

A sepia-toned photograph of a mountain valley. In the foreground, a river flows through a rocky bed. On the left bank, there is a traditional hut with a thatched roof. The valley is flanked by steep, rocky mountains. The sky is overcast. A solid green vertical bar is on the left side of the page.

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VARIATION AND PROCESS: THE HISTORY, CURRENT PRACTICE AND FUTURE POTENTIAL OF MORTUARY ARCHAEOLOGY IN AOTEAROA NEW ZEALAND

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ABSTRACT: Mortuary archaeology in New Zealand is a tapu 'sacred, prohibited' subject due to the special place that kōiwi tangata 'human skeletal remains' hold in Māori culture. Recognition of Māori rights over ancestral remains led to a near cessation of published studies in recent decades. But kōiwi tangata are frequently uncovered accidentally by development or erosion and, in collaboration with Māori, recorded prior to reburial. The resulting pool of unpublished data presents an opportunity to advance our currently stagnant archaeological understanding of the burial practices of past Māori communities, particularly given that some sites are demonstrating a higher level of complexity of burial process than has hitherto been discussed archaeologically. Although still a highly charged subject, there exist a number of examples of Māori groups voicing support for respectful, collaborative study of burials. As time and tide continue to expose kōiwi, it is time for appraisal of the archaeological literature on this subject. This paper reviews the history and current practice of mortuary archaeology in New Zealand, highlighting how current bioarchaeological perspectives offer valuable potential. In particular, the concept of the burial rite as an ongoing process, the various stages of which can result in different forms of burial, and the application of the principles of field anthropology (*anthropologie de terrain*) to identify stages of mortuary activity offer new frameworks for exploring the variety evident in Māori burial and the social and conceptual insight this can offer.

Keywords: burial, mortuary archaeology, Māori, Aotearoa New Zealand, kōiwi 'human remains', *anthropologie de terrain*, archaeoethanatology, Polynesia

The archaeological analysis of burials can provide a direct encounter with the people of the past, illuminating aspects of life and death for both the individual and society while presenting a meeting point for biological and cultural lines of enquiry. In New Zealand, mortuary archaeology has received relatively little analytical attention, despite a history of active archaeological and biological anthropology research. The majority of published discussions of burials date to prior to the 1980s and most are descriptive, with few examples of quantitative or comparative analytical approaches to understanding burial behaviour. From these publications, the general statement that emerges

about pre-European Māori burial practice is: it varied. There has been little research conducted to try to establish pattern within or determinants of this variation. We have, therefore, a vague archaeological understanding of pre-European Māori burial practices—in what forms they arrived from eastern Polynesia and how they changed as Māori society developed, grew and diverged across the country. The lack of research in this area means there is little with which to contextualise the frequent discoveries of pre-European Māori burials uncovered during development or exposed by ongoing—and potentially increasing—coastal erosion.

In common with a number of countries worldwide, the practice of bioarchaeology in New Zealand is shaped by the presence of a living culture connected to the archaeological skeletal remains. Burials and *kōiwi tangata* ‘human skeletal remains’ are emotionally and spiritually charged in Māori culture. Past archaeological practice in relation to burials has contributed to shaping Māori protectiveness towards *kōiwi*, and the place of *kōiwi* in Māori culture has in turn shaped modern archaeological practice. Assertion of the significance of *kōiwi tangata* and of Māori rights over the remains led to a cessation of research excavation of burials from the 1970s and to a perception that research regarding pre-European Māori burials is not feasible.

The sensitivity of the subject does not necessarily preclude all research, however—if Māori collaboration and support are sought. By working with relevant Māori groups, accidental discoveries of burials or *kōiwi tangata* are often recorded by archaeological consultancy work. So, although our published mortuary archaeology record largely halted decades ago, there is an increasing pool of grey literature documenting multi-stage burial processes not discussed by the published literature. Added to this, there exist now a number of expressions of interest or support—as voiced by Māori—for research into the subject of bioarchaeology or traditional Māori mortuary practices (e.g., Meihana and Bradley 2018). These show that although this is an intensely sensitive area, there is some potential for respectful and collaborative research into this subject.

Before mortuary archaeology can move forward, there is a need for a critical review of the existing literature and assessment of how new approaches and new data may address current gaps in knowledge. This paper reviews existing New Zealand publications about burials and mortuary archaeology, identifies changing approaches over time, key findings and ongoing assumptions, and proposes explanations as to why this field has seen little analytical study. It goes on to argue that, with support from Māori groups and by applying modern bioarchaeological perspectives to the grey literature, opportunities now exist to better explore the complexities of pre-European Māori burial practice and to better access the social information, the insight into individual lives and the personification of the past that burials can provide.

THE PUBLISHED RECORD I: CHANGING APPROACHES

Despite a number of publications reviewing aspects of New Zealand bioarchaeology (Buckley and Petchey 2018; Clark *et al.* 2017; Gilmore *et al.* 2013; Matisoo-Smith 2004; Ruckstuhl *et al.* 2016; Shapiro 1940; Tayles and Halcrow 2010; Watt 1972), there are no comparable works that review mortuary archaeology or Māori burial practice. Despite restrictions on the study of Māori skeletal remains since the 1970s, there have been more biological anthropology studies published in recent decades than discussions of burial practice (Buckley *et al.* 2010; Cox *et al.* 2006; Hayes *et al.* 2012; Kieser, Dennison, *et al.* 2001; Kieser, Kelsen, *et al.* 2001; Kinaston *et al.* 2013; Murphy 2000, 2002a, 2002b, 2002c, 2005a, 2005b; Te Moananui *et al.* 2008).

Publications that document archaeological burials or discussions of burial practice in New Zealand are listed in the Appendix. The list is extensive but not exhaustive, since further burial descriptions may reside in excavation reports yet unknown to me.¹ Arranged chronologically, these publications span the changes in themes and approaches to mortuary archaeology over time, which reflect trends affecting the discipline as a whole.

To summarise the Appendix, in the nineteenth and early twentieth centuries, archaeologists and ethnographers studied the material culture from burials with a focus on identifying Polynesian connections and establishing culture histories. Meanwhile, biological anthropologists frequently investigated only the crania from burials, seeking evidence of “racial” affinity as part of a “classificatory quest which seeks to understand by systematization” (Shapiro 1940: 1). In many cases little attention was paid to the burials as a whole (Matisoo-Smith 2004). When burial practice was discussed, body position was used as a criterion for identifying peoples or culture groups—for example, distinguishing “Moa hunters” from “shell-fish eaters” (Haast 1874a, 1874b) or identifying the so-called Waitaha people (Adkin 1948, 1950). Related to this was an interest in scattered or broken bone as an indication of the practice of cannibalism, and whether this practice could be regarded as a distinguishing feature of the proposed culture groups (see Barber 1992 for discussion; Haast 1874b).

As the twentieth century progressed, aspects of burial practice remained a focus for distinguishing culture groups, though the nature of those perceived cultures was redefined (Archaic vs. Classic Māori; see Golson 1959). Accompanying material culture was interpreted as reflecting expended “wealth” or “expense” and thus the social status of the individual (e.g., Adkin 1948; Duff 1977; Skinner 1936). This is an approach to mortuary analysis that continues to shape the way burials are used in archaeological interpretations of Māori social organisation (Marshall 2004; Walter *et al.* 2006). During this period, studies appeared that drew on oral tradition for interpretation (Monheimer and Skinner 1956; Sinclair 1940; Taylor

1955) and, though cannibalism was still referred to fairly uncritically as an explanation for broken or scattered bone (e.g., Sinclair 1940; Skinner 1934), one study gives more reasoned attention to the question of how to distinguish cannibalism from burial practice in the archaeological record (Teviotdale 1935). Also from this time bracket is a rare example of an analytical approach to using burial practice to glean esoteric information regarding cosmology (Steele 1931).

The broad shift from culture histories to analysis of economics and settlement patterns in New Zealand archaeology is reflected by the attention to spatial relationships between burials and occupation sites and sequences that developed in the 1970s (Davidson 1970, 1972; Leahy 1970). From that time, there was also a growth of an archaeologically integrated approach to physical anthropology in New Zealand—marked by the work of Phillip Houghton and Doug Sutton (e.g., Houghton 1975a, 1975b, 1977a, 1977b; Sutton 1977, 1979)—which provided more insight into individual skeletal remains and social questions related to health and injury, thereby bringing the study of burials into new focus.

There was an obvious decline in publications concerning burials and burial practice by the 1990s. A key exception is Barber's (1992) critical review of the archaeological and documentary evidence for one specific mortuary treatment—cannibalism. Barber appraises archaeological and ethnographic evidence for cannibalism, demonstrates that burnt and fragmented human bone can result from a variety of practices and illustrates ways that archaeologists have been overzealous in attributing such bone to (to use an oft-repeated phrase) “the remains of a cannibal feast”. The dearth of burial publications continued into the 2000s; a few document burials arising from accidental discoveries (Pishief 2002; Trotter 2011), or derive from long-since excavated sites (Davidson 2018; Jacomb 2000), while a more recent series have resulted from a research programme investigating European and Chinese settlers' graves (Petchey *et al.* 2017; Petchey, Buckley, Hil, *et al.* 2018; Petchey, Buckley and Scott 2018). The last of these reflects the rise of bioarchaeological approaches that bring cultural and physical research together and a new era of mortuary analysis in New Zealand.

