– TRANSLATION –

Entangled Histories: Ethnology, Archaeology and Physical Anthropology in Oceania

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Editorial Note: This is a translation from German by the original author of 'Hilary Howes (2019) Vernetzte Geschichten: Ethnologie, Archäologie und Physische Anthropologie in Ozeanien, Paideuma: Zeitschrift für kulturanthropologische Forschung, vol. 65, pp. 31–59, ISSN: 0078-7809'. It is published here to benefit the largely English-speaking Pacific archaeology community.

ABSTRACT

The discipline of ethnology, now more commonly known as social and cultural anthropology, developed from a variety of research fields. Although the establishment of 'four-field anthropology' is generally attributed to Franz Boas in 1904, it was already common in the second half of the nineteenth century for traveller-naturalists, missionaries and colonial authorities who were actively involved in ethnology to engage in other disciplines at the same time, notably physical anthropology, archaeology and linguistics. Often their findings in one discipline coloured their conclusions in another; for example, the belief that a particular population or 'race' was 'primitive' on account of physical or cultural characteristics could influence which theories about the prehistory of that population or 'race' were considered plausible and which were dismissed as impossible. This paper examines three German-speaking researchers – Jan Kubary, Otto Finsch, and Paul Hambruch – who, at different points in the late nineteenth and early twentieth centuries, engaged with the prehistory of Nan Madol, a monumental stone complex and ceremonial centre of eastern Micronesia, and reached quite different conclusions. These three case studies demonstrate how closely the history of ethnology in the Pacific is intertwined with the histories of archaeology and physical anthropology.

Keywords: anthropology, ethnology, Nan Madol, Micronesia, Pohnpei

INTRODUCTION

The discipline of ethnology, now more commonly known as social and cultural anthropology, developed from a variety of research fields. The establishment of 'four-field anthropology' is still generally attributed to the German-American ethnologist Franz Boas (1858–1942), although this attribution has been called into question multiple times in recent years (Balée 2009: 37–9; Boas 1904; Borofsky 2002; Hicks 2013). However, it was already common in the second half of the nineteenth century for traveller-naturalists, missionaries and colonial authorities who were actively involved in ethnology to engage in other disciplines at the same time, notably physical anthropology, archaeology and linguistics (on the gradual development of archaeological research methods in the Pacific, see Richards *et al.* 2019). Often their findings in one discipline coloured their conclusions in another. For example, the belief that a particular population was 'primitive' on account of physical or cultural characteristics could influence which theories about the prehistory of that population were considered plausible and which were dismissed as impossible.

This paper examines three German-speaking researchers who were actively involved in ethnology, archaeology and physical anthropology in Oceania in the late nineteenth and early twentieth centuries. Their ethnological activities consisted primarily of collecting contemporary material culture and observing and describing everyday activities, religious practices, festivals, ceremonies and the like. All three conducted archaeological excavations, recorded their findings in written and visual form, and described and measured ancient structures. Their activities in the field of physical anthropology included comparative measurements of the skulls and bodies of living and dead Pacific Islanders, as well as descriptions of their skin and hair colour. All three researchers investigated the archaeology of the same site and reached thoroughly different conclusions. These three case studies demonstrate how closely the history of ethnology in the Pacific is intertwined with the histories of archaeology and physical anthropology.

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Submitted 16/2/22, accepted 9/3/22. First online 16/3/22.

The site investigated by these three researchers was Nan Madol, a ceremonial complex off the south-east coast of the island of Pohnpei in the Caroline Islands, Eastern Micronesia. It consists of around one hundred artificial islets constructed of basalt and coral rubble, scattered across an area of around eighty hectares. These islets house the remains of monumental stone structures built of layers of columnar basalt. It is now thought that these stone structures were erected between AD 1200 and AD 1500. They are understood to have formed the ritual centre of the Saudeleur dynasty, the rulers of a strictly hierarchical, stratified society with numerous clearly separated chiefly and priestly ranks. Some of the stone structures were used as palaces, others as temples, tombs or residential areas. Nan Madol was inscribed on the UNESCO World Heritage List in 2016 in recognition of the 'huge scale' and 'technical sophistication' of its structures, as well as the 'complex social and religious practices' to which they bear witness (UNESCO World Heritage Centre 2018).

Many European and American visitors admired these ruins over the course of the nineteenth century (see Hanlon 1990, although he does not mention Finsch). Some of them were convinced that Nan Madol had not been built by the ancestors of Pohnpei's 'savage' inhabitants, but by 'una raza de hombres muy superior á la presente generacion', in other words, by representatives of a different, far superior 'race' (Michelena y Rojas 1843: 184; compare Lhotsky 1835). Theories about the possible origins of this civilised race varied. For example, Irish castaway James F. O'Connell (*ca.* 1810–1854) believed the structures resembled 'eastern antiquities' (O'Connell 1972: 187). Scottish trader Andrew Cheyne (1817–1876) and the crew of the Austrian frigate *Novara* were of the opinion that the ruins had once been 'the stronghold of pirates' and had been 'built by Spanish buccaneers, some two or three centuries ago' (Cheyne 1852: 100–1, von Wüllerstorf-Urbair 1861: 420–1). Others, including American philologist Horatio Hale (1817–1896), American missionaries Ephraim W. Clark (1799–1878) and Luther H. Gulick (1828–1891), and German philosophers Theodor Waitz (1821–1864) and Georg Gerland (1833–1919), took the view that the ruins should be considered 'native constructions' which 'had certainly not been carried out only at the behest of strangers' (Waitz & Gerland 1870: 749; compare Clark 1852; Gulick 1859; Hale 1846: 85–7).

'EVIDENCE OF [...] HIGH INTELLECTUAL DEVELOPMENT': JOHANN STANISLAUS KUBARY

The first German-speaking researcher to engage intensively with Nan Madol was born in what was then the Kingdom of Poland: Johann Stanislaus (Jan Stanisław) Kubary (1846–1896). His father was of Hungarian, his mother of German descent. As a young medical student he fled Poland following the January Uprising of 1863–64 against Russian rule, at first to Berlin, then to Hamburg. There he became acquainted with the merchant and shipping magnate Johan Cesar VI. Godeffroy (1813–1885), who employed him as a traveller-naturalist and collector of ethnographic items for his private museum, the Museum Godeffroy, established in 1860 (Mikoletzky 1982; Paszkowski 1971; Scheps 2005: 117–30; Schmeltz 1897; Spoehr 1963: 69–100; Suck 2007: 119–46).

