

The Identity at Death of the Old and Young



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The Identity at Death of the Old and Young

**from the Neolithic, Bronze and
Iron Ages on the Southeast Asian
Mainland**

Kenneth William Ross

Access Archaeology





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Declaration

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Abstract

The aim of this research was to undertake a mortuary analysis to explore the identity-at-death of the young and old from four prehistoric Thai populations. The mortuary analysis sought to understand if each age group was exposed to normative or atypical funerary treatment over time as a predicate of differential, or shared, social views towards each age group. While studies, focussed on the young, have begun to emerge from prehistoric Southeast Asia the elderly remain under-researched. Research objectives sought to understand the significance and socially prescribed attitudes and behaviours towards each cohort, as expressed through the mortuary process. Indicators of potential transitional age barriers related to the young and the elderly were also explored.

The four cemetery populations comprised over 800 burials and provided the funerary data for this research. The sites spanned the archaeologically defined periods from the Neolithic to the Iron Age. One site, Khok Phanom Di (2000-1500BCE, Neolithic), was found in Prachanburi Province, Central Thailand, and the remaining three sites, Ban Lum Khao (1400-500BCE, Bronze Age), Ban Non Wat (1750BCE-CE500, Neolithic to Iron Age) and Noen U-Loke (400BCE-CE400, Iron Age) being found in Nakhon Ratchasima Province of Northeast Thailand. It was hypothesised that biosocial age was an important structuring element of social organisation in each community. It was further hypothesised that mortuary data for elderly subjects would demonstrate that the experience of ageing was unlikely to be expressed similarly over time following the attainment of an adult personhood status.

Biosocial analysis was based on a series of mortuary evidence commonly found in archaeological studies related to human burial, including features of the grave, spatial distribution, health, fauna, and material culture. Mortuary data was explored for each site individually; at a temporal level through the application of linear modelling and, to a lesser degree, between each geographic region. A recently developed ageing technique was applied to re-evaluate the age-at-death of adult subjects from Khok Phanom Di, Ban Lum Khao and Noen U-Loke with preliminary age assessments from Ban Non Wat retained.

While variable across time, the results suggest that age, and an age-identity, was an important structuring element, as observed through the mortuary sphere, of each site's social organisation. Evidence suggested broad differences in funerary practices between adults and subadults but also notes changing attitudes to children developing over time. Inferences of transitional age barriers related to children, but not the elderly, are seen in limited contexts. Results showed that the experience of adulthood, expressed through the funerary space, was not universal with, in many instances, evidence indicating that elderly subjects may have been afforded select, or elevated status based on their age in some contexts. Further research, either theoretical or methodological, focussed on elderly subjects is supported.

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Introduction

This mortuary research explores the age-identities of individuals from four cemeteries in ancient Thailand. Primarily this research seeks to identify and discuss behaviours expressed towards subadults and elderly subjects following their death. The analysis is undertaken through the examination of funerary variables common in archaeology. While there are studies exploring subadults in prehistoric Southeast Asia (e.g., Oxenham et al., 2008a, Oxenham et al., 2008b, Halcrow et al., 2012, Halcrow et al., 2013) there is little research related to the elderly in this region (Ross and Oxenham, 2016). Where this study looks to add to the body of knowledge related to subadults from the region it also represents the first concentrated effort to explore the potential significance of the elderly from a number of sites across a broad span of time. A focussed examination on the elderly should provide more nuanced insights into the expression of adult personhood status over time.

Age is a defining characteristic of an individual's identity. Additionally, age is a lens through which the larger population perceives and behaves towards each actor. Biological age maps growth or decline as the individual transforms across the lifespan. Social age also gives rise to a series of transformations across the life course as the subject transitions through one phase and into another culturally defined age-based identity category. Actions based on an age-identity may solely affect the individual and the cohort to which they belong and, resultantly, deny or enable their interaction with a range of activities within their environment.

