

"Birdman to the Rescue"

SPHEX Club Presentation

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The Sooty Tern, or more specifically the Indo Pacific Sooty Tern (*Onychoprion Fuscatus Nubilosis*), is a tropical sea bird in the gull family (Sternidae) that spends most of its time over the deep waters of the South Pacific where it hunts for fish, or sometimes squid, that have been forced to the surface by underwater predators. The Sooty Tern does not

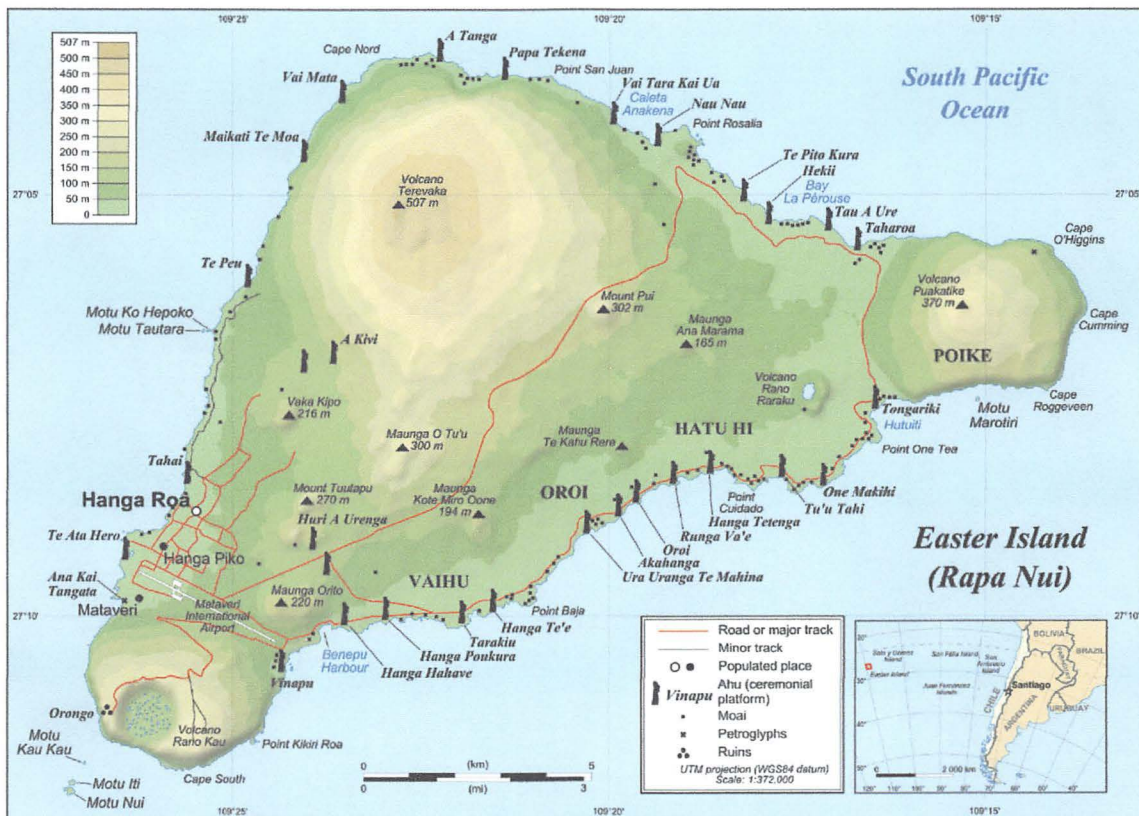


The Sooty tern

dive into the ocean for its food, but prefers to skim over the water to either grab a maritime creature that has come too close to the surface or pick off a flying fish as it performs and ill-timed leap into the air. The Sooty Tern is egalitarian in its approach to parenting, perhaps because it takes a decidedly mature attitude about mating – holding off to produce young until reaching the venerable avian age of six years or so. After nesting on the ground and in the open on some small coral island or volcanic outcrop for up to two months, the single whitish and variably marked egg produced by a mating pair is incubated by both the pater and mater familias. Once the hatchling emerges from its embryonic cocoon, both mom and dad take turns nurturing it with regurgitated food culled from the surrounding seas. The Sooty Tern is a migratory bird, so human inhabitants of Polynesia can easily measure the passage of seasons by noting the absence, or return, of this bird's harsh squeaky and croaky calls.

