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The Receptions of Climate Change in the Cook Islands

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3 Woosh—Cyclones as Culturalnatural Whirls: The Receptions of Climate Change in the Cook Islands

As noted by Mike Hulme, the idea of climate change is now to be found active “across the full parade of human endeavours, institutions, practices and stories” (Hulme, 2009: 322). Hulme stresses that this should not make us think that a homogeneous climate change discourse has spread out evenly everywhere; the terrains are rugged, we believe in different things, have different concerns, and know different things, and moreover, the scientific accounts and projections are continuously changed, adjusted and improved. Furthermore, the reception in local communities is, as Rudiak-Gould has expressed it, not necessarily “treated as an obvious truth already plainly apparent to the senses, but as a prophecy whose truth or falsity cannot be taken for granted” (Rudiak-Gould, 2011: 11).

In line with these observations, this chapter acknowledges that if it has ever been possible to understand society and nature as separate domains, then that is clearly no longer the case (e.g. Latour 1993). Climate change discourse and changes in the environment are continuously socialized and incorporated in social activities and human imagination, and the destabilization of known landscapes affects the sense of continuity. Thus, climate change is not just an object of study for the hard sciences, it is also a concern and a challenge for the humanities and the social sciences.

This chapter takes us to Rarotonga in the Cook Islands to explore responses to both climate changes discourse and first-hand observed changes in local weather patterns. First, I dwell on how five cyclones in 2005 became decisive in the Cook Islands’ early response to climate change as an observable reality. Secondly, I explore how this reception co-articulates with the whirling force and quality of the cyclones in order to reach an understanding of wider culturalnatural processes and the more recent, and somewhat surprising, changes in the predictions of cyclone activity in the South Pacific.

3.1 Stormy Weather

In February and March 2005, the Cook Islands were hit by five cyclones. Developing north and east of Samoa, cyclones Meena, Nancy, Olaf, Percy and Rae proceeded southeast for several hundred kilometres on a collision course with populated areas of the island nation. Cyclone alerts were repeatedly released in the news. Briefs were

held, boats removed from the harbours, roofs secured, the preliminary movements reported in newspapers and the local radio, the expected wind speeds projected by the meteorological officer, and the public reminded of the location of safety centres.

On Monday, 7 February, the *Cook Islands News* reported that “Meena misses main island” (Moeka’a, 2005a), namely Rarotonga. Nevertheless, in the following days the media brought news of extremely high waves, rocks and rubble swept onto streets, and widespread damage to buildings and vegetation. In Aitutaki, north of Rarotonga, most of the power lines lay on the ground, roads were littered with fallen trees, and fresh water had been contaminated. A positive side of the storm was also noted a few days later, since it had “cleaned the shoreline leaving sandy beaches clean and bright [...] the tourists will love this” (Kurai-Marrie, 2005). More ominously, there were also reports of two new low-pressure areas in the north (Moeka’a, 2005b).

Whereas Meena’s track wandered between the islands, the next two cyclones made landfall. Nancy and Olaf battered Rarotonga, ripped off roofs, washed small houses into the ocean, sent several hundred people to evacuation centres, and caused extensive damage to vegetation. It being the wet season—the time of year best suited to planting—the Ministry of Agriculture released an advertisement offering new seeds for a moderate price to “all the mamas and papas” engaged in home gardening (Aperau, 2005). At first Percy was assumed to pose no threat to the Cook Islands, but as it intensified, storm warnings were issued across the South Pacific. On 28 February 2005, Pukapuka and Nassau, northern islands home to more than 600 inhabitants, were lashed by Percy. Nearly all the houses were flattened, every means of communication was cut off, and a state of emergency was declared. Cyclone Rae formed closer to Rarotonga than the first four storms, releasing torrential downpours totalling 80mm within 24 hours (Greig, 2005).

The five cyclones caused no casualties, but they left an indelible mark on the environment and people of the Cook Islands. Surrounded by the detritus of the storms, with the costs of recovery ceaselessly rising, locals began to circulate theories about what exactly had happened. Five cyclones, four of them reaching category five (the most severe), causing such extensive damage, one after another with little or no time for recovery—all of this was highly unusual.