For children this may affect their social and personhood status as they transition through, near, or eclipse, a socially prescribed status threshold. A transitional age barrier may result in the individual being subject to socially prescribed obligations, limitations, or opportunities. Each transition may mark a broad change in perception and conduct towards the individual as they move from a period of variable dependency to independence. Further, a youth's age may beget societal expectations as to their role, anticipated level of engagement with certain tasks and their involvement, in ritual activity. Conversely, the effects of submitting to a socially enforced cessation of employment for elderly individuals marks, as perceived by many, a transition from independence and social engagement towards a withdrawal from society and increased dependency (i.e., governmental, filial, and medical) (Fealy et al., 2012). While brief, each example provides a simple demonstration of the potentiality for the profound effects of age on the individual's experience across the life course.

A relatively recent phenomenon of the industrial era has been the demographic ageing of the majority of nations. Through the twentieth and into the twenty-first century, we see a common trend among populations reflecting significant increases in the proportions of young-old (those aged 55-75 years) and old-old (those aged 75+ years) age cohorts (Powell and Gilbert, 2009, Vaupel, 2010, Leeson, 2015, Pakulski, 2016). This skewing upwards of age profiles reflects significant declines in infant mortality coupled with increasing longevity (Colombo, 2015). As populations age, a range of issues that impact individuals of advancing age present increasing challenges to relevant nation's health sectors, economies and social safety nets (Harper, 2006, Colombo, 2015, Pakulski, 2016). Demographic evidence from Britain shows a decline in infant mortality rates of children under one year of age from 154/1000 (15.4%) in the early period of the twentieth century to 4.4/1000 (<1.0%) in 2011 (Leeson, 2015). Conversely, the mortality profile of the British population is increasingly comprised of the young-old and old-old. In the mid-twentieth century over three quarters of all deaths were of individuals aged sixty or more, but that had increased to nearly ninety per cent by 2009 (Leeson, 2015). Similarly in the same period, the proportion of old-old within the mortality profile increased from a third to nearly two-thirds (Leeson,

2015). Projected levels in Australia of individuals aged sixty-five or more in the population are expected to double to 27.0% by 2050 (Pakulski, 2016).

Human senescence, or deterioration associated with increasing physiological age, has been delayed in many countries due to the twin effects of improved health outcomes and improved quality of life (Vaupel, 2010). Improved health outcomes have been achieved through improved management of chronic health conditions with its subsequent impact on disease burden rates. Improvements in quality of life has been influenced by factors, for example, related to improvements in nutrition, education, residency patterns and lifestyle. Across a range of Organisation for Economic Cooperation and Development (OECD) nations it is anticipated that life expectancy will increase in conjunction with a drop in the fertility rates (1.7 per woman), below the projected replacement level (2.1 per woman in the US) (Porta, 2014), and that people aged eighty years will increase by up to three times the current levels by 2050 (Colombo, 2015, Dupre-Harbord, 2015, OECD, 2015). This trend is witnessed in Thailand, the country of research, with fertility rates dropping below two children per woman and the proportion of the population aged sixty or more doubling by 2005 (Knodel and Chayovan, 2014). It is projected that the elderly (60+ years) will constitute a quarter of Thailand's population by 2030 (Knodel and Chayovan, 2014).

An increase in the elderly age demographic in a population's structure has resulted in the development and reinforcement of a range of negative characterisations of the elderly. These have been brought about by governmental or societal messaging within youth-centric Western nations and promulgated by media stereotypes (Harper, 2006, Fealy et al., 2012). Most affected by the negative societal effects of advanced ageing are adult females (Liechty and Yarnal, 2010, Dupre-Harbord, 2015). This is due to the longevity of the lifespan of females in comparison to males and may stem from greater susceptibility to health, cognitive and financial issues. Financial issues for females may be exacerbated by societal expectations of conduct or action (i.e., expectation of marriage, domestication etc.), the temporal deleterious effects of childbearing and child-rearing for women in the workforce, and the embedded inequality in relation to remuneration and advancement in employment across the life course. At a governmental level, there are two common themes in reference to the threat of an ageing population on a nation's economy. These related to the sustainability of costs on the healthcare system and/or the social security safety net as well as the burden on the economy, as the ratio of non-workers to workers increases over time (Colombo, 2015, Vogt and Kluge, 2015, Fealy et al., 2012).

