A message for our future? The Rapa Nui (Easter Island) ecodisaster and Pacific island environments

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Abstract

The unique archaeological remains of Rapa Nui (Easter Island) in conjunction with its geographical position have led to a special interest in this place. What has become the orthodox understanding of the material remains, especially the famous large carved stone torsos (moai), is that they represent a physical manifestation of social competition that was a major causative factor in an ecodisaster – the destruction of the indigenous palm forest. This story of human-caused environmental disaster provided a topical warning, as a microcosm of the earth, in the environmentally aware final two decades of the last century. Recent archaeological and palaeoenvironmental work on other Pacific islands, although indicating significant human-induced environmental change, is providing evidence that these were instigated by thoughtful human actors who were capable of manipulating their island homes in order to enhance, or even make, their potential for subsistence and settlement. Within this scenario the events that led to apparently major environmental change in Rapa Nui is one that is evident in the majority of Pacific islands. In the vast majority of other cases these changes did not lead to the inevitable social competition and population collapse that have been posited for Rapa Nui. In this paper I question whether the Rapa Nui case is really so different and argue that the ecodisaster occurs after and as a consequence of European contact.

Keywords

Rapa Nui; Easter Island; ecodisaster; contact; Pacific; environmental change.

Our age is not more dangerous – not more risky – than those of earlier generations, but the balance of risks and dangers has shifted. We live in a world where hazards created by ourselves are as, or more, threatening than those that come from the outside. Some of these are genuinely catastrophic, such as global ecological risk, nuclear proliferation or the meltdown of the world economy.

(Giddens 1999: 34)

At the fin de millénaire Anthony Giddens in Runaway World proposed that humans are realizing that environmental risks are as much due to their own practices as any
uncontrollable ‘natural’ forces. In this same period, but talking of a pre-modern age, the story of environmental change on Rapa Nui (Easter Island; in Chile as the Isla de Pascua: Fig. 1) has become a cause célèbre for many people who wish to see this island as a micro-cosm of possible world environmental catastrophe. The popular version of this story has reached a mass audience through Bahn and Flenley’s *Easter Island, Earth Island* where they argue that the people of Rapa Nui ‘carried out for us the experiment of permitting unrestricted population growth, profligate use of resources, destruction of the environment and boundless confidence in their religion to take care of the future’ (Bahn and Flenley 1992: 213). This story so dominates public and non-specialist (sometimes specialist) understandings of the history of Rapa Nui that the alternative stories and the greater context of other Pacific island environmental histories can be heard only as a distant murmur. In this paper I shall review some of the alternative scenarios that have been proposed and use these to contend that, in comparison to other Pacific islanders, the people of Rapa Nui were not mere unthinking pawns in an environmental game where they had little choice, but, instead, decision-making actors with the ability and knowledge to manipulate a relatively extreme environment for their own ends, but whose voice was lost, once their world was devastated by the arrival of Europeans to their island. First I need to provide an outline of the popular story of the catastrophic collapse of Rapa Nui society.

**A message for our future?**

The orthodox model, that is, the popular story of Rapa Nui environmental and social history, has been around for some time (e.g. McCoy 1979; Kirch 1984), but Bahn and Flenley, following Flenley’s palaeoenvironmental research (see Flenley and King 1984; Flenley et al. 1991; Flenley 1993, 1994), are responsible for bringing the story to broader public attention.

The scenario detailed by Bahn and Flenley is one that sees the human population of Rapa Nui as responsible for an environmental catastrophe leading to what has been termed cultural devolution (also see, for example, Thomas 1996: 59–68). The environmental destruction is the loss of palm through forest clearance starting shortly after initial settlement and being virtually complete by AD 1400 (Plate 1). This process was the consequence of clearing land of wood (mostly palm) for agriculture, canoe building, fire setting and, most importantly, the use of palm trunks as rollers for the transport of the *moai* statues from their quarry sites to the coast where at least 230 were erected on stone platforms (Plate 2). The rats introduced by the settlers of Rapa Nui also served to inhibit regeneration of the palms by eating their fruits. Other, apparently unexpected, consequences of the forest clearance were soil erosion, which removed the fertile soils reducing potential for agriculture and a change in the fluvial regime leading to a reduction in available water.