Although the Sooty Tern is represented by sub-species that range from the Indian Ocean through the Pacific and East to the Galapagos Islands, also boasting one variant that

Rapa Nui, which is also widely known as Easter Island but which will hitherto be referred to by its native name, is also a High Island. As is the case with many such islands, Rapa Nui is not made of just one volcano. While Hawaii demonstrates the principle of an island chain caused when a stationary hot spot in the mantle periodically erupts through the lithosphere and the moving tectonic plate above, thus creating the appearance of successively younger islands in a line opposite that of the direction of the relevant continental drift, Rapa Nui was formed by three highly proximate volcanos. Now completely extinct, the Terevaka volcano with an elevation of 511 meters above sea level, makes up the bulk of Rapa Nui's 116 square miles. The rest of the island's 15.3 by 7.6 mile surface is made up of the also extinct Poike volcano in the East and the Rano Kau volcano in the Southwest. These three volcanos have coalesced into a single tiny land mass that constitutes the most remote permanently inhabited location on the earth. The nearest locations of other permanent human habitation are Pitcairn Island, home of the descendants of The Bounty's mutineers at a distance of 1,289 miles to the West, and the coast of Chile some 2,182 miles to the East.



In geologic time, Rapa Nui is a very young island, having been formed a mere 750,000 years ago, with the last major eruption taking place 100,000 years ago. Although some steam was reported emanating from the Rano Kau caldera wall in the early 20th century, geologists estimate that there has not been any volcanic activity on Rapa Nui in 10,000 years. The age of the island itself, however, does not give us much of a hint as to the duration of human occupation. Like Hawaii, Rapa Nui was one of the last Polynesian islands to host homo-sapien tenants. According to the most recent studies and estimates, the sea-faring wave of migration that skipped across the Pacific did not result in human settlement of Rapa Nui until approximately 800 to 1,100 years ago.

According to native tradition, the human history of Rapa Nui begins on another island called Marae Renga. The king of Marae Renga had been engaged in warfare with the kings from neighboring islands, and he sent six scouts out across the ocean to find alternative sites for settlement. The six scouts sailed off in their ocean going canoes, and found Rapa Nui. While this discovery of a microscopic needle of land in a haystack of sea might seem to those of us looking back from the 21st century as an unlikely stroke of luck, the ability of ancient Polynesians to navigate without the assistance of detailed charts, modern instruments, or even compasses is well established. Having lived for generations on the water, Polynesian sailors were well aware of the way in which land masses impact cloud formation, water temperature, wave characteristics, seaweed growth and fish and bird migration. By reading indirect signs in the environment, Polynesian explorers were able to infer the existence of land masses that lay far beyond the observable horizon. Guided by the well-studied stars, King Hotu Matua's scouts were not only able to find Rapa Nui, but they were also able to retrace their steps. After determining that Rapa Nui was well suited to settlement, and planting yams for their successors to harvest, the scouts returned to Marae Renga and made report to their liege. King Hotu Matua was pleased, and he immediately ordered that a giant double canoe be built and provisioned for a colonizing expedition.

According to legend, Hotu Matua sailed to Rapa Nui with a close confidant Tu'u ko Iho and their families. Just as the voyage ended, and Hotu Matua took possession of Rapa

Nui, his heir Tu'u ma Heke was born. As fortune would have it, the king's close friend and partner simultaneously became a father to a newly born baby girl. A first generation of Rapa Nui, one royal boy and one well-matched girl, were born on the first day of the immigrants' stay on beautiful coral sands, under gently swaying palm trees, in the well sheltered harbor of Anakena on the island's North shore. Rapa Nui oral tradition states that "The people landed, they gathered, they stayed."