Within this framework, dominant social policies related to the elderly focus on active ageing, or ageing well. This is to counter the inferred deleterious effects of the elderly on a society at a broad level and promote the continuation of independence. Research shows that notions of successful ageing are shared across cultures and relate to social, cognitive, physiological and emotional wellbeing (Fernández-Ballesteros et al., 2010), although there are cross-cultural variations to this approach (Liang and Luo, 2012). Wisely, governmental policy agendas towards the elderly must be mediated by the fact that some in this cohort represent an active, and growing, political base. Individuals acting on behalf of those unwilling or unable to represent their own interests are empowered to challenge or support the legitimacy and efficacy of sitting democratic government approaches to the elderly (Barnes et al., 2012). Within this environment of increased proportions of elderly citizens, studies have observed changing attitudes and expectations in regards to age-identity and how the subject perceives themselves in relation to family, peers, friends and the broader community (e.g. Sherman, 1994, Kaufman and Elder Jr., 2003, Craft et al., 2009).

1.1 Overview

As stated from the outset, the research undertaken in this dissertation will focus on bioarchaeologically derived age-at-death categories to explore the potentiality of age-identities, specifically for subadults

and the elderly, as a source of insight into mortuary behaviour on the Southeast Asian mainland. The approach taken to explore the age-identity of the young and old across the Neolithic, Bronze, and Iron Age, provides an opportunity to discuss temporality and the possibility of differential attitudes to age-identities in mortuary settings over time. Further, where discourse on social development with ancient Southeast Asia is well established this research leveraged two recently developed social theories, namely Regionality Theory and Resilience Theory, to explore the applicability of each in the Southeast Asian context using the available mortuary data.

Research centred on age-identities in the past provides a greater understanding of social organisation in antiquity. It also enables insights into the potential influence specific age cohorts exerted in ancient communities. Age identities are fluid across the lifespan. An age-identity can be constructed, independently or through the interaction of, biological changes or socially defined parameters affecting the individual (Sherman, 1994, Kaufman and Elder Jr, 2002, Gowland, 2009). Age identities inform perceptions and behavioural expectations, both objective and subjective, of individuals at a specific historical-cultural time as they adapt and transition through, different socially identified and constituted age barriers within a population.

Within the context of archaeological enquiry, the exploration of primarily biological age, is a key variable in biocultural calculations seeking to understand demographic, health and socio-cultural behaviours in the past. Bioarchaeological analysis of age and ageing provides information on issues related to population size, fertility levels, mortality profiles and the spread, impact and response of subjects to chronic or acute episodes of infection and disease (e.g. Panter-Brick, 1998, Beausang, 2000, Goodman and Martin, 2002, Hoppa and Vaupel, 2002, Hoppa, 2002, Scheuer and Black, 2004, Baker et al., 2005, Chamberlain, 2006, Lukacs, 2008, Pinhasi, 2008).

At a socio-cultural level, an examination of age and the ageing process in archaeological settings enables researchers to understand and discuss the significance of age as an inclusive or prescriptive factor in socio-cultural spheres of activity. Studies of this type can be ascribed at a population or individual level and are invariably aligned with other socially constructed parameters (Lillehammer, 1989, Kamp, 2001, Welinder, 2001, Lucy, 2005, Appleby, 2010, Appleby, 2017). This would include the individual's integration and engagement with, or through, daily spheres of social activity related to power, gender, personhood, or status, with economic responsibility and/or ritual practices. As such, age is a critical aspect of biocultural analyses towards elucidating the temporal identity of individuals from past communities.