The pressures that forest removal placed on the islanders led to competition for food, a competition leading to further *moai* manufacture, periods of starvation (and possibly cannibalism), inevitable ever-increasing warfare identified by the late development and increase in obsidian points, and later still a fragmentation of chiefly society. Eventually *moai* production ceases and is apparently replaced by the infamous ‘birdman cult’ leading to the neglect and toppling of the *moai*. The cult of the birdman provides a method for
Figure 1  Map of the Pacific Islands with islands mentioned in the text.
one of the competing social groups in the fragmented system to gain power and privileges through the athletic prowess of one of their members. All this, and an associated massive decrease in population, occurred by c. AD 1680 according to chronological estimates derived from genealogical information.

This story of self-induced ecodisaster and consequent self-destruction of a Polynesian island society continues to provide the easy and uncomplicated shorthand for explaining the so-called cultural devolution of Rapa Nui society (e.g. Nile and Clerk 1996; Flenley 1998). Kirch has most recently expressed this in an extensive review of the archaeological history of the Pacific islands where he states that:

In the end the relations of power that underwrote the most incredible monuments the ancient Pacific world has ever seen were not sufficient to survive the pressures they put upon the very ecosystem that those ideological symbols were meant to dominate and control.

(Kirch 2000: 275)

The message for the future was clear, according to Bahn and Flenley:

One could stand on the summit and see almost every point on the island. *The person who felled the last tree could see it was the last tree. But he (or she) still felled it.* This is what is so worrying. Humankind’s covetousness is so boundless. Its selfishness appears
to be genetically inborn. Selfishness leads to survival. Altruism leads to death. The selfish gene wins. . . . The Easter Islanders no doubt believed their gods would find a solution to the problem. Nowadays we tend to rely on our gods of science and technology. But the islanders came unstuck in a big way, and we could do the same.

(Bahn and Flenley 1992: 214, emphasis in original)

What message?

A number of commentators have preferred to look for a basic environmental explanation for the loss of forest proposed by Bahn and Flenley. McCall (1993) postulated that environmental perturbations within the Little Ice Age may have caused a drought severe enough to destroy the trees. Orliac and Orliac (1998) prefer an ENSO (El Niño/Southern Oscillation)-induced drought that led to ‘a brutal and dramatic crisis: famine, high mortality and profound social disarray’ (1998: 132). Hunter-Anderson has provided a detailed critique of the orthodox model and finds that Bahn and Flenley’s borrowing of the notion
of an universal ‘selfish gene’ is, when applied to Rapa Nui, based on ‘psycho-anthropological fantasies about subsistence agriculture and its alleged ill-effects upon the environment’ (1998: 86).

Drawing on the evidence derived from a range of ethnographic studies Hunter-Anderson provides many examples of sustainable subsistence practices from plant management through to soil erosion control. Such sustainable management, Hunter-Anderson argues, would also have been extended to include the palm trees, agro-forestry being a particular speciality of Pacific islanders. She takes exception to the claim that palm wood was felled for canoe fabrication, as it is generally avoided in the Pacific. Certainly, in Canoes of Oceania Haddon and Hornell (1975: 97) provide evidence that indicates that on Rapa Nui boats were manufactured by skilfully patching together pieces of driftwood. More important, however, are the two major causes for the loss of the palm forest as envisaged in the scenario provided by Bahn and Flenley: the use of logs for transporting the moai and the role of rats in destroying the reproductive capabilities of the palms through eating the fruits. Hunter-Anderson regards the idea of the destruction of the forest to provide material to transport the moai as ludicrous. For a start she argues that logs are easily stored for multiple transportation events. Second, she questions the frequency of such events and finds that in regard to the statistics of chronology and number of moai transported, it is likely to be less than two per annum. Such a figure she concludes is unlikely to provide a threat to the ecological balance of the palms.