The beach at Anakena

Over the past several decades, a significant amount of scholarly research has been done to either support or refute the Rapa Nui's account of the founding of their own society. A 1934-35 Franco-Belgian expedition gathered

information about the Rapa Nui culture and oral history. A 1955 Norwegian group led by Thor Heyerdahl engaged in archeological research, and a group of Canadian scientists visited the island in 1964 to engage in exhaustive medical measurement and testing of literally the entire population. That medical investigation proved beyond any doubt that the Rapa Nui people were truly Polynesian, and that they had indeed descended from island hopping Asians in contradiction to Thor Heyerdahl's previous contention that their ancestors had migrated from South America. Together with extensive ethnographic research that mapped out close linguistic and cultural similarities with other Polynesian peoples, the settled view today is that the oral tradition of the Rapa Nui is fundamentally correct, and that Rapa Nui was intentionally settled somewhere between 900 and 1200 CE.

For our purposes, let us assume that Rapa Nui was first settled around the year 1000 of the Common Era. At that time, the island was a lushly forested paradise that allowed for the rapid growth of the human population upward to several thousand. Although various

sources disagree about the apex of indigenous population growth, recent sociological research convincingly argues that the population quickly grew to as many as 4,000 people. Other estimates place that number much higher, but a safe guess of maximum population density would be something around 6,000.

Subsistence was based on fishing, including that for both coastal and deep water species, agriculture and some poultry farming. Fish actually formed a smaller percentage of the Rapa Nui diet than one might expect, because the youth of this volcanic island means that Rapa Nui does not have a surrounding coral reef. The waters around Rapa Nui go deep very quickly, so the island is home to a lower diversity of fish and shellfish than many other islands. The staple crops were the Taro and the Yam, but agriculture also included bananas and sugar cane. Farming was done by several methods including rock mulching, or lithic mulching, in dry areas, and the construction of sunken gardens that held water better than the porous volcanic rock surface soil. Chickens, which came



A subterranean garden

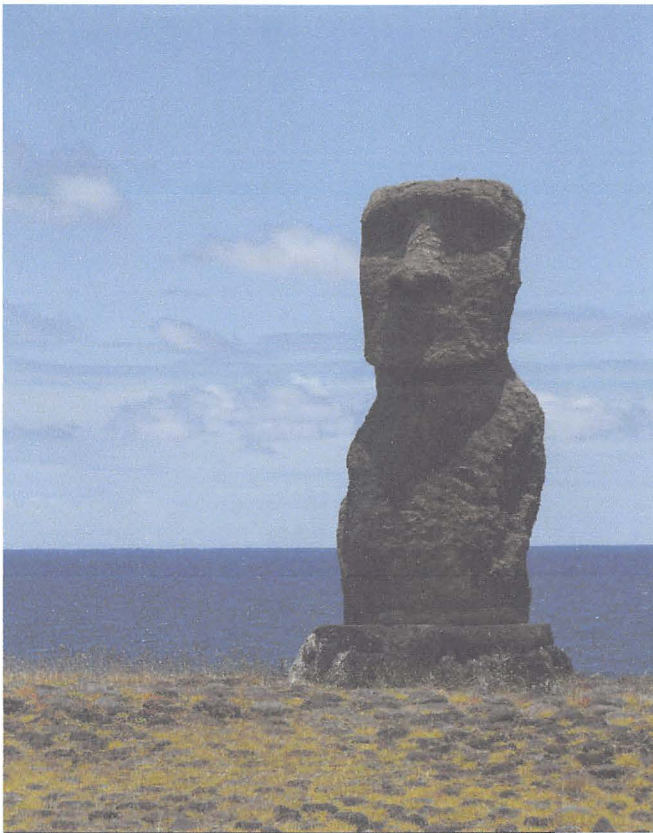
over with the settlers, were a major portion of the diet representing the only domesticated species on Rapa Nui, and the islanders also relied upon their ability to hunt for and gather

eggs from wild sea birds. One species that hitched a ride with the migrants in their canoes, either secretively on its own or intentionally as a possible compact and easily accessible food source for the voyage itself, was the Polynesian rat. Once on Rapa Nui, the rat proved to possess unsurpassed fecundity, and without natural predators to slow the growth of its population, the Polynesian rat became more than a simple nuisance. Its predation on sea bird eggs and nibbling on palm nuts had a catastrophic effect on Rapa Nui's ecosystem that we will discuss later in this paper.