The theoretical development of strategies to explore the potentiality of differential age cohorts was founded on the success of feminist approaches to method and practice. A developing area of research in a gendered approach to the past has included the importance of the role and significance of subadults and, more recently, the elderly (e.g. Lillehammer, 1989, Sofaer Derevenski, 1994a, Kamp, 2001, Welinder, 2001, Baxter, 2005, Lucy, 2005, Baxter, 2008, Gowland, 2009, Appleby, 2010, Appleby, 2011, Fahlander, 2013, Appleby, 2017, Gowland, 2017). This expansion of original lines of investigative enquiry towards age-based identities enabled researchers an opportunity to explore and perceive the past in previously unforeseen ways. Prior to this time, the paucity of research towards these cohorts reflected a series of theoretical and methodological limitations and entrenched bias from Western perspectives in relation to each subject group. Archaeological theory examining the significance of the young in the past is now well established. This aspect of research has been under development since the attendance of Lillehammer on the child and their socio-cultural contribution and engagement with a child's world experience (Lillehammer, 1989, Sofaer Derevenski, 2000, Lucy, 2005, Lillehammer, 2015).

While the theoretical and methodological difficulties facing the analysis of the elderly in the past are influenced by different limitations, there have nonetheless been significant barriers based on dominant

and negative Western perceptions in relation to the elderly that have influenced, or slowed, research into this important cohort (Lucy, 2005, Appleby, 2010, Appleby, 2017). Research focussed on the potential significance of the elderly in prehistory has only been under development in the very recent past with significant scope remaining for biocultural studies across different temporal periods and geographic locations (Welinder, 2001, Appleby, 2010, Appleby, 2017).

Mortuary settings are a key source of biocultural investigations for archaeologists as the medium provides material evidence on the social structure, the palaeoenvironment and socio-cultural behaviour in prehistory (Binford, 1971, Alekshin et al., 1983, Metcalf and Huntington, 1991, Carr, 1995, Chapman, 1997, McHugh, 1999, Parker Pearson, 1999, Chapman, 2003, Chapman, 2013, Fowler, 2013b). Cemetery populations preserve the individual at the fixed point of their death and may communicate, transform, negotiate or idealise how the subject was perceived socially (Mitchell, 2006, Sofaer, 2006, Michaels, 2012, Murphy and Le Roy, 2017). Archaeological approaches to mortuary analysis have undergone significant modification, in both method and theory, in the last sixty years (Trigger, 1989, McHugh, 1999, Parker Pearson, 1999).

There has been considerable archaeological and bioarchaeological research carried out across Mainland Southeast Asia in recent decades. As with other locales, much archaeological data on past populations in the region has been sourced from mortuary settings. The long history of occupation and migration, spanning through the Pleistocene to the historical period, continues to be exposed with greatest focus being on understanding social organisation, palaeohealth, and on developments related to economy or technology in the region. This research has provided evidence of Mainland Southeast Asia as a vibrant and complex area experiencing significant change through time.

The consideration of identities within a population, whether age-based, gender-based or otherwise is at an early stage of development within biocultural research from Mainland Southeast Asia. Nonetheless, researchers, particularly bioarchaeologists, in the region have started to engage with the potentiality of age-based identities, especially that of subadults, as a cohort that provides important insights in past socio-cultural systems in the region (Halcrow et al., 2007, Halcrow et al., 2008, Oxenham et al., 2008a, Oxenham et al., 2008b, Halcrow et al., 2012, Halcrow et al., 2016). This has also led to the attendance of the importance of personhood status of subadults from a number of sites including the Neolithic site of Man Bac in Vietnam (Oxenham et al., 2008b). Further, research focussed on elderly age-identity has now been initiated in the region which has provided insight into the differential status of this cohort (Ross and Oxenham, 2016). A gendered approach to the past has also been applied in Mainland Southeast Asia at the Thai Bronze Age site of Non Nok Tha, with evidence suggesting that differential positioning of human remains and the positioning of some artefacts may have been influenced by gender over time (Bacus, 2006, Bacus, 2007). All this suggests that, in addition to evidence from other sites across the region over time, there is evidence for individual identity (based on age or sex) being a factor in determining or influencing the funerary treatment of subjects across the mainland of prehistoric Southeast Asia.