Kubary embarked on his first Pacific voyage in the spring of 1868. He travelled via Tonga and Samoa to Ebon, Yap and Palau, then to Pohnpei, where he spent an entire year in 1873–74. During his stay on Pohnpei he undertook a detailed archaeological investigation of Nan Madol: he completed a map of the site (Fig. 1), sketched ground plans and elevations of various structures, carefully measured Nandowas, the main burial complex, and carried out excavations there and in other tombs. His finds – 'remains of human bones', 'ornaments (bracelets and necklaces), tools (stone axes) and suchlike', as well as worked 'shells and mother-of-pearl shells' (Kubary 1873/74: 125, 129) – were lost in a shipwreck in 1874 (Friederichsen 1875: 136). Kubary later undertook further excavations in Nandowas; the resulting finds were displayed for a time in the Museum Godeffroy (Schmeltz 1882: 37; Schmeltz and Krause 1881: 283–90).

In his article 'The Ruins of Nan Madol on the Island of Ponopé [Pohnpei]', published in 1873/74 in the *Journal of the Museum Godeffroy*, Kubary described not only the form and layout of the structures of Nan Madol, but also the social and religious customs connected to them, including a festival of blessing for 'all the canoes made in the previous year', celebrated with kava drinking on the islet of Nangutra (Pahnkedira) and with the sacrifice of a turtle to a 'gigantic sacred sea eel' on the islet of Itel (Idehd) (Kubary 1873/74: 130–1; compare Athens 2007; Kohler 2015: 217–8, 224–7). His depictions relied heavily on the results of his ethnological activities: oral traditions, supplemented by his own observations of religious customs, festivals and ceremonies still practised at the time of his visit. These observations relied in turn on a good knowledge of the local language. This is all the more remarkable given that Kubary's investigations of Nan Madol took place at the very beginning of his long-standing connection to Pohnpei. Only later did he erect 'a sort of permanent quarter' there and become known for having 'immersed himself completely in the customs of the natives' and being 'unwilling to leave the island' (Graeffe 1886, cited in Scheps 2005: 268; Suck 2007: 121). Around 1877 he acquired a plantation and built a house; in 1878 he married Anna Yelirt, the daughter of an American man and a high-ranking Pohnpeian woman (details about the ancestry of Anna Yelirt's mother vary, see Suck 2007: 121). In 1896 he died on Pohnpei and was buried there.

At the conclusion of his article on Nan Madol, Kubary believed he could '[draw] on tradition' to reach four main conclusions:

1. The stone structures of Nanmatal were constructed by a race different from the present population of Ponopé! For according to tradition, Dziautoloa, the

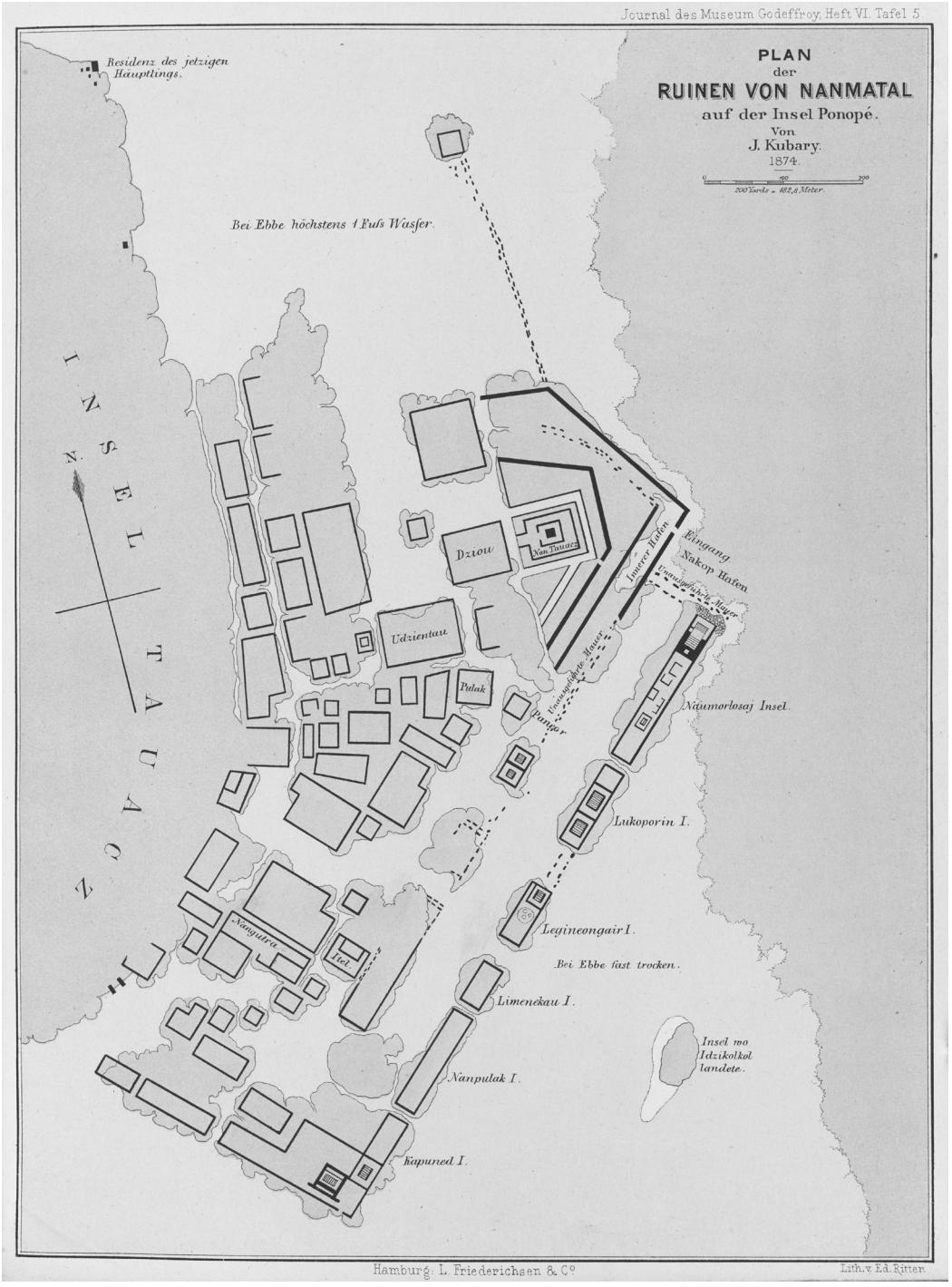

Figure 1. Map of the ruins of Nan Madol (Kubary 1873/74: Plate 5). Ref. No. YA 570.7 H17J. Photo courtesy State Library Victoria.