Although Rapa Nui culture shared common roots with other Polynesian civilizations, the islands remoteness effectively cut it off from its distant neighbors. The Rapa Nui culture evolved in isolation and the religion of the Rapa Nui people developed uniquely. Oral history indicates that the island's population was separated into upward of twelve distinct clans, each of which occupied a specific geographic section of the island. Since the island's resources were distributed heterogeneously, cooperation among the different clans was necessary, and evidence of interregional teamwork is clear. Those who held the best ports for setting out on deep water fishing had to trade with those who held the best agricultural land. Those who kept the chickens, had to cooperate with those who lived near the best quarries for stone carving. And stone carving is where our story starts to get very interesting.

Rapa Nui culture was stratified. The nobles, known as Ariki, ranked above those with specific and important skills, known as the Tuhunga, who in turn ranked above the commoners, called the Urumanu. The Matato'a, a class of professional soldiers, developed only later (which we will discuss), so the initial social structure was tri-partite. Each of the ruling nobles (ariki) was descended from a particular ancestral patriarch. The first born child of an ariki could trace his lineage all the way back to a founding ariki, and his power was thought to be inherited. But the power of the ariki was not simply based on the stratum of birth. Although Rapa Nui religion did not contain any form of worship, it did posit the existence of spiritual forces. According to the Rapa Nui spiritual world view, socio-spiritual power is called "mana", and mana is possessed by grant from ancestral ariki to current ariki. Since mana is not simply inherited, but must be gifted, the

living ariki must continually earn the good will of their fore-bearers. In exercising mana, the ariki could influence concrete events. The exertion of mana could guarantee proper rainfall, good crops, individual health and clan success. In order to keep the mana pure and in good working order, a set of strict behavioral restrictions, known as tapu, had to be observed. Tapu controlled every aspect of social living including speech, diet, social interaction and even sex. If tapu were properly respected, then the mana bestowed by the ancestors would be strong in the living ariki, and all would be well.



A Mo'ai

ahu grew over the years, and each ahu served as a columbarium for the remains of ariki. On top of the ahu, the Rapa Nui placed sculptures representing their ancestors and channeling their mana to the current ariki. It is likely that early ancestral

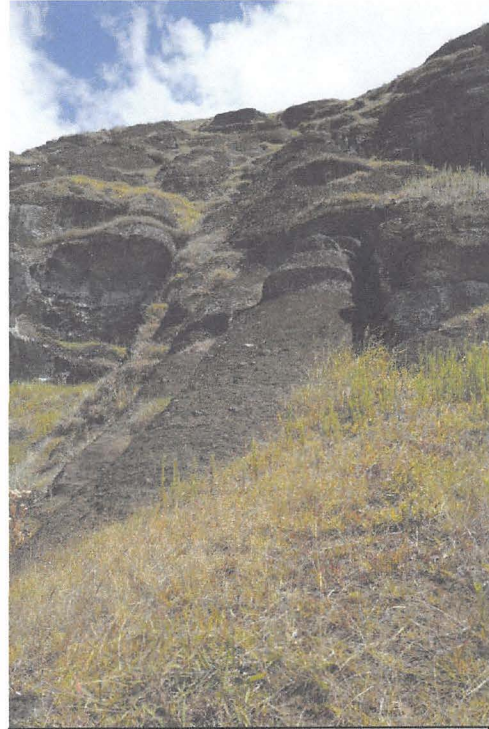
Since the important power of mana came from one's ancestors, ancestor veneration formed the core concept of the Rapa Nui spiritual construct, and it is also responsible for the most well-known and distinctive cultural artifact associated with this society—the Mo'ai. Mo'ai are large stone statues hewn from single slabs of volcanic rock that represent the ancestral figures of each clan group or "mata". At first, the central shrine to a group's ancestors was made of a stone platform called an "ahu". The



Ahu

figures were carved out of wood, but the Rapa Nui people quickly developed a habit that was entirely unique in Polynesia, the painstaking carving of stone Mo'ai.