1.2 Dissertation Objectives

Despite considerable progress on the part of bioarchaeologists and archaeologists to elucidate the importance of age and gender in the structure and development of some communities in Southeast Asia, there remains a critical need for continued research in relation to age-based identities in the region. This dissertation is based on the premise that there is currently a research void with respect to understanding the identities of the young and old on the Southeast Asian mainland.

The four sites explored in this thesis, Khok Phanom Di (KPD), Ban Non Wat (BNW), Ban Lum Khao (BLK) and Noen U-Loke (NUL), were selected as they enable a comparative approach towards mortuary behaviour,

at an intra and inter-group level, of each age cohort of interest either temporally or geographically. That is that Khok Phanom Di and Ban Non Wat were occupied during the Neolithic and also that Ban Lum Khao and Ban Non Wat were occupied in the Bronze Age with the three sites of Ban Non Wat, Ban Lum Khao and Noen U-Loke situated in close proximity to one another. The sites selected were occupied across a period spanning the Neolithic (2000BCE-1500BCE), Bronze Age (1500BCE-500BCE) and to the Iron Age (500BCE-500CE). Figure 1.1 shows the approximate location of each site in Thailand.

The objective of this dissertation is to undertake a mortuary analysis of the aforementioned four assemblages in order to explore, identify and discuss the visible treatment of the old and young by those living survivors who buried them. Such an approach will enable an understanding of how the young and old were perceived and treated, within and across temporal periods, and provide an insight into the active roles they occupied in a range of situations from the more secular through to philosophical-religious. This core objective will be achieved through the identification and discussion, in relation to old adults and subadults, of the following items:

the attitudes and perception towards these subjects by the living population, being those individuals that observed and executed the burial of the deceased within the context of the population's belief system with respect to the appropriate treatment of the young and old;

the evidence for normative and differential/atypical mortuary treatment within, and across, specified age-based cohorts to examine if mortuary treatment towards each cohort was shared diachronically within, and synchronically between, populations;

the evidence from older adult and subadult burials that supports an inference of the transition across the life-cycle and identifies the biological and social age at which this transition occurs across each population temporally; and

socially constructed identities (i.e. age, gender, personhood, status, power, death-identity), and the individual age-based or sex-based categories that each applies to.

1.3 Dissertation Argument

This dissertation will argue that the old and young were important agents, variably, through time at each of the sites under investigation. Evidence will demonstrate that each cohort, but primarily the elderly, was significant in their social environment, as witnessed through their mortuary treatment over time. Consequently, that a subject's age, and more specifically their age-identity, especially where advancing age occurs, was an influential factor in the categorisation and subsequent mortuary treatment of its community members. Finally, from a regional, and to lesser extent global, position this dissertation will argue for greater emphasis on the study of the old and young in biocultural studies to redress the current inequality, or void, of research focussed on each of these subject groups.

1.4 Dissertation Structure

Structurally, this dissertation will be divided into two major components. The initial three chapters represent the first broad structural component, following this introductory chapter, and are focussed on discussing several divergent subjects, from a disciplinary and theoretical standpoint, to contextualise the overarching argument discussed throughout this dissertation. Chapter Two, titled "*Mortuary Archaeology, Mourning and Grief*", is constructed to evaluate and review multiple subject areas. The first section of this chapter examines social parameters surrounding the death and subsequent burial of an individual. This section discusses the potential for realising the significance of mortuary rituals and funerary practices