This chapter will explore the ways in which Cook Islanders have made sense of the cyclones using the scientific concept of climate change, and, conversely, made sense of climate change via the cyclones. Central to this local appropriation of climate science is the notion of culturalnatural objects and whirls. Hence, I will show how the cyclonic activity in the Cook Islands took on the shape of a particular culturalnatural phenomenon. Using the cyclones as a “theory-machine” (Helmreich, 2009) and inspired by both Bruno Latour’s (1993: 51-5) conception of hybrids or quasi-objects as culturalnatural, real and fabricated, and Annemarie Mol’s “praxiography” (2003: 31-3), the intention is to explain how the cyclones not only invaded the islands, but how they were “enacted,” and thus gained shape and strength in multiple ways. The main point is to show how the cyclones are not only something-in-themselves or a

pre-existing reality as weather systems, and to investigate how they come into being on the sea, at the shoreline and in human lives. The cyclones' form, size and physical nature, of course, make them well suited for a totalizing gaze, and they no doubt look awesome on satellite maps as giant rotating cloud systems. On the ground, though, when the powerful winds meet particular roofs, boulders, people, and expectations, they become heterogeneous events. Thus, a single cyclone may be said to be enacted in multiple ways, endlessly many ways, as it becomes a part of lived history in the homes, gardens and offices of, in this case, islanders of the South Pacific. In the same way, the totalizing, God's-eye-view discourse of "global climate change" appears grand and singular, but when that discourse is transmitted to specific societies and individuals, it becomes appropriated, interpreted, and enacted in different ways.

3.2 Climate Change Whirls

In the Cook Islands, among environmental NGOs and at the National Environment Service, one particular theory began to gain strength after the five cyclones of 2005. Since that time, an environmental officer told me in an interview in 2010, "climate change has been all over." Her statement is confirmed by numerous reports issued locally and internationally over the following years. This particular set of cyclones quickly turned into a sign of global warming. A 2008 report from the Food and Agricultural Organization of the United Nations states:

The Cook Islands has already experienced first-hand the adverse impacts of climate change and extreme events. In 2005, the islands were hit by five tropical cyclones within the space of one month, an event that has never been experienced in the history of the Cook Islands (FAO, 2008).

In the Cook Islands Second National Communication (NC2) to the United Nation Framework Convention on Climate Change (UNFCCC) in 2011, the link between global climate change and increased cyclone activity is also stressed and linked to expectations of future weather patterns:

There is growing evidence from a range of studies that the early impacts of climate change will result from an increase in the frequency, intensity and duration of extreme events such as tropical cyclones, floods and storm surges. Wind intensities could increase between 5-10% by 2050 and precipitation peaks could increase up to 25% (2011: 89).

These conclusions point to a remarkable shift. A decade earlier, in the Initial National Communication to the UNFCCC, it was noted that "the Cook Islands has encountered a significant increase in the number of tropical cyclones, seasonal around November-April, over the past decade" (2000: 38). Significantly, however, the higher frequency was *not* linked to global warming, and links between global warming and local fluctuations in rainfall and sea level were only very cautiously suggested. Rather, the

earlier report stressed that it is “recognised that development and social changes have placed pressure on sensitive environmental systems and sectors of the Cook Islands” (2000: 5). In other words, local impacts on the environment, such as overharvesting and the building of infrastructure, are emphasized, while global climate change is accorded only an uncertain and secondary role as a reinforcer in the future: “adverse impacts of anticipated changes in climate and sea level rise will further exacerbate the stress on these systems if they do eventuate” (2000: 5). NC2 in 2011, on the contrary, foregrounds global climatic processes. Now, a decade later, more than twenty socio-environmental issues had become framed as “climate change vulnerabilities,” among them coral bleaching, invasive species, drought, floods, crop diseases, food insecurity, coastal erosion, damage to coastal infrastructure, disruption of education and social services, and water pollution.

On a general level, the cyclone exegesis resembles the physicists’ account of the gathering of a rotating wind system. First, a jumble of random movements accumulates gradually. In the beginning the movements are few and small; later they may develop into large coherent whirls. To take a familiar example, this is the same as what one observes in a cup or in a bathtub. Social interpretations may gain strength in the same fashion, I would suggest. Theories, scientific and public, sometimes develop into giant rotating, intensifying discursive systems, stretching out in large networks—not necessarily because they are particularly coherent systems of explanation from the outset, but because they become persuasive by the assemblage of many different forces, voices and elements. Today, practically every environmental NGO in the Cook Islands writes within the idiom of climate change discourse when they seek funding. Years ago, land degradation, forestry or gender were steering concepts; now climate change forms the forceful discursive framework that summarises and reinforces every sort of environmental vulnerability. In that sense, climate change truly is “all over.” But our story has a twist: since 2005, against expectations, cyclones have been fewer, and the scientific predictions concerning the frequency of future storms have been adjusted downwards. I will return to this.