Hunter-Anderson contests Bahn and Flenley’s identification of the Chilean Jubaea chilensis as the likely analogue for Rapa Nui palm. Its distinct environmental setting, she suggests, makes a more suitable present-day comparison the Juan australis palm, which is an endemic species of the Juan Fernández Islands. However, in regard to Jubaea chilensis she does find that, rather than rats arresting the rates of reproduction of this palm, they are actually known to help germination through their gnawing of the fruits. Thus, it is possible that the rats introduced by the first settlers may have assisted regeneration rather than hindered it as proposed by Bahn and Flenley. Hunter-Anderson’s specific readings of the data provided by the cores upon which Flenley bases his analyses is that the evidence for environmental change begins 3000 years ago, long before humans are present on the island, suggesting that ‘prehistoric human actions had nothing to do with the origin of these trends’ (1998: 94). She does go on to say that humans ‘had nothing to do with their continuance either’ and this is where Hunter-Anderson and I part company as she believes that the new arrivals would have adapted to changing climatic conditions, whereas, as I explore below in relation to research elsewhere in the Pacific, I expect that the environment was adapted to the needs and perceptions of the new arrivals.

**Rapa Nui in Pacific context**

Scholars have for many years recognized that the landscapes of the Pacific islands have altered since initial human settlement. Debate has considered two issues:

1. Is landscape change a ‘natural’ or ‘cultural’ product?
2. Is the landscape change a degradation of the environment or an enhancement?
The first question sets up a false dichotomy. All landscape is cultural, otherwise it cannot be landscape, and it cannot have meaning until it has been expressed in human terms (and these perceptions are rarely those of the geomorphologist). This does not get us any closer to answering what processes are responsible for these changes. Perhaps it is better to rephrase the question and ask, would these landscape changes have occurred if humans had not settled on the islands? The question of how far humans can be implicated in changing their environment is not new and has long been a cause for debate in geography and related disciplines. In 1955, an international symposium, ‘Man’s Role in Changing the Face of the Earth’ was held in Princeton (Thomas 1956), and, even though this was at a time when the notion of a ‘deculturized anthropologist’ was still accepted, the overall impression of one of the organizers was that the week-long conference constantly revolved around the question: ‘Is man part of nature, or is he something different, apart from nature, a kind of organism with some control over his own destinies?’ (Bates 1956: 1137–9). For the same conference, Mumford (1956: 1151) concluded that the reductionism of science, which results in simplification, needed to be replaced by a realization of humanity’s capacity for ‘self-fabrication’. Subsequently these questions were directly related to the Pacific at the 1961 Hawaii conference, ‘Man’s Place in the Island Ecosystem’ (Fosberg 1963). That the question of human involvement in shaping the ‘natural’ environment was still very much to the fore can be illustrated by two quotes:

An attempt has been made to view human populations as neither more nor less than populations of a generalized and flexible species, for in the most fundamental respects man hardly differs from other animals. His populations participate in ecosystems, as do the populations of other species; they occupy particular positions in food webs as do others; and they are limited by factors little different from those that limit others.

(Rappaport 1963: 168–9)

There is . . . impelling evidence that the Maori purposefully altered the texture of the soils he used and in some places actually created a new M (for man) horizon on top of existing profiles. This he did by laboriously carting thousands of tons of sand and gravel in flax baskets to mix with or to bury existing top soils; and thus improving the tillage, drainage, and heating properties of the soil.

(Cumberland 1963: 194)

These conferences present a useful illustration of the diversity in geography prior to the ‘Quantitative Revolution’ or ‘New Geography’ of the 1960s, which, as in Anglo-American archaeology, pushed positivism and general models to the fore at the expense of different interpretations (Gregory and Walford 1989).

