The *Journal of the Anthropological Society of South Australia* is the official publication of the Anthropological Society of South Australia. It is a refereed journal that has been published since 1963. A list of recent peer reviewers can be found on the Society’s website [http://www.anthropologysocietysa.com](http://www.anthropologysocietysa.com). The journal primarily provides a forum for researchers of Indigenous Australian anthropology, archaeology, history and linguistics although broader topics related to all of these disciplines may also be included.

Contributions accepted include: articles (5000-8000 words), short reports (1000-3000 words), obituaries (500-2000 words), thesis abstracts (200-500 words) and book reviews (500-2000 words). Notes to contributors are available through the Society’s website.

Should you wish to submit a paper to the journal please direct your enquiries to the secretary of the Anthropological Society of South Australia (current contact details can be found on the Society's website).

The journal is free for current members of the Anthropological Society of South Australia. Subscription application/renewal forms are also available through the Society's website.

**Anthropological Society of South Australia Committee**

President: Dr Keryn Walshe
Secretary: Dr Catherine Bland (Flinders University)
Treasurer: Mr Tom Gara (Native Title Section—Crown Solicitor’s Office—South Australia)
Councillor: Professor Peter Sutton (University of Adelaide/South Australian Museum)
Councillor: Dr Alice Gorman (Flinders University)
Councillor: Mr Chris Nobbs (Department for Education and Child Development)
Councillor: Dr Janelle White (University of South Australia)

**Journal of the Anthropological Society of South Australia Editorial Advisory Board**

The Editorial Advisory Board consists of Anthropological Society of South Australia committee members as well as the following specialists:

Professor Lester-Irabinna Rigney (University of South Australia)
Professor Jane Lydon (University of Western Australia)
Professor Robert Layton (Durham University)
Professor George Nicholas (Simon Fraser University)
Dr Stephen Loring (Smithsonian Institution)
Dr Jennifer McKinnon (East Carolina University)
Dr Paul Monaghan (University of Adelaide)
Dr David Martin (The Australian National University)
Dr Natalie Franklin (Flinders University/University of Queensland)
Dr Pam McGrath (National Native Title Tribunal)
Dr Jillian Garvey (La Trobe University)
Dr Mirani Litster (The Australian National University)

The views expressed in this journal are not necessarily those of the Anthropological Society of South Australia or the Editors.

© Anthropological Society of South Australia 2018

ISSN1034-4438
# TABLE OF CONTENTS

## Editorial

1

## ARTICLES

**The View from Below: A Selected History of Contact Experiences, Patjarr, Gibson Desert, Western Australia**  
*Jan Turner*  
13

**Finding the Signatures of Glass Beads: A Preliminary Investigation of Indigenous Artefacts from Australia and Papua New Guinea**  
*Lindy Allen, Sarah Babister, Elizabeth Bonshek and Rosemary Goodall*  
48

**'Necessary Self-Defence?': Pastoral Control and Ngarrindjeri Resistance at Waltowa Wetland, South Australia**  
*Kelly Wiltshire, Mirani Litster and Grant Rigney*  
81

**'The Missionary Factor': Frontier Interaction on Cooper Creek, South Australia, in the 1860s**  
*Joc Schmiechen*  
115

**Koeler and the Dresdners: Contrasting Views of Five Early Germans Towards Indigenous Peoples in South Australia**  
*Robert Amery*  
145

**Capturing Histories at Thantyi-wanparda: Comparing Early and Late Twentieth Century Ethnographies in Arabana Territory, South Australia**  
*Jason Gibson and Luise Hercus*  
175

**65,000 Years of Isolation in Aboriginal Australia or Continuity and External Contacts? An Assessment of the Evidence with an Emphasis on the Queensland Coast**  
*Michael J. Rowland*  
211
65,000 YEARS OF ISOLATION IN ABORIGINAL AUSTRALIA OR CONTINUITY AND EXTERNAL CONTACTS? AN ASSESSMENT OF THE EVIDENCE WITH AN EMPHASIS ON THE QUEENSLAND COAST

Michael J. Rowland

1 College of Arts, Society and Education, James Cook University, Cairns, QLD 4870, Australia

Abstract

Recent dating of archaeological sites across northern Australia suggest that Aboriginal Australians may have arrived on the continent by 65,000 years ago or earlier though other general reviews propose a more conservative arrival date of around 50,000 years. Regardless of when they actually arrived, the people of the late Pleistocene landmass of Sahul (mainland Australia, Tasmania and New Guinea), which were only separated by rising sea levels approximately 8000 years ago, likely shared some aspects of a common history over a period of perhaps as much as 50,000 years. It would seem unlikely that this shared community of culture and ideas would have ended abruptly with the rise in sea level. Early commentators, operating within social evolutionism and diffusionism frameworks, argued that much of Aboriginal culture was developed through external contact since Aboriginal culture was too ‘primitive’ to have developed higher level cultural traits. Subsequent reaction to this negative view has tended to limit further enquiry. More recently, it has been recognised that transformations occurred in Aboriginal societies across Australia particularly in the mid to late Holocene which have been attributed to population growth and internal social change (‘intensification’), environmental change and/or external contacts. This paper reviews evidence for external culture contact with an emphasis on the Queensland coast via the Torres Strait and Cape York. It is apparent that contact did occur though the timing and extent of impacts on the development of Aboriginal culture has yet to be fully understood. It is important to periodically review what innovations might have reached Australia from external sources (and vice versa) as new evidence and theories develop. This will enhance an understanding of how Aboriginal peoples coped with and adapted to the substantive transformative processes of the contact and post-contact eras which is the theme of this volume.
Introduction