THE PUBLISHED RECORD II: KEY FINDINGS AND CURRENT GAPS

In addition to spanning the changes in archaeological approaches to burials, the publications listed in the Appendix demonstrate a key archaeological understanding regarding pre-European Māori burial practice: that there is great variety in the contexts and presentations of documented Māori burials. The range of possible treatments for the dead body described by publications in the Appendix includes variety of position (extended supine or prone, flexed

in various positions, varied orientation), deposition (primary, secondary, incomplete, burnt), accompanying material (with or without grave goods, large stones, red ochre, coffins), context (graves, storage pits, houses, fire features, middens) and location (swamps, caves, sand dunes, burials within or removed from settlements).²

To provide a brief quantitative summary, the 70 entries in the Appendix represent approximately 505 individuals, 218 of which have been archaeologically excavated. Forty-two publications (60%) refer to more than one individual. Of those, 18 (43%) describe more than one approach to deposition at the one site or locale.³ It is not uncommon to find more than one form of burial at any one place with multiple burials. The literature reports a far greater number of primary burials than those clearly described as secondary (Fig. 1), though the vast majority are not detailed or “other” (e.g., scattered in midden, “cremation”). When described, the greater number of pre-European burials were in the flexed rather than extended position, though if post-European burials are included in the tally, this is reversed—a reflection of the adoption of Christian burial practices. No attempt has been made to further divide burial treatments temporally for this paper, as to be of value this would require examination of the chronology of the sites and burials within them.

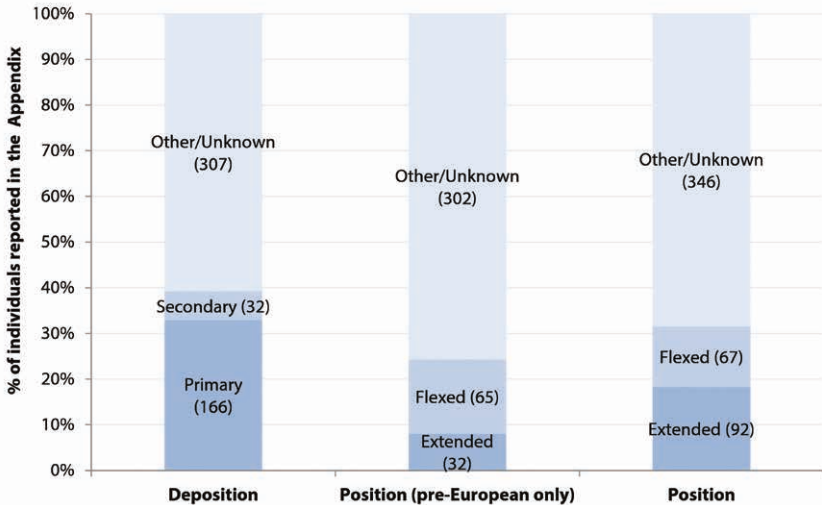


Figure 1. Numbers of individuals referred to in the Appendix divided by deposition and position.

Previous attempts to discuss or summarise the range of burial treatments employed by Māori tend to be categorical, contrasting these binary divisions of extended versus flexed position or primary versus secondary deposition (e.g., Davidson 1984; for discussion of such oversimplification see also Sutton 1974: 159), or categorising treatments in relation to natural features: cave burials, swamp burials, tree burials, sand dune burials (Best 1974; Crosby 2004; Taylor 1984). Few archaeological studies have attempted quantitative or comparative, temporal or regional analyses to consider determinants for the evident variation in burial treatments. Is this, or how is this, variety patterned among people and across landscapes or time? When differences in burial practice have been discussed, variation has often been attributed to differing status of the deceased, frequently on the basis of the provision of grave goods (Duff 1977; Leach and Leach 1979). This is an essentially processualist theoretical perspective which regards the living identity of the deceased as being unambiguously reflected in their treatment at death. It allows for only a narrow, somewhat western-capitalist-centric understanding of the concepts of grave goods and status and cannot account for the items that decay or processes that are not archaeologically visible.⁴ Subsequent post-processual stances have pointed out that “the dead do not bury themselves” (Parker Pearson 1999: 9) and that multiple forces can be at play in the process of burial. Suggested determinants of Māori burial variety that are more in keeping with this latter line of thinking include manner of death (Davidson 1984), social context (i.e., at war or peace, Davidson 1970) and season of burial (Steele 1931), though these have not been explored in depth. The laws of *tapu* ‘sacred, restricted, prohibited’, the influence they might exert over deposition of items in a grave, and how this might affect the appearance of grave “wealth” have yet to be explored, despite the centrality of this concept and its influence over ritual behaviour in Māori culture (Gilmore *et al.* 2013; Salmond 1975: 42).

The literature also shows a number of assumptions that have not been greatly examined or tested. There has been an exclusion of incomplete burials from excavation, description or analyses (see Davidson 2018; Leach and Leach 1979; Walton 1994), simplistic suggestions of cannibalism to explain burnt or incomplete remains (discussed by Barber 1992), and a common assumption that burials would never have been placed in areas associated with food or housing, since this does not accord with modern Māori sensibilities regarding death (e.g., Haast 1874b; Law 2008: 53; Oppenheim 1971: 25). The latter assumption may seem reasonable, given the enduring nature of aspects of the *tangihanga* ‘funerary rites’ in Māori culture (Oppenheim 1973; Voykovic 1981), but such assumptions left unexamined potentially deny Māori culture the inevitable process of change. This point is also countered by both archaeological examples (Davidson 1970; Law

2008; Leach and Leach 1979: 210; Leahy 1970) and traditional concepts of using burials as *mauri* ‘talismans, life force’ over garden areas—a former practice that has been communicated to me by tribal elders at two sites in the Bay of Plenty (see also Ngaropo 2013), indicating that the rules of segregation were not necessarily as simple or as rigid as they are sometimes understood to be today. Further, to date there has been little consideration of burial taphonomy (with the exception of Trotter 1975b) or of the concept of the archaeological burial as a moment in what may have been an ongoing process of mortuary rite. These are both matters that are in focus in current bioarchaeology (e.g., Knüsel and Robb 2016), and the ongoing nature of burials has been noted in many regions (see particularly applications of the “*chaîne opératoire*” concepts to ongoing funerary practices—e.g., Sellier 2016; Valentin *et al.* 2016 and others of that volume). This paper will argue that it is the consideration of both taphonomy and process that will be fruitful for advancing our understanding of pre-European mortuary practice in New Zealand.

A number of these points are illustrated by two of the country’s most prominent burial studies: Wairau Bar (Buckley *et al.* 2010; Duff 1977) and Palliser Bay (Leach and Leach 1979). Burials from these sites have received much attention and discussion but so far have resulted in little analytical consideration of burial practices and the social or cultural information they may reveal. Because these sites are a primary basis for comparison for all burial discoveries in New Zealand, they have become somewhat archetypal and serve to illustrate New Zealand mortuary archaeology and some of its history and current shortcomings.

Wairau Bar

Wairau Bar is an early period site dated to about AD 1300 (Higham *et al.* 1999) at which burials were, for New Zealand, numerous (42). The site is well known for the rich array of material culture and moa bone discovered there and is referred to as the type-site for early New Zealand culture (Duff 1977: 83; Leach and Leach 1979). Research at the site can be divided into two broad phases: the first based on excavations that took place between 1939 and 1964, and the second since 2008 as a result of repatriation and reburial of the kōiwi excavated by the first phase. While the recent phase of research offers potential for new approaches to understanding the burial practice at the site, the nature of the original excavation, documentation and state of preservation present an impediment to revised mortuary analysis.

The first era of research was reported by Roger Duff in 1950 (1977, 3rd ed.), who described mostly primary burials, often in an extended prone position, and many accompanied by a large number of ornamental grave goods. These features became the nationwide benchmark for designation of

burials as being of the early period (e.g., Edson and Brown 1977; Leach and Leach 1979; Walton 1994). In the wider Pacific, the burials of Wairau Bar have been used to crystallise the notion of what constitutes East Polynesian burial practice (Emory and Sinoto 1964). But the volume gives a descriptive summary of the burials rather than quantitative data or a detailed analysis. Duff's interpretations of the social information the burials provide is not given as the conclusion of a process of analysis but rather as interpretations peppered through his narrative as a series of assumptions that appear heavily biased by the social context of the author's time.