last king of the original race, lived on the island of Nangutra. He was a cannibal […] He himself dwelt in the stone city, whereas the people lived on the main island and had to provide for their ruler. One day a stranger named Idzikolkol landed on the small island south of Nanmatal. He came from the Ant or Andema Islands some ten sea miles west of Ponopé […] he succeeded in forcing the king to retreat to the high island, and then in killing him. Idzikolkol is the founder of the present regime and the Idzibaus of Matalanim are said to be his successors.

2. The builders of Matalanim belonged to the Negro race and the present population of Ponopé is a mixed race. […]
3. The ruins of Ponopé cannot serve as proof that the island has subsided; instead, they clearly show that

they are the remains or the structures of an aquatic construction.

4. The frequently expressed view that the ruins are the remains of fortifications built by Spanish pirates has no basis in fact (Kubary 1873/74: 131).

Much of the above resonates with later records of oral traditions on Pohnpei, including Kubary's references to the cruelty of Nan Madol's former ruler and his overthrow by a stranger who then established a new political system (Bernart 1977; Ballendorf 2005; Kohler 2015; Petersen 1990). Almost all of his records of place names and personal names correspond to terms still in use, including the legendary warrior Idzikolkol (Isokelekel), the cruel ruler Dziautoloa (presumably a variant spelling of the dynastic title Saudeleur) and his (or rather their) residence Nangutra (Pahnkedira). Kubary was so firmly convinced of the value of oral traditions that he challenged the suggestion that the waterways between the stone structures were an indication that the island had subsided – a view expressed by no less a personage than Charles Darwin (1809–1882) and later repeated by leading American geologist James Dwight Dana (1813–1895) (Dana 1872: 330–1; Darwin 1842: 126–7).

Kubary's hypothesis of the existence of different 'races' on Pohnpei was based less on oral tradition, which spoke only of a 'stranger', than on physical anthropology. His excavations of Nan Tauacz (Nandowas), in which 'the kings of Matalanim [Madolenihmw] were buried' (Kubary 1873/74: 126), as well as of tombs on the smaller islets of Naumorlosaj (Nanmwoluhsei) und Lukoporin (Lukopen Karian), revealed four cranial vaults (Kubary 1873/74: 126, 131; compare Kohler 2015: 284–8, 295–6, 300–1). By comparing their dimensions with those of the '[s]kull of a native today', Kubary believed that he was justified in stating that '[t]he builders of Matalanim' had 'belonged to the Negro race', whereas 'the present population of Ponopé [was] a mixed race' (Kubary 1873/74: 131).

On the one hand, this statement hints at European scholars' obsession with the biological diversity of humankind and its possible significance for cultural development. Scholars engaged intensively with the question of whether and to what extent it was possible to separate humans into different 'races' on the basis of their physical characteristics – such as hair and eye colour, hair type, or length and breadth of the skull – or cultural manifestations. Further important questions included whether and how these different 'races' were related, as well as which should be categorised as primitive and which as highly developed. The emergence and progression of this obsession, its impacts on research, society and politics, and its difficult legacy in today's museological and academic contexts have already been discussed by numerous authors (see, for example, Banton 1977; Bernasconi 2001; Bernasconi & Cook 2003; Berner *et al.* 2011; Blanckaert 1996; Eigen & Larrimore 2006; Förster *et al.* 2018; Hannaford 1996; Hossfeld 2005; Laukötter 2007; Montagu 1942, 1964; Peabody & Stovall 2003; Reichardt 2008; Roque 2010; Stepan 1982; Stocking 1968, 1987, 1988; Stoecker *et al.* 2013; Stuurman 2000; Sysling 2016; Thomas 1994; Weingarten 1982; Wernsing *et al.* 2018; Zimmerman 2001). The views of German pathologist Rudolf Virchow (1821–1902) may be considered representative. The co-founder of prehistoric archaeology in Germany and one of the most highly regarded scientists of his day, he saw in the scientific investigation of human skulls and bones the possibility of writing history in the absence of written records. 'For those periods in which there was as yet no other history than that passed on by word of mouth', the scientist, 'with skull in hand', replaced the historian as 'the chronicler of the human race' (Virchow 1861: 103). Virchow believed that the form of ancient skulls could reveal information not only about the racial affinities of prehistoric peoples, but also about their intellectual abilities, and thus about the progressiveness or backwardness of their culture:

> The ancient skulls still tell us whether the population [in question] attained an imposing development of the brain, whether it may be counted amongst the civilised peoples, whether it may have been significant in the history of the human mind, or whether it only existed in order to serve other civilised peoples as a footstool while they ascended (Virchow 1861: 103).