Of the nearly 900 completed Mo'ai on Rapa Nui, all but approximately 50, are carved from stone that is found in only one place on the island- at the quarry of Rano Raraku. The average height of these magnificent stone statues, each of which features a stylized head and face including elongated ears, a body, and arms folded in front of the belly, is 13 feet tall and their average weight is 10 tons. The tallest of the Mo'ai ever to be successfully erected was 32 feet tall and weighed 75 tons. The heaviest of the Mo'ai ever to be successfully erected was 87 tons. One massive Mo'ai that was never completed and still lies in the Rano Raraku quarry is 70 feet long and weighs 270 tons.

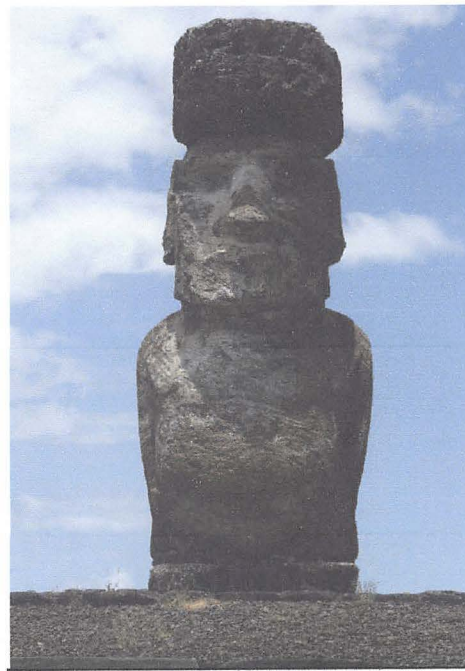


The quarry at Ranu Raraku



Partially completed Mo'ai at Ranu Raraku

As if constructing and erecting such monolithic figures is not enough by itself, many of these statues also sport large round head ornaments

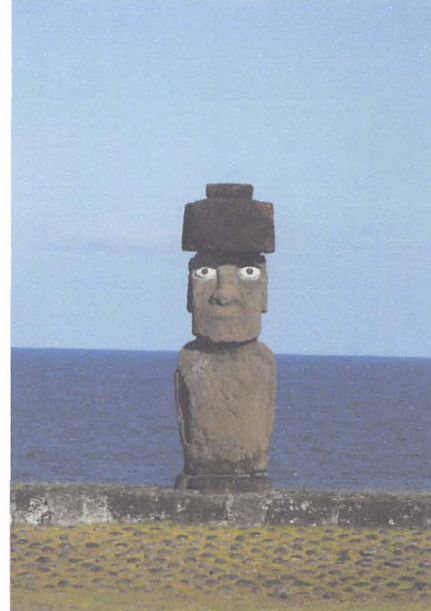


Mo'ai with Pukao (topknot)

known as Pukao. These top knots are made of a distinct reddish volcanic stone that can only be found in Puna Pau, another quarry far from Rano Raraku. The Pukao, which



Mo'ai with Pukao



Complete Mo'ai with Pukao and eyes

represent either the headdress or hair style of the ancestors, range in size so as to match the scale of their assigned Mo'ai, but they range from six to ten feet in diameter and weigh 11 tons on average. Once the Mo'ai were carved, transported, raised, and dressed with a top knot, the final touch was the placement of colorful eye carvings in pre-incised sockets.