There is an underlying assumption through the work that grave wealth equated to rank and that both were reserved for males. The dismissal of women and children as of lesser social importance than males is overt. The orientation of women's graves was stated to be unimportant (Duff 1977: p. 68) and women were assumed not to be the recipients of grave goods or respectful burial ritual:

It is generally not difficult in excavating to distinguish between the carefully placed bones of a male of rank, with his burial offerings, including the moa egg water-bottle, and the trussed bones of a woman or a young person of no particular rank, bundled without ceremony into the smallest possible grave. (p. 58)

Children's graves are given no illustration and very little description, and in one case grave goods that were found with a child (B.32) were dismissed by the suggestion that they in fact belonged to the adult male buried nearby (B.30; p. 64), showing again the somewhat circular attitude that grave goods demonstrated rank, which belonged to adult males—and therefore grave goods belonged to males. When Houghton (1975b) conducted an osteological analysis of the kōiwi, published nearly 40 years after the burials were first excavated, he found that eight individuals that Duff had considered male were in fact estimated to be female, indicating that Duff's assignation of sex was influenced by his beliefs about grave wealth.⁵

It was in light of Houghton's osteological findings that Leach (1977) then conducted the only quantitative analysis of mortuary behaviour at Wairau Bar to have been published so far. This was an examination of the relationship of biological sex to grave goods. Leach found that the proportion of males buried with grave goods was not greater than that of females and that there was no simple correlation between sex and grave goods. This study aimed only to examine Duff's assumptions; the implications of the findings were not discussed, and more broad-ranging analyses of the burial practice at Wairau Bar did not follow from Leach or other authors.

Aside from the interpretive biases, the potential for extracting further mortuary information from the site is greatly affected by biases of

preservation and selective excavation. Prior to research excavation beginning at the site, large parts of the site had been extensively ploughed and fossicked, with numerous items being removed by collectors (Brooks *et al.* 2011). When archaeological research began, the approach to both excavation and recording was at times haphazard, making it difficult to establish which parts of the site were excavated methodically (p. 15). The excavation method was somewhat brutal at times: Duff himself used the plough to locate graves, examining the furrows for bone fragments and artefacts as an indication of where to excavate (Duff 1977: 55). Together these facts raise uncertainties regarding the spatial record of the site and the differentiation of Duff's designated burial groups, Groups 1–3. Duff considered Group 1 to be high-status individuals, since they were mostly males provided with elaborate grave goods. But these graves were protected by a greater depth of overburden than the other groups, which were more vulnerable to the intrusions of fossicking and ploughing. Shallower, more fragmented burials, or those already stripped of any accompanying artefacts, may have been overlooked in favour of more complete burials, and it is not clear to what extent the comparative lack of grave goods with the Groups 2 and 3 burials could be influenced by prior fossicking. Selective bias has also affected the skeletal record, as in some cases only crania or single limb bones were collected for analysis (Brooks *et al.* 2011; Buckley *et al.* 2010).

The recent phase of re-analysis of the Wairau Bar skeletal remains, conducted by Buckley and colleagues (2010), is integrative of biological anthropology and the wider archaeology of the site, and therein a modern bioarchaeological perspective is apparent. This study and other chemical analyses of the Wairau Bar kōiwi (e.g., Kinaston *et al.* 2013; Knapp *et al.* 2012) have compared results from Duff's proposed social groupings of burials, and in this way the biological studies offer new potential to investigate a possible aspect of burial practice: spatial segregation on social grounds. Those authors acknowledge that the lack of clarity surrounding group differentiation or temporal differences between groups is currently a limitation to comparisons (Buckley *et al.* 2010: 3, 17), while critics of the isotopic studies of these groups highlight unreliability of the apparent spatial divisions due to the site taphonomy and excavation history (see Brown and Thomas 2015 and response by Kinaston *et al.* 2015).

Wairau Bar will always be an important site in New Zealand's archaeological history and the purpose here is not to detract from that, but rather to highlight that its analytical contribution to our understanding of burial practice is less than might be expected, given its prominence and continued place as a benchmark for comparison of burial practice. New skeletal and chemical data provide opportunities for reconsideration of burial practice at the site, but face the challenge of teasing apart the original record to consider the effects of preservation, sampling and interpretive bias.

Palliser Bay

Mortuary behaviour was also studied at three sites in Palliser Bay, located at the base of the North Island. These sites are arguably the country's second-best-known group of archaeologically researched burials. The discussion of burial practice (Leach and Leach 1979) focused on body position, orientation and the presence of grave goods and large rocks with the small number of complete inhumation burials. A total of 16 individuals from three different sites were excavated, but only six of these from two early sites (Washpool and the Kawakawa site, dated to the AD 1300s) were included in the consideration of burial practice. In this small group, primary and secondary, extended and flexed burials were found, with and without grave goods and with and without large rocks in or over the grave. The authors drew on historic accounts of Māori burial practice in order to interpret aspects of burial activity and gave context to their findings by making comparisons to Wairau Bar and broader East Polynesia. They conclude that these comparisons "show quite clearly that the disposition of the dead was subject to considerable variation in Polynesia and New Zealand" (Leach and Leach 1979: 211), and their comparison challenged a belief that extended burials were characteristic of early East Polynesian contexts.

While their conclusion highlighted variation in burial practice, the chapter left out an important aspect of the variation evident at Palliser Bay. The focus on the more complete individual inhumation burials led to omission of the "cleft burials" discovered at a site inland from the Washpool site and dated 100–200 years later. This group of remains in a rock crevice could have been considered as part of a broader discussion of the array of burial practices observed in the region and over time, but the focus on body position meant that only inhumation burials at the earlier sites were discussed.

Prior to this publication, Doug Sutton wrote of a lack of attention to incomplete or disturbed human remains in the physical anthropology literature (Sutton 1977). This inattention was essentially continued in discussion of burial practice at Palliser Bay by the exclusion of the cleft burials. Similar dismissal of burials of incomplete skeletons is indicated from the field notes at Wairau Bar (Brooks *et al.* 2011) and other examples exist to demonstrate a lack of interest in excavating or recording incomplete remains (see Walton 1994). At Sarah's Gully, an important early North Island site, the 11 burials encountered were dismissed as uninteresting by the excavation director: "Necropolis on Platform E does not really interest me" (Golson, cited by Davidson 2018: 97). This was possibly due to them being incomplete, a matter of some interest now, and lacking grave goods.

To some degree, this lack of attention to the incomplete echoes the former attitude of early archaeologists and ethnographers to material culture: initially only whole specimens and end products were the focus, while it was not

until the 1970s that the influence of manufacture process came to the fore (Furey 2004) and, as a result, unfinished, broken and repaired items and manufacture debris received greater attention as the “life history” of the item was appreciated. The same is reflected in the changing analytical conception of *pā* ‘fortified sites’: from static, typological entities (e.g., Groube 1970) to dynamic sites that result from ongoing processes of transformation (Furey *et al.* 2003). This paper will argue that it is time now to view burials from this perspective of formation processes and, as discussion below will show, burials of incomplete remains should not be considered as simply “disturbed” and of little importance. On the contrary, they give insight into an array of mortuary processes and behaviour that has, to date, largely gone underreported and unconsidered in the New Zealand mortuary archaeology literature.

SYNTHESES AND OVERVIEWS: TWO KEY WORKS

For the archaeologist attempting to interpret or contextualise burial discoveries, there are few publications that provide overview or synthesis, and to date there is no work that provides broad quantitative data to allow the archaeologist to understand pre-European Māori burial in relation to the “normal” range of archaeological findings. For the interpretation of burials, archaeologists often turn directly to ethnographic descriptions (Best 1974; Buck 1950) or to one of two published overviews: a sociological synthesis of ethnohistoric documents (Oppenheim 1973) and a section in a key archaeological textbook (Davidson 1984).

Oppenheim’s 1973 book *Maori Death Customs* has become a key piece of literature, often referred to by archaeologists and historians (e.g., Davidson 1984; Deed 2015; Leach and Leach 1979; Taylor 1984). Oppenheim brought together observations made by European missionaries, settlers and early ethnographers regarding death and burial in traditional Māori life.⁶ The work provides references to descriptions of the burial rites, inhumation, exhumation, treatment and display of exhumed bones, and reburial or final deposition. These accounts have archaeological relevance since the processes described could leave archaeological signatures. But overreliance on such sources presents a potential to imprint biased interpretations of Māori burial practice onto the more distant past.

The state of archaeological knowledge of Māori burial practice was summed up by Janet Davidson in her 1984 work *The Prehistory of New Zealand*. In a section of her chapter on social life, Davidson describes burials reported from around the country and tries to draw out general patterns of behaviour and change over time. Davidson notes that diversity in burial practice is evident across the pre-European period and that such burial variation is also found throughout Polynesia. Despite this variation, she suggests that there is a general trend from primary burial near settlements

to secondary burial away from settlements. Davidson considers that this greater segregation indicates a change in the attitude to appropriate location for burials and that this may signal a change in the nature or understanding of tapu or of the tapu of burials over time.

Davidson's summary is a key contribution to New Zealand mortuary archaeology as it attempts to place burials in some wider context in terms of the understanding of pre-European Māori social life. It is, however, a short descriptive discussion that acknowledges that it is "based on a woefully small sample, in which many regions are not represented at all" (1984: 176). Many of the burials or sites referred to are unpublished sites that Davidson is familiar with due to her own experience, meaning that the reader cannot extract quantitative details of the burials referred to. Davidson's proposal regarding change in practices over time has not been tested by subsequent research, and the archaeological understanding of pre-European Māori burial practice has not been revised or developed since her work.