On the other hand, Kubary's description of the builders of Nan Madol as a 'Negro race' indicates his relative impartiality. He could at least imagine that the 'Negroes', usually considered the lowest of all 'human races' (compare Douglas 2008a: 35; Douglas & Ballard 2008: xii), were capable of building something deserving of admiration. In his opinion, the stone structures of Nan Madol bore witness to a 'profound knowledge of mechanics' and to 'immense patience and persistence'; he saw them as tangible 'evidence of the high intellectual development of [their] architects' (Kubary 1873/74: 128). As already mentioned, many earlier visitors were convinced that such monumental ruins and such perfect architecture could only have originated from a 'human race' far superior to the 'savage' population of Pohnpei (compare Hanlon 1990). Ian J. McNiven and Lynette Russell have identified frequent assertions of this kind – namely that particular elements of a culture were 'advanced and therefore anomalous and exotic in origin' – in the history of archaeology, often in connection with theories of an earlier, highly developed 'race' that had been exterminated or absorbed by later, less cultivated invaders (McNiven & Russell 2005: 115, 138). Such claims served to '[question] the authenticity and originality of Indigenous cultures and [undermine] the legitimacy of Indigenous histories' (McNiven & Russell 2005: 139). In Kubary's case, however, the situation was somewhat more complex. On the one hand, he believed that the 'present population' of Pohnpei did not belong to the 'original race', but considered them the descendants of 'conquerors or invaders'. On the

other hand, as already mentioned, he undoubtedly took oral traditions – in other words, Indigenous histories –seriously as sources of information (Kubary 1873/74: 128, 131).

Kubary's investigations in the field of physical anthropology and the resulting hypotheses regarding the construction of Nan Madol were already subject to challenge by other scholars during his own lifetime (Finsch 1880a, 1880b, 1893: 237). In contrast, his measurements and surveys continue to be recognised as early 'serious scholarly efforts' by archaeologists and cultural heritage practitioners today (Kohler 2015: 37–8). His map of the complex is considered the 'first relatively complete map' and is included in the nomination dossier for Nan Madol's inscription on the UNESCO World Heritage List, as are his ethnological descriptions of the religious practices, customs, festivals and ceremonies associated with particular structures or islets (Kohler 2015: 37–8, 201, 217–21, 224–7, 269, 272–5, 282–6, 295–6, 300–1, 304, 306–7; compare Athens 1981: 12).

'ONE CAN ONLY COLLECT THE SHERDS': OTTO FINSCH

The Silesian autodidact Otto Finsch (1839–1917) made a brief visit to Pohnpei in early 1880. A museum professional and traveller-naturalist, he was recognised initially for his ornithological works, later also for his ethnological investigations (Abel 1961; Howes 2018). He was shown through the ruins of Nan Madol by Kubary personally. In his newspaper column 'From the Pacific', Finsch praised Kubary as the 'foremost expert on the Caroline Islands' and described himself as 'particularly fortunate' to have had Kubary as a 'guide and interpreter', 'for I experienced and learned far more about the country and its people in a relatively short time than would otherwise have been possible' (Finsch 1880a).

Despite this, Finsch interpreted the ruins completely differently. He argued, for example, that Nandowas (Fig. 2) did not house any graves of kings or families, but had been constructed as a 'little Venice', 'the islets of which served simultaneously as dwelling places and fortifications, for behind its walls a very numerous population together with a fleet could find reliable protection, or conversely, a smaller number could maintain their position victoriously against superior forces' (Finsch 1880a). He was particularly critical of Kubary's 'misinterpreted investigation of four cranial vaults' and the resulting hypothesis that the stone structures of Nan Madol had been built by 'a race different from the present population […] and one supposed to belong to the "black" race at that' (Finsch 1880a). He was certainly not opposed to craniology per se; on the contrary, he assiduously collected skulls during his voyages and conducted his own cranial measurements (see, for example, Finsch 1884;

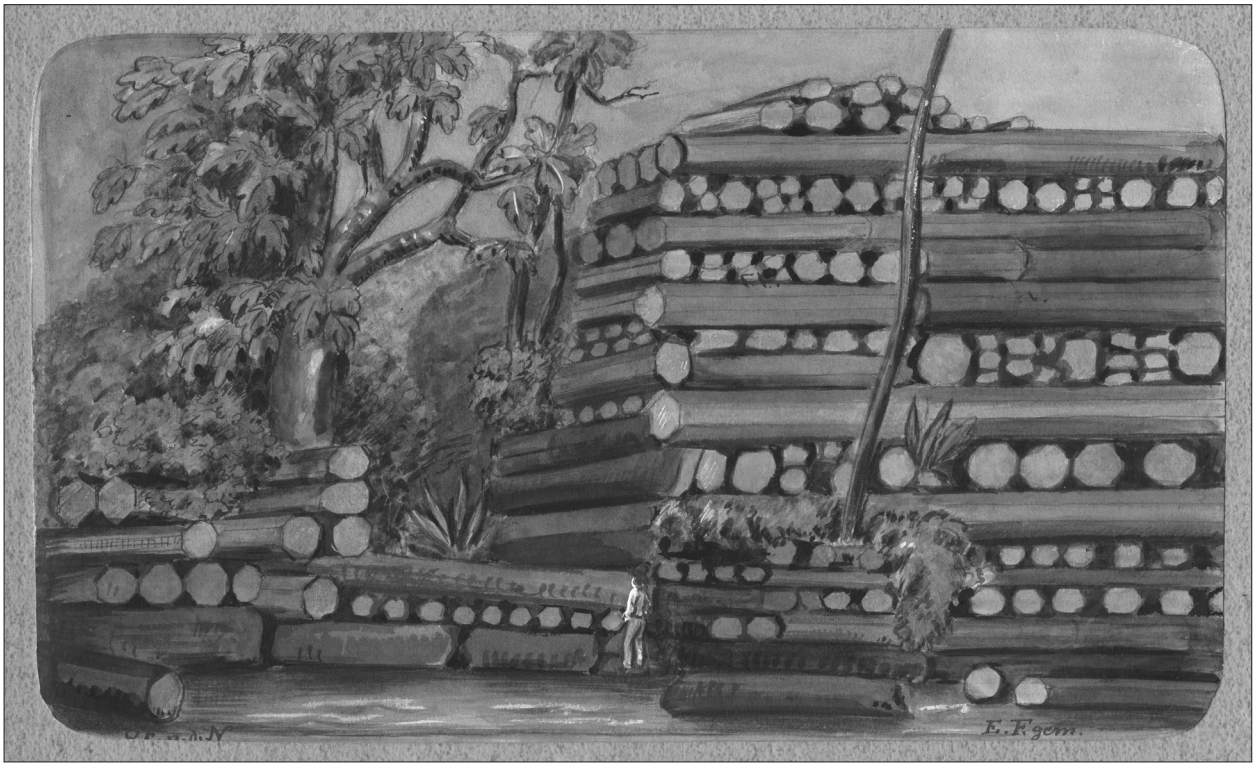

Figure 2. Gigantic prehistoric wall of columnar basalt. Entrance to the so-called 'royal graves' of Nan Tauatsch [Nandowas], Ponapé [Pohnpei]. O. Finsch, 'Beiträge zur Völkerkunde der westlichen Südsee', original images, Pl. 60: I. Dwellings, Pl. LX. AMNH Anthropology catalog number Z/360, Finsch Pacific Expeditions. Photo courtesy Division of Anthropology, American Museum of Natural History.