Some of the most fascinating historical aspects of Rapa Nui have to do with the construction, transportation and placing of the Mo'ai on their respective ahu. Notwithstanding objections from ancient alien enthusiasts, this achievement poses no deep mystery. The ahu were built with relatively small stones in front of large ceremonial plazas that normally overlook the ocean. The Mo'ai were methodically carved out of the Rano Raraku volcanic tuff while leaving a narrow keel underneath. Once the figure was substantially complete, the carver would cut through the keel in order to liberate the statue from the underlying rock. At that point, the Mo'ai was either tied to a wooden sled that was pulled along skids or rollers, or was placed directly on the skids or rollers and pulled the requisite number of miles to its intended ahu. The work must have been strenuous and difficult, but modern reconstructions have demonstrated

that with sufficient supplies of logs and ropes, both of which were made from highly prevalent palm trees, a cooperative group of earthlings could most definitely complete the task. We know that large palm trees were available to the islanders based both on oral history accounts and on pollen counts done in core samples from the mud in the Rano Kau caldera.

Again, with sufficient wood and rope, along with good old-fashioned muscle, the Mo'ai, with Pukao already tied in place, would have been hauled up a ramp and slowly lifted into place by successively increasing the height of a wedge of dirt forced under the Mo'ai's back. The Mo'ai, representing the ancestors from which the mana was received, faced toward the ceremonial plaza with their backs toward the sea and the ashes of generations of Rapa Nui under their feet.



Row of Mo'ai on an Ahu



The Mo'ai at Anakena

Mo'ai construction did not come without its complications. Erecting the Mo'ai, required significant amounts of wood and rope. Tree chopping must have been a major undertaking, and the wood used for sleds and rollers was also in demand for funeral pyres in support of the custom of cremation. Combined with the devastating habits



A treeless island

of the imported rats that ate most palm nuts before they could germinate, the ecology of Rapa Nui began to crash. Based on archeological evidence, we believe that Mo'ai construction began around 1000CE and reached its zenith circa 1250CE, ceasing entirely around 1500CE. After 1500CE, no Mo'ai were mounted on ahu and we know from pollen count observations that the island was completely denuded of large trees. When the first European visitors arrived at what they then renamed Easter Island in 1722CE, they reported a lack of any trees at all over ten feet tall and a lack of any wood large enough to build sea worthy vessels. The loss of trees on Rapa Nui not only brought an end to Mo'ai building, it had also completely isolated the Rapa Nui people from contact with the outside world by robbing them of any mode of long distance transportation.

But while the Dutch visit by Jacob Roggeveen in 1722 most definitely marked a dangerous shift in Rapa Nui history, its initial social convulsion dated back to the overthrow of the ariki by the warrior class previously referred to as the matato'a, in 1680CE. This abrupt transition in the centuries old social structure was brought about by the Mo'ai themselves. As noted, Mo'ai construction required a significant amount of sylvan resources, and for a combination of reasons, those materials could not replenish themselves at nearly the rate necessary to support the culture. A cascade of environmental impacts was unleashed as the destruction of the forest resulted in massive soil erosion, reductions in rainfall, and the loss of agricultural productivity. Fishing became more difficult because the Rapa Nui could not build canoes. The rats that

contributed to the deforestation likely became a source of food, and the cooperative status quo among the clans began to break down in the face of competition for life-sustaining goods.

At the beginning of this process, when the environmental stresses were not yet in full swing, the ariki engaged in inter-clan competition by building successively larger and larger Mo'ai in an attempt to outdo their neighbors and gain the favor of their ancestors. As the process continued, and resources grew scarcer, the ariki attempted to secure more productive mana from their ancestors in hopes of reversing the trend. This required yet larger Mo'ai designed to channel greater mana. The competition to build progressively more impressive Mo'ai had one unavoidable result – the acceleration of the devastation.