Australia may have been first occupied 65,000 years ago (Clarkson et al. 2017) though caution has been recommended in accepting such early dates and an alternative short chronology of 47–48,000 years ago has been proposed (O’Connell et al. 2018). Whether the short or long chronology prove to be correct, Australia and New Guinea shared as much as four-fifths of their human history as part of the enlarged Pleistocene continent of Sahul. Recent research highlights the possibility of multiple colonisation events from various entry points (Norman et al. 2018) achieved by purposeful and coordinated marine voyaging (Bird et al. 2018) thus questioning the view that Australia was a long-isolated continent.

Australia and New Guinea were only separated by rising postglacial sea levels across Torres Strait about 8000 years ago (Woodroffe et al. 2000), although surprisingly genetic evidence suggests that Papuans and Australians may have diverged ~37,000 years ago (Malaspinas et al. 2016:210). In a recent review McNiven (2017) has argued that Torres Strait Islander history on a timescale measured in thousands of years reveals a series of significant transformative impacts resulting from external contacts. Like McNiven, I review the evidence for continuity and external contact across northern Australia with a particular focus on contact via Torres Strait on to the Queensland coast after 8000 years ago. Watercraft and items associated with maritime exploitation were introduced through Torres Strait and travelled far down the coast of Queensland. Contact did occur, though the extent and impact of this contact has yet to be fully understood. Nevertheless, it is apparent that Aboriginal peoples had experience in dealing with outsiders from 65,000 years ago though on a much more limited scale than experienced following the arrival of Europeans.
Culture Contact—Migration, Innovation and/or Diffusion

Migration and diffusion are key features of the broad sweep of human history but are rarely discussed by contemporary Australian archaeologists (Bellwood 2013:113). Nevertheless, the extent of outside contact has been debated since the arrival of Europeans and a divergence of views remains today. Some (e.g., Elliot-Smith 1933; Rivers 1926) argued that most elements of Aboriginal culture came from outside Australia in recent times, while others (e.g., Kenyon et al. 1924) proposed that most cultural differences could be attributed to local causes. In an influential review of material culture items McCarthy (1940:314; see also 1970, 1974) interpreted Aboriginal culture as ‘indissolubly bound up with that of Oceania’. Archaeologists argued that the presence of backed artefacts in both Sulawesi and Australia implied a significant link between the two areas (Glover and Presland 1985) but more recent evidence no longer supports the arrival of backed artefacts and points, along with the dingo and plant detoxification, as part of a ‘cultural package’ (Mulvaney and Kamminga 1999:258; Hiscock 2008:145–161). In fact, Bellwood and Hiscock (2006:278) have suggested that the southern Sulawesi microliths might have been transferred from Australia to Sulawesi though none have been recorded on intermediate islands like Timor or the Lesser Sundas. Other researchers (e.g., Irwin 1992:100; Keegan and Diamond 1987:72–73; Rowland 1987, 1995) have thought it paradoxical that people moved so widely throughout the Southeast Asian region and into the Pacific, yet these movements are considered to have had limited impacts on Australia. More recently it has been argued that the material culture and linguistic signature of Austronesian canoes in Cape York Peninsula and Torres Strait suggests direct contact was made with Austronesian speakers (Wood 2018).

McNiven (1998, 2006a), noted that research on diffusion has been all but abandoned by the younger generation of Australian archaeologists, while senior members of the discipline have continued to investigate the impact of external influences. McNiven argued that while external influences
cannot be ignored there is a need to redefine and revitalise such studies without encouraging anachronistic diffusionist scenarios based on colonial tenets. For example, McNiven (2006a:103) noted that early research focused on the selective diffusion of higher cultural traits of ‘advanced’ Papuans to their ‘primitive’ Aboriginal neighbours across Torres Strait (e.g., McCarthy 1940, 1970) but, critically, diffusion cannot be a one-way process. Ideas, like material culture in exchange systems, move between groups in reciprocal arrangements. Thus, a decolonised external influences agenda, must move beyond diffusionism and examine interchanges (McNiven 2006:103). Emphasis must be on dynamic communities who accepted, rejected, modified and invented rather than ones that developed in isolation. The study of invention/innovation and diffusion/migration must play complementary roles (Rowland 1995:15). Unlike migration, diffusion simply means there is enough human movement for circulation of goods, ideas and genes and this movement may be quite small. However, testing for diffusion is difficult. Researchers search for similarities in cultures between two areas and when they find them, assume that movement has occurred. The hypothesis is then often ‘tested’ by compiling an additional list of similarities. But the theory is in fact not ‘tested’ and additional evidence of the same kind is simply added in support (Rouse 1986). While it may be easier to detect evidence of invention/innovation in an archaeological sequence, diffusion/migration does need to be considered as an alternative explanation so that internal development is not simply accepted by default (Rowland 1995:8–9). Innovations that did enter Australia could have been diffused quite easily through Australia via complex networks of trade or exchange systems. Ideas and objects could have been passed from one neighbouring group (with little obvious on ground movement) to another as part of reciprocal gift giving before and after ceremonial events. For example, the Baler shell (Melo diadema) which is found in the Gulf of Carpentaria travelled over 1600 km to South Australia (Mulvaney and Kamminga 1999:97).
**Figure 1** Northern Australia. Places mentioned in the text.
The Evidence for External Contacts