The point I hope to bring home is that this resemblance between discursive formations and waxing/waning weather systems extends further into an understanding of the opportunities and problems it poses for Cook Islanders as they attempt to navigate a potentially catastrophic future. The whirl-like character of the cyclone’s cultural/natural activities embraces something more comprehensive. When the cyclones hover over the islands and waters, the perspective that is brought to outsiders and insiders through the media is maps of cyclone tracks and satellite images of a grand white whirling weather system with the characteristic dark eye in the centre. We are thus placed above the atmospheric heat engine circling its way over the warm sea where it gains power. In contrast, a local on-the-ground perspective leads us to the coasts and hills along the paths of the cyclones that are notoriously difficult to predict with the precision desired by coastal authorities and dwellers. Here, the turbulence is less ordered, and the course of the wind less stable as it interacts with

roofs, people and plants. The noise of the gusts of wind sometimes peaks in shrieks, causing both mental horror and physical devastation. But as we shall see, there is also a more edifying potential when the winds and water shake the islands up and down.

3.3 A Double Cyclogenesis

Cyclogenesis is an extremely complex physical process with more factors at play than is presently understood (Terry, 2007: 1). Generally, though, cyclones originate when warm ocean waters meet colder air temperatures. Given certain favourable wind patterns, a powerful cyclone can develop from the condensation and convection of water vapour in the unstable and rising tropical air masses, a process first described scientifically as a total weather system in the 19th century (Emanuel, 2005: 7). What starts as a disorganised area of disturbance may form a low-pressure centre that begins spiralling as a result of the Coriolis Effect (caused by the rotation of the Earth).

This physical weather phenomenon is captured neatly in the satellite images that afford us a “global perspective” on the environment. Here we see an example of what Tim Ingold has persuasively characterized as a visual, distant, literal, exogenous spectacle (2000: 209-18) in whose wake efforts can be made to take calculated risks, to plan for disasters and issue warnings, to forecast and tally damages, and so forth. As valuable as this perspective may be, it is not the only one: there is, Ingold says, a complementary approach, the “spherical perspective,” in which the environment is experienced from the surface and depths of things, partaking in the natural lifeworld by resonating and listening to its cycles and rhythms (Ingol, 2000). There, on the ground, when sea and atmosphere evolve into a grand air and water pump, winds whip the waves white and force them into powerful cyclical movements that can reach 20 meters or more in the open ocean. Sea spray batters vegetation, rips foliage off trunks and branches and deposits them like a thick brown plaster on windward walls. In the low pressure on the ground, cars, roofs, stones, sand, windows, trees, doors and people enter an extreme, shaking state of culturalnatural hybridity in the Latourian sense in which humans and things are inextricably connected (1993). It may be possible to hold a “modern” or “global” perspective on things on a fine clear day, and at a distance to see a cyclone as a discrete weather-object. But when the loud howling noises, the invading waters and crushing boulders enter one’s house, the hybrid mess of things and humans is impossible to overlook.

In the Cook Islands a particular description of a cyclone passing Suvarrow Atoll stands out as this kind of smashing, clashing heaven-and-earth drama. American writer Robert Dean Frisbie, in the autobiographical *The Island of Desire* (1944), travels the northern islands with his four young children. During a stop-over at Anchorage Island in Suvarrow in 1942, together with two visitors from a small yacht in a tree-house measuring six feet by eight, a cyclone passes over the island. Frisbie describes “the ungodly roar,” reaching to shrieks, of the “almost supernatural” winds, thick

salty rain driving horizontally across the lagoon, a jungle in convulsions, towering combers crashing and devouring the land.²⁰ At night, he ties his children to large tamanu trees, offers them a splash of rum, and finds himself shifting between dumb horror and fascination with the uncanny forces in the inky blackness. With almost no belongings left in the morning, “we experienced something there is no name for in the vocabulary—a sort of insane exhilaration”:

For three hours we ceased to live on the familiar Earth; and perhaps that is why I find it so difficult to describe the wind, the sea, our own emotions. Vocabularies were built around the things of everyday life; this thing belonged to the frenzied life of delirium (Frisbie, 1944).

