork carved into the stone of the monuments (see Bradley *et al.* 2001) and likewise in Anglesey, Wales tombs such as Bryn Celli Ddu also feature artwork (see Hemp 1930). Like in the earlier parts of the period, chambered tombs from the latter stages can also be grouped regionally. The Scillonian group encompasses Cornwall and the Scilly Isles. In Derbyshire, Staffordshire, and South Yorkshire lie the Peak District group, and there are also several examples across the west of Britain (including the Isle of Man). Clusters of passage tombs can be found on the Western Isles of Scotland and in the northern islands of Orkney and Shetland.

Passage tombs are also present in Ireland and while Irish passage tombs and Ireland itself are not focussed on within this research it is worth briefly considering here. Ireland and Britain likely did not exist as separate entities during the Neolithic. There was probably extensive contact between the west coast of Britain and the eastern and northeastern coast of Ireland. Cummings & Fowler (2004) propose that the west coast of Britain, particularly areas such as the Hebrides and northern Wales, the Isle of Man and the east and northeast coast of Ireland are culturally intertwined due to the stylistic similarities between the material culture and monumental architecture found within the regions. This idea is made even more pertinent if one considers Sheridan's (2010b) Atlantic façade hypothesis for the Neolithization of Britain as this suggests that the Neolithic began with migratory groups arriving from northwest France and settling along the western parts of Britain, so it is not unreasonable to think that these groups would share some cultural affinities. Much like the passage tombs of Britain, Irish passage tombs also feature a circular mound, a passageway leading to a chamber or chambers, and at some sites art carved into the stone. Artwork found on Irish tombs is strikingly like artwork found within other non-mortuary contexts in Orkney which could

suggest a link between the two regions. However extensive research by Bradley *et al.* (2001) demonstrates that although similar, the context and meaning behind the carvings is likely very different. In recent years aDNA analysis has revealed complex kinship ties within Irish chambered tombs. Research by Cassidy *et al.* (2020) revealed that a male individual from the Newgrange passage tomb was the result of a direct first-degree incestuous relationship and that this individual had relations who were interred at other chambered tombs within the region. These findings were used to suggest that a political, cultural, or religious elite existed within this area of Ireland during the Neolithic (*ibid*). This is a useful factor to consider when considering the British Neolithic and who may have been deposited at the chambered tombs found there. Recent kinship aDNA analysis at Hazleton North, Gloucestershire, has also demonstrated several members of the same family being interred at the tomb (see Fowler 2020) however this will be discussed in greater detail later in the chapter.

Chambered tombs occupy very prominent locations within the landscape. For example, many tombs can be found on the tops of hills (e.g., Ronas Hill, Shetland – Henshall 1963: 172 – 173), and in Orkney, it has been suggested that the tombs occupied imposing positions that surveyed pathways and tracks (see Cummings & Richards 2013). This would mean that the monuments would be able to be seen from a great distance away, and they would certainly be an active part of the cultural and social landscape. Bradley (2000) has suggested that the prominent natural features within the landscape in which the tombs were situated or overlooked may have held religious power during prehistory and be a basis of influence for gods and deities at the time. Some passage tombs are built with celestial alignments in mind. This certainly is a more common feature of Irish passage tombs but is nevertheless found in some British ones. For example, at Maeshowe, Orkney, during the midwinter sunrise, sunlight will shine to the back of the passage, hitting the back wall of the chamber (MacKie 1997). As mentioned above, another interesting aspect of later chambered tombs is the

addition of carvings and art included on the monuments. This has been recognised at sites such as Barclodiad y Gawres, Anglesey (Powell & Daniel 1956) and in several tombs in Orkney (see Bradley *et al.* 2001).

The main purpose of chambered tombs appears to be the deposition of human remains, and the full range of mortuary practices discussed in the previous section are recognised at these sites. Articulated remains are accounted for but seem to be a rarity. At Hazleton North, Gloucestershire a nearly complete articulated individual was uncovered at the entranceway to the tomb, although within the tomb itself, only disarticulated remains were present (Meadows *et al.* 2007). At Midhowe, Rousay, Orkney, several individuals were found articulated along with the disarticulated remains of several other individuals (Callander & Grant 1934). It has been suggested that the disarticulated group represented individuals who had been moved and manipulated to make space for the articulated ones (Richards 1988). Successive burial has been suggested at several sites. At Quanterness in Orkney, 59 individuals were deposited, and subsequent taphonomic research suggests that these were initially placed as whole, articulated bodies and then later rearranged (Crozier 2018). Similarly, at Five Wells Hill, Derbyshire, up to 12 individuals were present in both articulated and disarticulated states (Manby 1958).

There is evidence from one site, West Kennet, Wiltshire which suggests that skeletal material was separated by demographic group. At the tomb, it was found that one of the chambers contained exclusively adult male individuals (see Piggott 1962; Bayliss *et al.* 2007b). This suggests that both age and biological sex were principal factors in the decision-making process of the funerary rites these individuals received. Obvious demographic divergences such as these are extremely rare in the British Neolithic funerary record, and on the whole, bones from females, males, and different age categories tend to be mixed. However, this example does show that in some instances, biological sex and age were a factor which determined an individual's funerary rites at this site.

There have been many suggestions for the wider role of chambered tombs, and to a lesser extent long barrows and cairns played within the landscape. Early in the 20th century, culture-historical archaeologists such as Childe envisaged a diffusionist model in that the new megalithic funerary structures arrived in Britain due to influences from mainland Europe (Childe 1925: Chapter Six) and interestingly, recent aDNA research looking at the ancestry of British Neolithic individuals could substantiate this hypothesis (Brace *et al*. 2019). Later in the 20th century, interpretations suggested that the monuments were territorial markers mapping out small agricultural communities and their claim to the land (e.g., Renfrew 1973; 1975; 1981). If this was the case, then it could be suggested that the individuals deposited at these sites may have belonged to a specific community and by placing them within the monuments it may have legitimised the claims to the land the group had by acting as a physical connection to the landscape (Smith and Brickley 2009: 88).

More recent formulations have adopted a less functional approach to a more conceptual model. For example, phenomenological research by Tilley (1994) has suggested that sites formed a sort of network, reinforcing relationships between communities and the landscape they live upon. Edmonds (1999: 58 – 76) discusses "ancestral geographies" and how the monuments were an important connection between the living and the dead and acted as houses for the ancestors, who in turn held power to protect and provide good fortune to communities. The placement of the monument in a peripheral and liminal position in the landscape, away from settlements, but in view of them, and with a visual connection to natural features, along with the monument itself and the deceased within it are all key components in the use and meaning behind the monuments. This tripartite of the anthropogenic, the natural and the social could be the symbolic, reaffirming of territorial, social, cultural, and ritualistic boundaries. Similarly, Darvill (2004: Chapter Eight) envisages long barrows as being an important part of the living Neolithic landscape, provoking

memories and emotion from the builders of the monuments and continuing to be highly visible and prominent parts of the landscape for future generations. How this may relate to the identity of the individuals interred at the sites is not clear. It could be that these individuals were prominent members of the community such as leaders and were chosen to represent the group after death. Or it may be that they were there in a religious capacity.

Another type of monument used for the deposition of the deceased are round barrows and cairns. As mentioned above, antiquarian researchers believed that round barrows and cairns were chronologically later than long barrows and cairns because many contained metal artefacts. However, later excavations in the early to mid-20th century revealed some round barrows contained artefactual material related to the Neolithic so these were attributed to the period. Specific research on Neolithic round barrows was not in great abundance until the second half of the 20th. An important piece of research is that of Kinnes (1979) which was the first real attempt to collate and categorise Neolithic round barrows and cairns. The earliest examples of these monuments can be found in the Early Neolithic, such as Wold Newton, Yorkshire (Gibson & Bayliss 2010) and Midtown, Aberdeenshire (Sheridan 2010a: 36). However, they are chiefly associated with the Middle Neolithic. Round barrows and cairns are found in their largest abundance in Yorkshire, although others are recognised elsewhere within Britain. Round barrows consist of a circular or subcircular mound of earth and round cairns a circular or subcircular mound of stones. There is a good chance that many of the round barrows attributed to the Neolithic belong to the Bronze Age. Radiocarbon dating of several round barrows from Yorkshire by Gibson & Bayliss (2010) has demonstrated that some once presumed to be Neolithic through relative dating were, in fact, Bronze Age, so caution is certainly needed. Other than the shape, round barrows and cairns are like long barrows and cairns in the way they were constructed and used. However, the difference in shape could be crucial; a conscious and very deliberate decision would have to be made as to

whether a barrow would be round or long, and the cultural significance of the shape of monuments could be deeply symbolic and meaningful (see Bradley 1998; 2012). This is an area in which ideas surrounding individual identity could be critical in deciphering the relevance of each shape of barrow or cairn. For instance, if certain demographic groups or individuals with specific lifeways were dominant at either shaped barrow, then this could assist in future interpretations surrounding their divergences.

A range of mortuary practices are recognised at round barrows and cairns, and, unlike many earlier site types, they can have several phases of interment over a prolonged period. For instance, at Wold Newton, Yorkshire, two distinct deposition events are recognised, each being separated by a hiatus of up to 300 years (Gibson & Bayliss 2010). Similarly, at Duggleby Howe, Yorkshire, several occurrences of deposition occurred with the length of time between the first and final burial being close to 1000 years (see Gibson *et al.* 2009). In the earlier round barrows and cairns, human remains follow a similar pattern to long barrows and cairns in that they heavily feature disarticulated remains with occasional articulated remains also present. However, the chronologically later sites present much more single or occasionally double-articulated interments, often with grave goods, along with an increase in cremated remains. For example, at the oval barrow at Barrow Hills, Oxfordshire was a double burial with one individual being accompanied by a polished flint knife and the other being accompanied by a jet belt slider (Barclay & Halpin 1997). Also, at Whitegrounds, Yorkshire, a single inhumation was accompanied by several grave goods, including a polished stone axe and a jet belt slider (Brewster 1984). Finally, at Liff's Low, Derbyshire, a single individual was deposited fully articulated along with several grave goods (see Fig. 3.8), including pottery, boar tusks, flint arrowheads, spearheads, knives and axes, red ochre, and an antler macehead (Barnatt 1996).

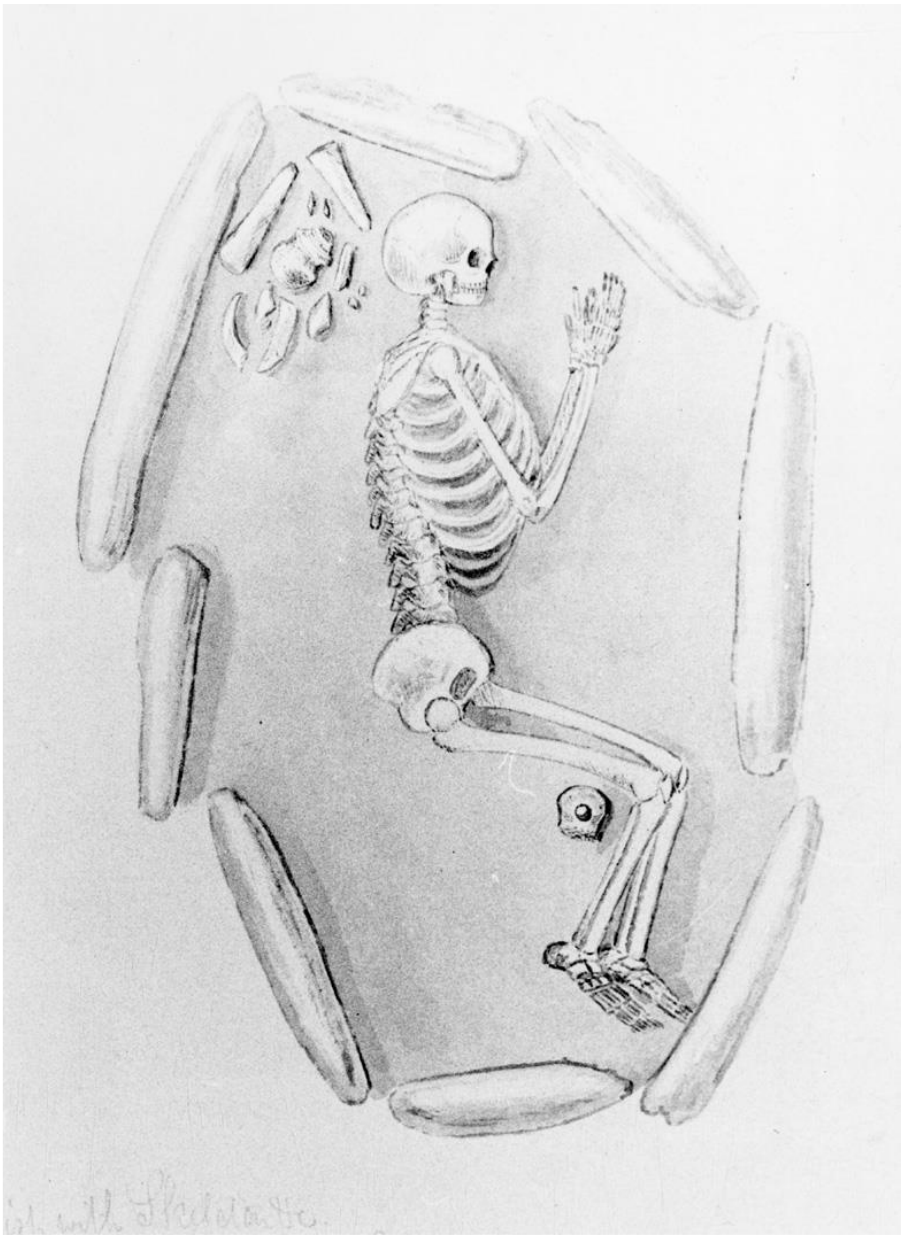

Figure 3.8 Drawing of the single burial found at Liff's Low, Derbyshire (Loveday & Barclay 2010).

All the monument types discussed so far could be described as funerary monuments. However, individuals are also deposited at site types that are not funerary *per se* but more multifunctional. An example of this is causewayed enclosures. Causewayed enclosures are mostly found in southern England, with a small number of examples in Wales and one on the Isle of Man (see Whittle *et al.* 2011c). They are incredibly diverse in form and size but in general, they are circular enclosures with a surrounding ditch or ditches containing breaks, or

causeways within them, with some containing a wooden palisade. A recent substantial dating programme by Whittle *et al.* (2011b) has suggested a date range for the construction of the sites between 3700 and 3500 cal BC, but sites could have continued to be used well into the Middle Neolithic until around 3300 cal BC. Research has also demonstrated that there could be great variance between the amount of time and number of phases taken to construct the sites with some such as Windmill Hill taking just 20 to 25 years but some such as Hambledon Hill taking over 200 (*ibid*). Material culture such as lithic assemblages and pottery as well as human and animal remains are accounted for at the sites in varying quantities.

The use of causewayed enclosures is a much-debated topic. It has been suggested that they were meeting places for feasting. Legge (1981) suggests that the overabundance of cattle bones at Hambledon Hill could signify this and further environmental data from other sites have demonstrated that live animals had been within the enclosures (see Whittle *et al.* 2011a: 893). Some sites may have been manufacturing centres. For example, at Abingdon, Oxfordshire (Avery 1982) and Etton, Cambridgeshire (Pryor 1998) there is evidence that suggests stone polishing occurred on the sites. Another suggestion is that of a settlement with a few sites exhibiting structures within the enclosure (e.g., Crickley Hill – Dixon 1988; 1994). Another explanation is that they were utilised for defence. At Hambledon Hill (Mercer & Healy 2008) palisades were twice burned down and at Crickley Hill (Dixon 1988; 1994) a similar action is recorded along with suspected interpersonal violence from osteological evidence. The deposition of specific items seems to have been a feature at causewayed enclosures, particularly within the ditches. Substantial amounts of fragmented pottery are accounted for with up to 1200 vessels suggested for Windmill Hill (Whittle *et al.* 1999). Also commonly deposited are stone tools, especially axes. These are often broken and fragmented and can come from differing regions to the site itself. For example, at Windmill Hill lithic

material was found with provenances ranging from Cumbria, Cornwall, Leicestershire, and Wales (Whittle *et al.* 1999).

Regardless of the precise purpose of causewayed enclosures, what is evident is that they were places where communities met and performed acts together, whether that be feasting, manufacturing or other more ritualised actions. Cummings (2017: 135) suggests that they may in fact represent areas in which different communities met to negotiate social relations with one another, with the deposition of exotic materials and human remains being part of these negotiations. As is the case with other site types, the location within the landscape of causewayed enclosures must also be considered. Many are close to waterways with some suggesting that the ditches within the sites may have been flooded at certain points in the year (Oswald 2001: 91). Research by Harris (2010) regarding Hambledon Hill has suggested that emotion and memory were key factors at the site, with the deposition of human remains acting as mnemonic devices which dictated how individuals interacted with and experienced the site. In this case, he uses the example of two nonadults who were buried at the site and both had similar medical conditions which would have marked them out as different. The fact that they were buried in the same place but between 160 and 250 years apart, and had similar medical issues, implies that these two individuals left a long-lasting legacy on the group through memory and emotion (*ibid*). Ideas such as this are important in attempting to unravel individual identities. The individual identities of these two nonadults are obviously considered much more in this interpretation. They were different through their illnesses, and this was emphasised in their divergent funerary treatment.

Human remains are found at many causewayed enclosures. They vary in number and have been uncovered in both articulated and disarticulated states. For example, at Hambledon Hill up to 75 individuals were present, the majority being disarticulated with some being primary

articulated inhumations and there are strong indications that the site may have been used for excarnation (Mercer & Healy 2008). The recurrent theme of the manipulation and sorting of human remains is also present at causewayed enclosures with specific areas of the sites being reserved for specific skeletal elements such as crania being carefully placed in the main ditch at Hambledon Hill (*ibid*). At Windmill Hill an adult male was interred fully articulated in an area which would later become the outer bank of the site (Smith 1965). Also, at Etton human remains appear to have been confined to one-half of the enclosure (Pryor 1998). The areas in which human remains are encountered, often within the ditches and under the banks of the sites could also suggest that skeletal material was also an important part of the foundational construction of causewayed enclosures. This again draws parallels with the earlier discussed ideas of Cummings (2017: 113) and dedicatory deposits.

Osteological analysis demonstrates relatively high instances of trauma and possible violent trauma at causewayed enclosures. Mercer & Healy (2008: 761) suggest that this may represent ritualised violence and these interpretations do allow certain aspects of individual identity to be drawn upon. These individuals were specifically chosen and subjected to possible violent episodes so the question must be asked as to why these particular people. It could be that they were outsiders or pariahs to the group, enemies of the group or chosen for another unclear cultural or ritualistic reason. More careful osteological and bioarchaeological analyses on specific individuals and demographic groups could aid in unravelling these reasons.

Annular monuments are another site-type group developed for this research and are defined as monuments which form a ring. These began to be constructed in the Middle Neolithic but increased in prevalence during the Late Neolithic and their use, and development continued into the Bronze Age. Annular monuments encompass sites such as henges, stone circles, timber circles and pit circles. Similarly to causewayed enclosures, these sites do not seem to

be funerary *per se* and their actual purpose and use are not clear. Nevertheless, human remains are encountered at some of these sites and, while non-cremated remains are present, cremated remains seem more common such as at Stonehenge, Wiltshire (Parker Pearson *et al.* 2009; Willis *et al.* 2016), Woodhenge, Wiltshire (Pollard 1995), Forteviot, Perthshire (Noble *et al.* 2017), Balbirnie, Fife (Gibson 2011), Cairnpapple, West Lothian (Barclay 1999), Llandegai A, Caernarfonshire (Houlder 1967) and Dorchester 3, Oxfordshire (Atkinson *et al.* 1951). Cremated remains found at sites such as these may have acted as foundational deposits for the construction of these monumental complexes. The human remains may have held potent cultural and/or ritualistic properties that were needed to construct these sites.

The first part of this chapter has established what mortuary practices are found within Neolithic Britain and what types of sites individuals are deposited at. While both single and multiple burials are present, articulated, disarticulated, and cremated remains represented, and a range of site types used, most British Neolithic skeletal assemblages are disarticulated, commingled, and deposited at monumental sites such as chambered tombs and long barrows. This poses problems in attempting to understand more intricate details of identities because individuals are hard to see within these types of assemblages. This is reflected in some of the interpretations reached surrounding the funerary archaeology of Neolithic Britain. While this section has only briefly examined some of the more generalised interpretations surrounding mortuary practices and site types, the overwhelming theme they all share is in relation to group identities. However, as has been highlighted throughout the section, a greater consideration of individual identities and their associated taxonomies, through analysing areas such as demography and lifeways, has the potential to build upon and develop these ideas.

3.3: Identity, Gender, and Age in Neolithic Britain

3.3.1: Identity

This section will now critically examine how identity, gender and age have been interpreted for the British Neolithic. Ideas surrounding identity for the period follow a similar chronological pattern to how archaeology has approached identity as a whole. As discussed in the previous chapter, antiquarian researchers perceived the long mound builders, which we now know to be Neolithic individuals, to be a distinct race of people different to the round mound builders (e.g., Schaafhausen 1861; Davis & Thurnam 1865; Thurnam 1865; Thurnam 1867; Rolleston 1869; Rolleston 1876). This gave them their own unique group identity. Assertions were also made regarding aspects of individual identity. For example, interpretations suggested centrally interred males were local chiefs considered who these people may have been in life (e.g., Thurnam 1869; Jewitt 1870; Greenwell 1877).

Later in the early to mid-20th century interpretations tended to focus upon generalised group identities and cultures often through typological assessment of material culture and monumental architecture (e.g., Childe 1925; Piggott 1954; Daniel 1958). For example, Piggott (1954) proposed that the individuals deposited at chambered tombs represented a collection of ancestors procured over an extended period, with the monuments acting as long-lasting 'family' vaults. Bayesian modelling of radiocarbon dates retrieved from long barrows and chambered tombs from the south of Britain (see Bayliss *et al.* 2007a; Bayliss *et al.* 2007b; Meadows *et al.* 2007; Whittle *et al.* 2007; Wysocki *et al.* 2007; Wysocki *et al.* 2013) contradict this hypothesis however and demonstrate that some of the sites were only used for a relatively short period. For instance, at Ascott-under-Wychwood and Hazleton North, it is

estimated that the funerary use lasted around three generations (see Bayliss *et al.* 2007a & Meadows *et al.* 2007 respectively). Recent aDNA research focussed on kinship at Hazleton North, Gloucestershire, has demonstrated that many of the occupants of the tomb did belong to the same family group however (Fowler *et al.* 2022). So, in this case, the tomb could be described as a family vault, albeit not as long-lasting as first envisaged.

With the rise of processual archaeology, scientific and functional approaches to archaeological research became more common, and elucidations surrounding Neolithic funerary monuments and the individuals interred within them altered. For example, Renfrew's (1973; 1975; 1981) research on chambered tombs in Orkney proposed that the function of the tombs was to act as territorial markers that reinforced different groups' claims to land. He also considered the excessive cost of tombs in terms of labour, resources, and time and suggested that the individuals interred at these sites must be important because of this (*ibid*). These studies led to the development of ideas surrounding 'elites' and models of social organisation based on status. They very much followed the Saxe (1970) and Binford (1971) models of social persona, discussed in Chapter Two, which suggests mortuary practices are used to explicitly communicate information such as status to the wider community. Interpretations such as this do consider aspects of individual identity much more, in this case, status and rank.

As processual approaches began to be challenged by post-processual archaeology, ideas surrounding British Neolithic identity also evolved. No longer were Neolithic funerary remains viewed as direct and straightforward communications by the living to reflect the deceased in life but were instead thought to signify certain aspects of society, not precisely or accurately but in an ideological manner. For research on British Neolithic funerary archaeology, this meant new theoretical approaches to interpretation were needed which could be used to decipher what ideologies were being communicated through the mortuary

practices. One key theme established during this period is that of ancestors and ancestor veneration. The concept of ancestors came to the fore within British Neolithic funerary archaeology during the 1990s. Archaeologists such as Scott (1992) and Barrett (1994) suggested funerary sites may have acted as focal points for the worshipping of ancestors with the living being able to perform rituals to bring them into contact with the ancestral dead. Barrett (1994: 51) takes this further and proposes that the deposition of the dead found at funerary monuments was part of a ritual to both allow the deceased to enter the realm of the ancestors and for the living to communicate with the ancestors. This suggests that once the deceased are introduced into the ancestral world, they cease to be an individual and instead become part of a collective entity of ancestors.

Parker Pearson (2000) proposes that the often protracted and multifaceted mortuary practices and funerary rites which are accounted for within Neolithic Britain are indicative of this collective spirit identity. He suggested that processes such as excarnation and disarticulation along with the collection, redeposition and commingling of skeletal material substantiates this premise (*ibid*: 204). In some respects, the ancestor model could be described as a more nuanced continuation of the ideas initially proposed by individuals such as Piggott (1954) and how Neolithic funerary sites acted as long-lasting ancestral or family vaults. However, as demonstrated above, radiocarbon dating programmes have now called into question the longevity that these sites had (e.g., Bayliss *et al.* 2007a; Bayliss *et al.* 2007b; Meadows *et al.* 2007; Whittle *et al.* 2007; Wysocki *et al.* 2007; Wysocki *et al.* 2013). If sites were not as long-lasting as initially believed, then definitions of what constitutes ancestors must be considered. Fowler (2010a) does suggest that the timescales of sites should not affect the importance ancestors may have played in Neolithic Britain, nonetheless, it does change the context and meaning of what ancestors may consist of.

The focus on the ancestor collective identity has meant that individual identities may have been overlooked. However, it also opens questions regarding the individual identities of people chosen to be added to the ancestor realm. These individuals were selected for inclusion for a specific reason and their individual identities and associated identity taxonomies likely played a big part in this. They could have had specific cultural or social identities which were important to the group. The fact that some of these sites were constructed quickly and were in use for a brief period does hint at their construction marking or commemorating an occasion of some sort. The building of these monuments would have been a considerable undertaking with lots of careful planning, procuring of resources and cooperation between communities needed to complete them. These individuals may have played an active part in the event or events leading up to the construction of the site, they may have been notable members of the community, or they may even have been responsible for the planning and construction of the site. This is an area in which more information about the actual individuals present, such as their demographic group and lifeways, could really assist in recognising what was happening at these sites, elucidate why these individuals were included at the sites, and further develop ancestor-based interpretations.

The work of Strathern (1988) on relational personhood, summarised in the previous chapter, was a major influence on innovative approaches in understanding British Neolithic identity at the start of the new millennium. A good example of this is the research conducted by Fowler (2001) which looked at Neolithic mortuary practices on the Isle of Man. By using the ethnographic literature of Strathern (1988) for analogy as well as being influenced by some of the previously mentioned work of Butler (1990; 1993) on gender and performativity, he strived to recognise whether differing forms of personhood could be demonstrated through material found within the funerary record on the island. It was found that during the cremation process, human remains, and other material culture were often mixed on funerary

pyres which he believed underlined the idea of relational personhood. The commingling of human remains and material culture, combined with the transformative qualities which cremation presents were indicative of new relationships being formed and old relationships being ended thus creating a new personhood for the living and the dead (Fowler 2001). Further inferences regarding relational personhood being present were made with regard to the disarticulated and commingled remains accounted for at some of the funerary sites. It was established that disarticulated skeletal material from differing individuals was often 'rearticulated' together to essentially form a 'new body' (*ibid*). This was again suggested to be highly indicative of partible forms of personhood being present. By appropriating different skeletal elements from different individuals and placing them together new relationships were being established and a new relational personhood was being formed which would affect not only the deceased but the living as well.

The concept of relational personhood for the British Neolithic is again heavily focused upon collective group identities which place little emphasis on the role of the individual, their identity and the taxonomies that create it. The very concept of the dividual automatically erases the individual, their social role and their place within society and suggests they are part of a wider network of interchangeable identities. Chapman & Gaydarska (2011) suggest that the significant increase in skills that would have been acquired during the technological progression of the Neolithic would have created a multitude of new individual social identities which many personhood models fail to recognise. There have been aims to counteract this however in recent years. For example, Fowler (2016) has revised his personhood model which opens the door for individual identities to be explored much more within the paradigm. He moves away from relational personhood being a specific and rigid form of personhood to suggesting that all forms of personhood are always relational just in diverse ways. He also suggests that personhood can be multi-modal in that more than one

type of personhood can be present within a society and he also emphasises that personhood should be used to complement interpretations surrounding identity taxonomies such as age, gender, ethnicity, and status (*ibid*).

Other recent theoretical approaches to Neolithic funerary archaeology have seen a much greater degree of importance placed upon the bodies of the deceased themselves. Fowler (2008) suggests human remains should be viewed as part of the material world and can be considered as both a material and conceptual entity together. He also later suggests that human remains, material culture and the construction of monuments may all relate to each other forming an equally important part of the process (Fowler 2010a). Hodder (1982b) argues against this, proposing that the human body will always be a much more dominant symbolic focus than material culture due to its capability of evoking emotion and memory from the living. There have been a multitude of explanations as to what the body could have signified and why certain individuals' bodies were chosen to be a part of funerary practices. One explanation for this is the idea that the dead may be dangerous or malevolent. In his anthropological research, Hertz (1907) proposed that while the deceased are undergoing putrefaction the soul and spirit of the individual becomes dangerous and it is not until the individual has been skeletonised and placed within their final burial place that they are viewed as safe (*ibid*). Taylor (2002: 29) suggests that to fully understand Neolithic mortuary practices then we must accept that ancient people may have had a genuine fear of the spirit or soul of the dead. Similarly, Smith & Brickley (2009: 61) state that the fear of the dead may be one of the catalysts for protracted and multi-stage burial practices. In discussing the blocking of entranceways in chambered tombs in the Cotswolds, Darvill (2004: 173) suggests that, while there may be a practical reason for doing so i.e., to stop people getting in, the entrances could equally be blocked to stop the dead getting out. This would again conform to the idea

of the deceased being dangerous to the living. However, if certain individuals were viewed as dangerous it must be considered why this may be.

The fact that the number of individuals represented in the British Neolithic funerary record is far lower than what would be expected from the predicted population of Britain at the time, an idea first proposed by Piggott (1954), suggests that these individuals were treated differently than the rest of the population. While they received the funerary treatment that is present within the archaeological record, the majority may have received a normalised and uniform treatment that provides no, very minimal, or hard-to-detect traces archaeologically. Historically this was taken to mean that these individuals, the ones that reached the archaeological record, were part of the elite. Conversely, however, the Marxist-inspired Shanks & Tilley (1982) research at Fussell's Lodge, Wiltshire suggested the opposite and that it was to disguise inequalities and demonstrate equality, they reached this interpretation by suggesting that the commingled and disarticulated nature of Neolithic funerary remains within these mortuary sites was a physical metaphor for social organisation.

The fact that these individuals may have received special treatment compared with the majority could also suggest that they were deviants or pariahs, and obtained deviant burials, a burial in which an individual receives funerary treatment different from the norm due to their social status (Murphy 2008). This definition does appear to fit the Neolithic if, as suspected, the rest of the population were afforded differing, more homogenous rites. If these individuals did something wrong or were somehow different during their lives and regarded as deviant individuals, it may be that the living felt the spirit of the person may also be dangerous to society, so they had to undergo specific treatment for the group to be safe. However, research on chambered tombs in Orkney by Crozier (2014) has suggested that the number of individuals interred at the sites was likely much higher and may be more common than initially thought. Through careful taphonomic analyses and drawing

ethnographic parallels with the Merina in Madagascar (see Bloch 1971; 1982), she proposes that the number of individuals encountered in the modern day within the tombs is greatly decreased from what was there originally and the depletion is due to the successive interment of new individuals and the sorting of already established ones within the tombs. This means caution must be undertaken in labelling individuals found within the British funerary record as deviants until a greater understanding of the numbers of people deposited at sites is known.

Another reason the deceased's spirit or soul may be malevolent could be due to the type of death the person had. Fowler (2010b) suggests that individuals who received multi-stage mortuary practices and were interred in chambered tombs may represent individuals who had difficult or bad deaths. This could include premature death, e.g., child deaths, suicide, sudden illness, all of which could be linked to magic or witchcraft, and violent deaths. Further proposals to this formulation suggest that the positioning of the tombs was purposely on the periphery of settlements, in a liminal space, but in a position in which they could be seen (Cummings 2017: 108). Modern-day attitudes and beliefs regarding the malevolency of the soul or spirit are fairly non-existent since the rise of scientific and sceptical thought (Taylor 2002: 27). However, that is not to say they do not continue within popular culture. If supernatural fiction is considered, a key familiar concept surrounding spirits and hauntings is the premature death of an individual and their need to resolve unfinished business or obtain revenge, and this concept is easily aligned with Fowler's (2010b) suggestions on difficult deaths. These ideas pay much more credence to individual identity than the previously discussed ones and consider aspects of individuality. More careful analysis of the lifeways of individuals could assist in furthering these ideas.

Emotion and memory, their role within funerary contexts, and the landscapes they are situated within are also playing an increasingly significant role in understanding identity in the British Neolithic (e.g., Jones 2010; Harris 2010). There is a rising recognition that certain

areas within the landscape may have been incredibly important due to the memories they invoked. As demonstrated in the first part of this chapter many funerary sites saw previous occupation before their construction, and their usage could often be short-lived (e.g., Ascott-under-Wychwood, Oxfordshire – Benson & Whittle 2006). This means the sites could represent a specific memory or time that the living felt needed to commemorate. It is difficult to disentangle individual identities from these interpretations however, obviously, it could be suggested that the dead had some sort of link to the area or event that led up to the construction of the site but as to why is challenging to propose. Whittle *et al.* (2011c) in discussing the Early Neolithic suggests the construction of monuments may be a result of new dominant groups asserting their mark upon the landscape, which is a bit of a throwback to ideas proposed by Renfrew (1973). The previously mentioned aDNA research by Brace *et al.* (2019) which suggests an influx of migrants from Europe entering Britain at the start of the Neolithic does substantiate these claims. It could be once the continental farmers arrived in the region, they wished to place their group identities onto the landscape in the form of monuments. Cummings (2003) has advocated that the monuments themselves may not be the most important aspect of the sites but instead, the land on which they are situated, which may represent fractured memories for the living. What role the deceased played as an individual within these paradigms is again unclear, and further research on the demographic representation and health and lifeways of the deceased themselves could present new information.

A much more recent theoretical approach related to identity for Neolithic Britain is that of house societies. The concept of house societies was initially developed by Lévi-Strauss during the 1970s (see Lévi-Strauss 1983). The model was created as an alternative to traditional anthropological views on kinship. Lévi-Strauss defined a house society as a corporate entity organised around shared dwelling spaces and buildings, subsistence and

means of production that is created from both material and immaterial wealth. The house maintains itself by continuously transmitting its name, its commodities, and its titles down a line of succession. This can be real or fictive but is considered legitimate provided this permanency can articulate itself in the language of kinship and descent or of affinity and alliance and, most often, of both (*ibid:* 194). One way Lévi-Strauss explained this model was by using the noble houses of Medieval Europe as an example. He argued that rigorous lineage rules for succession of inheritance were not applicable, and that house continuity was not just based upon reproductive biology (*ibid*). Instead of direct biological kinship, noble houses were more abstract in their continuity considering material and spiritual legacy which was comprised of power, wealth, symbols, kinship, and origins (Gillespie 2000b). While biological kinship may well be important, what is crucial is the continuation of the house and its associated material and conceptual elements. This meant the group adhered to a shared set of rules and obligations which helped uphold and maintain the entity. This is an important aspect to consider for identities as the framework which the house dictates to the individual members will have an impact on how their personal, but much more so their social identities, are formed.

In the subsequent years, since Lévi-Strauss's initial formulation of the concept, several researchers have endeavoured to improve upon the preliminary framework and make it more universal and less rigid (e.g., Carsten & Hugh-Jones 1995; Joyce & Gillespie 2000). Much of these refinements to Lévi-Strauss's model have suggested that the house, while an important and active social agent both in the physical sense of the buildings and structures themselves and in the symbolic sense of what they communicate, was not necessarily the sole force responsible for the formation of the house society. Instead, the house, both physically and conceptually, was proposed to be an outer shell of wider cultural, social, cosmological, and genealogical beliefs and relations (Bourdieu 1990; Carsten & Hugh-Jones 1995; Joyce &

Gillespie 2000). The house as a social institution has become a popular theme within archaeology. For prehistoric contexts, this has particularly been the case within areas in which physical buildings appear to dominate the archaeological record (e.g., Kuijt 2000; Chesson 2003) due to the obvious links between physical architecture and how it could relate to social composition. While not implicitly a house society theoretical model, and developed before Lévi-Strauss's formulations of house societies, an early example of this equating of physical structures and architectural organisation with ideas of social and cultural organisations for the Neolithic can be found in Flannery's (1972) assessment of the changing nature of house types in the Neolithic Middle East. He suggested some notable divergences between the types of buildings and social organisation present between the Pre-Pottery Neolithic A and B periods. In the PPNA buildings were rounded and it was interpreted that community storage was present, with resources being shared suggesting a society made up of a large collective like an extended family. For PPNB the buildings became rectangular, and storage was believed to be private and limited to each household and unlike the previous period, family groups were suggested to be separate entities and competing for the accumulation of wealth instead of sharing it (*ibid*). While this study has been criticised in the subsequent years (e.g., Parker Pearson & Richards 1994), it is nevertheless important as it demonstrated how the creation and maintenance of societies may be organised around buildings and how they are used, and that these may have social and cultural implications.

More recently the cultural, social, and symbolic dimensions of buildings within the archaeological record have been refined and built upon. Borić (2008) suggests that three elements must be considered. The first is a manifestation of cultural identities within the architecture itself; the second is a recognition of social hierarchy and variation through spatial organisation between both different buildings within a settlement and also within a building itself; and finally, and the point which is most explicitly related to Lévi-Strauss's ideas, the

understanding that the above points lead to the formation of a corporate entity that has collective agency which maintains the permanency of a descent group beyond the lives of individual house members (*ibid:* 113). While this can be incredibly challenging to recognise within the archaeological record Borić goes on to use these ideas to suggest that a form of house society was prevalent within the Neolithic of southeast Europe. By assessing the changing nature of structure building within the region he proposes that the entity of a house society was a profoundly entrenched form of organising social groups notwithstanding the ever-changing cultural, social, and political circumstances that the Neolithic brought. One of the key elements thought to substantiate this interpretation was the physical building of structures which, while showing stylistic variation over time, provided a social and cultural continuity that could be reproduced through social procedures which incorporated a wider group of non-biologically related members (*ibid*). In other words, groups would use their built environments to communicate their identity and their allegiance to their branch of Neolithic society.

Along these lines, a form of house society has been recently suggested for the Neolithic of Orkney. Richards *et al.* (2016) propose several points which may demonstrate this being the case from the archaeological evidence relating to houses and house building. It is suggested that the transition from wooden structures to stone structures marks the beginning of this new type of social organisation. The fact that the new stone houses mirror the architecture of the already established chambered tombs provides a genealogical link to the origins of the Neolithic arriving in Orkney and thus aids in the reproduction of the social and cultural elements attached to this. Also, the establishment of nucleated settlements and 'big' houses reinforces the Lévi-Strauss (1983) idea of house societies in that, while actively changing and adding to the settlements, they are also continuing social traditions and emphasising the symbolic and social components attached to their society by constructing within the same or

similar styles and not destroying what came before. It is proposed that towards the end of the Neolithic in Orkney this form of social organisation can be seen to decrease through the devolution of building density and population, with larger settlements falling out of favour, implying that differing ways of social composition were now preferential (Richards *et al.* 2016).

This holds implications for identities within the period. If, as is suggested, forms of house societies were present in Neolithic Britain then this would imply a strong shared collective identity in attendance based upon the material and immaterial elements present within the society. The social and cultural factors attached to the house would need to be communicated through various means to maintain and persist over time and through lineages. This would affect how society was organised which, by extension, would also affect how identities were constructed. However, this only attempts to explain the collective and group identities of the Neolithic people and not the personal and individual ones. Individual identities may have been essential elements within this framework and how they interacted with other identity types within a house society model may be a crucial idea to consider when attempting to understand if, or how, house societies were formulated within the Neolithic of Britain. Further information on demography and lifeways found within the funerary record could build upon house society models and consider how individual identities functioned within this form of social organisation and how they aided in its permanency.

3.3.2: Gender

Gender is an under-researched topic not only for the Neolithic of Britain but equally for Neolithic Europe in general. For Britain, this is again likely due to the nature of Neolithic burials, comingled and disarticulated and lacking in personal grave goods, making it difficult to recognise males and females and identify any notable funerary divergences. In the preceding European Mesolithic, much variation has been identified between males and females and this has been used to suggest gendered identities being present. For example, there are a plethora of instances of pathological differences attested for such degenerative joint changes being more prevalent in males than females (e.g., Nemeskéri & Lengyel 1978: 24), divergences in limb lateralisation and enthesopathy between males and females (see Constandse-Westermann & Newall 1989; Villotte *et al.* 2010; Villotte & Knüsel 2014), and variations in tooth wear (Blankholm 2008). All these suggest that males and females had separate roles within society as each pathology would be caused by repetitively completing different tasks. Dietary differences have also been noted for males and females (e.g., Bonsall *et al.* 1997: 79 – 83; Schulting & Richards 2001; Lillie & Budd 2011: 53).

Body positioning within graves has likewise demonstrated variations between males and females. At Strøby Egede males were buried with their heads to the north while females had their heads to the south (Brinch Petersen 1990). The amounts and types of grave goods are also divergent. For example, at several sites in Italy and at Popov, Russia, females have a distinct lack of personal ornaments compared to males, with none in the latter example (see Gazzoni & Fontana 2011; Oshibkina 2016 respectively). Tools found within graves also appear to be predominantly associated with males (see Grünberg 2017). All these examples

present clear differentiation between males and females which is incredibly useful in attempting to interpret gendered identities based on biological sex.

A similar picture to the Mesolithic can be found in the European and British Bronze Ages. Clear distinctions between the treatment of males and females in funerary contexts can be seen, through the grave goods and personal ornamentation accompanying the deceased (see Sørensen 1997; 2013; Treherne 1995; Harding 2007). Differences in other aspects of mortuary treatment such as the orientation of the body and the proportion of males and females deposited at different site types are also present (e.g., Holst 2013). In Britain, more males receive beaker-style burials than females and, where females are interred, divergences are present such as males being mostly placed on their left side and females placed on their right (see Shepherd 2012). All of this indicates a clear dichotomy between males and females in the Bronze Age and suggests that the identities of 'male' and 'female' were a prevailing influence within Bronze Age society (Holst 2013).

This dichotomy between males and females found in both the Mesolithic and Bronze Age periods has rarely been recognised at funerary sites of the British Neolithic. In the wider European area, there has been a small number of Neolithic sites which show some variation. For example, monumental cemeteries in the Paris Basin demonstrate that males are exclusively buried with arrowheads (Chambon & Thomas 2010). The *Linearbandkeramik* (LBK) culture of central Europe also provides a few instances of divergences between the biological sexes. For example, the S*pondylus* shell is commonly associated with males at the Aiterhofen cemetery in Germany, although age also is a key component as females over the age of 40 are likewise found with them (Hofmann 2009). Females and nonadults in LBK contexts appear to be more likely to suffer violence than males (see Hedges *et al.* 2013: 371). Also, it appears that in some LBK groups, a divergence between the food intake of males and females is present suggesting gendered diets (Whittle *et al.* 2013: 191). Representations of

the female body in the form of figurines (see Clutton-Brock 1991; Bailey 2005) also suggest that the differences between male and female bodies were recognised and held different symbolic meanings (e.g., Gimbutas 1989; 1991).

For Neolithic Britain, notable differences between the biological sexes appear to be a rarity. There are a few subtle hints of some distinctions being present. Males are said to be more prevalent within chambered tomb and long barrow contexts than females (see Smith & Brickley 2009: 88; Edwards & Pope 2013: 463 – 464), however recent aDNA and osteological research suggest this may not be as clear-cut as initially thought (see Elliott *et al.* 2022). Osteological analysis at West Kennet, Wiltshire demonstrated that males may have used their upper limbs more than females and demonstrated greater rotary action with their right shoulder (Wysocki & Whittle 2000: 594 – 595). Isotopic analysis of individuals from Hambledon Hill also hints at some variation between males and females (Mercer & Healy 2008). Further isotopic analyses of burial populations at Monkton-up-Wimborne, Dorset demonstrated that some females were involved in long-distance mobility compared to males (Montgomery *et al.* 2000). Also, recent aDNA research looking at kinship has revealed a preference for preserving male lineages within chambered tombs (e.g., Dulias *et al.* 2022; Fowler *et al.* 2022).

The lack of clear differences between males and females in the British Neolithic led to a possible misunderstanding of gender in the Neolithic. The funerary evidence from both the Mesolithic and Bronze Ages corresponds to an easily recognisable and understandable binary model of gender that is relatable to other subsequent historical periods, yet because the funerary contexts from the Neolithic do not fit these criteria, the concept of gender is dismissed with the main reasoning being a lack of evidence (Robb & Harris 2018). This dismissal has led to a large gap in knowledge surrounding gender in the Neolithic, which means a lack of comprehension of wider social structures being present during the period. It

must be considered, however, that just because sex-based identities are not obviously visible it does not mean they do not exist. There could be every chance that they were like both the preceding and subsequent Mesolithic and Bronze Ages, but this is just not represented in death. Gender could also be fundamentally different and unlike what is seen in other prehistoric archaeological contexts. Thinking back to the previous chapter, gender can be incredibly diverse and wide-ranging and is not confined to a simple binary split. The disarticulated and commingled nature of most of the British Neolithic funerary record means that traditional methods of recognising and understanding gender are not going to work. An innovative approach is needed which more carefully considers the skeletal evidence available to develop new understandings of gender in the British Neolithic.

3.3.3: Age

Much like gender, age is also an often neglected aspect of identity within archaeological interpretations of the Neolithic. To date, there has been no research carried out that is focused upon specific adult age groups such as the elderly for the Neolithic of Britain and likewise any other region in Europe. This is problematic as a range of age groups are recognised within the burial record, with their age likely a contributing factor in the formation of their identity. Slight variations in amounts of grave goods individuals were buried with, based on age, are attested for within some Mesolithic funerary assemblages (see Grünberg 2017). The work on old age by Appleby (2010; 2018), mentioned in the previous chapter, has been applied to Bronze Age contexts. Through the analysis of Bronze Age burials in the Traisen Valley, Austria, Appleby (2011) explored the relationships between the physical age of the skeletal remains, their pathological variations, and the material culture with which they were

interred. By considering the representation of different age groups, as well as their health and associated material culture, social identities for the varying age groups were able to be hypothesised and thus assertions were made about how age affected identities (*ibid*). This would be a difficult model to use for Neolithic Britain due to the large amount of disarticulated and fragmented remains, and lack of personal grave goods. However, what research such as this does show is that by considering the multiple elements of ageing, new formulations can be gained surrounding age, ageing and how it contributes to identity, but also how it interacts with other aspects of identity.

While still relatively small in number, nonadults have been researched in Neolithic Europe but have not yet had any major attention within Britain. There are several examples of how the study of nonadults within the European region has led to strong interpretations as to how their age may have affected their identity. For instance, research on Neolithic tombs in Iberia, which similarly to Britain were collective burials, found that the nonadults and adults placed within these funerary monuments all had similar mortuary treatment (Waterman & Thomas 2011). It was suggested that the reasons for this were that these nonadults had similar roles and statuses within society as their adult counterparts. So, in this case, it could be argued that the age of an individual did not affect the status/social position part of their identity, but it remains unclear as to whether the individual's age would have affected other elements of it. In the LBK of central Europe Bickle & Fibiger (2014) have analysed the osteological and lifeways data of nonadults. This demonstrated that ageing directly influenced the funerary treatment an individual received suggesting that ageing was an important and valued component of identity formation. They suggest a period of ‘middle childhood’ may have been present evidenced by the grave goods and body orientation of the deceased (*ibid*). This again suggests various parts of the ageing and maturation process were recognised and changed how an individual was perceived socially and this would directly influence an individual’s

identity, or how their identity was presented within the funerary assemblage. The analysis of lifeways and health data from the LBK funerary sites also appeared to show many nonadults having dietary stress (*ibid*). This would directly affect growth and may change the ageing process, which would then possibly affect how the individual's identity is formed.

Research in Neolithic France has identified differential funerary treatment for nonadults in comparison to adult individuals but also variable treatment between different age groups of nonadults (see Le Roy 2017; Le Roy *et al.* 2018). Overall nonadults are underrepresented at funerary sites. This was taken to denote that nonadults may have received divergent treatment from adults as they had not yet been integrated into the social group (Le Roy 2017). This suggests that age is a strong contributing component with regard to the social identity of an individual. At sites where nonadults are present, there appears to be an underrepresentation of nonadults under five-years-old, yet some sites show an overrepresentation of nonadults over five-years-old. In some respects, this links well with the research from the LBK Neolithic in that it demonstrates a recognition of the ageing and maturation process by affording different treatments to individuals after reaching certain stages of age. Again, this implies that age was a strong element in the formation of social identities. Similarly, it has also been suggested that nonadults in Neolithic Scandinavia had special costumes for burial rites in contrast to their adult counterparts (see Welinder 1998), again demonstrating a recognition of different age groups which implies differing statuses in society.

While research on age in the British Neolithic is fairly nonexistent at present, these examples from the wider European region and later chronological periods demonstrate that if approached correctly a plethora of useful information can be gained which can further knowledge on age, ageing, its role in the construction of identities and also its relation to other identity taxonomies. As highlighted by the above examples, by assessing demographic representation, divergences in funerary treatment and differences in lifeways it can be shown

that past societies did indeed recognise different points in the ageing process and used them in many ways to construct and maintain social identities. For reaching this point with the British Neolithic it is crucial to take a multifaceted approach like these when trying to interpret age-based identities. Doing so will strengthen interpretations and provide a fuller view of how age and ageing were recognised and used for Neolithic identities in Britain.

3.4: Conclusion

This chapter has demonstrated the diverse nature of mortuary practices found within the British Neolithic, the large variety of site types that are used to deposit the dead, and how these have been understood and interpreted in relation to identity. It has shown that, while many diverse types of mortuary practices and funerary sites are used, disarticulated, and commingled remains, placed within monumental funerary sites are in the majority and make up a substantial portion of the funerary record. This presents certain challenges when attempting to draw out new information regarding individual identities and identity taxonomies. It is difficult to recognise specific individuals and demographic groups amongst highly mixed and fragmented assemblages. Therefore, it is understandable that many of the interpretive models used to explain British Neolithic funerary archaeology are based on group identities and what messages the living are trying to communicate about their social group. Interpretations surrounding ancestors (e.g., Barrett 1994) and relational personhood (e.g., Fowler 2001) are both indicative of this. They suggest that once an individual dies they relinquish their individual identities and become part of a new group identity of the dead. One which has new social and cultural potency for the living population.

While these ideas are undoubtedly important, their lack of attention to individual identity and its associated taxonomies could be problematic. These individuals were specifically chosen to become part of the ancestor world or to create a new form of relational personhood with other individuals, objects, and things. Therefore, the question must be asked as to why. Their individual identities in life likely played a part in their selection and they probably had attributes which were thought just as crucial in death as well as life. Finding out new information regarding the individuals chosen to be included at these sites, be it demographic or lifeways orientated, could provide valuable new insights into who these individuals may have been in life and be crucial in unravelling wider questions about the cultural and social significance of their individual identity and why it needed to be included within certain funerary contexts.

By focussing on group identities and the messages which they may be conveying in death, understandings of identity for the British Neolithic tend to gear towards 'grand' social ideologies or meanings. This too can be problematic in the overall perception of identity during the period. In Chapter Two the postmodernist concept of deconstructionism developed by Derrida (1967) and subsequently used by several others (e.g., Foucault 1972; Lyotard 1984; Sampson 1993) was summarised. This proposed that things can have many meanings, and within those meanings can be a multitude of other meanings, and it is only by deconstructing and breaking them down that all these meanings can present themselves (Johnson 2010: 238). If this concept of meaning is applied to the British Neolithic and interpretations of identity, then it could be suggested that by attaching a singular grand meaning to the funerary contexts there is no recognition given to all the other smaller meanings that create it. There may very well be a main message that the living was attempting to communicate through funerary practices but without deconstructing it, it cannot be fully understood. Deconstruction in this context could be a greater acknowledgement of

the types of individuals deposited at funerary sites and how their identities are used to formulate the messages the living wishes to express.

This chapter has also demonstrated that there is a substantial lack of research on both gender and age for the British Neolithic. Again, much of this can be attributed to the nature of most British Neolithic skeletal assemblages, i.e., disarticulated and commingled. While no research has yet been completed on age and different age groups for the British Neolithic. Research from other later prehistoric periods such as by Appleby (2018) has shown that a deeper consideration of age, ageing, and the diverse types of age-based identities can be crucial in furthering understandings of its social and cultural importance. Age and ageing are deeply intertwined with identity and other identity taxonomies such as gender, which makes it an important identity taxonomy to further understand. With regards to gender, several examples were presented from both the Mesolithic and Bronze Ages which showed how gender, based upon biological sex, had been theorised. This was chiefly due to obvious differences in the lifeways or deathways of males and females being present (e.g., Treherne 1995; Sørensen 1997; 2013; Harding 2007; Shepherd 2012; Holst 2013). Having this dichotomy enables a binary system of gender that is easily recognisable and understood to be suggested.

This dichotomy does not appear to be present within the British Neolithic funerary record and this has led to gender being dismissed as a significant dimension of identity for the period. However, just because the evidence within the funerary record does not correspond with the criteria of gender set out by other prehistoric periods does not mean gender and sex-based identities are non-existent, they may just be fundamentally different (Robb & Harris 2018). Chapter Two highlights several examples of differential ways in which gender is conceptualised and it is not always binary and can be fluid (Whitehead 1981; Balzer 1996; Jacobs *et al.* 1997; Hollimon 2000). If this was the case in the British Neolithic, then the approaches to understanding gender used elsewhere in prehistory would have to be changed

and adapted to fully comprehend how gender was formed and maintained during the period. It is also worth noting that differences between males and females may well exist between Neolithic individuals, but these may not be as obvious as is found in other prehistoric contexts, and an innovative approach to looking at the funerary record could draw out some of these divergences.

To conclude, this chapter has demonstrated that conceptions of identity formulated for the British Neolithic are heavily focussed upon group identities with little attention being paid to individual identities and the taxonomies that create them. The likely explanation for this neglect is the disarticulated and commingled nature of most British Neolithic funerary contexts which makes recognising individuals challenging. However, as the previous chapter highlighted, a greater understanding of individual identities and their associated taxonomies can be of great assistance in comprehending wider social and cultural structures present, as it is these that create, maintain, and develop identities. Therefore, it is deemed crucial that further knowledge is gained within this area to produce new insights into British Neolithic societies. That is the focus of this research. While individuals are difficult to see amongst the mixed and fragmented human remains found in the British Neolithic, this research has developed a new approach utilising large-scale comparative analyses focussed on demographic representation and lifeways data to attempt to find differences between demographic groups that were previously unseen. It is believed that this approach has been successful in plugging the gaps in knowledge highlighted within this chapter and provided new insights into identity during the British Neolithic.

4: Materials, Methods, and Limitations

4.1: Introduction

The previous chapter has presented an overview of death and burial in Neolithic Britain as well as the ways in which the various funerary sites and mortuary practices have been interpreted and understood in relation to identity, gender, and age. Alongside this, it additionally highlighted any gaps in knowledge regarding identity in the British Neolithic and put forward the case as to why the study of individual identities, and particularly age- and sex-based identities, would be beneficial for greater comprehension of the period. This chapter will now demonstrate how this research intends to explore the themes of individual identity, gender, and age. This chapter aims to outline what materials were used for the research; what methodologies were undertaken to explore individual identities and the identity taxonomies of gender and age; how data was separated into comparative groups; and to underline any problems and limitations that were encountered during this process and how they were resolved. The focus of the chapter will be the main comparative tool used for this project, a database of all Neolithic funerary sites and sites in which human remains are present. The database itself is split into three parts consisting of site information, demographic information, and lifeways information, and the chapter will be structured around these three areas.

4.2: Site Information

The first part of the database concentrates on site information. Collectively 1518 funerary sites and sites which contain human remains have been recognised during the process of creating the database, these are highlighted in Fig. 4.1 which demonstrates their geographic location within Britain as well as the variety of site types that are present. A variety of diverse sources from antiquarian accounts, published literature and reports, as well as unpublished reports and theses were used during this process. The wide range of sources used to identify these sites means this represents an extremely high proportion of all sites in which funerary activity took place during the British Neolithic. Of course, there are likely many other sites that have yet to be discovered, that may have been destroyed historically, or that could have been excavated with no records existing. However, at the time of creation, it is believed that the database is as comprehensive as could be achieved with the current sources available.

It is important to distinguish funerary sites and sites which contain human remains. Some site types are specifically built for funerary activity (e.g., barrows; chambered tombs) whereas at others funerary activity does not appear to be the primary purpose (e.g., causewayed enclosures; henges; settlement contexts). At funerary-specific sites, human remains are not always found when excavated. There could be a plethora of reasons for this such as preservation issues or removal of the human bones at a later date. Some funerary sites are yet to be excavated and, of course, it is unknown if human remains are present at these. It is considered important to include these within the database however to present a full picture of the funerary landscape of Neolithic Britain. Conversely, sites where funerary activity does not seem to be the primary function are only included in the database if human remains are present at them. This means they are significantly fewer in number than funerary sites. Many

of these non-funerary sites have also not been excavated, and future investigations may indeed reveal funerary contexts. That means there is an argument to include these as well. However, as human remains at these sites do appear to be a sporadic phenomenon, with other activities likely being more important, it was decided to not include them. It is suggested that together, the non-funerary sites that are present will provide a good representative framework of the demographic groups which received mortuary rites at these places both in terms of lifeways and demographic representation. Due to the inclusion of all funerary sites within the database, only 658 of the 1518 sites had human remains present at them, with 860 funerary sites either containing no human bone when excavated, or which have not been excavated at all. Fig. 4.2 highlights the geographic location of the 658 sites which contained human remains as well as the diverse range of site types.

For each site within this part of the database key features such as location, site type, when excavated if applicable, and their date be it a relative or scientific one were recorded. For the sites in which human remains were present, basic information regarding the mortuary practices is also included, such as whether the burial was a single or multiple one, and whether individuals were articulated, disarticulated, or cremated. Also noted was if pre- or post-Neolithic individuals were present at the site. These were only included if they directly interacted with the Neolithic contexts, for example, a beaker burial being included within a long barrow. While information from these pre- and post-Neolithic individuals was not used within this research, it was deemed important to record them as they may be a useful point of reference for future research.