It is clear, then, that, for geographers at least, there is a history of dispute over the role of humans in relation to the environment. Archaeology in the Pacific was only in the position of having collected enough data to allow for interpretation at the time when the ‘New Archaeologists’ were borrowing from the ‘New Geographers’. It should be of little surprise, given the epistemological context, that the models constructed for island environments were ones of quantifiable ‘eco-systems’, which allowed little room for the difficult-to-quantify impact of human agency. As in other humanities-related disciplines, the study of geography, and archaeology, has moved on by learning from the 1960s and
1970s experience of dehumanizing the world (see, e.g., Gregory 1994). In their ‘new’ (perhaps post-modern) eras, these disciplines have returned to the less monotheistic position illustrated by the conferences noted above. For Pacific archaeology it was this easing of control over the direction of academic discourse that allowed for the reintroduction of discussion regarding the role of people in transforming the island environment.

In the Pacific region, the islands of Near Oceania were being settled by at least 40,000 years ago (Spriggs 1997a). According to Enright and Gosden (1992: 194) from at least 20,000 years ago, and continuing on and through the Holocene, there is evidence for human-induced landscape alterations in the palaeoenvironmental record of New Ireland. Research in New Guinea by palynologist Simon Haberle (1993: 119) concluded that from at least 30,000 years ago the ‘records are compelling that the early inhabitants of the Highlands were actively manipulating the environment rather than playing a passive role’. Thus, from as early as the late Pleistocene onwards there is evidence to support a causal link between human settlement and landscape transformation in the Pacific. Accepting that there is a relationship between environmental change and human agency it is necessary to assess the evidence from the smaller Pacific islands over the last 3500 years.

Gosden (1989; Gosden and Webb 1994) and colleagues working on Lapita pottery sites in the Arawe Islands, off the south coast of West New Britain, found evidence for significant late Holocene landscape change. They discovered that after 3500 years ago the human impact on the landscape can be observed through a great increase in soil erosion and accumulation as beach deposits; similar changes have been noted at other contemporary (Lapita) sites (Gosden et al. 1989: 573). This appears to be typical of the landscape transformations experienced on many Pacific islands following initial human settlement.

On the island of Aneityum in Vanuatu, excavations by Spriggs (1981, 1985, 1986, 1993, 1997b) have shown that valley filling and coastal progradation, through the movement of soil from the hills, had created land suitable for settlements and agriculture by 1000 years ago. It appears that erosion began soon after initial settlement at approximately 2900 years ago, continuing sporadically until about 1600 years ago when increased alluvial sedimentation occurred. He finds many other similar examples from other Pacific islands and recognizes, in relation to agricultural production and benefits to settlement location, that ‘these processes . . . have led in many parts of the Pacific to landscape enhancement rather than degradation’ (Spriggs 1985: 429). Spriggs was writing at a time when soil erosion continued to be regarded as detrimental to island environments, but he further developed in iconoclastic vein by suggesting that the soil erosion was deliberately induced. He states: ‘If . . . intentionality was part of the process leading to hillslope erosion and valley infilling in Oceania, as I suspect it must have been, it is not as far as I know an intentionality remembered and expressed in Pacific communities today’ (1985: 429, emphasis added).

The island of Mangaia in the Southern Cook Islands group also illustrates an interesting example of environmental change. On this island Kirch and colleagues (1992) found that following human settlement, at approximately 2000 years ago, the palynology indicates that the central volcanic core became deforested. This change in the vegetation resulted in destabilizing the soil, which was consequently washed to the bottom of the slopes. Here, at the base of the slopes, an upraised coral limestone escarpment (the Makatea) which encircles the central core of the island trapped the soil. The consequent
creation of alluvial soils created a highly fertile environment that was utilized as fields and taro swamps.

Kirch et al. (1992) interpret the landscape changes on Mangaia as humanly induced environmental degradation. However, Kirch may have been closer to an understanding of these island transformations when discussing a similar movement of soil, from the uplands to the coast, following the human settlement of Tikopia, a Polynesian outlier in Melanesia:

[T]he net gain in land . . . must be explained as a combination of geologic and cultural actions. Such cultural practices as shoreline conservation were witnessed in the archaeological record as frequent retaining walls of coral cobbles now buried in fossil dune ridges. . . . I doubt the same pronounced gain in land . . . would have been achieved without the input from human actions. . . . [T]he positive repercussions of erosion and deposition for intensive agriculture cannot be overly stressed.