Macassans

The strongest evidence for external contact is with Macassan trepang fishermen in northern Australia though the duration of contact was limited in time and space and its impact on Aboriginal societies is yet to be fully understood (e.g., Ganter 2006, 2018; Macknight 1976, 2013; McIntosh 1999; Mitchell 1996). The degree of contact was substantial. For example, Matthew Flinders was told that 60 praus and over 1000 Macassans were working on the Arnhem Land coast when he mapped the area in 1803 (Mulvaney and Kamminga 1999:408).

Initial Macassan contact is dated to before 1730 AD from the burial of two Indonesian men at a Macassan site in Anuru Bay (Theden-Ringl et al. 2011); before 1664 from a rock art panel (Taçon et al. 2010); and 1637 from a Macassan trepang-processing site in Arnhem Land (Wesley et al. 2014 2016). Macassan influence extended east to the South Wellesley Islands (Oertle et al. 2014) but there is currently no archaeological evidence for Macassan voyaging further east to the Torres Strait or beyond (Grave and McNiven 2013).

Macassan interactions with Aboriginal people have been associated with changes in economy as well as social activities and material culture (e.g., Rosendahl et al. 2014) and their visits are recorded in ceremony, song and stories of the Yolgnu people of Arnhem Land (Trudgeon 2000). Mitchell (1996) noted that dugout canoes and metal harpoon heads were introduced by Macassan visitors to the Cobourg Peninsula and this may also have occurred on the Kimberley coastline (O’Connor 1999:113-117). Small dugout canoes, termed lepa-lepa were carried on the praus for collecting trepang and the Aboriginal word lippa-lippa is considered to have been adapted from the Macassan language (Thomson 1952; Mulvaney and Kamminga 1999:412-413). Further, Schrire (1972) described j-shape pearl shell fishhooks similar to the Macassan metal ones from a site at Port Bradshaw.

Indigenous Australians were not passive participants in contact with Macassans but active agents who negotiated conditions (Wesley and Litster 2014) and Indigenous men sometimes worked on the boats and even sailed back to Indonesia with them (Macknight 1976, 2013). Macassans were seasonal itinerant visitors on northern Australian beaches,
trading, collecting and living and working with Aboriginal people, but never stayed permanently (Walters 2000:77) and there is little or no evidence of hostilities that marked the later arrival of Europeans. Nevertheless, impacts may have been more broadly transformative. For example, the disease yaws may have been introduced by Macassans and is likely to have had a wider impact on Aboriginal communities than just those of northern Australia (Webb 1995:147). Before Macassan contact the Aboriginal people of Arnhem Land depict in their songs the visitation of pre-Macassans (Baiini or Baynini) who came from the islands beyond the Arafura and Timor Seas. Today, pre-Macassan time is seen as occurring in the Ancestral Dreaming Period when the great Spirit Beings, who are the inspiration of clan tradition and religion, walked the earth (McIntosh 2008). While the Macassan trepang fishery was prohibited in 1906 ‘the connection has been resumed in a way that both asserts and reclaims new forms of Aboriginality that are no longer premised on social isolation and racial purity’ and ‘what is already known about the Macassan contact history undermines the idea of an isolated continent and the untenable notion of a once pure race of isolated people’ (Ganter 2018:256, 275).

The Dingo

The presence of the dingo on mainland Australia and its absence from Tasmania provides compelling evidence that Indigenous Australians engaged with people beyond Australia between about 3000 to 4000 years ago. The dingo (Canis dingo) arrived in Australia approximately 3500 BP (Balme et al. 2018) although the exact timing is unknown (e.g., Greig et al. 2018). Its arrival coincides with a period of increased Austronesian and Oceanic maritime activity leading to suggestions that dingoes may have been introduced through contact with seafarers from New Guinea/Torres Strait, Taiwan, or Indonesia (Balme and O’Connor 2016; David et al. 2004; Fillios and Taçon 2016) with arrival across the Torres Strait likely (David et al. 2004; Greig et al. 2018; McNiven and Hitchcock 2004; Mulvaney and Kamminga 1999:260). Recovery of dog remains within the last 3500 years from the Aru Islands to the west of Torres Strait (O’Connor et al. 1999:260).
lends support to the view that 3500 years ago may have been a critical time for the movement of dogs in the Australasian region and parallels Lapita colonisation (with dogs) in the western Pacific, linking Australia to the Melanesian maritime expansions at this time (Lilley 2000; Rowland 1987).