Nevertheless, the winds did die down. The jungle and several islets had been swept away—a ghost island is all there was left—but Frisbie notes that atolls “are living islands: it rebuilds the land the sea has destroyed.” The vegetation will spread again, and new islets will grow, new sand cays will build up; bush and trees will appear again. Cyclones rearrange the environment, tear it down, and build it up too, as they deposit tons of sediments.

The atoll island and its tiny population of frigate birds and coconut crabs were caught in a whirling and howling cosmos, as two intertwined spirals suspended in constantly intensifying movements. After the storm, Frisbie writes, “[w]hen a fern leaf springs up from the barren sand we hold a pagan holiday,” giving the sense of horror, relief and the unfolding hope, perhaps alluding to the fern as *koru*—the spiral, which according to Anne Salmond is a Maori carving motif often taken to represent the unfolding of new life in “double dynamism that moves into and out from the primal centre” (Salmond, 1985, cited in Henare, 1999: 52). Taking the meaning of the double spiral even further, Salmond locates it at the centre of Maori cosmology, as we may say, a double cosmological cyclogenesis:

Beginning with a burst of energy and thought, the exchanges that generate cosmic elements—winds, planets, the ocean, animals, plants and people—alternate between gift giving, amity and union, and quarrelling, enmity and exclusion, working towards equilibrium—although this is always temporary and contingent (Salmond, 2012: 121).

Aside from these perhaps speculative resemblances between spiralling forces and states of relative equilibrium, what societies in “normal” state of things try to keep in place—cars on the roads, trees rooted in the ground, and boulders placed for protection in harbours—is with cyclones dramatically shaken. The force seems otherworldly, Frisbie tells us, yet we may note that his lack of words for the extreme state of hybridity resemble the silences of the hybridities that are already there.

²⁰ Frisbie, 1944: [n.p.]. Available at Project Gutenberg Australia: <http://gutenberg.net.au/ebooks01/0100261.txt>

Trees have already been planted, tended, cut down and turned into partly human artefacts by processes of production; mangos have taken part in people's metabolic processes and new mango trees in processes of reproduction. Nature and culture are continuously dragged, wired and whirled together as composite objects. In that sense, every kind of weather is a culturalnatural event, a fact which has become obvious in the era of modern global warming discourse. People all over the world have always known it in their way, through keen observations and extended mythmaking, historically, the Pacific abounds with hybrids. The literature is rich in evidence of entities that are both person and animal, spirit and substance, and connections between actions and the quality of relations and particular effects on the landscape and weather. During cyclones, this truth becomes visible anew: "all are shaken" in these cyborg storms.

3.4 The Cyclones Multiple

Some are, of course, more shaken than others. Where Meena's main punch was from high waves on the north coast of Rarotonga, Nancy struck primarily through strong winds. With waves averaging 14 meters, Meena strewed rocks onto the coasts and almost completely destroyed some buildings—in the case of a prominent harbour front restaurant, only the shell was left standing. The roof of Matavera church on Rarotonga, further to the south-east, was less severely damaged, but what Meena left unfinished, Nancy completed by lifting off the entire roof (Padgett & Clarke, 2005; Moeka'a, 2005c). Reports by the news media, at dedicated cyclone webpages, and by diverse disaster management organisations, collected in various databases, swell with eyewitness accounts.

The socio-economic impact of the cyclones is well documented, and cannot be understated. The national economy of this small island state is under severe pressure, and personal losses are great. However, as Daniel Defoe long ago remarked in "The Storm"—an account of the great storm in England in 1703, to which I will return later—the price of tile spiked just afterwards, a fact he noted because of his recent bankruptcy which most unfortunately had forced him to give up his share in a tile factory. A cyclone is a loss to many, and business for some, and perhaps surprising for outsiders—to many plainly an exciting experience. Thus, in the margins of official reports, and at the centre of islanders' personal stories, there are positive accounts of the cyclones that point in more favourable, if twisted, directions.