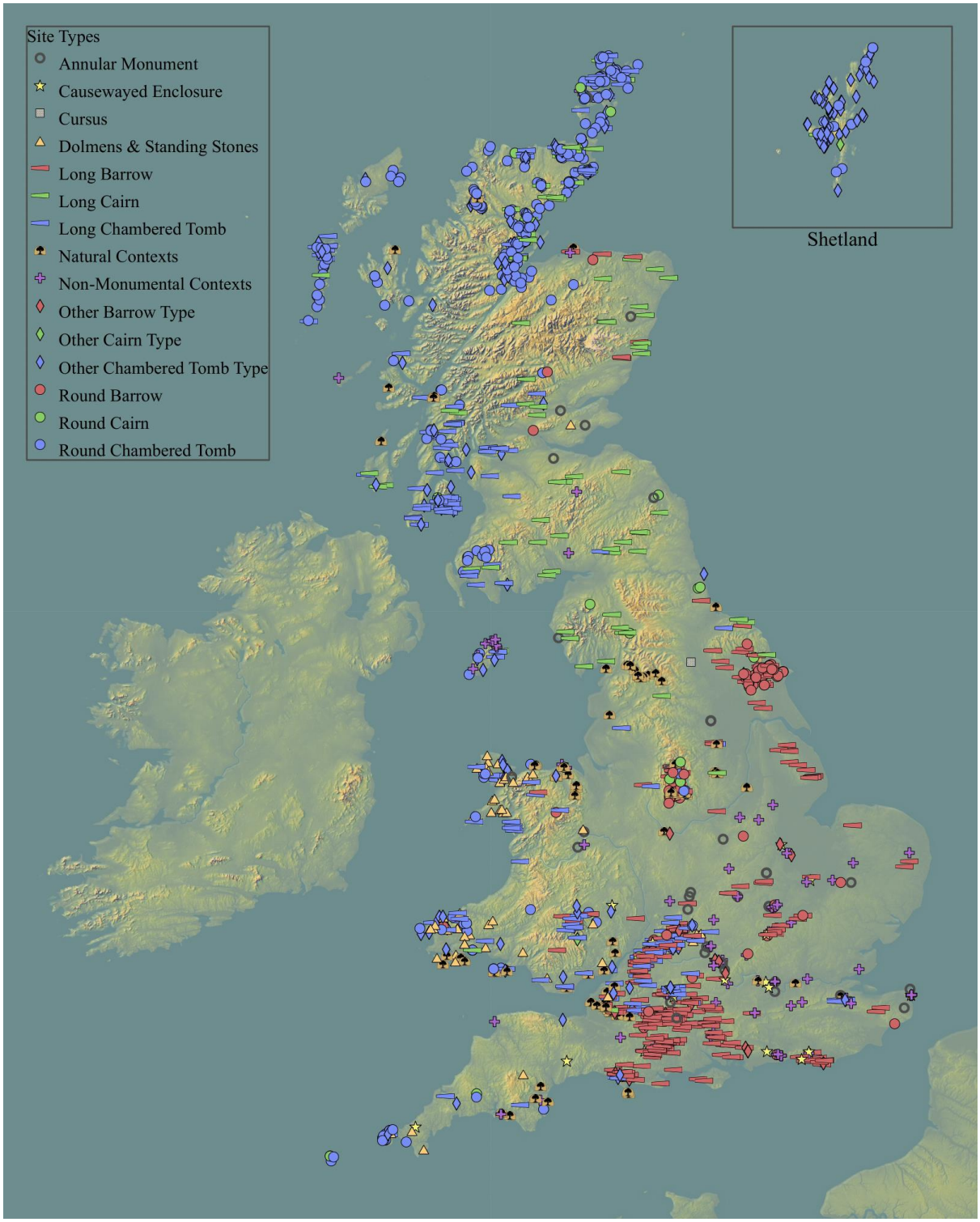

Figure 4.1 Map showing the location and variety of site type for all funerary sites and sites containing human remains.

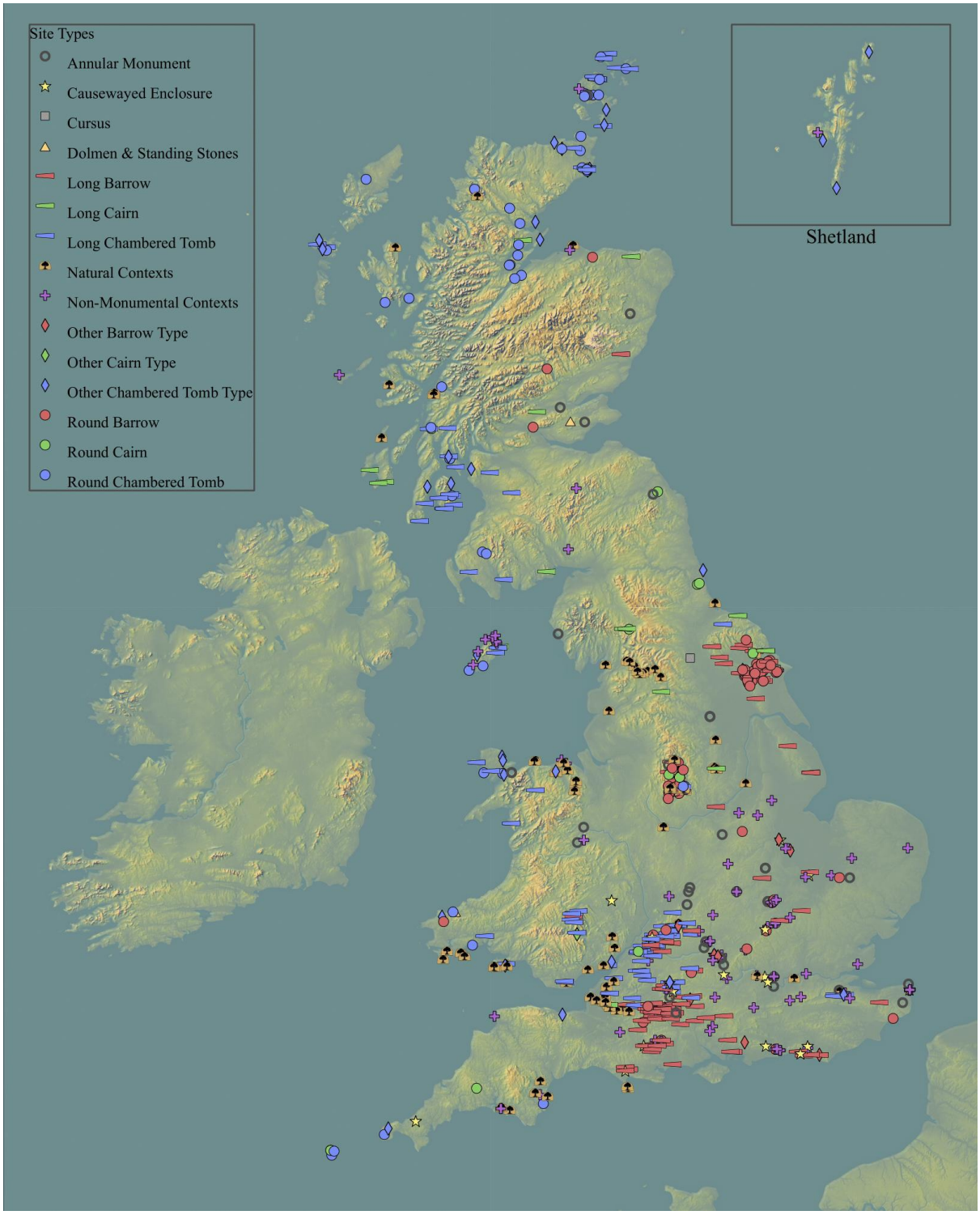

Figure 4.2 Map showing the location and variety of site type for all sites which contained human remains.

4.2.1: Neolithic Regions

For site location, while it is useful to know the location of the site in a modern sense, i.e., the modern county in which it is situated and its national grid reference, it was thought that for the comparative work, it may be more useful to attempt to try and regionalise the sites in a fashion not based upon modern boundaries. Regionality in Neolithic Britain has been a much-debated topic (see various papers in Brophy & Barclay 2008 for example). There are many variables to consider when attempting to suggest distinctive regions existing such as a shared culture and identity, distinct forms of architecture and material culture, and a shared language. Many of these factors are not directly accessible within the archaeological record, which makes attempts to regionalise areas challenging. As this was not the focus of the research, it was decided to keep the regionalisation of Neolithic Britain uncomplicated. Sites were assigned into what are named "Neolithic regions" within the database based upon two criteria which were site typology and geographical proximity sites had to one another. Sometimes this was quite straightforward, for example, the Orkney Isles are a self-contained archipelago with many chambered tombs of similar styles. The similarities the sites had, their proximity to each other, and the fact that they are isolated from northern Scotland makes it an ideal candidate for a region within the framework of this research. Similarly, in East Yorkshire-Southeast Northumbria a large number of long barrows and cairns and round barrows and cairns are present, and these are all in close proximity to each other and are self-contained, with an obvious spatial gap from other sites in the north of England. This again fits the regionality framework proposed in this research. At both Orkney and East Yorkshire-Southeast Northumbria there are of course sites that are not chambered tombs or barrows. While these do not meet criteria of similar site types, they do fall into the same geographic area, so are therefore still classified as being within that region.

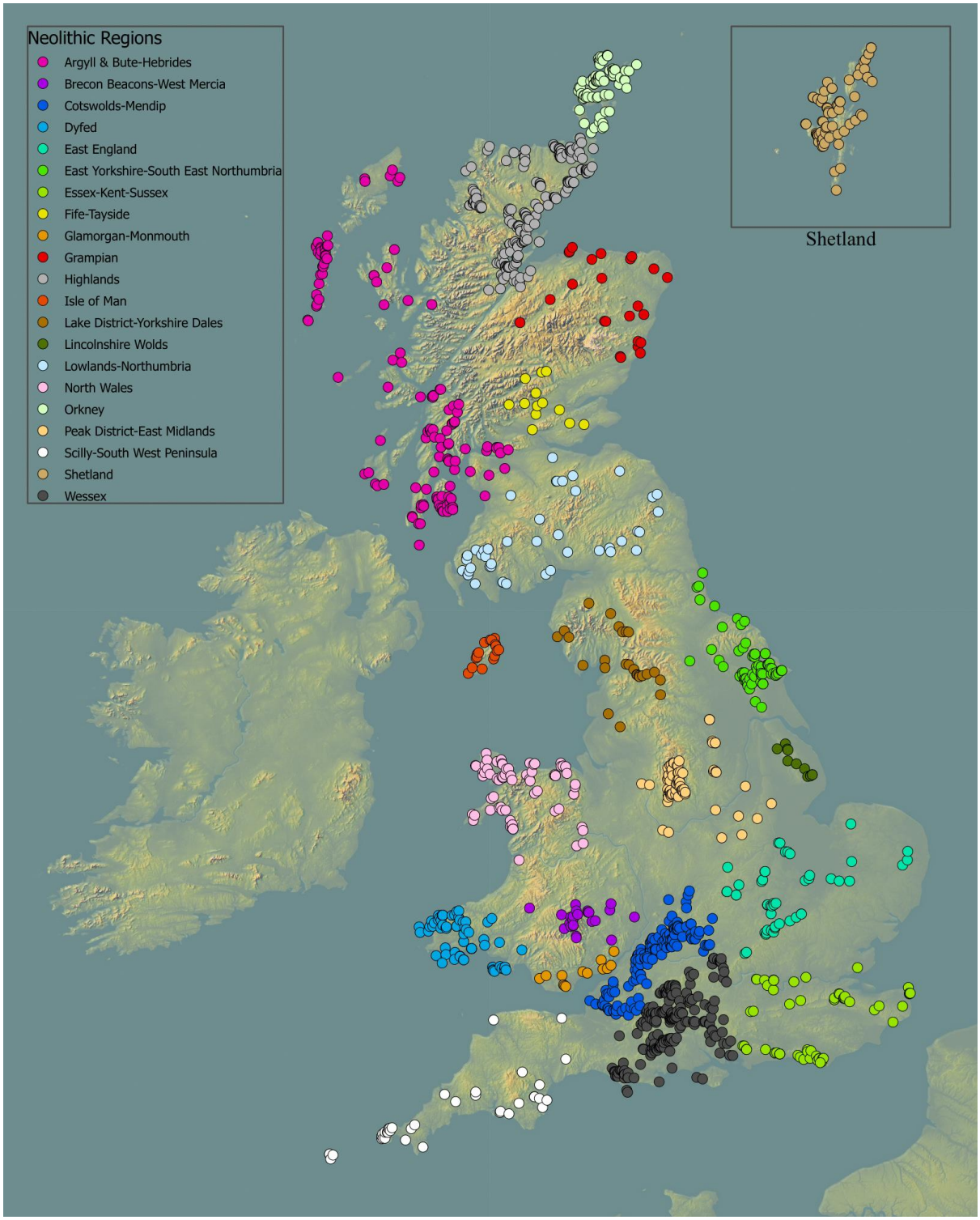

Figure 4.3 Map highlighting the Neolithic regions used for the comparative analysis.

Regionalising areas of Britain in this manner was sometimes challenging. Occasionally areas had a diverse range of site types such as East England making it difficult to group based on

site typology. In this case, the geographical positioning, i.e., the spatial proximity, of the sites was appropriate enough to mark this out as a region. Also, some areas, particularly in southern England, were highly populated with sites which made it difficult to separate into different regions without having exceptionally large ones. This was seen with the Wessex and Cotswold-Mendip regions which are in close proximity to each other. A much more careful and considered approach had to be used to identify patterns between site typologies and geographic positions to create two regions out of this area. Several other variables could have been explored during this process such as chronology and site sub-types, but it was thought that this went beyond the scope of this research. The main aim of regionalising the data was to explore whether different demographic groups presented divergent funerary representation, and/or health and lifeways information in various parts of Britain which could, in turn, suggest regional identities being present. The map exhibited in Figure 4.3 exhibits the location of each site used in the comparative analyses and its corresponding Neolithic region.

4.2.2: Site Types

While there has been much debate regarding the typologies of site types such as the variations in the forms and features of barrows, chambered tombs, stone and timber circles, and henges (e.g. Daniel 1950; Henshall 1963; 1972; Burl 1976; Kinnes 1979; Ashbee 1984; Wainwright 1990; Kinnes 1992; Gibson 2005; Field 2006), as well as the recognition of regional variations of site types, especially concerning chambered tombs (e.g. Corcoran 1969b; 1969c; Scott 1969; Henshall 1963; 1972; Cummings & Fowler 2004; Nash 2006; Lynch & Davey 2017), this research has opted for relatively simple and wide-ranging groupings for its site types. As it is the individuals interred at the sites that are the focus of

this study it was supposed that scaling back monument and site typologies to seven main groups would be more desirable for the comparative work.

The first group, the annular monuments group, brings together all monuments that form a ring such as henges and timber circles. Composite monuments such as Stonehenge, Wiltshire and Forteviot, Perthshire, which incorporate several different elements, are also included in this group as the formation of a ring or rings appears to be a key component of them. The next group is the barrow and cairn group which comprises all the distinct types of barrows and cairns identified within the research. While five different shapes of these were recognised the overwhelming majority are long barrows followed by round barrows. Next, the causewayed enclosure group. These sites were allocated their own group due to the multifaceted nature of them. The chambered tomb group combines all the various forms of chambered tomb. Eight different sub-types of these are suggested. However, much like barrows, long and round forms make up the majority. The natural contexts group are almost entirely represented by cave and rockshelter sites with a handful of burials found in water contexts. The non-monumental contexts group includes a range of diverse sites including cemeteries (both inhumation and cremation), flat single graves, pit burials, burials in settlement contexts, and burials in flint mineshafts. The final miscellaneous group is for sites which do not really fit into any of the other groups. These include dolmens, cursus monuments, cists, and standing stones. Table 4.1 demonstrates the site groupings, along with how many sites are present within each group.

Site Type	Site Sub-Type	Number of Sites	Example Site
Annular Monument	Composite Monument	2	Stonehenge
	Henge	9	Marden
	Pit Circle	3	Monkton-Up-Wimborne
	Ring Ditch	29	West Stow
	Timber Circle	3	Balbirnie
	Stone Circle	4	Callanish
Barrow and Cairn	Bank	6	Long Low
	Long	409	Wor Barrow
	Oval	15	Maxey
	Round	96	Duggleby Howe
	Square	1	Grista
Causewayed Enclosure	N/A	19	Hambledon Hill
Chambered Tomb	Heel Shaped	36	Hestinsetter Hill
	Kidney Shaped	2	Bryn yr Hen Bobl
	Long	215	West Kennet
	Oval	6	Isbister
	Round	300	Barclodiad y Gawres
	Short	10	Bavraid
	Square	6	Unival

	Subterranean	6	Lligwy
Natural Contexts	Caves & Rockshelters	105	Little Hoyle Cave
	Water Contexts	7	Battersea
Non-Monumental Contexts	Cremation Cemeteries	8	West Kimmeragh
	Enclosures	6	Dorchester VIII
	Flat Graves	15	Monkton Minster
	Flint Mine Shafts	7	Black Patch
	Inhumation Cemeteries	3	Balevullin
	Pit Burials	43	Southend Airport
	Settlements/Houses	2	Skara Brae
Other	Cists	6	Sumburgh
	Cursus Monuments	2	Dorset Cursus
	Dolmens	57	Carreg Coetan
	Standing Stones	1	Orwell

Table 4.1 The site type groups used in the database.

4.2.3: Dating

For the dating of sites, it was decided to, where possible, use the date of the burial rather than the site or monument in question. As this research emphasises the individual and not the site or monument it was more useful for the comparative analyses. This meant individuals dated

within similar timeframes could be directly compared with each other, and with individuals of an earlier or later date. The most desirable scenario would be a secure radiocarbon date taken directly from human bone and there are a substantial number of sites with radiocarbon-dated human bone present within the database (207 sites accounting for approximately 642 human bones and teeth). Most of these radiocarbon dates have been calibrated but on the rare instance that they were not, dates were calibrated using OxCal 4.4 (Bronk Ramsey 2009) and the IntCal20 calibration curve (Reimer *et al.* 2020). When dates on human bone were not available, radiocarbon dates on other material from the same or very stratigraphically close contexts were thought to be an adequate backup. Unfortunately, there are many sites which have not been scientifically dated at all and for these relative dating means had to be employed. For site types which have a well-established chronology, this is a quite straightforward task. For example, it is known from exhaustive research on long barrows that they were chiefly used in the Early Neolithic so, providing the individuals buried at the site were primary interments, they were certainly buried at some point in the first parts of the period.

If individuals were buried in a site type which is not typical of a specific chronological stage within the Neolithic or crosses over with other later periods such as flat graves and pit burials, caves, henges, round barrows, etc., then it can become a little trickier to place the deceased within a specific time frame. This is where pottery and to a lesser extent lithics become crucial for attempting to date the burials. There is a well-established chronology with regard to pottery. Their types, forms, decorations, and motifs can be placed within precise chronological phases within the Neolithic period (see Gibson 2002). Similarly, stone artefacts such as axes have also had much research into their typologies and when they were used (e.g., Chappell 1987). So, if an individual or individuals are deposited at a site, and they have

a specific type of pottery and/or lithic artefact alongside them as grave goods, a general idea of the date in which they were deposited can be obtained.

There are some other ways in which sites have been dated which are much less secure and have not been used within this research. These include burials which are associated with and are in the same general geographic location as, other Neolithic-dated archaeological features. Burial types and mortuary treatment have also been used to suggest a Neolithic date. For example, disarticulated assemblages in historic interpretations were often attributed to the period, even though disarticulated human bone has been noted in both the Bronze and Iron Ages. Finally, as mentioned in the previous chapter antiquarian researchers would often date individuals based on their cranial features (e.g., Schaafhausen 1861; Davis & Thurnam 1865; Thurnam 1865; Thurnam 1867; Rolleston 1869; Rolleston 1876) with dolichocephalic crania being attributed to the Neolithic and brachycephalic crania the Bronze Age.

4.2.4: Mortuary Practices

With regards to mortuary practices both cremations and inhumations are present in the database. Inhumations are accounted for at 529 sites and cremations at 183 sites with a mixture of the two also accounted for at several. As was referred to in Chapter Three cremations do appear to be more prevalent as the period progresses. Both articulated and disarticulated remains are recognised with 424 sites containing disarticulated remains, 221 sites containing articulated remains and again several other sites containing a mixture of the two. Both single and multiple burials are also represented. For this research, the definition of a single burial has been kept quite broad and includes single articulated burials as well as deposits of disarticulated remains and cremated remains from a single individual. Single

burials at sites where multiple individuals are found are also included if it can be demonstrated that the individual in question was deposited alone and in a chronologically distinct episode from the other burials at the site. Single burials are accounted for at 150 sites with 75 of those being single articulated burials.

4.3: Demographic Information

The second part of the database collates all the demographic information from the sites which contained human remains. Together the database accounts for 3944 individuals dated to the Neolithic. However, over half of these individuals were historically analysed before modern techniques and methodologies began to become widely used. This means that just 2315 individuals of the 3944 total have been osteologically assessed to modern standards. Individuals from pre- and post-Neolithic periods were also recorded. There are 32 pre-Neolithic individuals, one from the Upper Palaeolithic and 31 from the Mesolithic, and these are all exclusively from cave sites. The post-Neolithic individuals comprise 533 individuals, and these range from the Early Bronze Age in date through to the post-Medieval period although the former accounts for the largest proportion. These are present at a wide range of different site types including barrows, chambered tombs, causewayed enclosures, caves, and various annular monuments. While these are not analysed within this research, it was judged important to still document them as they may be of use for future research.

The demographic components of age and sex are essential elements of the osteological analysis of human bone assemblages and can assist in determining divergent burial practices between different demographic groups as well as offering insights into identity and social organisation (Mays 2010: 77). For this research, the focus of comparison was to see how well

represented males, females and different age groups were within the database in a host of different comparative groups. Both cremated and non-cremated remains were used in this part of the analysis, but they were treated as separate distinct groups, with independent datasets created for each, due to the differing nature of the mortuary rites the individuals received. This also enabled further comparative work to be done as the cremated and non-cremated groups could be directly compared with one another.

4.3.1: Osteological Data

Having such a large number of individuals within the database meant that there was a lot of osteological data to work with, and this was incredibly varied in accuracy and quality. The disparities between the quality of the data are instigated by when the site was excavated, and the human bone assessed. A sizeable proportion were investigated in the 18th/19th centuries (138 sites) and the first half of the 20th century (101 sites). Generally, the older an excavation report is, the less useful the osteological data will be. A site excavated in the 21st century will normally analyse the human bone to a good modern standard and communicate information regarding sex, age, and health at the very least. In contrast, a site excavated in the 19th century will often contain some useful information, usually regarding sex and age, but nothing like what would be expected from a modern report.

The division between the chronological period in which excavation and osteological analysis took place and the quality and accuracy of the osteological data is not always inevitable. The are several sites excavated in the modern period which have very limited information regarding the human bone found at the site either due to assemblages not being assessed by a specialist, or the site itself not being fully published (e.g., A435 Norton Lenchwick Bypass

Area E, Warwickshire – Palmer 1994; Goldington 2, Bedfordshire – Mustoe 1988). Likewise, there are many sites excavated in the early to mid-20th century that have incredibly detailed osteological data which, while not necessarily up to modern standards of analysis, contain much of the relevant information needed (e.g., Fussell's Lodge, Wiltshire – Ashbee 1966; Lambourn, Berkshire – Wymer 1966). Other factors also affect the quality of the osteological data. Preservation can sometimes be an issue with poorly preserved human bone not able to be properly analysed. For example, there are instances where human bone has completely disappeared from the burial context due to poor preservation conditions and the deceased are only represented by soil staining within the grave, which can in some circumstances be confirmed by the chemical analyses of soil samples (e.g., Holdenhurst, Hampshire – Piggott 1937; Brackley, Argyll – Scott 1956). Sometimes human bone can be in such a fragile and friable state that it is not possible to lift the bone without damaging it so regular osteological analysis is not possible. In this case, bone is usually left and analysed in-situ (e.g., North Oxford Bypass, Oxfordshire – Oxford Archaeological Unit 1993). The level of fragmentation of the bone assemblage may also be a factor in the quality of the osteological data. Highly fragmented and commingled assemblages such as Parc le Breos Cwm (see Whittle & Wysocki 1998) will be much more difficult to assess than less fragmented ones and articulated burials. In older excavations, highly fragmented material may have even been disregarded entirely or not found at all.

Due to these divergences in the quality of osteological data, it was decided that it would be useful to separate the data into three distinct groups, archaic, partial, and full. These grouped osteological data based on the chronological period in which the skeletal assemblages were analysed, but they also consider the accuracy, detail, and levels of information available. This allowed the distinct groups to be viewed together or certain groups to be omitted from the dataset depending on what part of the comparative analyses was being undertaken.

4.3.1.1: The Archaic Group

The first grouping of osteological data is the archaic group. This contains all sites excavated pre-World War I and a large majority of sites post-World War I to around 1960, dependent on the usefulness of the osteological data. Together 301 sites form the archaic group making it a considerable number of the total number of sites which contain human remains in the database. Some sites in this group were excavated as early as the 18th century with the information regarding the sites and human bones not being conveyed and recorded until over a century later (e.g., Chettle Wood, Dorset – Warne 1866; West Barrow, Gloucestershire – Crawford 1925). This means that not only is the information recorded by antiquarian researchers, but it is also second-hand information. The value of data recorded about an 18th century excavation in the 19th century is not going to be as beneficial as the data recorded from an excavation in the 21st century. Examples such as these are relatively small, however.

A large amount of the 19th century excavations tended to be carried out by the same group of individuals, with Colt Hoare (1812; 1821), Bateman (1848; 1861), Anderson (1865; 1866; 1867); Thurnam (1865; 1869; 1870b), Greenwell (1877), Pitt-Rivers (1898); Bryce (1902; 1903; 1904), and Mortimer (1905) accounting for a significant proportion of them. The different approaches to archaeological investigation these antiquarian researchers had were often based on personal interest which meant that there was variation in how human remains were treated. Some felt that human remains were an important aspect of the burials although this was heavily skewed towards the analysis of skulls and craniology. Much of this early research on human bone was carried out by individuals with a background in medicine so they had a good basic understanding of human anatomy. For example, John Thurnam, himself a physician, worked with another physician John Bernard Davis and produced a book

on the crania retrieved from his excavations (see Davis & Thurnam 1865). Similarly, in William Greenwell's book *British Barrows* (1877) there is a significant amount written by physician George Rolleston regarding the human remains, particularly the skulls. Other antiquarian researchers are not as enthusiastic about human remains as Greenwell and Thurnam however and view them as generally unimportant in comparison to artefactual material (see Mortimer 1905: 41).

Overall, however, most 19th century excavation reports do include basic information regarding the sex and age of individuals although these conclusions do have to be taken with some caution. Understandings of human bone and the methodologies used to ascertain the sex and age of individuals have seen significant advancements since the 19th and early 20th centuries. Therefore, age and sex determinations made during these periods are likely to not be as accurate as today. For example, in relation to nonadult age groups, techniques currently used to provide an accurate measure of a nonadult's age such as dental development and bone fusion were not used until the mid to late 20th century (See Mays 2010: 51 – 53). In these cases, it could be that many older adolescents will have been mistaken for adult females. It has also been suggested that there is a historical bias towards determining adults as male (Weiss 1972). This means that within the antiquarian data, there could be a bias towards males which is a crucial factor to consider when doing comparative analyses.

Reports on human bone in the first half of the 20th century, while improved upon, were incredibly mixed in terms of detail and quality. Some consisted of just a few lines of text (e.g., Ffostyll South, Brecknockshire - Vulliamy 1921; 1922), while others were merely just lists of bones recovered (e.g., Belas Knap, Gloucestershire – Hemp 1929). Some however are incredibly helpful and contain much valuable information such as the report of Lanhill, Wiltshire (see Keiller & Piggott 1938). One notable difference between these reports and ones from the previous century is the increasing use of specialists for the examination of

human bone. A prominent individual in this regard is the anatomist Alexander Cave who was responsible for the osteological analyses of human bone assemblages from several sites. Cave contributed to the excavation reports from sites such as Giants' Hill 1, Lincolnshire (Phillips 1936), Notgrove, Gloucestershire (Clifford 1937), and the aforementioned Lanhill, Wiltshire (Keiller & Piggott 1938). Unfortunately, these specialist reports did not always see publication. For example, the excavators at both Wayland's Smithy, Oxfordshire (Peers & Smith 1921) and Ffostyll North and South, Brecknockshire (Vulliamy 1921; 1922) employed the services of specialists Buxton and Keith respectively, but both barely used the reports provided for them in publication other than a very brief summary of the specialist's conclusions.

Towards the end of the period for what is considered the archaic group of osteological data, *circa* 1960, the osteological data much improved and started to resemble what would be considered the modern standard of today. Innovations in biological anthropology developed in other parts of the world such as the USA began to be adopted and the emergence of individuals such as Don Brothwell and Calvin Wells were highly influential in bringing osteological analysis into the modern age (see Roberts 2006). In Brothwell & Higgs' (1969) volume several papers were dedicated to these crucial innovations in how human remains were used in archaeological research (e.g., Garlick 1969; Gejvall 1969; Genovés 1969a; 1969b; Goldstein 1969; Wells 1969) which set in motion the future directions in which osteological analysis would go.

A final factor worth noting for the archaic group is the presence of osteological information from sites that have been historically excavated but the excavation was not officially published or recorded. Information regarding these are found in large gazetteers of sites that were created throughout the 20th century. These were done for multiple regions across Britain and some authors of note include Cunnington (1914), Toms (1922), Crawford (1925),

Grinsell (1934; 1936; 1938; 1939; 1957; 1959; 1969; 1971), O'Neil & Grinsell (1960); Henshall (1963; 1972), Marsden (1977), R.C.A.H.M (1979a), Davidson & Henshall (1991); Henshall & Ritchie (1995; 2001), and Bristow (1998). While some of these publications are recent in date the information they are communicating is not. The osteological evidence is often extremely limited and lacking detail such as frequently missing simple basic demographic information. This is mainly because a lot of the information is drawn from historical sources. Therefore, sites that fit within this category are included within the archaic group.

Overall, the archaic group can be seen to be a very varied group with regards to the quality of osteological data and what information it can demonstrate. The archaic group usually just presents basic demographic information such as age and sex, but there are some reports which touch upon pathologies. However, both age and sex determinations as well as interpretations of pathologies should be viewed with caution. It was important to separate these sites from the more recently excavated ones due to the vast difference in methodologies of osteological analysis which could impact the accuracy. Using data from the archaic group for comparative analysis is suggested to be acceptable under certain circumstances, but there are occasions where it needs to be omitted due to its lower levels of quality and accuracy.

4.3.1.2: The Partial Group

The second grouping of osteological data is the partial group. The partial group is made up of sites that have been historically excavated but the extant human bone assemblages have been reassessed to modern osteological standards and, sites that have been excavated in the modern day, but have only very minimal osteological data attached to them. In total 176 sites

form this group. Most of the historically excavated assemblages are sites that were originally dug in the 19th and early 20th centuries. Due to this many of the extant collections that have been reassessed are often incomplete meaning contrasts between original MNIs and MNIs from reassessed analyses are commonplace. Antiquarian researchers would frequently collect only skulls and very few post-cranial skeletal elements meaning that the bulk of what is left today for reanalysis consists of crania and mandibles. The disregard for post-cranial elements by antiquarian researchers means that much of this material is lost. However, some antiquarians such as Bateman (1848; 1861) redeposited post-cranial bones at sites, just keeping the crania, meaning there is scope for adding to collections should a site ever be re-excavated. The reanalysis of antiquarian skeletal assemblages is extremely useful and provides much more information than the original 19th and early 20th century reports did. However, the incomplete nature of these assemblages means that they will still not be as detailed as an osteological report from a site excavated in the modern period. This is the main reason for separating these cases into a separate group.

Reanalysis of human bone from antiquarian assemblages can be found in published sources such as the research carried out on Yorkshire round barrows (see Gibson & Ogden 2008; Gibson *et al.* 2009; Gibson & Bayliss 2010), the inhumation cemetery of Balevullin, Tiree, Hebrides (see Armit *et al.* 2015), and the chambered tomb of Tinkinswood, Glamorganshire (see Thompson 2019). However, in recent years there have been several PhD theses that have focussed on the reanalysis of Neolithic human remains from extant antiquarian collections and these have been invaluable for the data collection in this research (e.g., Smith 2005; Leach 2006; Lawrence 2012; Cuthbert 2018; Cansfield 2019; Willis 2019). Some human bone assemblages have also been reanalysed for projects in which osteological analysis was not the focus. For these, only basic demographic information such as age and sex are presented as a detailed analysis of the human bone was not part of the major research

questions. For example, bones that are used in new dating programmes and isotopic analyses tend to be sexed and aged if possible (e.g., Whittle *et al.* 2011b; Jay *et al.* 2019; Schulting 2020). Recent aDNA research has also brought to light new data regarding demographic information (see Olalde *et al.* 2018; Brace *et al.* 2019; Sánchez-Quinto *et al.* 2019; Sheridan *et al.* 2019; Fowler *et al.* 2022 for example). Altogether 40 sites fit within this remit. While studies such as these only target select individuals from sites and not the whole collection, they still add new demographic data on sex and age which can be used within the comparative analyses of this research.

In summary, the partial group can be described as sites in which only partial knowledge of the osteological data is known, but data from the group has been obtained in the modern period. This means that on the whole information from this group will be more detailed and/or accurate than the archaic group but not as detailed as the full group. Due to the data being acquired within the modern period, as well as demographic information, the partial group also contains significantly more information on health and pathologies. So, while partial group sites may not present a full picture of the demography and health of individuals, due to their incomplete nature, they are useful for presenting a good general overview. It is unfortunate that there are some sites excavated in the modern day which have little osteological data, however, it is correct to place them within the partial group rather than the full one.

4.3.1.3: The Full Group

The final grouping of osteological data is the full group. This includes all sites excavated in the modern period with human bone analysed to modern osteological standards and this expresses a wide range of information on demography, health, and lifeways. Together 176 sites populate this group. The term "modern period" has been applied loosely and can concern a plethora of sites from the 1960s onwards. While it cannot be disputed that techniques, methodologies, and understandings of human bone assemblages have evolved and developed in the period between the 1960s and the present day, it was decided that due to the nature of the comparative work that this research is concerned with, i.e., looking at broad scale trends in demographic representation and lifeways, it would be appropriate to group these sites together as one rather than split them into further groups. Fortunately, many of the sites excavated towards the beginning of this period in the 1960s and 1970s have been reassessed in more recent times as well (e.g., Wayland's Smithy, Oxfordshire – Whittle *et al.* 1991; Parc le Breos Cwm, Glamorganshire – Whittle & Wysocki 1998; Sumburgh, Shetland – Walsh *et al.* 2012; Quanterness, Orkney – Crozier 2018) which further enhances the quality of the data they present. There is also another very small group of sites included in the full group and this is sites that have been historically excavated but the extant human bone collection is complete and has been reassessed in the modern period (e.g., Alexandra Docks, Monmouthshire – Bell *et al.* 2000; Fox Holes Rock Shelter, Yorkshire – Leach 2006; Prestatyn, Denbighshire – Schulting & Gonzalez 2008). Only 11 sites fit this criteria, however.

Splitting the data into these three groups has helped get the most out of the comparative analysis of this research. While it may be acceptable to use the full range of data available for

some aspects of the research such as demography it is not appropriate for others such as information on palaeopathology. By placing the different sites within these three groups, data from each of them can be removed or added easily depending on what aspects of the research are being analysed. This allows a greater picture and understanding of the data to be acquired.

4.3.2: Demographic Comparative Analysis

Material obtained within the demographic information part of the database was used to conduct a comparative analysis on males, females, and different age groups to see how well represented they were in different funerary contexts. Both cremated and non-cremated remains were used in this process but as mentioned above, kept as separate distinct groups. To maximise the potential of this part of the research and generate the most data possible, all three of the osteological data groups were used. While the large variations between the quality and accuracy of the data within these groups did present some problems, it was regarded that for exploring broad-scale trends this would be acceptable. To check the validity of the archaic group's data, separate datasets were created, one which included all available data, and one which just included data obtained in the modern period. Overall, this demonstrated that both datasets often reached similar representation ratios between the different demographic groups, with some slight variations. Individuals with an undetermined sex and/or age tended to be found in greater numbers in the dataset using all available data. The largest deviations found in this process were in relation to assigning individuals to specific age groups, with MNIs for each dataset frequently being vastly different.

Using the archaic group for cremated remains, however, proved problematic as very few cremated remains were assessed for sex and age which meant that undetermined individuals

were extremely prevalent. For this reason, as well as the fact that modern developments of methodologies for analysing cremated remains are much more accurate (see Schmidt & Symes 2015 for example), much of the data for cremated individuals is from analyses conducted in the modern period. Collectively, demographic details from non-cremated remains were obtained from 3128 individuals belonging to 529 different sites, with 1789 individuals belonging to 287 sites being assessed in the modern period. For cremated burials, demographic data was obtained from 736 individuals from 183 sites, with 526 individuals belonging to 74 sites being assessed in the modern period. While not used within the analyses of this research, demographic details for 377 non-cremated individuals from 146 different sites, and 189 cremated individuals from 78 sites were acquired from both pre- and post-Neolithic burials.

4.3.2.1: Demographic Groups

With regards to biological sex, the three categories of male, female and undetermined were used. Only adults were considered in this part of the analysis as the sex determination of nonadults is challenging to achieve (see Roberts 2009: 123). While there are several sites in which nonadults, mainly adolescents, have been assigned a biological sex (e.g., Whitwell, Derbyshire – Vyner 2011; Riding Court Causewayed Enclosure, Berkshire – Cansfield 2019), as well as some sites which have had recent aDNA work carried out which has allowed sex determinations of nonadults possible (e.g., Whitehawk Camp, Sussex – Brace *et al.* 2019; Embo, Sutherland – Brace *et al.* 2019; Hazleton North, Gloucestershire – Fowler *et al.* 2022), the number of these is relatively small. So, including nonadults within the biological sex categories would just lead to the undetermined group being extremely overpopulated.

Both cremated and non-cremated remains followed these same biological sex groupings. However, with the cremated remains the undetermined category was particularly overcrowded. There are several problems with determining the sex of cremated remains. This is due to the destructive nature of the cremation process which causes fracturing, fragmentation, warping, splintering, etc. and reduces the number of sexually dimorphic traits able to be observed which skews sex classification (McKinley 1993; Thompson 2002). Additionally, the dehydration of bone during the cremation process, particularly at extremely high temperatures, causes the bone to shrink which leads to individuals who are male often being mistaken for females (Willis 2019: 159). This fact is even more pertinent considering females tend to outnumber males in cremated assemblages within this research. The most common methods of assessing sex in non-cremated remains are the analysis of traits in the pelvis and crania although the robustness and size of other skeletal elements can also be used to less effect. While this is occasionally possible with cremated remains, it is often not the case, and the above-mentioned factors need to be considered (see Mays 2010: 320). There are some methodologies associated with measuring long bones, which have varying degrees of success (McKinley & Bond 2005). Another method involves measuring the lateral angle of the internal auditory canal in the petrous bone. This is much more successful as the petrous bone is very dense and tends to resist shrinkage and distortion during the cremation process (see Wahl & Graw 2001; Norén *et al.* 2005 for example). A major source of data on cremated remains in the database is the recent research by Willis (2019) who used the petrous bone method with the aid of CT scanning and digital measuring to significant effect. However, sex determination for cremated remains continues to be much more difficult to achieve due to the levels of less well-preserved and identifiable bone available than their unburnt counterparts and it is worth highlighting this here.

With regards to age, non-cremated individuals were initially sorted into adult (over 18 years old) and nonadult (under 18 years old) groups. In cases where individuals sat on the periphery of these groups such as older adolescents, they were assumed to be adults. Also, in the case of reports in which no information was provided regarding the age of individuals, this tended to be most prevalent in archaic osteological data, they were also assumed to be adults. Adults and nonadults were then further subdivided into age categories suggested by Falys & Lewis (2011) which are highlighted in Table 4.2. This proved to be challenging due to the differing ways in which individuals were categorised into age groups in different osteological reports. For example, a report may suggest that an individual was aged between 30 and 40 years old which would place it in two separate age groups, young middle adult, and old middle adult, within this research's age categorisation framework. When this was the case the median from the original reports' age range was established and this would then be placed into the corresponding category in this research. So, in the case of the example above the median would be 35 so it would be positioned in the old middle adult group.

Age Group	Age Range
Foetus	Up to 40 weeks in utero
Neonate	Around the time of birth
Infant	Up to 1 year old
Juvenile	1 to 12 years old
Adolescent	13 to 17 years old
Undetermined Nonadult	Any age under 17 years old
Young Adult	18 to 24 years old
Young Middle Adult	25 to 34 years old
Old Middle Adult	35 to 44 years old
Mature Adult	45+ years old
Undetermined Adult	18+ years old

Table 4.2 The age groups used within the research which are based on those suggested by Falys & Lewis (2011).

Other reports, for a range of reasons such as preservation issues or incompleteness of skeletons, would have to be a bit broader in their estimation of age. For example, one may state an individual was aged between 25 and 45 years old. When this occurred the individual in question would be placed within the undetermined adult group as the age range was too large to justify placing it in one of the specific age groups within this research. Issues also arose while working with the archaic data group. Many of these reports did not use fully accurate language when referring to age and were not specific with how old they estimated an individual to be. There was a tendency in these reports to use terms such as "middle-aged" or "old person" which is very subjective, so these also had to be placed in the undetermined adult group.

For cremated remains individuals were just assigned into adult and nonadult groups. Assessing morphological traits on cremated bones for the ageing of adults into specific age categories is seldom achievable due to the indicative parts of the skeleton such as the sternal ends of ribs, the auricular surface of the pelvis, and the pubic symphysis being unlikely to survive the process of cremation (McKinley & Bond 2005). However, it is still possible to attempt to age individuals by assessing the suture fusion of surviving cranial fragments, but this can also be troublesome, again due to the destructive nature of cremation. Generally, though, it is possible to broadly age individuals into immature, under 18 years of age, and mature groups (see McKinley 2013). There are several sites which have managed to age cremated individuals in some detail, but these are relatively small in number and most tend to just use the immature or mature groups. Therefore, for this research it was considered appropriate to use the two categories of adult and nonadult for this part of the analysis, to place all sites in line with one another.

4.3.2.2: Comparative Groups

Five comparative groups were used for this part of the analysis. This was so demographic representation could be assessed within different contexts and would allow further comprehension of the representation of males, females, and different age groups during the period to be gained. The first group assessed demographic representation for the Neolithic as a whole. Viewing the Neolithic as a whole can be problematic given it covers a substantial period (*circa* 1500 years), as well as the geographically and temporally distinct technological and cultural changes that are present. This makes it difficult to propose a continuous, universal, and shared British Neolithic culture existing throughout the period. However, it is still useful for providing very general insights into how demographic groups are represented within funerary contexts.

The second comparative group analysed demographic representation in the three chronological stages of the Neolithic, those being the Early Neolithic (4000 to 3500 cal BC), Middle Neolithic (3500 to 3000 cal BC), and Late Neolithic (3000 to 2500 cal BC). It is now understood that the start of the British Neolithic, as well as the differing chronological stages, are quite variable from location to location within Britain (see Whittle *et al.* 2011b for example). This means that the chronological stages used within this part of the research are by no means perfect, and it is possible that some regions within Britain progressed through the period at different speeds. The chronological stages could have been broken down further into smaller periods, and this may have provided a more accurate chronological representation of the period in relation to demographic representation in funerary contexts. Alternatively, different regions of Britain could have been assigned their own bespoke chronological stages. However, if either of these methodologies were implemented, sample

sizes would be significantly reduced which would affect the amount of data available for analysis. For these reasons, it was judged that using the three basic chronological stages of the Neolithic would be the best way to explore chronological developments and trends about demographic representation within funerary contexts.

The third comparative group focusses on demographic representation regionally using the "Neolithic regions" discussed earlier in this chapter. This allowed insights into how demographic representation may have been different on a regional level which could be indicative of dynamic regional identities being present. One small drawback of placing that data into these much smaller regional groups was that a minor number of regions did not have a large enough sample size to work with. The fourth comparative group assessed demographic representation at different site types. The site type groupings detailed in the previous section were used for this, however some further adjustments were made. Unlike other monumental site types such as long barrows or causewayed enclosures which fit well into the chronological stages of the Neolithic, chambered tombs extend throughout the period, although less so towards the end. The forms and features of chambered tombs did change as the period progressed and there was also regional variation, but as this research is being quite broad with site typology it meant that all the divergent types of chambered tombs were placed together as one. Therefore, it was decided to sub-divide the chambered tomb group into early chambered tombs, which stretch from 4000 cal BC to 3250 cal BC, and late chambered tombs which include those dated between 3250 cal BC and 2500 cal BC. This splits the different chronologically and geographically dependent forms and types of chambered tomb quite well and groups similar ones together. Also, while long and round barrows and cairns both belong to the barrow group they are treated as separate entities within the analysis. Not only are their forms different, but they also have well-established

divergences in chronology and usage which means it makes more sense to analyse demographic representation at them separately.

The final comparative group analysed differences in demographic representation for divergent mortuary practices. This was split into two parts, one looking at single burials and the other at cremation. As single burials are more uncommon within the database it was thought that it may be useful to investigate whether certain demographic groups were more likely to receive this mortuary practice. As stated in the previous section the definition of a single burial was kept quite broad for this research however during this part of the analysis single articulated and single disarticulated burials were treated as two entities. This was because the social/cultural reasons for these two types of mortuary treatment were likely quite different. With regards to cremation, four of the five comparative groups described here were also used to analyse the demographic representation of cremated remains. These were the Neolithic as a whole, the chronological stages, Neolithic regions, and site types. While there were a small number of single cremation burials present within the dataset, this was not substantial enough to do any sort of meaningful analysis.

4.3.2.3: Banbury Lane 1 and West Stow

It is worth drawing attention to two sites within the dataset that cause some issues with the results for certain comparative groups. Both these sites have unusually high numbers of individuals present at them and they are also both heavily represented by certain demographic groups. The first of these sites is Banbury Lane 1, Northamptonshire. This is a triple-ring ditch monument with non-cremated human remains dating to the Middle Neolithic. An MNI of 145 is suggested for the site, with 32 of these being male and ten female. It also has a high

rate of adolescent individuals (18) in comparison to other sites (see Holmes *et al.* 2012; Caffell & Holst 2013). The second site is West Stow, Suffolk. This is a single-ring ditch monument with cremated remains dating to the Middle Neolithic. 80 individuals were identified at this site with seven being male and 31 being female (see West 1990; Willis 2019). The high numbers of individuals, the one-sided biological sex representation ratios, and, in the case of Banbury Lane 1, the high instances of one age group, found at these sites meant that in some comparative groups, they do distort the results. For this reason, two datasets were created, one including these sites and one without them. By doing the extent to which these sites affected the results could be viewed. For some comparative groups, the inclusion of the sites only changed the overall results by a percentage or two but for others, they really affected representation ratios. On the whole West Stow is the more problematic of the two. In the subsequent results chapters attention will be drawn to these when they have a notable effect on the results and will be discussed in more detail there.

4.4: Lifeways Information

The third and final part of the database collates all data relating to the health and lifeways of individuals. This includes palaeopathology data which can provide a record of health and diet, as well as carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) isotopic data for insights into diet, and strontium ($^{87}Sr/^{86}Sr$) and oxygen ($\delta^{18}O$) isotopic data for mobility information. Around 1364 individuals have palaeopathological and/or isotopic data attached to them from 195 different sites. This represents a considerable number of the total individuals within the database and is a good amount to acquire a representative picture of the health and lifeways of different demographic groups during the British Neolithic.

4.4.1: Lifeways Data – Palaeopathology

Palaeopathology, or the study of ancient disease, is a key component of the study of human bone. While pathological conditions that affect the skeleton and endure within the archaeological record are only a small subset of conditions that an individual could have throughout their life, the information gained from the recognition and study of these conditions can provide a plethora of information on both the individual's life and lifestyle as well as reflect the wider populations lifeways and the environment they inhabited (Mays 2010: 177). Palaeopathology is not without its limitations, however. Only a small number of conditions leave traces within the human skeleton, so a full picture of an individual's health is never going to be obtainable. Other things to consider are the fact that the deceased found in archaeological contexts are only a small representation of the past population so may not be illustrative of the whole population, and preservation of human bone may mean certain conditions are not able to be recognised (see Roberts & Manchester 2010: 23 – 26 for a good summary of limitations of palaeopathology).

The large amount of osteological data that was collected in the formation of the database meant there was a substantial amount of information related to the pathologies recognised in British Neolithic individuals, and this could be collated and comparatively analysed. Suitable data existed for 565 individuals from 119 sites. These sites were chronologically and geographically diverse, although much more data was available for the earlier parts of the period and sites within well-researched areas such as Orkney and Wessex. The data also represented several different site types. There was some variation in how detailed the pathology sections of osteological reports were. This could be for several reasons. First, when the osteological analysis took place could be a factor, older reports tend to be less detailed.

Second, if osteological analysis were not a key part of the research only a basic report would be made. Finally, thorough osteological analysis would not be able to take place if the human bone within the assemblage was severely fragmented or damaged. This disparity between the levels of detail of pathology data is not judged to affect the analyses completed within this research. As the research is looking at broad-scale trends between different demographic groups in relation to health all that is needed is a record of what pathologies were identified on skeletal material and which individuals were affected by these.

Palaeopathology data was only obtained from the full and partial osteological data groups. While some information regarding pathologies may be present within the archaic group, these were small in number, basic, and lacked detail so were not included. Simply put, every individual who has been osteologically analysed in the modern period is included in this part of the research, provided they have a reasonable level of palaeopathological information attached to them. Also, only palaeopathology data from non-cremated individuals was used within this portion of the study. Information on pathologies for cremated remains is very variable and limited due to the destructive nature of the cremation process and the often incompleteness of assemblages. While they can occasionally be recognised and recorded, they are seldom observed (see McKinley 2008; 2013; Wahl 2008). There were very few examples of palaeopathology data from cremated remains present within the database. Therefore, they were omitted as they would not provide any meaningful information towards the research.

The incompleteness, in terms of skeletal elements, for extant antiquarian collections did present some issues with the collation of the palaeopathology data. Many antiquarian collections mainly consist of skulls with little to no post-cranial elements. This does slightly skew the results for these sites as pathological conditions that affect the skull, such as osteoarthritis of the temporomandibular joint and dental disease, will be more prominent.

While nothing much can be done to rectify this issue, as you can only review the available material, it is a factor that needs to be considered during the analyses of the data. It is not considered to have any major implications on the overall trends viewed within this research, but certainly, when analysing smaller comparative groups that heavily consist of these sites it does need to be deliberated.

The fragmentary, disarticulated, and commingled nature of many of the funerary assemblages also presented some challenges. Only certain skeletal elements can be used to ascertain biological sex and/or age (e.g., pelvis, crania), while others are not as useful in this regard. The fact that many of these assemblages are mixed also means that skeletal elements often cannot be assigned to a specific individual. The consequence of this means that many skeletal elements cannot be allocated a sex or age. If pathologies are also recognised on these elements during osteological analysis, then these cannot be assigned to a specific individual or demographic group. This is problematic for demographic comparative analyses. As these skeletal elements cannot often be assigned to a specific individual this also creates another issue. If each element which has a pathology recognised on it is treated as if it is from a separate individual then this will over-inflate that pathology group, as the number of pathologies is being tested against the minimum number of individuals suggested in the original osteological analysis. To counteract this, skeletal elements that fell into this group were initially assigned as undetermined adults or nonadults. Then, the pathology and the corresponding skeletal element were assigned to the same individual until the maximum number of bones/pathologies physically possible could be ascribed to them. For example, if several different skeletal elements could all have derived from one individual, that all had a range of different pathological lesions upon them, all these would be assigned to the same individual. It is unlikely that this broad range of medical conditions would have derived from one individual, but it is impossible to know so this is the minimum number it could be. In

contrast, however, if three left femurs and two right femurs demonstrated evidence for osteoarthritis at the distal ends then these would be assigned to three different individuals as that is the minimum number of people that could be affected. The major drawback of having to assign individuals as undetermined when attempting to compare different demographic groups is that it reduces the number of males, females, and different age groups able to be used for the analysis. However, it is judged that the sample sizes for each demographic group are large enough from which to draw meaningful results.

In a similar vein, teeth proved to be problematic in the disarticulated and commingled assemblages. Many teeth within these sites were loose which meant they could not be assigned a biological sex although many could still be aged successfully by using tooth wear analysis. Also, many osteologists would tend to express dental pathologies as percentages against the total population in their reports. This is not helpful for this research in trying to assign pathologies to specific individuals. When this was the case a minimum number of individuals was calculated from the percentages within the osteological reports, and these were then recorded into the database as undetermined individuals in the manner suggested in the previous paragraph.

For the comparative analysis itself, the way in which the results were to be illustrated meant that some adjustments had to be made to the MNIs present at certain sites. For the results, the percentage of a demographic group affected by each pathology is exhibited against the total population or MNI from that site. This meant that there were some inconsistencies at sites from the partial osteological data group in which antiquarian assemblages were reassessed in the modern period. As these assemblages are incomplete it meant that only a select number of individuals had been osteologically analysed for pathologies but the MNIs for these sites would be reflective of how many individuals were recognised in the original excavation. This would mean that the rates of the different pathologies would be extremely low as only a

sample of the total number of individuals at the site had been assessed. To rectify this issue the MNIs for these sites were altered to just include individuals who had been reanalysed in the modern period. It was judged that this would provide a much more accurate depiction of the prevalence of the various pathologies for individuals at these sites and offer a good representative sample.

4.4.1.1: Congenital Conditions

The pathologies recognised within the osteological reports were assigned into eight separate groups before the comparative analyses. The first group is congenital conditions. These are conditions that an individual is born with either through genetics or environmental factors creating problems during pregnancy (Mays 2010: 178). Many congenital defects can be mild such as spina bifida occulta. These will not be of any clinical significance to the individual and not lead to any sort of impairment. Other congenital conditions can be much more major such as craniosynostosis, scoliosis, and dwarfism, and conditions such as these can lead to individuals suffering disabilities throughout their lives. Due to the amount of data generated within this research, it was decided to only record congenital conditions which would cause some sort of impairment within an individual's life and mild conditions which have no real clinical significance were omitted. Similarly, non-metric traits of the skeleton such as extra sutures, facets, bony processes, etc. were also not recorded. While both mild congenital defects and non-metric traits are undoubtedly important and can provide much interesting information particularly when considering many are hereditary, it would not be practical to include them all within the database and that the information they would provide would be beyond the scope of this research.

4.4.1.2: Dental Disease

The next group is dental disease. The study of oral health is important in providing insights into subsistence, diet, and nutrition in past populations (Lukacs 2011). It can also be an indicator of childhood stress such as periods of malnutrition, with dental enamel hypoplasia often being cited as a sign of this (e.g., Goodman & Rose 1991). Only a select number of dental conditions are recorded within the database. These are dental caries, dental abscesses, periodontal disease, and any other unrecognised infection. Many osteological reports record dental calculus levels, tooth wear, and dental anomalies such as shovel-shaped incisors. It was decided that these would not be recorded within the database. This was mainly for practical purposes. With such a high number of individuals accounted for within the database, and with teeth being one of the most well-preserved and commonly retrieved parts of the human body in archaeological contexts, the amount of data that would need to be recorded would not be feasible. Also, the question of what could be gained from recording them was pondered, with many teeth being loose and not providing any sort of demographic information, the benefits of documenting them for the comparative analysis would not be substantial enough.

4.4.1.3: Dental Enamel Hypoplasia (DEH)

The third group is dental enamel hypoplasia (DEH). DEHs are horizontal lines, bands or ridges found on the enamel of the teeth which develop due to disturbances to the growth of the dental enamel (Mays 2010: 175). It is generally considered that disease and/or poor nutrition are the key causes of DEH as periods of disease or malnutrition will affect the

formation of the teeth, making enamel thinner in certain areas (Goodman & Rose 1991). DEH only forms in childhood, specifically the period in which the enamel of the tooth crown is developing, which means they provide a record of disease/malnutrition events that happened during these periods (Mays 2010: 175). This is incredibly useful for archaeological investigations into past populations. It demonstrates the prevalence of periods of stress and illness within the group, and this can be comparatively tested against different demographic groups, which can show whether certain members of the group were more or less likely to have one of these periods.

4.4.1.4: Infectious Disease

The next group is infectious disease. Infectious diseases are caused by bacteria, viruses, fungi, and parasites, and how an individual contracts them is dependent on many extrinsic and intrinsic factors such as age, sex, genetic predisposition, nutritional factors, immune status, climate, and sanitation to name a few (Roberts & Manchester 2010: 193). Sometimes infectious diseases leave traces on the bone which can be recognised during osteological analysis. This is because infections cause inflammation which can spread to the bone which then produces new bone growth (see Ortner 2008). It is likely that in pre-antibiotic eras infectious diseases were one of, if not the biggest cause of death.

4.4.1.5: Joint Disease

The fifth group is joint disease. The most commonly occurring joint diseases within archaeological populations are osteoarthritis and degenerative disc disease and these, along with many others are usually related to physical and repetitive activity carried out throughout an individual's life, although other factors such as age, sex, genetics, and body weight can also be of significance (Mays 2010: 186 – 187). As joint disease is mostly linked to activities carried out in life it is particularly important to the comparative analyses of this research, as different levels of joint disease within different demographic groups can imply divergent roles within society which has implications for identities.

4.4.1.6: Metabolic Disease

The sixth group is metabolic diseases. Metabolic diseases are formed through the body's response to physiological stress such as dietary deficiency, chronic illness, trauma, or poor hygiene (Brickley & Ives 2008). Conditions such as scurvy and rickets both fit into this category and occur through dietary deficiencies. The response the body undertakes is variable and depends on the individual's immune system, genetics, and the type of stress they are encountering (Roberts & Manchester 2010: 252 – 253). As metabolic diseases can be described as indicators of stress, they are one of the most useful ways in which to reconstruct the health and living conditions of past populations. Two of the most encountered indicators of metabolic disease, certainly in this research, are cribra orbitalia and porotic hyperostosis. These are thought to occur due to anaemia with some arguing for iron deficiency-based anaemia (e.g., Larsen 1997: 29 – 40) or more recently megaloblastic anaemia (Walker *et al.*

2009). However other factors such as malaria have also been suggested as a cause (e.g., Gowland & Western 2011).

4.4.1.7: Neoplastic Disease

The seventh group, and the most underrepresented in this research, is neoplastic disease. Neoplasms or tumours are uncontrolled growths of cells and can be both benign and malignant, with the former being much more common in archaeological contexts (Mays 2010: 182). While it can be suggested that benign tumours such as osteoid osteomas and osteochondromas are not clinically significant as they are not life-threatening like malignant tumours, they can still cause discomfort, irritation, and pain so they are included within the pathology part of this research.

4.4.1.8: Trauma and Violent Trauma

The final two groups are very much linked to one another, and these are trauma and violent trauma. The definition of trauma is any injury or wound sustained to the body. Unfortunately, many instances of trauma will not be present on the skeleton in archaeological assemblages such as soft tissue injuries, so the ones recognised are just a snapshot of the full picture. Trauma is generally divided into four categories, fractures, or breaks to the bone (including instances of medical intervention such as amputation or trepanation); displacement or dislocation of the bone; artificially induced shaping or contouring of bone (e.g., deliberate skull deformation); and any disturbance in nerve and/or blood supply (Ortner & Putschar

1981: 55). While identifying trauma is straightforward, recognising whether trauma was accidental or intentional is much more difficult and relies upon ascertaining the contributing instrument and/or injury process as well as integrating contextual evidence (see Jurmain 2005: 186 – 188). Even so, it was decided to have two separate groups for trauma in this research. There has been an interest in interpersonal violence in the Neolithic in recent years (e.g., Schulting & Wysocki 2005; Schulting 2012) and techniques for recognising it have developed and improved. Only traumatic injuries that are proved to be a result of interpersonal violence "beyond reasonable doubt" are included. These can include examples such as blunt force trauma injuries to the crania believed to have been caused by a blunt instrument or weapon or sharp force trauma injuries believed to have been caused by an arrow or knife. It is suggested that by having separate groups of trauma-related pathologies it is possible to identify if certain demographic groups are more likely to be the victims of violence or if certain demographics are more likely to fracture bones which has wider implications for how active and dangerous their role within society was.