(Kirch 1983: 28, emphasis in original)

The importance of this statement is:

1 The realization that environmental change can enhance the potential of the island for human subsistence and settlement.
2 That these transformations cannot be considered a purely natural phenomenon.
3 The avoidance by Kirch of the question of whether the movement of soil to gain land and provide fertile areas for agriculture was an intentional act on the part of the islanders.

The examples presented above clearly show that in the Pacific humans have impacted upon their island environments to varying extents. As Spriggs (1997b) notes, the islands certainly were not ‘paradise’ when first settled, as they probably lacked the essential ingredients to sustain human life, with few edible plants and little in the way of non-marine fauna other than birds. In this scenario settlers would quickly set about altering the earth of the island with introduced agricultural products, and the breaking of the ground would increase soil movement, with potentially detrimental effects on reefs and lagoon as the soil was redeposited on the shore. What has not been satisfactorily addressed is the question, prompted by Spriggs (1985), as to whether these landscape changes were a consequence of intentional actions by islanders to expand the island size and terrestrial subsistence potential.

My research has focused on the eastern Caroline Islands of Micronesia where the archaeological and palaeoenvironmental evidence indicates significant environmental change since human settlement (e.g. Athens 1995; Athens et al. 1996; Rainbird 1994, 1995, 1999a). The scenario derived from the eastern Carolines is one of earliest human habitation taking place on the fringing reef in the form of stilt house settlements. Archaeological and geomorphological evidence from the Bismarck Archipelago has shown that such settlements can create low energy coastal environments that trap silt and soil leading to coastal progradation (Gosden and Webb 1994). In these circumstances soil is eroded from the slopes of the island as the introduced crops are planted following the removal of the non-productive endemic species. The land created in the former lagoons or reef
becomes productive land for subsistence crop planting and level land for house sites. On the island of Kosrae it has been estimated that a remarkable 16 square kilometres of coastal lowland, making up approximately 15 per cent of the current total land area of the island, did not exist prior to human settlement. Athens (1995) attempts to show that changes in sea level allowed the build up of this land, ideally suited to island settlement purposes, although his arguments have been shown to be convoluted and unconvincing (Rainbird 1995). In particular, two sites, one on Kosrae and one on a neighbouring island of Pohnpei, illustrate the efforts islanders will go to in order to enhance their island environments.

The sites of Leluh and Nan Madol on Kosrae and Pohnpei respectively have drawn much attention in the past due to their spectacular monumental architectural remains dating to centuries prior to first European reports in the first half of the nineteenth century (Cordy 1993; Morgan 1988; Rainbird 1994). More interesting in the context of this paper is that they are both built on fringing reef flats, both have the earliest archaeological dates for human settlement of the islands, and both have settlement built on a huge amount of purposefully constructed landfill. At Leluh, Cordy (1993: 256) estimated that 40ha was constructed landfill while more recent work by Athens provides a revised figure of 27ha (1995: 33). At Nan Madol the monumental architecture is constructed on the top of ninety-two artificial islets whose construction started some 1500 years ago (Ayres 1993). These feats of civil engineering were a locally logical extension of island modification that included valley infilling and coastal progradation and surely must be regarded as intentional acts. If we can accept such practices as locally logical intentional acts, then we ought to ask how such practices became incorporated into the local corpus of landscape manipulation; that is, do we characterize such practices as independent innovation or ones that derive from a long history, as I have argued previously (Rainbird 1999a; cf. Spriggs 2001), of community observation and experience of various island environments and the properties of soil movement and wave action, among other things? Arguing otherwise would surely require a belief that each time an island was settled for the first time the settlers would need to re-invent the process of habitation. Intentional acts can go wrong, but dwelling without recourse to experience is not possible – ‘the famous ahu [shrines] and moai [of Rapa Nui] are an outgrowth of the Polynesian marae’ (Lee 1992: 8).