PACIFIC COMPARISONS AND BIOARCHAEOLOGICAL TRENDS

As the region of origin of the Māori people, the central and eastern Pacific provides important context and comparison for New Zealand archaeology and bioanthropology. The burial practices of this region have been evoked for comparison in order to comment on the origins of Māori people or culture change over time (Davidson 1984; Duff 1977; Leach and Leach 1979). Yet, as in New Zealand, Pacific analyses of mortuary practice have generally received less scholarly attention than biological studies of skeletal remains, and lack of overview means that the understanding of what practices Polynesians brought with them to New Zealand is ill defined. The notion of what constitutes typical East Polynesian burial practice has developed over time based on a mixture of archaeological and ethnographic observations and comparisons. It appears to have developed without concerted review of archaeologically documented burial practice and is largely based on artefact types rather than behaviour and processes surrounding burial. When Duff described the "Moa-hunter" burials of early-period New Zealand, the connections to East Polynesia were primarily based on artefact form, though he compared orientation, position and post-burial removal of skulls to ethnohistoric descriptions from the Cook Islands, Chatham Islands, Solomon Islands, Marquesas and Rapa Nui (Duff 1977: 59).

Later excavations at the island of Maupiti, French Polynesia, described burials as representing an East Polynesian burial style, highlighting their similarity in position, orientation and artefact types to those at Wairau Bar (Emory and Sinoto 1964). But Leach and Leach (1979) note that while burial positions and orientations were similar between Maupiti and Wairau Bar, they differed from other East Polynesian sites excavated in

the Marquesas (Hane and Ha'atuatua) and Palliser Bay. Both Leach and Leach and Davidson sum up that archaeologically recorded features of East Polynesian burial practice vary.

These approaches to defining and comparing burial practice refer to end-product traits of burials—the final resting position of the corpse and items with it—and they have a bias of greater attention towards complete inhumation burials and a strong focus on grave goods. Similarly, more recent mortuary analyses from elsewhere in the Pacific have focused on grave “wealth” as an indicator for individual status and social stratification (Leach and Davidson 2008). These are traditional approaches to archaeological mortuary analysis that help to establish links between island groups and social structures within them.

A new approach to mortuary analysis has recently gained ground in the Pacific, however, that holds potential to consider burial practice and variation in practice from a new angle. In worldwide bioarchaeology, a focus on process and multiple stages of ritual has increasingly been highlighted as being an important interpretive perspective for mortuary analysis (e.g., Hutchinson and Aragon 2002; Sellier 2016; Valentin *et al.* 2016). Concurrently, the methodology and principles of field anthropology (*anthropologie de terrain*), an approach developed by French researchers (Duday *et al.* 1990; Duday *et al.* 2009; Duday and Guillon 2006), have been widely adopted by bioarchaeologists. This is an approach that lends itself very well to a focus on process and stages in mortuary ritual. Field anthropology is a method of recording and analysing skeletal remains that considers details of taphonomic changes and the sequence of decomposition and disarticulation of the body to reconstruct mortuary behaviour. Its fine-grained attention to the position and articulation of skeletal elements allows analysis of the timing and processes of deposition of the body, any revisitation of the grave and the presence of any perishable materials that affected it. It offers the possibility of gaining a more nuanced understanding of mortuary behaviour and choices, which can further studies of the more traditional parameters of mortuary analysis (e.g., orientation, grave goods). The methodology has been introduced to the Pacific region by French researchers (Valentin *et al.* 2001; Valentin *et al.* 2008; Valentin 2010; Valentin *et al.* 2010; Valentin *et al.* 2011; Valentin *et al.* 2014; Valentin *et al.* 2016) and uses of the method in both the Pacific and Southeast Asia have been reviewed by Harris and colleagues (2016).

Valentin and colleagues (2010) exemplify the application of field anthropology method in the Pacific and present evidence for the ongoing nature of mortuary rites at the Lapita cemetery of Teouma, Vanuatu. A pattern of post-burial bone removal was identified as taking place at different stages of decomposition for different individuals. The position

and persistence of joints of other burials indicated unnatural manipulation and positioning of the cadaver prior to decomposition in some cases and after complete decomposition of the body in others. The researchers went on to discuss what these archaeological manifestations of different stages of burial process indicate about the ideological view of biological death, differences of behaviour in regards to males and females and the potential for revisitation practices being observed at a communal level.

This study offers a valuable model that could be applied to mortuary archaeology in New Zealand, particularly given that the majority of pre-European Māori burials recorded do not have elaborate grave structures, extensive material culture (with the exception of the early period burials of Wairau Bar) or other coffin “furniture”. Field anthropology offers a way to elucidate more subtle aspects of behaviour and pattern surrounding the burial rite. The approach also gives the opportunity to consider a more complex and ongoing process of burial activity, rather than a simple primary versus secondary dichotomy.

CULTURAL CONTEXT OF NEW ZEALAND MORTUARY ANALYSIS

In the supposed interests of archaeology and kindred knowledge much has been improperly done in the disturbing of Maori burial dead. (Graham 1933)

To return to New Zealand, part of the reason for the paucity of mortuary archaeology analyses is the relatively small numbers of burials documented (Sutton 1977). Indeed, of the 70 publications listed, only 12 (17%) refer to archaeologically excavated burials/skeletons that number five or more. Numbers are only part of the reason, however; it is also a matter of timing. The 1960s–1970s was an era of development for method and theory in archaeological mortuary analysis, which particularly gained ground after the publication of Brown’s 1971 volume *Approaches to the Social Dimensions of Mortuary Practice*. This book included some key theoretical perspectives, now referred to as the Binford-Saxe programme (Binford 1971; Saxe 1971), and has influenced debate over mortuary archaeology ever since its publication. But this had not had a great deal of time to make an impact on New Zealand archaeology before changes in the cultural and political context of archaeology in the 1970s brought changes in archaeological practice.

The study of Māori burials has an uneasy history that has shaped the practice of New Zealand archaeology, as is the case in many post-colonial countries. Discussion of the trade of human remains, the grievance this caused and the way this has shaped museum practice and the anthropological discipline is covered by literature of the repatriation movement and indigenous archaeology (Aranui 2018; Jones and Harris 1998). In brief, early biological anthropology and archaeology research frequently collected

skeletal remains without regard for their significance to living Māori. These activities caused distress; newspaper articles from the 1930s give examples of objection being voiced to these practices—naming scientists, archaeologists and museums as culpable (e.g., *Auckland Star* 1933; Graham 1933, 1945). Insult was added to injury as the human remains were then often used to bolster racist evolutionary theories or were considered as relics of a “dying race” (Jones and Harris 1998). Grievances felt by Māori in relation to the study of Māori skeletal remains and *taonga* ‘treasures, culturally important objects’ are therefore relatively recent in New Zealand’s history. Older people today may have parents or close relatives who witnessed mistreatment of their own local burial grounds or caves, making these experiences relatively fresh and alive in recent collective memory (see Rika-Heke 2010).

Key to understanding the sense of grievance is appreciation of the significance of skeletal remains on a number of levels. In Māori culture, parts of the body, especially the head and things closely related to it, are held to be tapu, a dead body even more so, and the dead bodies of ancestral predecessors yet more so since they are viewed as the physical remains of the *tūpuna* ‘ancestors’ (Cherrington and McLeod 2011; Ngai Tahu 1993). Human remains themselves can be viewed by Māori with reverence, discomfort or fear (Rika-Heke 2010), and even the academic study of Māori death rites can be viewed as entailing spiritual risk (Nīkora *et al.* 2010). Add to this the matter of the relationship to the land that the buried dead could confer upon their descendants (Oppenheim 1973: 69) and the interruption to this that colonisation caused and it can be seen that the significance of kōiwi tangata is complex.

It was not until the 1970s and 1980s that Māori control over kōiwi became more widely recognised and enacted. This came as a result of a time of cultural renaissance, protest and social and political change, at the centre of which was the establishment of the Waitangi Tribunal (Ruckstuhl *et al.* 2016; Tayles and Halcrow 2010). This movement was connected to a worldwide push for recognition of indigenous rights and out of this era came a change in museum and archaeological practice. As a result, archaeologists have not deliberately targeted known Māori burials for research purposes since the late 1970s (Tayles and Halcrow 2010).

THE IMPACT OF CONSULTANCY

Although research excavations of burials essentially ceased four decades ago, burials continue to be uncovered accidentally by development or erosion. These are increasingly, with the support of Māori *iwi/hapū* ‘tribe/subtribe’ representatives, being recorded archaeologically and osteologically prior to reburial. Such work has resulted in a large and steadily growing body of unpublished archaeological reports that contain osteological and

burial practice data for hundreds of individuals. Archaeological reports that result from consultancy cultural resource management (CRM) archaeology do have limitations when it comes to research, for example budget and time constraints, inter-observer error, and a sometimes limited ability to determine the full extent of a site and proportion of it excavated. What CRM archaeology does offer, however, is a volume of cases from a breadth of site types and environments. Furthermore, data will continue to be generated from this area, presenting both a need for and a means of synthesis of burial practice information.