4.4.2: Lifeways Data – Stable Isotopes

Stable isotope analysis has become an increasingly important part of archaeological investigations into human remains, particularly in the last two to three decades. This is unsurprising considering its ability to convey a whole host of information regarding diet and mobility. Isotopes are varieties of elements which have different atomic masses. Atoms all have a nucleus which contains protons that are positively charged and neutrons which are neutral, and these are encompassed by electrons that are negatively charged. An atom's mass number is generated by the number of protons and neutrons within it. Isotope variations of

elements have the same number of protons and electrons but have divergent numbers of neutrons which means they have different atomic masses (Lee-Thorp 2008). Some isotopes are radioactive and can change over time, but some are stable and do not break down over time, which therefore means their ratios reflect the environment in which they were formed (Brown & Brown 2011: 80 – 81). The fact that some isotopes remain stable over time means that they can be tested in the modern period but still reflect the properties they had in the past when they were formed. This research uses data from both carbon and nitrogen isotopic analyses to investigate diet, and strontium and oxygen isotopic analyses to assess mobility. The database includes carbon and nitrogen isotopic data from 82 sites in which 598 bones underwent analysis and represented *circa* 436 individuals. With strontium and oxygen, isotopic data was available from 120 individuals across 21 different sites. The sites providing carbon and nitrogen data come from across the British region and are dated to all three chronological stages. The sites containing the strontium and oxygen data however are limited to just England and Wales and are dated to just the Early to Middle Neolithic.

4.4.2.1: Carbon and Nitrogen

Using carbon and nitrogen as an indicator for diet has its roots in the latter quarter of the 20th century with early pioneering studies by Vogel and van der Merwe, who used stable carbon isotopes to examine the uptake of maize consumption in prehistoric North America, key to its emergence (Vogel and van der Merwe 1977; van der Merwe and Vogel 1978). Both carbon and nitrogen are taken into the body through diet and since they are stable these will remain consistent after an individual has died meaning dietary reconstruction is possible. Carbon and nitrogen isotopes have two forms, ^{12}C and ^{13}C and ^{14}N and ^{15}N. Through isotope ratio mass

spectrometry, the ratios of ^{12}C to ^{13}C and ^{14}N to ^{15}N in the sample can be found which are conveyed as $\delta^{13}C$ and $\delta^{15}N$. Both animals and plants take in carbon and nitrogen, the former through diet and the latter through photosynthesis. A proportion of the isotopes are integrated into body tissues, and some are discarded, favourably the lighter isotopes, a process called fractionation (Eriksson 2013). The process of fractionation means that when tested different animals will have different $\delta^{13}C$ and $\delta^{15}N$ ratios depending on what they eat. Animals higher up the food chain will have different values than those lower down, usually heavier to lighter, so a carnivore will always have higher $\delta^{13}C$ and $\delta^{15}N$ values than the animal they consume (DeNiro & Epstein, 1981). In the context of human diets, individuals with higher $\delta^{15}N$ values may consume more animal proteins than those with lower ones. $\delta^{13}C$ values can also be used to extricate how much marine and/or terrestrial foods are within the diet due to the differing sources of carbon in each environment, with marine plants having elevated $\delta^{13}C$ values which then pass through the food chain (see Chisholm *et al.* 1982).

To help with consistency within this research, only $\delta^{13}C$ and $\delta^{15}N$ values derived from human bone were used in the main analysis. There were several sites which analysed $\delta^{13}C$ and $\delta^{15}N$ from human teeth (42 teeth in total) but data for these is not used within the comparative analyses. This is because the isotopic analysis of bones and teeth does convey different things. Also, only a small number of individuals had this type of data. Therefore, it was estimated that the inclusion of them would not add any meaningful information to the results. Where individuals had multiple values attached to them, these were averaged so that every individual had just one $\delta^{13}C$ and $\delta^{15}N$ value ascribed.

4.4.2.2: Strontium and Oxygen

In recent years, the use of strontium and oxygen as indicators of mobility has seen increasing usage, particularly for Neolithic Europe (e.g., Price *et al.* 2006; Sjögren *et al.* 2009; Nehlich *et al.* 2009; Smits *et al.* 2010; Bickle & Whittle 2013; Snoeck *et al.* 2016; Gron *et al.* 2016). Strontium has two isotopes $^{87}Sr/^{86}Sr$ however unlike carbon and nitrogen, one of the strontium isotopes ^{87}Sr is radiogenic and is linked to the geology in which it is formed. Over geological timescales, ^{87}Sr slowly increases and the levels at which this happens vary depending on the composition of the bedrock (Dicken 2005). This means that the ratio of ^{87}Sr to ^{86}Sr will vary geographically. Strontium is naturally released from rocks and enters the soils and waters in which it becomes available biologically and can be integrated into other biological entities (Capo *et al.* 1998). While calcined bone and the petrous bone can be used for strontium analysis (see Harvig *et al.* 2014; Snoeck *et al.* 2015) generally the teeth are used. This is useful as teeth erupt within specific periods during childhood and the enamel once formed remains unchanged (Montgomery 2010). Therefore, the strontium levels found within the teeth, which are acquired from both diet and drinking water, are linked to the strontium values of the geographical area in which the individual grew up. If there is a divergence between the strontium levels of the biosphere in which the individual was buried compared with the strontium values of the biosphere in which they grew up, then mobility can be proposed.

The two oxygen isotopes used are $^{18}O/^{16}O$ with the ratio between the two conveyed as $\delta^{18}O$. Oxygen is found within water and the $\delta^{18}O$ ratio, like strontium, differs geographically and is dependent on elements such as altitude, latitude, climate, and proximity to the coast (Mook 2005; Gat 2010). The differences in $\delta^{18}O$ demonstrated by human populations are thought to signal divergences in the isotope structure of drinking water (Evans *et al.* 2012). As was the case with strontium, teeth are used for testing, so the $\delta^{18}O$ values obtained for individuals reflect the

geographical area in which an individual obtained their drinking water during childhood/adolescence. So, differences between the $\delta^{18}O$ value of the individual and of the area in which they were interred can once again suggest mobility. There is not a great deal of geographical variation in Britain regarding $\delta^{18}O$ values, east and west Britain will have slightly different ratios (see Darling *et al.* 2003).

Local biosphere data was needed to compare the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values derived from individuals within the database against local ranges and this was obtained from Evans *et al.* (2018). Individuals were placed into one of two groups, local and non-local. Local individuals had $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values consistent with the local biosphere in which they were buried, while non-local individuals had $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values that diverged from it. Most individuals had a single tooth tested and these could simply be placed into one of the two groups. However, some individuals had multiple teeth examined and, in some cases, individuals had teeth that presented both local and non-local $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values, which is suggestive of mobility during adolescence. To rectify this and to make sure each individual was placed into one of the two groups it was decided that any individual that had at least one $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ value that diverged from the local biosphere would be classed as non-local. It must be noted that only individuals who had their teeth analysed were used in this part of the research.

4.4.3: Lifeways Comparative Analysis

The data contained within the lifeways information part of the database was used to assess the extent to which the health, diet, and mobility of different demographic groups varied. These divergences could then be used in the formation of new interpretations surrounding the

social and cultural identities of males, females, and different age groups during the British Neolithic. For example, if one demographic group was more likely to suffer from joint disease than another, then this could suggest that the two had separate roles within society, with one more likely to conduct physical and repetitive activities than the other. If one demographic group was found to contain more non-local individuals than another, then this could imply that one group was more mobile which could suggest cultural processes such as exogamy (the custom of marrying outside of one's birth community) being present and applicable to one group much more.

4.4.3.1: Demographic Groups

For biological sex, both the palaeopathology and stable isotope data continued to use the three categories of male, female, and undetermined, which were established in the previous section. However, for age, only the groups of adult (over 18 years old) and nonadult (Under 18 years old) were utilised. While there was some palaeopathology data and, to a much lesser extent, isotopic data present for the adult and nonadult age groups. The sample sizes for these were either too small or too inconsistent to perform any sort of meaningful comparative analysis. Therefore, they were not used in this part of the research.

4.4.3.2: Comparative Groups – Palaeopathology

The comparative groups used for the palaeopathology portion of the analysis were similar to the ones used for the comparative analysis of demographic representation. The Neolithic as a

whole was assessed to get a good broad picture of the differences in health between males, females, and adults and nonadults within the British Neolithic. The three chronological stages of the Neolithic were also focussed upon. Both the Early Neolithic and Middle Neolithic groups had a good sample size to work with. However, the Late Neolithic was smaller, with just 26 individuals, which skewed the results and made certain pathology types seem much more definitive than they were. Nevertheless, they were still included in the analysis, but this factor certainly needs consideration when interpreting the results.

Adjustments had to be made to compare the data on a regional level due to the smaller sample sizes. The Neolithic regions, articulated earlier in this chapter, were not able to be used here. Only regions that were extremely populated in terms of sites and numbers of individuals such as Wessex or Cotswold-Mendip had an adequate amount of data available. Therefore, it was thought appropriate to broaden these regional groups into three areas. This process split Britain into three sections, Southern Britain, which includes southern England, East Anglia, and south Wales; Central Britain, which includes northern England, north Wales, and southern Scotland; and Northern Britain, which includes northern Scotland as well as the Hebrides, Orkney, and Shetland. While these are much larger geographical areas than the previously used ones, it is judged that by separating Britain in this manner a suitable sample size of data could be generated and some geographical trends could still be observed, albeit much more broadly.

The site type groupings also had to be adjusted and scaled back for the palaeopathology portion of the research in comparison to the demographic representation part. Divergences in sample sizes meant that only four categories of site types were able to be used. These are causewayed enclosures, natural contexts, chambered tombs, and barrows. For the demographic comparative analyses, chambered tombs were split into early and late chronological variations, and long and round barrows and cairns were treated as separate

entities. However, the small sample sizes that would have been present if that had been done here meant that this was not possible. This does have its drawbacks as geographically and chronologically distinct monument types are being grouped when they likely have differing social/cultural meanings attached to them. Nevertheless, this still meant that broad insights into the health of individuals buried at these sites were able to be acquired and interpreted. Comparisons between mortuary practices were not conducted in this part of the research. As mentioned above cremated remains were not considered for palaeopathology and there was not enough data to meaningfully compare single and multiple burials.

4.4.3.3: Comparative Groups – Stable Isotopes

Only the Neolithic as a whole and chronological stages groups were used for the $\delta^{13}C$ and $\delta^{15}N$ data. Initially, the data was also separated into regional and site-type groups however it soon became apparent that there was minor variation within these further groups, so this was considered unnecessary. For the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data the Neolithic as a whole was assessed. The chronological stages only included the Early and Middle Neolithic as there was no data for the Late Neolithic. The broad regional groups of Central and Southern Britain were applied to the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data, there was insufficient data for Northern Britain to be considered. Unfortunately, there was not enough data to do any sort of meaningful comparison based on site types and mortuary practices.

4.4.3.4: Statistical Significance

As the sample sizes for the lifeways data were quite varied, it was considered appropriate to test the statistical significance of the results obtained. For both the palaeopathology and $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data this was done in the form of a chi-squared test. A chi-squared test is used to investigate whether there is a statistically significant discrepancy between the expected frequencies and the observed frequencies in two variables (in the case of this research either males and females or adults and nonadults). This was done for all comparative groups. For the $\delta^{13}C$ and $\delta^{15}N$ data, a two-sample f-test for variances was used. This test is employed to determine if the variances seen within two populations (again in the case of this research males and females or adults and nonadults) are equal. This was done for all comparative groups used for the $\delta^{13}C$ and $\delta^{15}N$ data. The results from these tests showed that the trends observed from the data in many comparative groups were not statistically significant. A contributing factor towards this is small sample sizes. For these cases, future research which can add to the datasets could be crucial in improving the validity of these results. Trends seen from the data in several other comparative groups however were either approaching statistical significance or were statistically significant, so these could be discussed with much more clarity. Further attention to the statistical significance of these results will be present in the next chapter as and when the results are being discussed. The results from all the statistical significance analyses can be found in Appendix VI.

4.5: Conclusion

This chapter has demonstrated what data was used in both the demographic representation and lifeways comparative analyses; how this data was obtained; what steps were taken to ensure that the data remained consistent; and highlighted the diverse ways in which it was separated and used for comparative analysis. With regards to the assessment of demographic representation, using such a large amount of data of diverging quality from a variety of sources spanning over 200 years was always going to provide some issues and problems. However, it is judged that the measures taken to deal with these are appropriate and mean that the results acquired exhibit a good representative picture of how males, females, and different age groups are represented within different funerary contexts. Separating the data into the three osteological data groups, archaic, partial, and full, meant that these could easily be added or removed to/from the dataset to check their influence on the results. This allowed the creation of two datasets, one using all available data from all three osteological data groups and the other just using modern data and this was crucial in testing for inconsistencies within the results. In a similar vein, creating datasets both with and without the sites of Banbury Lane 1 and West Stow also achieved this goal.

It was regarded vital to be able to compare the representation of the different demographic groups in several different funerary contexts to draw out new insights on how age and/or biological sex may have affected identities. By using the comparative groups of the Neolithic as a whole, the chronological stages, the Neolithic regions, site types, and mortuary practices, it is judged that this was achieved. A broad and detailed picture of how males, females and different age groups are represented in several different British Neolithic funerary contexts was able to be acquired, and this allowed new understandings of how the representation of

different demographic groups changed and developed both chronologically and geographically. It also provided insights into how males, females, and different age groups were treated at different site types and with different mortuary practices. One drawback of splitting the data into smaller comparative groups was that the sample sizes were also reduced. On occasion, this meant that the group was not able to be used, as a meaningful comparison would not be possible with the small numbers of individuals associated with it.

The fragmentary, disarticulated, commingled, and often incomplete nature of British Neolithic funerary assemblages presented certain challenges when collating palaeopathology data. Many of the pathologies identified on human bone were not able to be assigned to specific individuals and/or demographic groups. This is problematic when attempting to compare the health of males, females, and different age groups. However, there are still a considerable number of individuals who have had their age and/or sex determined and who have extensive information regarding pathologies attached to them. This means that despite a lot of pathological conditions being assigned to individuals of an undetermined age and/or sex being present, health-related trends and patterns for different demographic groups are still able to be observed and accessed.

The smaller amount of data available for the lifeways portion of the research also posed some problems. The comparative groups established in the demography part of the research had to be adjusted and changed in varying degrees to accommodate both the palaeopathology and isotopic data. This meant that the results demonstrated much broader trends about areas such as regionality and site types. This should not be detrimental to interpretations however, but it is worth keeping in mind when directly comparing results from the demographic and lifeways parts of the research in relation to site types and regionality. The variations in sample sizes that were present within the lifeways section also meant that questions of statistical significance had to be deliberated. It was considered important to test the data in the different

comparative groups for statistical significance to properly interpret the results. While this did indeed demonstrate that some trends were not significant it equally showed that several were approaching significance or were significant which meant that interpretations of these results could be suggested with more confidence.

In summary, many challenges of varying degrees were encountered during the process of collating and analysing the data used in this research. However, it is judged that appropriate measures were put in place to combat these issues. Because of these measures, it is considered that the results obtained from the analyses paint a relatively accurate and representative snapshot of the differences in lifeways and funerary practices for different demographic groups in the British Neolithic which can stand up to scrutiny. The fact that data was also tested within smaller comparative groups means that these divergences can be viewed in several different contexts which provides more substance towards final interpretations and offers additional insights into the nature of biological sex and age and its relationship with identity.

5: As in Life: Health and Lifeways

5.1: Introduction

The next two chapters will now shift focus on presenting the results of the research and suggesting what implications this could have for identity, age, and gender in Neolithic Britain. Due to the amount of data generated from the analyses only what are deemed to be the most crucial aspects will be deliberated here. It would not be practical to discuss the results in their entirety, although the full range of results can be accessed within appendices IV and V. This first of these results chapters will concentrate upon data which conveys evidence about the lifeways of British Neolithic individuals. This includes information regarding health through the palaeopathology data, diet through both the palaeopathology data and $\delta^{13}C$ and $\delta^{15}N$ isotope data, and mobility through the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope data. The main aim of the chapter is to emphasise the key differences between different demographic groups in relation to their lifeways and suggest how these divergences may have affected sex- and age-based identities. The chapter will demonstrate that subtle differences in lifeways between males, females, and different age groups are present, and these could be indicative of diverging social and cultural roles within British Neolithic society and thus differing types of identity based upon biological sex and age. The chapter will be structured around the comparative groups proposed in Chapter Four. These include the Neolithic as a whole, the chronological stages, the Neolithic regions, and site types. Key results regarding the total population, biological sex, and age from each of these groups will be initially exhibited followed by a discussion of what this could mean for identity, gender, and age.

5.2: Lifeways in the Neolithic as a Whole

As suggested in the previous chapter, viewing the Neolithic period as a whole can be problematic. It is again worth emphasising that the substantial period in which the British Neolithic covers (*circa* 1500 years), as well as the geographically and temporally distinct technological and cultural changes that are present does make it difficult to propose a universal shared British Neolithic culture. However, contemplating the lifeways data for the Neolithic as a whole is useful for generating a broad picture of the health, diet, and levels of mobility of individuals during the period. It is also worth noting that there is much more lifeways data related to the earlier parts of the Neolithic. Therefore, the patterns within the data will be highly influenced by these earlier assemblages. The adoption of the Neolithic way of life undoubtedly produced many changes to the day-to-day lives of individuals and it is likely that these changes also had effects on the health of individuals. Increases in population density, a more sedentary lifestyle requiring permanent housing, the increasing reliance on the cultivation of crops, and the domestication of animals have all been suggested as factors which may have brought new disease types and health complications for the Neolithic people of Britain (see Roberts & Cox 2003: 55 – 74). Unfortunately, it is not possible to acknowledge the levels at which health changed from the preceding Mesolithic into the Neolithic due to a lack of Mesolithic population-based datasets for Britain and the wider northern European area.

5.2.1: Key Results for the Total Population – Are There Any Lifeways Related Trends in the Neolithic?

For the Neolithic as a whole, the palaeopathology dataset demonstrated that three disease types were much more likely to affect individuals than the others (Fig. 5.1). 17% of individuals were affected by joint and metabolic disease and 12% by dental disease. Comparable datasets from past research (e.g., Roberts & Cox 2003; Smith & Brickley 2009) interestingly demonstrate lower numbers of individuals affected by these disease types in comparison to this research, although the sample sizes were much smaller. With regards to joint disease, degenerative changes of the spine were the most common area of the body affected and osteoarthritis was the most widespread type of joint disease exhibited. The $\delta^{13}C$ and $\delta^{15}N$ isotopic data shows that the population overall acquired their protein largely or entirely from terrestrial sources (Fig. 5.2). The collation of $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope data demonstrates prominent levels of individuals being buried in a location with a different biosphere to the one they spent their childhood in. Around 44% were deemed non-local to their burial place (Fig. 5.3).

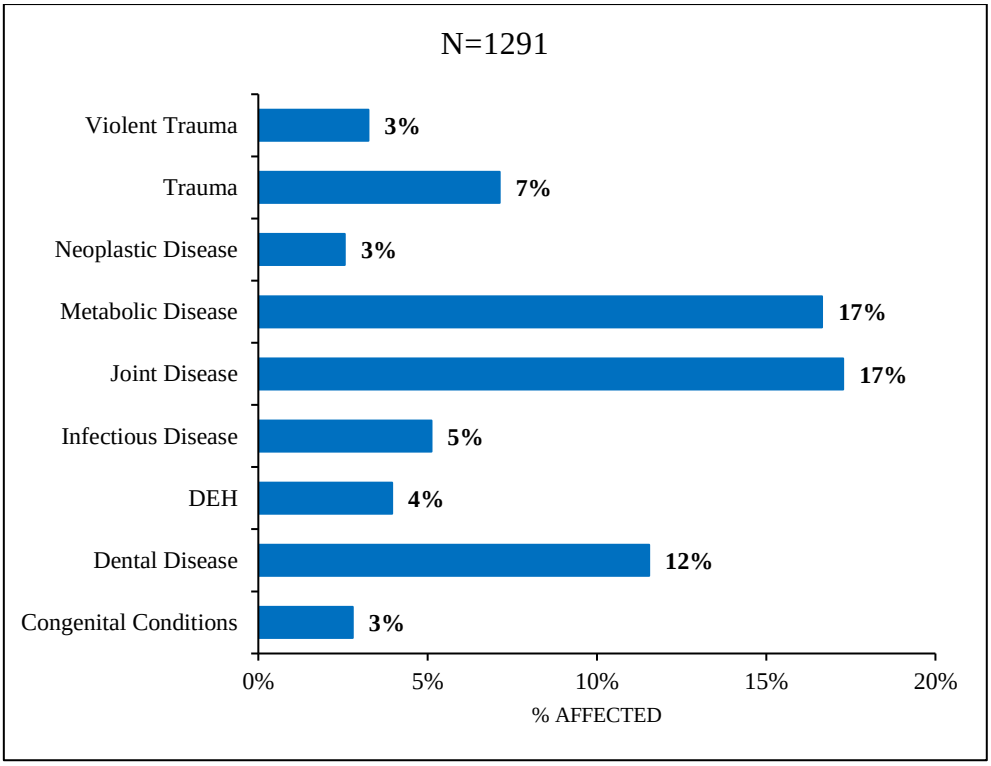

Figure 5.1 Rates of pathologies for the total population in the Neolithic.

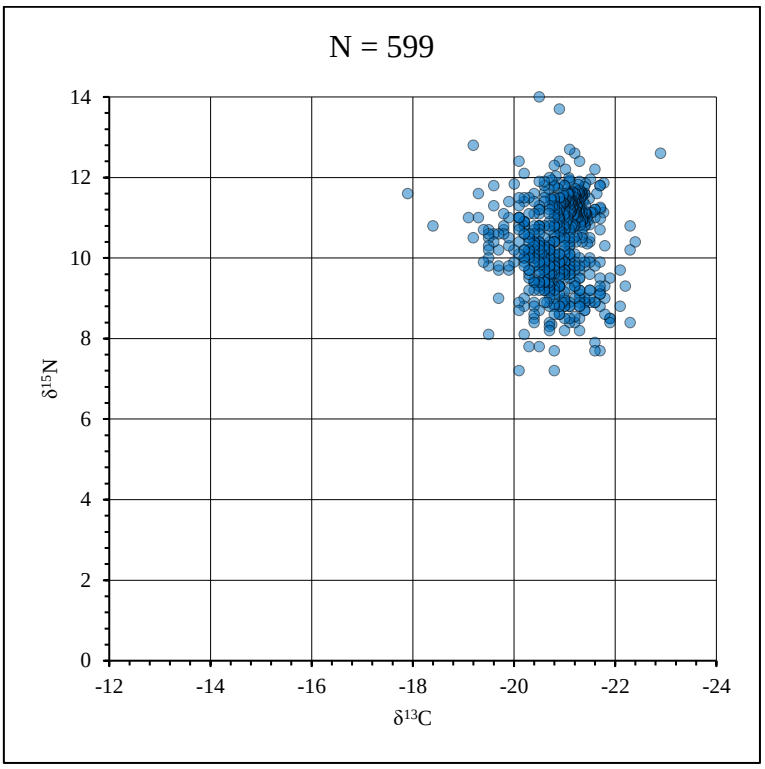

Figure 5.2 The δ13C and δ15N values for the total population in the Neolithic.

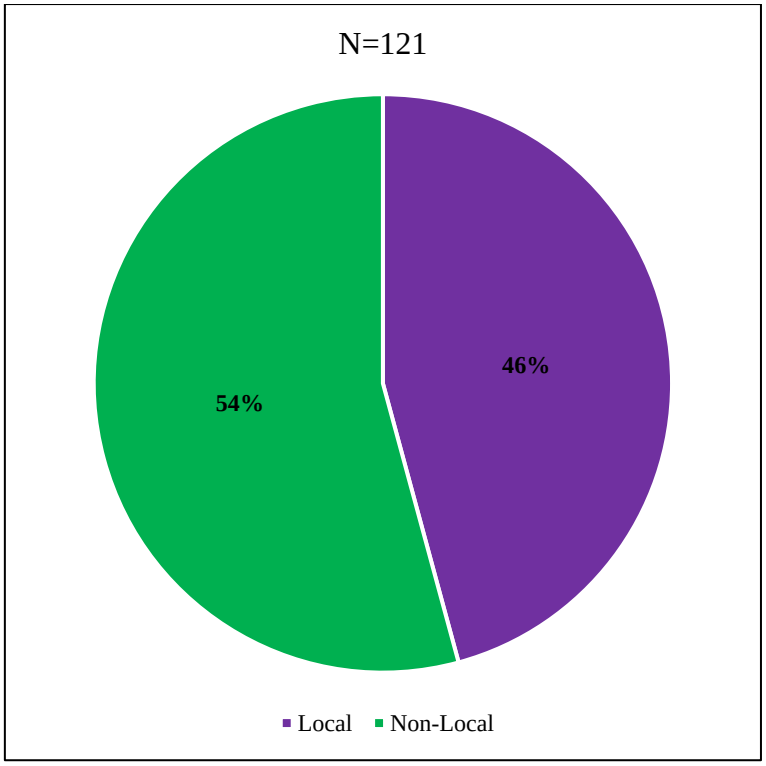

Figure 5.3 The ratio of local to non-local individuals for the total population in the Neolithic.

5.2.2: Discussion for the Total Population – Are There Any Lifeways Related Trends in the Neolithic?

Osteoarthritis is caused by several factors including genetics, repetitive use of the joint, old age, and obesity (Goldring & Goldring 2007). Given the young ages of the individuals affected by joint disease, 72% were aged between 17 and 44, old age was not likely a major factor in its cause and other elements were probably responsible for the aetiology of it. The repetitive use of joints was perhaps the leading factor. Individuals were undoubtedly physically active in their day-to-day lives, often and repeatedly completing tasks that would put stress upon their joints. With the spinal region being the most affected part of the body, this could suggest lots of lifting and carrying. It is not possible to compare joint disease with the previous Mesolithic period both within Britain and the wider European area. Therefore, it

cannot be determined how the transition to the Neolithic affected joint-related health. However, palaeopathological research in prehistoric North America demonstrated that osteoarthritis declined following the onset of farming (Larsen 1997: 182) and this is certainly worth considering.

Nearly one in five individuals also suffered from a metabolic condition at some point in their lifetime. Metabolic conditions occur during times of stress such as illness or famine. The prominent levels found within this research suggest these periods of stress were quite commonplace. It has been suggested that the shift from the hunting and gathering of wild foods to farming and the consumption of grain-based diets may have led to nutrient deficiency conditions and anaemia (Brickley & Ives 2008). Again, the sparseness of the British Mesolithic funerary record makes it difficult to see what impact the adoption of the Neolithic had on this aspect of health. Examples of metabolic disease in Mesolithic Britain are present (e.g., Tilbury Man – Schulting 2013), so periods of stress did occur. However isolated occurrences such as these are not enough to do any sort of meaningful comparison.

Recent examinations of stress markers on teeth from Mesolithic and Neolithic individuals from the central Balkans demonstrate that they are more abundant in the Neolithic population than in the Mesolithic (see Penezić *et al.* 2019). So, certainly, in the case of this region, periods of stress may be more likely to occur during the Neolithic. Whether a similar scenario would be found in Britain is difficult to say. The rates of metabolic disease for the Neolithic of Britain seem to conform to other areas of Europe. Evidence from the Neolithic *Linearbandkeramik* (LBK) in central Europe seems to do this. Individuals from differing regions within the LBK dated *circa* 5500 to 5000 cal BC present rates of *Cribra orbitalia* and dental enamel hypoplasia (DEH) that are between 7% and 55% for the former and 9% and 36% for the latter (Hedges *et al.* 2013). The British Neolithic rate of 17% for all metabolic conditions combined sits somewhere in the middle of these suggesting similar problems may

have been encountered in Britain as were in Europe, although the differing chronologies of the LBK and British Neolithic mean slight caution should be taken in directly comparing the two.

While seemingly not as common as joint and metabolic disease, dental disease was also quite prevalent with around one in ten individuals affected. It has been suggested that the change in diet to grain-based foodstuffs may have had an impact on dental health due to the higher intake of carbohydrates and sucrose which do increase chances of dental caries (see Larsen 1997: 69). But again, the significance of this increase cannot be fully understood due to the lack of information available for the preceding Mesolithic. While dental wear was not recorded within this research, other comparable research that did record it suggests that dentition within Neolithic Britain was under a certain degree of mechanical stress, be it from dietary choices such as food requiring a lot of chewing, or from other domestic/craft activities in which the mouth may be used (see Smith & Brickley 2009: 127). This could be an explanation as to why such a fairly substantial number of individuals appear to have problems with their dental health. Around 4% of individuals appeared to suffer from temporomandibular joint disease which is often caused by consistent and prolonged chewing and use of the mouth for tasks (Zarb & Carlsson 1999). While this number is only quite small it could substantiate the idea of the mouth being used as a tool.

The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data do suggest that prominent levels of mobility may be common within the British Neolithic. However, it is important to remember that what the data is showing is that the individual in question was only buried in an area with a different biosphere to the one in which they grew up. This does not automatically mean that the individual was a migrant and lived in the area in which they were buried. It could be that the person in question was brought to the area purely for funerary purposes. Cross-cultural ethnographic research by Ensor *et al.* (2017) has demonstrated that burial location can be

incredibly varied depending on the group and their social and cultural beliefs. This was especially the case with regards to biological sex where it was exhibited that females in matrilineal groups would be placed in a local descent group cemetery and males returned to their original natal kinship group (*ibid*). In some patrilineal groups, males would be buried in local descent group cemeteries but females returned to their natal descent group, but in other patrilineal groups females would be included in the local descent group cemeteries (*ibid*). This demonstrates that migration is not the only explanation for non-local individuals being present within funerary sites in the British Neolithic. An individual could spend their entire life in an area but after death, social and cultural mechanisms could mean that they are required to be buried in a different area. Whether migration or other cultural explanations were responsible for the prominent levels of mobility the data does suggest that travel and movement around the landscape was a quite common feature in British Neolithic society. This is a quite different proposition to the ideas of sedentism suggested in the 19th and 20th centuries (see Leary & Kador 2016 for a good summary of this).

5.2.3: Key Results for Biological Sex – Are There Any Differences in Lifeways Between Males and Females in the Neolithic?

There are some subtle divergences between males and females for the period as a whole. The palaeopathology data shows that for most disease types only a small margin separated males and females which was not statistically significant, as shown in Appendix VI (Fig. 5.4). However, for both joint and metabolic disease a much more pronounced difference was present. Males were 6% more likely to acquire joint disease than their female counterparts. Data for metabolic diseases show that females were 5% more likely to suffer from a

metabolic condition than males. The $\delta^{13}C$ and $\delta^{15}N$ isotopic data presents little differentiation between males and females (Fig. 5.5). The highest $\delta^{15}N$ values within the dataset do belong to males and on average males had $\delta^{15}N$ values 0.25% higher than females. However, statistical analysis suggests that this is not statistically significant (see Appendix VI). With regards to the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopic data males and females appear to demonstrate different signatures (Fig. 5.6). 44% of males were deemed to be non-local to their burial place while just over 56% of females are non-local. Small sample sizes for this part of the research, just 18 males and nine females, do affect the statistical significance of these findings (see Appendix VI). This makes it difficult to be certain that this is a true representation of the variation in mobility between males and females. However, the available data does imply that females were more likely to be non-local than males.

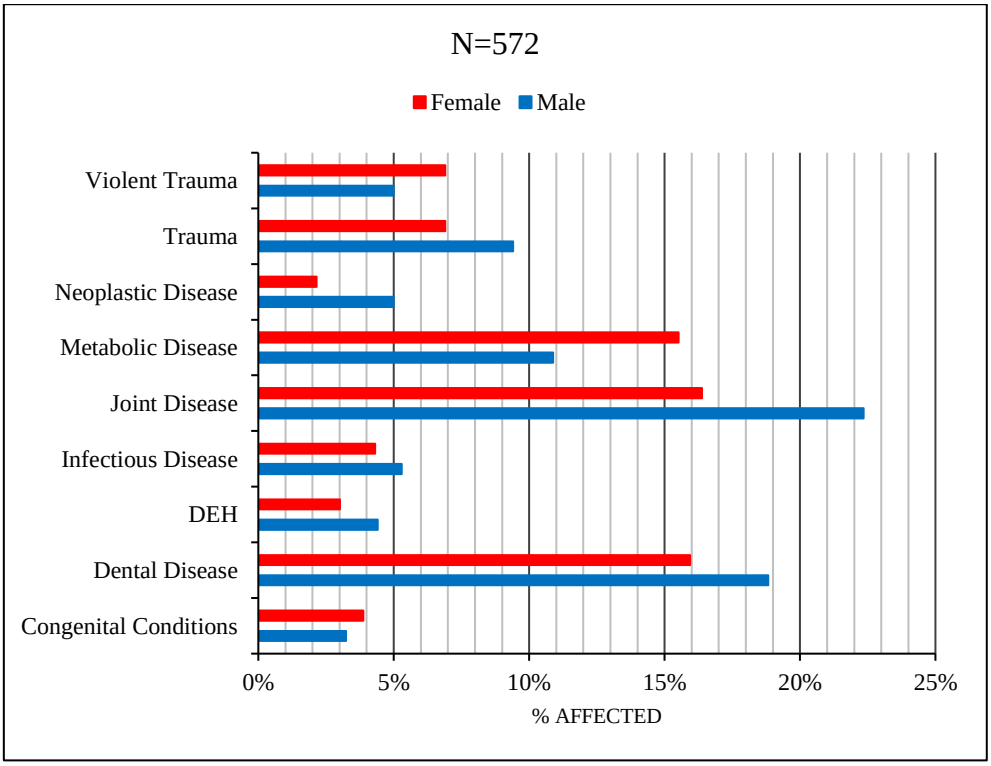

Figure 5.4 Rates of pathologies for males and females in the Neolithic.

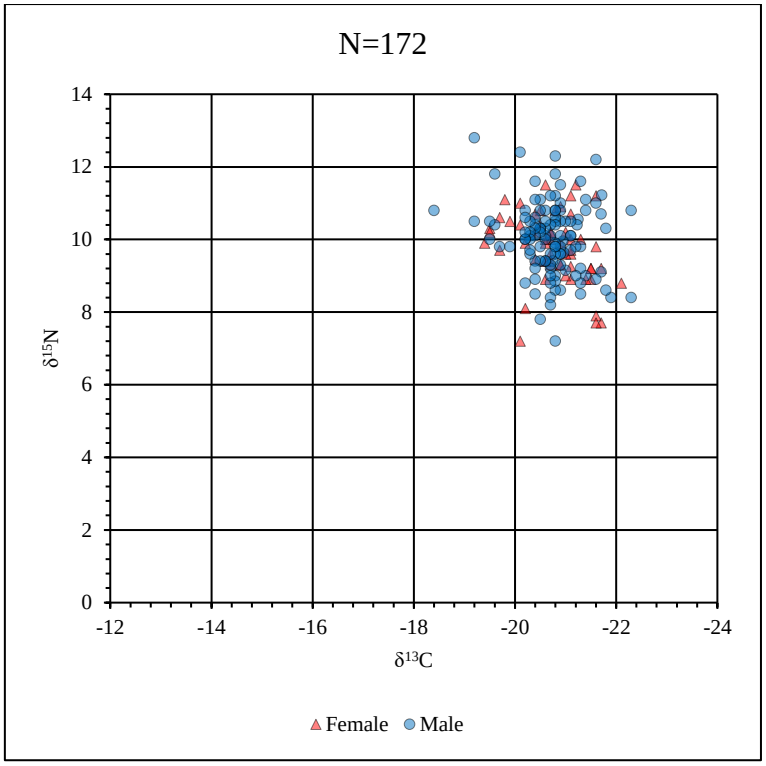

Figure 5.5 The δ13C and δ15N values for males and females in the Neolithic.

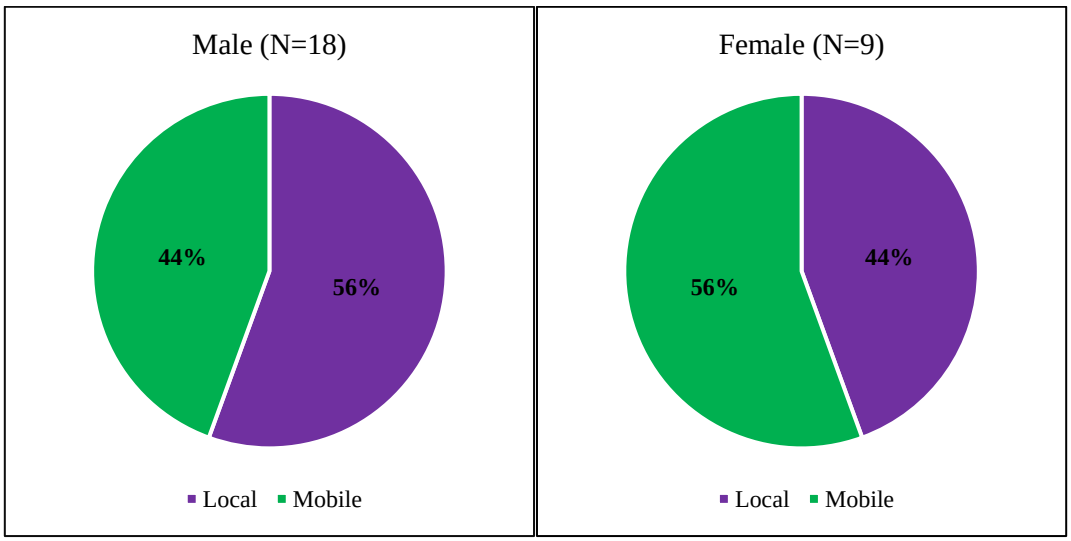

Figure 5.6 The ratio of local to non-local individuals for males (left) and females (right) in the Neolithic

5.2.4: Discussion for Biological Sex – Are There Any Differences in Lifeways Between Males and Females in the Neolithic?

While both metabolic and joint diseases did not present huge divergences between males and females, they could suggest some subtle differences in the lifeways individuals had based on biological sex. With regards to joint disease, the fact that males are more prone to it could suggest that they were more likely to undertake physical tasks that placed stress upon the joints. These observations could be built upon by a more detailed examination of how joint diseases were affecting males and females such as the types of joint disease they were acquiring, the areas of the body most affected, and the levels of severity. For example, Cohen & Bennett (1993) identified differing patterns of evidence for degenerative joint changes between males and females in prehistoric populations, which they suggested could be an indicator of differing labour roles based on biological sex being present.

The data for metabolic diseases does suggest that females may be slightly more prone to undergoing periods of stress. An explanation for this could be subtle differences in diet, although other influential factors such as pregnancy and menstruation must be considered. The increasing levels of the consumption of grains and legumes, which the Neolithic likely saw, can inhibit iron absorption due to the phytic acid found within them and lead to anaemia (Hurrell 2003). Likewise, over-reliance on secondary animal products, such as dairy, can also lead to iron deficiency (Smith & Brickley 2009: 125). If these factors are considered here, it could be that females were marginally more reliant on grains, legumes, dairy, etc. within their diet which would make anaemia more common within the female population. Further elucidations surrounding this could be gained by looking more specifically at the types of metabolic conditions that were affecting males and females. For example, research in the

LBK has demonstrated that females were much more likely to have cribra orbitalia while DEH was more evenly distributed (Hedges *et al.* 2013). DEH represents periods of dietary stress encountered during childhood. Therefore, this suggests that differences between males and females were clearly defined in adults, but these did not apply to nonadults (*ibid*). The distinct types of metabolic diseases were grouped within this research. However, the DEH data was recorded separately, and, like the LBK data, it too demonstrates a much more even distribution between the biological sexes with 4% of males and 3% of females affected. As DEH forms in childhood, this data pattern may suggest that female and male identities and hence social roles within Neolithic Britain were not as pronounced when an individual was a nonadult but came into force once adolescence/adulthood was reached.

Although the $\delta^{13}C$ and $\delta^{15}N$ data do not show any notable divergences between males and females that is not to say differences in diet did not exist. Isotopic analysis cannot distinguish between meat consumption and the consumption of secondary animal products such as dairy. Therefore, one group could have greater access to meat than the other, but this would not be highlighted in the data. However, if other data is considered alongside the isotopic data, then assertions could be made regarding the types of protein (meat or dairy in this case) groups were consuming. As established, an overreliance on dairy can lead to iron deficiency and anaemia (Smith & Brickley 2009: 125). So, while the $\delta^{13}C$ and $\delta^{15}N$ values would be similar for the entire group, if one were over-reliant on dairy products there may be divergences between rates of metabolic diseases between them. In this case, males and females present similar $\delta^{13}C$ and $\delta^{15}N$ results, but females have slightly elevated rates of metabolic disease. Therefore, it could be that females were consuming more dairy. Differences in diet such as this are attested for in the ethnographic record. Research into pastoralist societies in northern Kenya found that females and nonadults consume large quantities of milk, while the males have greater access to meat, and interestingly up to 25% of females and nonadults suffered

from anaemia because of this (Nathan *et al.* 1996: 505). If a similar scenario was occurring during the British Neolithic, then this would have implications for individual identity. If biological sex directly influenced diet, then it would also likely have an impact on other aspects of identity such as gender, status, and social role.

Keeping in mind the issues surrounding sample sizes, what the currently available $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data could suggest is differing patterns of mobility between males and females. A possible explanation is the practice of exogamy (marrying outside one's community) was practised in the British Neolithic, with the female individual joining the male's group (patrilocality/virilocality). Female exogamy and patrilocality have been suggested as possible social models that existed within the wider European Neolithic through both aDNA research looking at kinship and $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ stable isotope analysis (e.g., Haak *et al.* 2008; Knipper *et al.* 2017), although some still urge a degree of caution as a universal theme (Hofmann 2020). In Britain, recent aDNA research by Fowler *et al.* (2022) at Hazleton North, Gloucestershire, has shown that patrilineal descent was a key feature in determining who was buried at the site and that all 15 intergenerational transmissions were through males. Females who were present within the monument had reproduced with lineage males. There was a notable absence of adult lineage females which was interpreted as patrilocal burial practices being undertaken and female exogamy being practised (*ibid*). While this example represents just a single site it does seem to fit with what is seen within the isotopic data from this research. With males being more likely to be local in relation to their burial place it could be that there was a social/cultural preference for preserving male lineages within specific areas and this would be emphasised in death through the burying of lineage males together. Conversely, as females are more likely to be non-local to their burial place, this may indicate that, on reaching adolescence/adulthood, they would join a different group from the one in which they spent their childhood.

5.2.5: Key Results for Age – Are There Any Differences in Lifeways Between Different Age Groups in the Neolithic?

Concerning the palaeopathology dataset adults outnumber nonadults in practically all disease types (Fig. 5.7). The exception to this can be found in metabolic disease and DEH in which adults and nonadults are equally matched. Incidentally, metabolic disease is the pathology most prevalent within the nonadult population with 17% affected. The $\delta^{13}C$ and $\delta^{15}N$ isotopic data show minor variation between the two age groups. Some nonadults appear to have quite high $\delta^{15}N$ values (Fig. 5.8). However, breastfeeding could be a factor in this as, on average, breastfeeding makes the nonadult $\delta^{15}N$ rate 2-3% higher than that of their mothers (see Singh Sehrawat & Kaur 2017). These individuals in question are at an age at which breastfeeding would still be likely to occur so would conform to this assertion. There were some divergences between adults and nonadults in relation to the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data. 68% of nonadults demonstrated $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ levels that differed from their burial place compared to 54% of adults (Fig. 5.9).

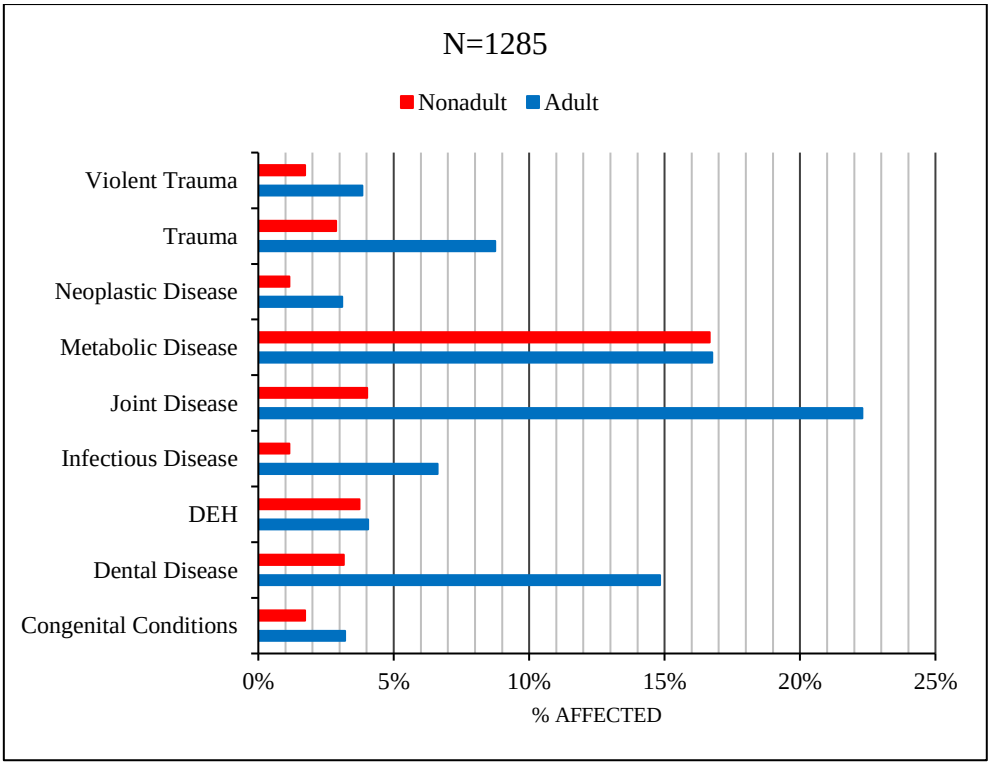

Figure 5.7 The rates of pathologies for adults and nonadults in the Neolithic.

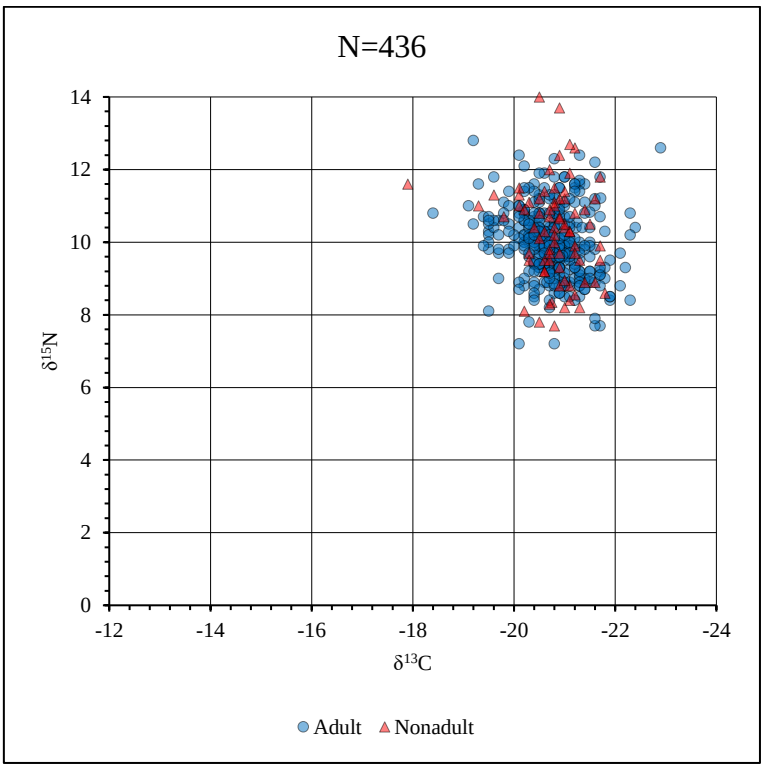

Figure 5.8 The δ13C and δ15N values for adults and nonadults in the Neolithic.

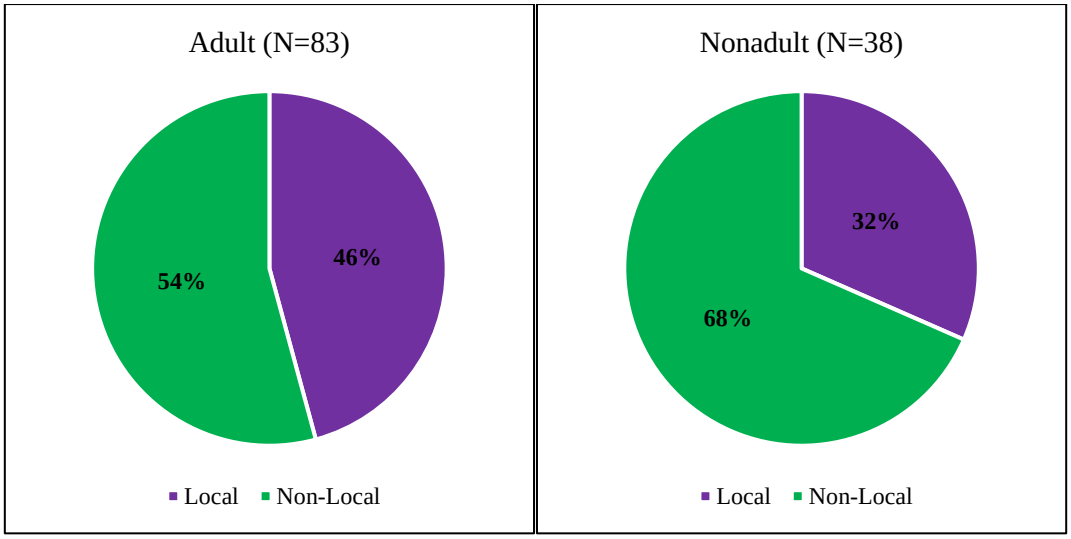

Figure 5.9 The ratio of local to non-local individuals for adults (left) and nonadults (right) in the Neolithic.

5.2.6: Discussion for Age – Are There Any Differences in Lifeways Between Different Age Groups in the Neolithic?

The palaeopathology data can in some respects be seen as a logical outcome. Adults by far outnumber nonadults within the burial population meaning more data will be attached to the group. Also, many of the best-represented disease types within the dataset such as joint and dental disease are developed over an extended period meaning that adults are more likely to acquire them due to their advanced ages. The fact that metabolic diseases are quite high for nonadults could suggest some variations in diet based on age. A similar scenario that was suggested for males and females in which the latter was more reliant on dairy products could also be present with adults and nonadults. Interestingly the ethnographic research looking at north Kenyan pastoralists cited above highlighted that it was both females and nonadults who consumed large quantities of milk which was a factor in up to 25% of them developing anaemia. The fact that both females and nonadults within the Neolithic of Britain have prominent levels of metabolic diseases could imply a likewise divergence in diet. This would

mean that age is a key factor in deciding what an individual is allowed to eat within the group and this of course suggests that age is an important contributing factor to the identity and social position of an individual.

The high number of non-local nonadults within the burial population suggests that movement around the landscape could have occurred at an early age during the British Neolithic. One explanation for this could be related to the abovementioned ideas surrounding female exogamy and patrilocality. Unfortunately, however, very few nonadult individuals within the database have been able to have a sex determination attached to them so it is not possible to investigate whether the dichotomy between adult males and females and their local or non-local origins extended to nonadults. However, notably two nonadults that have successfully had their sex determined are female and both exhibited divergent biospheres to the one in which they were buried. One of these individuals, an adolescent female from Whitwell, Derbyshire (see Vyner 2011), appears to have spent some of her childhood in a location different to Whitwell but the final part is within the Whitwell area. $^{87}Sr/^{86}Sr$ levels on both the first and second mandibular molars which usually erupt at the ages of 6 – 7 years old and 11 to 13 years old respectively, present non-local signatures, while the third mandibular molar which usually erupts between 16 – 20 years old exhibited a local signature (see Neil 2017). So, if female exogamy were a feature within British Neolithic society this could suggest that it would occur around the time of late adolescence. However, further examples would have to be demonstrated before this could be said with certainty. Recent research which determines the biological sex of nonadult individuals through the identification of sex-specific peptides in tooth enamel (see Rebay-Salisbury *et al.* 2022) may help in acquiring more information regarding the sex of nonadult individuals in the future which would certainly help to develop these ideas.

5.3: Lifeways in the Chronological Stages of the Neolithic

Similarly to viewing the Neolithic as a whole, using the chronological stages of the Early Neolithic (4000 to 3500 cal BC), Middle Neolithic (3500 to 3000 cal BC), and Late Neolithic (3000 to 2500 cal BC) is not entirely perfect. The start of the Neolithic varies depending on geographical location (see Whittle *et al.* 2011b) and the cultural developments seen within the archaeological record also appear to be regionally dynamic. However, using the chronological stages within a comparative analysis of the palaeopathology and isotope data is useful for gaining a broad understanding of how the lifeways of individuals may have changed as the period progressed. As highlighted in the previous chapter, funerary assemblages are much sparser in the Late Neolithic, so data from this stage is reduced. There is no isotope data from the Late Neolithic so only comparisons between the Early and Middle can be completed for those. However, there is a small sample size concerning palaeopathology yet the statistical significance of this, as shown in Appendix VI, must be considered. Therefore the Late Neolithic dataset is still somewhat useful and can present certain variations in individuals' health diet. However, given the plethora of investigations based on health and lifeways for the Early Bronze Age in Britain, such as the recent research by Parker Pearson *et al.* (2019), it would have been beneficial to compare the latter stages of the period with this.

5.3.1: Key Results for the Total Population – Are There Any Chronologically Based Lifeways Related Trends in the Neolithic?

In terms of health for the whole population, a few things stood out. The first is that there was a decrease in rates of metabolic diseases. This would imply that periods of stress became less common as the period progressed. The levels of metabolic disease in the Early and Middle Neolithic are very much stable at 17% and 16% of individuals affected, respectively. By the Late Neolithic, the number dropped to just 4%, though the small sample size and statistical significance for this part of the period must be considered (see Appendix VI). The second significant health-related finding was the increase in joint disease, trauma, and violent trauma as the period progressed. Finally, trauma and violent trauma remained stable in the Early and Middle Neolithic but saw a rise in the Late Neolithic (Fig. 5.10). However, again issues with sample sizes and statistical significance for the Late Neolithic must be considered for this finding (see Appendix VI).

With regards to the $\delta^{13}C$ and $\delta^{15}N$ isotope data, the only thing of note is a marginal increase in the $\delta^{15}N$ value from an average of 9.7 in the Early Neolithic to 10.7 in the Middle Neolithic. This suggests a possible slight rise in the consumption of animal protein. Some interesting findings were present within the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopic data. In the Early Neolithic, 72% of individuals demonstrated $^{87}Sr/^{86}Sr$ and/or $\delta^{18}O$ values different to the biosphere in which they were buried. Conversely in the Middle Neolithic, just 48% of individuals have divergent values (Fig. 5.11). This could be suggestive of an increase in sedentism for many individuals towards the end of the fourth millennium.

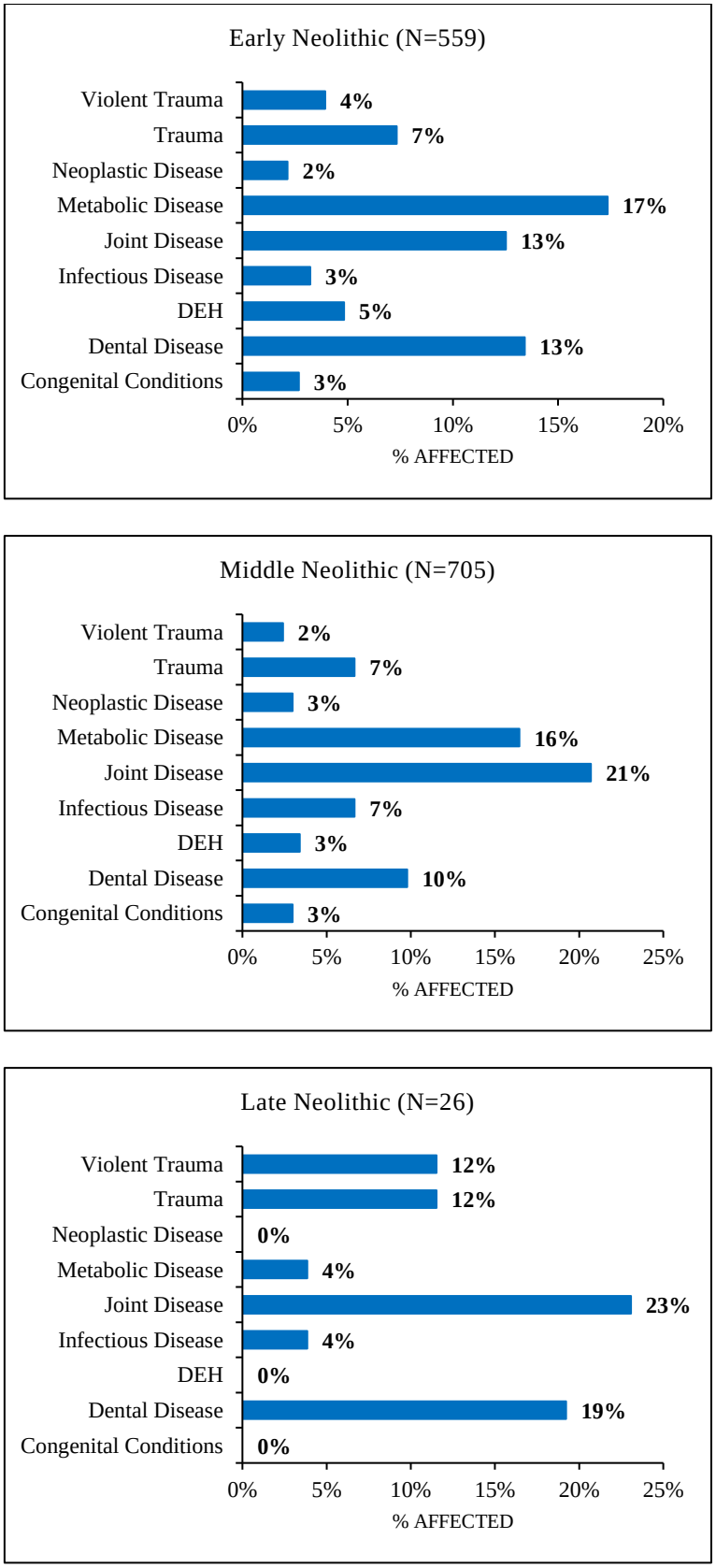

Figure 5.10 Rates of pathologies for the total population in the Early (top), Middle (middle), and Late Neolithic (bottom).