compare Howes 2013: 127, 131, 140, 149–50, 166–8). Rather, he was of the opinion that the skulls Kubary had measured had been too few and too fragmentary to allow any firm conclusions (Finsch 1880a, 1880b, 1893: 237). He was equally sceptical of oral traditions, declaring that the inhabitants of Pohnpei 'possess[ed] no historical knowledge whatsoever about their forebears' (Finsch 1880a). In his view, the 'pretty tradition of Idzikolkol, a bold conqueror from the small atoll A[n]dema, who vanquished the fortified Tauatsch [Nandowas] and became the founder of a new race, belong[ed] wholly in the realm of myth' (Finsch 1880a).

Finsch insisted that 'the builders of the ruins belonged to the same race as the present inhabitants of Ponapé' (Finsch 1880a). This was 'proven most clearly' by the artefacts he had unearthed while rummaging around in the coral rubble covering the floor of Nandowas (Finsch 1880a). He lamented that Kubary, who had been 'the first to obtain a rich harvest here', had 'left very little behind', but was nevertheless able to send the Royal Ethnological Museum in Berlin (now the Ethnological Museum of the Berlin State Museums) a total of 88 'prehistoric discoveries', including fragments of 'Tridacna axes' (giant clam, *Tridacna gigas*) and 'mother-of-pearl fishhooks', a 'ring of Conus [cone shell, *Conus* sp.] in the process of construction' and numerous 'flat, round discs, pierced in the middle, made from Spondylus' (spiny oyster, *Spondylus* sp.) (Finsch 1880a, 1880b). These 'weapons and ornaments correspond[ed] so closely to those still made in the Caroline Islands' that Finsch believed there could be 'no doubt whatsoever: the builders of the ruins belonged to the same population as that still living on Ponapé today' (Finsch 1880b). In other words, Finsch combined the results of his archaeological investigations with those of his ethnological observations in order to draw conclusions in the field of physical anthropology about the biological affiliation of an earlier and a current population.

For Finsch there was seemingly no question that similarities in material culture could be considered an unproblematic proxy for a sameness of biological 'race'. This assumption anticipated the method of 'settlement archaeology' developed by German prehistorian Gustaf Kossinna (1858–1931), who hypothesised in his 1911 monograph *The Origin of the Germanic Peoples* that cultures necessarily reflected racial affiliations (Kossinna 1911). According to this hypothesis, similarities or differences in material culture could be explained by similarities or differences in racial affiliation (Grünert 2002; Hare 2015: 98–110; Jankuhn 1979; Trigger 2006: 235–41; Veit 2000). However, socio-cultural and biological approaches to understanding human difference had been profoundly entangled long before this. Some of the earliest Western classifications of humankind, notably Carl von Linné's 1758 work *Systema Naturae*, associated certain physical characteristics with particular habits and social customs (Linnaei 1758: 20–3; see also Hannaford 1996: 203–15; Hossfeld 2005: 58–60). Influential contemporaries of Finsch's, including Virchow, accepted socio-cultural evidence of 'civilisation' as a reflection of 'favourable' biological development (Virchow 1876: 110–4; see also Howes 2013: 54–8).

It is striking that even before arriving in the Pacific, Finsch was already of the opinion that the Indigenous populations of Micronesia were 'swiftly nearing extinction' (Königliche Akademie der Wissenschaften zu Berlin 1878). It was mainly for this reason that he received funding from the Humboldt Foundation for Natural History Research and Travel, on the condition that he was to collect 'as much [material] as possible from [these] anthropologically and ethnographically interesting populations' for Berlin's scientific institutions and museums (Königliche Akademie der Wissenschaften zu Berlin 1878). This task was consistent with the priorities of the Royal Ethnological Museum in Berlin. As H. Glenn Penny has convincingly argued, one of the museum's principal concerns at this time was to rescue 'as much material culture as possible from the onslaught of European expansion' (Penny 2002: 52). This view, often associated today with the concept of 'salvage anthropology', was widely accepted at the time and influenced the collecting activities of both German and other museums (Buschmann 2009; Clifford *et al.* 1987; Schildkrout & Keim 1998; Steinmetz 2004). Adherents of 'salvage anthropology' understood changes in non-European cultures as a result of increasing contact with Europeans not as part of a natural process of cultural adaptation or evolution, but as the loss of original cultural purity and authenticity. With this in mind, Adolf Bastian (1826–1905), then Director of the Ethnological Museum in Berlin, expressed the fear that one day 'a grave and bitter accusation' would be brought against him and his contemporaries,

> because, in the current epoch of contact with primitive peoples, we could still have collected and rescued much that has perished before our eyes through improvidence and carelessness, much that still continues to dwindle away every year, every day […] and every hour, while we stand idly by (Bastian 1881: vii).

In order to forestall such an accusation as far as possible, Bastian insisted on the following 'principle': 'begin by collecting everything, in terms of physical anthropology and prehistory as well as ethnology' (Bastian 1881: viii; compare Fischer 1981: 103–14; Howes 2013: 251–6; Penny 2002: 29–39).