**Genetics**

Genetic and morphological evidence is equivocal on both pre- and post-8000 year external contacts with Australia. Australian and New Guinean populations share a common ancestry but they diverged ~37,000 years ago (Dortch and Malaspinas 2017; Tobler et al. 2017; Malaspinas et al. 2016:210). Some genetic evidence suggests isolation over a long period with no evidence of secondary gene flow into Australia during the Holocene (Nagle et al. 2016), while Pugach et al. (2013) detected gene flow between Indian populations and Australia which they estimate to have occurred around 4230 years ago, but this has been dismissed by more recent studies incorporating complete genomes (Malaspinas et al. 2016:212). The arrival of microlithic tools in Australia as part of a package with the dingo through contact with Indian populations is considered unlikely (Hiscock 2008; Brown 2013). Importantly, Malaspinas et al. (2016:212) found evidence for continuous but modest gene flow, mostly unidirectional from Papuans to Aboriginal Australians but geographically restricted to northeast Australia. Additional genome studies from the Queensland coast and offshore islands recovering ancient genomes from archaeological contexts will undoubtedly be more helpful for improving our understanding of the extent of Holocene contacts.

**Linguistics**

Linguistic evidence for external contact is also ambiguous. As expected, loanwords from Macassan contact are found around the northern coast of Australia from Bathurst and Melville Islands to the Vanderlin Islands (e.g., Evans 1997; Walker and Zorc 1981). However, there is no evidence for a substantive contact-induced language shift in any Australian language (Hunter et al. 2011:22). A recent study supports a Pama-Nyungan language origin around 5700 years ago in the south of the Gulf of Carpentaria and its spread as part of a cultural package of new ideas and technologies (Bouckaert et al. 2018),
but it is unclear if this was the result of external contact. Clendon (2006:56-57) considered Australia was effectively isolated from significant outside linguistic influences for 60 millennia with existing languages moulded over time only by gradually shifting climatic and ecological barriers. However, contact is apparent in the languages of Eastern and Western Torres Strait (e.g., Wurm 1972). Hunter et al. (2011) argued that the Western Torres Strait language is a genetically Papuan language, though with substantial Australian influence but claim the case for intense contact has been overstated. The Kalaw Lagaw Ya dialect of the western and central islands of Torres Strait, which may have started its formation as early as 2600 years ago, is an Australian language but has been heavily influenced by both Papuan and Austronesian languages (Mitchell 2011). David et al. (2004:74–75) have provided a number of examples of Torres Strait cultural traits named and shared with Austronesian languages.

**Agriculture/Horticulture**

An apparent absence of agriculture practices in Australia has also proved contentious evidence for a lack of external culture contact during the Holocene. Farming appears to have been introduced to island southeast Asia around 4000 years ago by Austronesian language speakers from Taiwan (Bellwood 2005) and was independently developed on New Guinea (Golson et al. 2017), while arguably Australia remained largely a continent of hunter-gatherers (Hiscock 2008; Lourandos 1997).

Why Aboriginal Australians did not become gardeners as did some New Guineans prior to the formation of Torres Strait is unresolved (Gosden and Head 1999). Jones (1980:138–42) argued that conditions in northern Australia were not ecologically favourable for horticulture citing the constraints of the savanna zone, with its long dry season and poor laterised soils. Despite this long-held perception, there is evidence for a gradient of manipulation of plants through Torres Strait (Harris 1977; McNiven and Hitchcock 2004) and evidence that some Aboriginal plant exploitation practices included forms of cultivation (e.g., Chase 1989). Denham et al. (2009) suggested
that nascent horticultural practices may have developed in northern Australia and that experimentation may have occurred before the Torres Strait was formed or subsequently through maritime interactions across the Arafura Sea and the Torres Strait. Denham (2017:185; see also Florin and Carah 2018) further argued that rather than seeing island south east Asia, New Guinea and Australia as cut-off from one another, they had long and dynamic histories of interaction that enabled the transfer of animals, plants and ideas, however the archaeological evidence remains elusive.

**Figure 2** Papua New Guinea, Torres Strait and the Queensland Coast. Places mentioned in the text.
Contact Through the Torres Strait

External contacts did occur during the Holocene. The Torres Strait island archipelago stretching for 150 km between mainland Australia in the south and New Guinea in the north is a logical entry point and it is here we can best glimpse evidence of such contact (Rowland 1987, 1995). The Torres Strait comprises more than 250 islands and 750 coral reefs (McNiven 2015a:40), providing a complex pathway for human movement north and south and east and west. Until recently research focussed on recording the selective diffusion of so-called higher traits of ‘advanced’ Papuans to their ‘primitive’ Aboriginal neighbours (e.g., McCarthy 1940, 1970). McCarthy (1940) identified over 100 material culture traits/items that he believed were introduced into Australia. Haddon (1904) identified three types of trade occurring across Torres Strait: inter-insular trade, trade with New Guinea, and trade with Cape York. Alliances were established between neighbouring islands enabling the widespread movement of items and ideas throughout the area but in general Haddon emphasised the ‘north-to-south’ cultural flows. Linguistic evidence and oral traditions point to both ancient and more recent contacts throughout the area. Both ‘Light-skinned Pacific men’ and Papuans are said to have settled in the Torres Strait (e.g., David et al. 2004) and oral accounts suggest Chinese and possibly Indonesian fishermen visited the area long before the arrival of Europeans (Shnukal and Ramsay 2017:34).