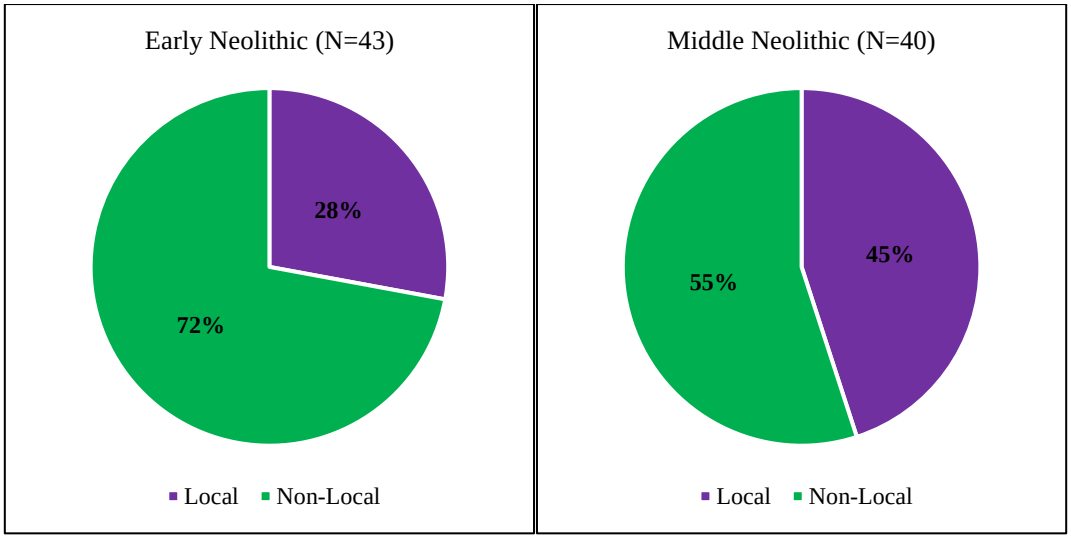

Figure 5.11 The ratio of local to non-local individuals for the total population in the Early (left) and Middle Neolithic (right).

5.3.2: Discussion for the Total Population – Are There Any Chronologically Based Lifeways Related Trends in the Neolithic?

The initial stability and then decrease of metabolic diseases is interesting. It has been suggested that the hunting/fishing/gathering of the Mesolithic period would have provided a much more wide-ranging and balanced diet than what the agriculture of the Neolithic would (Cordain 1999: 23). Therefore, as more individuals adopted farming their diets may well have lacked some vital nutrients which could lead to an increase in metabolic conditions (Brickley & Ives 2008). If this is considered, then it could be suggested that as the Neolithic progressed metabolic disease would increase. However, the data does not seem to show this. Through archaeobotanical research Stevens & Fuller (2012) suggested that in Britain at around 3300 cal BC and into the Bronze Age arable farming was abandoned as the main form of subsistence and replaced by pastoralism and this coincided with a population decrease. There has been criticism of this paper. Bishop (2015) argued that arable agriculture probably varied

in importance on a local and regional scale and that attempting to employ unitary models to complex datasets like Stevens & Fuller did, should be done with caution. However, the data for metabolic diseases within this research, which demonstrates a slow decline of the disease type, could substantiate the ideas of Stevens & Fuller (2012). This decline could well be due to a change in diet and subsistence during the later parts of the period. Unfortunately, the Late Neolithic sample size was small, this does limit further elucidations being generated for this line of enquiry. However, this in itself could validate the proposals suggested by Stevens & Fuller (2012) regarding population reduction. The increases in both joint disease and trauma could also be indicative of a change in lifeways as the Neolithic advanced. For example, the increase in trauma and joint disease may be related to changes in workloads or how tasks were completed. Again, if the paper by Stevens & Fuller (2012) is considered, changes in subsistence and lifeways in general could be a factor in this.

Much like metabolic disease, violent trauma was stable in the first parts of the Neolithic but increased towards the latter parts. While it has seen some debate (e.g., Schulting 2012; Fibiger *et al.* 2013; Dyer & Fibiger 2017), violent trauma and interpersonal violence are underrepresented in discussions regarding Neolithic society both in Britain and the wider European region. In discussing violence within prehistory more generally Keeley (1996) goes as far as to suggest that the lack of examination of violence has pacified it. However, the ethnographic record demonstrates that violence and warfare in comparable and small-scale societies are often a principal element of their lifeways (e.g., Ember & Ember 1997; Haas & Creamer 1997). The omission of violence within discussions of European prehistoric societies could mean that many important social and cultural elements about these groups are being overlooked if violence and small-scale fighting were a significant part of life. One of the reasons for the lack of attention to violence is the difficulty in trying to produce evidence that fully substantiates it. Skeletal material only reveals a restricted number of pathologies

that may be related to interpersonal violence with many, such as soft tissue injuries, being unviable. The problems in recognising violence from skeletal material is a key contributing factor in its underrepresentation within the database of this research. However, even with the generally small numbers that are present, what can be seen is an increase in instances of suspected violent trauma as the period progresses.

An explanation for this could be the assumed increase in the size of communities. Larger groups of individuals living together may be more prone to conflict within their groups which could lead to acts of violence. However, conflicts between two opposing groups may also be more prominent if larger communities exist and compete within the same landscape. There are a few instances of individuals who have injuries likely caused by arrowheads. Individuals at Ascott-under-Wychwood, Oxfordshire (Benson & Whittle 2006), Wayland's Smithy, Oxfordshire (Whittle *et al.* 2007), Tulloch of Assery B (Corcoran 1965), and Pen y Wyrlod 2, Brecknockshire (Wysocki & Whittle 2000) all appear to have injuries caused by stone projectiles, with said projectiles being lodged within various skeletal elements. Further cases of arrowheads being in and around the body within funerary contexts may also point to injuries of this type however these could equally be grave goods (e.g., Hambledon Hill, Dorset – Mercer & Healy 2008; West Kennet, Wiltshire – Piggott 1962). Injuries caused by arrowheads are much more indicative of violence between two groups. Using a bow and arrow to cause trauma to another individual requires both planning and lethal intent, spontaneous acts of violence that can occur within a community tend to lack these motives (Smith & Brickley 2009: 104). There are further examples in the British Neolithic which could suggest violent episodes between opposing groups. For instance, both Crickley Hill, Gloucestershire and Hambledon Hill, Dorset have evidence that is suggestive of being attacked on at least two occasions (Dixon 1988; 1994; Mercer & Healy 2008).

While the $\delta^{13}C$ and $\delta^{15}N$ isotopic data did not present much variation, some interesting patterns were recognised within the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ datasets. During the initial stages of the period, the population of Britain was more mobile with groups possibly migrating to different places throughout the region but as the period progressed, they became much more sedentary with a greater number of individuals living and dying in the same biosphere. For example, at the Early Neolithic sites of Whitwell, Derbyshire, and Pen y Wyrlod 2, Brecknockshire, eight individuals demonstrated values not consistent with biosphere values within Britain itself (Neil 2017; Neil *et al.* 2017). One area with applicable biosphere values which could be their point of origin is north-west France. This is interesting as this area of France has often been suggested as a place in which Neolithic communities may have migrated from to Britain during the early parts of the fourth millennium due to its comparable material culture (see Sheridan 2010b). This would fit the interpretation that the Early Neolithic was indeed a time of high migratory behaviour. By the Middle Neolithic, while mobility was still quite high, it would appear that individuals were becoming much more sedentary. The increase in the permanence of communities within the landscape could be exemplified by the growing number of larger structures and monuments appearing as the Neolithic progresses. Isotopic data from monuments and structures from the Middle Neolithic also seem to corroborate this. For example, $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data from individuals at the causewayed enclosure of Hambledon Hill, Dorset, which was built and used between 3663 and 3325 cal BC, shows that most individuals analysed demonstrated values that fall within the local biosphere range (Neil *et al.* 2018).

5.3.3: Key Results for Biological Sex – Are There Any Chronologically Based Lifeways Differences Between Males and Females in the Neolithic?

While the total population does see some developments as the Neolithic progresses in relation to health, demographically there is not a great deal of difference between males and females. The trends that were seen for the period as a whole, such as males being more likely to develop joint disease and females being more prone to metabolic diseases are still present, albeit in slightly different rates of representation depending on the chronological stage. One significant difference can be found with dental disease in which males dominate in the Early (26% to 15%) and Late Neolithic (25% to 20%), but females dominate in the Middle Neolithic (17% to 13%). Joint disease in male individuals does rise as the period progresses 18% in the Early Neolithic to 25% in the Middle Neolithic finishing at 43% in the Late Neolithic. A slightly less clear-cut divergence can be found in violent trauma in which females, in the Early and Middle parts of the period, are marginally more likely to be affected by this. By the Late Neolithic, it is males most affected (Fig. 5.12).

The $\delta^{13}C$ and $\delta^{15}N$ isotopic data demonstrates little chronological variation. Males and females demonstrate the same 9.8 $\delta^{15}N$ value for the Early Neolithic, but males have a slightly higher one in the Middle Neolithic (10.2 to 10). However, this difference is not statistically significant (see Appendix VI). The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data exhibit some interesting patterns related to biological sex. In the Early Neolithic, both males and females demonstrate prominent levels of non-local $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values (80% and 75% respectively), suggesting equal levels of mobility. By the Middle Neolithic, this significantly changed with just 31% of males being deemed non-local to their burial place compared to 50% of females (Fig. 5.13). However, again it is important to remember and consider the small sample sizes, just two females were identified, and statistical significance associated with these findings (see Appendix VI).

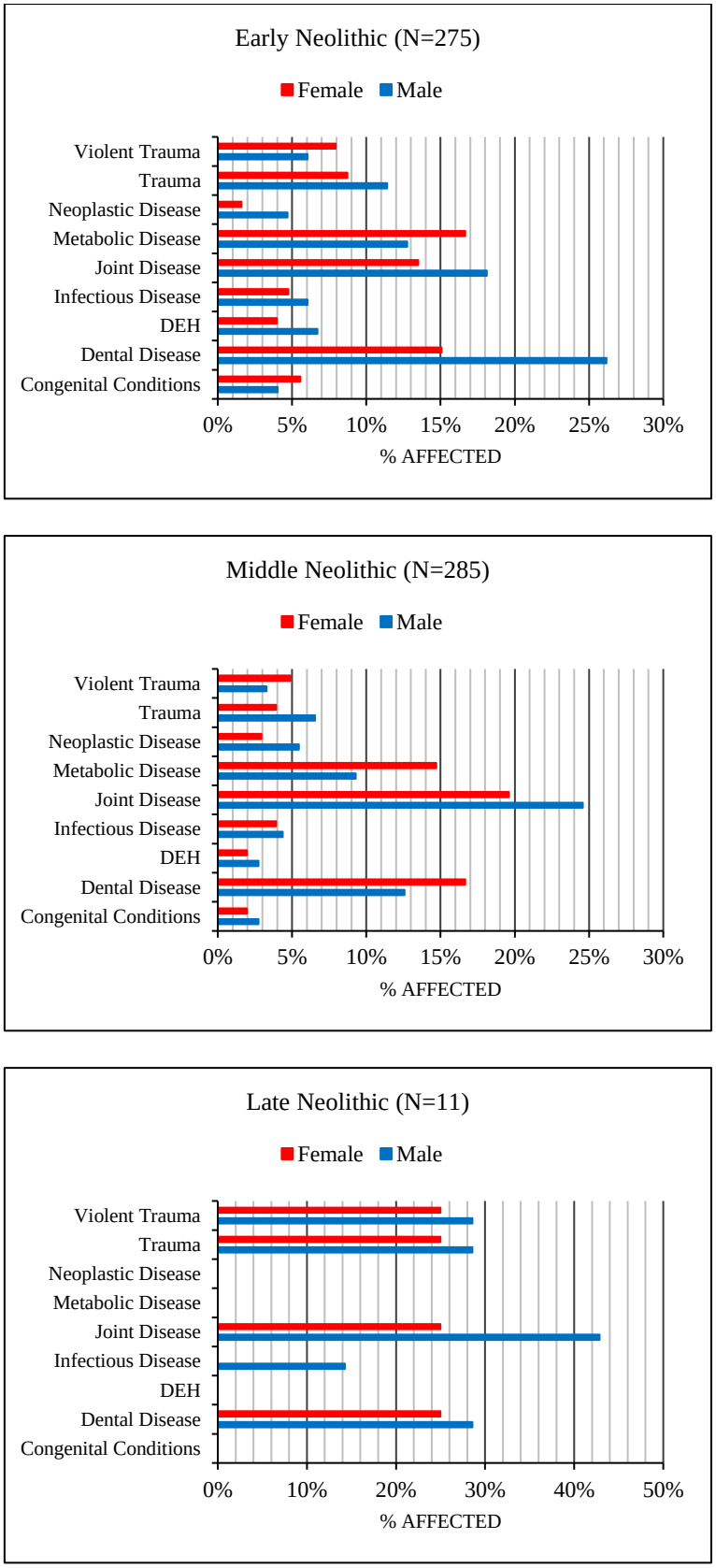

Figure 5.12 Rates of pathologies for males and females in the Early (top), Middle (middle), and Late Neolithic (bottom).

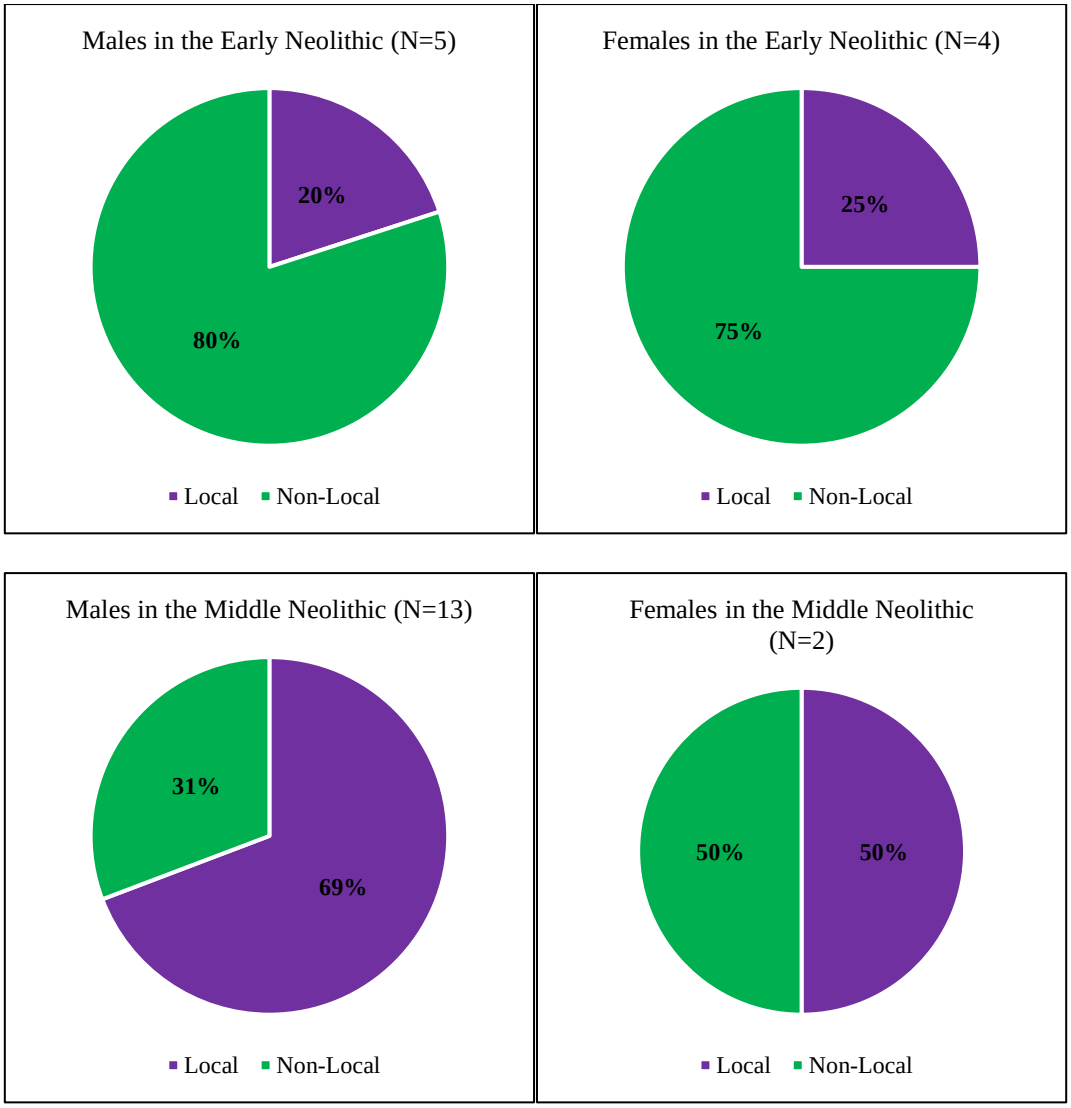

Figure 5.13 The ratio of local to non-local individuals for males (left) and females (right) in the Early (top) and Middle Neolithic (bottom).

5.3.4: Discussion for Biological Sex – Are There Any Chronologically Based Lifeways Differences Between Males and Females in the Neolithic?

The fact that female dental health remained relatively stable throughout the period could suggest that little changed in relation to factors which could cause dental disease such as diet or using the mouth for other activities such as crafting. Male dental health was slightly more changeable, with levels for both the Early and Late Neolithic similar but in the Middle

Neolithic a substantial reduction of cases is present. An explanation for this could be changes in diet during different points of the period. A higher consumption of grain-based foods would leave an individual more prone to dental disease due to the bacterial fermentation of carbohydrates found within ground cereals (Smith & Brickley 2009: 118). So, in the Early and Late Neolithic, higher quantities of cereals may have been consumed by males than in the Middle Neolithic. Changes in diet could also imply a change in subsistence strategies, as suggested in the previous section. The changes observed in male joint disease rates could substantiate this. It could be that at different points within the period, lifeways and subsistence were varied with each having differing effects on how the body was used and what stresses were placed upon the joints.

Violent trauma for both the Early and Middle Neolithic shows that females are very marginally more likely to be affected demonstrating a 2% deficit for both, while males are 4% higher in the Late Neolithic. These small margins exhibit that both biological sexes could be victims of violent acts but there seems to be a slightly greater chance if the individual were female, at least in the first two thirds of the period. Conversely, a study of cranial trauma in Neolithic Scandinavia found the opposite, males were more likely to have injuries caused by interpersonal violence, although perimortem injuries were much more equal (see Fibiger *et al.* 2013).

While the $\delta^{13}C$ and $\delta^{15}N$ data for males and females was not considered statistically significant (see Appendix VI), it does conform to other research conducted in the wider European region. Males having slightly higher $\delta^{15}N$ values does seem to be a recurring theme elsewhere in Neolithic Europe. Recent research looking at individuals spanning the entire Neolithic, 5500 to 2200 cal BC, in central Germany, demonstrates comparable results with both males and females showing an increase in $\delta^{15}N$ values as the period progresses but males having marginally higher $\delta^{15}N$ rates (see Münster *et al.* 2018). Similar research within

the Paris Basin, Northern France also exhibits males as having a higher average $\delta^{15}N$ isotope value than females (Rey *et al.* 2019). While the average $\delta^{15}N$ values are different for males and females in the Middle Neolithic, analysis of the data does suggest that these findings are not statistically significant (see Appendix VI). Therefore, any formulations regarding dietary differences based on biological sex must be made with caution.

The variations present between males and females in the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ datasets do imply a possible social/cultural shift concerning mobility occurring as the British Neolithic progresses. While the data for the population as a whole does show that by the Middle Neolithic, more people were presenting local biosphere signatures it would seem that the majority of these are male and that for females, movement to different areas still occurred at prominent levels. As alluded to above however the fact that only two female individuals were identified does make it difficult to be definitive about this trend. The only tangible way to investigate this further would be to procure further isotopic data from individuals who have had their sex successfully determined. If the trend of higher female mobility is proved to be correct by further research then, as discussed in the previous section, this may be representative of female exogamy/patrilocality/virilocality, and if this idea is considered chronologically, it could be that the cultural shift towards this practice happened around the end of the Early through to the Middle Neolithic.

The site of Hazleton North, Gloucestershire, which was the subject of the recent aDNA research mentioned above (Fowler *et al.* 2022), has date ranges (3645 to 3615 cal BC) that would fit within this timescale. This site has also had some $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopic analyses completed at it but unfortunately, information regarding the biological sex of the individuals tested was not able to be expressed. However, given the trends and patterns seen within this research, it would not be surprising to see more males of local origin and more females of non-local origin. The divergences between males and females and mobility in the

subsequent Early Bronze Age of Britain seem to be much more in line with what was seen in the Early Neolithic with quite an equal distribution of mobility levels between males and females (Montgomery *et al.* 2019). Like the Early Neolithic, this was also seemingly a period of high migration across Europe (see Olalde *et al.* 2018) so it may make sense that they are similar in relation to $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopes. It is unfortunate that data for the Late Neolithic is not available as it would be interesting to see whether the mobility patterns continued like the Middle Neolithic with lower levels of mobility but differing levels between the biological sexes or whether they would begin to look more like Early Bronze Age signatures.

5.3.5: Key Results for Age – Are There Any Chronologically Based Lifeways Differences Between Different Age Groups in the Neolithic?

There were very few health-related findings from the palaeopathology dataset with regard to adults and nonadults. The key factors that were recognised in the previous section such as small numbers of nonadult individuals affected by most disease types, except for metabolic diseases, were also present again in all three chronological stages. A similar scenario was found with the $\delta^{13}C$ and $\delta^{15}N$ data and insignificant variation was seen. For both the Early and Middle Neolithic the levels of nonadult individuals with $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values that differed to the biosphere in which they were buried quite high, with 82% present in the Early Neolithic and 73% in the Middle Neolithic. In comparison non-local adult individuals were at 69% (Early) and 48% (Middle), meaning there were much more non-local nonadults included in burial sites than adults (Fig. 5.14).

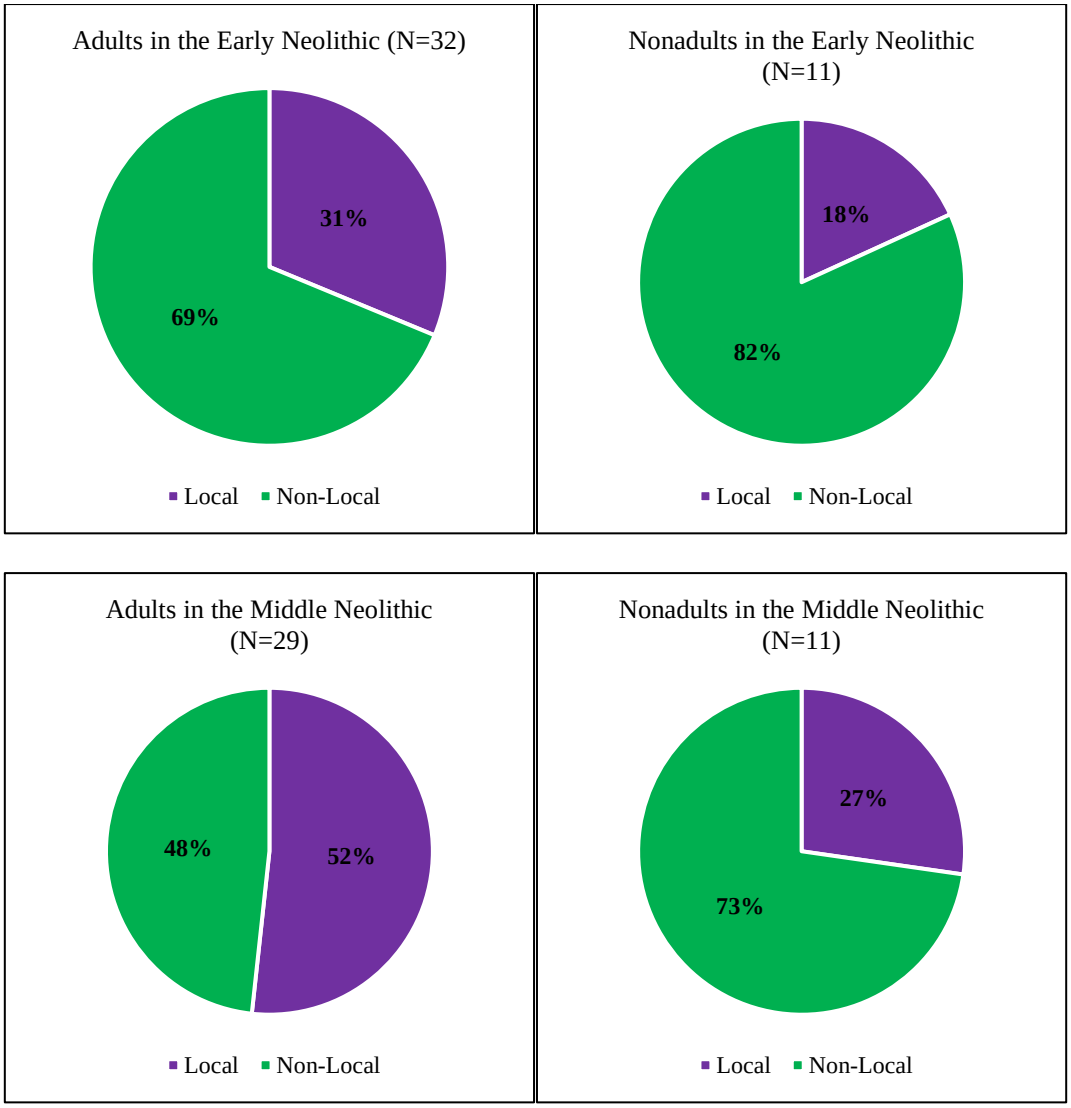

Figure 5.14 The ratio of local to non-local individuals for adults (left) and nonadults (right) in the Early (top) and Middle Neolithic (bottom).

5.3.6: Discussion for Age – Are There Any Chronologically Based Lifeways Differences Between Different Age Groups in the Neolithic?

The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data suggest it was commonplace for nonadult individuals to move around the landscape. There could be a plethora of reasons for this. It may be that the nonadults in question were part of a larger migratory group who were not able to complete the journey. However, this would not account for the fact that many nonadult individuals

were placed within monuments that would take time and resources to construct. There could also be cultural explanations for the prominent levels of non-local nonadults. If exogamy was a feature of British Neolithic society, then this could happen before the individual reached adulthood. There may have been cultural processes in place regarding the raising of nonadults in which adoption or fostering was a prominent feature. This has been noted in the ethnographic record. For instance, up to 90% of nonadults from the Baattombu group in Benin as recently as 60 years ago were given up by their biological parents and fostered by biologically unrelated individuals (Alber 2003). The reasons for this were embedded in the culture of the group as it was seen as shameful for an individual to claim ownership over their biological children (*ibid*). Of course, adoption or fostering could also have more practical purposes such as harbouring ties between communities. Nonadults may also join other communities as new apprentices for craftspeople.

The explanations for the higher levels of mobility for both nonadults (e.g., adoption, fostering, betrothal) and females (marriage) both share a common theme of exchange. This is certainly true in the case of marriage. The concept of marriage is complex, and it can be highly variable from culture to culture. Marriage is understood to be an important feature of kinship in most societies past and present Lévi-Strauss (1966) suggests marriage is a social structure deeply embedded with exchange between two parties. In most groups in the ethnographic record, it is females who are exchanged by males and members of their extended kinship group (e.g., mother of the husband) for other females creating a cycle of giving and taking which consistently reinforces alliances and ties between groups (Zonabend 1996). If this interpretation is applied to the British Neolithic, then the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data would suggest that by the Middle Neolithic, once communities were well established, the practice of marriage and exchange became a more important feature, with males in the social groups strengthening their claims to territory and their alliances with neighbouring groups

through the act of marriage. With regards to both females and nonadults, it is very possible that these ideas of exchange may have been applicable, and the divergent levels of mobility may emphasise this. However, it is important to remember that this is just one interpretation and other factors could also be applicable.

5.4: Lifeways in the Different Neolithic Regions of Britain

As explained in the previous chapter, the smaller sample sizes for lifeways data meant the regions are organised slightly differently to how they are for the analyses of demographic representation with Britain split into the three groups of Northern, Central, and Southern. This exhibits much broader regional trends than that of the smaller regions used elsewhere in this research. Nevertheless, some useful and regionally specific patterns were obtained. This brings into focus ideas of differing regional social and cultural practices which is suggestive of dynamic regional identities being present. This is a crucial factor to consider. During the Neolithic of Britain, there may not have been a shared "British Neolithic" culture but instead a collection of regional cultures. Of course, certain cultural aspects were likely shared as across Britain, similar material culture and monumental architecture are present, but the lifeways data does seem to demonstrate that subtly different regional social and cultural practices were occurring.

5.4.1: Key Results for the Total Population – Are There Any Regionally Based Lifeways Related Trends in the Neolithic?

With regards to health, most of the rates of disease types were consistent with each other from region to region. However, there were a few variations of note concerning the population as a whole. One of these is the rates of joint disease present. In Northern Britain, 33% of individuals indicated signs of joint disease compared to 14% in Central Britain and 11% in Southern Britain. This suggests that joint disease was more prominent for populations living in Northern Britain. The rates of both metabolic disease and dental disease for Northern Britain (19% and 10%) and Southern Britain (17% and 11%) were similar. However, in Central Britain, they were quite different with metabolic disease being 10% and dental disease 20% (Fig. 5.15). The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope data for Central and Southern Britain demonstrated that in Central Britain there appeared to be a higher proportion of individuals with $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope values that differ from the biosphere in which they were buried with 61% compared to Southern Britain at 52% (Fig. 5.16).

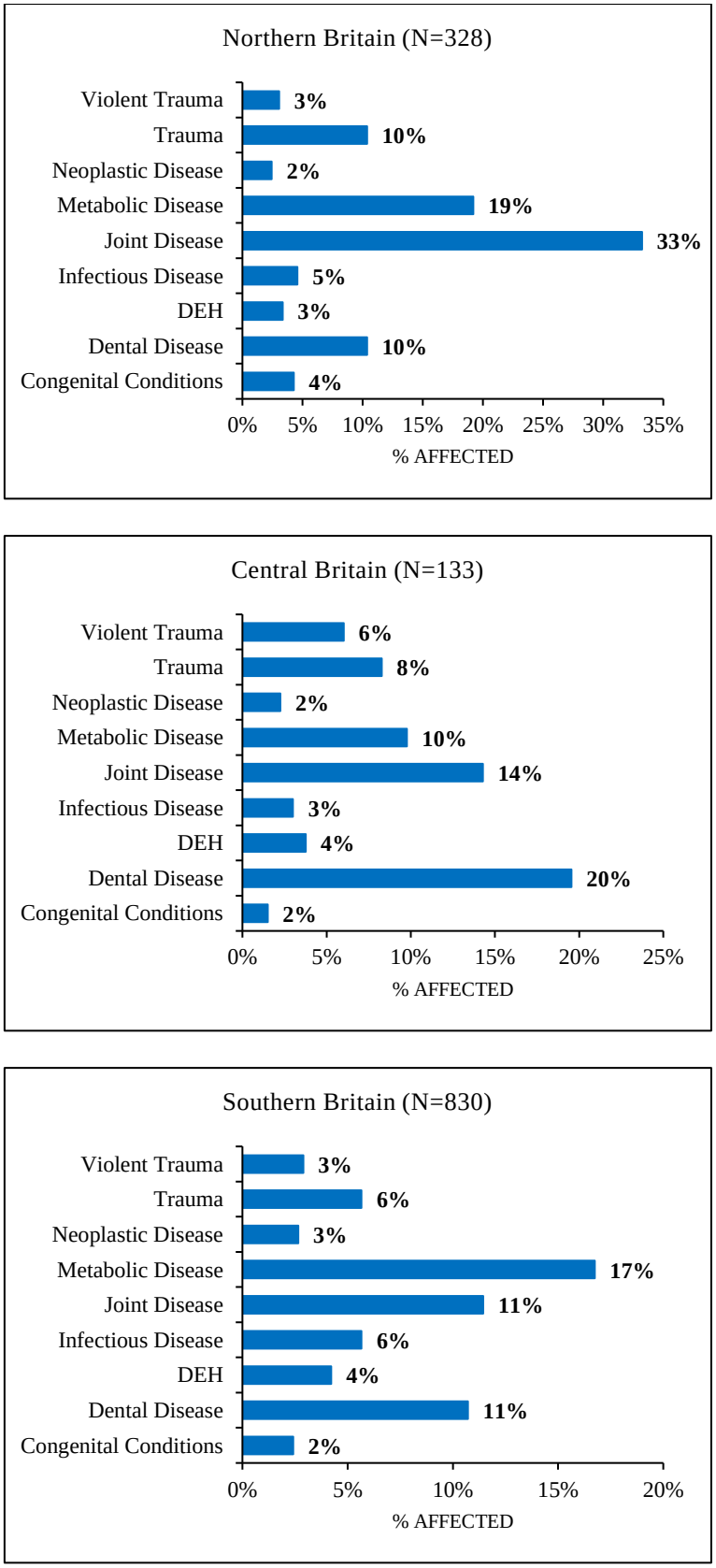

Figure 5.15 Rates of pathologies for the total population in Northern (top), Central (middle), and Southern Britain (bottom).

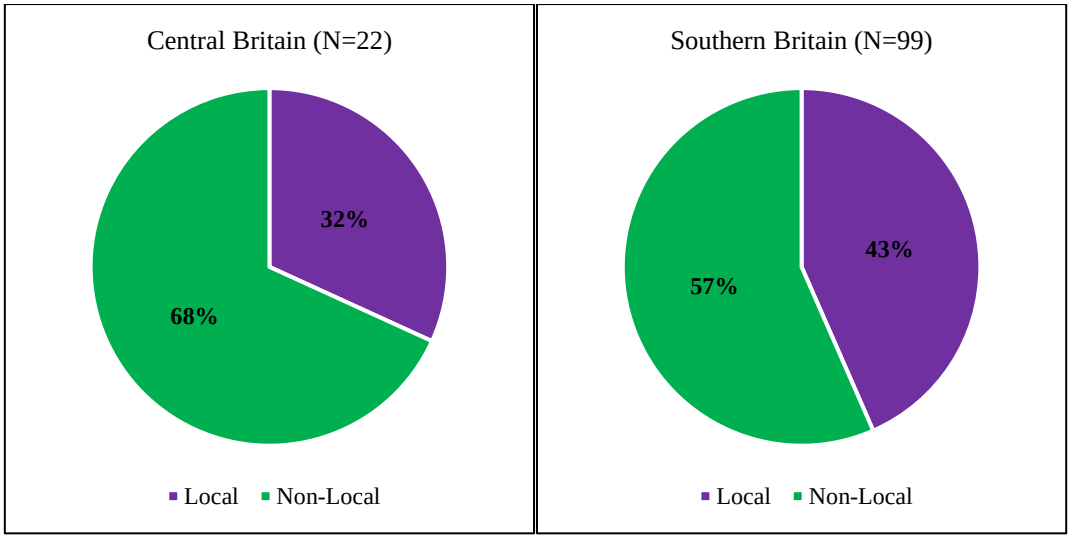

Figure 5.16 The ratio of local to non-local individuals for the total population in Central (left) and Southern Britain (right).

5.4.2: Discussion for the Total Population – Are There Any Regional Based Lifeways Related Trends in the Neolithic?

The divergences found within the different regions of Britain with regards to joint disease could imply variations in lifeways depending on which area of Britain an individual lived. With one of the key factors causing joint disease being the repetitive use of joints (see Goldring & Goldring 2007), it could be that the workloads individuals had within Northern Britain included more activities that put repeated stress on joints than elsewhere. Another factor that could be responsible for the differences in joint disease prevalence could be the landscapes represented within each of the three regions. In Southern Britain, much of the landscape in which funerary assemblages are from is relatively flat. Moving further north to Central Britain a mixture of flat and mountainous landscapes is present, and in Northern Britain, there is a much greater degree of mountainous landscapes. The mountainous landscape of Northern Britain would be much more difficult to traverse for individuals and consistent movement around this landscape whether that be for farming, pastoralism, or the

hunting/gathering of foodstuffs, may have had an impact on joints. This could also suggest divergences in subsistence strategies between the different regions of Neolithic Britain, if individuals in the north were more mobile than in the south it could hint at pastoralism and/or the hunting and gathering of foods being much more important there.

Regional variations of palaeopathology for Neolithic Britain have not really been studied to any great extent so it is difficult to compare the present research with past endeavours. However, in his PhD research on Isbister and other Orcadian chambered tombs, which are included within the Northern Britain region in this research, Lawrence (2012) also notes a high prevalence of joint disease in individuals. He suggests, due to the areas which were mostly affected, that the aetiology of the joint diseases present is likely due to behavioural factors (Lawrence 2012: 517). Research by Cuthbert (2018), which assessed individuals from barrows in Southern Britain, also demonstrated similar rates for joint disease as is seen in this research. She also compared her southern-based dataset with Lawrence's Orcadian one and noted the differences between the two areas of Britain. She could not however define why there was such a dramatic difference between the two areas, although it was speculated as to whether differing recording methods could have had an influence (Cuthbert 2018: 337). This is a key factor to note. The fact that this research uses a plethora of data from differing past research means that recording techniques and methods could be different on a site-to-site basis, and this is certainly something to be aware of.

The variations seen within the different regions of Britain could again signify differences in lifeways, particularly in relation to diet. As mentioned earlier in this chapter, the change to, and overreliance on, grain-based diets could have been a catalyst towards an increase in metabolic conditions (see Brickley & Ives 2008). This may be the case for both Northern and Southern Britain with them having relatively high rates. In Central Britain however metabolic disease is much lower so groups here may have had access to a more wide-ranging diet.

Another explanation for the divergences between metabolic disease rates in the three regions could be due to different population levels in various parts of Britain. The number of sites recognised, and the number of individuals present at them in Northern and Southern Britain exceeds those of Central Britain. It would be easy to suggest therefore that the population in Central Britain was smaller, and smaller communities may be less prone to periods of stress and the development of metabolic conditions. However, there is no evidence to support this idea. It is important to remember that Southern and Northern Britain both include areas such as Wessex and Orkney that are very well-researched compared to that of Central Britain. This means that the number of sites and number of individuals who have been examined in detail will be greater in these two areas and this can create a regional bias. This has been highlighted in other research regarding the difficulties in the regionalisation of prehistoric Britain (e.g., Barclay 2008). So, while all three regions' datasets do have good sample sizes, the fact that both Southern and Northern Britain have been more extensively researched could be a factor in their differing levels of metabolic disease. This is substantiated by the fact that many Southern and Northern archaic skeletal assemblages have been reanalysed in the modern period (e.g., Smith 2005; Lawrence 2012; Cuthbert 2018; Cansfield 2019) in which detection and knowledge of the two disease types is much better understood.

With regards to the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data. While data from both regions show over 50% of individuals were non-local to their burial place this is more so in Central Britain. This may suggest that communities in Southern Britain may have been slightly more sedentary with more people living and dying in the same area, however, there was still a substantial amount of people who demonstrated signs of mobility. Interestingly $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data from the regions in the subsequent Early Bronze Age present similar signatures, with 60% of individuals demonstrating values different to the biosphere of their burial place in Central Britain and 45% of individuals in Southern Britain having non-local origins (Montgomery *et*

al. 2019). This could hint at some cultural persistence between the two periods with groups in Southern Britain continuing to include more locally-born individuals than further north in Central Britain.

5.4.3: Key Results for Biological Sex – Are There Any Regionally Based Lifeways Differences Between Males and Females in the Neolithic?

The three regions tend to follow the trends seen for the Neolithic as a whole with regards to health and both biological sex and age. There are a few exceptions to this, however. In Northern Britain females have much higher rates of dental disease (20%) compared to males (11%) whereas in the other two regions, it is males who tend to be most affected by it. Females are also 6% more likely to suffer from metabolic disease in Northern Britain which substantiates the interpretation of divergent diets based upon biological sex. Another factor of note regarding the health of different demographic groups from region to region was the high prevalence of violent trauma for females in Central Britain. Both males and females are represented quite highly for violent trauma (11% and 15%) compared to the other two regions, but it is females who are marginally more likely to be affected (Fig. 5.17). It must be noted however that the site of Banbury Lane, which has a high number of individuals affected by violent trauma, does influence these numbers. Most individuals at this site are male though which means the high prevalence of females affected by violence in Central Britain is unaffected. Isotopic data was not available for this comparative group in relation to biological sex.

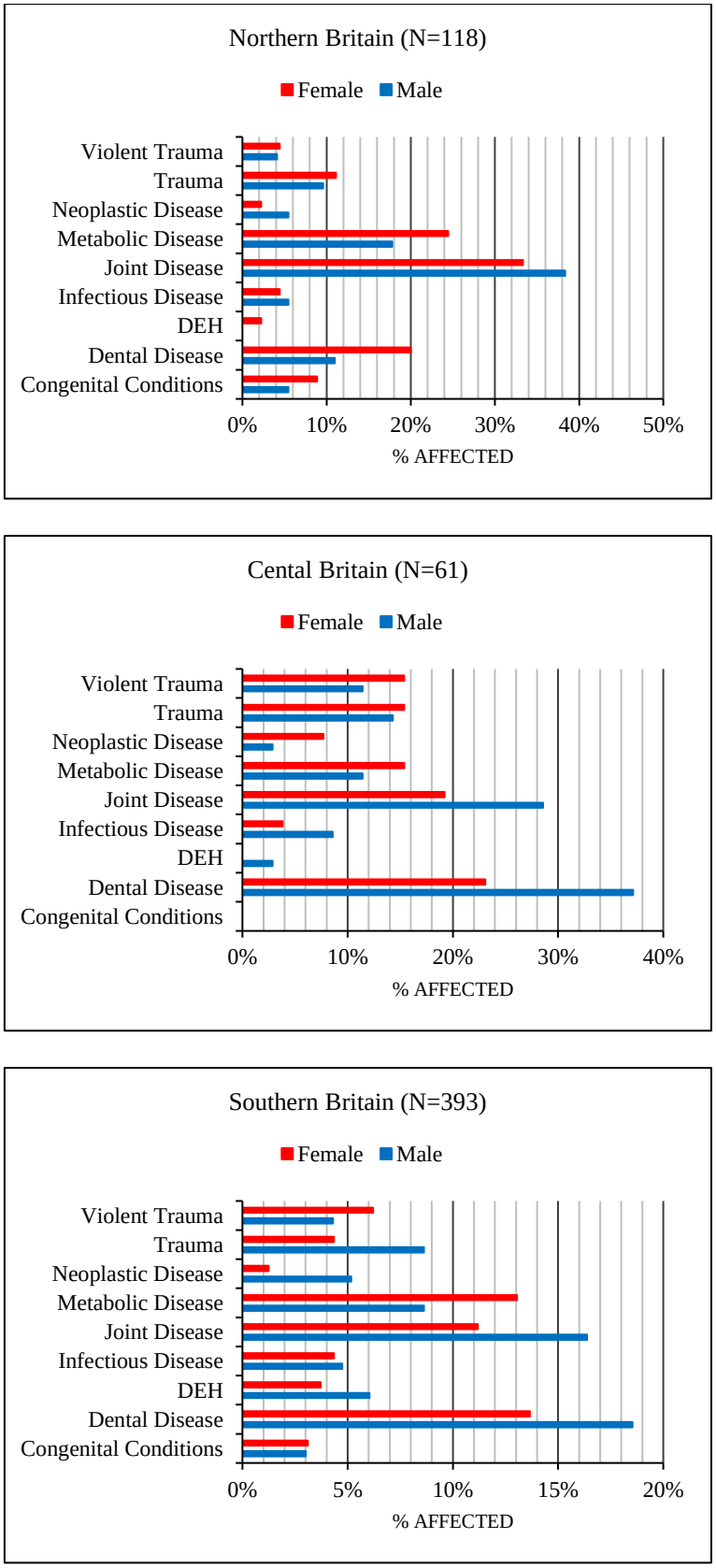

Figure 5.17 Rates of pathologies for males and females in Northern (top), Central (middle), and Southern Britain (bottom).

5.4.4: Discussion for Biological Sex – Are There Any Regionally Based Lifeways Differences Between Males and Females in the Neolithic?

The variations in dental disease could suggest that females had a divergent diet in Northern Britain compared with the other two regions. Higher rates of dental disease could suggest a diet rich in cereals as the bacterial fermentation of carbohydrates found within them can lead to the individual becoming more prone to dental problems (Smith & Brickley 2009: 118). As has been noted diets rich in grains and legumes can inhibit iron absorption due to the phytic acid found within them and lead to anaemia (Hurell *et al.* 2003), although considerations must be made regarding things like pregnancy and menstruation. Therefore, the higher rates of metabolic disease found among females in Northern Britain could also substantiate this.

Sex-based differences in diets could hold some important implications for gender and sex-based identities in the Neolithic of Britain. Goody (1982) suggests that one of the ways class, race, and gender hierarchies are maintained is through differential control over and access to food. In many cases, it is males that seem to eat first, best, and most (see Counihan 1998). This idea would fit with all three regions discussed here although it seems more pronounced in Northern Britain. Ethnographically there are several groups noted with sex-based diets. For example, males and females of the Culina, western Amazon, establish their gendered identities along with their socio-economic interdependence through the production and distribution of food. There is a sexual division of labour that places cultivation of plant-based foods with females and hunting of animal-based foods with males, the biological sexes are associated with the products of their labour i.e., women with plants and men with meat (Pollock 1998). If a similar system was in place during the Neolithic of Britain, then it could

explain the divergences that are seen between males and females for metabolic diseases, and dental diseases.

The fact that females suffered higher instances of violent trauma in central Britain is an interesting finding. It was established above that violence is quite an understudied topic for prehistoric Europe (see Keeley 1992) which makes comparative work difficult to achieve. However, research in Neolithic Scandinavia, which focuses upon a similar chronological period to the British Neolithic found that evidence for interpersonal violence was more prominent in males (Fibiger *et al.* 2013), which is what is seen in Northern and Southern Britain. This marks out Central Britain as being different both within Britain and in the wider European area. Individuals from both sexes seem to be much more susceptible to violence here than elsewhere in Britain but more so if the individual was female. It is challenging to ascertain why this may be the case. Further research on the types of violent trauma individuals had from region to region would help to generate much more information regarding this phenomenon but that is beyond the scope of this research.

5.4.5: Key Results for Age – Are There Any Regionally Based Lifeways Differences Between Age Groups in the Neolithic?

The main finding from the palaeopathology data in relation to adults and nonadults was a variation in the numbers of adult and nonadult individuals affected by metabolic conditions from region to region. As mentioned above, Central Britain exhibited the lowest rates of metabolic disease for the population as a whole at 10% with Southern Britain at 17% and Northern Britain marginally higher at 19%. However, when these are broken down into adult and nonadult groups more adults presented signs of metabolic conditions in both Southern

and Central Britain but in Northern Britain the opposite is true and more nonadults exhibited evidence for metabolic disease (Fig. 5.18). Again, isotopic data was not available for this comparative group in relation to age groups.

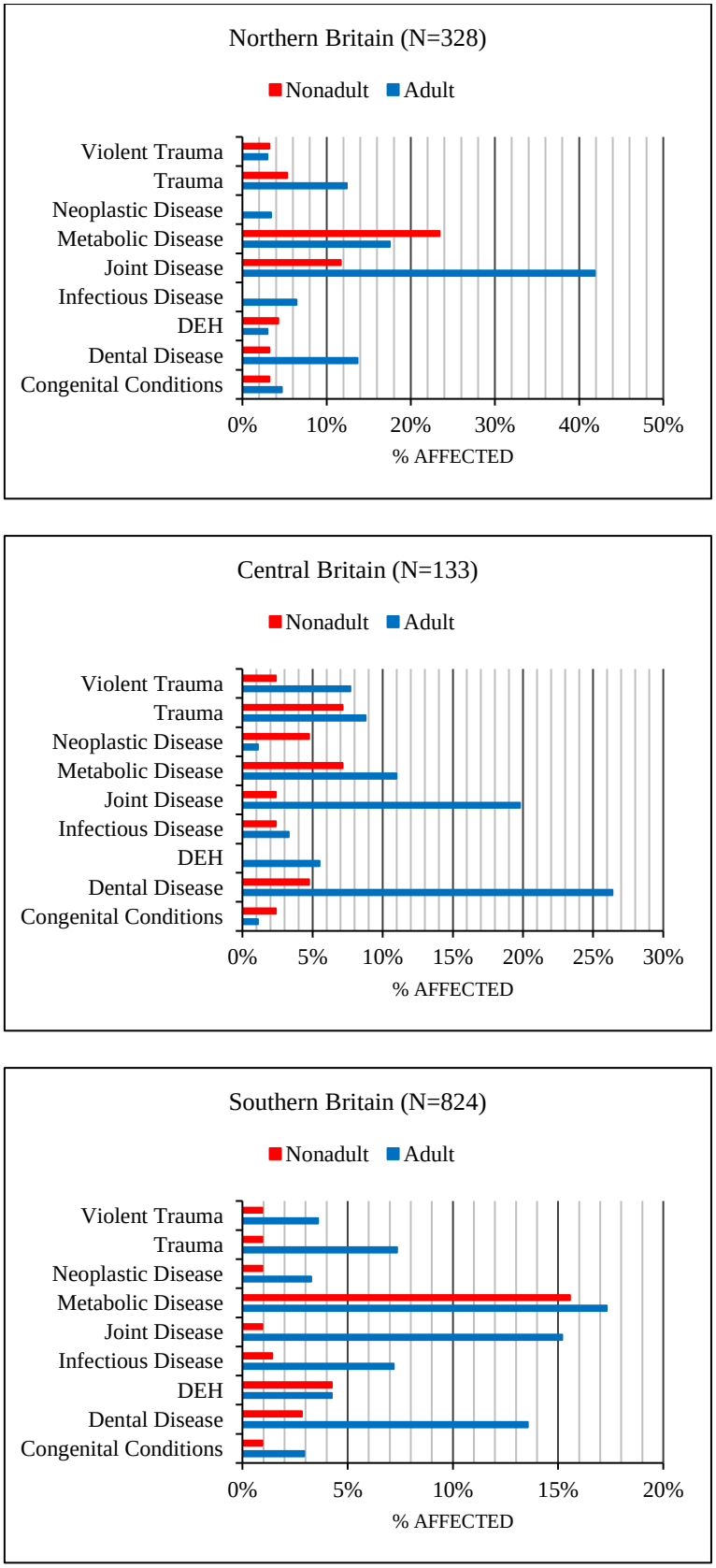

Figure 5.18 The rates of pathologies for adults and nonadults in Northern (top), Central (middle), and Southern Britain (bottom).

5.4.6: Discussion for Age – Are There Any Regionally Based Lifeways Differences Between Age Groups in the Neolithic?

Given that indications for metabolic diseases found on the skeleton often demonstrate periods of stress related to an individual's childhood or adolescence it could be argued that in Central and Southern Britain nonadults were better equipped to deal with developmental stresses than their Northern Britain counterparts and thus survived into adulthood. All three regions have quite different rates for nonadults with 23% exhibiting signs of metabolic disease in Northern Britain compared to 7% in Central Britain and 16% in Southern Britain. There could be numerous explanations for this including some ideas set out earlier in this chapter such as divergent population densities, differences in lifeways, and variances in access to balanced diets.

However, it could also be that there were differences in how nonadults were culturally and socially perceived in different regional communities and that of course has implications for how age contributes to an individual's identity. In many societies past and present individuals are not seen as full and active members of the group until they have reached specific age-related milestones or completed culturally specific rites of passage (see Hollimon 2006). As mentioned in Chapter Three, the Ashanti in Ghana have specific physiological age-based milestones which dictate the degree of personhood they have, if individuals have not reached these milestones, they are not considered full persons (Rattray 1932). The type of personhood an individual had and how their age-based identity affected their cultural and social position within the group could have had an impact on their health. For instance, if nonadults were not deemed to have full personhood until they had reached a specific goal then they may have had more limited access to foodstuffs which would of course lead to dietary deficiencies. It is

difficult to understand this through a modern Western lens as nonadults are considered to be extremely important and the death of a child within modern Western culture is an extremely distressing occurrence and difficult to come to terms with. However, this may not be pertinent to all cultures across time and space, and some may not regard it as emotionally significant, especially if nonadult mortality rates are quite high and groups have a difficult way of life (Le Roy 2017).

5.5: Lifeways at Different Site Types in the Neolithic

As explained in the previous chapter, the sample size for isotopic data was not extensive enough to sort by site type. There was however enough osteological data detailing information regarding health and pathologies albeit with the relevant adjustments made to the site type categories. These are much broader groups than the ones used in the other part of the research, but it is still believed that these represent quite distinct types of sites which can provide useful information regarding what distinct types of individuals may have been buried at them.

5.5.1: Key Results for the Total Population – Are There Any Lifeways Related Trends from Individuals at Different Site Types in the Neolithic?

With regards to the total population, it is apparent that certain site types have unique trends concerning which pathological conditions are best represented. Individuals at barrows seem to be more prone to dental disease and metabolic disease with the highest rates for both found

at them and at causewayed enclosures tend to have lower than average rates for most disease types (Fig. 5.19). Individuals found in chambered tombs have a more or less identical signature to what was seen for the Neolithic as a whole and individuals in natural contexts have the highest rates of joint disease but the lowest rates of metabolic disease (Fig. 5.20).

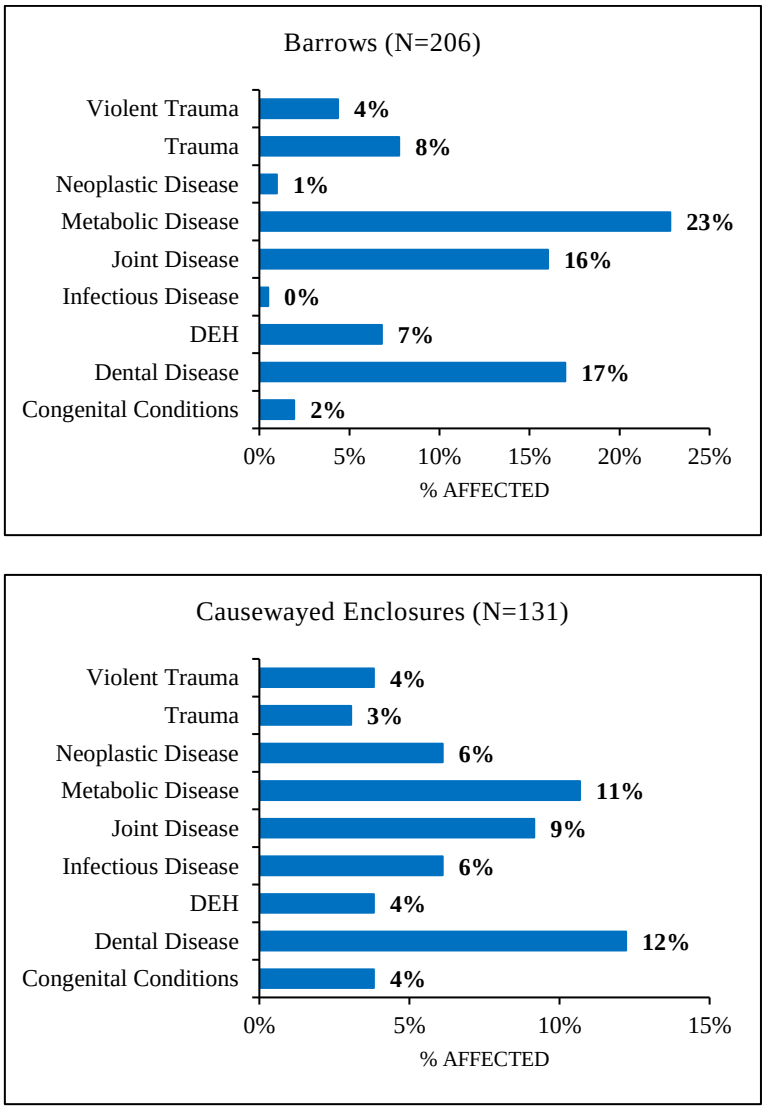

Figure 5.19 Rates of pathologies for the total population in barrows (top) and causewayed enclosures (bottom).

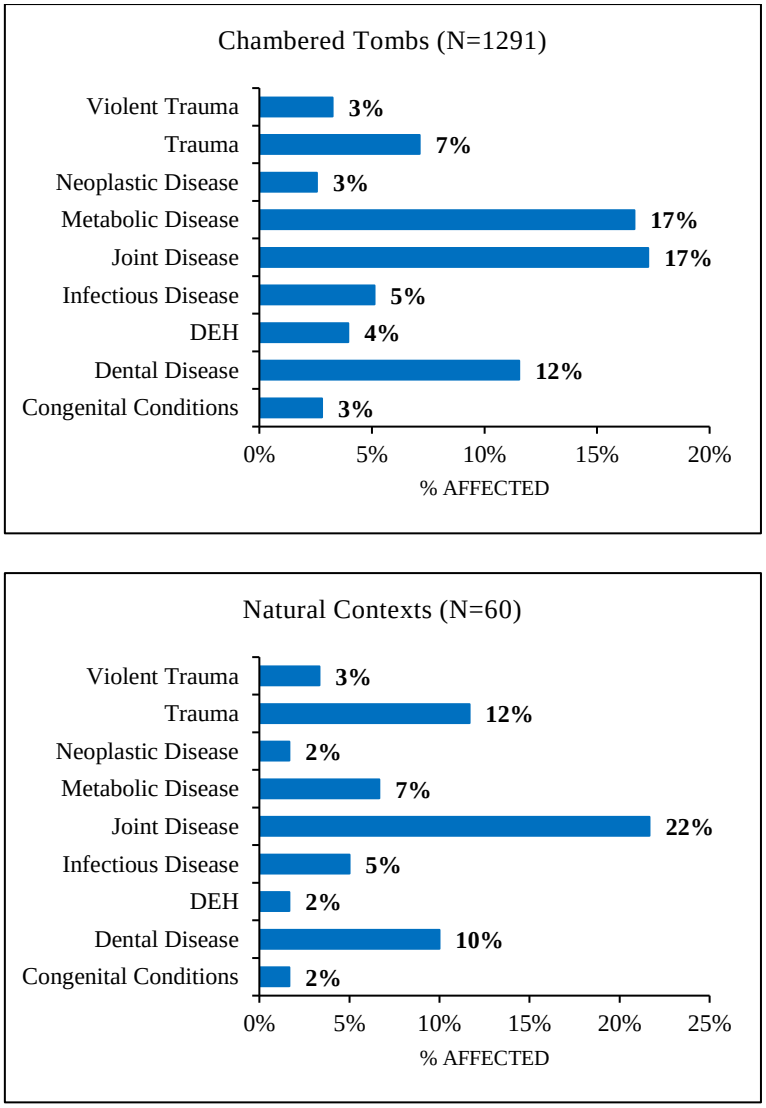

Figure 5.20 Rates of pathologies for the total population at chambered tombs (top) and natural contexts (bottom).

5.5.2: Discussion for the Total Population – Are There Any Lifeways Related Trends from Individuals at Different Site Types in the Neolithic?