Finsch's own experiences in Micronesia were unable to change his pre-existing conviction that the peoples of Micronesia were doomed to extinction. He had little positive to say about the inhabitants of Pohnpei in particular, accusing them of wholesale 'indolence and stupidity, usually impressed onto their physiognomies', as well as 'a certain weakness of the intellect and physical laziness' (Finsch 1880c: 320). In his opinion they had adopted 'only trinkets, cloth, firearms, liquor and a few useful iron tools' from

'the whites'; in other respects, they 'persisted in the viewpoint they had taken for centuries, or even went backwards' (Finsch 1880a). Finsch's assertion that the builders of Nan Madol and the current inhabitants of Pohnpei belonged to the same 'race' fitted this depiction exceptionally well. The 'ruins of extensive buildings', 'among the most magnificent that the Pacific has to offer', served him as proof 'that the Pohnpeians were previously a far more hardworking and industrial people than they are today' and had been 'stronger, more numerous, more energetic' in the past than when he encountered them (Finsch 1880a, 1880b). At the same time, this narrative of decline enabled him to depict his ethnological 'notes and collections' from Pohnpei as all the more valuable, since he had gathered them 'at the last moment, so to speak', before the 'last vestiges of the former natural life of these island-dwellers' had been 'utterly destroyed by the ever-increasing influence of trade and of mission' (Finsch 1882: 554).

In view of my argument that the history of ethnology in Oceania overlaps with the history of archaeology and physical anthropology and that findings in one discipline could colour conclusions in other disciplines, it is significant to note that Finsch later made use of an archaeological comparison in order to describe his ethnological findings from Micronesia. In 1892 he wrote to an unnamed friend:

> I am at last bringing my 'Ethnological Experiences from the South Seas' to its conclusion and am currently working on the difficult chapter 'Micronesia', a book of which only a few pages remain, as the original has for the most part been tattered, stained and spoilt by civilisation and Christianity. Thus one can only collect the sherds and attempt to glue them laboriously together, as Schliemann does his pots (Finsch 1892).

In contrast to Kubary, Finsch is seldom associated with Nan Madol today. Even the extensive UNESCO nomination dossier mentions only his 'limited observations of the ruins at Lelu' on the island of Kosrae, more than 500 km away (Kohler 2015: 438). This can probably be attributed in the first instance to the fact that his written and visual depictions of Nan Madol were difficult to access in later years. With only a few exceptions, they were either printed in ephemeral newspaper columns or lay unpublished in scattered archives. In addition, Finsch's way of working became increasingly unfashionable. Kubary, who lived 'permanently in the South Seas, where he collected', and was often able to 'establish close relationships with local people', is now considered a pioneer of stationary fieldwork, whereas Finsch followed the model of the explorer whose aim was to travel as widely and collect as much as possible in a relatively short period of time (Suck 2007: 120; compare Stocking 1991). In 1897 Felix von Luschan, then Assistant to the Director at the Ethnological Museum in Berlin, criticised this way of working. Investigations of the 'real meaning' of non-European material culture could not be 'completed on the basis of a fleeting visit, from one day to the next', but required an 'absolute mastery of native language[s], as well as years, even decades, of intimate association with the natives' (von Luschan 1897: 76). Franz Boas, not Finsch, was von Luschan's example of this new 'branch of ethnology' (compare Melk-Koch 2009).

'A SUPERIOR AND VIGOROUS CULTURE': PAUL HAMBRUCH

Thirty years after Finsch's stay, another German researcher, Paul Hambruch (1882–1933), visited Pohnpei. Unlike Kubary and Finsch, Hambruch had already completed tertiary studies prior to his arrival, including geography and physical anthropology in addition to ethnology. Shortly after receiving his doctorate in 1907, he was selected by Georg Thilenius (1868–1937), Director of the Ethnological Museum in Hamburg, to participate in the Hamburg South Seas Expedition (Tischner 1966). In the course of this expedition Hambruch spent six months on Pohnpei in 1910, including twelve days in Nan Madol, where he completed a new map of the complex and systematically investigated the structures. He complained that 'only gleanings' remained for him to find, as the ruins had already been searched by Kubary and others. Despite this, his archaeological excavations of Nandowas and other parts of the complex revealed 'some 2000 individual objects', including mother-of-pearl and bone fishhooks, *Spondylus* discs, whale tooth pendants, *Conus* armbands, shell and stone axes, stone knives and stone pestles (Hambruch 1911: 129, 1912: 75; compare Hambruch & Eilers 1936: 38–56). Hambruch published short reports on his investigations of Nan Madol in German-language scientific journals in 1911 and 1912. A detailed discussion did not appear until 1936, three years after his death, in the last of his three volumes on Pohnpei. In this instance the ethnologist Annaliese Eilers (1900–1953) was responsible for preparing for publication the 'material' Hambruch had already 'worked through' (Eilers 1936: v; compare Beer 2007: 54–8).

Hambruch's map of the complex is considered the most complete map of the pre-war era. It is still used by researchers today, 'not just for its completeness, but for the myriad of information it holds with regard to indigenous traditions' (McCoy *et al.* 2015: 6; compare Kirch 2017: 173–83; McCoy & Athens 2012). Hambruch's work overall is exceptionally thorough, a fact which may partly be attributed to the substantial resources available to him as a member of the Hamburg South Seas Expedition. These included 'coloured translators and servants', 'writing and drawing implements', 'anthropometric instruments, photographic and phonographic apparatuses' and 'an extensive library with works on the ethnography of Oceania and maps', as well as 'medications', 'weapons and ammunition' (Thilenius 1927: 34). In addition, Augustin Krämer, who led the Hamburg South Seas Expedition in its second year,

favoured 'longer stays in a single location over short visits' (Fischer 1981:108), corresponding to Kubary's way of working rather than Finsch's. In some respects it was also advantageous that Pohnpei was a German protectorate at the time of Hambruch's visit. The Caroline Islands had been sold to the German Empire by the Kingdom of Spain in 1899. They were occupied by Allied troops shortly after the First World War broke out and were eventually ceded to Japan in accordance with the Treaty of Versailles (Gründer 2001:42–50; Sapper *et al*. 1920). Hambruch could thus rely on police protection if violence, unrest or the like were to occur (compare Fischer 1981:132). On the other hand, it is at least conceivable, if not explicitly documented, that he encountered mistrust or opposition from local people as a result of his nationality.