At the time of European contact, a well-linked trade network between Australia and New Guinea existed (Moore 1978:343). Aboriginal people at Cape York traded spears, spear throwers and red and white ochre with the Western Islanders and were involved in a wider network of trade through Muralag (Prince of Wales Island). The Islanders traded pearl shell, conus shell, turtle shell artefacts and human heads to Papua New Guinea and received in return canoes, drums, various items of ceremonial adornment and weapons from the Fly River (Moore 1984:35–6). Moore (1978:324, 1979:323) argued that Torres Strait influences resulted from inter-tribal contacts and not by
extensive Islander visiting and thus he did not see a significant extension of watercraft into the Australian realm. Certainly, there are no equivalent references in Australia to the 50 ft double outriggers observed by Flinders in the Torres Strait and at contact, at least, exchange between Papua New Guinea and Cape York was not direct but through a series of interrelated exchanges. The trade in canoes in particular seems to have been highly controlled (Lawrence 1994:262, 265). However, recent reviews indicate people in canoes travelled far down the Queensland coast.

The extent of southward voyaging by Torres Strait Islanders was reviewed by Rowland (1987, 1995) and again by McNiven (1998) in relation to obtaining stone for the manufacture of stone club heads (gabagaba). McNiven’s (1998) study of gabagaba overturned the notion that these items came from the ‘advanced’ north to the ‘less advanced south’. Rather people from the Central Islands obtained stone for the manufacture of clubs from islands off the east coast of Queensland. Men from the Central Island group canoed up to 300 km south to the Forbes Islands and around 600 km south to Lizard Island for ‘clubstone’. Movement within the reef system was therefore substantial and it is likely that there were changes in watercraft types and use along the Queensland coastline within the last few thousand years allowing greater mobility (Rowland 1987, 1995). Language similarities, especially relating to watercraft and agriculture, between Torres Strait Islanders and Austronesian speakers have been noted and further study of connections with languages on the Queensland coast is an ongoing priority (Barham 2000; David et al. 2004; David and Mura Badulgal 2006; Wood 2018).

Until recently, the Torres Strait was thought to have been permanently settled during the late Holocene by colonisers from the north around 2500 BP (Barham 2000; Barham et al. 2004; David and McNiven 2004). More recent dating of the Badu 15 site, on the western island of Badu, to 8000 BP has required a revision of the sequence of occupation in Torres Strait. In Phase 1 (8000–6000 BP), ‘Ancestral Cape York’ was connected to the Australian mainland and was permanently occupied by mainlanders. In Phase 2 (6000–3500/3000 BP), the sea level had stabilised and the newly formed islands were visited occasionally by Australian mainlanders. In the final phase, Phase
(beginning around 3500/3000 BP), the islands were ‘colonised’ by people from the north and northeast (David et al. 2004:75). This late colonisation of the islands by marine specialists was seen to result from the direct or indirect appearance of people with new, long-distance seafaring technologies (outrigger canoes), possibly the dingo and marine-oriented cultures, associated with expansionist Austronesian influences from further to the east (Brady 2010; David et al. 2004:73). McNiven et al. (2006:73) proposed a dual demographic model of colonisation involving local Australian settlement expansion 3800 years ago followed by Papuan influx 2600 years ago. After 2600 years ago, McNiven et al. (2006) propose that more cultural similarities developed between the emerging Torres Strait Islanders and their northern neighbours than with those in the south. The revised interpretation by McNiven et al. (2006) thus favours ‘migration’ by Papuans around 2600 years ago. The discovery of pottery in the Torres Strait (e.g., Carter et al. 2004; McNiven et al. 2006, 2011; Wright and Dickinson 2009) has added a new dimension to proposed connections around 2600 BP. The discovery of Lapita pottery at Caution Bay on the southern Papuan coast between 2900 and 2500 cal BP (David et al. 2011; McNiven et al. 2011, 2012) and approximately 250 km (by sea) to the west of Caution Bay in the Gulf of Papua region, strongly indicates long-distance post Lapita westward expansions by c. 2600 cal BP (Skelly et al. 2014) and raises the question of the western extent of these migrating peoples.

Research on Torres Strait rock art (e.g., Brady 2010; Brady et al. 2013) provides further understanding of regional interactions. Brady et al. (2013:27) suggested that the art of the Kaurareg of the islands of western Torres Strait has links with islands to the north in terms of motifs and design elements, but also with mainland Australia in relation to the ratio of figurative to non-figurative art, painting techniques and colours used. Rock-art styles/images at Wagedoegam suggest late Holocene connections between Torres Strait Islander and Papuan communities although in which direction is uncertain (Wright et al. 2016). Brady (2010: 163, 255) suggested similar comparisons
between rock art from the Pulu Kod and material culture objects from New Guinea. On Dauan there is a rock painting of possible ‘claw-sail’ canoe, ethnographically unknown from Torres Strait, but present among Hiri raiders of the Papuan Gulf over 200 km to the east. There is also a painting of a line of dancers stylistically akin to artistic conventions from Goaribari on the Aird River delta, 290 km to the northeast (McNiven et al. 2004).

It must be noted that not all changes in the Torres Strait occurred around 2500 years ago, but rather emerged historically in response to internal social changes. McNiven (2006:10) indicated that broad scale cultural changes in settlement, demography, mobility, rituals, seascape construction, social alliances and exchange relationships occurred at 600-800 years ago and also about 400 years ago there appears to have been major transformations in Western Torres Strait Islander ritual practices, as evidenced by the onset of new bu shell arrangements and dugong bone mounds (David and Mura Badulgal 2006).