The variable rates of disease types at divergent types of sites could be suggestive of distinct kinds of people being placed at them and this holds implications for how identities may have been represented in death during the British Neolithic. It has been established in the previous sections that higher instances of dental disease and metabolic disease could be indicative of a

diet without variety and heavily relying on plant- and grain-based foods (see Brickley & Ives 2008; Larsen 1997: 69). This narrative would fit for individuals at barrows who demonstrate the highest rates of the two disease types. Food is an important aspect of both group and individual identity. Culinary traditions can be described as social facets that are reflective of a group's nature and beliefs and the practises of processing and consuming food demonstrate much about communities and therefore identities (Hastorf 2016: 223). The term "signature food" is a type of culinary tradition within a group in which a specific foodstuff is highly regarded both culturally and socially, e.g., pasta in Italy (Rozin 1973). Signature foods can be important indicators of different communities' identities within the same region. Research into the prehistoric Pueblo culture in North America has shown that groups living within the same region would have different signature foods and these were linked to how individuals processed and created foods which helped to create and maintain their identities (Gasser & Kwiatkowski 1991). In other words, an individual's diet was linked to what they did in life which in turn shaped an aspect of their identity. For individuals interred at barrows, provided their diet was indeed high in plants and grains, this could suggest that in life they were heavily involved in the cultivation of plant- and grain-based foodstuffs which would of course influence the identities this group had. Arguably one of the main components of both barrows and cultivation of plants and grains is soil which could be indicative of parallels being in place between identities both in life and in death.

In contrast to barrows individuals at natural contexts have significantly lower rates of dental disease (10% lower) and metabolic disease (15% lower) but have higher rates of trauma (4% higher) and joint disease (6% higher). This suggests individuals who were buried at these places may have had differing diets and lifeways compared to the barrow group. The lower rates of both dental and metabolic disease could imply that individuals found in caves may have had access to a more wide-ranging diet. Unfortunately, there is insufficient $\delta^{13}C$ and

$\delta^{15}N$ isotope data to test this theory further. As discussed above, diet and culinary traditions can have an impact on identities and the production/acquisition and consumption of certain foods are often strongly associated with the identity, position, and status that an individual has in life. Identity can also influence how an individual is treated in death, although it is important to remember that funerary contexts do not directly mirror the social identity of the deceased in life as other social, cultural and/or political elements are also important (Parker Pearson 2001: 32). Nevertheless, links can be drawn between natural contexts, diet, and identity. These site types are non-anthropogenic, they represent the natural, nature, and the landscape so it could be that individuals who received funerary rites at these sites were deeply imbedded with nature. They could be hunters or nomadic groups that procured a wide-ranging diet while moving through the landscape. This could also explain the slightly higher rates of joint disease and trauma as it has been proposed that instances of these were higher for hunter/gatherer individuals (Larsen 1997: 182). Again, it is unfortunate that $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope data are not available to further test these ideas.

Most natural context sites are cave sites. Caves are unique places in the landscape offering a distinctive experience not found anywhere else and it has been suggested that the ritualistic use of caves could represent some of the oldest religious practices in the world (Clottes 2012). Caves are deeply associated with symbolism and are said to be liminal spaces. They occupy a special area betwixt and between worlds and a variety of diverse cultures associate them with myths and legends (e.g., Benedict 1935b; Hard & Rose 2004: 107 – 125; McCafferty 2012). The fact that the palaeopathology data appears to show that individuals found within caves are different to those found in other funerary contexts reinforces the view of caves being unique and that only certain types of people with specific identities were placed within them after death. Interestingly, caves were one of the principal funerary site types used during the Mesolithic, based on the evidence from the funerary record so far. If the

identities of the individuals who were interred in caves were more linked to nature and hunting/gathering compared to individuals buried at other site types, then it could be suggested that these may be a group that still practised the "old ways" and saw caves as direct links to their predecessors. The caves would be well known to individuals who knew the landscape and would have evoked memories, stories and legends of their ancestors and their use of the caves during earlier parts of prehistory (Tolan-Smith & Bonsall 1997). This would imply that the group identities of individuals buried at these sites would be strongly influenced by their ancestors and the past with a desire to maintain old traditions.

5.5.3: Key Results for Biological Sex and Age – Are There Any Lifeways Differences Between Males and Females and Different Age Groups at Different Site Types in the Neolithic?

There were not many sex- and age-based variations within the site types comparative group. The key one is related to causewayed enclosures, and this affects both females and nonadults so they will be discussed together here. On the whole metabolic diseases at causewayed enclosures are on the lower end of the spectrum at just 11% of individuals affected. In relation to biological sex, this number falls further with males at 4% and females at 5% which is well below the average found in the other comparative groups. Unusual levels of metabolic conditions are also present when looking at the age of individuals. Just 4% of adult individuals seem to be affected which is again lower than what is seen elsewhere. Nearly a quarter (22%) of all nonadults found at causewayed enclosures suffered from some form of metabolic condition. The overall rate of congenital conditions for causewayed enclosures stands at just 4% of individuals affected. This is roughly like rates found elsewhere in the

data. However, when this is broken down into the demographic groups something divergent can be seen. 11% of females appear to be affected by congenital conditions and nonadults also exhibit their highest rates in contrast to the other comparative groups (Figs 5.21 & 5.22).

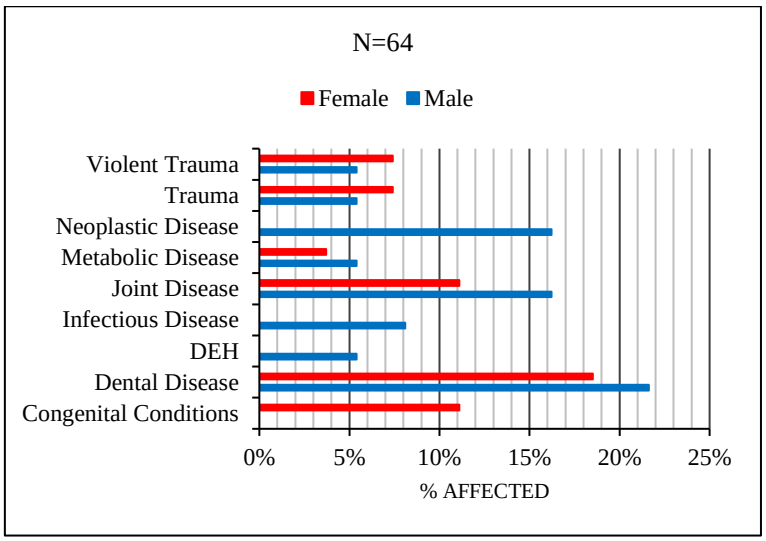

Figure 5.21 Rates of pathologies for males and females at causewayed enclosures.

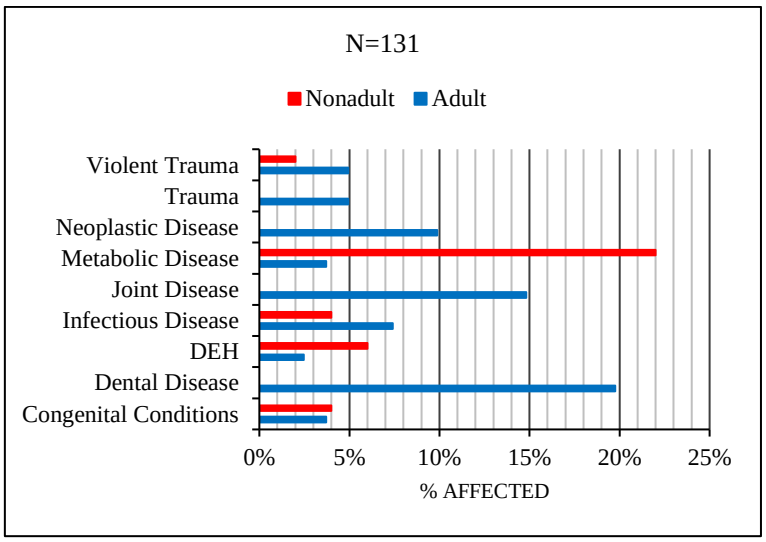

Figure 5.22 Rates of pathologies for adults and nonadults at causewayed enclosures.

5.5.4: Discussion for Biological Sex and Age – Are There Any Lifeways Differences Between Males and Females and Different Age Groups at Different Site Types in the Neolithic?

The low rates of metabolic diseases found for males and females at causewayed enclosures are some of the lowest found in the entire database. This could suggest specific types of individuals being chosen for burial at these sites. Similarly, the fact that the number of adults affected is so different to the number of nonadults affected could suggest that something unusual is occurring with regard to who was selected for inclusion. The higher-than-usual frequency of congenital conditions also furthers the idea of these individuals being a select group. The presence of human remains at causewayed enclosures is an infrequent occurrence. Of the causewayed enclosures that have been excavated to date, there are certainly more that did not contain human remains than did. While there has undoubtedly been much debate surrounding the funerary use of causewayed (see Whittle *et al.* 2011a: 893 – 894 for a summary) little has been suggested as to who these select individuals were. Comprehending the social identities of the deceased found within causewayed enclosure sites could be key to further understanding the role they had in a funerary context. What could be proposed is that, given the infrequent use of causewayed enclosures for mortuary practices, the individuals who did get deposited within them may have been different in some way from other members of the community.

The palaeopathology findings for causewayed enclosures could certainly be used to further this interpretation. The low rates of metabolic diseases for adults suggest that these were individuals who were unlikely to suffer periods of stress during childhood. This could imply possible divergent lifeways and/or differing social identities in which they were afforded

greater access to wide-ranging diets and were less likely to suffer illness. Similarly, the rates for congenital conditions for both adult females and, to a lesser extent, nonadults also suggest specific types of individuals being chosen for inclusion at the sites. In Chapter Four, regarding congenital conditions, it was explained that only congenital conditions which would have had clinical significance were included within the database. Therefore, the individuals that were affected by congenital conditions at causewayed enclosures would have had a physical impairment and this again would mark them out as different to other members within their group. It could be that how the congenital conditions affected the individuals had a certain social or cultural significance and the deposition of these people, whether that be as full bodies or disarticulated skeletal elements, somehow enhanced the site and/or contributed towards its social/cultural value.

5.6: Conclusion

Overall, the lifeways data presented some useful trends, and it suggests that there are certain degrees of variation between the different demographic groups. For the Neolithic as a whole, these are quite subtle. Males are marginally more likely to acquire joint diseases while females are more inclined to develop metabolic conditions. However, these divergences are not definitive, and it would be difficult to propose vast differences in the lifeways and social roles males and females had based upon these. The $\delta^{13}C$ and $\delta^{15}N$ isotope data demonstrated that diet was similar for all the demographic groups however as noted $\delta^{13}C$ and $\delta^{15}N$ isotopes cannot distinguish between primary and secondary animal protein so dietary divergences may still have been present. Unfortunately, the small sample sizes do affect the statistical significance of the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data (see Appendix VI). Nevertheless, the data that is

available does show that females are more likely to be non-local to the biosphere in which they were buried. An explanation for this could be the presence of female exogamy and patrilocality/virilocality being present. This would fit with what has been seen elsewhere in Neolithic Europe (e.g., Haak *et al.* 2008; Knipper *et al.* 2017) as well as recent research on the British Neolithic (e.g., Fowler *et al.* 2022). The fact that nonadults also demonstrate prominent levels of mobility could suggest that female exogamy and patrilocality/virilocality may have occurred at an early age however the inability to determine the sex of nonadult individuals makes this difficult to propose with certainty.

While the chronological stages of the Neolithic did demonstrate many of the same trends as the Neolithic as a whole did, some notable unique patterns also emerged. For the population as a whole, an increase in joint disease and a decrease in metabolic disease may indicate changes in subsistence and lifeways as the period progressed such as those suggested by Stevens & Fuller (2012). The differences in the dental health of males and females could tentatively suggest some subtle differences in diet between the two. The most notable divergences seen between the demographic groups were in relation to $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data. Both females and nonadults demonstrated higher levels of differing $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ values to the biosphere in which they were buried than males during the Middle Neolithic, whereas in the Early Neolithic mobility was high across all demographic groups. While the complications of the small sample sizes and statistical significance do have to be considered (see Appendix VI), this could suggest that the ideas of female exogamy mentioned above really began to take hold during the second half of the fourth millennium. The fact that males are much more likely to be buried within the area in which they grew up and female individuals were not exemplifies this. What we could be seeing for nonadults are forms of adoption, fostering, or betrothal taking place. The common theme amongst both females and nonadults is that of exchange. The exchange of individuals, whether it be through marriage or

adoption, for example, could be highly linked to the strengthening of ties between distinct groups. The fact that adult males seem less likely to be the individuals who are "exchanged" in these processes could suggest that they had social roles much more related to the organisation of the group and were more deeply linked to the territory on which they lived.

The subtle divergences between the three proposed regions may indicate that slight regional differences between subsistence and lifeways were present during the Neolithic, although regional biases must be considered. For biological sex, these differences were not too dissimilar to what was seen in other comparative groups. There were some divergent levels of dental disease and metabolic disease between males and females which could be indicators of variations in diet between the two. Control and access to food have been suggested as mechanisms for the maintaining of gender hierarchies (Goody 1982) so if dietary differences can be firmly established through the data in this research it has important implications for the understanding of sex-based identities. The divergent levels of metabolic disease in nonadults could suggest that the cultural value and types of personhood nonadults had were variable in different parts of Britain. In certain areas, nonadults may not be seen as full members of the group and their access to a wide-ranging diet may be hindered. This does imply that age is a crucial factor in an individual's identity.

While divergences between the demographic groups were not as pronounced at different site types as they were in the other comparative groups, the differences in the levels of disease types for the populations as a whole did demonstrate some interesting factors. Divergent types of people with specific identities may have been chosen to be included at select types of sites. For example, it was suggested that individuals heavily involved in plant cultivation may be present at barrows. Similarly, individuals found in caves may have been more nomadic and had a different hunting and gathering type of subsistence to other contemporary individuals. The main site type where demographic differences are present was causewayed

enclosures. Females at these sites were much more likely to have a congenital condition than males. As pointed out only congenital conditions that had clinical significance were included in the database so these would be people who had a physical impairment. This would certainly mark them out as different to other people and this substantiates the idea of specific people with specific identities being included at different site types. To conclude, the lifeways data exhibits many interesting patterns. Often these are quite subtle but do demonstrate that contrasts between divergent demographic groups are present. These differences could suggest that males, females, and different age groups had variable diets, social roles, and social status. This of course holds a lot of implications for identities and how biological sex and age may have affected them.

6: So in Death: Demographic Representation in the Funerary Record

6.1: Introduction

Having established the key differences in the lifeways of males, females, adults, and nonadults in the previous chapter, as well as what implications these may have on identities in the British Neolithic, this chapter will now focus on divergences in demographic representation at funerary sites. The main aim of the chapter is to present what are considered to be the most crucial results from this part of the research and interpret what these might mean for identity, age, and gender in the Neolithic of Britain. Similarly to the previous one, this chapter will be structured around the comparative groups proposed in Chapter Four. These include the Neolithic as a whole, chronological stages, Neolithic regions, site types, and mortuary practices. Cremated and non-cremated remains will be discussed separately with the former being included within the mortuary practices section. Key findings regarding the differences in the representation of males, females, and different age groups within funerary contexts will be presented for each of these sections followed by a discussion on what implications these may have for understandings of identity, age, and gender. This chapter will demonstrate that subtle differences between demographic groups are present within the funerary record and argue that this suggests that elements such as sex and age were factors in the creation of identities and how these identities were exhibited post-mortem.

6.2: Demographic Representation for the Neolithic as a whole

6.2.1: Key Results for Biological Sex – Is the Representation of Males and Females in Funerary Contexts Different in the Neolithic?

In terms of biological sex, data for the Neolithic as a whole demonstrated that males at 58% were better represented in funerary contexts than females at 42% (Fig. 6.1). This ratio is like other comparable past research such as Smith & Brickley's (2009) endeavours examining populations from long barrows in England. It is important to remember that a considerable proportion (59% for the dataset using all data groups and 41% using data acquired in the modern period) of the burial population is placed within the undetermined sex category. This means that this ratio could significantly alter should more individuals be able to have their sex determined. As it currently stands using scientific methods for sexing skeletal material such as through DNA analysis is expensive and not practical to do on a large scale. However future innovations within this area (for example using peptides – see Rebay-Salisbury *et al.* 2022) which could make these types of analysis cheaper and allow them to be completed in much greater numbers. This would be an important advance, especially for the British Neolithic. The fragmented and disarticulated nature of many British Neolithic assemblages means that traditional and observational methods of sex determination are often difficult, so these developments would help to develop a clearer picture of the biological sex ratio within funerary contexts. As highlighted in previous chapters assessing the Neolithic as a whole can be problematic. It covers a long chronological period, *circa* 1500 years, and encompasses a variety of different regions, site types, and mortuary practices, all of which may have had divergent social and cultural meanings during the period. However, a general observation that

can be made for the period in its entirety is that non-cremated males are more likely to be included in funerary contexts than females. This could suggest some slight variances in how the biological sexes were treated after death.

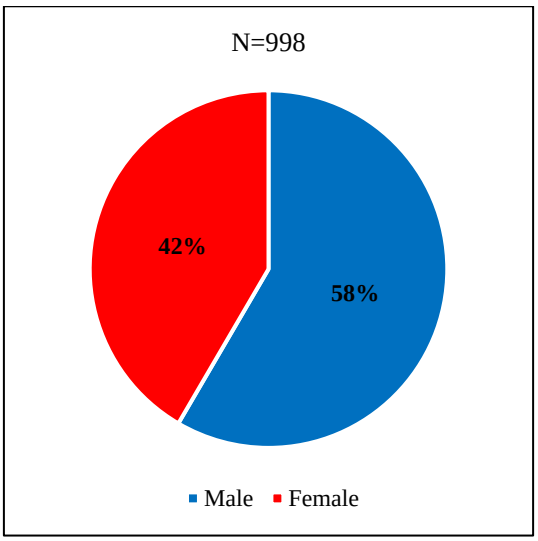

Figure 6.1 The ratio of representation between males and females for the Neolithic.

6.2.2: Discussion for Biological Sex – Is the Representation of Males and Females in Funerary Contexts Different in the Neolithic?

Differential funerary treatment based on biological sex is noted in other prehistoric European contexts. As mentioned in Chapters Two and Three there are many examples of divergent body positioning and/or grave goods between males and females in the European Mesolithic (e.g., Brinch Petersen 1990; Gazzoni & Fontana 2011; Oshibkina 2016; Grünberg 2017); European Neolithic (e.g., Chambon & Thomas 2010; Hofmann 2009); European Bronze Ages (e.g., Sørensen 1997; 2013; Treherne 1995; Harding 2007; Holst 2013); and British Bronze Age (e.g., Shepherd 2012). As has been noted the nature of most funerary assemblages in the British Neolithic makes it difficult to establish clear divergences such as

these and the male-to-female representation ratio for the Neolithic as a whole does not do much to change this. The difference between the two is not huge and it is challenging to make any meaningful assertions regarding differential treatment based on biological sex from demographic representation in isolation.

6.2.3: Key Results for Age – Is the Representation of Different Age Groups in Funerary Contexts Divergent in the Neolithic?

With regards to age and the Neolithic as a whole, adults far exceed nonadults in representation within funerary contexts, with the latter forming almost a quarter of the burial population at 23%. There is a marginally higher percentage (28%) of nonadults identified in the dataset formed from individuals assessed in the modern period (Fig. 6.2). This is likely due to modern techniques being much more accurate in assessing the age of adolescents as discussed in Chapter Four. This could also hold implications for the representation ratios of males and females if a substantial number of adolescents were wrongly determined as female. However, there is a likewise suggestion that a historically systemic bias towards sexing individuals as male is also present (Weiss 1972).

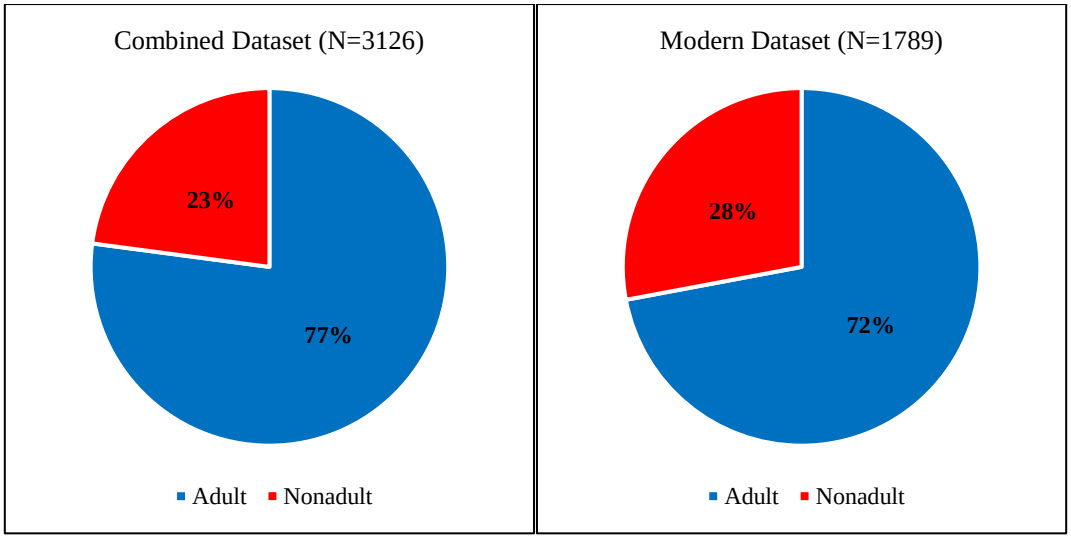

Figure 6.2 The ratio of representation between adults and nonadults for the Neolithic using the combined (left) and modern datasets (right).

Within the nonadult group, juveniles (1 to 12 years old) dominate with 422 of the 716 individuals being assigned to that age group (Fig. 6.3). Within the adult group, 1661 out of 2410 individuals have an undetermined age assigned to them. A big contributing factor to this is the disarticulated and commingled nature of most British Neolithic funerary assemblages. The most efficient ways in which adult skeletons are aged is through dental wear (see Brothwell 1981), assessment of the auricular surface of the pelvis, and to a lesser extent analysis of cranial sutures (see Buikstra & Ubelaker 1994) and mineralisation of the rib cartilage (see Bass 1987). However, the fragmented and mixed skeletal assemblages found in the British Neolithic mean that these skeletal elements are often incomplete, broken, or missing entirely. Where these skeletal elements are present it is often difficult to assign them to specific individuals. This means that a substantial number of the funerary population is unable to be aged in detail other than assigning adult or nonadult status. If undetermined individuals are excluded from the adult group for the Neolithic as a whole, the two younger adult age groups, young adult (18 to 24 years old) and young middle adult (25 to 34 years old) are slightly more numerous (Fig. 6.4).

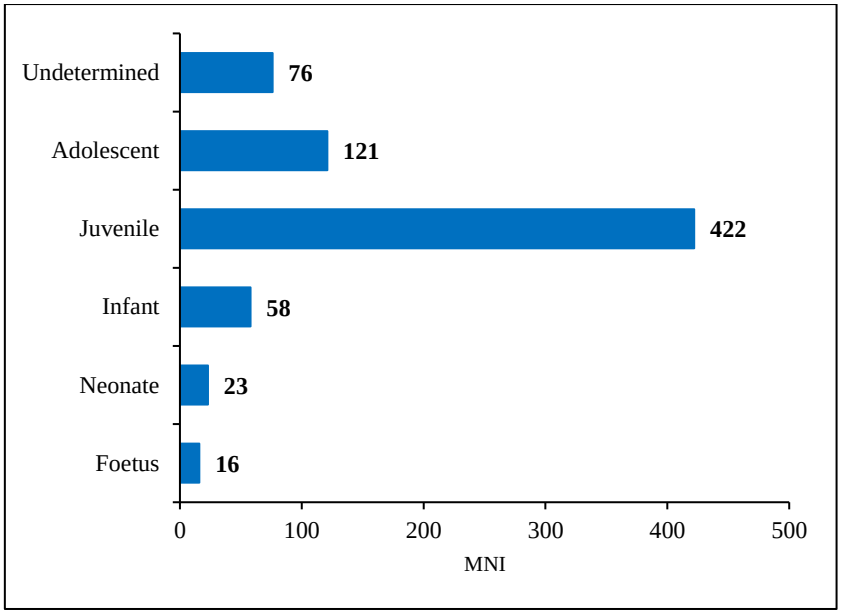

Figure 6.3 The MNIs for the nonadult age groups for the Neolithic.

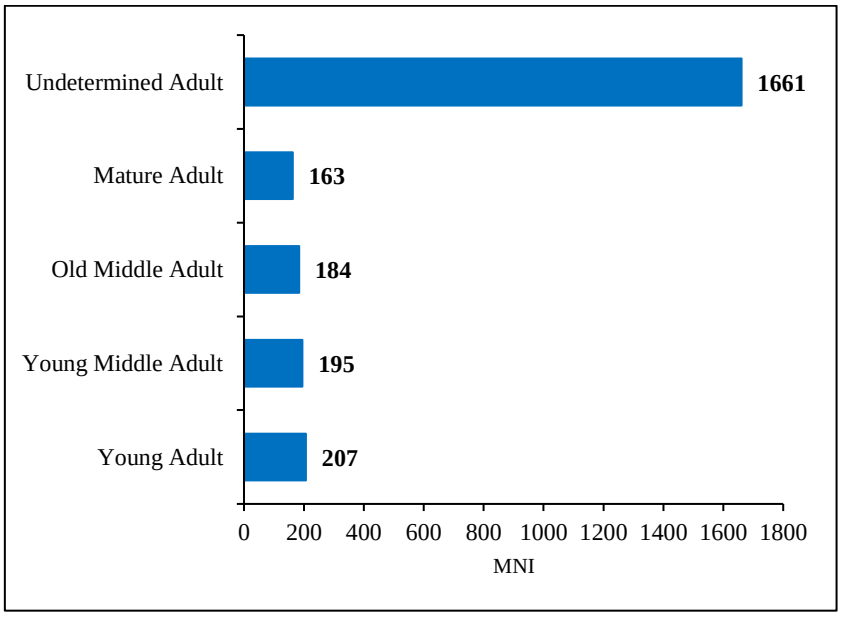

Figure 6.4 The MNIs for the adult age groups for the Neolithic.

6.2.4: Discussion for Age – Is the Representation of Different Age Groups in Funerary Contexts Divergent in the Neolithic?

In general, within funerary populations, adults usually outnumber nonadults by a significant amount and the results seen here for the Neolithic as a whole seem to correspond with this.

Life expectancy tables from a variety of pre-industrial farming societies appear to show that nonadults are more likely to die younger and likewise adults aged between 18 and 34 years old are more likely to be accounted for in the funerary record than older adults (Chamberlain 2000; 2006). The data on age for the Neolithic as a whole demonstrates that both the adult and nonadult groups fall within these suggested average mortality rates. One thing to note however is that the youngest age groups within the nonadult group, which include foetuses (up to 40 weeks in utero), neonates (around the time of birth), and infants (up to 1 year old), are quite underrepresented. This could be a principal factor to consider given the suggestion that younger nonadults tend to be more numerous than older ones within a funerary population. Taphonomic processes may be the cause of this, with young nonadult bones being smaller, more fragile, and not preserving as well (Roberts 2009: 58). However, this could also be an indicator that the youngest of nonadult individuals may have received differential funerary treatment. This could have implications for how age affects identity. Reaching age-related targets can have major implications for individual identities. Many cultures do not consider individuals to have full personhood and be complete and active members of the group until they have surpassed specific physiological age-related landmarks (Hollimon 2006). It could be that the youngest members of the population were yet to meet specific biological or cultural milestones, and this affected their identity and by extension the funerary rites they received.

6.3: Demographic Representation in the Chronological Stages of the Neolithic

6.3.1: Key Results for Biological Sex – Is There Chronological Variation in the Representation of Males and Females in Funerary Contexts in the Neolithic?

In terms of biological sex, the Early Neolithic sees the most equal distribution of male and female representation within funerary contexts, with males being marginally better represented at 55% for the combined dataset and 52% for the dataset formed from individuals assessed in the modern period (Fig. 6.5). The fact that both males and females are quite equally matched could suggest that differential funerary treatment based upon biological sex was not present. The Middle Neolithic sees a change in the representation of males and females. Male representation rises to 61% and 62% for each dataset meaning at this point in the Neolithic males are more likely to be found within the funerary record than females (Fig. 6.6) The unusual Middle Neolithic site of Banbury Lane, which was brought to attention in Chapter Four and contains a large number of adult males, does not have any significance towards these figures. If the site is removed the ratio is only changed by 1% to 2% depending on the dataset. By the Late Neolithic, the representation of males in the funerary record increased further to 64% in the combined dataset and 67% in the modern dataset (Fig. 6.7). This is quite different to what was seen at the beginning of the period and strongly suggests that the funerary rites received by males and females significantly altered between the beginning of the period and the end.

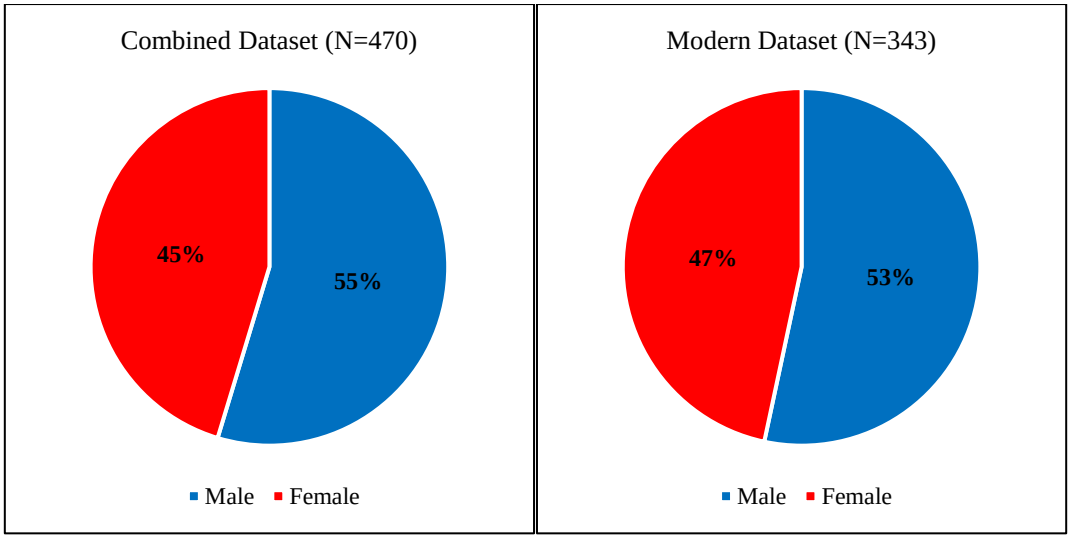

Figure 6.5 The ratio of representation between males and females for the Early Neolithic using the combined (left) and modern datasets (right).

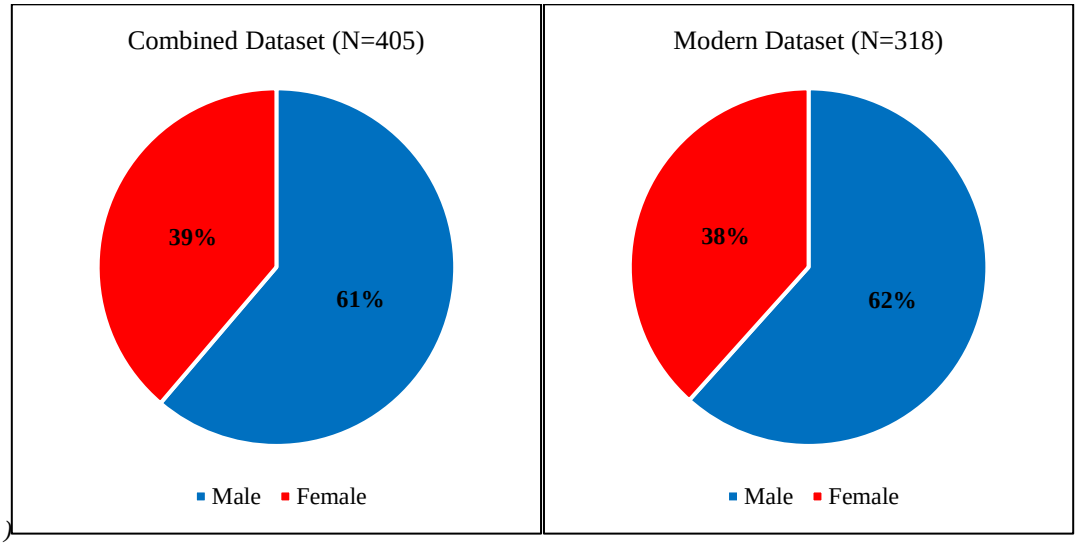

Figure 6.6 The ratio of representation between males and females for the Middle Neolithic using the combined (left) and modern datasets (right).

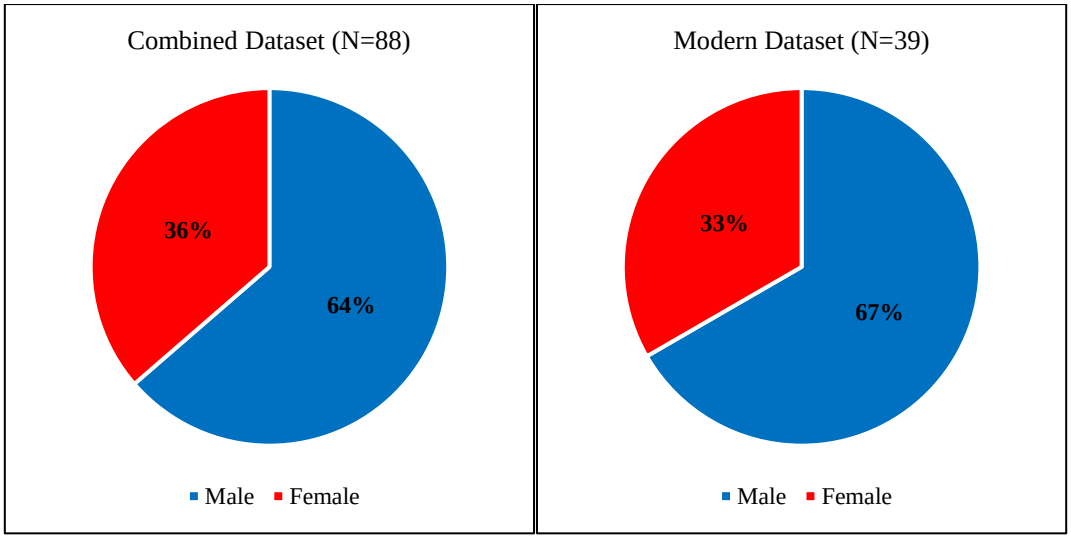

Figure 6.7 The ratio of representation between males and females for the Late Neolithic using the combined (left) and modern datasets (right).

6.3.2: Discussion for Biological Sex – Is There Chronological Variation in the Representation of Males and Females in Funerary Contexts in the Neolithic?

The findings from the Early Neolithic, which suggest a relatively equal representation of males and females, really exemplify the challenges faced when trying to decipher sex-based identities and gender from the funerary evidence of the British Neolithic. The lack of obvious differences between the biological sexes within funerary contexts makes it difficult to suggest that sex was a contributing factor in how an individual was treated after death. This in turn makes it hard to suggest that biological sex was a key component of identity. However, it is important to remember that this is just one strand of evidence from the British Neolithic and just because the representation of males and females in the funerary record does not demonstrate any divergences of note, this does not mean that sex-based identities and gender did not exist. There are examples of diverse cultures and groups who do indeed have gendered identities based on biological sex, but these are not deemed important within a

funerary context. For instance, in the Sikh community male and female gendered identities are present during life, but in death, the soul is judged to be genderless so no differentiation between males and females is present for their funerary rites (Rugg & Parsons 2018: 70).

Of course, using divergences in mortuary practices between the biological sexes as a basis for reconstructing the gender systems that may have been in place in past societies only works under the assumption that biological sex was the main, or at the very least a key, component of how gender was formed. Other factors could also be responsible for dictating an individual's gendered identity. Gender may not be a simple binary split based on biological sex but could instead encompass a whole host of other physical and cultural elements. Much anthropological research has demonstrated this to be the case. Whitehead (1981) questioned the models of anatomically linked gendered identities through her research examining different Indigenous North American groups. Within some groups, a third gender was recognised. These individuals were biological males but within the division of labour participated as females and moved, dressed, and spoke as female. These individuals were seen as part male and part female and were socially accepted and recognised as a distinct gendered identity (*ibid*).

Further ethnographic and ethnohistorical studies have reinforced the idea of multiple gendered identities and gender identities being formulated not solely by biological sex. For example, other Indigenous North American groups consider several factors including personality, vocation, or mystical/religious elements in determining gender (Jacobs *et al.* 1997). The prehistoric Chumash, California had a three-gendered society, male, female, and a religious/ritualistic role which could be biologically male or female, with the main criteria being the inability to produce children, e.g., infertile individuals, homosexuals (Hollimon 2000). Further research has also demonstrated that gender was not always fixed, and fluidity could occur. This was recognised with the Chukchi in Siberia who have seven different

gendered identities each of which is exchangeable at certain points throughout an individual's life (Balzer 1996). If similar systems of gender were in place during the Early Neolithic, i.e., ones which consisted of multiple genders, gendered identities not based on biological sex, or genders that were fluid, it would be extremely challenging to recognise them from the funerary evidence. If both males and females could be the same gender and they would receive funerary rites applicable to this gender, the archaeological evidence would only demonstrate that both biological males and females received the same mortuary treatment.

Another explanation as to why there is a relatively equal distribution of males and females during the earliest parts of the period is that the male/female dichotomy, which it could be argued is very much a construct of modern Western society, may not have been judged important to an individual's identity and may not have even existed at all. If this was the case, then it could be argued that other identity taxonomies were more important and responsible for dictating the mortuary treatment an individual received. There are several examples within the ethnographic record which demonstrate that the male/female dichotomy is not always present, and, in many ways, this shows that it may not be suitable to automatically place it upon groups in the past. The Laymi in the Andes of Bolivia demonstrated that being male or female was not a key factor in their division and structuring of society but instead, elements such as gender, age and status were all intertwined, and this shows that their society was too complex to be reduced to simple dichotomies such as male/female (Harris 1980). Similarly, research into the Mount Hagen group in Papua New Guinea, demonstrated that males and females could belong to the same symbolic categories (Strathern 1980). The concepts of partible and dividual personhood, discussed in Chapters Two and Three, have been used to further critique the male/female dichotomy and show gender and identity to be much more complex. For instance, in Melanesia, people regard themselves as dividuals who have a relational form of personhood built upon through an economy of gift exchange. A

person is constituted of multiple gendered parts that are not reduced to anatomy but can also include other objects and things (Strathern 1988). These parts interact together, transform, and change during social encounters and exchange scenarios depending on the recipient and provider, so in essence gender has little to do with males and females and more to do with the structure of social encounters and relations (*ibid*).

There is an obvious increase in male representation as the period progresses. It is important to remember that mortuary practices and funerary rites are deeply imbedded with many cultural, social, political, and religious elements, and do not just mirror society (Parker Pearson 2001: 32). Therefore, it should not automatically be assumed that an increase in the representation of males within funerary contexts means that society is becoming more male-dominated. A substantial number of females still received similar funerary treatment to their male counterparts, so other factors likely had an equal influence over how an individual was dealt with after death. However, given the increase in male representation and decrease in female representation, it is possible how biological sex contributed to funerary rites and by extension identity did change in the Middle and Late parts of the period.

The decrease in female representation could imply that more females were receiving differential mortuary treatment that is harder to detect archaeologically, and divergent mortuary treatment between the biological sexes is usually a good indicator of biological sex being a vital component of gender and gendered identities. As will be shown later in this chapter, female representation within cremation deposits does increase as the Neolithic progresses which substantiates the idea of females receiving differential mortuary treatment. In many ways, the latter parts of the Neolithic are beginning to look like what is seen in the British Early Bronze Age where divergent funerary treatment based upon sex becomes much more pronounced. In this case, more males receive beaker-type burials and where females do receive this form of funerary rite there are differences in body positioning and grave goods

(see Shepherd 2012). This could suggest that the latter stages of the Neolithic acted as a transitional phase for how males and females were treated after death.

6.3.3: Key Results for Age – Is There Chronological Variation in the Representation of Different Age Groups in Funerary Contexts in the Neolithic?

In contrast to biological sex, the ratio of representation between adults and nonadults does not change much throughout the three stages of the Neolithic. The Early Neolithic saw nonadults making up just 22% of the burial population and this increased by a single percent in each of the subsequent stages, reaching 24% in the Late Neolithic (Fig 6.8).

The nonadult age groups present similar signatures that were seen for the Neolithic as a whole. Again, juveniles are the most populous nonadult age group in all three chronological stages with 203 out of 314 individuals being accounted for in the Early Neolithic; 175 out of 311 individuals in the Middle Neolithic; and 28 out of 65 individuals in the Late Neolithic. The Late Neolithic sees a marginal increase in foetuses, neonates, and infants. However, the sample size for this chronological stage is much smaller and a sizeable proportion of these are accounted for at two sites. There are nine foetuses present at Pant y Saer, Anglesey (Scott 1933) and three neonates at Fissure Cave, Derbyshire (Papakonstantinou 2009). The adult age groups show some marginal differences between the chronological stages. The Early Neolithic demonstrates a relatively even spread of age groups represented within funerary contexts. In contrast, the Middle and Late Neolithic sees a higher proportion of younger adults present (Fig. 6.9). Therefore, the two later stages of the period fall in line with the average mortality rates for adults in pre-industrial farming societies, but the Early Neolithic includes a greater proportion of older adults.

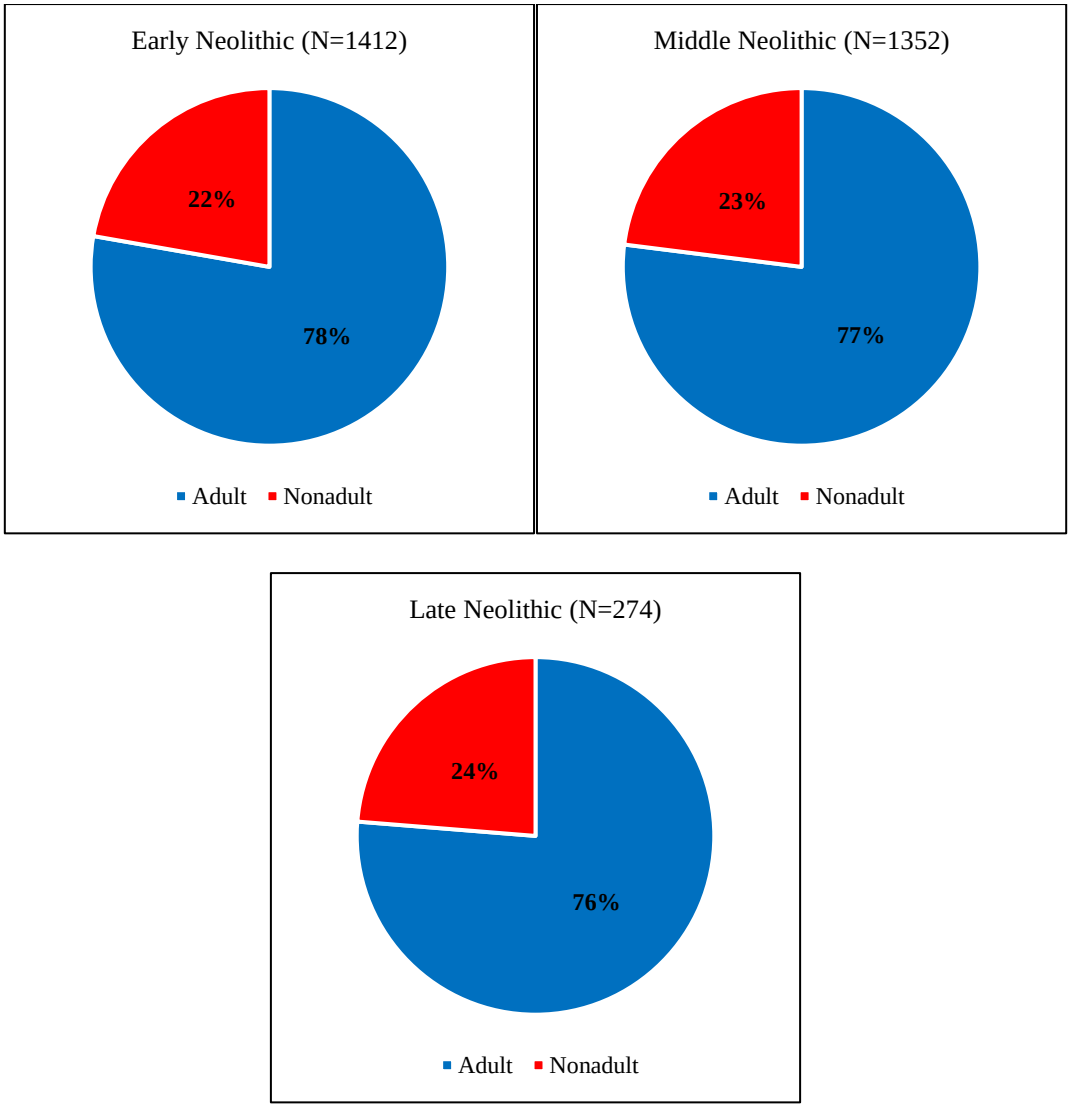

Figure 6.8 The ratio of representation between adults and nonadults for the Early (top left), Middle (top right), and Late Neolithic (bottom).

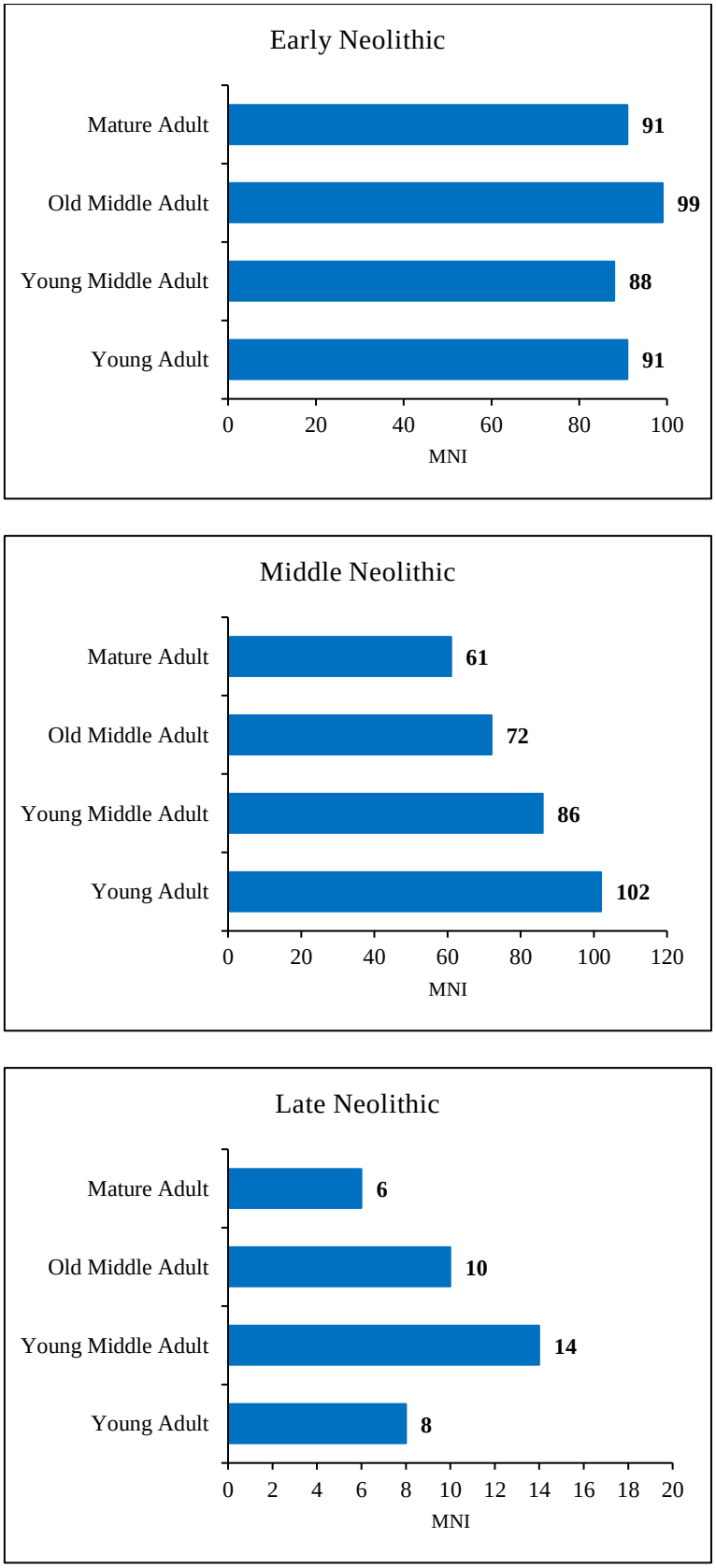

Figure 6.9 The MNIs for the adult age groups for the Early (top), Middle (middle), and Late Neolithic (bottom).

6.3.4: Discussion for Age – Is There Chronological Variation in the Representation of Different Age Groups in Funerary Contexts in the Neolithic?

The rates of representation for nonadults are similar for all three chronological stages of the Neolithic and they are also comparable to what was seen for the Neolithic as a whole. They are *circa* 25% and this rate of nonadult representation consistently appears throughout the data in all comparative groups. Research investigating pre-industrial past populations by Lewis (2007: 22) suggests an average nonadult mortality rate of approximately 30% and this has been echoed elsewhere (e.g., Chamberlain 2000; 2007). Given the repeated occurrence of *circa* 25% representation being found within this research, it would be safe to assume that a representation of 25%±5% for nonadults signifies an average rate of representation within funerary contexts for nonadults in the Neolithic of Britain. This is useful and provides a benchmark to test the different funerary contexts against.

The nonadult age groups are generally like what was seen for the Neolithic as a whole in all three chronological stages. Again, there is a slight underrepresentation of the youngest nonadult individuals. As proposed in the previous section the reasons for this could be taphonomic but could equally signify differential funerary treatment for the youngest members of society. The abovementioned Late Neolithic site of Fissure Cave, Derbyshire could go some way in substantiating the idea of differential funerary treatment based on age. At the site six individuals were present, five of them were young nonadults (three neonates, one infant, and one juvenile), and the other an old middle adult (Papakonstantinou 2009). With so many young nonadults included at one site, it could be argued that this was a special funerary site mostly reserved for the youngest members of society. There are examples within the database of other sites from the other chronological stages that include a majority of

nonadult individuals which could further the idea of certain sites being used for specific age groups. For example, the Early Neolithic causewayed enclosure of Maiden Castle, Dorset contained nine individuals, with seven of these being nonadults (Healy *et al.* 2011). In the chambered tomb of Embo, Sutherland 17 individuals dated to the Neolithic and 13 of these were nonadults (Henshall & Wallace 1963; Sheridan *et al.* 2019). Interestingly, there were also five Early Bronze Age individuals at Embo and three of these were also nonadults which could imply that using the site for the deposition of the youngest members of the group was a long-standing practice.

The main finding from the adult age groups was the presence of more older adults in the Early Neolithic in comparison to the two latter stages. This could suggest two things. First, it could be that lifeways were different between the chronological stages and individuals were more likely to live to an older age in the Early Neolithic. Lifeways data from the previous chapter does not substantiate this idea however so it is difficult to suggest this with any confidence. Second, it could be that age and its relation to identity were different between the early parts of the Neolithic and the later parts, and this may have affected the funerary treatment an individual received. In the Early Neolithic, the fact that older adults were just as well represented as younger adults at funerary sites could suggest that older individuals were thought to be just as socially and culturally important as their younger counterparts. The lack of older individuals in the later parts of the period could imply that older adults were viewed differently. It could be that older adults received divergent funerary treatment from their younger counterparts, and this could be due to their age-based identity being perceived positively or negatively. There are no sites within the database that show an overabundance of older adults like there were with younger nonadults. So, if older adults were receiving differential mortuary treatment in the Middle and Late Neolithic it is probable that this would be a form of funerary rites that are difficult to detect archaeologically.

6.4: Demographic Representation in the Neolithic Regions of Britain

As explained in previous chapters, the sample sizes for some of the proposed Neolithic regions were not viable for further analysis. This was either due to no non-cremated males and females being recognised at all within the dataset or, when males and females were present, they were in small numbers which makes constructing interpretations challenging and lessens the statistical significance of the findings. Therefore, the region of Lowlands-Northumbria is not considered here although the data can still be found in the appendices. The regions of the Lincolnshire Wolds, North Wales, and Shetland also need to be highlighted. Non-cremated human remains were only found at three sites for North Wales and two sites for the other two regions and as a result, the number of individuals with sex and age determinations at them is quite low. With only a small number of sites represented, it must be considered that the data may not be a true reflection of the regions. Finally, it must also be noted that the regions of Grampian and the Isle of Man are also not considered here. Both have incredibly small numbers of non-cremated individuals so no meaningful comparison can be undertaken. They do however have a substantial number of cremated individuals which will be discussed in the cremation section below.

6.4.1: Key Results for Biological Sex – Are There Any Regionally Based Differences in the Representation of Males and Females in Funerary Contexts in the Neolithic?

Four of the Neolithic regions, Cotswold-Mendip, Dyfed, Highlands, and Wessex demonstrated representation signatures for biological sex that were very much consistent with

what the Neolithic as a whole did, with percentages of males to females being between 55 – 57% to 43 – 45%. Three of the regions demonstrated that males were much better represented. At Brecon-Beacons-West Mercia males were at 67%; at the Lake District-Yorkshire Dales they were at 71%; and at Orkney, they were at 64% (Fig. 6.10). Two of the regions, Argyll & Bute-Hebrides and Essex-Kent-Sussex, demonstrate a much more equal distribution of male and female representation. At the former males are at 52% and females 48%, while at the latter they are at 51% and 49% (Fig. 6.11).

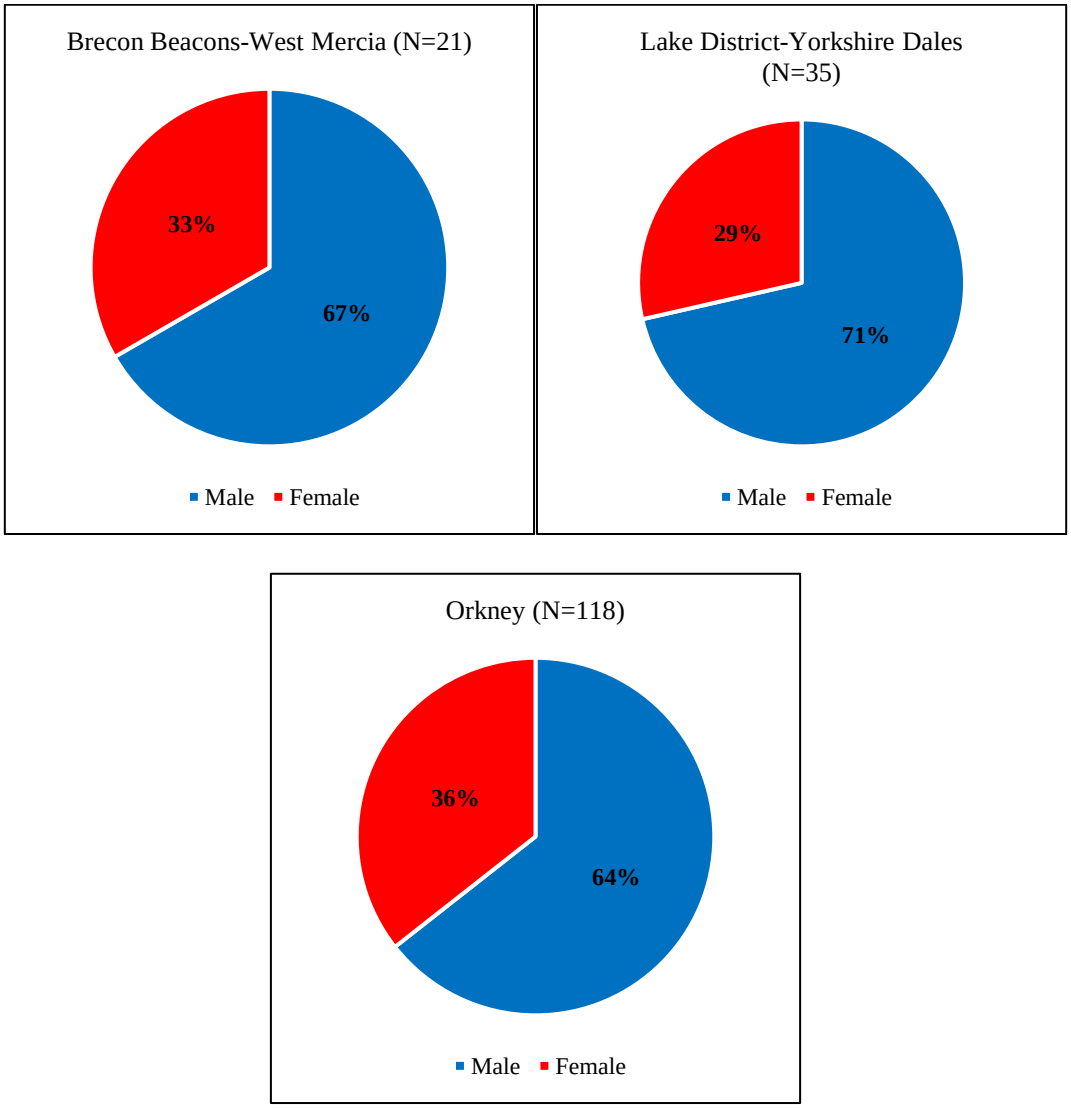

Figure 6.10 The ratio of representation between males and females for Brecon Beacons-West Mercia (top left), Lake District-Yorkshire Dales (top right), and Orkney (bottom).

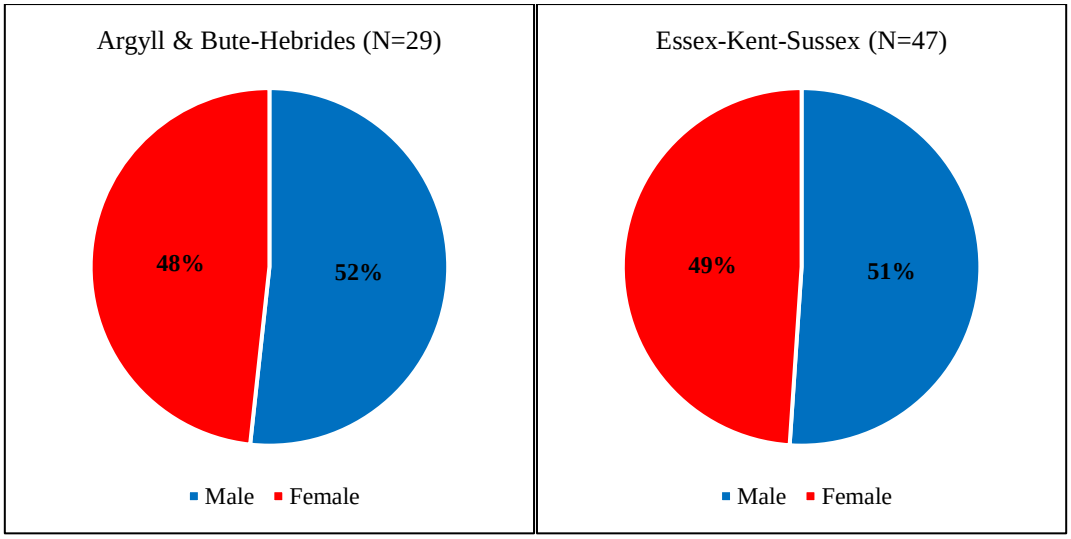

Figure 6.11 The ratio of representation between males and females for Argyll & Bute-Hebrides (left) and Essex-Kent-Sussex (right).