Like Kubary but unlike Finsch, Hambruch took local oral traditions very seriously as a source of information. In his publications he identified many of his interlocutors and assistants by name and included photographs of them. He mentioned his translator Ettekar (Fig. 3), whose name he also recorded as Etekar, Edgar or Edward, particularly frequently. Other important informants included Auntal or Auntol en Aru, also known as Wilhelm Helgenberger, the son of a German man and a Pohnpeian woman, who was of particular interest to Hambruch from the perspective of physical anthropology as a so-called 'half-caste'; the brothers Ricardo and Lewis Kehoe, sons of the trader Joseph (Joe) Kehoe from New York; and Nalaim en Metalanim (the *nahlaimw* of Madolenihmw), 'the intelligent and amiable proprietor of the ruins' and 'bearer of one of the highest priestly titles' in the Madolenihmw district (Hambruch 1911:129, 1912:75, 1932:203, 210, 216, 218–9, 222, 224, 300, Plate 13–14; Hambruch & Eilers 1936:26, 61, 175, 244, 424–35, Plate 15; on Ettekar, see also Ehrlich 1978:4, 76–8, 85, 137; on the Kehoe brothers, see Bernart 1977:2–3).

Hambruch emphasised how important it was to find 'informants' with affiliations to relevant groups and/or localities. For example, he insisted that only 'experienced natives of Matolenim' – in other words, those belonging to the Madolenihmw district, which was responsible for Nan Madol – were in a position to 'give correct information about the structures' of Nan Madol (Hambruch 1911:129, 1912:75; compare Hambruch & Eilers 1936:61). In addition to oral traditions about the conquest of Nan Madol by the legendary hero Isokalakal (Isokelekel), Hambruch collected accounts of the construction of the stone complex and about festivals celebrated there (Hambruch & Eilers 1936:61–95). All of the stories he documented were


Kariăṅ: Mauer an der lelóu-Seite

Figure 3. Ettekar in front of the barrier wall on the islet of Karian, part of the Nan Madol complex (Hambruch & Eilers 1936: Plate 6). Ref. No. B-K-1380-Bd.7.3-Tafel 6. Photo courtesy Alexander Turnbull Library, Wellington, New Zealand.

published simultaneously in the German and Pohnpeian languages, 'both in order to retain the material in a form reasonably free of defects and also to provide documentation of the life and thought of the natives from their own mouths' (Hambruch 1932: vii).

Like Finsch, Hambruch was firmly convinced 'that the inhabitants of Ponape are the descendants of the builders of the structure of Matolenim' (Hambruch 1932: 368). Without saying so explicitly, he hinted more than once that this conviction rested primarily on oral tradition. For example, his chapter on the 'beginning, significance and end of the structures of Nan Matŏl' consists almost entirely of stories recounted to him by various inhabitants of Pohnpei (Hambruch & Eilers 1936: 61–95). He also remarked that there was 'no information' about 'the city's architects' 'apart from the legend of Šipe and Šaupa', in other words, the brothers Olosihpa and Olosohpa (Hambruch & Eilers 1936: 15; compare Bernart 1977: 27–9, 33–7; Kohler 2015: 21–2, 36).

Hambruch was also preoccupied with the question of the biological affiliation of Pohnpei's inhabitants. His depiction of the island's traditional socio-political system was based on an imaginary dichotomy between 'two distinctly different races', namely 'an olive-coloured race […] considered to be descended from Malays, and the Oceanic Negroes, who are perhaps the original inhabitants'. Of these two, 'the lighter race constitute[d] the ruling class [and] the Negroes […] the common people and the serving class' (Hambruch 1932: 18–20, 366). In some respects this depiction turned Kubary's hypothesis regarding Pohnpei's 'races' on its head. Both researchers assumed that Pohnpei had once been inhabited by a darker-skinned 'race' than the people they encountered on their respective visits. According to Kubary, however, this 'Negro race' had created Nan Madol, whereas Hambruch, as already mentioned, considered the same 'race' to have been merely 'the common people and the serving class'. Many of Hambruch's scientific predecessors had similarly sought to reduce the settlement history of the Pacific to an autochthonous dark-skinned 'race' and a more civilised olive-skinned 'race' of later arrivals (see Anderson 2008: 237–43; Douglas 2008b).

Hambruch based his discussions on this topic primarily on his research in physical anthropology rather than ethnology. That said, he had found 'no opportunity' to undertake anthropological measurements; he noted that 'touching the head is considered a grave insult' on Pohnpei, and added that he had been unable to obtain any 'reliable cranial material' (Hambruch 1932: 367). Instead, he contented himself with describing the external appearance of the 'native[s] of Ponape' (Hambruch 1932: 369) and then repeated the observations and findings of earlier visitors who had also described the external appearance of Pohnpei's inhabitants or had measured some of their skulls. He relied above all on a single source which has since been shown to be highly problematic: a report by the above-mentioned Irish castaway O'Connell, published in 1836 with the title *A Residence of Eleven Years in New Holland and the Caroline Islands* (O'Connell 1972: 1–44; compare Petersen 2007: 319–21).

Hambruch considered this report 'one of the most valuable sources for knowledge of the Caroline Islands' and believed it had 'splendidly preserved for posterity the way in which ancient Ponape was constituted' (Hambruch 1932: 6). He translated it into German himself and reproduced the 'section relating to Ponape' unabridged in the first of his three volumes on Pohnpei, devoting more than 70 pages to it (Hambruch 1932: 7–78). In stark contrast, Saul H. Riesenberg, who published a critical edition of O'Connell's report in 1972, described it as 'a maze of exaggerations, anachronisms, improbabilities, and outright fabrications, commingled with thoroughly accurate and original observations' (Riesenberg 1972: 5). Riesenberg specifically stated that O'Connell's 'description of racial castes' was 'completely unfounded' (Riesenberg 1972: 122).

On this topic, American social anthropologist Glenn Petersen, who has been conducting fieldwork on Pohnpei since the 1970s, writes:

> Located as it is at the crossroads of East Asia, Southeast Asia, Polynesia and Melanesia, Micronesia's genetic heritage is […] diverse. Because the early Micronesians were pre-eminently voyaging peoples, there was endless mixing among the island populations, and there is no phenotypically classic Micronesian appearance […] skin colour and hair texture vary enormously within communities and even within families (Petersen 2007: 319).