Evidence of Contact on the Queensland Coastline

Watercraft, Fishing Equipment and Other Items

Research on external contacts through the Torres Strait has focused on the movement of cultural traits into Australia such as outrigger canoes (e.g., Brady 2010; Beaton 1985; Lourandos 1997:47; Rowland 1987, 1995) and fishing equipment (e.g., Lourandos 1997:48, 210–211; Walters 1988). Outrigger canoes in particular were thought to be responsible, in part, for intensified use of the Queensland coast during the late Holocene (Beaton 1985; Rowland 1986:83, 1987). However, this technology was not essential for people to reach offshore islands as they were already being used prior to 5000 years ago (e.g., Barker 2004; McNiven et al. 2014; Rowland 1996:198).

It is widely accepted that the concept of outrigger canoes diffused across northeast Australia from Melanesia (e.g., Barker 2004:146; Beaton 1985; Brady 2010; Lourandos 1997:7; McCarthy 1940; McNiven, 2006b; O’Connor and Veth 2000:131; Rowland 1987, 1995). Canoes entered the eastern, central and western islands of the Strait through three separate trade routes (McNiven 2015b:151) but the antecedents of this system are difficult to determine. Evidence indicates that outrigger canoe
use in Torres Strait dates to at least 2500 years ago and watercraft use back to 9000 years ago (McNiven 2015b:130). The large sea-going canoe hulls used in Torres Strait during the 19th century were imported from the Fly River mouth region, as suitable large trees were not available on the Torres Strait islands. While it is possible that such large canoe hulls were imported into Torres Strait 7000 years ago, lack of information on the early trade systems at this time make it impossible to know what canoes might have been like (McNiven 2015b:130). Recent evidence suggests migration of pottery-making peoples into Torres Strait from eastern New Guinea around 2500 years ago with likely ancestral Austronesian linkages (David et al. 2011; McNiven et al. 2006, 2011). This may coincide with the introduction of double-outrigger canoes to the region (McNiven 2015b:132). More recently Wood (2018) has argued that the single outriggers of southeast Cape York Peninsula may derive from the Massim area of the Papuan Tip while the double outriggers of northern Cape York Peninsula and Torres Strait are from mixed sources with an initial form derived from island South East Asia via the south coast of west New Guinea.

McNiven (2015b:193 and Table 6) summarised European observations on the number of canoes travelling together in a fleet in the Torres Strait between 1792 to 1849. These observations ranged from two to ten canoes, with 16 the largest flotilla recorded. Considerable distances were travelled between islands and from islands to the adjacent mainland of New Guinea and Australia (McNiven 2015b:Table 7). Most voyages were undertaken by the Kulkalgal of the central Islands and were confined to Torres Strait, but voyages were also undertaken nearly 600 km southwards along the northern sections of the Great Barrier Reef. McNiven (2015b see also Rowland et al. 2015) provided accounts of Torres Strait Islanders on the Sir Charles Hardy Islands 170 km, and Restoration Island 240 km south east of Cape York respectively. These accounts included; 17 canoes with 95 men 25 km southwest of the Sir Charles Hardy Islands heading south (The Australian Thursday 17 December 1846, p.4), and two canoes with outriggers in the vicinity of the ‘Three Wooded Islands’ off
Cape Flattery located nearly 560 km south of Cape York. Haddon (1935:88, 394) was informed that Central Islanders used to travel and barter south during the dry-season along the Great Barrier Reef and the east coast of the Cape York Peninsula. The Central Islanders from Torres Strait obtained stone artefact raw materials (e.g., for club heads), stones for zogo shrines and ochre which they also used to trade with the Eastern Islanders. Torres Strait Islanders (as noted above) also sailed 550 km southeast of Cape York to Lizard Island to obtain ‘club stone’ (McNiven 2015a). The extent to which the Kulkalgal interacted with Aboriginal people during these southern sojourns is poorly documented. Haddon (1935:88, 394) specifically mentioned that ‘barter’ and ‘trade’ took place during these trips which indicates that interactions took place. Whether or not Aboriginal people undertook special trips to meet visiting Torres Strait Islanders, or that such meetings were scheduled during known regular use of these islands by Aboriginal people from the adjacent mainland coast is unknown. Whatever the case, ethnohistorical and ethnographic evidence reveals that sites on islands located along the nearly 600 km of coast from Cape York south to at least Lizard Island may represent the activities of Aboriginal people and/or Torres Strait Islanders (McNiven 2015a:51). Tantalising evidence of contact with the Pacific region was initially considered likely on the basis of pottery sherds discovered on Lizard Island but further analysis and dating of the sherds are required (Tochilin et al. 2012). Nevertheless, recently, Fitzpatrick et al. (in press) have demonstrated through a comparative stylistic analysis of stone arrangements constructed on the Lizard Island Group that while most are predominately of Aboriginal authorship, some arrangements exhibit cultural influences from neighbouring areas such as Torres Strait and the southwest Pacific.