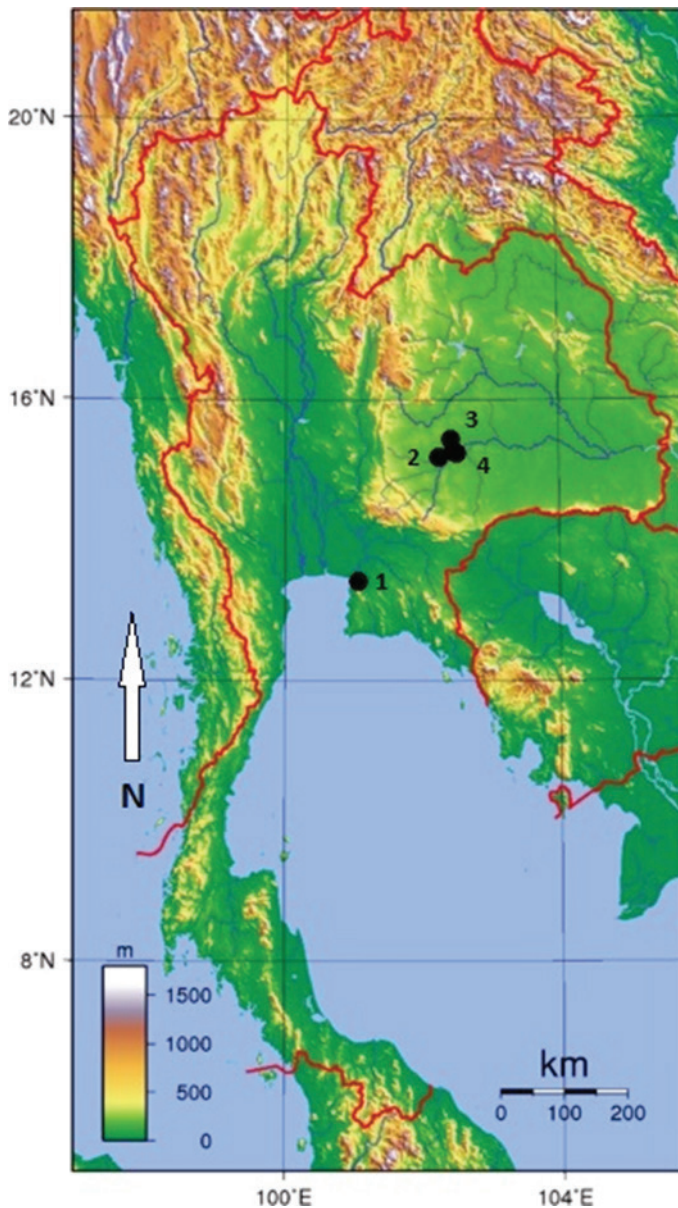


FIGURE 1.1: Topographic map of Thailand with site locations: 1 – Khok Phanom Di, 2- Noen U-Loke, 3 – Ban Non Wat, 4 – Ban Lum Khao (adapted from public domain Sadalmelik 2007: https://en.wikipedia.org/wiki/River_systems_of_Thailand#/media/File:Thailand_Topography.png)

as spheres of agency which communicate, reinforce, or re-define socio-cultural behaviour and custom and the exchange of memory. Within this environment, where the life-identity of the individual transcends into their identity at death, the dead frequently continue to actively engage with their social environment. The final section of this chapter examines the potential of physiological, psychological, and neurological responses to death and grief, especially in relation to the cohorts under review, as a means of identifying emotion affecting bereavement, grief and mortuary treatment.

Chapter Three titled “*Gender, Age and Ageing*”, examines a range of issues related to the study of age and age-identity, the biological factors influencing ageing, viewed skeletally as growth and degeneration, and the methodological and theoretical limitations affecting age-based biocultural studies. The initial section critically reviews the origins, development and influence of a gendered approach towards biocultural analysis in archaeology. This includes the role of gender in contemporary Thailand. The second part of this chapter reviews the development of age-based identity studies in archaeology, specifically in relation to the young and old, the complex understanding of age as a defining characteristic of an individual’s identity and social attitudes of the young and old. The third section examines palaeodemography, evolutionary processes and biological factors that have, or continue to, affect the human ageing process with the final section providing a critical analysis of factors, such as methodological or theoretical barriers, limited sample sizes or

intrinsic researcher bias towards the subject group, limiting research in this important area.