There is no doubt that Pacific islands had been used and apparently abandoned prior to European visits and it may be argued that the Rapa Nui community would have eventually suffered the same fate. However, the abandoned islands, termed ‘mystery islands’ by Bellwood (1978: 352), may easily be regarded as resource poor when compared with Rapa Nui. The majority of the deserted islands are characterized by the poor soil development of coral atolls or upraised limestone geology, and all but the atoll of Christmas Island are much smaller in area than Rapa Nui. Many may have been inhabitable only while part of an inter-island voyaging network, as suggested by Weisler (1996) for the south-east Polynesian interaction sphere of Mangareva, Pitcairn and Henderson, the latter two being deserted when first reported by Europeans. Irwin (1992: 180) casts doubt on whether many of the abandoned islands had supported permanent settlements at all. Rapa Nui does not compare with these places.
Returning to Rapa Nui

That Pacific islanders altered their environments over many centuries and even millennia, surviving and subsisting in places where if they had not actively changed them they would never have been able to continue an established process of island colonization in this region. If we can accept that drastic environmental change is the only means of long-term survival, and a successful strategy at that, in the Pacific, why is it necessary to single Rapa Nui out? What is different about Rapa Nui, which is basically just another Polynesian island, from a prehistoric perspective? To answer this I propose returning to Bahn and Flenley and highlighting some chronological inconsistencies in their orthodox model.

Van Tilburg (1994), an archaeologist with a long research interest in the moai, finds that the orthodox view can be seen as a logical growth out of Darwinian notions of ‘islands as laboratories’ (cf. Rainbird 1999b). She writes that ‘[t]he metaphor for disaster . . . is a projection of Western values which emphasises the self-destruction of Rapa Nui culture over the actual, near-annihilation of it by contact with the West’ (Van Tilburg 1994: 164). In this statement she refers to the disastrous consequences of contact between the Rapa Nui islanders and Europeans, during a period that, in its earliest phases, witnesses the toppling of the moai statues. Bahn and Flenley (1992: 165) state that from the historical evidence it appears that on the arrival of the Dutch in 1722 ‘the statue cult was still underway’. This appears not to have been the case in 1774 according to Cook. Certainly La Pérouse in 1786 found the statues overturned and people hiding in caves. In 1722 the Dutch reported that the people of Rapa Nui ‘were all unarmed’, but in 1774 a few clubs and spears were reported. The dates for obsidian point manufacture (the mataa), regarded as an archaeological indicator of increased warfare related to environmental stress in the orthodox model, appear to support the historical observations. Bahn and Flenley (1992: 165) report that the mataa ‘first appeared in the 15th or 16th century, but really proliferated in the 18th and 19th centuries when they became the commonest artefact on the island’. La Pérouse’s report of people hiding in caves has been substantiated by excavation which produced glass artefacts of historic date leading to the conclusion that such practices occurred after 1722 (Bahn and Flenley 1992: 170). The stone chicken sheds, an indicator of strict control of subsistence resources in a depleted and warring environment in the orthodox model, are not reported in the historical records until 1868, leading Bahn and Flenley (1992: 170) to conclude that their construction must have started between 1786 and that date. It is also the case that until after 1804 descriptions of subsistence activities appear to be generally very positive. European visitors reported plots of sweet potato, sugar cane and banana plants tended with great care in square fields with furrows (Bahn and Flenley 1992: 93–4).

It thus appears from the evidence presented by Bahn and Flenley themselves that the majority of the major indicators of apparent competition, warfare, and social disarray, apparently caused by islander-induced ecodisaster, dates to the decades and centuries following initial European visits. Such accrued historical and archaeological evidence provides indicators of the consequences of the contacts, these encounters with difference (cf. Rainbird 2000), that ensued starting with the visits of Roggeveen in 1722 and González in 1770 and beyond. Certainly it is now commonplace to consider the potentially devastating effect of introduced diseases recorded elsewhere in the Pacific (e.g.
Moorehead 1966). In a study of skeletal remains from nearly 500 individuals dating to the late prehistoric and early historic phases Owsley et al. (1994) were able to confirm from the records that venereal disease, most probably syphilis, was an early introduction by Europeans to the island population. However, examination of trauma indicators led them to conclude that the ‘impression given by folklore and sporadic historical documentation is of chronic, lethal warfare. . . . Based on the osteological evidence this conclusion is somewhat misleading. . . . Few fatalities were directly attributable to violence’ (Owsley et al. 1994: 174). We can be secure in the knowledge that the 1862 forced removal of islanders for slave labour in Chile reduced the indigenous Rapa Nui population from thousands (Forster 1996: 264) in 1774 estimated only 900 inhabitants of whom only about fifty were women. He does, however, comment that Roggeveen estimated many thousands in 1722 and González in 1770 a population of 3000) to a tiny 110 by 1877 (McCall 1994: 64).