After Nancy, the *Cook Islands News* printed a remarkable photograph of boys playing in explosive sea waves, with a caption that read: "Foolish children take risks with the waves at Avarua harbour" (Moeka'a, 2005, 16 Feb.). In interviews with Rarotongans in 2010 and 2011, I was struck by the many perhaps not so foolish, but perhaps rather adventurous children dotting the stories of damaged houses, people rendered homeless, and hard work. "We always tried to sneak out during storms

and cyclones” a woman told me, “we were rafting down the streams on one-off rafts and we surfed on the waves on old tyres that we secured with ropes.” When they did not manage to escape the admonitory parents, many people had childhood memories packed with the warm atmosphere of large families gathering in safe houses, sharing foods, songs and worries while securing all sorts of stuff and news from neighbours, friends and the extended family. Risks and warnings eventually transformed into memories of humour, intimacy and other positive emotions.

Former prime minister Sir Tom Davis describes some of these hybrid sentiments in his autobiography when he recalls 1987’s Cyclone Sally, one of the strongest cyclones ever to strike the main island. After the first coming, the centre of the cyclone passes over Rarotonga, and a peculiar still life unfolds in the silent eye:

In the belief it was all over, people came out to take in the sights. They wandered around downtown examining the damage and picking up damaged goods on the way. The youth were in great prominence and, for most of them, this was their first bad hurricane. They were obviously enjoying the experience as were most people... Only the moderate hiss of the surges from the ocean rippling through this conglomerated mess, the crackle of a motor cycle wading its way through the debris, and the sudden outburst of giggles and laughter from wandering bands of children and teenagers broke the silence... (Davis, 1992: 324-8).

The cyclones multiple are, in praxis, always events in consecutive, situational here-and-nows. The jumble of things, the mixed feelings of fascination and fear, make it impossible to neatly summarize the event unless oneness and certainty are artificially manufactured. This was also a point expressed by Daniel Defoe when he, after England’s great storm of 1703, collected, commented and printed first-hand accounts from all over the country. Defoe does not seem to have viewed the storm as an object of whirl-like coherence, a total cyclonic object that originated from the West Indies or off the coast of Florida. On the contrary, while acknowledging the grandness of the storm, in order to make an account of it as a writer he relies on “varied voices and multiple points of view” (2005: xiv). In a Latourian sense we might say that Defoe’s writing is not (yet) quite modern, mixed as it is with a hybridity of exact measurements, supernatural explanations, and wholly disparate viewpoints.

In the Cook Islands many more versions too are enacted. Tourist resorts and agencies beg customers not to overestimate the risk of cyclones and the severity of their effects; they work out emergency plans and evacuate guests, and in some cases the visitors are even praised for their help during and after a cyclone as in Aitutaki, in 2010, after cyclone Pat. As mentioned earlier, the remarkable clean-up that cyclones perform in lagoons and at beaches is also noted. The overtopping of high waves may flush out lagoon waters very effectively, thus sweeping out algae blooms, and dramatically rearrange tons of sand, creating both new islets and severe erosion. Prayers are whispered, and in some cases grand theories and fears of End Times are preached, and critically discussed as “inappropriate and anachronistic” as by an

outsider involved in emergency service (Taylor, 1999; see Rubow, 2009). Traditional leaders contribute with pre-Christian ecological knowledge and traditional means of protections and prediction (see Rubow, 2013). Thus, personal beliefs, church teachings and memories may merge in celebrations of the Lord's great powers, or in fabulous storytelling about cyclones and their smaller cousins, the whirlwinds. In an interview, a local Christian minister confided that, astoundingly, he had once been caught in a whirlwind in the middle of a large lagoon and gently taken to the shore several kilometres away. In many ways, cyclones and whirlwinds drag animals, people and debris together with great force. As Davis puts it, sheets of iron are turned into "hazardous missiles, flying through the air and brought to a stop only when they hit an obstacle around which they became firmly wrapped like passionate lovers" (1992). Winds and things, people and landscapes, are wrapped into each other.