Legislation relating to human remains in New Zealand has been described by other authors recently (Ashby 2013; Ashby and Hudson 2016; Buckley and Petchey 2018; Cox *et al.* 2006; Ruckstuhl *et al.* 2016; Tayles and Halcrow 2010), but not in relation to archaeological consultancy. These processes will be outlined briefly here in the interests of establishing how bioarchaeology operates in New Zealand CRM archaeology and how the grey literature burial record is generated.

Burials and human remains that date prior to 1900 are included in the definition of an archaeological site⁷ by New Zealand's primary heritage law, the Heritage New Zealand Pouhere Taonga Act (HNZPTA) of 2014, and protected as such. This law requires that an authority be granted from the Crown heritage agency (Heritage New Zealand Pouhere Taonga, HNZPT) before a site may be damaged or modified. An authority, if granted, will state conditions that must be upheld regarding excavation, analysis and reporting. It will state who must be notified if kōiwi are discovered⁸ and who final excavation reports must be submitted to. A standard authority condition is that archaeological features must be excavated according to "current archaeological practice". In this sense, if burials are to be disturbed in any way, the archaeologist technically has an obligation to excavate, record, analyse and report them. In practice, however, if the mandated Māori representatives oppose archaeological involvement with human remains, then the remains may be treated as exempt from archaeological requirements and iwi representatives may choose to have no archaeological study. This is not stated by law, but the authority of Māori over human remains is made clear by the HNZPT's guideline document regarding kōiwi tangata and the New Zealand Archaeological Association's Code of Ethics (New Zealand Archaeological Association 1993). Such exemption is observed in deference to the special place that burials hold for Māori culture, in keeping with the principles of the HNZPTA, which balance scientific investigation with what is culturally appropriate, the principles of the Treaty of Waitangi, New Zealand's founding document, and arguably an eagerness to atone for past offences caused by the archaeological discipline.

The HNZPT's guideline also notes that a burial or human remains may be allowed to be excavated without an authority if the remains are "on their

own and not associated with any remaining archaeological material ... provided that detailed recording occurs” (Heritage New Zealand Pouhere Taonga 2014: 17). This wording has the unfortunate effect of implying that archaeological burials, graves and human remains are distinct from material of archaeological value, though the intention of this practice is to allow for appropriate cultural practices to be observed in relation to the kōiwi without the delay of the statutory process and recognising the need for urgency when kōiwi tangata are discovered (Heritage New Zealand Pouhere Taonga 2015: 12), particularly in cases of kōiwi uncovered by ongoing erosion and in public areas (Bev Parslow, HNZPT, pers. comm., 28 November 2016). Without an authority, however, there is no legal requirement or dictate regarding reporting the burial.

Eagerness to recognise Māori rights over kōiwi tangata means that there is some lack of clarity in the HNZPT’s guideline document as to whether remains must be established to be of probable Māori ancestry before the iwi are given control of them (Heritage New Zealand Pouhere Taonga 2014: 12, 15, 20). It may be assumed that this will be judged from the context of the remains, but if the remains are “on their own and not associated with any remaining archaeological material” then the context may hold no information on this point. This does leave some potential risk for remains of other ancestry, or those of forensic interest, to be reburied as ancestral Māori (Master 2006).

Sensitivity regarding kōiwi tangata means that once burials are reported, if reported, privacy surrounding that information can mean that it is hard to access. Authority conditions will state that a final excavation report must be submitted to a number of parties,⁹ among whom are the interested Māori parties and the HNZPT digital library. The latter has always been publicly accessible, though up until now it has been primarily accessed by archaeologists. This may change with the recent development of a direct download facility, which Heritage New Zealand hopes will widen the range of users (Kiri Sharpe, HNZPT, pers. comm., 18 September 2019). Reports of burials or osteological reports are sometimes withheld from the publicly available digital library. Others will be summarised as chapters within an archaeological report on the wider site and become publicly available this way. Other approaches to balancing archaeological reporting with cultural sensitivity include substituting images of the skeletal remains, regarded as sensitive and to be guarded, with illustrations, or having images blanked out in the digital library version.

The inaccessibility of kōiwi reports has been hailed as a positive for researchers:

The fact that Māori are able to trust that the stories of their ancestors will not reach the wider public and become public knowledge has helped, at least in the case of the Ngāi Tahu and University of Otago relationship, to build the

foundations of a solid working relationship between that iwi and academics of the Biological Anthropology Research Group. (Ruckstuhl *et al.* 2016: 633)

On the one hand, limiting access to unpublished information about burials helps to build relationships between researchers and Māori and helps to move archaeology and bioanthropology forward from the past grievances and offences described above. On the other hand, limited access to information presents a barrier to providing synthesis and research and renders this subject, for better or worse, impenetrable to an outsider. Certainly, Māori agency and good working relationships between Māori representatives and researchers is key to development in this sensitive and tapu area of archaeology.

THE RESULTING UNPUBLISHED DATA

Many burial discoveries may not enter the official archaeological record in New Zealand; they may never be reported, they may be reported but not recorded by an archaeologist, they may be excavated by an archaeologist but without an authority and standard report process, or they may be reported but the information withheld from public access. Gauging the number of burials exposed or recorded in any period of time is difficult. The most direct source of information regarding burials is therefore from institutions or individuals currently producing bioanthropological reports: the Anthropology Department at the University of Auckland; independent bioarchaeological consultants; and the Biological Anthropology Research Group at the University of Otago.

Focusing on the North Island, bioarchaeological reports have been produced by these parties for at least 51 North Island sites since 2004, documenting a minimum of 377 individuals—an average of 25 per year. While some of these are reports of unprovenanced human remains, the majority have associated reports of archaeological context and therefore burial practice information. Twenty-nine reports (57%) document more than one individual at a site and 15 (29%) document five or more individuals. This is similar to the total number of reports in the Appendix (2+: n=42, 60%; 5+: n=21, 30%), but something of an improvement—in terms of being able to compare burial practices for multiple individuals in one location—on those among that list that have been archaeologically excavated (2+: n=25, 36%; 5+: n=12, 17% respectively).

Figure 2 shows the regional distribution of reports and individuals reported on by bioarchaeologists working in the North Island, with the addition of 13 reports referred to by Ruckstuhl and colleagues (2016).¹⁰ The dominance of the upper North Island regions reflects the higher density of both the pre-European Māori population and the modern population—the latter leading to greater development and more likelihood for kōiwi to be uncovered by earthworks.



Figure 2. Regional distribution in the North Island of numbers of individuals reported by grey literature biological anthropology reports since 2004.

These numbers do not take full account of discoveries in the South Island and across the country are expected to greatly underrepresent the number of kōiwi discovered since 2004, either by archaeological excavations, police or members of the public. Perhaps in future, a greater proportion will receive archaeological recording prior to reburial—this will depend on the wishes of Māori representatives and the availability of funding to excavate and record remains that are being exposed by erosion each year. At any rate, the current unpublished record certainly can provide the numbers to further quantitative analysis of Māori burial practices across a variety of sites and in multiple regions.

VARIABILITY AND PROCESS

It is not just the quantity of individuals represented by these unpublished reports that offers a good basis for potential study; sites recorded in recent years demonstrate variety in ancient Māori burial practice that represents more than a binary division between primary and secondary burial or a simple categorisation of burial type by the available local environment. Unpublished reports demonstrate multi-stage processes of mortuary practice, differential treatment for different parts of the body and different burial processes for different individuals. Some of these sites are therefore displaying evidence for more complex mortuary behaviour than has been discussed by published New Zealand mortuary archaeology to date.