Hambruch himself admitted that it was 'not really possible to speak of a typical physiognomy', but remained convinced that 'a pure-blooded Pohnpeian man could be identified without hesitation among the population of the entire Caroline Islands' (Hambruch 1932: 369). He believed that the 'bastardisation' of Pohnpei's 'original population' had only taken place 'after the [European] discovery of the island' and depicted it as part of a 'process of decomposition' which also affected 'customs and habits, constitution, sociology etc' (Hambruch 1932: 365–6). He, Hambruch, had not been able to 'piece together a whole', because the 'native culture' had been 'corroded by European and American influences and was rapidly disintegrating' (Hambruch 1932: v). 'However', he added,

> it was possible to establish […] how a superior and vigorous culture was destroyed in a few years by foreign influences, not least by a mismanaged and selfish mission, the American Board of Commissioners for Foreign Missions in Boston; how amiable natives were re-educated to become sly, devious and self-interested; how the life-giving basis of their own culture was destroyed by previous false treatment (Hambruch 1932: v).

This bleak depiction of supposed cultural decline is reminiscent of Finsch's description, although Hambruch's view of Pohnpei's 'original inhabitants' was significantly more positive (Hambruch 1932:366). His disgust was targeted in the first instance at the American missionaries he believed had brought about this decline, then at Indigenous Pohnpeians who attempted to use their influence as Christian leaders to undermine German colonial rule and establish local parliamentary institutions (Hambruch 1932:281–312; compare Ehrlich 1979; Petersen 2007:324–30). Hambruch's assessment of missionaries also influenced his archaeological work; he initially claimed that the construction and use of Nan Madol had only been abandoned in 1852, after American missionaries 'sacrilegiously intervened, prohibited [further] construction, and even began to tear down the walls' (Hambruch 1911:129, 1912:75; compare Hanlon 1990:106). He did not repeat these claims in his later works. Seemingly he was convinced by the descriptions of earlier visitors such as James O'Connell and Francisco Michelena y Rojas that even before the missionaries arrived, Nan Madol had no longer been occupied, but consisted only of 'mysterious ruins' and 'traces of ancient civilisation' (Hambruch 1932:99–100, 119).

As already mentioned, Hambruch's map of the Nan Madol complex is still used by archaeologists today. His records of the meanings of various place names and his 'survey of oral traditions related to Nan Madol which explains many of the functions of architectural features extant today' likewise continue to be valued (Kohler 2015:38; compare McCoy *et al.* 2015:12–22). In contrast, his description of the traditional socio-political system on Pohnpei has been sharply criticised by Petersen as a 'colonial narrative' (Petersen 2007:326). Petersen argues that Hambruch misunderstood this system as 'profoundly class and race based' and was thus unable to comprehend 'the Pohnpeians' opposition to German rule in indigenous Pohnpeian terms' (Petersen 2007:329). Instead, he believed that the uprising in the Sokehs district, which broke out shortly after he departed Pohnpei, 'had to have been fomented by outsiders', namely the American missionaries he so despised (Petersen 2007:329; on the Sokehs Uprising, see Ehrlich 1978; Hempenstall 1978:73–118). Petersen suggests that Hambruch was unable to cope with the First World War and the resulting loss of Germany's colonies (Petersen 2007:329–30). However, it should be noted that Hambruch had expressed clear antipathy towards American missionaries even before the outbreak of the First World War (Hambruch 1911:129, 1912:75).

CONCLUSION

Johann Kubary, Otto Finsch and Paul Hambruch visited the island of Pohnpei over the course of four decades. All of them were active in the fields of ethnology, archaeology and physical anthropology. They collected contemporary material culture, recorded everyday activities and religious customs, documented ancient structures and conducted excavations, described the skin and hair colour of Pohnpei's inhabitants and carried out skull and body measurements where possible.

These three researchers relied on very different methods to explain the history and significance of Nan Madol. Kubary's description of the social and religious customs relating to specific parts of the Nan Madol complex were based on the results of his ethnological work, namely his records of oral traditions and his own observations of festivals and ceremonies which still existed during his time. By comparing the dimensions of four excavated cranial vaults with those of the '[s]kull of a native today' – in other words, by combining archaeological and physical anthropological methods – Kubary reached the conclusion that the builders of Nan Madol belonged to 'the Negro race', whereas the island's 'present population' was in fact 'a mixed race' (Kubary 1873/74:131). Finsch combined archaeological and ethnological findings – excavated 'weapons and ornaments' and material culture 'still made in the Caroline Islands' – in order to reach the conclusion that 'the builders of the ruins belonged to the same race as the present inhabitants of Ponapé' (Finsch 1880a). Hambruch, like Kubary, took local oral traditions seriously as an ethnological source of information to assist in understanding the construction, use and significance of ancient structures (and thus to assist in answering archaeological questions). However, he was also preoccupied with the biological affiliation of Pohnpei's inhabitants, and his depiction of the island's traditional socio-political system ultimately relied on works and theories in the field of physical anthropology, above all O'Connell's claim that he had observed 'two distinctly different races' on Pohnpei, 'an olive-coloured race […] and the Oceanic Negroes' (Hambruch 1932:366).

In some instances Kubary, Finsch and Hambruch reached overlapping conclusions, but in others their conclusions were distinctly different. These conclusions were influenced by their ways of working, their personal circumstances and their pre-existing opinions. Above all, the three case studies presented here reveal that the boundaries between ethnological, archaeological and anthropological research were often porous. It is therefore possible to obtain a more complete understanding of the history of archaeology in this part of Oceania if the histories of ethnology and physical anthropology are also taken into consideration.

Acknowledgements

The original German version of this article was based on a presentation given in October 2017 as part of Workshop 17 ('From the history of ethnology to its future? Moral and political affiliations and the history of ideas') at the conference of the German Anthropological Association in Berlin. I am grateful to Peter Schweitzer and Han F. Vermeulen, the convenor and co-convenor of Workshop 17, and to numerous conference participants for their helpful comments and

suggestions. I am also grateful to Holger Jebens, editor of the journal *Paideuma: Zeitschrift für kulturanthropologische Forschung*, and to four anonymous reviewers. Research for this work was carried out under the auspices of 'The Collective Biography of Archaeology in the Pacific: A Hidden History', funded by the Australian Research Council as Laureate Fellowship grant FL140100218, and by the Australian National University.

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