3.5 Climate Projections and New Futures

After the five cyclones in 2005, Cook Islanders had taken up scientific discourses of climate change, and talks with NGOs, business people, farmers and fishermen around the island of Rarotonga in 2010 and 2011 formed my clear impression that a certain gravity was indeed formed around the expectation that climate change would become more real through more frequent and more severe cyclones. Simultaneously, however, another gravity developed around the critical position that the adaptation of climate change discourse perhaps more rightly should be seen as opportunistic strategy for entering the climate change hub of travel opportunities overseas, conferences and grants for local development projects—with or without any obvious links to "climate change." As reported elsewhere (Rubow, 2013), however, the perhaps most frequent response on the island among resident Cook Islanders was more hesitant. "We have to wait-and-see"—many people told me, pointing to the many uncertainties involved in interpreting the local signs and the global scenarios.

Illustrating the scaling difficulties in climate sciences de Scally et al (2006) has presented a historical database of 143 tropical cyclone occurrences and their impacts in the Cook Islands over two centuries, drawing together large amounts of meteorological data and eyewitness reports. Apart from this valuable systematisation of highly heterogeneous material, de Scally (2008) has also analysed the intensity and frequency of the cyclones, leading to the noteworthy result that the number of seasons with three or more cyclones had increased since the mid-1970s (2008: 455). This conclusion was in accordance with the observations made by many Rarotongans and in several vulnerability and disaster assessments and reports, and stressed in the National Communications to UNFCCC in 2011. The tricky thing about this increase in cyclones is that de Scally also shows that it coincides with the

beginning of satellite monitoring of cyclones, thus recording the frequencies more accurately. The Cook Islands covers a vast sea territory, and by acknowledging the variable quality of the reports over two centuries, cautions are raised about making direct comparisons before and after 1970. Thus, the apparent increase is, de Scally concludes, “almost certainly attributable to the beginning of satellite monitoring of cyclones” (2008: 455). In consequence, de Scally adds, in accordance with other central meteorological sources, “these increases cannot be attributed to global warming without a longer record and a better understanding of the role of cyclones in the general circulation of the atmosphere and ocean” (2008: 455).

Subsequently, late in 2011, new regional projections were published by the Australian Bureau of Meteorology, stating that between 1969 and 2010 “an average of just over one cyclone per season passed Rarotonga,” with the significant fluctuations being that cyclones occurred more often in years with El Niño, that is a natural weather pattern making the ocean warmer in the northern parts of the country. In conclusion, cyclones have not become more frequent. Furthermore, new projections from the Australian Bureau of Meteorology building on the findings of the 2007 IPCC Assessment Report, tend to show in the Cook Islands region not an increase, but “a decrease in the frequency of tropical cyclones by the late 21st century and an increase in the proportion of the more intense storms” (2011).

In 2005, it was surely an increase in *frequency* that was loomed in local minds as debated elsewhere, this situation extends to other regions as far away as the North Atlantic (Jonsdottir, 2012; WMO, 2006). Only six years later, the question of frequency is cancelled, and projected *intensification* of the cyclones is now seen to pose the main challenge. The 2005 cyclones turned out, after the fact, not to be so unusual in a numerical sense. Notwithstanding, larger cultural/natural processes were set in motion. Qualitatively they destabilized the known landscape and opened-up spaces for the imagination and strategies for coping with environmental and societal changes. Now, new assessments, new plans, and new processes of climate proofing and more advanced computational models will be issued, discussed and modified. New twists and turns will occur in the anticipation of future weather patterns and extreme events as cyclones.

The central tenet of this article is that climate change does not happen *around* people; it is taking place in the midst of their world. In that sense, it is uncontroversial to predict that some communities will tend to strengthen the conceptual and causative link to global warming, while others, continuously or temporarily, will interpret the storms in terms of religious prophecy or in close relation to certain political programs. These variations are already present in Cook Islands, and throughout the Pacific, as described elsewhere in the present book. What is important to highlight is that climate change discourse is not only *received* by different people in different ways, it changed and twisted every time it enters new cultural/natural environments. In 2005, as before, the cyclones are not merely “there”: bracketed and isolated as self-contained physical phenomena. Rather, the

course they take in each individual garden, lagoon and hilltop will be an enactment consisting of many components: mangos, roofs, families and shrieking, spiralling wooshes. Cyclones are more than extreme weather events. They are also great culturalnatural events curled into the life of islanders and visitors as they overtop the reefs and minds.²¹

21 This chapter is based on research in the Cook Islands in June and July 2010, and in June and July 2011, funded by the European Research Council. Thanks are owed to Tony Crook and Peter Rudiak-Gould for valuable comments.