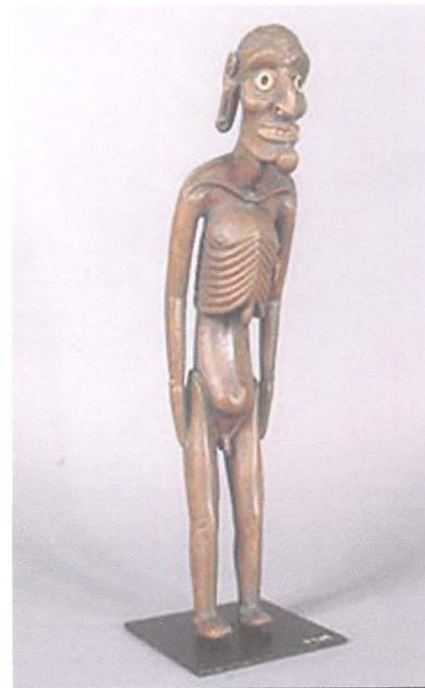


A row of Mo'ai on a large Ahu at Tongariki

As if caught in a negative feedback loop, competition with neighbors resulted in a need to exert additional mana-based control, necessitating the construction of ever more hefty Mo'ai, which in turn destroyed more of the environment, generating keener competition for scarce resources, resulting in greater reliance on ancestral power conveyed by the Mo'ai, which spawned more Mo'ai building, and the entire affair ended in a downward spiraling disaster. The culture of Rapa Nui was destroying itself, and each clan saw only one way to remain safe. Each clan continually sought to outperform the others, without being able to see that each mata's desire for success was driving the Rapa Nui to collective failure.

Interneccine warfare led by the matato'a was sporadic and the new warrior class was unsuccessful in completely supplanting the authority of the ariki. But when the Dutch made their single-day visit on April 10, 1722 -- Easter Day -- and were met by what appeared to be a healthy local population, they unknowingly accelerated the Rapa Nui social decline. Accounts vary as to what happened at that fateful moment. Some sources suggest that there was a misunderstanding followed by a scuffle, but other sources indicate a more intentional action. According to the latter, the Europeans, desiring to demonstrate their superior might, called the Rapa Nui together to make acquaintance. As if a routine matter of conventional etiquette, they casually shot a select group of approximately 10 indigenous people to prove their point. Whether this shooting was accidental or deliberate, it constituted the final precipitant for a complete conflagration.

It was now clear to all that the old power of the ancestors, the mana that had failed to sustain the environment, was also completely unable to protect the people from outside aggressors. The matato'a went on a rampage, and inter-tribal warfare for the last remaining scraps of food was brutal. One ancient god-figure became more commonly represented at the time, and to this day it still forms a major subject of native art. That god figure was kavakava, an emaciated stooping man with whom the Rapa Nui people could most immediately relate. All political stability dissipated, and at least some warriors engaged in cannibalism either for nutrition or to demonstrate their power. In either event, it was a clear demonstration of the degree to which Rapa Nui civilization had crumbled.



Kavakava

Somewhere around 1750, it became clear to even the most recalcitrant warlords that the status quo was untenable. The matato'a had been struggling to overthrow the ariki, and although partially successful, their own combative ways contributed to the environmental

stress. A new system was needed. A new method of unifying the people was essential. And an old minor member of the Rapa Nui pantheon, elevated to singular prominence, would form the basis of a radically new religion. The god in question was named Make-Make.

Long before make-make came to the fore, the Rapa Nui engaged in a coming of age ritual for 12-15-year-old boys. These boys, soon to be considered young men, would be taken by boat to Motu Nui, the larger of two small islets just off of the coast. After three months of isolation on the desolate outcrop, the boys would be ferried back to the main



Motu Nui (behind) and Motu Iti

island and taken up the steep escarpment to the ceremonial village of Orongo, quietly balanced on the



The ceremonial village of Orongo

narrow precipice of the Rano Kau volcano. There, the boys' heads were shaved and the initiates produced an egg, taken from Motu Nui, and gave it as a gift to the "Bird Holy Man." The bird was a venerated animal for the Rapa Nui, as it historically served as a food source, symbolized the freedom of movement that the people had lost, and represented enduring fertility. With such a powerful omen of fertility in hand, the young men were welcomed into adulthood with singing and dancing. Most likely defunct by the mid-1700s, this still remembered transition ritual at Orongo formed the basis of make-make's surge to prominence, and provided the foundation for the powerfully transformative Cult of the Birdmen.