An example of this is given by the Northern Runway Development (NRD) site, a late pre-European (mid- to late 1600s AD) occupation and burial site on the shores of the Manukau Harbour, Auckland (Campbell 2011; Hudson and Campbell 2011).¹¹ Eighty-eight burials¹² were identified at the site—the largest number of Māori skeletal remains recorded from an archaeologically excavated site. There was a wide variety of forms of burial, and the final archaeological report identified five different burial “types”, each representing a differing degree of manipulation or alteration of the body (Fig. 3). In addition to undisturbed primary burials, a number of burials showed stages of manipulation of the body before decomposition and burial (primary dismembered), some had stages of manipulation after decomposition but before burial at this location (secondary burials), and others had been revisited after burial and after decomposition (primary revisited). One form of secondary burial only included a specific group of small elements from throughout the skeleton: bones of the hands and feet plus a combination of other small elements, such as the hyoid, ossified thyroid cartilage, xiphoid process, patella and often a single tooth or rib. In contrast to those considered “primary revisited”, several of these were buried in small hollows that were not sufficiently large to have ever contained

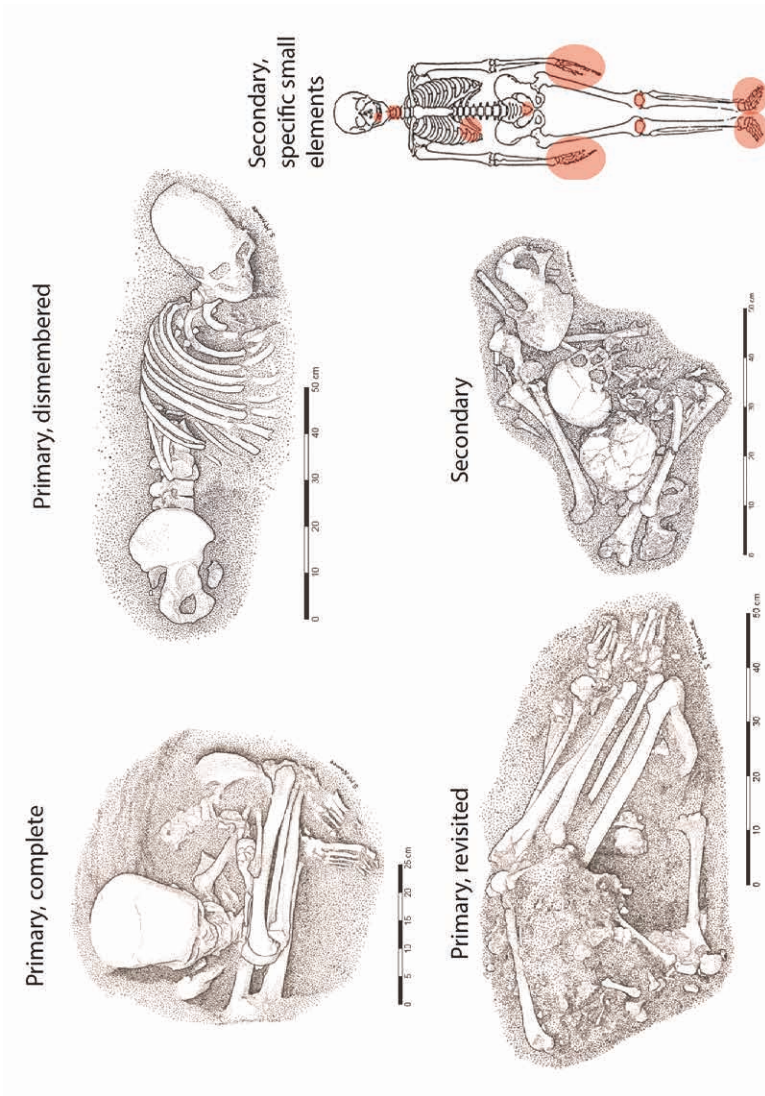


Figure 3. Examples of the different forms of burial discovered at the NRD site.

a complete body. They appear instead to represent a group of small bones gathered up to be deposited together. The fact that these included bones such as the coccyx, hyoid and ossified thyroid cartilage precludes them belonging to the “primary dismembered” individuals, as those individuals were otherwise intact and not lacking such elements. Therefore this last burial type demonstrates a distinct mortuary process that resulted in such a collection, and this highlights the importance of giving analytical attention to burials of incomplete skeletons.¹³

Traditionally these could be regarded as five distinct rites. Alternatively, considered in terms of process and field anthropology, some of these different forms of burial could represent different stages along one mortuary process, while others are mutually exclusive, demonstrating multiple mortuary processes at this site. The crucial questions are what determined the pathway that any given individual received, and what are the possible processes?

This site and others like it present an excellent opportunity for research along a number of lines of investigation, not least of all the ongoing mortuary process, stages of activity and the taphonomy that resulted in these different manifestations of burials. With the application of the principles of field anthropology, there is potential for a thorough bioarchaeological examination of the nature of variation in Māori burial practices and whether patterns emerge within this. This allows consideration of cultural ideas surrounding death, how these are applied to different individuals and how such ideas and practices have developed. Beyond this, information regarding the revisitation of graves for removal of remains also has implications for broader archaeological questions of settlement pattern and sedentism. At some sites with revisited graves from which remains have been removed, it could be that the deceased were only seasonal inhabitants of a site, and therefore presenting those burials as an indicator of sedentary occupation may need to be reconsidered. It is hoped that a current bioanthropological perspective and the field anthropology method will advance our understanding beyond the knowledge that Māori burial practice varied towards greater understanding of how and why it varied.

MĀORI RESPONSES TO THE ARCHAEOLOGY OF KŌIWI TANGATA

Today, decades after recognition of Māori rights over kōiwi tangata brought changes to archaeological practice, feelings among Māori regarding the archaeological excavation and study of accidentally uncovered kōiwi tangata differ around the country. Certainly, many Māori do not approve of archaeological involvement with kōiwi, but there are now a number of instances of Māori expressing interest in or finding value in research regarding kōiwi and past death rites.

A recent paper authored by members of the Rangitāne iwi note that a positive outcome of aDNA analysis of kōiwi from Wairau Bar has been the iwi's enhanced focus on female ancestors and lineages, thereby inverting the patriarchy that has in part been developed under the influence of colonisation. They also note that the research project has allowed redress of past grievances and reconciliation between Rangitāne and the scientific community (Meihana and Bradley 2018). Ruckstuhl and colleagues (2016) cite another repatriation project for which the University of Otago collaborated with Māori groups to design and undertake bioarchaeological research prior to reburial of kōiwi. They report hapū leaders feeling gratified to have received information about their ancestors. Add to this the number of bioarchaeological consultancy reports discussed above and this further demonstrates that there is a level of approval for the respectful study of kōiwi tangata—provided it is conducted with respect for *tikanga Māori* ‘correct Māori protocol, custom’. This is stated formally in at least two policy documents outlining the appropriate treatment of kōiwi tangata that were developed some decades ago by Ngāi Tahu, one of the major iwi of the South Island (Ngai Tahu 1993), and by the Southland Museum (Gillies and O'Regan 1994). These documents, while stressing the high cultural significance of kōiwi and the need for Māori authority over them, also acknowledge the potential benefit to Māori of scientific study of kōiwi.

Māori researchers studying the modern Māori tangihanga name them as a subject that is worthy of careful research since they are “the ultimate form of Māori cultural expression” of both centrality to and endurance within modern Māori culture (Nīkora *et al.* 2010: 400). They note that death and tangihanga have been recognised by Māori researchers as a little-studied area that merits careful study in order to deepen understanding, inform the community and support decision-making among the bereaved. Studies of Māori practices surrounding death also have the potential to inform the current resurgence of interest in practising traditional aspects of preparation of the body at death (Coster 2013).

Taken together, these examples demonstrate that although this is a very tapu subject with a fraught history, there is some potential for collaborative research to take place and move our archaeological understanding of past Māori burial practices and individual kōiwi tangata forward. Attention to and discussion of Māori feelings towards recording kōiwi prior to reburial is particularly timely now, given the current era of discussions about the impact of climate change is raising awareness of the frequency with which kōiwi tangata and *urupā* ‘burial grounds’ are being exposed by king tides, flooding and erosion (Bell *et al.* 2001; Davis 2018; Parahi 2018; Perera 2019) with little clear archaeological process or funding available to respond.

* * *

This review is written at a time of shifting relationships between Māori and archaeologists regarding burials and kōiwi tangata as well as some degree of resurgence in traditional death practices among Māori. It also comes at a time when environmental concerns are raising awareness of the exposure of coastal burials and the questions surrounding the ensuing cultural and archaeological procedures. These issues reverberate more broadly through a discipline that is reflecting on its colonial past—of which the treatment of the human remains and sacred places forms a central topic—as well as discussing the effect that increased coastal erosion will have on archaeological sites, particularly in many of the vulnerable island nations in the Pacific. Furthermore, for many years now, there has been a call for greater integration of the subdisciplines of archaeology and biological anthropology—for which burials provide a nexus. Now is a good time to reconsider our archaeological understandings of Māori burial practice.

Much of what has previously been written about pre-European Māori burial practices is unquantified and untested and is particularly influenced by the 1950s narrative surrounding the burials of Wairau Bar. Burial descriptions are generally seated within a culture-historical model or a Binford-Saxe-era understanding of grave wealth and status. There has been a focus on burials that could be considered “whole” and a sometimes unquestioned application of modern Māori cultural understandings to archaeological burials. Overall, there is an understanding that burial practices varied but that there was a tendency for those of the early period to be primary, extended and furnished with elaborate grave goods, while those of later times were crouched or secondary, with few funerary items. Data to support this do not exist in the published literature, so the ability for any archaeologist to situate their findings in relation to norms or a suite of documented practices is limited, as is our understanding of temporal and regional change.

These matters are of central importance to New Zealand archaeology, a field that centres on understanding the process of cultural change for the colonisers of a remote Pacific island group. Who was it that made the voyage from central East Polynesia to New Zealand, what aspects of their culture did they bring with them and how did culture change as they inhabited the new land? These questions are at the core of New Zealand archaeology, and one key means for accessing the intangible matters of culture, religion, spirituality and social organisation of past people lies in the study of burials and burial practices.