The maximum southern distribution of outrigger canoes has been variously put at the Endeavour River, Fitzroy Island, and just to the north of Dunk Island. However, they were sighted as far south as the Whitsunday Islands and Cape Hillsborough (see Rowland 1986, 1987 for discussion) although they did not displace bark canoes in these areas. It is possible that they may have been distributed further south, but this is difficult to confirm. In the areas that they were recorded, it is not clear whether they were made and used locally, were obtained by
trade, or represent occasional visits by Papuans and/or Torres Strait Islanders along the coast (Rowland 1986, 1987). The extent that outrigger canoes travelled from Papua New Guinea into Australia is of obvious importance since other types of material culture would have been transported on them. However, at present we do not know the extent of such penetration. Rowland (1986, 1987) proposed that outrigger canoes may have aided the transfer of items of material culture as far south as the Whitsunday Islands and perhaps even to the Keppel Islands (Rowland 1987:41). Maritime technologies cited by Rowland (1987:42–43) as indicating possible southwards transfers via the Torres Strait included harpoons with detachable heads (found as far south as the Keppel Islands), fishhooks and the stone drills used in their manufacture, stone-built fishtrap and the hourglass technique of knotless netting. Barham (2000:233) noted that other items included cooking ovens, shell scrapers, stone and coral files, spear points and fishhooks. Barham (2000) identified these as distinctive features of the Torres Strait archaeological record occurring as a major cultural change at 2500 BP which he called the Torres Strait Cultural Complex (TSCC) and which has since been dated closer to 2700 BP (Brady and Ash 2018). Torres Strait Islanders used five major fishing technologies: lines and hooks; scoop baskets; spears; tidal traps; and stupefaction (Weisler and McNiven 2016). No archaeological evidence for fishing technology such as shell fishhooks has yet been recovered from the Torres Strait (Weisler and McNiven 2016) which raises the question of how the idea of shell fishhooks could have diffused into Australia through Torres Strait when no evidence exists for use of these items by Torres Strait Islanders (McNiven 2006:104). It should be noted, however, that worked shell artefacts and ground and perforated shell ornaments have been recovered dating to less than 1200 BP on Mabuiag. These artefacts were produced primarily on taxa such as Conus, Pinctada, Hippopus and Tridacna, ethnohistorically known to have been used for fishhook manufacture elsewhere in the western Pacific (Harris and Ghaleb Kirby 2015; McNiven et al. 2015).
At Nara Inlet on Whitsunday Island, first occupied prior to 8500 BP, there is an increase in occupation intensity about 2500 years BP and new items of technology appear including pieces of ground turtle shell (possibly fishhook blanks), a dugong harpoon barb, and shell knives (Barker 2004). A fishhook from the Keppel Islands has been demonstrated to be marginally older (i.e., greater than 1000 years) than those from the Sydney area (Attenbrow 2010), which might allow for the possibility of their rapid diffusion down the coast (Rowland 1982). However, the likelihood that fishhooks were independently invented in a number of localities is also possible (Gerritsen 2001, Walters, 1988). An investigation of names for fishhooks and lines has suggested to Walters (1988:Table 2, 105) at least some borrowing and diffusion of linguistic terms throughout the region from an Austronesian source. In avoiding diffusionary scenarios altogether, White and O'Connell (1982) note fishhooks are related to certain kinds of shorelines and their fish.

The late and nearly contemporaneous appearance of fishhooks and other fishing technology in Australia and their limited distribution throughout Cape York, across the northern coastline, and down the east coast allows for diffusion to be considered a possibility in explaining their origins. This may not have involved any significant population movement and could have occurred almost instantaneously. The great trading systems and networks of local exchange combined with the frequent gathering together of groups for ceremonies and other purposes provide a simple mechanism whereby new ideas could have moved throughout Australia. The concept of fishhooks and other items might then have been adapted and modified in particular areas dependent on materials available, types of fish targeted and types of coastal environments. Furthermore, items could be accepted or rejected in various areas depending on the role of fishing in particular communities and the nature of their socio-economic systems. None of the above negates the possibility that in some areas local invention of fishhooks did occur. Much further archaeological research needs to be undertaken along the extensive east coast of Australia to test these various scenarios.
Discussion

Contact did occur through the Torres Strait after the separation of Sahul into New Guinea and Australia. This would have been by people who were predominantly coastally orientated and thus would have achieved contact across water. While evidence of the types of watercraft they used are elusive, there are nevertheless exciting opportunities to investigate the development of associated items such as fishhooks, harpoons and other fishing gear.

Bowdler’s (1995) suggestion that watercraft use diminished in importance after colonisation and was not accelerated again until after 4000 years ago needs to be investigated further. On the one hand, this is a reasonable expectation in some areas, in that colonisers tend to lose their abilities to colonise when they achieve their objective. On the other hand, this apparent reduction in watercraft use may be the result of the vagaries of archaeological preservation (and at least for the period 65,000 to 7000 years ago the majority of the evidence both direct and indirect would now be submerged). Furthermore, it is proposed that in northern Australia, at least, where seas are calmer and more protected, the water is warmer, islands more numerous and clustered and more resource rich, there does not appear to be a major reduction in watercraft use. Nevertheless, at around 4000 years ago outriggers and dugout canoes were introduced which did enable, at least in the north of Australia, a greater use of the sea and offshore islands and enabled the development of groups of marine specialists with a broad-spectrum fishing technology probably introduced with the canoes (Rowland 1995). The timing of the apparent ‘recommencement’ of watercraft use noted by Bowdler (1995) is more than coincidentally related to an expansion of people in the Pacific at around c. 3500 BP. There remains in my view then a connection between world-wide environmental changes at this time (Rowland 1983), expansion of Austronesian people into the Pacific (Rowland 1987, 1995) and the transformations that began to occur in Aboriginal Australian societies. This does not, as some might suggest, deny these societies their own internal
dynamics. It simply shifts the focus from the population in isolation to one that was part of a larger universe of ideas and impacts. This makes the dynamics of such societies all the more interesting as they accepted, rejected or modified ideas (Rowland 1995).