6.4.2: Discussion for Biological Sex – Are There Any Regionally Based Differences in the Representation of Males and Females in Funerary Contexts in the Neolithic?

The Cotswold-Mendip, Highlands, and Wessex regions contain a substantial number of sites which show a great degree of chronological variation and form a substantial proportion of the total database. The fact these regions have similar representation rates of males and females to the Neolithic as a whole may be indicative of their overall influence on the database in general. Chronology could be a factor in some of the biological sex ratios found in some regions. Both Argyll-Bute & Hebrides and Essex-Kent-Sussex consist of mainly Early Neolithic sites and the ratio of males to females is like the Early Neolithic one demonstrated in the previous section. Similarly, in Orkney, most sites belong to the latter parts of the period and as shown in the previous section, males tend to be better represented within funerary contexts during the Middle, and to a much greater extent, Late Neolithic. Therefore, in these regions, it could be that the chronological stage that forms much of their dataset could be

highly influential in the regionally specific signatures. However, it must also be considered that these regions may be influential in the formation of the signatures for the chronological stages.

The Brecon Beacons-West Mercia region sees males firmly in the majority. Most sites within this region belong to the earlier parts of the Neolithic. The Early Neolithic has males and females quite equally matched within funerary contexts, so this region seems to contrast with this and go against this trend. This could be suggestive of some regionally specific variations on how biological sex affected funerary rites. Unlike elsewhere in the Early Neolithic, being male was a principal factor in deciding whether an individual would be included at a site in this region, and this has implications for how biological sex may have affected identity during an individual's life. As will be shown in the next section, this region also demonstrates some unusual patterns concerning age which substantiates the interpretation that something different may be happening within the Brecon Beacons-West Mercia area.

Dyfed and the Lake District-Yorkshire Dales regions are interesting cases. While both show quite different biological sex signatures, they are similar in other ways. Dyfed consists of just 15 sites and 59 individuals. Three of the sites are chambered tombs, however only one of these, Parc le Breos Cwm, Glamorganshire, has had research and osteological analyses conducted within the modern period (see Whittle & Wysocki 1998). The remaining sites are from the natural contexts group and are entirely caves and rockshelters. The Lake District-Yorkshire Dales contains 17 sites and 90 individuals. Three of the sites are long cairns, and the remaining ones, like Dyfed, are also cave and rockshelter sites. The fact that these regions are so similar but present vastly different male-to-female ratios could be an indicator of regionally divergent funerary treatment based on biological sex. In turn, this could also suggest that how biological sex affected identities may also be regionally dynamic. Interestingly, because both these regions are formed from cave and rockshelter sites, this

could also hint at regionally specific funerary practices within certain site-type groups being present during the British Neolithic.

6.4.3: Key Results for Age – Are There Any Regionally Based Differences in the Representation of Different Age Groups in Funerary Contexts in the Neolithic?

With regards to the representation of adults and nonadults, most regions demonstrate a nonadult representation at the benchmark average of 25%±5% proposed above. Three regions deviated from this figure and presented quite low levels of nonadult representation. At Brecon Beacons-West Mercia and Scilly-South West Peninsula, nonadult representation was at 18% (Fig. 6.12). East England contains the unusual site of Banbury Lane which contains 145 individuals, 114 adults and 39 nonadults. This obviously influences the data. In the dataset which includes Banbury Lane nonadult representation is at 20%. However, when it is removed nonadult representation reduces to 16% (Fig. 6.13).

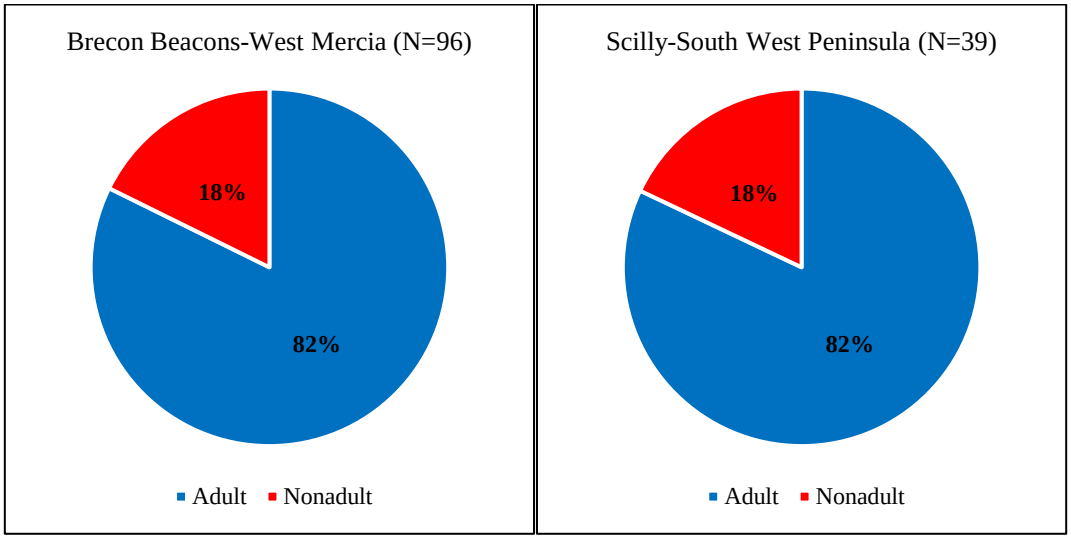

Figure 6.12 The ratio of representation between adults and nonadults for Brecon Beacons-West Mercia (left) and Scilly-South West Peninsula (right).

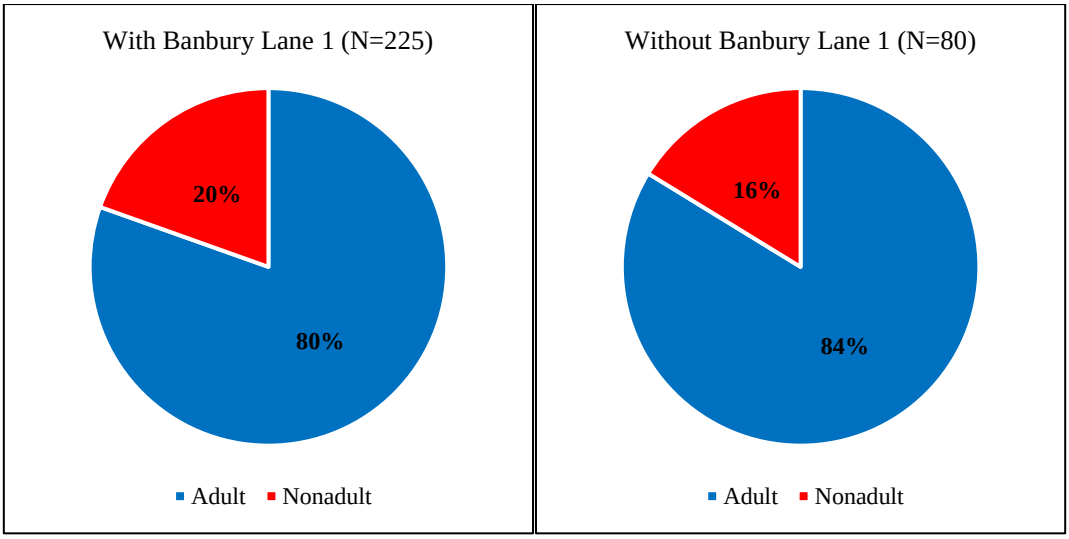

Figure 6.13 The ratio of representation between adults and nonadults for East England using datasets including Banbury Lane 1 (left) and excluding Banbury Lane 1 (right).

With regards to the nonadult age groups all regions are uniform with average nonadult mortality rates for pre-industrial farming societies suggested by Chamberlain (2000; 2007) and Lewis (2007: 22), in that younger nonadults are more numerous than older ones. Similarly, for the adult age groups, most regions also conform to average mortality rates with more younger adults than older ones. However, some regions have divergent trends. The Cotswold-Mendip, Dyfed and Highlands regions have a much more equal distribution of adult age groups (Fig. 6.14). In East Yorkshire-Southeast Northumbria and Lake District-Yorkshire Dales regions, there is a larger proportion of old middle adults and mature adults than found in other regions (Fig. 6.15).

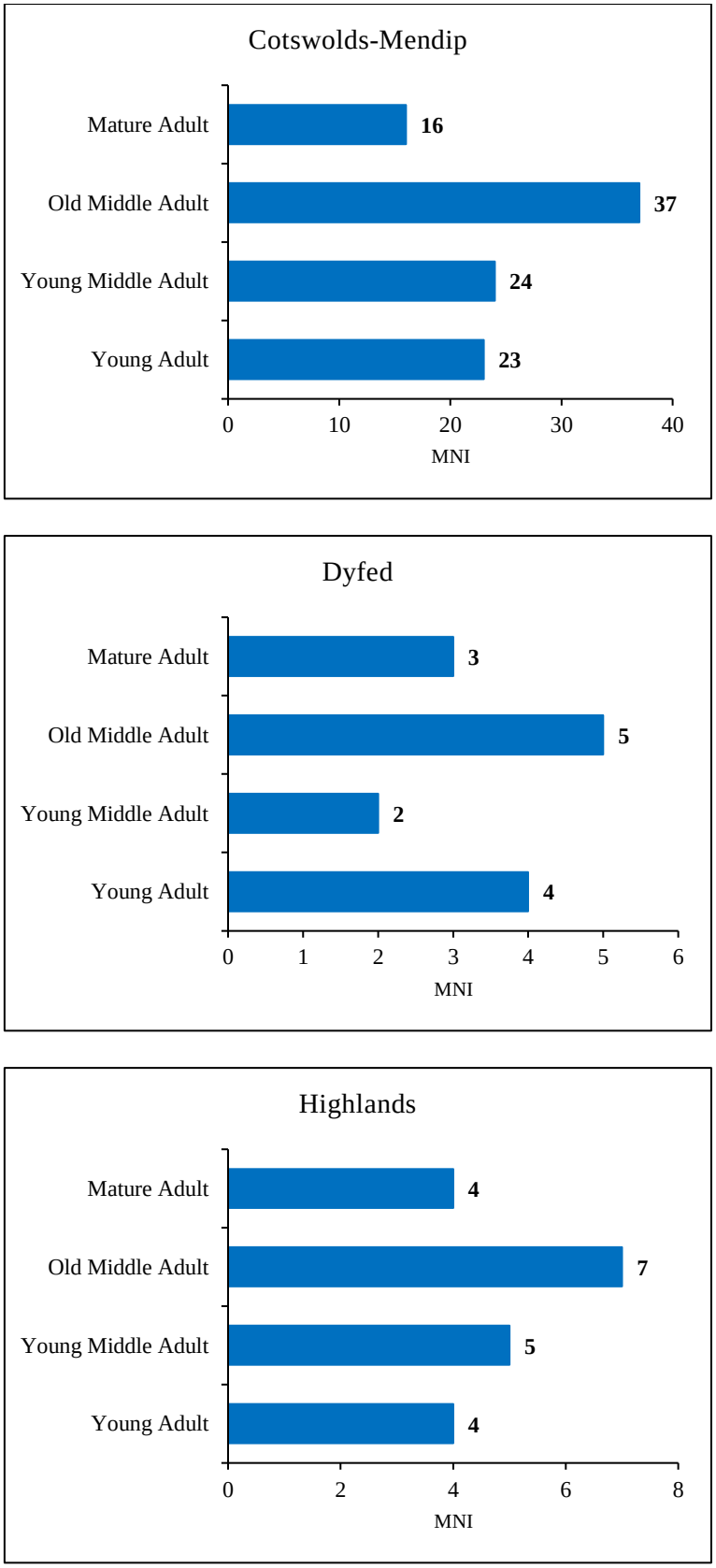

Figure 6.14 The MNIs for the adult age groups for Cotswold-Mendip (top), Dyfed (middle), and Highlands (bottom).

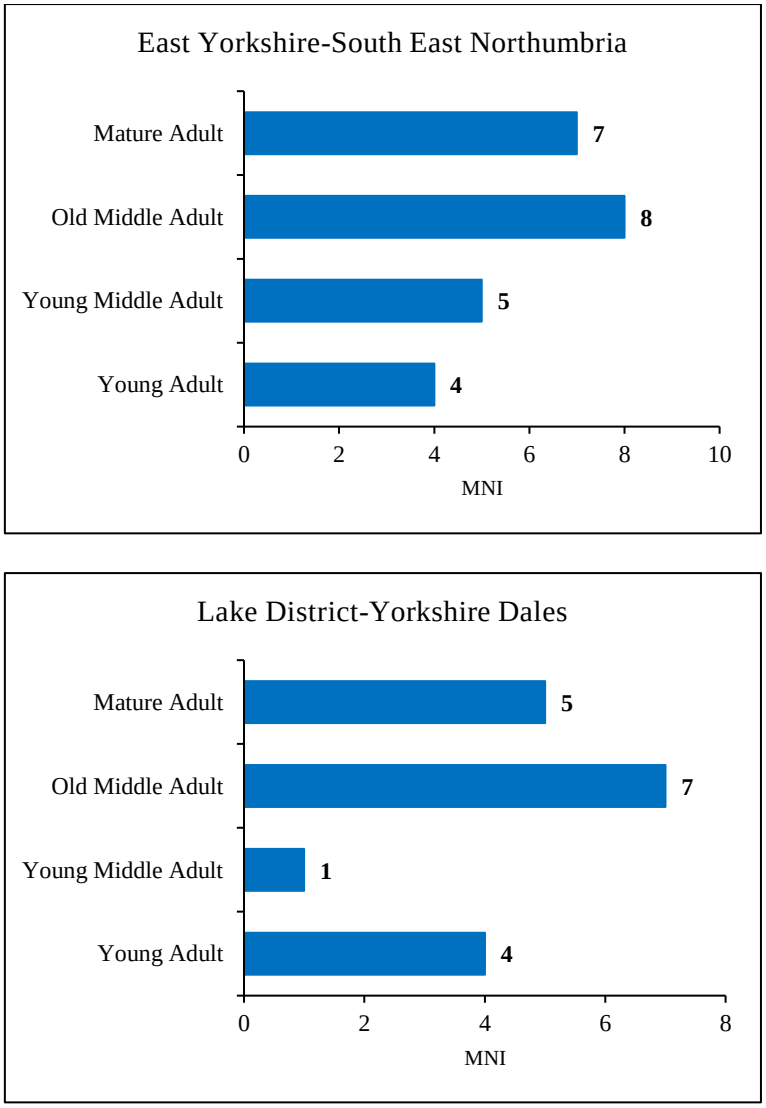

Figure 6.15 The MNIs for the adult age groups for East Yorkshire-South East Northumbria (top) and Lake District-Yorkshire Dales (bottom).

6.4.4: Discussion for Age – Are There Any Regionally Based Differences in the Representation of Different Age Groups in Funerary Contexts in the Neolithic?

It has been shown that in three of the regions, nonadults are represented by lower-than-average rates within funerary contexts. While an argument could be made to suggest that nonadult mortality may have been lower in these regions this is difficult to substantiate. It could equally be argued that the funerary practices used for nonadults within these places

were different to other regions elsewhere in Britain, and this would suggest that the social/cultural meanings of age and how this is applied to funerary rites may be different from region to region. In Chapters Two and Three attention was brought to the importance age can have on the social identities and personhood an individual can have. As age is in a constant state of progression, so too is an individual's social identity and personhood. This is attested for in many diverse cultures and groups in the ethnographic record. For example, in India, Hindu individuals have four different cycles during their lives, each of which transforms their social identity, status and personhood (Marriott 1976: 131). While several divergent elements and factors contribute to an individual progressing through these cycles a key component is their age (*ibid*). Therefore, an individual's social identity, and type of personhood are inextricably linked to the progression of their physiological age.

For nonadult individuals, the transition from the nonadult identity into the adult identity is often a major catalyst of change for their social identity and can transform the individual's social status and type of personhood. Again, this is well documented within the ethnographic record. For example, in Melanesia, Rauto individuals can only achieve full personhood through rites of passage related to puberty (Maschio 1994: 107). In other words, the Rauto see the physical transition from nonadult to adult as a material expression of the change between nonperson and person. The social identity and levels of personhood of an individual based on their age could influence other social and cultural elements within society, such as funerary practices. Fowler (2004: 46) suggests that divergences and variations in the treatment of the deceased, by age, may denote distinctions between types of personhood present, and the omission of particular individuals may relate to that person having not achieved full personhood. If this idea is applied to the findings within this section, then an explanation for the low rates of representation for nonadults within some regions could be because the individuals in question had not yet attained a social status and level of

personhood deemed acceptable to receive comparable funerary treatment to other members of the group. As the levels of representation also differ on a regional basis, then this could also suggest that understandings of age and age-based identities may vary within Britain. However, it is important to remember that some nonadults were still receiving funerary rites like older individuals so other identity taxonomies also likely contributed towards an individual's social identity, personhood, and type of funerary rites received.

If the social identities and types of personhood nonadult individuals had, did contribute to the low rates of representation, then it may be that these individuals received alternative funerary rites to the rest of the group. There are several examples both ethnographically and archaeologically of divergent funerary treatment for nonadults in a variety of temporally and geographically distinct societies. The Papuan ethnic group in New Guinea and the Dayak ethnic group in Indonesia would place deceased nonadults high on tree branches or inside hollowed-out dead trees (Hertz 1907). In Roman Britain, young nonadults would be omitted from formal burial sites and instead placed within settlement contexts and nonadults from the age of four years old onwards would be interred with differing grave goods depending on their age (see Gowland 2001). A similar scenario is found in Iron Age Iberia in which young nonadults are interred within the wall foundations of houses yet older nonadults are included in formal burial grounds (Chapa 2003: 119 – 121). Also, as late as the post-Medieval period some Irish traditions had separate burial grounds for adults and nonadults (see Finlay 2000). If divergent mortuary practices for nonadults were applicable for some regions within the British Neolithic, then the lack of representation may be because these differential rites are not visible archaeologically.

It is worth considering the regions themselves, such as the type of landscape and positioning within Britain, as an explanation for the reasons why there appear to be divergent trends related to the representation of certain age groups. Brecon Beacons-West Mercia mostly

consists of a quite mountainous and rugged terrain. Mountains and hills likely held some significance for Neolithic societies. Raw materials for stone tools were often acquired from mountainous places in the landscape such as Langdale Pikes, Cumbria, Penmaenmawr, Caernarfonshire, and the Preseli Hills, Pembrokeshire (see Bradley & Edmonds 1993). Axes constructed from the raw materials found at Langdale Pikes are found widely throughout Britain suggesting this place held some esteem. The fact that individuals would traverse these difficult terrains to acquire raw materials has led to suggestions that mountains may have been a significant part of the belief systems within the Neolithic, for example, a home of the Gods or ancestors (e.g., Cummings & Whittle 2004; Cummings 2009).

If mountainous regions were special places within the landscape, then it could be suggested that burial within these places may have been reserved for individuals with specific social identities. The $^{87}Sr/^{86}Sr$ data from two of the sites could substantiate this idea. At Pen y Wyrlod 2, Brecknockshire all individuals who were analysed grew up within a biosphere different to that of the site and at Ty Isaf, Brecknockshire all but one of the individuals were deemed to be non-local (Neil *et al.* 2017). This could suggest that these individuals were specifically brought to this area for funerary purposes (see Ensor 2021). It may be that these individuals had specific social identities that were important, which meant it was important for them to be buried within this region. It is difficult to come to any firm conclusions as to what these identities may be but the lack of representation of nonadults could imply that age was a factor in determining them. As noted above, male representation is also high within this region. With most sites belonging to the earlier Neolithic, this is also in contrast with what was seen in the chronological stages section. So again, if burial in this region was only given to individuals with specific identities, then as well as being an adult, being male was also a principal factor in determining who was included.

The landscape of the Scilly-South West Peninsula is distinctive within Britain. The southwest peninsula represents the very southern tip of the region whereas the Scilly Isles are a small group of island landmasses off the southwest coast. In the Atlantic façade theoretical model for the Neolithization of Britain which suggests migrants coming from Breton, France and settling along the west coast of Britain (see Sheridan 2010b) the Scilly-South West Peninsula would be a key area. Also, the Scilly Isles, and to a lesser extent the southwest peninsula, both exhibit unique monumental architecture (see Waite 2015), which some have suggested may be highly influenced by Breton passage tombs (e.g., Kirk 2015). With this region being seemingly distinctive compared to other regions then it may make sense that the representation signatures found within the funerary record may also be inimitable. Nonadult individuals may have had different social identities within these areas compared to other parts of Britain. Although beyond the scope of this research, it would be interesting to compare demographic representation with comparable Neolithic funerary records in Breton, France as this may demonstrate how influential the region was to the Scilly-South West Peninsula area.

Some of the regions exhibited varying trends within the adult age groups. One explanation for this could be due to chronology. Both Cotswold-Mendip and Glamorgan contain a substantial number of sites belonging to the earlier part of the period. As shown in the chronological stages section the adult age groups are much more equally distributed during this part of the period. Therefore, the relatively equal distribution of adult age groups found within these regions may reflect this. Burials in the Highlands region also demonstrated that the adult age groups were fairly equally matched. However, sites in this region are mostly Middle to Late Neolithic. In the chronological stages section, it was shown that younger adults tend to be more numerous during the latter stages of the period, yet the representation of adult age groups found in the Highlands is much more akin to the Early Neolithic. Consequently, it may be that something unique was happening within this region. It could be

a difference in lifeways in which individuals lived longer or it could be different social/cultural perceptions of age, how it contributed to identities, and how this affected funerary rites.

Interestingly, both East Yorkshire-Southeast Northumbria and Lake District-Yorkshire Dales demonstrated a much higher proportion of older adults than other regions. Again, this could be an indicator that how age affected an individual's funerary rites was different in this part of Britain and this in turn could suggest that age-based identities also varied. The higher representation of older adults could also imply differences in health and lifeways. It could be that individuals in these two regions lived longer due to this. Interestingly, the East Yorkshire-Southeast Northumbria and Lake District-Yorkshire Dales region form a big part of the Central Britain region used for the lifeways part of this research. As exhibited in the previous chapter, the lifeways data for the different demographic groups in Central Britain also demonstrated variation in comparison to both Northern and Southern Britain. With both the lifeways and deathways data presenting differential patterns to what is seen elsewhere it could certainly be suggested that divergent cultural mechanisms may have been in place in this area which affected how age and biological sex were used in the formation of identities.

6.5: Demographic Representation at Different Site Types in the Neolithic

As discussed in Chapter Four, sites were organised into quite broad categories for this research and some further adjustments were made for this part of the analysis. Both long and round barrows were treated as separate entities due to their obvious differences in form and the chronologies in which they were used. Also, chambered tombs were split into two groups of early chambered tombs, which stretch from 4000 cal BC to 3250 cal BC, and late

chambered tombs which include those dated between 3250 cal BC and 2500 cal BC. This splits the different chronologically and geographically distinct forms and types of chambered tomb quite well and groups similar ones together. By doing this the data would be much more useful and present a better framework of the changing nature of chambered tomb use over time and highlight differences in how round and long barrows were utilised for funerary rites. These further adjustments also complimented the previous chronological and regional comparisons much better.

6.5.1: Key Results for Biological Sex – Are Males and Females Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

The representation of males and females at three of the site types was like the biological sex ratios found in the chronological stage the site type belonged to. Long barrows and cairns, which are mostly dated to the Early Neolithic, show males to be at 55% representation and females 45%. This is a very comparable ratio to that of the Early Neolithic from the chronological stages section of this chapter. Round barrows and cairns, which are mostly dated to the Middle Neolithic, show males to be at 57% representation and females 43%. Again, this is a very comparable ratio to what was seen for the Middle Neolithic in the chronological stages section. At causewayed enclosures, which largely belong to the Early Neolithic but see use continuing into the Middle Neolithic, exhibit 58% representation for males and 42% for females. While this ratio could be considered quite high if causewayed enclosures were purely an Early Neolithic phenomenon but the fact that many continue to be used well into the Middle Neolithic means that the male-to-female rates of representation found here may again mirror the chronological stages within which they are used.

Some of the site-type groups do appear to demonstrate more unique levels of male and female representation that differ from the chronological period they belong to. The annular monuments group shows males to be at 68% and females at 32% (Fig. 6.16). However, this site type group includes the unusual site of Banbury Lane 1 which includes 145 individuals, 35 of whom were assessed to be male. This has implications for the dataset. If Banbury Lane 1 is omitted from the data, then males are at 52% and females at 48% for the dataset using all available data but interestingly for the dataset that just includes individuals assessed in the modern period females are at 53% and males at 47% (Fig. 6.17). These relatively equal rates of representation are much more akin to representation signatures seen in the earlier parts of the period rather than the latter stages to which most of the sites belong.

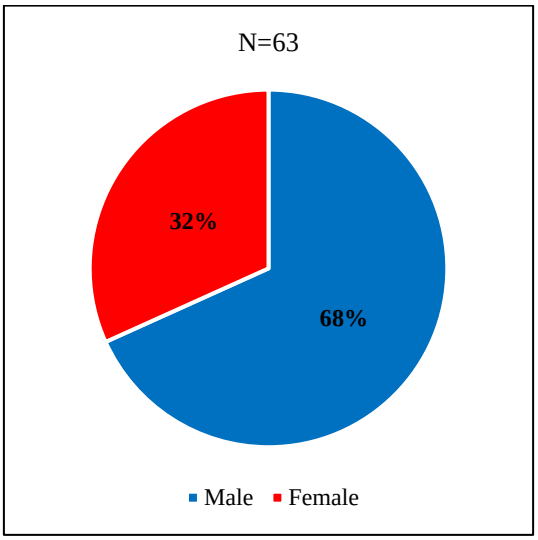

Figure 6.16 The ratio of representation between males and females for annular monuments.

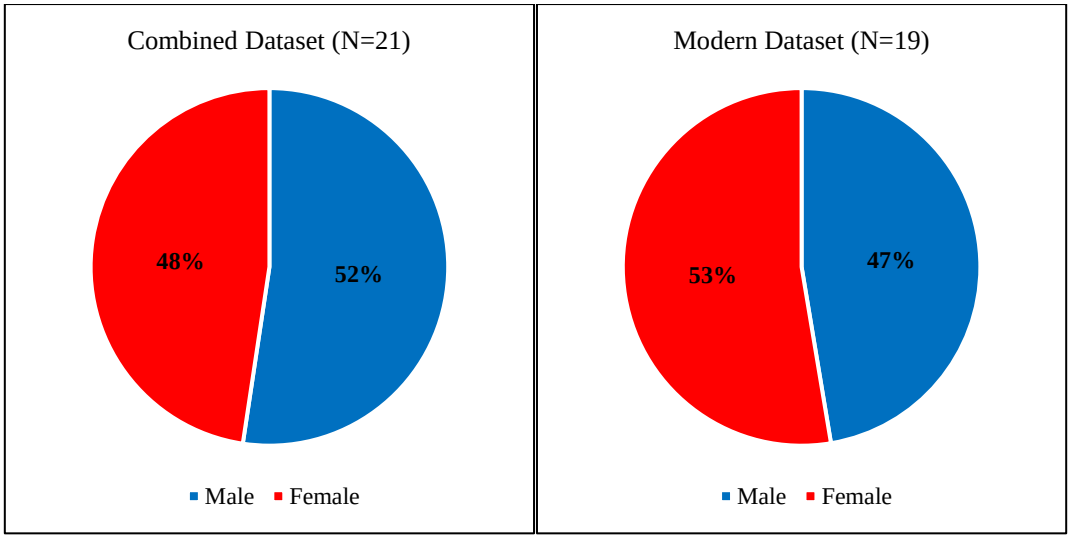

Figure 6.17 The ratio of representation between males and females for annular monuments, excluding Banbury Lane 1, using both the combined (left) and modern datasets (right).

At non-monumental contexts, males and females are equally represented. For the dataset combining all data males are at 52% while females are at 48% and the dataset of individuals assessed in the modern period places suggests a greater degree of equal representation by demonstrating both males and females to be at 50% (Fig. 6.18).

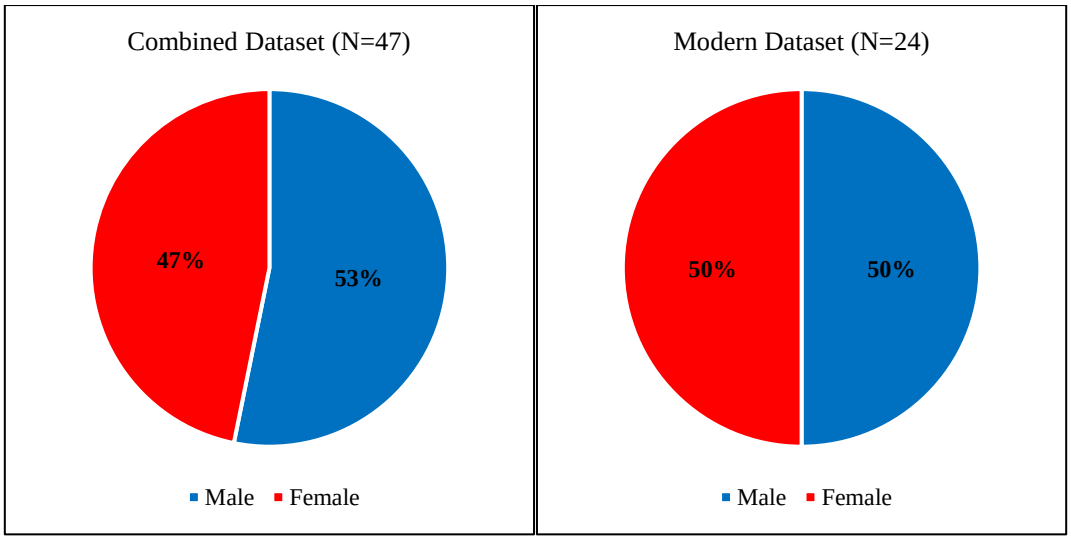

Figure 6.18 The ratio of representation between males and females for non-monumental contexts using the combined (left) and modern datasets (right).

Early chambered tombs, which were constructed and used in the Early Neolithic and first half of the Middle, demonstrated males being in the majority at 60% representation with females at 40%. This contrasts with the chronological stages which see a more equal distribution of the biological sexes. Late chambered tombs, which were constructed and used from the latter parts of the Middle Neolithic through to the Late Neolithic, see a very slight reduction in male representation although they are still in the majority with male individuals at 58% and females at 42% (Fig. 6.19).

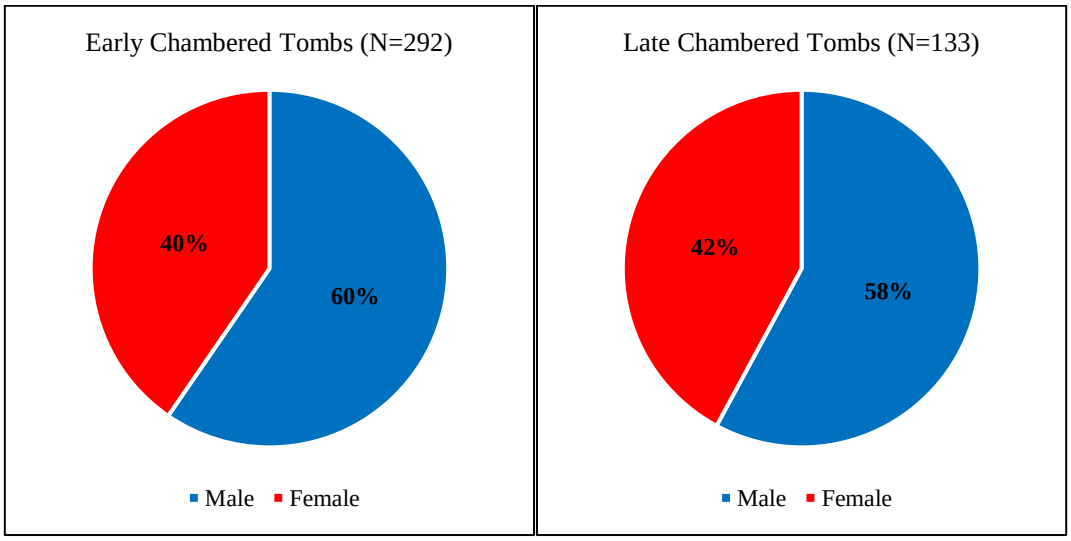

Figure 6.19 The ratio of representation between males and females for early chambered tombs (left) and late chambered tombs (right).

Like both early and late chambered tombs, natural contexts, composed chiefly of caves and rockshelters but also water-related contexts, show a preference for the inclusion of males at the sites. Male representation is at 60% with females at 40% (Fig. 6.20).

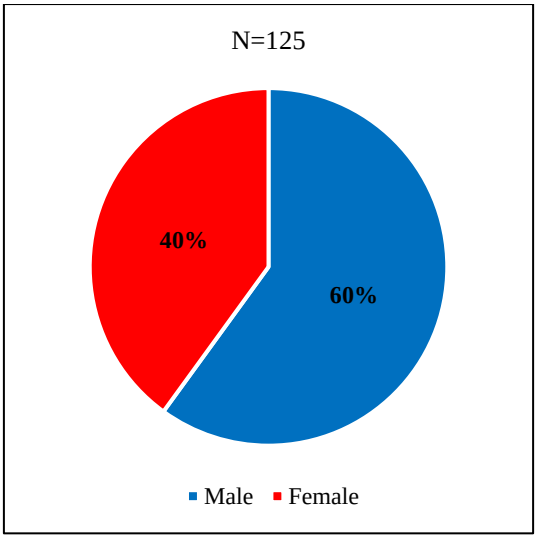

Figure 6.20 The ratio of representation between males and females for natural contexts.

6.5.2: Discussion for Biological Sex – Are Males and Females Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

With regards to annular monuments, if Banbury Lane 1 is removed from the dataset, something quite different appears to be happening with regards to funerary activity at these sites compared to other contemporary sites, which tend to heavily favour the inclusion of males over females. It could be that specific types of individuals with social identities in which biological sex was not a key component were chosen to be included. It is difficult to suggest what these types of individuals may have been especially when the purpose and use of annular monuments is still not fully understood, and the deposition of human remains at them is an infrequent occurrence. In discussing timber circles Gibson (2005: 99) proposes that the reconstruction of the function and practices carried out at the sites is challenging due to the reliance on many elements that are simply unknown such as the original form of the monument, the order of the structural and depositional episodes, and the general belief systems in place during the time. Nevertheless, there have been countless theories regarding

the role and use of annular monuments (see Hutton 2013: Chapter Three for a summary) but many take a religious/ritual viewpoint on them. It could be then that the individuals who were included at the sites had a religious/ritualistic focus. It was mentioned above that there is ethnographic data that demonstrates in some groups gendered identities are not just based upon biological sex but instead on religious factors, and this alternative gendered identity can be either a biological male or female (e.g., Jacobs *et al.* 1997). While it is challenging to suggest that this is what was occurring in the Neolithic of Britain with full clarity, the fact that males and females are both present in quite equal numbers, the function and use of these sites themselves appear to be unusual, and given that burial at these sites is a rare occurrence, it could definitely be argued that the individuals who were buried at them were different in some way, a divergence that was not dictated by their biological sex. It could be that these individuals had social, cultural and/or political identities that were rare and unique and this specific identity meant that they were required to be represented in death at these unique site types.

At non-monumental contexts, males and females are equally represented. Most sites within this group are pit burials but there are also some burials within enclosures, flat single graves, a few instances of inhumation cemeteries, inclusions within flint mine shafts, and some token deposits of human remains in settlement sites. This group is also diverse chronologically with burials accounted for in all three of the chronological stages of the Neolithic. Non-monumental burial contexts in the British Neolithic are often overlooked in favour of monumental sites which means that theoretical models generated regarding identities for the period use individuals at monumental sites as a basis (Schulting 2007). It is likely that individuals found within monumental contexts only represent a minority of the total population, an idea that has been suggested since the 1950s (e.g., Piggott 1954). Therefore,

identity theoretical models produced from research surrounding monumental sites are only based upon a minority of the population which is problematic.

It could be that non-monumental burial, particularly pit burials, flat graves, and inhumation cemeteries were a much more normative form of burial. They would certainly have required less effort in terms of both labour and materials and would have been much quicker to organise than the creation of a monumental funerary site. Also, isolated non-monumental burials dotted around the landscape would be much harder to detect archaeologically than a monumental site which may explain why there are disparities in predicted populations for the Neolithic and burials present in the archaeological record. Given the equal rates of representation between males and females for this group of sites it could be suggested that biological sex played no part in the decision-making process behind an individual's inclusion at them. This makes formulating ideas regarding sex-based identities through the analysis of funerary behaviour challenging. However, while deceased males and females may have received comparable funerary rites at non-monumental contexts that does not necessarily mean that gendered identities based on biological sex were not present. As proposed earlier in this chapter sex-based identities can exist within communities during life but become obsolete once death occurs (e.g., in some Sikh communities – Rugg & Parsons 2018: 70). Therefore, it is difficult to come to any conclusions regarding identities at these site types and how biological sex may have affected them.

Early chambered tombs featured male representation in the majority. Other contemporary site types demonstrate a much more equally matched level of male and female distribution. This could suggest that how these sites were used were different and the messages the living were attempting to convey about the deceased were also divergent. In many respects this complements recent aDNA research looking at kinship at the chambered tomb of Hazleton North, Gloucestershire mentioned in the previous chapter. Fowler *et al.* (2022), through the

analysis of the DNA of 35 individuals, found that 27 were all part of the same family group representing five generations. Patrilineal descent appeared to be one of the main elements in deciding who was interred at the tomb and all the intergenerational transmissions were from males. Females included within the tomb were individuals who had reproduced with males from the dominant lineage but interestingly no lineage adult females were present which it is implied could be suggestive of both virilocal burial and female exogamy (*ibid*).

The fact that the data within this research demonstrates a preference for males at chambered tombs does complement the aDNA data acquired from Hazleton North with both suggesting the male identity and lineage was important. It will be interesting to see whether this preference for and preservation of, male lineages is present at other contemporary sites once more research of this type has been carried out. There have been very few instances of direct differences between males and females within the burial population for the British Neolithic. There have also been some inferences made regarding the positioning and placement of males and females within tombs. For example, at West Kennet, Wiltshire, one of the chambers was filled exclusively with adult males (see Piggott 1962; Bayliss *et al.* 2007b). However, these are a rarity. While the demographic data in this research does seem to show that males are favoured for inclusion at early chambered tombs the lifeways data from the previous chapter only demonstrated some subtle differences but nothing substantial. This new aDNA research however represents some clear variations between males and females, in this case genetic divergences, which certainly has implications for identities and their relation to biological sex.

In many ways, the revelations from the research at Hazleton North lend themselves to interpretations regarding chambered tombs and identity that were suggested throughout the 20th century. Donovan (1938) and Keiller & Piggott (1938) suggested that the burials within British Neolithic tombs were collated from related individuals and represented family

lineages. In a similar vein, in the 1950s, Piggott (1954) proposed that the tombs acted as "family vaults" for the ruling tribes. Both these could apply to Hazleton North. Further elucidations regarding the construction of monuments and their links to significant lineages were built upon in the late 20th and early 21st centuries through Sherratt (1990) and Powell (2005), although the latter was concerning Irish court tombs so not strictly British.

In the 1970s, Renfrew suggested that chambered tombs may represent a specific group's claim to the land (Renfrew 1973; 1975; 1981). The fact that most individuals within the tomb at Hazleton North belonged to the same family could infer that the location on which the tomb was built was land which "belonged" to the family. The idea of the ancestors and ancestor worship popularised in the 1990s and early 2000s (e.g., Scott 1992; Barrett 1994; Parker Pearson 2000) could also be applicable. The fact that successive members of the male line were placed within the tomb could suggest that there was an urgency to preserve it within the ancestor realm or land of the deceased. It could be that the presence of male ancestors within tombs helped in fortifying claims to landscape, and territory and they would help protect the living which again lends itself to Renfrew's (1973; 1975; 1981) ideas. What this could mean for male and female identities and gendered identities based on biological sex is difficult to say. It would be easy to propose a male-dominated and patriarchal society being present, but it may not be as simple as that. Chambered tombs are only one of several different site types used within the Early to Middle Neolithic, and other funerary sites exhibit quite different signatures of representation. If chambered tombs were associated with territory and the ownership of the landscape, it could be that male individuals were more connected with this aspect of society whereas female individuals may have been equally as important in other social and cultural spheres.

Data from the late chambered tombs group for males and females was like that of the early ones. This could suggest that similar cultural and social elements were present at these site

types throughout the Neolithic, with a preference for male individuals and, possibly, a persistence of male lineages. Some recent aDNA research on kinship and ancestry has been conducted on Orcadian individuals which substantiates this interpretation. As at Hazleton North, Dulias *et al.* (2022), through the genetic analysis of Neolithic, Bronze Age, and Iron Age individuals also found that male lineages were important. The study itself wanted to test the impact the Bronze Age had on the Orcadian genetic makeup. While other recent research has demonstrated prominent levels of migration to Britain once the Bronze Age commenced (e.g., Olalde *et al.* 2018), Dulias *et al.* (2022) demonstrated that immigration was high in the Bronze Age, but Neolithic male lineages continued to be prioritised. This suggests that the importance of male lineages and by extension the male identity within the Orcadian landscape was an extremely long-lasting cultural/social element during the prehistory of Orkney.

Like both early and late chambered tombs, natural contexts also provided data that showed males to be in the majority at these site types. The fact that most natural context sites are caves and rock shelters is interesting as comparisons between chambered tombs and caves have been proposed in previous research (e.g., Barnatt & Edmonds 2002). It could be that similar social and cultural components regarding the types of individuals that would be buried there were similar at both site types. There are obviously notable differences between the two groups, however. One is natural, the other anthropogenic. Chambered tombs would be prominent parts of the landscape whereas natural places, while they would be known about by local residents, could be hidden from view. With regards to cave use, research in the Irish Neolithic by Dowd (2015: 110) demonstrated that there were variations in techniques used to process, disarticulate, and deposit human remains at chambered tombs and caves and that these divergences showed that both site types were perceived as different and communicated different things. In the previous chapters, it was suggested that caves would be

unique places in the landscape, offering unique experiences and that many divergent cultures proposed that caves were magical places and entrances to other worlds (e.g., Benedict 1935b; Hard & Rose 2004; McCafferty 2012). With this in mind, it is difficult to suggest that caves and chambered tombs would be viewed as the same. Peterson (2019) also proposes that people in the Neolithic would view caves as having their own agency, which would certainly mark them out as different in comparison to other site types. The apparent distinctiveness of caves does suggest that while they may share similar biological sex representation signatures with chambered tombs, the use of the two site types for funerary purposes had quite different meanings. For example, the individuals interred within cave sites may have specific social identities. In the previous chapter, it was theorised that individuals at cave sites may have been more connected to nature and hunting/gathering. If this interpretation is furthered and considers biological sex representation, then more males would have this specific social identity.

6.5.3: Key Results for Age – Are Age Groups Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

The representation ratios for adults and nonadults at the site type groups present very few insights. Most site types fall within the suggested 25%±5% average nonadult representation. There are however some exceptions. Nonadult representation ratios at long barrows and cairns (18%), round barrows and cairns (17%), and non-monumental contexts (16%) are all below 20% (Fig. 6.21). Two site types appear to have higher-than-average nonadult representation. The first, natural contexts, comes with a slight caveat, however. The dataset that includes all osteological data shows nonadult representation at 28%, but the dataset based

on individuals assessed in the modern period exhibits nonadult representation at 35% (Fig. 6.22). This discrepancy does make it difficult to definitively say whether nonadult representation was high at this site type. The second site type which demonstrates high rates of nonadult representation is causewayed enclosures, with nonadults being at 39% (Fig. 6.23).

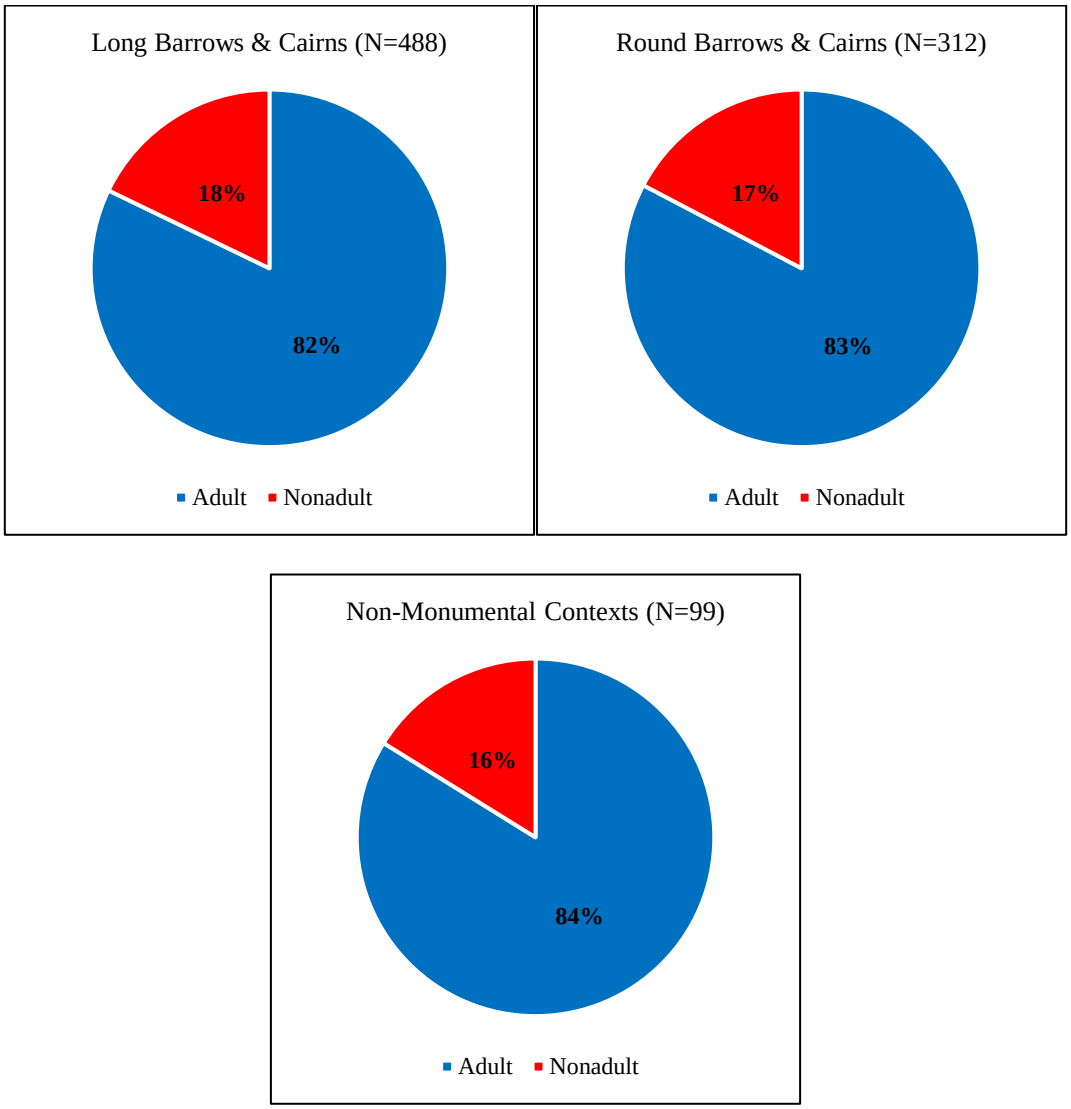

Figure 6.21 The ratio of representation between adults and nonadults for long barrows and cairns (top left), round barrows and cairns (top right), and non-monumental contexts (bottom).

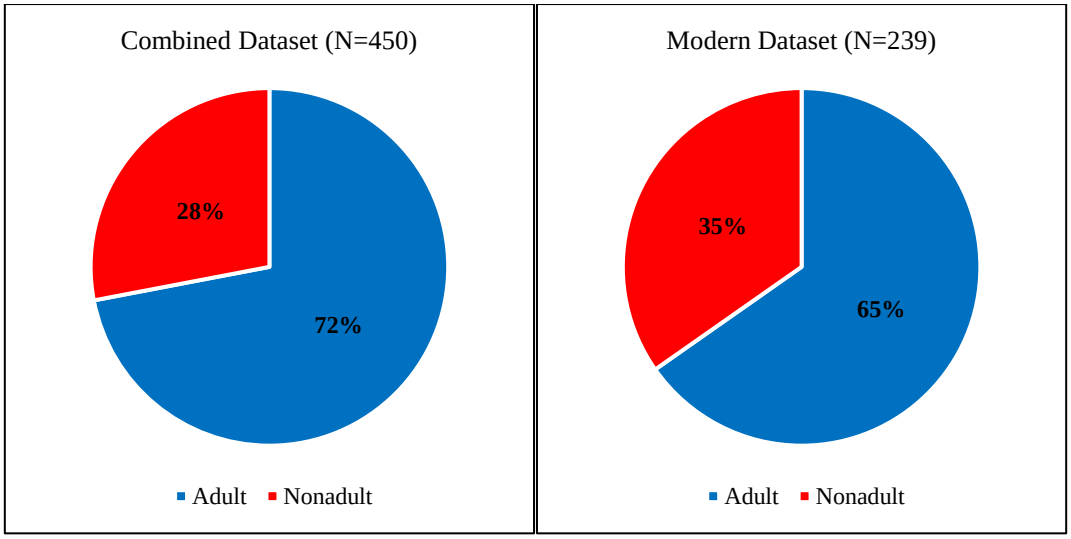

Figure 6.22 The ratio of representation between adults and nonadults for natural contexts using both the combined (left) and modern datasets (right).

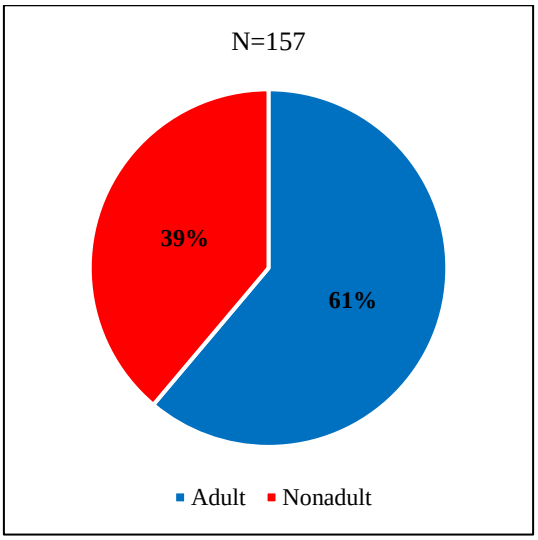

Figure 6.23 The ratio of representation between adults and nonadults for causewayed enclosures.

For both the nonadult and adult age groups there does not appear to be many trends of note with regards to site types. With nonadult age groups, as has been seen in previous sections, juveniles form the bulk of the individuals at each site type. The exception to this is with annular monuments in which adolescents are prominent. However, the site of Banbury Lane 1 is highly influential in this and when it is removed from the dataset annular monuments

appear to conform to the other site types. For adult age groups again, younger adults are most numerous in the vast majority of site types. At round barrows and cairns, there are slightly more older adults, but this is only marginal. Therefore, it can be suggested that with regard to age groups, most site types conform to predicted mortality rates for pre-industrial farming societies (e.g., Chamberlain 2005; 2007).

6.5.4: Discussion for Age – Are Age Groups Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

There was a particularly low representation of nonadults at long and round barrows and cairns as well as non-monumental contexts. As mentioned in the previous section an explanation for the low representation of nonadults within a funerary context could be related to them not having the correct social identity and/or level of personhood, as this is linked to age and ageing. This idea may also be applicable here. At these site types, it could be that only specific types of individuals with specific identities may have been chosen to be included. One identity taxonomy that could be linked to these identities could be the age of the individual. If an individual has not yet reached the specified age or milestone, they may not be able to receive their funerary rites at these sites and may have had alternative mortuary treatment. Of course, it must be considered that many nonadults were also included within these site-type groups so other factors such as biological sex, rank, or role may have been considered.

Two of the site types, natural contexts, and causewayed enclosures, seemed to demonstrate higher than average nonadult representation. The discrepancies between the combined and modern datasets regarding nonadult representation at natural contexts make it difficult to

definitively suggest that representation was higher than average. However, both within this chapter and in the previous chapter natural contexts, particularly caves and rockshelters have been shown to be unique in the types of individuals that were provided funerary treatment within them. If nonadult individuals were buried within caves and rockshelters in higher numbers, then this would add to the unusual funerary activity found within them during the British Neolithic. Interestingly comparative demographic research between Neolithic cave and megalithic sites in the Ebro Valley, Spain also demonstrated a higher proportion of nonadult individuals in the cave sites which, it was suggested, was a deliberate cultural choice (Fernández-Crespo & de la Rúa 2016). If a similar thing was happening within Britain, then this would suggest that the age of an individual was an important social/cultural element of their identity.

Causewayed enclosures are an unusual site in relation to funerary practices in that they are not funerary sites per se. There have been a multitude of interpretations regarding the purpose of causewayed enclosures ranging from functional uses such as settlements and seasonal meeting places to more ritualistic uses such as places to slaughter/sacrifice animals and places where the excarnation of the deceased can take place (see Whittle *et al.* 2011c: 5 – 12). Either way what can be suggested is that the deposition of human remains was not the focus of these sites. While there are plenty of causewayed enclosures that include human remains within them, there are equally plenty of them that have no human remains at all. When human remains are included, something divergent is happening compared to other contemporary sites. In the previous chapter, it was established that individuals with low rates of disease types tended to be found at them, however, congenital conditions were higher for females and nonadults. These differences in health could suggest that the people found at causewayed enclosures were in some way different to other members of society. The high

rate of nonadult representation adds to the unusual patterns that have been recognised with individuals deposited at causewayed enclosures.

While the divergent patterns concerning age and health present at causewayed enclosures do suggest that the individuals who were interred within them were in some way different, it is difficult to acknowledge whether these differences were viewed in a negative or positive light during the Neolithic with the limited amount of archaeological evidence. If these differences were viewed negatively, then they may represent "deviant burials." Deviant burials are defined as individuals buried in a way different to what was customary with numerous reasons accounted for such as being an enemy or criminal, being physically or mentally disabled, or being an outsider or pariah to society (Murphy 2008). Nonadults have also been classed as deviants in past societies due to certain cultural and religious beliefs. For example, in Ireland, a type of burial ground called a Cilliní was used to primarily bury unbaptised children however suicide victims, criminals, people with disabilities, strangers and the shipwrecked would also be included (Donnelly & Murphy 2008).

If the individuals present at causewayed enclosures were deposited there as a form of deviant burial, then it must be questioned as to why the living felt it necessary to use these differential funerary rites for these individuals. An explanation for this could be the concept of the "bad death" which was discussed in Chapter Three. A bad death is defined as a premature death such as a child death, a suicide, illness, or violent death (Fowler 2010b). In many societies, these types of death are not perceived as being natural but instead, a result of witchcraft or the actions of spirits, and the souls of the individuals who have suffered these deaths need to be contained to further protect the living (*ibid*). In past societies the living could have very real fears and anxieties regarding the malevolency of souls/spirits (see Taylor 2002: 27). So, it could be that the individuals deposited at causewayed enclosures were viewed as having a bad death. This meant that they were required to receive differential funerary treatment at this

site type for the living to protect themselves from whatever supernatural agent it was within their belief systems which they thought may have contributed towards this death.

There are examples of specific individuals at causewayed enclosures that would fit the criteria proposed above for a deviant burial/bad death. Two nonadult individuals were discovered in the main ditch under a flint cairn in an articulated state at Hambledon Hill, Dorset (Mercer & Healy 2008: 515). Both individuals were buried with grave goods, including carved pieces of chalk, bone beads and flint fragments, which were placed around the cranial region. Osteological analysis of the two individuals revealed they both had a condition in which the cranial sutures had prematurely fused causing a deformity and, certainly in the case of one of the individuals, severe disabilities (McKinley 2008). At Whitehawk Camp, Sussex, a young adult female had a persistent metopic suture (Cansfield 2019). While this would not have caused an impairment it would be a visible deformity to the face. Interestingly this individual also possibly suffered violent trauma with evidence of blunt force trauma to the right parietal (*ibid*). Finally, a young middle adult male at Yeoveney Lodge, while he had no notable medical conditions, appears to have suffered a violent death with evidence of a fracture to the cranium and possible decapitation present (Cansfield 2019).

These examples would certainly fit within the remit of premature or bad deaths. At Hambledon Hill, the two individuals died during childhood and had extensive medical issues, and at Whitehawk Camp and Yeoveney Lodge, both individuals appear to have suffered violent trauma which likely contributed to their death. Likewise, the physical deformities caused by the medical conditions of the two nonadults at Hambledon Hill and the young adult female at Whitehawk camp would have marked these individuals out as different to the rest of the group, which may have led to them being othered and a form of deviant burial being applicable. However, it is important to consider that the differences these individuals had

with the rest of the social group may not necessarily have been viewed negatively. The physical traits and characteristics of these people may have been celebrated and viewed as culturally important. The differential funerary treatment they received may have been a way in which to communicate and continue this importance in death. Interestingly, the lifeways data from the previous chapter demonstrates low levels of most disease types. This suggests that individuals interred at causewayed enclosures were in particularly good health, more so than at other site types. If a certain group were viewed negatively, it could be argued that their general health may also be impacted and that does not seem to be the case here. Whether individuals deposited at causewayed enclosures were done so due to positive or negative intentions is challenging to state. What can be said however is that both the lifeways data and demographic data regarding age do suggest that these individuals were different and the fact that they received funerary rites at a site not usually funerary in nature does imply that they had very specific social and cultural identities that needed to be represented at this site type.

6.6: Demographic Representation for Different Mortuary Practices – Single Burials

As mentioned in Chapter Four, the definition of single burials was kept quite broad for this research. As well as the single articulated individual in its own grave or context, disarticulated material from a single individual was also considered, as well as individuals who were part of a site in which multiple individuals were interred, provided it could be firmly established that they were placed at the site on their own and this occurred in a chronologically distinct period. Single burials were separated into two distinct groups, single articulated burials, and single disarticulated burials. This was decided upon as there might be

distinct cultural meanings behind each mortuary practice, so it was thought important to separate the two and see if any divergences were present when compared.

6.6.1: Key Results for Biological Sex – Are Males and Females Represented Differently Within Single Burial Funerary Contexts in the Neolithic?

The rates of representation for males and females are like what was seen for the Neolithic as a whole. Single burials also demonstrate many similarities with non-monumental contexts. This is to be expected given that many of the burials included within the non-monumental group are single burials. Both the single articulated and single disarticulated produce similar representation signatures with males being at 57% and females at 43% for the former and 56% and 44% for the latter (Fig. 6.24).