While there is scope for greater quantitative synthesis of the published data, this review has highlighted that synthesis of the unpublished data also offers great potential and a way forward for the study of mortuary

archaeology in New Zealand, provided this is undertaken with Māori involvement and support. But as with the approach to material culture and pā sites, there is also a movement away from the understanding of burials as a finished product, a static entity, towards one that recognises the sometimes ongoing nature of mortuary rites. This has potential to prove fruitful for untangling pattern and furthering our understanding of the mortuary rites that constitute a central and fundamental feature of human societies generally and modern Māori culture specifically.

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NOTES

1. I welcome correspondence regarding relevant publications not listed in the Appendix. Note that I have not attempted to include all references to fragmented human bone in midden or other deposits or human bone used in manufacture—see Barber (1992) for references and a discussion of fragmentary bone. Not all sources are strictly archaeological; some are ethnographic but have been referred to by archaeologists.
2. In addition to this range, ethnohistoric works also describe the placement of bodies in trees, dugout canoes and mausoleum structures, and the practice of mummification (Oppenheim 1973).
3. The majority of publications relate to a single site, though some describe wider areas that could be defined as a number of sites.
4. Regarding items that decay, cave burials in which woven mats and other organic items have been preserved serve as a good reminder of burial furnishings that may often go unseen by the archaeologist (Hamilton 1892; Trotter 1972). Cloaks and finely woven mats can be highly prized objects and representations of *whakapapa* ‘ancestry, genealogy’ or *mana* ‘prestige, spiritual power’ (Tapsell 1997: 356) and could represent considerable value and “expense”, as illustrated by the nineteenth-century example of a single fine cloak being traded for a carved war canoe (Coney 1993: 278–79).
5. These revised estimates were later confirmed by Buckley *et al.* (2010) in all but one case.
6. Oppenheim does make some reference to archaeological findings but concluded that archaeological records of burials were “too slender for any worthwhile interpretations to be made” (Oppenheim 1973: 63).

7. A place associated with pre-1900 human activity where investigation by archaeological methods may provide evidence relating to the history of New Zealand (Heritage New Zealand Pouhere Taonga Act, 2014, Section 6).
8. These are the New Zealand Police, the HNZPT regional archaeologist and the iwi or iwi groups named in the authority. The last of these will be the iwi whose tribal area, or *rohe*, the works are being conducted in. In some cases, multiple iwi groups have interests in the area and will be named by the authority and involved in project consultation.
9. These parties typically include the authority holder, the HNZPT regional archaeologist, the central Wellington HNZPT office, the HNZPT digital reports library, the New Zealand Archaeological Association central filekeeper, libraries of the two New Zealand universities with anthropology departments, the local council and all iwi groups named in the authority.
10. This number of reports does not include bioarchaeological reports relating to forensic contexts or any archaeological “community reports”. The practice at the University of Auckland has been to produce two reports for any archaeological kōiwi: one technical report and one summarised, plain-language “community report” that is designed to be more accessible to non-archaeologists or non-specialists. This is a practice encouraged by the HNZPT (Heritage New Zealand Pouhere Taonga 2014: 21) but that is not always practical for consultant bioarchaeologists since, unless it is specifically required by the authority conditions, the authority holder is not necessarily obliged to pay for a second report.
11. Approval to publish research based on the data collected from this has been granted by representatives of Te Ākitai Waiohū iwi.
12. That is, individuals in burial contexts.
13. A detailed reanalysis of these burial types, adhering to the methods of anthropology de terrain, forms part of my current PhD research.

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APPENDIX

Chronological List of Published Sources Documenting Burials and Mortuary Archaeology in New Zealand

Abbreviations: Indv. = individuals; Akl. = Auckland; BoP. = Bay of Plenty; Ctb. = Canterbury; HkB. = Hawke’s Bay; MnWh. = Manawatū-Whanganui; Mrb. = Marlborough; Nth. = Northland; Otg. = Otago; Sth. = Southland; Wkt. = Waikato; Wtn. = Wellington; Multi. = multiple.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Haast 1874a	Ctb.	Summer Burial Ground	M36/22	7	Pre-Euro., early (?)	Found by workmen. Six "crouched" burials thought to have three stone implements each.
Haast 1874b; Skinner 1923	Ctb.	Summer, Moa Bone Point Cave	M36/25	2	Pre-Euro., early	Example of assumption that current Māori sensibilities regarding burials were also practised in ancient times (Haast).
Thorne 1875	Nth.	Taiharuru, Pataua	Q07/6; and approx. Q07/1198	27	Pre-Euro., early	Various burials along the coast. One interpreted as cremation, and bone scattered around ovens considered "remains of a cannibal feast".
Hamilton 1892	Otg.	Strath Taieri, Middlemarch	Unknown	1	Unknown	The focus of the article is weaving. Mat wrapped around a skeleton in a cave. No other details included.
McLeod 1899	Wtn.	Karaka Bay	Unknown	9	Pre-Euro.	Little description. Not excavated archaeologically.
Cheeseman 1906	Nth.	Waimamaku	O06/139; O06/138	32	Pre-Euro., late; Post-Euro.	Focus on material culture and chiefly people. Initial outcry from local Māori about removal to museum, subsequent agreement. Not archaeological.
Anderson <i>et al.</i> 1996; Teviotdale 1924	Otg.	Shag River Mouth	J43/2	3	Pre-Euro., early	Focus on material culture and moa bone, little description of burials. Two close to fireplaces, relationship unknown. See Anderson <i>et al.</i> (1996).
Steele 1931	Otg.	Various	Unknown	9	Pre-Euro., early (?)	Interest in burial orientation and relation to cosmology and season of burial.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Teviotdale 1931	Otg.	Taiari Mouth	I45/14	1	Pre-Euro.	Human bone in midden and items made from human bone.
Teviotdale 1932	Otg.	Little Papanui, Otago Peninsula	J44/1	3	Pre-Euro., early	One carefully arranged secondary burial with red ochre on the skull; two primary burials.
Skinner 1934	Multi.	Multiple (Pūrakau and Fortrose Bay)	I44/21(?); F47/57	2	Pre-Euro. (?)	Focus on material culture. Mentions burials in passing when necklaces/pendants discovered with them.
Teviotdale 1935	Otg.	Various	J44/3; others unknown	8	Various	Interprets these three cases of burnt bone as 1) cremation to stay disease, 2) cannibalism and 3) ceremonial cremation.
Skinner 1936; Harrowfield 1969	Ctb.	Raupō Bay, Banks Peninsula	N36/75	2	Unknown	Artefacts interpreted in relation to status. Objection by local Māori to disturbance. Damage to skull base related to preservation?
Teviotdale 1938; Lockerbie 1940	Otg.	Papatōwai, Tahakopa River Mouth	Unknown	1	Pre-Euro., early	Skull, hands and feet missing. Right leg later found by Lockerbie 1940. Fragments in midden. Also worked human bone.
Elvy 1939	Ctb.	Mikomui, south of Ōaro	O32/15	1	Pre-Euro., early (?)	Burial mentioned in passing only. Interest in material culture with burial.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Teviotdale 1939	Otg.	Tarewai Point (Oteklhi), Otago Peninsula	J44/3	5	Post-Euro.	Four individuals cremated on pyre (described in Teviotdale 1935) plus single burial.
Sinclair 1940	Otg.	Ōkia Flat, Wickliffe Bay, Otago Peninsula	J44/19	1	Post-Euro.	Breaking and scattering of bones interpreted as cannibalism or desecration and use for artefacts. Draws on oral tradition.
George 1944	Otg.	Kākā Point	H46/12	1	Pre-Euro.	Disarticulated bones around oven feature. Interpreted as "remains of a cannibal feast" (p. 73).
Teviotdale and Skinner 1947; Furey 1996	Wkt.	Ōruarangi, Pāterangi	T12/192; T12/117	55	Pre-Euro., early	Furey refers to 26 burials on Ōruarangi, 29 on neighbouring Pāterangi. Teviotdale and Skinner (1947) do not list.
Adkin 1948, 1950	MnWh.	Multiple	n/a	10+	Pre-Euro.	Focus on craniometry and origins, burial position to determine antiquity, grave goods and status. Many more than 10 individuals.
Dawson 1949	Otg.	Long Beach	Unknown	1	Pre-Euro., early	Assumption that flexed burials not early despite moa bone one-piece hooks and pouanamu adze accompanying.
Duff 1977 (1st ed. 1950, 2nd 1956); Wilkes 1959	Mrb.	Wairau Bar	P28/21	44	Pre-Euro., early	Type-site for early period. Variety of positions and artefact types. Wilkes names prone extended as "standard moa-hunter".