Métraux described the consequences of this slaving in no uncertain terms: ‘The year 1862 was decisive in the history of Easter Island. It saw the end of its civilisation, most aspects of which have become for us, since the middle of the nineteenth century, as vague and far-off as though we were separated from them by the mists of time’ (1957: 46). Of the 1000 removed:

[only fifteen regained the island, to the greatest misfortune of the population that had been left behind: shortly after their return, smallpox, the germs of which they had brought with them, broke out and transformed the island into a vast charnel-house. Since there were too many corpses to bury in the family mausoleums, they were thrown down clefts in the rock or dragged into underground tunnels. (Métraux 1957: 47)

Environmental change appears to play very little role in the social changes on Easter Island although disease and items of material culture were not the only things introduced. Shortly after the first visits by Europeans the consequences were making an obvious impact on the island environment. As Hunter-Anderson observes, ‘Europeans not only took people away from their own island, they introduced many destructive animals, including rabbits, cows, horses, sheep, goats and pigs. . . . The [islanders] could not protect their valuable saplings from the depredations of the alien beasts’ (1998: 97).

**Conclusion**

McCall (1994) proposes that one of the destabilizing aspects of the earliest European visits was the introduction of foreign material goods, and he states that ‘uncertainty over the values of unfamiliar objects brought into question the loyalty and trust of brother and enemy, and all the while the annual ceremony of Orongo becomes less effective in the face of feuds’ (1994: 46). In this paper I hope to have shown that there were many more destabilizing aspects to European contact with the islanders of Easter Island.

How isolated the islanders had become before the arrival of Roggeveen is a debatable point, but not an issue that can be addressed in this paper. As I have attempted to show,
due to the impact of aliens, of which Roggeveen and his crew were apparently the first, it is extremely difficult to reconstruct the last decades of the people of Rapa Nui prior to their arrival. As I have noted above, Rapa Nui may have eventually gone the same way as the Polynesian ‘mystery islands’, but a re-reading of the evidence does not support such a scenario. Isolation, if it existed, does not necessarily equal self-destruction.

Roggeveen noted the nonchalant behaviour of the first islander to step aboard a European ship, and it may be the case that aliens such as these people on a Dutch ship were expected. What was perhaps far less expected was the disease and the new expectations of material goods and, indeed, altered expectations for the future. After centuries of successfully crafting an island home from the fertile volcanic soils, following in the long tradition over millennia of settlement in the Pacific islands, the decimation of the population through illness and slavery and the destruction of the vegetation by introduced browsing animals brought rapid and drastic changes to Rapa Nui society. These changes caused major ruptures in the oral traditions and the voice of those days prior to European contact has been distorted or lost.

Kirch notes that for Rapa Nui, due to the impact of encounters with outsiders, ‘it has fallen to archaeology, combined with “salvage” ethnography, to write a history of this remote Polynesian island’ (2000: 270). Given this apparent responsibility it is important that great care be taken before scholars once again implicate the former inhabitants of Rapa Nui in a model of unwitting ecological disaster that serves as a microcosm of the modern world. An alternative view, and the one that perhaps ought to stand as the orthodox model until shown otherwise, is that it was the collision with the modern world system from the eighteenth century onwards that was directly responsible for the destruction of a fertile environment, and a rich and in part unique culture, to one depopulated and suited only to sheep grazing as received in the present day. Perhaps this should be the message for our future?

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