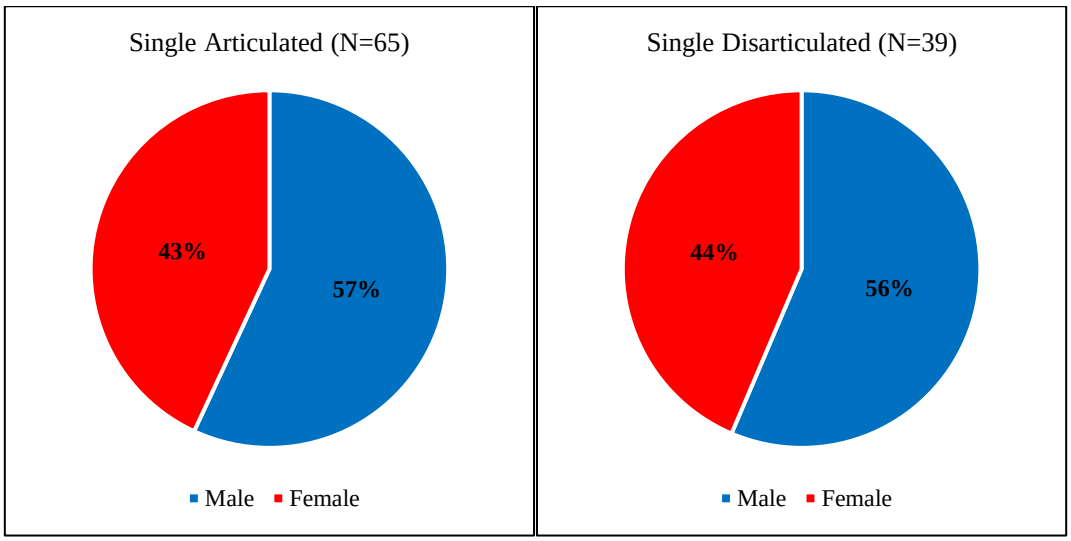

Figure 6.24 The ratio of representation between males and females for single articulated (left) and single disarticulated burials (right).

Some differentiation can be found if the dataset is further subdivided. Burials which can be described as "token" deposits of individuals at settlement sites and flint mine shafts, demonstrate females to be much better represented at 70% compared to the 30% of males (Fig. 6.25), though the sample size for flint mines and settlement sites is just 22 individuals and ten sexed individuals.

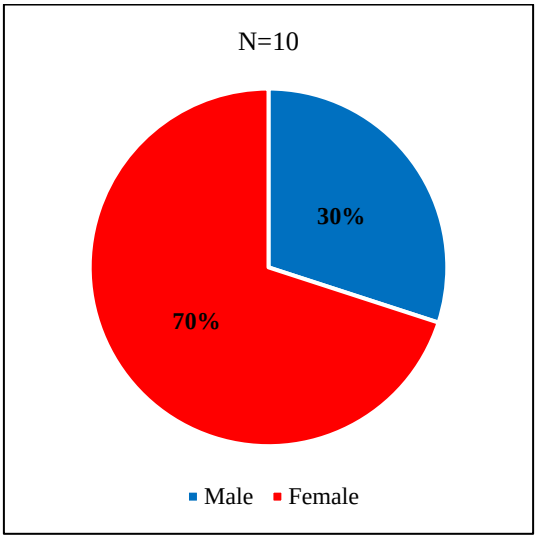

Figure 6.25 The ratio of representation between males and females for token deposits.

6.6.2: Discussion for Biological Sex – Are Males and Females Represented Differently Within Single Burial Funerary Contexts in the Neolithic?

This fairly even distribution of males and females could imply that biological sex was not a key factor in how individuals were chosen for this type of mortuary practice and that other aspects of identity were considered instead. That is not to say that biological sex was not an important part of identity. Just that it was not crucial to these types of funerary rites. The deposition of human remains at settlement and domestic sites and possible meanings behind the activity have been discussed elsewhere for the subsequent Bronze and Iron Ages of

Britain (e.g., Brück 2006; Armit & Ginn 2007; Brudenell & Cooper 2008; Davies 2022) but not really for the Neolithic, possibly due to the small sample size. With regards to the deposition of human remains at Neolithic domestic sites in the Balkans region of Europe, Ion (2020) suggests that the discovery of human remains within settlement sites should not be viewed as unusual or non-funerary, they should instead be perceived as signs of multifaceted funerary practices which aid in the formation and management of collective identities. The deceased would become a central part of the settlement which would help in establishing formidable and strong ancestors who could intervene in the world of the living (*ibid*). So, by placing the deceased, or parts of the deceased's body within a settlement site, the living may be attempting to keep the spirit of the individual within the settlement. It could be that these individuals had traits or identities in life that were socially and/or culturally important to the group and these were deemed as equally important in death.

If this idea is applied to British Neolithic settlement sites, then being female and an aspect of the female identity was one of these crucial factors that helped to determine if an individual was to be placed at a settlement site. While it may be a cliched idea, it could be that females were more associated with the domestic sphere in Neolithic Britain, and it was considered more important to include them at sites associated with the domestic such as settlements. Flint mineshafts present certain problems when interpreting the human remains discovered within them. While some were placed there as a deliberate act such as a male individual at Cissbury VI who was positioned on his right side and accompanied by grave goods, for some such as a female individual at Cissbury 27 it is not so clear-cut, and this individual may have in fact died in an accident within the mine shaft (see Holgate 1991; Cansfield 2019). Interpretations regarding human remains within mineshafts are few. Holgate (1991: 128 – 137) suggests connections to landscape and the mines themselves may be contributing factors. It could be that female individuals were more involved in the mining of flint. Some of

the shafts discovered are quite narrow and tight and, generally speaking, the smaller frame of biological females may have been more suited to working in these confined spaces.

6.6.3: Key Results for Age – Are Divergent Age Groups Represented Differently Within Single Burial Funerary Contexts in the Neolithic?

Nonadults have particularly low rates of representation in both the single articulated group at 9% and the single disarticulated group at 12% (Fig. 6.26). However, the sample sizes for nonadult single burials are small with just 11 individuals present for the articulated group and 14 for the disarticulated group.

For both the nonadult and adult age groups, the rates of representation for single articulated burials seem to follow the proposed average mortality rates for pre-industrial farming societies (Chamberlain 2005; 2007) in that younger nonadults are more prominent and younger adults are more numerous. With disarticulated single burials, however, there is a higher proportion of adolescent individuals within the nonadult group (Fig. 6.27). Again, it is worth considering that these are both small sample sizes, however.

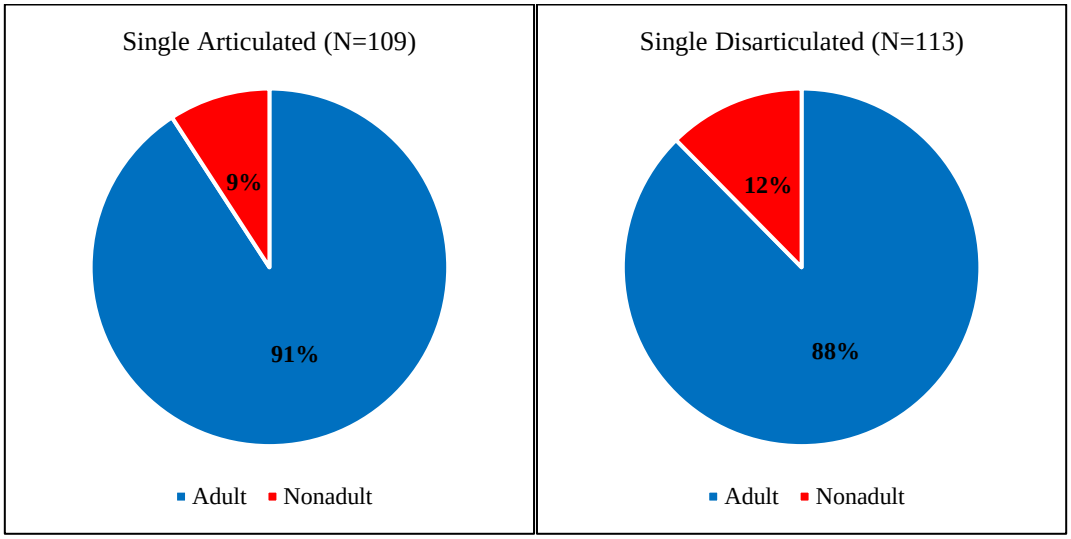

Figure 6.26 The ratio of representation between adults and nonadults for single articulated (left) and single disarticulated burials (right).

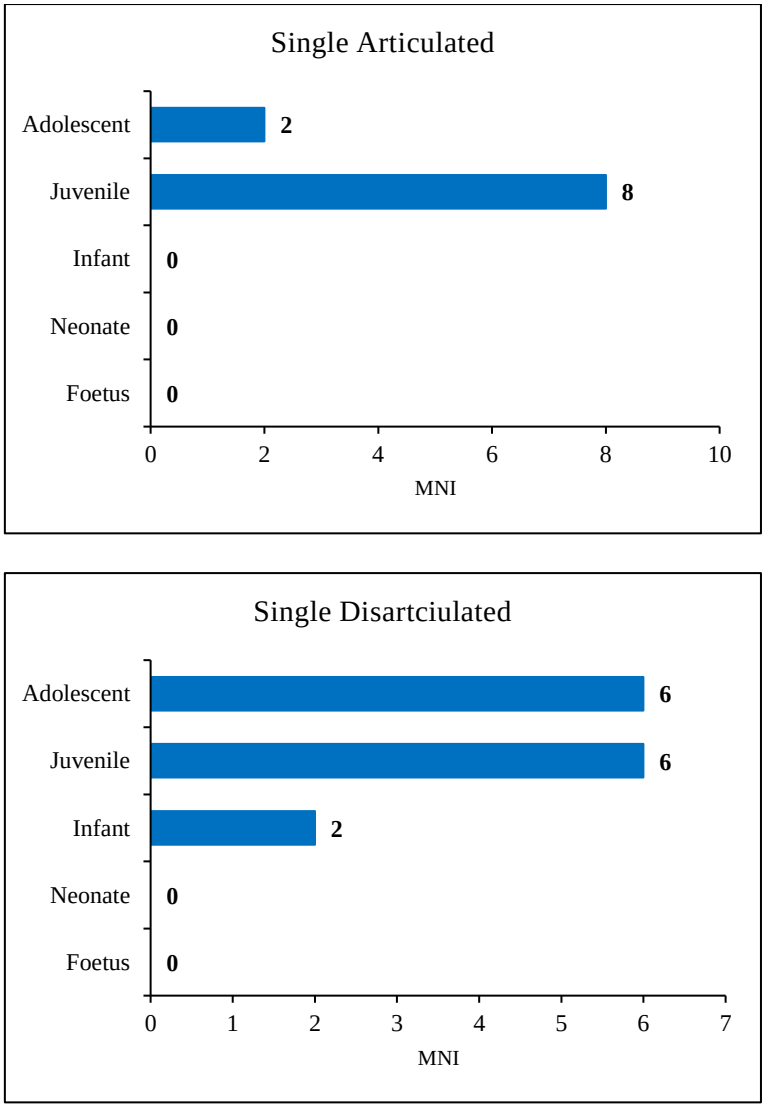

Figure 6.27 The MNIs for the nonadult age groups for single articulated (top) and single disarticulated burials (bottom).

6.6.4: Discussion for Age – Are Divergent Age Groups Represented Differently Within Single Burial Funerary Contexts in the Neolithic?

As proposed throughout this chapter, low representation of nonadult individuals could denote variations of funerary rites based upon age which has implications for how age affects identity and personhood. However, with single burials issues of preservation must be considered much more. Nonadult individuals are often poorly represented within

archaeological assemblages for reasons including divergent physiochemical properties within their smaller fragile bones which may affect preservation, or the skillsets of the excavators who may miss smaller skeletal elements during excavation (see Cox & Mays 2000: 11). With this in mind, and the fact that single burials within the British Neolithic are largely from non-monumental deposits that are difficult to detect archaeologically, it may make sense that nonadult representation is low. This would particularly be the case for the single disarticulated burials. Many of the single disarticulated burials are represented by single isolated skeletal elements. As nonadult bones are much smaller, more fragile, and less likely to preserve then this may mean that they would be less likely to be recovered during excavation. This may also be a reason why adolescents can be found in larger numbers within this group. The adolescent skeleton is much more developed and may not suffer the issues which skeletons and/or skeletal elements on younger nonadults do.

6.7: Demographic Representation for Different Mortuary Practices – Cremation

Data from cremated individuals was treated in the same way as non-cremated individuals and the comparative groups of the Neolithic as a whole, the chronological stages of the Neolithic, Neolithic regions, and site types were all used. Cremated remains are less abundant than their non-cremated counterparts and demographic information regarding them is much less consistent due to the destructive nature the cremation process has on human bone. This meant that sample sizes within some of the comparative groups were small and mainly consisted of individuals of undetermined sex and/or age. Therefore, the results for demographic

representation from the cremated remains are not as in-depth as was seen with non-cremated ones. Nevertheless, the data that was viable produced some interesting trends.

6.7.1: Demographic Representation from Cremated Funerary Deposits for Neolithic as a Whole

6.7.1.1: Key Results for Biological Sex – Is the Representation of Cremated Males and Females in Funerary Contexts Different in the Neolithic?

For the Neolithic as a whole, females are better represented at 60% with males at 40% in the combined dataset and females at 64% with males at 36% in the dataset of individuals assessed in the modern period. However, these data are complicated by two factors. Firstly, there may be a slight bias towards identifying females over males in cremation assemblages (see Willis 2019: 159). Secondly, the assemblage is dominated by the site of West Stow, Suffolk, which had 80 cremated individuals, of which 31 were female (West 1990; Willis 2019: 242 – 250). West Stow influences the dataset, and when the site is omitted, female representation drops to 51% (combined dataset) and 54% (modern dataset) (Fig. 6.28).

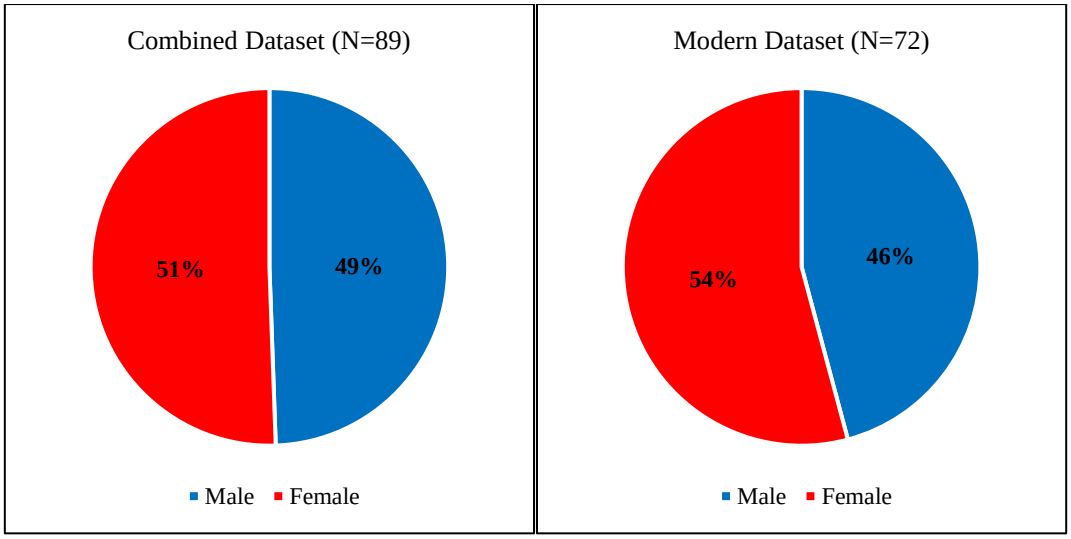

Figure 6.28 The ratio of representation between males and females for the Neolithic, excluding West Stow, using the combined (left) and modern datasets (right).

6.7.1.2: Discussion for Biological Sex – Is the Representation of Cremated Males and Females in Funerary Contexts Different in the Neolithic?

The dataset for the Neolithic as a whole appears to demonstrate that female individuals are in a slight majority for the mortuary practice. However, given the two issues of the possible female bias when determining sex from cremated remains as well as the site of West Stow, it is safer to propose relatively equal rates of representation between the biological sexes. This could suggest that being male or female played no part in the decision-making process regarding whether an individual would be cremated or not and that other aspects of an individual's identity such as age, role, status, etc. may have been more important.

6.7.1.3: Discussion for Age – Is the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts Divergent in the Neolithic?

For the Neolithic as a whole the representation of nonadults falls within range of the 25%±5% average suggested earlier in this chapter at 29%.

6.7.1.4: Discussion for Age – Is the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts Divergent in the Neolithic?

The levels of nonadult representation for cremated remains are like their non-cremated counterparts. Both fall within the range of 25%±5% which represents the average found within this research. The fact that both cremations and inhumations are so similar with regards to nonadults could suggest that age was not a significant part of deciding which type of funerary rites an individual received and that other social and cultural elements played a more significant role.

6.7.2: Demographic Representation from Cremated Funerary Deposits in the Chronological Stages of the Neolithic

6.7.2.1: Key Results for Biological Sex – Is There Chronological Variation in the Representation of Cremated Males and Females in Funerary Contexts in the Neolithic?

When the Neolithic is broken down into the three chronological stages relatively equal rates of representation are present throughout. In the Early Neolithic male representation was marginally higher at 53% compared to the female 47% in the combined dataset. Unfortunately, the sample size for the modern dataset was too small to be included in this group. In the Middle Neolithic female representation significantly increased to 70%. However, West Stow has a major impact on this number. When West Stow is removed from the dataset females are marginally better represented at 52% (Fig. 6.29).

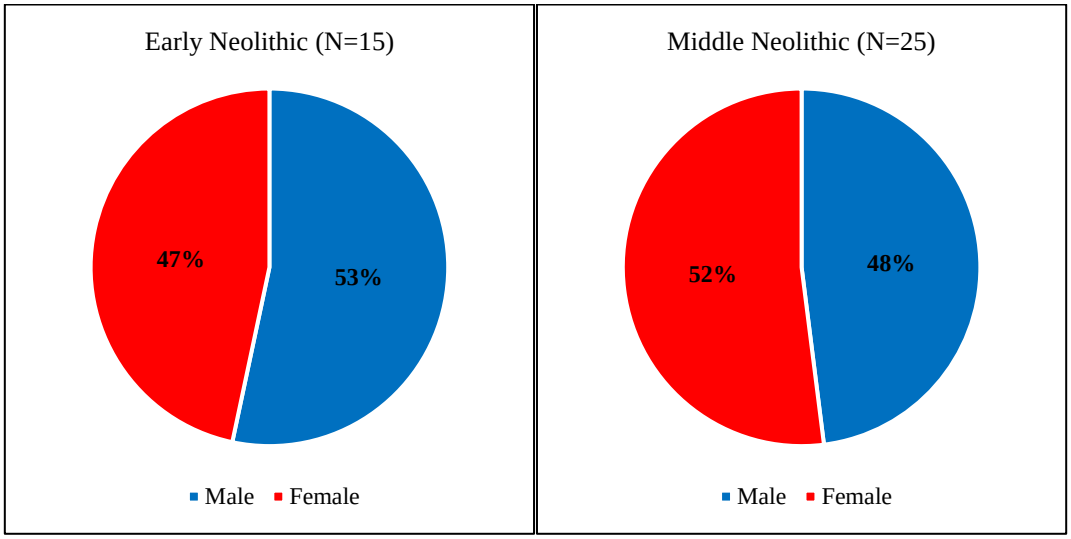

Figure 6.29 The ratio of representation between males and females for the Early (left) and Middle Neolithic (right), with the Middle Neolithic excluding West Stow from the dataset.

For the Late Neolithic, rates of representation remain largely unchanged. There is a slight divergence between the modern dataset and the one using all available osteological data with the former demonstrating females at 55% and males 45%, while in the latter females are at 52% and males 48% (Fig. 6.30).

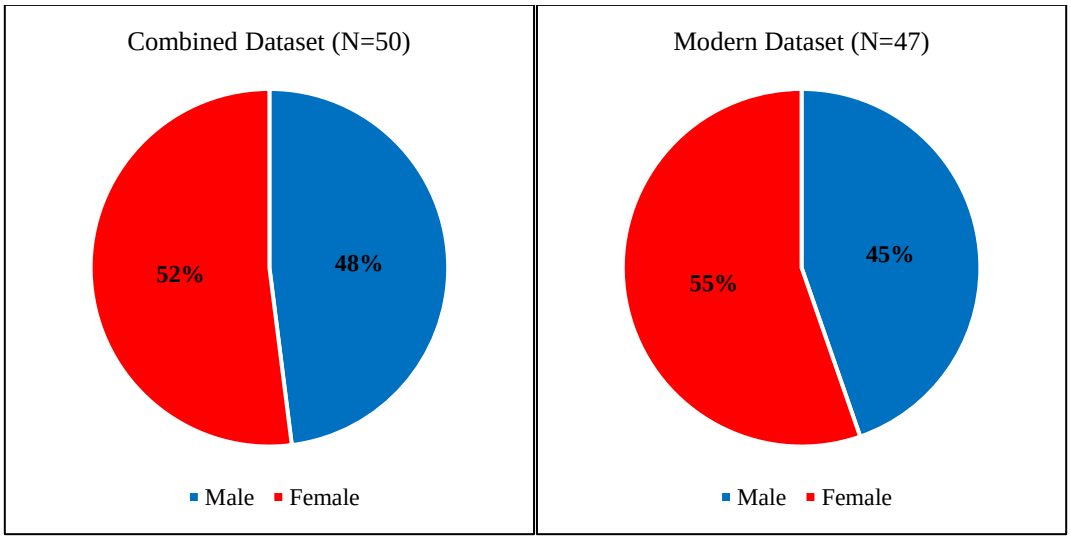

Figure 6.30 The ratio of representation between males and females for the Late Neolithic using the combined (left) and modern datasets (right.)

Direct comparisons between the numbers of individuals who were cremated against those who were not within the British Neolithic funerary record do indicate an interesting trend. For the Neolithic as a whole 12% of the total number of females in the database were cremated compared to just 8% of males (excluding Banbury Lane 1 and West Stow) (Fig. 6.31). When this is broken down into the chronological stages just 3% of both males and females were represented by cremated remains in the Early Neolithic (Fig. 6.32). By the Middle Neolithic, 9% of females were cremated compared to 6% of males (excluding both Banbury Lane 1 and West Stow) (Fig. 6.33). The Late Neolithic has a significant increase for both males and females with the former being at 42% and the latter 81% (Fig. 6.34).

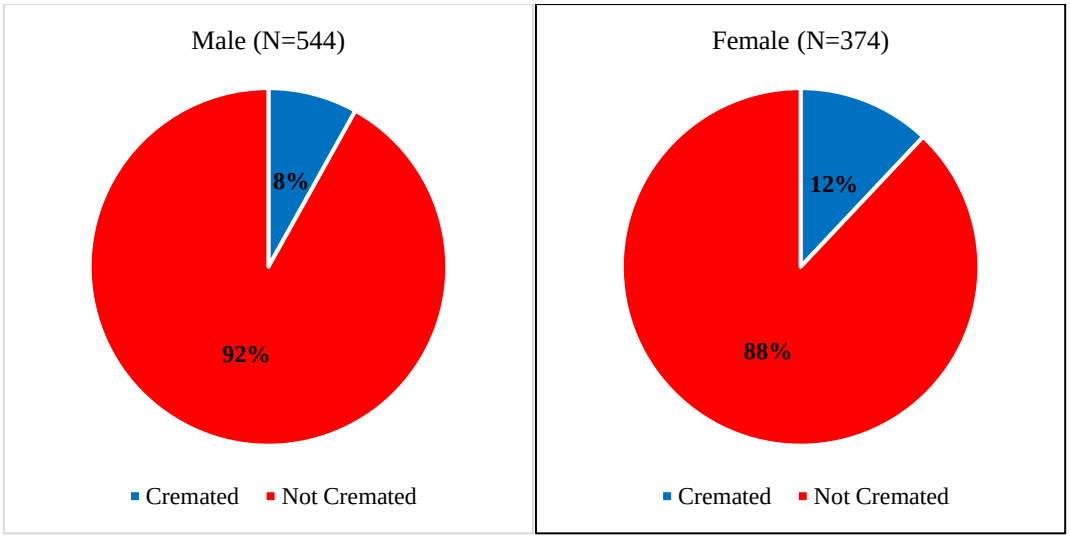

Figure 6.31 The ratio of cremated individuals to non-cremated individuals for males (left) and females (right) for the Neolithic.

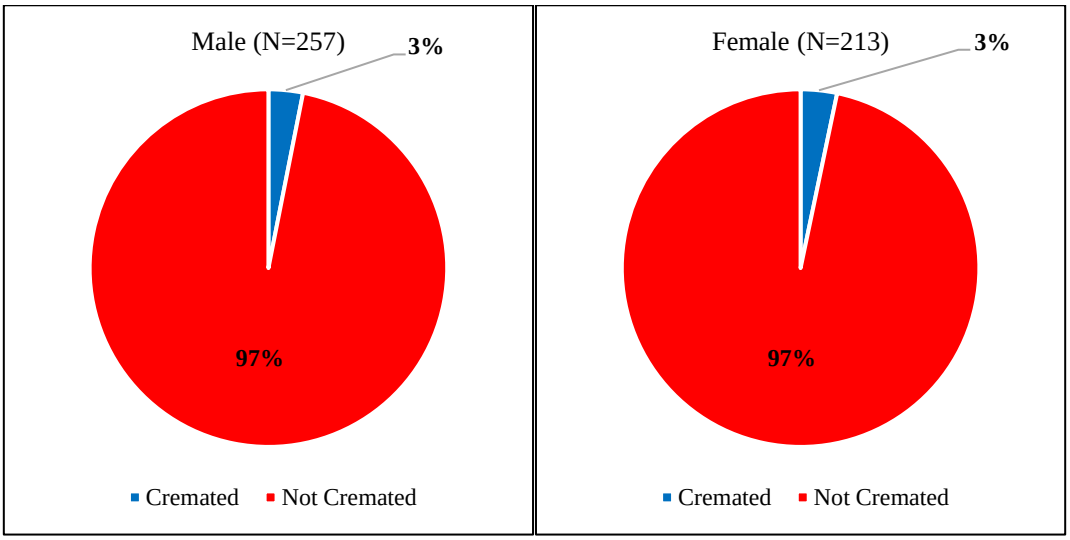

Figure 6.32 The ratio of cremated individuals to non-cremated individuals for males (left) and females (right) for the Early Neolithic.

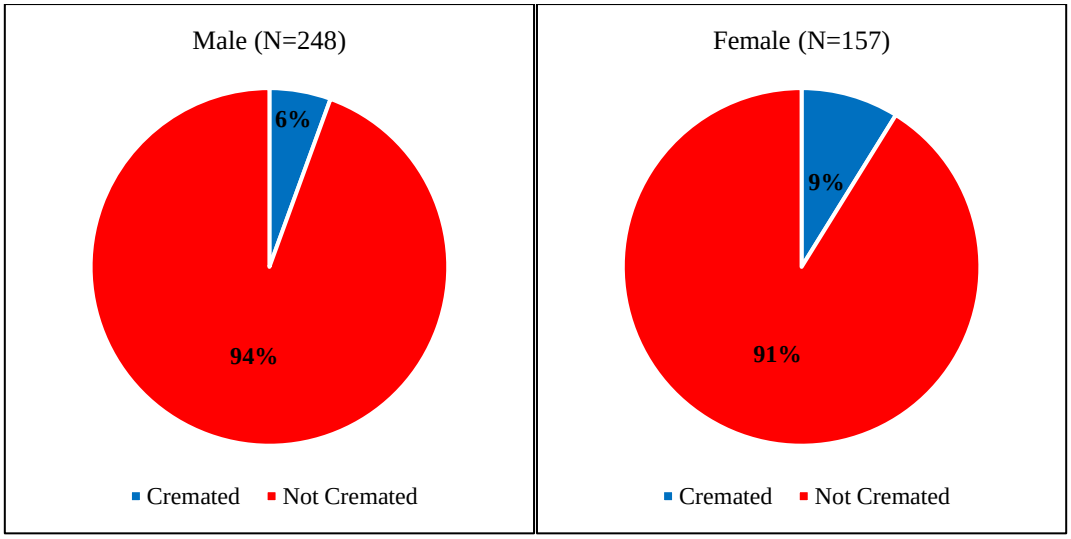

Figure 6.33 The ratio of cremated individuals to non-cremated individuals for males (left) and females (right) for the Middle Neolithic.

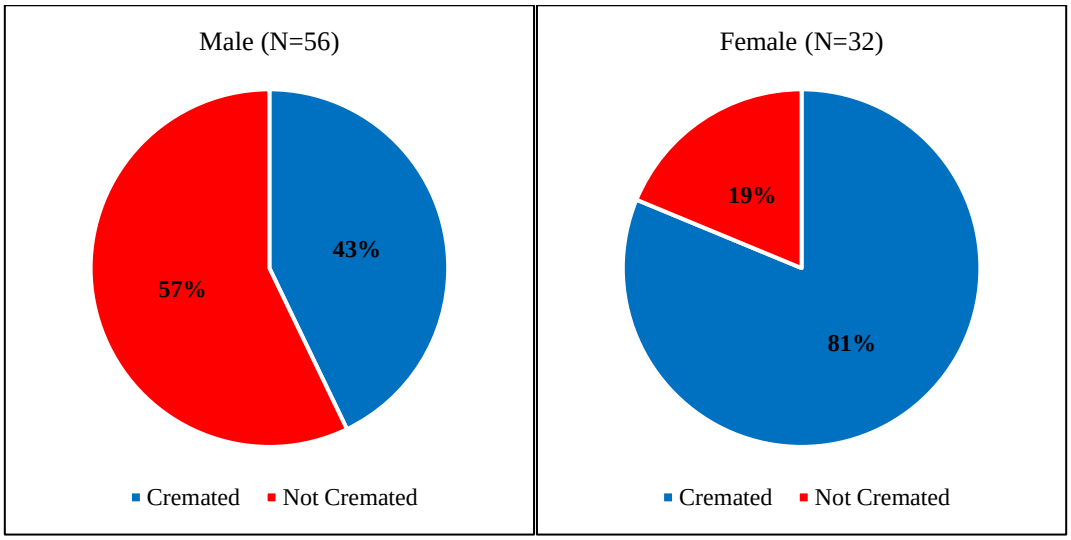

Figure 6.34 The ratio of cremated individuals to non-cremated individuals for males (left) and females (right) for the Late Neolithic.

6.7.2.2: Discussion for Biological Sex – Is There Chronological Variation in the Representation of Cremated Males and Females in Funerary Contexts in the Neolithic?

Cremated remains from the Early Neolithic have a similar biological sex representation ratio as non-cremated remains. This could imply similar sex-based cultural motives behind both mortuary practices, with biological sex possibly being a lesser factor in the decision-making process behind an individual's funerary rites. For the Middle and Late Neolithic females have a slim majority (when West Stow is removed from the dataset for the Middle) in relation to the representation of cremated remains. However, if one considers the possible female bias in the determining of sex for cremated remains (see Willis 2019: 159) this likely demonstrates a relatively equal rate of representation between the biological sexes. So, unlike non-cremated remains where male representation increased as the Neolithic progressed, the representation of males and females remained largely stable throughout the period. Females may have seen some marginal increases as the Neolithic developed but given the complexities surrounding the determination of sex for cremated remains, as well as the very closely matched percentages, it would be difficult to propose this with any certainty.

When the levels of cremated individuals were compared against the levels of non-cremated individuals some more sex-based differences were revealed. On the whole, females were more likely to be cremated than males during the Neolithic and this became much more prominent as the period progressed. This pattern seems to continue into the Early Bronze Age in which females again are more likely to be cremated than males (see Sofaer Derevenski 2002; Brück 2014). The fact that to some extent biological sex may dictate the kind of mortuary practice an individual would receive during the British Neolithic suggests that

aspects of male and female identities may have been essential elements in the social and cultural spheres.

The destructive nature of cremation makes it much more challenging to develop interpretations regarding identity from them. This is especially the case for Neolithic Britain where cremated remains are often deposited without an urn or grave goods, and are part of a multiple burial, which makes recognising individuals within assemblages challenging. In the latter parts of the 20th century, with regards to Early Bronze Age burials, it was proposed that because females were more likely to be cremated, a mortuary practice deemed to be of lower status than inhumation, as well as more likely to be deposited in secondary positions within funerary sites, males held higher social positions than their female counterparts (e.g., Pierpoint 1980; Mizoguchi 1993). Interpretations such as these have of course been critiqued in more recent years. For example, Brück (2014) demonstrated that many of the models regarding biological sex and mortuary practices for Early Bronze Age Britain were generalisations and both males and females received inhumations and cremations, and both could have grave goods and be placed in primary positions within monumental sites. They also did not consider the time and effort cremation required from the living. This, she suggests, demonstrates that cremation was not an easier and quicker option and that biological sex was not the only consideration with regards to mortuary practices and other elements of identity were just as important (*ibid*). The trends seen within this research would make it easy to suggest a similar "male-dominated" scenario for Neolithic Britain given some of the trends seen within this chapter. For example, non-cremated males were preferred over females in sites such as chambered tombs which would have been expensive to organise and construct and could tentatively imply some degree of centralised power. Also, the fact that a preference for preserving specific male lineages is present at certain sites (e.g., Fowler *et al.* 2022; Dulias *et al.* 2022) suggests that some males and their lineages were judged important

enough to be preserved within the funerary sphere. The fact that some females also have divergent mortuary treatment, in this case, cremation, a practice often thought to be of less importance than inhumation could substantiate the idea of a male-dominated society.

However, this is far too simplistic. While modern-day biases may present cremation as a "cheaper option," in past societies, it was likely to be an expensive endeavour both in terms of time and resources (McKinley 2006). Ethnographic research also demonstrates that cremation was a practice often reserved for elite members of society (e.g., Metcalfe & Huntington 1991: 141). Looking more directly at the British Neolithic the fact that cremation is a much less used practice than inhumation could be indicative of only select individuals receiving this type of mortuary practice. Also, there is not a direct binary between the different mortuary practices, both males and females receive cremation and inhumation, albeit in differing levels. Therefore, it would be foolish to propose that one mortuary practice is superior to the other. With these factors in mind, it is difficult to suggest any links between status and biological sex and type of mortuary treatment. Given that cremation was the more uncommon mortuary practice during the British Neolithic it could suggest that only certain individuals with specific identities were chosen to receive these types of funerary rites and, as the Neolithic progressed, it was more likely that these individuals with these identities were female.

6.7.2.3: Key Results for Age –Is There Chronological Variation in the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts in the Neolithic?

The chronological periods are very much in line with the 25%±5% average suggested for nonadult representation. Both the Early and Late Neolithic exhibited rates of 31% and 29% respectively. In the Middle Neolithic, there does seem to be a slight dip in nonadult representation with a rate of representation of 25%.

6.7.2.4: Discussion for Age – Is There Chronological Variation in the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts in the Neolithic?

All three chronological stages demonstrated similar rates of nonadult representation, suggesting that there was minor change throughout the period with regards to the levels at which nonadults were being cremated. These rates of representation were marginally higher than what was seen with the non-cremated remains. This was especially the case with the Early Neolithic which saw 22% for non-cremated remains and 31% for cremated remains. This could demonstrate that nonadult individuals were slightly more likely to receive cremation as their funerary rites than inhumation. This implies that age could certainly be a factor in deciding what mortuary practices an individual received which could denote its importance in the formation of identities.

6.7.3: Demographic Representation for Cremated Deposits from the Neolithic Regions of Britain

Due to small sample sizes, only five of the Neolithic regions produced enough viable data suitable for comparison. These are East Yorkshire-Southeast Northumbria, Fife-Tayside, Isle of Man, North Wales, and Wessex.

6.7.3.1: Key Results for Biological Sex – Are There Any Regionally Based Differences in the Representation of Cremated Males and Females in Funerary Contexts in the Neolithic?

For the East Yorkshire-Southeast Northumbria region males were the better-represented group at 58%, a similar rate to what was seen with non-cremated remains. The Wessex region is the most populous one both in terms of number of individuals, site types, and chronological diversity. Therefore, it is understandable that its rates of representation, which places females at 53% and males at 47%, are very much a mirror image of the Neolithic as a whole, at least when West Stow is removed from the dataset, and this shows its influence on the dataset. Fife-Tayside and the Isle of Man have identical representation signatures which demonstrate males to be marginally better represented at 56% with females at 44%, and the region of North Wales demonstrates females to be at 67% and males at 33% (Fig. 6.35). It must be noted that these final three regions do have small sample sizes, however. Fife-Tayside only includes 15 sexed individuals, and both the Isle of Man and North Wales contain nine sexed individuals, and this does affect the significance of the statistics and they could be prone to change if more data is procured in the future.

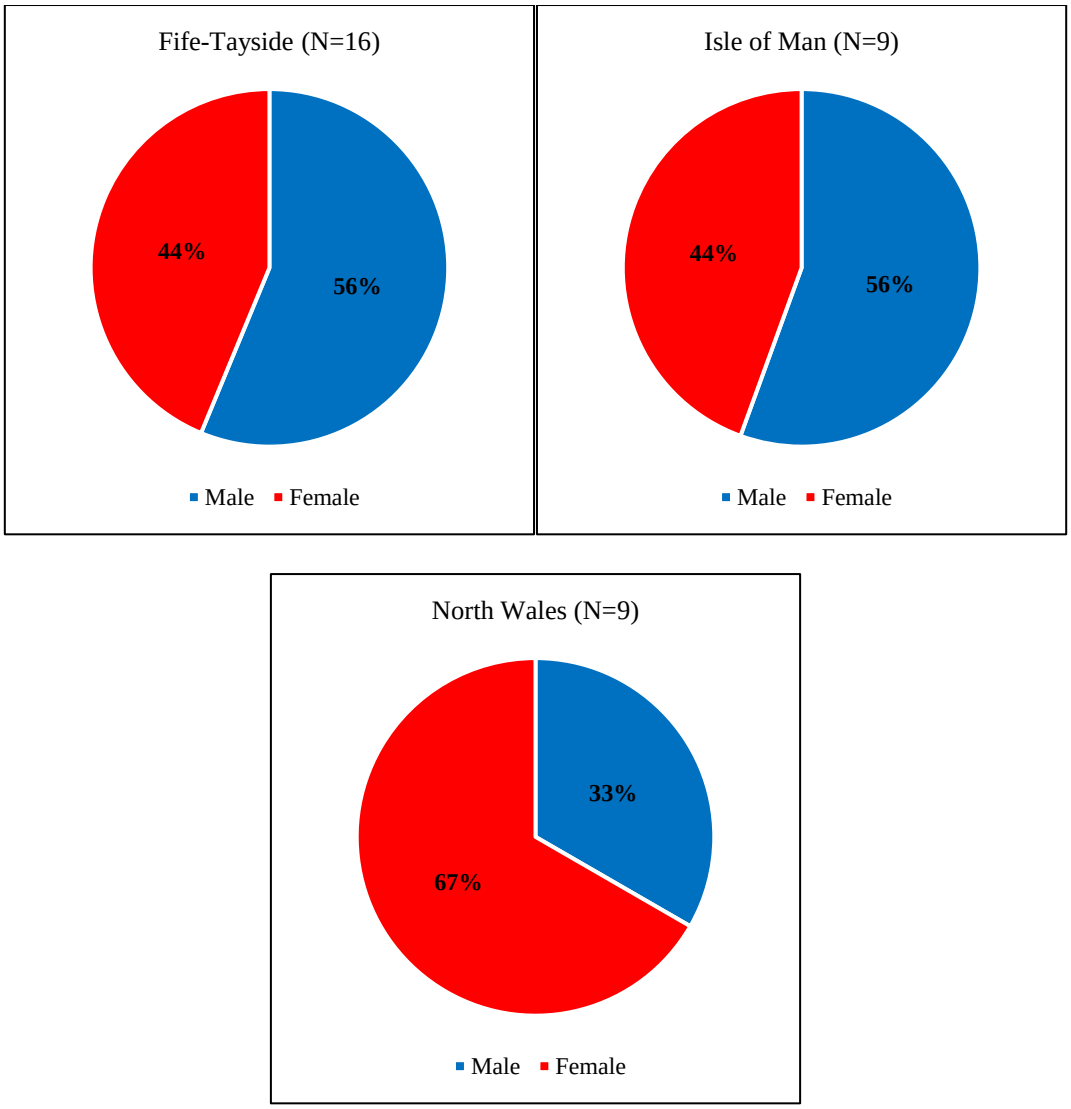

Figure 6.35 The ratio of representation between males and females for Fife-Tayside (top left), Isle of Man (top right), and North Wales (bottom).

6.7.3.2: Discussion for Biological Sex – Are There Any Regionally Based Differences in the Representation of Cremated Males and Females in Funerary Contexts in the Neolithic?

For the East Yorkshire-Southeast Northumbria region, the male-to-female ratios for both the cremated and non-cremated remains are similar with the former being 58% to 42% and the latter 57% to 43%. This could suggest little differentiation between the two mortuary practices with regards to male and female selection and that similar social and cultural processes applied to both. The non-cremated remains from Wessex had males at 58% which could suggest slight differences between who was cremated and who received an inhumation within the region, with females being marginally preferred over males for the former. Again, this may indicate that biological sex was a factor of consideration with regard to what mortuary practices an individual received which could imply that it held a certain weight in relation to an individual's identity.

Two of the five regions, Fife-Tayside, and the Isle of Man, were not included in the non-cremated dataset due to small numbers of non-cremated individuals present. Cremation appears to be the established mortuary practice carried out in these two areas, at least from the sites that are known so far. Interestingly, for both regions, a sizeable proportion of the sites are dated to the latter parts of the Neolithic. This means there is a contrast between what was happening within these regions during the Middle and Late Neolithic in which males were in the majority and what was happening within the Middle and Late Neolithic in general in which females were marginally in the majority. This could suggest some areas of Neolithic Britain had divergent viewpoints on biological sex and how this affects mortuary treatment after death. This furthers the argument proposed earlier in this chapter that dynamic regional

identities which used identity taxonomies such as sex and age in diverse ways may have been present during the period.

In many ways, it could make sense that the Isle of Man may be culturally different from other parts of Britain. It is an island within the Irish Sea meaning it would have been isolated but could have also taken influence from Ireland, western Britain, and, if the Atlantic façade paradigm (Sheridan 2010b) is considered northwest France. Another element substantiating the idea that the Isle of Man was different is the fact that it also is unique in both its material culture and funerary practices in general (see Burrow 1997; Lynch & Davey 2017). For Fife-Tayside it is a little more difficult to propose a distinctive regional identity. While the database does exhibit cremation to be the dominant mortuary practice the sample size for the region is small. Just five sites have demographic information for cremated remains and just one site for non-cremated remains. Further to this its bordering eastern regions, Grampian, and Lowlands-Northumbria, have insufficient data on both cremated and non-cremated remains which means it is difficult to draw comparisons to its closest neighbours. The lack of funerary activity in these three regions however may itself be indicative of culturally dynamic regions being present. The entire area of southeast Scotland and parts of northeast England may have practised funerary rites that left little to no trace archaeologically, hence the small numbers of individuals found within the funerary record. To the west however Argyll & Bute-Hebrides, in contrast, had very few cremated remains but a substantial number of inhumations. This could hint at an east-west divide being present in Scotland with regards to mortuary practices.

While North Wales does appear to exhibit some interesting trends, as noted above, its small sample size must be considered. Nevertheless, the data demonstrated quite high female representation at 67%. Ordinarily, a sample size this small would be deemed unviable to make any firm judgements. However, if these findings are combined with other unusual

trends found within the region, then it could be suggested that this part of Britain was in fact culturally different. For example, with regards to non-cremated remains in North Wales female representation was also high. As most sites were dated to the Middle and Late Neolithic this is significant as rates of representation for males and females in the later stages of the period tend to place males firmly in the majority. North Wales contrasts this with females being at 48% for the dataset using all osteological data and 55% using the modern dataset. Much like the regions of the Scilly-South West Peninsula and the Isle of Man, North Wales also has regionally unique monumental architecture and rich monumental centres. Kidney-shaped chambered tombs (e.g., Bryn yr Hen Bobl, Anglesey; Pant y Saer, Anglesey – see Nash 2006) are only found in this region and large, monumental complexes such as Bryn Celli Ddu, Anglesey (Burrows 2010) are also present. It is interesting that this region also occupies the western coastal part of Britain, again like the Scilly-South West Peninsula and the Isle of Man, an area suggested to be culturally linked and divergent from other parts of Britain (e.g., Cummings & Fowler 2004). Taking into consideration all these elements it does seem as though this area of Britain is different to other regions. How this transpires to sex-based identities is challenging to propose given the small sample sizes. However, given both the cremated and non-cremated datasets for North Wales demonstrate high female representation compared to other regions and comparable chronological periods it could be that the female identity was expressed within the funerary sphere differently in North Wales to the rest of Britain.

6.7.3.3: Key Results for Age – Are There Any Regionally Based Differences in the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts in the Neolithic?

Four of the Neolithic regions exhibited rates of representation for nonadults that differ from the suggested 25%±5% average. In both Fife-Tayside and the Isle of Man, nonadult representation is at 36% which is marginally higher than the average and Argyll & Bute-Hebrides has a high rate of 58% nonadult representation. The issue with all three of these regions however is once again the small sample sizes with each only having between 10 and 20 individuals present who have had their age determined. This obviously affects the validity of these trends with so many individuals having undetermined ages. The fourth region, Essex-Kent-Sussex, has a bigger sample size and includes much fewer individuals of undetermined age. A nonadult representation rate of 48% can be found in this region which places it well above the suggested average (Fig. 6.36).

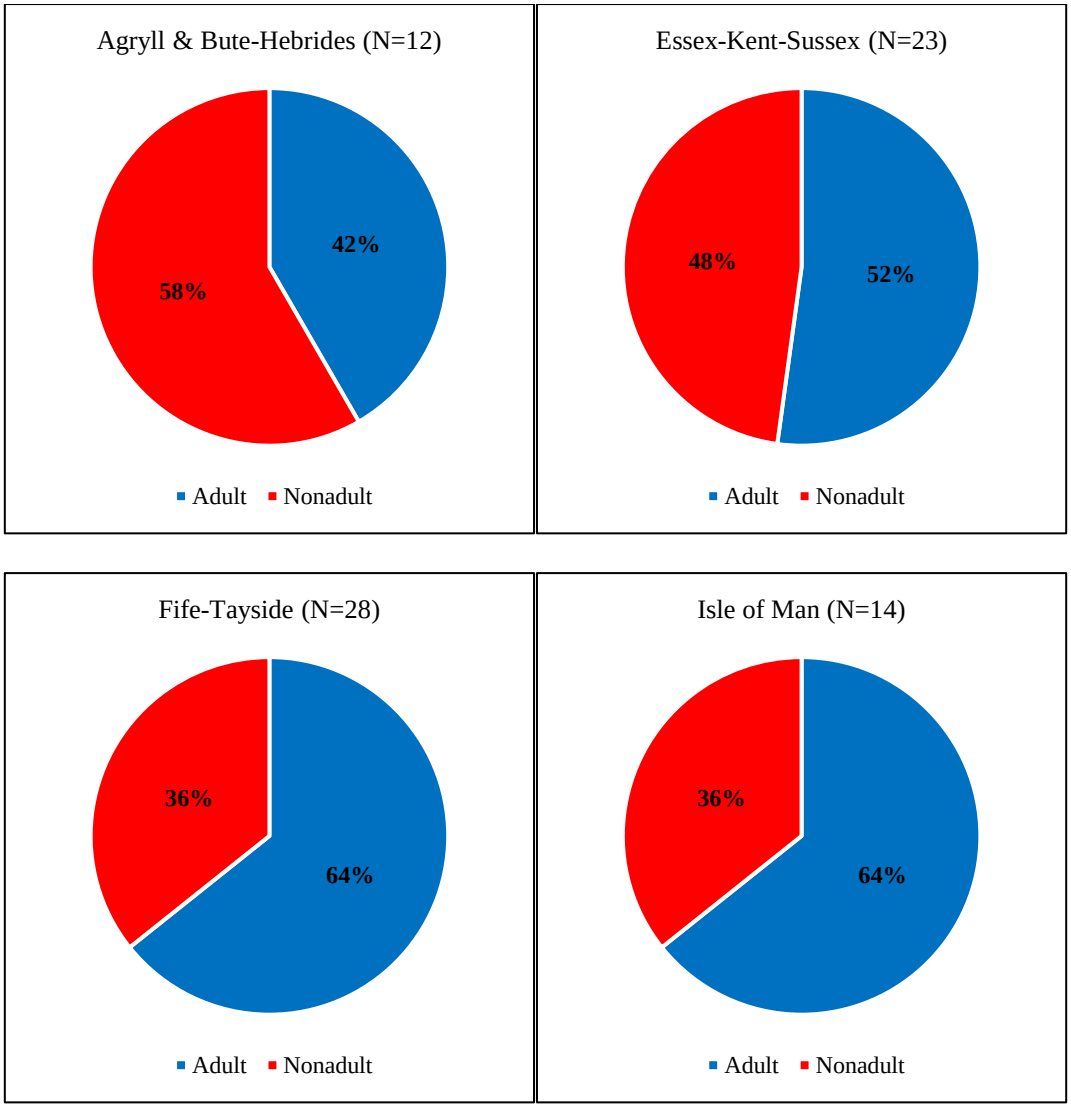

Figure 6.36 The ratio of representation between adults and nonadults for Argyll & Bute-Hebrides (top right), Essex-Sussex-Kent (top right), Fife-Tayside (bottom left), and Isle of Man (bottom right).

6.7.3.4: Discussion for Age – Are There Any Regionally Based Differences in the Representation of Cremated Individuals from Different Age Groups in Funerary Contexts in the Neolithic?

All four of the regions seem to present nonadult representation as higher than average although in the cases of Argyll & Bute-Hebrides, Fife-Tayside, and the Isle of Man the small sample sizes must be considered. Burial assemblages in Essex-Kent-Sussex do not suffer

from this issue as much, however, so can be discussed with a bit more clarity. The 48% nonadult representation rate found at Essex-Kent-Sussex is a quite different rate to what was seen for non-cremated remains which was 25%. This could be indicative of differential funerary rites based on the age of an individual. As was established above the age of an individual can affect their identity and particularly their levels of personhood, and this can go on to influence an individual's mortuary rites (Fowler 2004: 46). Examples of having to reach certain age-related milestones to gain full personhood have also been expressed (e.g., Maschio 1994: 107). If these ideas are applied to this region, then the reasons for the prominent levels of cremation and lower levels of inhumation within the nonadult group could be due to them not having full personhood or a form of personhood divergent from other individuals of different ages. This may have meant that they were required to undergo differential funerary rites. However, it is important to remember that both adults and nonadults are represented in both cremated and non-cremated groups so other factors apart from age were also likely considered. The fact that this trend of high nonadult representation for cremated remains only appears in certain regions also further substantiates the argument that dynamic regional identities may have been present during the British Neolithic which each had variations of how different identity taxonomies such as age and sex were used to construct these identities.

6.7.4: Demographic Representation for Cremated Deposits at Site Types in the Neolithic

Like the Neolithic regions group, the small sample sizes for the site types group meant it was limited. Only three site types produced sufficient data for both biological sex and age for cremated remains. These were non-monumental contexts, late chambered tombs, and annular monuments.

6.7.4.1: Key Results for Biological Sex – Are Cremated Males and Females Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

Non-monumental contexts produced a rate of representation like its non-cremated counterpart with males being marginally better represented at a rate of 57%. Late chambered tombs show females to be better represented at 56% for the dataset using all available data and this increases to 71% in the modern dataset (Fig. 6.37). Late chambered tombs have a small sample size with just nine and seven sexed individuals for each dataset which certainly affects the validity of these statistics. Annular monuments, also exhibit females to be better represented. However, West Stow is once again influential. When West Stow is included, the female rate is at 67%, however, when it is removed it drops to 56% (Fig. 6.38).

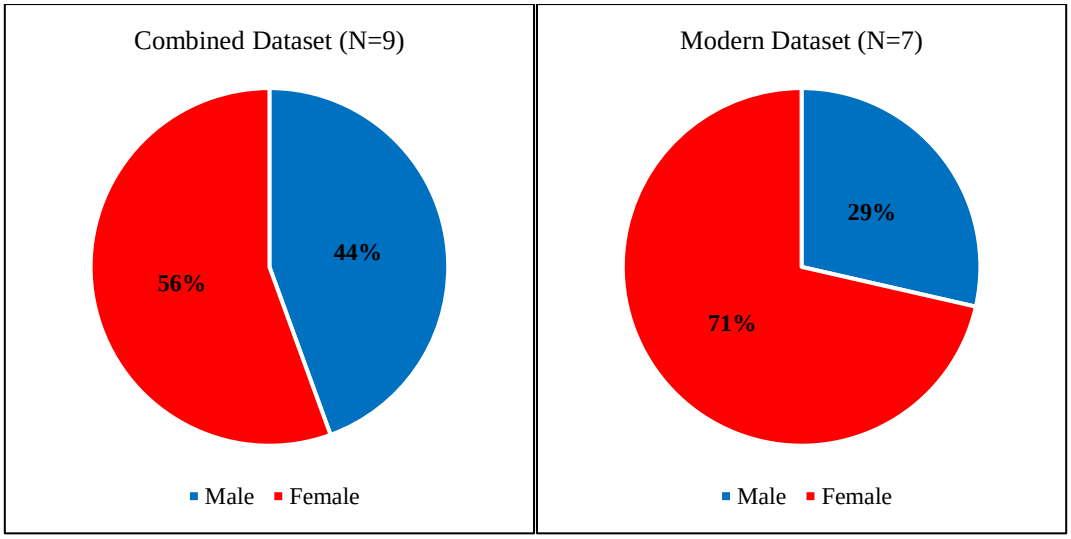

Figure 6.37 The ratio of representation between males and females for late chambered tombs using the combined (left) and modern datasets (right).

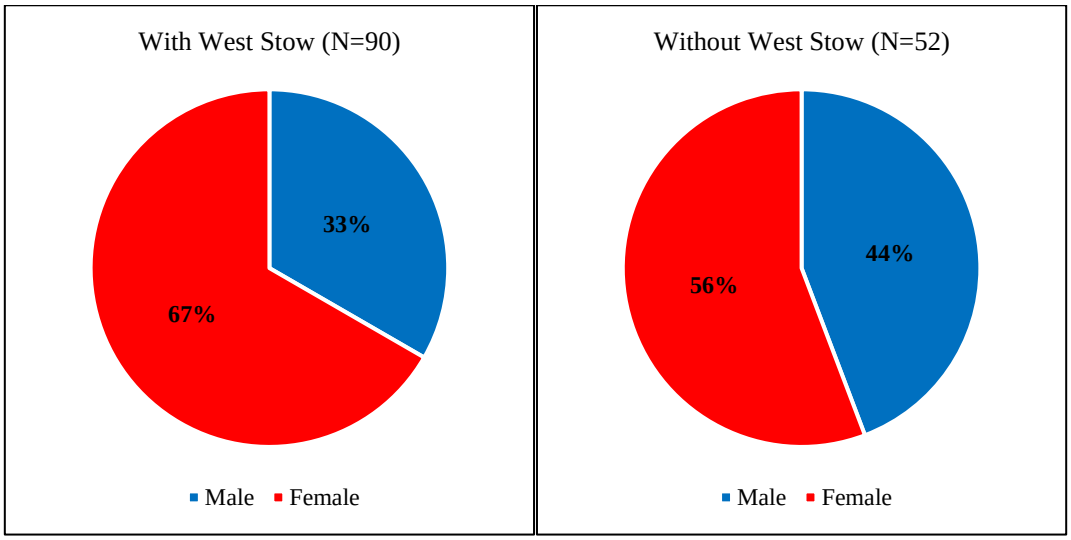

Figure 6.38 The ratio of representation between males and females for annular monuments both including (left) and excluding (right) West Stow.

6.7.4.2: Discussion for Biological Sex – Are Cremated Males and Females Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

The fact that both cremated and non-cremated remains at non-monumental contexts produce the same biological sex representation ratio suggests that there is little differentiation between the mortuary practices at these site types and how biological sex affected them. As mentioned above the small sample size for late chambered tombs makes it difficult to discuss the findings with any clarity. If the results are indeed a true representation of how late chambered tombs were used and that the females included within them were more likely to be cremated, then this is an interesting proposition. As was shown in the non-cremated section chambered tombs, both early and late, tend to be heavily male-dominated and recent aDNA kinship research (e.g., Dulias *et al.* 2022; Fowler *et al.* 2022) also shows a preference for preserving male lineages within them. If females are included within these sites but often in a cremated state, then this develops the dichotomy between males and females at this site type. This has implications for how biological sex affected identities as it shows that an individual's sex clearly affects how they were treated after death which in turn could imply it was a crucial element of their identity.

Annular monuments also exhibited females to be in the majority, although less so in the dataset that excludes West Stow. Female representation at annular monuments appears to conform well to the chronological stages in which it belongs (Middle and Late Neolithic) and it is also largely similar to the rate of female representation that was found at the site type with non-cremated remains (provided both West Stow and Banbury Lane 1 are omitted from the datasets). This suggests that how biological sex contributed to being deposited at this site

was consistent for both inhumation and cremation, with a slight preference for female individuals over male ones.

6.7.4.3: Key Results for Age – Are Cremated Individuals from Various Age Groups Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

All three site types which had adequate data had similar rates of representation for nonadults that fell within the 25±5% average. Late chambered tombs had 23% nonadult representation, non-monumental contexts 30% nonadult representation, and annular monuments at 27% nonadult representation.

6.7.4.4: Discussion For Age – Are Cremated Individuals from Various Age Groups Represented Divergently in Funerary Contexts at Different Site Types in the Neolithic?

For both annular monuments and late chambered tombs this rate of representation is like what was seen for non-cremated remains suggesting similar cultural processes are in place for both types of mortuary practice. Non-monumental contexts however demonstrated exceptionally low rates of non-cremated nonadults, and this has risen considerably for cremated remains. Therefore, it could be suggested that some differentiation between the mortuary practices based on age existed at these sites with nonadults being cremated much more. Again, the reasons for this could be related to personhood which is often linked to age.

6.8: Conclusion

For the Neolithic as a whole, it is challenging to propose any firm interpretations regarding demographic representation within funerary contexts. Males and females are quite closely matched and different age groups conform to suggested average mortality rates. This makes it difficult to suggest any innovative ideas on how being male, female, or a certain age may have affected an individual's identity. The representation of the different demographic groups within the three chronological stages of the British Neolithic does appear to change over time which implies that divergent cultural and social perceptions of biological sex and, to a lesser extent, age were present throughout the period. With regards to biological sex, a steady increase of male representation within funerary contexts is present as the period progresses, and this could well embody changes to how biological sex affected identities. A simplistic interpretation of the data would be to suggest that the increase in male representation is indicative of males becoming the more dominant actors in society and this could in turn represent a patriarchal society utilising a binary system of gender. In some respects, various parts of the lifeways data within this research, as well as recent aDNA kinship research demonstrating a strong preference for preserving male lineages (e.g., Dulias *et al.* 2022; Fowler *et al.* 2022) substantiates this interpretation. However, it is important to remember the social and cultural complexities associated with biological sex and gendered identities before proposing any firm conclusions without considering other variables. Multiple genders could be present, and gender may be formed through elements other than biological sex. It is also worth considering how modern Western biases regarding sexuality (e.g., Butler 1990: Chapter One; Voss 2006) may skew interpretations of how gender was formed within past

societies. For age and age groups the trends that were seen were much more subtle than with biological sex. However, some developments are present which could suggest differing social and cultural views of age as the period progresses. This indicates that age may be a key factor in the creation and maintaining of identities.