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Dawson and Yaldwyn 1952	Otago	Long Beach	Unknown	2	Pre-Euro., early (?)	Further excavations at same site as reported by Dawson (1949).
Taylor 1955	Nth.	Waimamaku	O06/100	1	Unknown	Not fully excavated—largely uncovered for examination. Oral tradition referred to for interpretation.
Monheimer and Skinner 1956	Otago	Outram	Unknown	6	Pre-Euro. (?)	Oral tradition (source not cited) referred to for interpretation.
Barrow 1959	Wtn.	Honeycomb Rock	T28/51	1	Pre-Euro., early	Example of focus on the material culture found with a burial. Item removed, burial not excavated.
Walton 1994; Davis 1959	Wtn.	North Pararaki, Palliser Bay	S28/28; S28/70	4	Pre-Euro.	Walton describing work from 1950s. Example of retaining skulls only; dismissal of incomplete remains; near settlements; comparison to Wairau Bar.
Skinner 1960	Otago	Little Papanui, Otago Peninsula	J44/1	1	Pre-Euro.	Primary interest in artefact. Three described by Teviotdale (1932). Refers to one other found by casual collector.
Davis 1962	Wtn.	Makara Stream Mouth	R27/54	2	Pre-Euro., early	Mentions two burials found at site previously, one with anklet. No further details.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Smart 1962	Sth.	Paremata	R26/122	3	Pre-Euro. (?)	One prone, knees disturbed. Dentalium beads possibly with child remains.
Shawcross 1964	BoP.	Ōngare Point	U13/8	4	Pre-Euro.	Example of assumption that burials must be separated from living and cooking. Author based chronology on that understanding.
Bellwood and Witter 1967	Wkt.	Coromandel Harbour	T11/28	2	Pre-Euro.	Long bone sections from two individuals disturbed by earthworks, thought to be a disturbed burial. Not excavated archaeologically.
Trotter 1967	Otg.	Kātiki Point	J42/17; J42/38; J42/41	12	Pre-Euro.	Three primary and one group of commingled remains. Considered probably related to pā site at Kātiki Point.
Davidson 1970	Akl.	Motutapu Island	R10/38	1	Pre-Euro.	Era of burial unknown. See also Houghton (1977b).
Leahy 1970	Akl.	Motutapu Island	R10/31	1	Pre-Euro.	Interest in relationship to occupation sequence and settlement. Near storage pits and dwelling. See Houghton (1977b).
McKinlay 1971	Nth.	Wāioneke	Unknown	2	Pre-Euro., late	Burials with severe head injuries were some of last activity at site. Suggested as reason for abandonment.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Oppenheim 1971	Nth.	Ruarangi	Q07/30	110+	Pre-Euro.	Assumes requirement for separation of burial ground from settlement. 110+ estimate from survey, not collection.
Trotter 1972; Simmons 1967a, 1967b, 1968	Sth.	Mary Island, Lake Hauroko	C45/1	1	Pre-Euro., late	Permission to record gained from Murihiku Tribal Committee. ¹⁴ C of mānuka (<i>Leptospermum scoparium</i>) stake to seventeenth century. Detailed in Trotter (1972).
Allo 1972	Wkt.	Whangamāta	T112/2	1	Pre-Euro., early	Interpreted as cannibalism. Interest in meat-weight contribution.
Davidson 1972	Akl.	Motutapu Island	R20/26	2	Pre-Euro.	Interest in circumstance of burials (war/peace). Burials only exposed/excavated to waist.
Dell and Falla 1972; Enys 1871; Trotter and McCulloch 1993	Ctb.	Kaikōura, Fyffe's Place	O31/30	1	Pre-Euro., early	Considered early on basis of artefacts. Example of crouched position also being early. Discovered in 1850s.
Trotter 1974	Ctb.	Takahanga	O31/5	4	Pre- and post-Euro.	Possibly graves revisited for bone removal. Use of red ochre and large stones over burials. See also Houghton (1975a).
Trotter 1975a; Harrowfield 1969	Ctb.	Banks Peninsula	M36/22	2	Pre-Euro.	Two at McCormack's Bay Road (M36/22), discovered 1958. Trotter summarises excavations in Redcliffs/Summer area.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Trotter 1975b	Ctb.	Teviotdale	N38/20	3	Pre-Euro.	Taphonomic focus and attention to deposition detail. Different burial types suggested related to status. Evidence of skull preservation.
Calder and Calder 1977	Wkt.	Ōpito	T10/174	1	Pre-Euro., early	Focus on cranial trauma. Assumed beheaded. See also Houghton (1977a).
Coster 1977	BoP.	Kaimai	U14/8	1	Pre-Euro., late (?)	Detailed description of excavated <i>ma</i> 'crop storage pit' with primary burial on base.
Edson and Brown 1977	Wkt.	Hahei	T11/326	1	Pre-Euro., early (?)	Focus on grave goods. Comparison to Wairau Bar for designation as early. Several other burials discovered in the area.
Leach 1977	Mrb.	Wairau Bar	P28/21	0	Pre-Euro., early	Statistical comparison of number of grave goods with males and females at Wairau Bar, in light of Houghton (1975b) findings.
Leach and Leach 1979; Sutton 1974	Wtn.	Palliser Bay	S28/49; S28/80	16	Pre-Euro., early	Primary inhumations and secondary rock cleft burials. Consideration of position, orientation, grave goods. Comparison to Wairau Bar.
Bellwood 1978	Wkt.	Mangakaware Pā II	S15/16	2	Pre-Euro.	Example of assumption of cannibalism for incomplete, burnt or broken remains. See Barber (1992) for discussion.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Olsen 1980	Wkt.	Ōpito	Not stated	1	Pre-Euro., early (?)	Given to Auckland Museum in 1913 along with 14 adzes found buried with it. No burial practice information. Presumed early.
Sutton and Gibbs 1983	Nth.	Ōkahu (Redhead) Island	Q05/139	1	Pre-Euro. (?)	Notes that another burial from this site was found in 1980 and taken by Jan McKay to Otago for study.
Davidson 1984	Multi.	Multiple	Various	0	Pre-Euro.	Synthesis discussion of archaeological findings regarding burial practice.
Taylor 1984	Akl.	Various	Various	0	Pre-Euro., late	Small descriptive regional review. Example of division by natural or man-made feature. Referring back to Oppenheim (1973).
Phillips 1988	Wkt.	Waiwahu	T13/756	3	Post-Euro.	Four subadult graves referred to but only three graves contained skeletal remains. Some incomplete? No further details.
Trotter and McCulloch 1989	Cth.	Withell's Road	M35/313	12	Post-Euro.	1870s–1890s European cemetery. Comparing documentary records and archaeological findings.
Prickett 1990	Wkt.	Raupa	T13/13	2	Post-Euro., 1820s–1830s	Example of use for burial after site abandonment. Bone in midden argued as cannibalism. Wooden planks in burial. Red ochre.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Phillips and Green 1991	Wkt.	Waiwhau	T13/756	0	Post-Euro.	Unconfirmed graves. Assumed Christian graves. No mention of skeletal remains in them.
Barber 1992	Multi.	Multiple	Multiple	0	n/a	Detailed discussion of evidence for this specific mortuary treatment.
Jacomb 2000	Ctb.	Panau	N36/72	5	Pre-Euro.	Summarises original 1960s–1970s findings which dismissed incomplete burials. Primary interest in artefacts.
Pishief 2002	HKB.	Waimarama	W22/181	8	Post-Euro.	1840s–1860s Christian-style Māori graves. Oral history used to research. Conversion to Christianity discussed.
Furey <i>et al.</i> 2003	Nth.	Pouārua	P05/195	3	Post-Euro.	Example of little focus on burials compared to rest of the archaeology of the house area. Burials after abandonment.
Irwin 2004	BoP.	Kohika	V15/80	5	Pre-Euro., late	Example of burial after site abandonment. Burials not described beyond primary, flexed.
Trotter 2011	Ctb.	Kaka Road, South Bay	O31/111	1	Pre-Euro.	Time pressure to rebury meant light exam only. Another burial found with anklets in Kaikōura referred to.

Source	Region	Location	Site no.	No. indiv.	Era	Notes
Trotter 2013	Ctb.	Waiopuka Stream	O31/80	1	Pre-Euro., early	Sitting crouched upright facing S with egg on chest. Also refers to another burial here with a moa egg, found 1857 at O31/30.
Cruikshank and Campbell 2015	Akl.	Ōtāhuhu	R11/2812	0	Post-Euro.	No excavations of graves undertaken—excavation to uncover memorials (headstones and paving, etc.).
Petchey <i>et al.</i> 2017	Otg.	Milton	H45/56	27	Post-Euro.	Predominantly 1860s European settlers' graves. Coffin burials oriented N-S, usually head to S. Biocultural focus.
Petchey, Buckley, Hill, <i>et al.</i> 2018	Wkt.	Lawrence	H44/1135; H44/1136	11	Post-Euro.	Biocultural research into quality of life, mortuary ritual and cultural identity. Probably both Chinese and European individuals. 1860s.
Petchey, Buckley and Scott 2018	Otg.	Cromwell	F41/793	2	Post-Euro.	Interest in funerary treatment, identity and bioarchaeology of care. Burials date ca. 1890s. Not Māori.
Davidson 2018	BoP.	Sarah's Gully	T10/167	11	Pre-Euro.	Write-up of much earlier excavation. Example of lack of attention to burials compared to rest of site. Little description.