Undoubtedly archaeologists and others will continue to investigate what innovations reached Australia from external sources and were taken up by Aboriginal people. This is worth doing from time to time as new evidence and ideas emerge. Equally, research will continue into why many of the adaptations and inventions in areas to the north of Australia did not reach Australia. In particular, why innovations made in New Guinea did not reach Australia through the Torres Strait with a pathway of many intervening islands over a distance of only 150 km. It is also important to note that Torres Strait Islanders were very selective in what entered their islands from the north. For example, the pig may not have reached Australia from New Guinea because islanders did not want pigs destroying their gardens (see McNiven 2008 for a fuller discussion). In a recent review McNiven (2017) argued that Torres Strait Islander history on a timescale measured in thousands of years reveals a series of significant transformative impacts. In each case, the Torres Strait was incorporated into these ‘ancient globalizations’ that emerged at c. 4000 years ago (with Aboriginal Australia), c. 3300 years ago (with Melanesian New Guinea), and c. 500 years ago (with Southeast Asia). How far these transformations infiltrated more broadly into Australia has yet to be understood. Further research is required but old diffusionary views that innovations moved from an ‘advanced area’ to a ‘backward area’ must be avoided. In consideration of this, new research should also focus on what concepts or artefacts might have moved north from mainland Australia and some archaeologists are now considering such possibilities (Brumm 2018).

Archaeological research has so far contributed little to defining areas of possible culture contact. It may be possible to do so by establishing chronological and stylistic controls on possible introduced items such as fishhooks and stone artefacts. However, contact may have occurred over such a long time period and at irregular intervals, making it difficult to define a chronological sequence. Such contact may also have originated from a number of points at different time periods and extended
at different rates and directions across Australia. Much of the evidence for such contact, in the form of perishable items of material culture, would be unlikely to survive over long periods of time. Indeed, most of the present evidence for culture contact is based on observations of material culture during European contact, where it is difficult to separate traditional cultural items from those influenced by possible earlier contact (Rowland 1995).

Conclusions

Aboriginal people experienced some cultural continuity with people throughout Sahul from 65,000 years ago. However, following the establishment of modern sea levels at approximately 8000 years ago that continuity may have come to an end. Nevertheless, there is clear evidence that Aboriginal people had contact with outsiders at approximately 3500 BP when the dingo was introduced into Australia and with Macassans in the last 1000 years. Contact may also have occurred at other times and places to the north of Australia and from the Pacific Basin. There is evidence that contact did occur through the Torres Strait onto Cape York and down the Queensland coast throughout the Holocene. However, nothing could prepare Aboriginal people for the transformative and traumatic changes associated with arrival of Europeans which is the theme of this volume.

Acknowledgements

Thanks to Professor Ian McNiven, Monash University, for comments, references and suggestions. It will be recognised that without his substantial body of work in Torres Strait this review would be greatly diminished. Considerable thanks are also due to Professor Sean Ulm, James Cook University, for his ongoing support, insights and editorial skills. Thanks also to Dr Michael Westaway, Griffith University, for helping me to understand the genetic evidence and to Emma Rehn, James Cook University, for producing Figures 1 and 2 at short notice.

Volume 42, December 2018
References


Balme, J., S. O’Connor and S. Fallon 2018 New dates on dingo bones from Madura Cave provide oldest firm evidence for arrival of the species in Australia. *Scientific Reports* 8:9933. DOI:10.1038/s41598-018-28324-x.


Brady, L.M. 2010 *Pictures, Patterns and Objects: Rock-art of the Torres Strait Islands, Northeastern Australia*. Melbourne: Australian Scholarly Publishing.


Elliot-Smith, G. 1933 *The Diffusion of Culture*. London: West.


Lilley, I. 2000 So near and yet so far: reflections on archaeology in Australia and Papua New Guinea, intensification and culture contact. *Australian Archaeology* 50:36–44.


McNiven, I.J. 2008 Inclusions, exclusions and transitions: Torres Strait Islander constructed landscapes over the past 4000 years, northeast Australia. *The Holocene* 18(3):449–462.


McNiven, I.J., N. de Maria, M. Weisler and T. Lewis 2014 Darumbal voyaging: intensifying use of central Queensland’s Shoalwater Bay islands over the past 5000 years. Archaeology in Oceania, 49:2–42.


O’Connor, S. 1999 30,000 years of Aboriginal Occupation: Kimberley, North West Australia, Terra Australis 14, Canberra: ANH Publications and Centre for Archaeological Research, Australian National University.