Chapter Four titled “*Mainland Southeast Asia: Overview and Site Discussion*”, provides a general overview of a range of mortuary traditions in Southeast Asia and in Thailand across the Pleistocene and into the Holocene with greatest emphasis being placed on critical factors affecting socio-cultural development and behaviour across the Neolithic, Bronze and Iron Ages. This includes the developing influence of India and China, the consequent suite of technologies, ideas and knowledge brought into Mainland Southeast Asia and extant debates over the origins of bronze in the region. Particular attention is also focussed

upon evidence of a gendered approach to mortuary remains and of identity studies, especially in regard to the young and old, in the region. Finally, this chapter provides a comprehensive and critical review of current research and outcomes from each of the four sites under review with greatest emphasis on studies elucidating the role of the young and old in each community across time.

Chapter Five titled “*Materials and Methods*”, provides a discussion on the available materials analysed, conventions used, and the variable methods applied to achieve the objectives of this research. Primarily this research undertakes a comparative analysis of data sourced from published material to form the primary dataset for analysis. Following the method developed by Cave and Oxenham (2016) a tooth wear analysis was executed on dentition to re-categorise age ranges of elderly subjects, if appropriate, into discrete age groups. Funerary variables under analysis include attendance of the treatment, position and status of human remains and their relationship with the burial environment, both immediate and influential, the material culture, artefacts and fauna, the health status of individual subjects and the spatial distribution of subjects across each cemetery. This chapter provides discussion on statistical methods applied and information technology systems adopted to store, manage and analyse data.

Chapters Six through Nine titled as “*Results*” by individual site name, provides detailed results, primarily through the representation of data and statistical analysis in tabulated form, of the application of each methodology applied in relation to each targeted subject area. Results of the analysis of data were used to identify and discuss mortuary behaviour, synchronically, at an intra-site level as an initial step to understanding normative funerary practices across each of the sites at specific times which subsequently demonstrated if subadults and older adults were provided normative mortuary treatment or were exposed to atypical mortuary treatment within, and across time, at each site. The analysis at Ban Non Wat is both synchronic and diachronic to factor in the potential for observed differential funerary behaviour at the site. Chapter Ten, titled “*Results: Generalised Linear Modelling*”, provides the results of an analysis examining broad trends, by age and to a lesser degree sex, across the three temporal periods under review. A series of transformed and non-transformed variables were applied to test the potential for differential mortuary behaviour.

Chapter Eleven titled “*Age as a Characterisation of Identity in Southeast Asia*” discusses each of the key objectives outlined in this research to argue there is sufficient, although variable, evidence from each of the four sites under review to support the view that the old and young, to a lesser and variable degree, were active and significant agents within the socio-cultural and philosophical-religious interactive spheres through time. As a result, data related to the perception and behaviour towards the old and young, the exposure of both age cohorts to normative and/or atypical mortuary behaviour through time, the evidence for transitioning through the life cycle and the inherent inferences of ageing and the experience of ageing, are discussed in detail. It will be observed that biosocial age was a key characteristic affecting social behaviour and that young and old were socially significant identity groups, variably, in each population. Chapter Twelve titled “*Regionality and Resilience Theories in the Context of Southeast Asia*”, uses the available mortuary data from the sites reviewed to explore and discuss, as noted above, the potentiality of two recently developed social theories, namely Regionality Theory and Resilience Theory, as new models for social development on Mainland Southeast Asia. This analyses, as an extension of the age-based focus of this research, continues to use age and sex-based mortuary data developed through this dissertation to explore each theoretical model. A Regionality Theory perspective is based on contrasting mortuary data from Khok Phanom Di and the Neolithic occupation period at Ban Non Wat. A Resilience Theory is focussed on mortuary data from the three sites, namely Ban Non Wat, Ban Lum Khao and Noen U-Loke, in the Nakhon Ratchasima Province of Northeast Thailand. The concluding thirteenth chapter provides a summary discussion of the major observations of this dissertation and reviews future avenues of research.