The Neolithic regions used within this research also presented some useful trends with regards to differential representation of the divergent demographic groups. However, it is believed that many of these trends can be explained through chronology, site type prevalence, or size of the region. For example, it is no coincidence that some of the largest regions in terms of the number of sites and number of individuals recognised within the burial record, and levels of chronological diversity such as Wessex demonstrate signatures of representation akin to what the Neolithic as a whole did. This exhibits how influential these regions are on the database in general and highlights some of the issues raised regarding regional biases with some regions having more research carried out within them than others. Regions such as Essex-Kent-Sussex, which have a sizeable proportion of Early Neolithic sites seem to mirror what was seen for the Early Neolithic, and Orkney which contains sites mostly dating to the latter parts of the period emulates Middle and Late Neolithic rates of representation. Also, regions such as Dyfed, which contain substantial amounts of a particular site type, in this case, natural contexts, demonstrate representation like the corresponding site type.

Some of the regions did however present some unique trends. Some of the most interesting patterns appear to emerge from Western Britain. Interestingly the west coast of Britain and the western isles of Scotland have often been thought to be culturally linked due to the stylistic similarities between material culture and monumental architecture (see Cummings & Fowler 2004). Northeast Ireland is also usually included within this group so it would be interesting to see if the levels of demographic representation within this area of Ireland conformed to what was found in western Britain. If the Atlantic façade theoretical model for

the Neolithization of Britain is considered, which proposes that the Neolithic began with migratory groups arriving from northwest France and settling along the western parts of Britain (see Sheridan 2010b), then these regions within western Britain would also be key areas for this process. Again, comparisons between these areas and northwest France would be intriguing to ascertain the extent to which areas such as Breton were an influence on the British Neolithic. Due to the divergences between demographic groups found within these areas of western Britain in comparison to the rest of the regions, it could be that the ways in which age and biological sex affected identities could have been different also. The reasons for this are difficult to comprehend however it may be that they were more influenced by cultural elements from places in northeast France in comparison to other British regions further east which may have found inspiration from other sources. However, while there are some differences it must be remembered that many of these are quite subtle, so it is not practical to suggest that regions in the west and regions in the east were highly culturally divergent.

The most intriguing region overall was the Brecon Beacons-West Mercia one. It demonstrated differential levels of both the representation of the biological sexes and of adults and nonadults. This could suggest that how age and biological sex contributed to identities and how these were portrayed in death were different in this part of Britain. It is difficult to ascertain the exact reasons as to why this area might be marked out as unusual but, as proposed within the chapter, the geography of the area, in this case, mountainous terrain, may be a factor. It could be that burial in this area was reserved for specific types of people with particular identities and, given the lower rates of representation for both females and nonadults, being of adult age and being male was a crucial element in how these identities were formed.

While many of the regional patterns and trends can be explained by other factors such as chronology or site type prevalence it cannot be denied that some regional variations in demographic representation at funerary sites are present. This suggests that as well as divergences between the chronological stages of the Neolithic differences can also occur on a regional level. The presence of regionally specific demographic representation within funerary contexts does imply that a shared and uniform British Neolithic identity was not present during the period. This further complicates attempts to understand identities within Neolithic Britain as a whole, as what may be present is a plethora of different dynamic regional identities existing. In turn, this would suggest that how age and biological sex affected sex- and age-based identities varied from region to region.

The site type comparison provided some valuable information regarding demographic representation at diverse types of sites. While some of the site types tend to conform to the chronological stage in which they are situated, some demonstrate different patterns. This suggests that diverse types of people and distinct types of social identities were being provided funerary treatment at certain types of sites. For biological sex, this is seen most prominently at both early and late chambered tombs, and at natural contexts in which males are favoured over females. This suggests that biological sex was an essential element of consideration in deciding if an individual were to be buried at one of these sites which, in turn, could imply that biological sex was an important taxonomy of an individual's identity. The recent aDNA research focussing on kinship by Fowler *et al.* (2022) and Dulias *et al.* (2022) which exhibits a preference for the preservation of male lineages substantiates the findings derived from this research in that it is male individuals who are more important for inclusion at chambered tomb sites than females.

As established throughout this chapter, low levels of representation amongst nonadults could be indicative of age playing a role in an individual's social identity and levels of personhood.

If the individual had not yet reached the generated the correct social identity or degree of personhood, they may have received a different type of funerary treatment. The high rates of representation found at causewayed enclosures and, to a lesser extent natural contexts, could substantiate this idea. The fact that nonadults were placed in these sites in greater numbers than in other sites suggests that differential funerary treatment based on age did exist to a certain extent. Of course, other factors likely had an influence also. In the case of causewayed enclosures, as was discussed in the chapter, factors such as premature death or the health of the individual in question may also have been a consideration.

Single burials presented many of the same patterns that are seen elsewhere in other comparative groups. This suggests that similar social and cultural mechanisms may be present with regard to single burial as there are with other mortuary practices. The real differences can be seen when the groups are further divided. With regards to "token deposits" females are much better represented than males. The issue with doing this however is that sample sizes become much smaller which holds implications for the validity of the proposed interpretations. Nevertheless, further enquiries within the single burial comparative group may produce more divergent forms of representation for the different demographic groups.

Cremated remains appear to provide some different patterns of representation between the different demographic groups than their non-cremated counterparts did. For biological sex female representation appears to be much stronger. Chronologically male and female representation is relatively stable throughout the period with fairly equal rates of representation. This contrasts with non-cremated individuals where males are deposited much more at sites as the period progresses. However, when comparing individuals who have been cremated against individuals who have not then it can be seen that females are more likely to be cremated as the period progresses, a trend that does appear to continue into the Early Bronze Age (e.g., Sofaer Derevenski 2002; Brück 2014). Divergent levels of representation

of both males and females and different age groups in various regions again reinforce the idea of dynamic regional identities being present during the Neolithic. Likewise, variable levels of representation of the demographic groups at the different site types also substantiate the idea of specific types of people being chosen to be included at specific types of sites.

To conclude, this chapter has demonstrated that demographic groups are divergently represented within several different funerary contexts and these variations offer insights into how biological sex and age may have affected the funerary rites an individual received. The fact that age and sex do seem to be a consideration in the decision-making process behind how and where an individual was dealt with, and deposited after death does imply that both sex and age were used as taxonomies of identity during the period. The level of importance that both sex and age have on an individual's identity is challenging to propose. In some contexts, such as at chambered tombs where males are much better represented, biological sex was an important part of deciding who was deposited at the site and this may therefore imply that it was an important part of an individual's identity. In contrast, however, if non-monumental contexts are deliberated, in which male and female representation is much more equal, then it could be proposed that other parts of identity were viewed as crucial. Therefore, it is suggested here that while the data presented within this chapter does demonstrate that biological sex and age were likely important parts of individual identity, this can vary in importance from context to context and it is probable that other aspects of an individual's identity such as their status, rank, role etc. will have been equally as important.

7: Identity, Gender, and Age in Neolithic Britain

7.1: Introduction

The concluding chapter of this thesis has three main aims. First, it will consider the key results and interpretations that were proposed in the two previous chapters together. Examining divergences between males, females, and different age groups in relation to lifeways and demographic representation within funerary contexts as separate entities is extremely useful and, as has been shown, can demonstrate some interesting trends and patterns. However, amalgamating data together from these two areas of analysis allows further elucidations to be made about the variations present between the different demographic groups. Lifeways, funerary rites, and identity are all inextricably linked to one another. The identity of an individual in life, their role, status, gender, age etc. will influence their lifeways but equally, it can also influence how the living represent them in death. Therefore, by considering all the data together stronger and more nuanced interpretations for age- and sex-based identities in the British Neolithic can be suggested. This will allow some final interpretations and conclusions to be made regarding how age and biological sex may have affected identities during the period. This first section will be structured around the three chronological stages of the Neolithic (Early, Middle, and Late). It is considered that this organisation will best represent all the most notable trends identified within the different comparative groups as many of these were linked to chronological factors. Of course, arranging this initial portion of the chapter in this manner will also provide an overview of how divergences between demographic groups evolved as the Neolithic progressed, and this

can provide insights into how cultural/social processes regarding biological sex and age changed over time.

The second aim of the chapter is to critically assess the strengths and weaknesses of the research. Synthesising such a large amount of data has provided new information regarding the lifeways and deathways of individuals in the British Neolithic. However, as the database uses a wide array of data from a multitude of diverse sources that vary in quality, issues in consistency occur. The final aim is to propose how the research can be improved upon and furthered. While the research in its current state has presented many new interpretations on the nature of identities and how biological sex and/or age may have affected them, there are certainly aspects that can be enhanced (e.g., new osteological analyses carried out on extant antiquarian assemblages; further regions/chronological periods added to the database).

7.2: The Early Neolithic

Overall, the Early Neolithic demonstrated males and females to be quite closely matched for both health, diet, and mobility as well as representation in funerary contexts. However, when broken down into the different comparative groups, some data does indicate that slight differences are present. The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data demonstrated that high numbers of both males and females were buried in areas with a biosphere different to the one in which they grew up. This suggests that mobility and movement around the landscape was a common feature of the Early Neolithic, and this was done by both biological sexes. The Early Neolithic has been suggested to be a period of high migratory behaviour. Models for the Neolithization of Britain (e.g., Sheridan 2010b; Whittle *et al.* 2011b) suggest this to be the case and these interpretations have been substantiated by more recent aDNA ancestry-based

research (e.g., Brace *et al*. 2019). Data compiled for this research seems to corroborate with these interpretations but additionally suggests that both males and females were involved in these migrations at fairly equal levels.

The palaeopathological data indicated a few subtle differences between the sexes. Across the entirety of the Neolithic, males were marginally more prone to joint diseases. Females were more likely to display signs of metabolic disease in the Early Neolithic, a trend that is present in both the subsequent chronological stages, and males were more prone to dental disease in the Early Neolithic. These could both be tentatively indicative of divergent diets. However, the $\delta^{13}C$ and $\delta^{15}N$ isotope data demonstrated insignificant variation for the biological sexes. Since isotopic analysis cannot distinguish between primary and secondary animal products differences in diet could still be present. An over-reliance on secondary animal products such as dairy has been suggested as a cause of some metabolic conditions (e.g., Smith & Brickley 2009: 125). Therefore, it could be that females were more likely to procure their protein from secondary animal products like dairy which in turn could lead to higher levels of metabolic diseases being present. There is widespread evidence for the creation of dairy products in Neolithic Britain (e.g., Copley *et al.* 2003; 2005) and more recently there is also evidence for the consumption of dairy products within the region (e.g., Mays *et al.* 2018; Charlton *et al.* 2019; Hammann *et al.* 2022). However, it is difficult to propose whether there is a bias in the consumption of dairy-based on biological sex with what is currently available in the archaeological record. Therefore, at present, it is challenging to be definitive in suggesting sex-based dietary differences. It is also worth considering that factors such as pregnancy and menstruation, which only affect females, may have an impact on metabolic diseases.

Males and females were also quite closely matched in relation to their representation in funerary contexts during the Early Neolithic. Overall, males were slightly better represented at just over 50% and this was the case for both non-cremated and cremated remains. This

could suggest that biological sex was not a major consideration in determining an individual's funerary rites during this initial part of the period. However, some more divergent rates of representation for males and females were present once the data was broken down into smaller comparative groups. For instance, in Brecon Beacons-West Mercia, most sites were dated to the Early Neolithic, but they demonstrated a much higher representation of males (67%). Similarly, early chambered tombs also show males being included in much greater numbers (60%) and this is especially evident at sites such as Littleton Drew, Wiltshire, Wayland's Smithy, Oxfordshire, and Knowe of Rowiegar, Rousay, Orkney. This shows that in some funerary contexts within the Early Neolithic biological sex is a more key factor of consideration with regards to the funerary rites an individual received. This in turn could also suggest that being male or female was also an important contributing element of identity, and this was articulated much more under certain circumstances.

The fact that males and females within the Early Neolithic are quite closely matched in most of the comparative groups for health, diet, mobility, and representation within funerary contexts makes it challenging to propose how biological sex may have influenced identity and gender. As was established in the earlier chapters of this thesis, gender systems based upon biological sex have been successfully interpreted and conceptualised using both lifeways data and the analysis of funerary contexts for the Neolithic in the wider European region (e.g., Haak *et al.* 2008; Hofmann 2009; Chambon & Thomas 2010; Hedges *et al.* 2013; Whittle *et al.* 2013: 191; Knipper *et al.* 2017), as well as in other prehistoric periods (e.g., Sørensen 1997; 2013; Treherne 1995; Harding 2007; Shepherd 2012; Holst 2013). These interpretations of gender are derived from the recognition of clearly defined divergences between males and females within the data. This enables researchers to propose the binary sex-based identities of male and female, which can then be used to formulate a gender system that is easily visible, familiar, and understandable. These types of gender

systems and sex-based identities have rarely been applied to the British Neolithic due to a lack of obvious variations between males and females being present. Additionally, the disarticulated and commingled nature of most British Neolithic funerary deposits makes it difficult to recognise specific individuals which, it could be argued, has discouraged research and interpretations of this type. This is also likely connected to modern perspectives and philosophies regarding the integrity of bodies and its relationship with individual identity. Both the lifeways and demographic representation data from this research for the Early Neolithic also do not really provide substantial divergences between males and females making it difficult to propose a binary system of gender being present as has been suggested elsewhere for prehistoric Europe. However, just because the currently available evidence does not correspond with the gender systems, and the criteria of gender used and applied to other prehistoric periods, does not mean gender and sex-based identities are nonexistent, they may just be fundamentally different (Robb & Harris 2018). It is worth considering therefore that what may be present in the Early Neolithic are systems of gender and gendered identities that are not just formed based on biological sex.

Several examples of alternative ways in which gender is constructed using alternative elements to biological sex have been discussed in Chapters Three and Six (e.g., Whitehead 1981; Balzer 1996; Jacobs *et al.* 1997; Hollimon 2000). It could be that similar gender systems were applicable in the Early Neolithic and that gendered identities were founded upon several factors and not just biological sex. However, the fact that there are a few circumstances in which differences are present both in the lifeways of males and females, such as with joint and metabolic disease, and some more pronounced differences in the representation of the biological sexes at certain regions and site types suggest that in some situations biological sex was a factor of consideration in the Early Neolithic. Therefore, it is suggested here that biological sex was a contributing element to individual identities during

this early part of the period, but this was much more pronounced in certain contexts. For example, chambered tombs demonstrate a high representation of male individuals, meaning that males are more likely to be included in them. Also, recent aDNA research looking at kinship within the chambered tombs suggests that the preservation of male lineages is an important part of the depositional practices at them (Dulias *et al.* 2022; Fowler *et al.* 2022). Consequently, it could be argued that for chambered tombs in the Early Neolithic, biological sex was a principal factor in deciding who received their funerary rites at these sites. This is likely tied in with how biological sex affects identities. An aspect of the male identity was perceived to be important to, and connected to, chambered tomb sites which meant male individuals had to be included in greater numbers than their female counterparts.

So, while on the whole males and females appear to be quite equally matched within the Early Neolithic funerary record both in terms of their lifeways and their representation in funerary sites, the fact that there are certain circumstances in which variations are present between the two suggests that sex-based identities, to some extent, were present. The reasons why sex-based identities are only expressed within certain contexts during this part of the period are challenging to establish. One explanation could be a system of gender being implemented which encompassed multiple gendered identities and both biological males and females could have these. These types of gendered identities could have been an important part of an individual's overall identity during their life and certainly contributed towards what funerary rites they received. If this were the case, and both males and females could have the same gendered identity then the funerary record may very well show them to be quite equally matched both in terms of their lifeways and representation within funerary contexts as they share the same social identity. The fact that there is also some variation between males and females within the data could imply that gendered identities based on biological sex were present but alongside these other gendered identities. With the current limited material

evidence available for Early Neolithic Britain, it is difficult to pursue this interpretation further, but it is certainly something worth considering. Another reason why sex-based identities only seem to be conveyed under certain circumstances could be that they simply were not seen as important social and cultural elements. Other identity taxonomies such as status, social role, or age may have been more crucial. While biological sex may well have been a contributing factor in the formation of an identity it may just have been a lesser component. If this was the case, then differences in lifeways and funerary rites between males and females may not be present within the funerary record. Finally, sex-based identities may not have been articulated through funerary rites other than in particular situations (e.g., inclusion at chambered tombs). As mentioned in the previous chapter there are groups which have biological sex-based gender systems but after death, these sex-based/gendered identities are no longer meaningful (e.g., some Sikh communities – Rugg & Parsons 2018: 70). If this idea is applied to the Early Neolithic, then once an individual dies they would cease to have a gendered identity meaning their funerary rites would be formulated around other social/cultural elements.

There were some subtle divergences between adults and nonadults concerning health and lifeways in the Early Neolithic. For all three chronological stages, most palaeopathological differences were ones which would be expected when comparing an older population with a younger one. Nonadults were much less prone to most disease types, particularly ones which develop over time such as joint and dental diseases. Nonadults were mostly affected by metabolic diseases, and again this is the case throughout the period. Nonadults seem to be closely matched with adults for this disease type which could suggest that while a good proportion of individuals may survive periods of childhood stress many did not. Dietary information derived from the $\delta^{13}C$ and $\delta^{15}N$ isotopic data is also very much the same for all three chronological stages of the Neolithic with adults and nonadults presenting similar

values. Some nonadults do appear to have quite high rates of $\delta^{15}N$. However, an explanation for this could be weaning. Nonadults who are breastfeeding can have $\delta^{15}N$ values around 2-3%, or one trophic level, higher than that of their mothers (Singh Sehrawat & Kaur 2017). While weaning ages are variable across diverse cultures and societies on average it is suggested that weaning occurs from birth up to around three to four years old. Research by Tsutaya & Yoneda (2013) compared the weaning ages of prehistoric archaeological and ethnographic populations using $\delta^{15}N$ isotopic data and Bayesian modelling and this showed an average weaning age of 2.80±1.32 years old. Research looking more specifically at weaning ages in Neolithic Europe demonstrated that they increased as agriculture began to be adopted (Basnett 2018). However, the data shows that individuals were still only weaned up until they were around two to four years old. The ages of the nonadult individuals within the database who have inflated $\delta^{15}N$ values which include two infants and a juvenile at Hazleton North, Gloucestershire, a juvenile at West Kennet, Wiltshire, a juvenile at Wayland's Smithy, Oxfordshire, a juvenile at Holm of Papa Westray North, Papa Westray, Orkney, and a juvenile at Maiden Castle, Dorset all fall within an age bracket that is consistent with average weaning ages suggested by research such as these.

The Early Neolithic does see the highest levels of nonadult mobility, although the caveats of sample sizes and statistical significance (see Appendix VI) persist. Around 82% of nonadult individuals demonstrated $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ signatures that diverged from the biosphere in which they were interred. This is a remarkably high number and 20% higher than that of adults. With this part of the period being a time of high migratory behaviour, one explanation for this could be that the nonadults in question were simply part of a larger group of migrants who could not survive the journey. However, the monuments in which some of these individuals were interred, such as three adolescents at Whitwell, Derbyshire, two juveniles at Hazleton North, Gloucestershire, and six juveniles at Pen y Wyrlod 2, Brecknockshire

suggest a certain level of group permanency and longevity within the area. Even if the group did not stay in the area permanently, they would at least have to stay for, or repeatedly return to it, for as long as it took to construct the monument, and this could be a substantial amount of time depending on the type and size of the site. This could be suggestive of diverse types of mobility being present during the Early Neolithic. Differing levels of sedentism and nomadism can exist together. Groups could move around to different semi-permanent settlements seasonally for hunting or pastoralism for example. Groups could travel to locations regularly for trading purposes. Groups may even frequently travel to areas for cultural or religious purposes such as a pilgrimage. If any of these were applicable, the group would likely have some sort of infrastructure within the area, such as structures or monuments, that they can use when they travel to them. Therefore, while these nonadult individuals may exhibit divergent biosphere ranges to the local ones attached to the funerary site, they may not be non-local in the strictest sense. They were not in the area at the time their teeth were formed, but the area could be one which the group they belong has considerable links with.

There are other alternative explanations for the prominent levels of nonadult mobility in the Early Neolithic particularly concerning the theme of exchange. As proposed in previous chapters female exogamy/patrilocality may be a phenomenon present within the British Neolithic, although this seems to be more pronounced later in the period. This process could have occurred at an early age. The analysis of $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopes of an adolescent female at Whitwell, Derbyshire demonstrates that the earlier part of her childhood was spent in an area with a different biosphere to the Whitwell local range, but her final teenage years were spent within it (see Neil 2017). This could be an example of an individual moving to live with another group possibly through a form of marriage. Many more examples would have to be established to further this hypothesis. Unfortunately, this is a challenging

endeavour since it is difficult to determine the sex of nonadult individuals through osteological analysis (see Roberts 2009: 123). Within this research, there is another adolescent female at Hambledon Hill, Dorset who, similarly to the one at Whitwell, appears to have also spent her earlier childhood away from the site however this individual is dated to the Middle Neolithic (see Neil *et al* 2018). If new methods for the sex determination of nonadults such as using aDNA analysis or testing sex-specific peptides in tooth enamel (see Rebay-Salisbury *et al.* 2022) become more accessible and cost-effective, then these could help in expanding these interpretations.

Other mechanisms of exchange between people and groups could also be suggested. One of these is adoption or fostering. This could be for practical reasons such as strengthening ties, building alliances, and improving relations between two groups. However, there could also be more complex reasons for this. As highlighted in Chapter Five, as recently as 60 years ago nonadults from the Baattombu group in Benin were given up by their biological parents and fostered by biologically unrelated individuals as it was thought shameful for an individual to claim ownership over their biological children (Alber 2003). It would be challenging to use this as a direct analogy for the British Neolithic and propose that this type of practice was occurring during the period. However, what this example does is highlight why it is important to not view the social and cultural identities of nonadults through a modern and/or Western lens. The cultural understanding of the social characteristics and obligations encompassing different age groups is extremely variable between different societies both temporally and geographically (Myerhoff 1984). How a nonadult is perceived in 21st century Britain i.e., lacking autonomy, responsibility, and dependence on others, is not universal. Therefore, the prominent levels of non-local nonadults could be due to them having completely distinct cultural and social expectations placed upon them during the period. It may have been extremely common for younger people to go and live with other groups whether it be through

a form of marriage, adoption, fostering, or even as apprentices to craftspeople, as that is what was socially and culturally expected of them at the time.

In Chapter Six, 25%±5 was suggested to be an average representation rate for nonadults based upon research examining average mortality rates in pre-industrial farming societies (see Chamberlain 2000; 2007; Lewis 2007: 22). Two site types associated with the Early Neolithic, long barrows and cairns and causewayed enclosures, diverged from this average. In the former, they were poorly represented at just 18%, with some well-populated sites such as Dinnington, Yorkshire containing no nonadults at all, and some such as Wor Barrow, Dorset, and Ringham Low, Derbyshire containing just one or two nonadult individuals. In the latter, causewayed enclosures, they were well represented at 39%, with sites such as Hambledon Hill, Dorset, Windmill Hill, Wiltshire, and Maiden Castle, Dorset containing quite large numbers of nonadult individuals in relation to adult individuals. The social identity and corresponding types, and levels, of personhood an individual has may be established, in some part, around their age. This has led to some suggesting that the age-based identity of an individual could play a role in what funerary rites they received (e.g., Fowler 2004: 46). It could be that an aspect of the nonadult social and cultural identity meant it was important for them to be included at causewayed enclosures but less so at long barrows and cairns.

There could be other factors aside from age which contributed to these two quite different rates of representation. $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data from the long cairn at Whitwell, Derbyshire demonstrates that all nonadult individuals analysed grew up in an area with a different biosphere to the site (Neil 2017). In comparison, 57% of nonadult individuals were deemed non-local with 43% suggested to be local at the causewayed enclosure of Hambledon Hill, Dorset (Neil *et al.* 2018). While these are just two sites so by no means representative of all long barrows and cairns and causewayed enclosures, they could hint at other elements being

considered in the decision-making process surrounding funerary rites and nonadults. For long barrows and cairns, it could be that nonadults who grew up in the local area of the site had differential funerary treatment and were not included within them, whereas non-local individuals were deposited. Conversely, local nonadults may receive their funerary rites much more at causewayed enclosures. Regardless of the specific factors which led to the funerary rites received by nonadults, the fact that differential levels of representation are present does suggest that age was at least one factor of consideration in establishing what type of mortuary practices these individuals would receive in the Early Neolithic. In turn, this implies that age did play a role in the creating and maintaining of identities during this part of the period.

With regards to the adult age groups, the Early Neolithic exhibited a greater proportion of the two older adult age groups, old middle adults (35 to 45 years old) and mature adults (45+ years old) in comparison to the two subsequent chronological stages. Early Neolithic sites such as Lanhill, Wiltshire and Poles Wood East, Gloucestershire contain greater than usual numbers of mature adults and likewise sites such as Belas Knap, Gloucestershire and Fussell's Lodge, Dorset contain greater than usual numbers of old middle adults. One explanation for this could be related to differences in lifeways and subsistence strategies between the chronological stages. Early Neolithic individuals may have lifeways that increased their average mortality rates. However, the lifeways data in Chapter Five does not substantiate this assertion as very few health, diet, or mobility differences were recognised concerning the populations as a whole for each chronological stage. Of course, there could be other social or cultural explanations for the higher numbers of old middle adults and mature adults in the Early Neolithic. Ethnographic examples were discussed in earlier chapters demonstrating the variable ways in which older adult individuals were socially and culturally viewed in different societies (e.g., Schildkrout 1978). The differential ways in which an

individual's age was culturally and socially constructed could be responsible for the divergent levels of different adult age groups represented within the chronological stages. For the Early Neolithic, older adults are just as well represented as younger ones, and this could imply that all adult age groups are perceived equivalently. However, the underrepresentation of older adult age groups in subsequent chronological stages could suggest that they were viewed differently. It could be that older adults obtained differential funerary treatment during these latter stages, and this could be due to their age-based identity being perceived positively or negatively.

Similarly to biological sex, variations between different age groups were limited in the Early Neolithic, which makes it challenging to make any firm proposals on how age and ageing may have affected identities. However, the subtle divergences that were recognised could have some significance. The high levels of mobility demonstrated by nonadults, the fact that under certain circumstances nonadults could be subject to differential mortuary treatment, and the higher proportion of old middle adults and mature adults at funerary sites, do suggest that the age of an individual did play, at least some part, in their social and cultural identities. The fact that these trends are variable with what is seen in the subsequent chronological stages also implies that these age-based identities may have evolved as the period progressed. However, the chronological stages also show many similarities which equally suggests that some of the social and cultural elements of age, ageing, and age-based identities likely saw a lot of persistence between them.

7.3: The Middle Neolithic

The palaeopathology data for the Middle Neolithic showed few changes with regard to biological sex compared with the preceding Early Neolithic. The only variation of note was the reduction in dental disease for males (from 26% to 16%) while female dental health remained quite similar (15% and 17%). This could be an indicator of changes to diet for the male population. Diets high in grain-based foods tend to cause more issues with dental health (Smith & Brickley 2009: 118), so it could be that during this part of the period, males consumed more grain-based foodstuffs. Changes in subsistence, such as a move away from arable farming, have been proposed to have taken place during the latter half of the Middle Neolithic (e.g., Stevens & Fuller 2012) and the data found within this research for the Middle Neolithic could substantiate this interpretation. However, the criticisms regarding the employment of unitary models for complex datasets and the lack of consideration for local and regional scales that this interpretation received must be deliberated (see Bishop 2015). Another argument against a change in diet or subsistence is the fact that female dental health remained stable. If a major change in lifeways did occur, variations in the entire population would be expected and not just in one group. The $\delta^{13}C$ and $\delta^{15}N$ isotope data for the Middle Neolithic also remains like the Early Neolithic dataset, suggesting that this aspect of the diet is unchanged, although the previously mentioned caveats relating to secondary animal products such as dairy could be considered.

The major lifeways-related variation found in the Middle Neolithic is the differing $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ levels between males and females. While in the Early Neolithic, both males and females demonstrated high instances of individuals with non-local biosphere signatures, the Middle Neolithic saw 31% of males being non-local but 50% of females being non-local.

This suggests that in the Middle Neolithic, it was much more common for male individuals to live and die in an area local to where they were born and grew up, but females are more likely to have grown up in an area different to the one in which they died. This is a much clearer divergence between males and females than was found within the Early Neolithic. For example, at Hambledon Hill five out of the eight males are all deemed to be local, a signature not seen in the preceding chronological stage. An explanation for this trend could be an increase in female exogamy/patrilocality/virilocality during this part of the period. There is evidence to suggest that this practice may well have occurred in the Early Neolithic. The aDNA research at the Early Neolithic site of Hazleton North, Gloucestershire suggested that the preference for preserving the dominant male lineage within the funerary population could be indicative of these practices taking place (Fowler *et al.* 2022). Also, as suggested within this research, the adolescent female at Whitwell, Derbyshire (see Vyner 2011; Neil 2017), could be an example of a female individual who has gone to live with another group. The $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ data for the Early Neolithic however demonstrated quite equal levels of mobility. The fact that by the Middle Neolithic, there is a clear difference emerging between males and females concerning the $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ dataset could be indicative of female exogamy/patrilocality/virilocality increasing during this part of the period. As mentioned in the previous section, there is a female adolescent from Hambledon Hill who spent her earlier childhood away from the site (see Neil *et al* (2018) which could exemplify this idea.

The levels of representation at funerary sites between males and females, as well as their representation for different mortuary practices, also changed in the Middle Neolithic, again exhibiting much more clearly defined differences between the biological sexes. The representation of non-cremated males in funerary contexts increased from 55% to 61% in the dataset including all osteological data and 53% to 62% in the modern dataset, with female representation dropping. However, the representation of cremated females in funerary

contexts increased from 47% to 52% with males seeing a reduction. While these increases are not huge the fact that males and females are increasing/decreasing in representation for different mortuary practices could be significant. It could be suggestive of differential funerary practices based, to some extent, upon biological sex. Some divergences in representation within specific funerary contexts between males and females were identified in the preceding Early Neolithic demonstrating that biological sex was a factor of consideration in relation to funerary rites during this part of the period. However, in the Middle Neolithic, these variations seem to extend to other areas becoming more pronounced. This could indicate that how biological sex affected an individual's identity changed by this point in the period and it was a more essential element.

Overall, the Middle Neolithic shows more differences between males and females than the preceding Early Neolithic. In the earlier parts of the period, variations were only really identified within specific contexts such as at certain site types or regions. However, by the Middle Neolithic variations between the biological sexes appear more prominent. The higher levels of female mobility, as well as probable differential mortuary practices based on biological sex, are indicative of this. The fact that differences between males and females do seem to increase in the Middle Neolithic could be indicative of biological sex beginning to become a more key component of identity and social organisation. This, in turn, could suggest that systems of gender based on biological sex, like those interpreted for later prehistoric periods, are establishing themselves in the Middle Neolithic.

However, it must be remembered that what the data shows is not a binary split, both males and females could be local or non-local, and likewise, both males and females could receive a cremation or inhumation. Robb & Harris (2018) suggest that gender in the Neolithic is fundamentally different to the subsequent Bronze Age. They propose that unlike in the Bronze Age in which male and female gendered identities are referenced repeatedly across

different contexts, Neolithic gender was more contextual and less rigid which is why it is challenging to see within the archaeological record (*ibid*). In some respects, the data for the Middle Neolithic may substantiate these ideas. For example, concerning mortuary practices, the fact that differences are present, but they are not clear cut, and both males and females could receive comparable funerary treatment, indicates that biological sex was a factor of consideration, but other elements also likely played a part. This idea of sex-based identities and gender being contextual has been echoed elsewhere. Haughton (2023) proposes that grand narratives for binary gender systems applied to prehistoric populations, in this case, Bronze Age Scotland and Ireland, are not helpful for interpretations as they do not consider the cultural variability gender practices can have within different contemporary communities. If this idea of contextual gender was applied to the Middle Neolithic, then it would be unwise to propose that a rigid binary gender system was in place during the chronological stage. It cannot be denied that differences between males and females are beginning to become more apparent during this part of the period. However, both groups still share many similarities in both their lifeways and deathways. Therefore, it is suggested here that biological sex was becoming a more critical component of individual identity during the Middle Neolithic, and this could indicate gender systems based upon biological sex also being established. However, this is still quite circumstantial and is only articulated within certain contexts. This is like what was suggested for the Early Neolithic, however, the key difference in the Middle Neolithic is that variations between males and females appear to be expressed in many more contexts. This suggests that cultural and social understandings of biological sex and its role in the creation and maintenance of identities evolved as the British Neolithic progressed.

For the different age groups in the Middle Neolithic, little changed regarding health, diet, and mobility. Levels of disease were consistent with the earlier part of the period and data from the $\delta^{13}C$ and $\delta^{15}N$ isotopes suggested no variations in diet. There were some changes to

$^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotopic data, however. The number of adults who demonstrated non-local biosphere signatures reduced from 69% to 48%. The number of non-local nonadults also reduced but on a much smaller scale from 82% to 73%. The reduction of non-local adults could suggest that communities may be becoming more settled and permanently established in specific areas. However, for many individuals, particularly nonadults, prominent levels of mobility and movement around the landscape still seem to be a common occurrence. Many of the explanations suggested for the prominent levels of non-local nonadults in the Early Neolithic may also be applicable in the Middle Neolithic. Practices involving exogamy, adoption/fostering, apprenticeships etc. may still be widely used during this chronological stage. The 10% reduction of non-local nonadults could imply that these customs were not as widely practised as in the earlier parts of the period. However, as was the case for the Early Neolithic, the fact that there are clear differences in mobility between different age groups is suggestive of age having some form of social/cultural function in the formation of identities.

The representation of different age groups in funerary contexts in the Middle Neolithic was also largely unchanged from the preceding chronological stage. Again, nonadults fell within the 25±5% suggested average. Some changes in the adult age groups were present. Unlike the earlier part of the period, the burial record now has a greater proportion of the two younger adult age groups of young adult (18 to 24 years old) and young middle adult (25 to 34 years old). This places the Middle Neolithic much more in line with suggested mortality rates for pre-industrial farming societies (see Chamberlain 2000; 2007). However, a lack of older adults within the funerary record may also be indicative of differential funerary rites based on age. If an individual passes a socially/culturally defined threshold concerning their age, then they may have received alternative funerary rites. If this was the case then, given the lack of older adults in the data for the Middle Neolithic, these different mortuary practices may have been ones that are hard to detect archaeologically. This interpretation is challenging to

substantiate given the lack of evidence. However, it is important to consider other explanations aside from the obvious one in which individuals may have died younger during this part of the period. There are some sites such as Hambledon Hill, Dorset, and Banbury Lane 1, Northamptonshire, which still include higher than usual numbers of older adults so this trend of the younger groups being greater in number is not universal at all sites.

Age-based trends for representation within funerary contexts were also identified within certain regions which have a high proportion of Middle Neolithic sites. For example, the region of East England, in which around half of all sites belong to the Middle Neolithic, has a particularly low representation of nonadults at 16% (excluding Banbury Lane 1). Similarly, in the Highlands region, in which sites mainly belong to the Middle and Late Neolithic there is a much greater proportion of the two older adult age groups present, a phenomenon more akin to the earlier Neolithic. Both could suggest that age-based identities and how they were represented in death varied regionally. Some Middle Neolithic-associated site types also presented some further representation variations based on age. For example, nonadults are poorly represented at round barrows and cairns at 17%. These examples show that the representation of different age groups within funerary contexts was variable. There were likely subtle differences between how regions culturally and socially recognised age. Also, the fact that age can affect the likelihood of whether an individual is included within a certain site type implies that it was undoubtedly a point of consideration in the decision-making process for funerary rites.

In many ways, the Middle Neolithic is like the preceding Early Neolithic in relation to age. There are some differences demonstrated between age groups, but these are quite subtle which makes establishing firm conclusions challenging. The similarities demonstrated by the two chronological stages are quite interesting and may indicate that there is some social and cultural persistence between them in how age was used as a component of identity. The fact

that the divergences are present however is significant. This shows that in some circumstances age was a factor in dictating the lifeways or deathways an individual had. Due to this, it was probably a contributing element to individual identity to a certain degree. The importance age has on lifeways and deathways does seem to be variable and circumstantial. For example, there are clear divergences between mobility but less so in other aspects of lifeways. Similarly, age-based representation within funerary contexts can be changeable depending on site type or region. Therefore, it may be best to view age, as a contributing identity taxonomy, contextually. While it was an important part of an individual's identity this was variable. The importance age had on identity could change depending on the context and where it was deemed less crucial other identity taxonomies undoubtedly came to the fore.

7.4: The Late Neolithic

While the smaller sample sizes do need to be considered for the Late Neolithic, a few trends were still able to be recognised from the data that is available. Regarding lifeways, there was no $\delta^{13}C$ and $\delta^{15}N$ or $^{87}Sr/^{86}Sr$ and $\delta^{18}O$ isotope data, however, there was some palaeopathology information. The main findings were the increase in dental disease for males from 13% to 29% with female dental disease remaining like the previous two chronological stages. Also, joint disease increased for males from 25% to 43%. However, these results do not really demonstrate any new divergences between males and females as the variations present have been seen and discussed for the preceding Early and Middle Neolithic.

The representation of males and females within funerary contexts also saw some developments and demonstrated some further trends in the Late Neolithic. During this final phase of the period non-cremated males had their highest levels of representation out of the

three chronological stages at 64% for the dataset using all available data and 67% for the modern dataset. The site with the largest difference between the two, Sutton Courtenay Pit V, Oxfordshire saw males outnumber females nine to one. Similarly, cremated females also demonstrated their highest rates of representation out of the three chronological stages at 52% for the dataset using all available data and 55% for the modern dataset. Sites such as Stonehenge, Wiltshire and Ballaharra, Isle of Man, females outnumber males quite significantly. This suggests that differential funerary practices based on sex were becoming even more prominent during the latter stages of the period. It is now much more likely for males to receive inhumation-type mortuary treatment in the Late Neolithic while females are marginally more likely to be cremated. While the Early Neolithic presented some divergences in funerary practices between males and females in specific contexts, and the Middle Neolithic seemed to build on these and demonstrate more variations, the Late Neolithic seems to be even more definitive in how males and females are divided in relation to funerary rites. This strongly implies that the cultural and social processes attached to funerary rites concerning biological sex evolved as the period progressed. In turn, this could also embody a transformation in how an individual's biological sex may have affected their social, cultural, and/or political status within society and ultimately their individual identity. The more definitive funerary differences found in the Late Neolithic could mean that biological sex was becoming a much more vital component of identity. However, as was the case with the earlier chronological stages, the levels of representation found in the funerary record for the Late Neolithic are not binary splits, both males and females also receive comparable funerary treatment as well. This suggests that other elements of identity are still crucial factors in the decision-making process surrounding an individual's funerary rites.

The annular monuments group, which is largely composed of sites belonging to the later parts of the British Neolithic demonstrates some rates of representation that contrast with those

seen for the Late Neolithic. While the chronological stage as a whole established that non-cremated males were much better represented than females, at annular monuments they have roughly equal levels of representation. This could imply that at this site type, the social/cultural understandings of biological sex and its relation to funerary practices were different in comparison to other Late Neolithic funerary contexts. It could be that individuals chosen for inclusion at annular monuments had specific social identities. Biological sex may not have been a key component of these identities, with other taxonomies possibly taking precedence. The types of social identities these individuals had are challenging to propose as annular monuments are themselves an unusual site type. The overall purpose of annular monuments is difficult to interpret due to limited knowledge of factors such as the original form of the monument, order of the structural and depositional events, and vague understandings of the general belief systems that were in place (Gibson 2005: 99). Not knowing what the sites were used for makes understanding what types of individuals deposited at them more challenging. Many interpretations of the function of annular monuments have been proposed (see Hutton 2013: Chapter Three for a summary), but a substantial proportion do seem to suggest a religious/ritual use for them. If this is the case, then it could be that the individuals who were interred at these sites may have had a religious role within society. Given the equal levels of representation for males and females both could occupy this social identity. This is an area that certainly needs further investigation to provide more concise explanations for the social identities of the individuals found at annular monuments. A detailed analysis of factors such as grave goods, body positions, spatial arrangements of bodies within the site etc. could all help further these initial formulations. However, this is deemed to be beyond the scope of this research.

The Late Neolithic lifeways data for biological sex did not demonstrate any major divergences between males and females, other than those already recognised in previous

chronological stages. The extremely reduced dataset however does mean the Late Neolithic has not been analysed to the same extent as the Early and Middle parts of the period. In contrast to the lifeways data, the data for the representation of males and females in funerary contexts for the Late Neolithic showed the highest levels of divergences between them in comparison to the preceding chronological stages. Males were much better represented in the funerary record, in terms of non-cremated individuals. Females however were better represented in relation to cremated remains. In some respects, this mirrors what has been interpreted for the subsequent Early Bronze Age. For example, non-cremated males are much more numerous in the Early Bronze Age (see Shepherd 2012) and females are more likely to be cremated than males during the period (see Sofaer Derevenski 2002; Brück 2014). Therefore, the Late Neolithic and Early Bronze Age may share some social and cultural affinities with regard to biological sex and its effect on funerary behaviour and sex-based identities. However, it is difficult to establish how this continuity may have manifested itself due to what is now known about the scale of migration to Britain during the Early Bronze Age (e.g., Olalde *et al.* 2018).

The more definitive sex-based representation differences found within funerary contexts in the Late Neolithic contrast with what was seen in the Early Neolithic in which males and females were much more equally matched in most circumstances. As the period progresses female individuals see their representation in non-cremated assemblages decrease but representation in cremated assemblages increase. Male individuals have the opposite trajectory and a marginal decrease in representation in cremation assemblages but an increase in non-cremated assemblages. This suggests that how biological sex contributed towards funerary rites evolved throughout the Neolithic. This growing dichotomy between the biological sexes and their funerary rites, which seems to peak in the Late Neolithic, could be an indicator of sex-based identities becoming much more socially and culturally prominent.

However, as many males and females still received comparable funerary treatment, likely, other identity taxonomies were also crucial. Like both the Early and Middle Neolithic, this again suggests that biological sex is more important under certain circumstances than others. Therefore, it is suggested here that the Late Neolithic was like the earlier stages of the period in that sex-based identities and gender were quite contextual and had greater meaning and prominence in different situations. However, the contexts in which sex-based identities and gender do show prominence seem to be more expanded in the Late Neolithic, compared with the preceding phases. Whether this means that a binary gender system has emerged and is being used by the end of the Neolithic is difficult to say. What can be said however is that the Late Neolithic pays much more credence towards biological sex which could therefore mean it was a much more principal element of identity.

There were very few divergences of note between different age groups for the Late Neolithic. There was no lifeways data other than some $\delta^{13}C$ and $\delta^{15}N$ data for 15 adults and seven nonadults. However, the values from these were consistent with what was seen in the Early and Middle Neolithic suggesting minor changes in diet. The representation of both cremated and non-cremated nonadults in the funerary record consistently fell within suggested mortality rates for pre-industrial farming societies (e.g., Lewis 2007: 22), and this was the same for both site types and regions that are largely formed from Late Neolithic sites. This lack of definitive trends for age for the Late Neolithic makes it challenging to propose how age may have affected identities during this part of the period and it is not possible to demonstrate how they may have evolved from the preceding chronological stages.

While the dataset for the Late Neolithic is not as substantial as those for the Early and Middle Neolithic some useful trends were still able to be recognised. For age, given the absence of any major developments from the preceding Middle Neolithic, the social and cultural understandings of it may be similar. It has been suggested that the inhumation of nonadults

was more prevalent in the Late Neolithic (e.g., Healy 2012), however, the data in this research does not substantiate this and suggests similar levels of nonadult inhumation throughout the period. Trends related to biological sex were much more definitive and demonstrated some clear differences between males and females that varied from earlier parts of the period. This could suggest that biological sex was becoming a much more important social and cultural element of identity. However, the fact that the levels of male and female representation could be variable in certain circumstances, such as at annular monuments, could imply that biological sex and its relation to identities could still be contextual with other elements of identity taking precedence in certain situations.

It is unfortunate that the sample sizes for the Late Neolithic were much reduced compared to the two previous chronological stages. The Late Neolithic is quite culturally distinct. New monumental architecture emerges in the Late Neolithic such as timber and stone circles, and henges, as well as monumental complexes such as Stonehenge, Wiltshire or Forteviot, Perth. New material culture also enters the archaeological record. Grooved Ware pottery begins to be produced and is often associated with other many exquisitely crafted artefacts such as antler and flint maceheads, highly polished axes and knives, chisel-edged arrowheads, and bone pins which have been suggested to represent prestige goods or symbols of power (Gibson 2005: 21). With all these new types of architecture and material culture appearing it would have been interesting to get a greater idea of how lifeways and deathways for different demographic groups also changed.

The reduced sample sizes that were available for the Late Neolithic may well be a consequence of all these cultural transformations. Funerary practices seem to change in the Late Neolithic with a decrease in inhumations and an increase in cremation. Alongside this are the deposition of both cremated and non-cremated individuals at older, established sites such as Duggleby Howe, Yorkshire (Gibson *et al.* 2009), West Kennet, Wiltshire (Bayliss *et*

al. 2007b), Carreg Coetan, Pembrokeshire (Nash 2006: 178) and Ballaharra, Isle of Man (Creegan 1978). When individuals were deposited at new sites it was often at the start of their construction such as at Stonehenge, Wiltshire (Parker Pearson *et al.* 2009; Willis *et al.* 2016; Willis 2019), Balbirnie, Fife (Gibson 2011) or Forteviot, Perth (see Noble *et al.* 2017). Cummings (2017: 193) suggests that the human remains found at these sites were used as a substance for the establishment of them. This would imply that funerary practices within these sites were just one part of a whole host of other socially and culturally important practices associated with these sites. This is quite different to monuments in the earlier parts of the period where funerary rites are central. These changes to funerary practices may indicate a change in how the living wanted to portray the identities of the deceased. In the earlier parts of the period, the dead were placed into a multitude of different contexts and received protracted mortuary treatment both before and after deposition. In the Late Neolithic depositional practices appear to be much more selective. It may be that only certain individuals with particular social identities had funerary rites that survived within the archaeological record. Other individuals may have received treatment that is difficult to detect archaeologically.

To conclude, although only a small number of developments were able to be recognised for the Late Neolithic, the fact that these seem quite different to the Early and Middle Neolithic complements the interpretation that the Late Neolithic may have been a culturally distinct phase. Changes in how age and biological sex were socially and culturally constructed may have occurred alongside these other transformations. Biological sex seems to be a much more prominent factor in how an individual is treated after death. This could also indicate that it was becoming a more crucial part of an individual's identity and binary systems of gender, like which are interpreted for later prehistoric periods, may be becoming more pronounced in Late Neolithic society.

7.5: Conclusion

This research has demonstrated that by considering several different elements of the British Neolithic funerary record relating to both lifeways and deathways, differences between males, females, and different age groups can be recognised. This information can then be used to infer how biological sex and age may have affected individual identities within the period. For biological sex, these divergences are very subtle in the Early Neolithic and limited to certain contexts such as specific site types like chambered tombs. However, by the Late Neolithic, they seem to have become much more pronounced and encompass several different contexts. The Middle Neolithic almost acts as a transitional phase between the two demonstrating similarities to both. This suggests that biological sex was a factor in the social and cultural identities of individuals throughout the period but was also dynamic and changeable as the Neolithic progressed. It is difficult to propose that this means systems of gender based on biological sex were also present as many of the variations demonstrated between males and females are not simple binary splits.

Robb & Harris (2018) propose that gender in the Neolithic is contextual, subtle, and less rigid than what is seen in later prehistoric periods. In many ways, the results from this research substantiate this interpretation. The fact that divergences between males and females are present in some circumstances but not others suggests that biological sex may have had varying levels of cultural and social importance depending on the situation. This would mean that in some contexts sex-based identities were important for conveying a social or cultural message but in others, different identity taxonomies likely came to the fore. The idea of sex-based identities and gender being contextual could apply to all three chronological stages of the Neolithic. However, it could be argued that they become less contextual and more rigid as

the period progresses. The divergences between males and females are more numerous and pronounced the later into the period you get. A substantiating factor for this interpretation could be the affinities the Late Neolithic shows with the Early Bronze Age. Interpretations for sex-based identities and gender in the Bronze Age are much more numerous with many proposing binary systems of gender based upon biological sex being present (e.g., Sørensen 1997; 2013; Treherne 1995; Harding 2007; Shepherd 2012; Holst 2013), although these are debated (e.g., Haughton 2023). These are foundered on the fact that male and female gendered identities are consistently referenced throughout many divergent contexts including burial practices, artwork, and material culture (Robb & Harris 2018). While the Late Neolithic does not contain as much substantiating evidence as the Bronze Age for systems of gender based upon biological, the fact that differences between males and females are more pronounced compared with the earlier parts of the period could suggest it is becoming more like it.

Differences in the lifeways and deathways of different age groups were not as extensive as was seen with biological sex. However, some divergences were present, and this does imply that age was a contributing factor to identity. The prominent levels of mobility demonstrated by nonadults suggest that these members of society may have had specific social and cultural roles within the British Neolithic. These roles required movement around the landscape and possibly joining other groups through one of the forms of exchange suggested earlier in this chapter (betrothal, adoption, fostering, apprenticeships, etc.). However, a percentage of nonadults also appeared to have lived and died in the area in which they grew up, so this was not the case for every nonadult. Both nonadults and different adult age groups demonstrated differential rates of representation at funerary sites. This included groups being overrepresented or underrepresented. This inclusion or exclusion of certain age groups within various parts of the funerary sphere could suggest that age may be linked to social identity,

personhood, or status. Different social identities or levels of personhood or status may increase or decrease the chances of the individual receiving certain types of funerary treatment. If this were the case, it would be highly suggestive of age being a key component of identity. This may also imply that like with biological sex, age as a taxonomy of identity is circumstantial with its importance. In some contexts, age seems to be a key point of consideration, whereas in others it does not seem to be a major contributing factor. Unlike biological sex, the differences found between different age groups do not see much development as the Neolithic progresses. There are some small ones but many of the major trends identified seem to encompass the period in its entirety. Therefore, it may be that age, ageing, and age-based identities remained relatively stable throughout the British Neolithic.

To conclude, differences between males, females, and different age groups are present in the British Neolithic both in terms of lifeways and deathways. While these are often subtle, the fact there are divergences present does indicate that both age and biological sex were active components of identities during the period. It is likely that how age and biological sex affected identities were circumstantial and situational. In some contexts, they appear to be much more crucial than in others. Therefore, it is suggested here that age- and sex-based identities are present, yet they have a scale of importance attached to them which is changeable. While these findings have been extremely useful and exhibited much new information, the next challenge is to more carefully evaluate the contexts which demonstrated the most significant differences between males, females, and different age groups. By doing this, the initial interpretations suggested within this research can be developed and become more nuanced.

7.6: Review of Project and Further Research

It is believed that this research project represents the first time in which all the diverse types of lifeways data, as well as information regarding demographic representation at funerary sites, have been collated into one large database for any period in British prehistory. While there are other large datasets assembled for the analysis of individuals, these tend to mainly focus on one method, such as isotopes (e.g., Parker Pearson *et al.* 2019); examine particular funerary site types (e.g., Smith & Brickley 2009); investigate certain funerary practices (Willis 2019); or they look at smaller regions within Britain (e.g., Lawrence 2012; Cuthbert 2018; Cansfield 2019). The fact that this research brings together all these different strands of evidence makes it unique in British prehistoric research. The believed benefits of this endeavour have been echoed in Chapter Four, so will not be discussed in detail here. However, in short, the merging of all the data has allowed broad-scale trends to be recognised for different demographic groups which are both temporally and geographically distinct. These patterns demonstrated that divergences of varying levels were present for the different demographic groups during their lives and in how they were treated in death, and this has been extremely beneficial in developing a greater understanding of lifeways, deathways, and age- and sex-based identities in the British Neolithic.

So, while the creation of such a large database has undoubtedly revealed a plethora of new information, it has also not been without its challenges. The main issue that emerged during the research was the quality or consistency of the data being merged. An obvious example of this would be the quality and accuracy of historical data compared with more recently generated data, and this has been highlighted in Chapter Four. However, there is not just a temporal factor in this regard any dataset may have issues with consistency. Methodologies in

data collection, recording, analysis, presentation, and interpretation are variable from researcher to researcher (Atici *et al.* 2013). This means that although researchers may be approaching the data with comparable scientific knowledge and understanding, how data is acquired, recorded, and understood could be different depending on the individuals completing the task. For example, in the context of this research, one set of osteological data may be extremely detailed in their sex, age, and pathology determinations for individuals and include elements such as tooth wear or congenital variations, whereas another may just record the very basic information such as age and sex and limited information regarding pathologies. Similarly, different researchers may apply different sex or age range groupings for individuals. While all these data are valid and come from the same scientific foundations their differences mean they can be inconsistent. When amalgamated together, these inconsistencies may appear as representations of real differences in the data, and be interpreted as meaningful patterns, however, they have in fact arisen because of divergent recording methods.

Another danger of variances in recording methods is that biases may be formed. Biases are acknowledged at a wide level in the recovery and recording of data (e.g., Newman 2011). For the database in this project, this could mean that sites which contain greater levels of information about individuals may have a stronger influence on the trends and patterns found during analysis than sites with more limited evidence. This could mean that what the data demonstrates is not a fair reflection of what was occurring in the Neolithic, but instead exhibits the trends of a few sites. This has implications for subsequent interpretations developed from the data.

In many ways, this is part of a larger discussion surrounding the use of the merging of data into one large dataset within archaeology. Boyd & Crawford (2012) propose that increasing the accessibility of data in a form in which it can be combined with other data has the

potential to transform archaeological practice due to the new information it could provide, which would ultimately help in the development of new understandings of the past. However, the issues of the nonuniformity of different data do pose some issues in achieving this and it has been suggested that harmonising data is key to solving this problem (e.g., Atici *et al.* 2013). The level of difficulty in achieving this is extremely variable and dependent on elements such as type of data (e.g., geographical, isotopic, osteological, etc.), how data was collected and recorded, and the chronological disparities between when different data was acquired. It is considered that suitable steps were taken within this research to try and synchronise the various data. For example, the creation of the three osteological data groups (archaic, partial, and modern) and the standardising of the age groups. By taking actions such as these, data could be recorded uniformly, and where this was not possible appropriate attention was drawn to potential discrepancies. Therefore, it is considered that the data used within this research, and by extension the interpretations and conclusions reached, can be considered accurate with a certain degree of clarity.

There are several ways in which this research can be directly built upon. Firstly, while there are a multitude of extant antiquarian assemblages that have been osteologically reassessed in recent years there are many which have not. There is a notable bias towards southern England and Orkney with regard to osteological reassessment, so regions away from these would be desirable. The reanalysis of these would provide greater levels of detail regarding individuals' age, sex, and health. The collation of Sr and O isotope data was undoubtedly useful for this research in demonstrating differing levels of mobility between different demographic groups. However, the sample size for this is still relatively small and further isotopic analysis of British Neolithic individuals would assist in clarifying the interpretations suggested within this thesis, particularly regarding female and nonadult mobility. Strontium and oxygen isotope analysis would be particularly useful conducted on Neolithic individuals

within Scotland as there has been no major research of this type completed there to date. The recent emergence of smaller-scale aDNA research, looking at the ancestry of individuals at specific sites could be useful in furthering this research. Data from these types of research projects (e.g., Dulias *et al.* 2022; Fowler *et al.* 2022) could be integrated within the database once more of these endeavours are completed in the future. This would provide another strand of evidence for the lifeways and deathways of individuals in the British Neolithic and exhibit new information regarding elements such as ancestry, kinship, and biological sex ratios. There is scope to widen the geographic area in which the database covers by adding new regions. The most obvious choice for this would be the inclusion of Ireland but other areas in northern Europe which share chronological and/or cultural affinities with Britain such as northern France, particularly the Brittany and Normandy regions, or Denmark. Comparative analyses between these new regions and the current database could reveal a plethora of new evidence surrounding the connections between these distinct parts of Europe and could also help in substantiating some current interpretations of the Neolithization of Britain (e.g., Whittle *et al.* 2011b; Sheridan 2010b). In a similar vein, the chronological period in which the database covers could also be extended. The inclusion of the Early Bronze Age might be a useful endeavour in demonstrating what major changes occurred in the lifeways and deathways of individuals during the transition from the Neolithic to the Bronze Age.

As well as these ideas regarding how the research could be directly improved upon, it is also hoped that this project can have an impact on future research within a wider context. The methodologies used within this thesis have demonstrated the potential of what can be achieved through the integration of several diverse types of data into one single database. Through careful planning and a logical approach, this research has demonstrated that subtle divergences between different demographic groups can be found which, when combined, can

present good representations of the variations between males, females, and different age groups throughout their lives and how these were represented in death. This means new interpretations and theoretical models regarding sex- and age-based identities can be formulated and proposed. It is believed that this approach can apply to all chronological periods and all regions. There is a vast array of archaeological data relating to lifeways and funerary practices available within the archaeological record, a lot of which is now digitised and accessible. However, much of this is kept separate from one another whether that be on a site-by-site basis, a smaller regional basis, or dependent on the type of research e.g., isotope analysis, or osteology. It is suggested here that the unification and merging of these data could be an incredibly useful way in which further knowledge can be extracted. Ultimately, the more information that can be gained from any given chronological period or region can only benefit and improve comprehension of past periods.

8: Appendices

The appendices are a separate entity to the main body of the thesis. They are split into 6 sections which will each be briefly described here to aid in the navigation of them.

8.1: Appendix I

Appendix I contains all the site information. It consists of two worksheets. The first is the database of all sites including the funerary sites that did not contain human remains on excavation and those which are yet to be excavated. The second sheet contains the basic burial information regarding all sites which had human bone present at them.

8.2: Appendix II

Appendix II consists of all the demographic representation information used in this research. MNIs from all the sites for all the demographic groups are contained within this both for individuals dated to the Neolithic and those who are pre- or post-Neolithic. The workbook is split into several sheets including Neolithic non-cremated remains, Neolithic cremated remains, pre-Neolithic non- cremated remains, post-Neolithic non- cremated remains, and post-Neolithic cremated remains.

8.3: Appendix IIIa

This appendix is split into two and the first part contains all the information regarding palaeopathology used within this research. The initial worksheet lists each individual, what pathologies were identified for them, and a brief description of the type of pathological conditions they may have had. The subsequent worksheets quantify this information and present MNIs from each site for each of the pathology groups used within the research.

8.4: Appendix IIIb

The second part of appendix III catalogues all the isotopic data used within the research with separate worksheets for the carbon and nitrogen isotopes and the strontium and oxygen isotopes.

8.5: Appendix IV

Appendix IV consists of all the charts and graphs generated from the demographic representation part of the research. These are ordered in the comparative groups used for the demographic comparison (see Chapter Four).

8.6: Appendix V

Appendix V contains all the charts and graphs for the lifeways part of the research. The pathologies charts and graphs are first presented followed by the carbon and nitrogen ones and finishing with the strontium and oxygen ones. Again, these are ordered in their relevant comparative group (see Chapter Four).

8.7: Appendix VI

The final appendix is a record of the results from the statistical analysis completed for the lifeways data. Chi SQ tests on the palaeopathology data are initially exhibited, followed by two sample F-tests for variance for the carbon and nitrogen data, finishing with chi SQ tests on the strontium and oxygen data. All these tests are organised around the comparative groups with a separate worksheet for each.

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