Make-make was a fertility god, and the image of the bird was the embodiment of fertility itself. Most of the wild birds on Rapa Nui had previously been driven to extinction or evacuation by the increasingly poor conditions and the progressively more rapacious Polynesian rat. Only one bird remained as an annual reminder that the cycles of nature had not been completely disrupted – the Sooty Tern. Well after all other indications of fertility had vanished, the Sooty Tern continued to make its annual migration to Rapa Nui. It had long since been evicted from any main-island nesting sites, but the physically separated cliffs of Motu Nui still provided a relatively safe breeding ground. It was at this location that the Rapa Nui would find their social salvation.

With the obliteration of environmental balance nearly complete, and the corruption of social structures following closely behind, the Rapa Nui people did a remarkable thing. They quickly altered both their political and religious realities by inventing a new system of government and religion that unified both spiritual and earthly power into the hands of a singular universally respected rotating head of state.



Birdman petroglyph at Orongo

The cult of the birdmen, centered in the holy village of Orongo, assigned a ruler with power over both spiritual and political matters on the basis of an annual athletic competition. According to tradition, the head of each clan would either present himself or a hand-picked representative for the competition. The race began at Orongo. Nestled on a narrow strip of land between the steeply descending Rano Kau volcano to the East and

sheer cliffs down to the ocean to the North and West, the single safe path up to Orongo from the South provides breathtaking views of the fresh water basin within the



The caldera rim of the Rano Kau volcano

impressive circular recess and the dark blue waters of the Pacific. The expansive vista over the ocean is broken by only two small and craggy dollops of volcanic ejecta – the smaller and steeper Motu Iti, and the larger and flatter Motu Nui. Both islets are tiny, and both rise up out of the surrounding water atop steep cliff edges. There are no ports or beaches on these small pieces of land, so gaining their summits demands scaling sheer rock faces. This was the setting of the treacherous competition sponsored by the cult of the birdmen, and it was on these rocky outcrops that the Tangata Manu, the Birdman, would commence his year-long reign.



Rano Kau volcano



Motu Nui – site of the annual Birdman competition

Each year, around September when the Sooty Tern returned to nest on Motu Nui, the representative of each clan's leader began by scaling down the 1,000 foot precipice from Orongo to sea level, swam across the mile-long shark infested channel to Motu Nui, and climbed the dangerous cliffs to the Sooty Tern's breeding grounds. There the competitors

waited, sometimes for weeks, for the birds to lay their eggs. When an egg was located, the man who found it placed it in a small sack which he tied to his forehead, climbed back down the dangerous cliffs, swam back across the mile-long shark infested channel, and scaled up the 1,000 foot precipice to Orongo, where the members of the cult of the birdmen patiently waited. As noted, the entire process could take weeks, but the individual who successfully returned the first egg of the season, unbroken, to his leader thereby sealed the fate of ruling authority for the following year. The losers of the competition lacerated themselves with obsidian blades. The winner of the competition

was declared the Birdman, and for the next year he would live a life of unparalleled luxury and unsurpassed power.

The Birdman shaved his head, eyebrows and eyelashes. He painted his head and took up residence at the crater of Rano Raraku. The Birdman was attended by stewards who cooked for him and bathed him, as the Birdman did not engage in such menial tasks. For a solid year, he did not cut his finger nails so that over the course of twelve lunar cycles, with



Rano Raraku crater

hair removed from his head, and his fingers taking on the appearance of talons, the boundary between man and bird was blurred and the Birdman became the physical incarnation of make-make. Able to invoke divine power, the Birdman ruled unchallenged and voluntarily relinquished his office one year later when a new Birdman was chosen by contest.



Large row of Mo'ai at Tongariki

There is some question as to how well the cult of the birdmen was able to stem the violence that plagued Rapa Nui, but recent research indicates that evidence for continued violence is almost completely absent. It appears that the Birdman was successful, if not in unifying the clans into a single confederacy, at least in preventing overt warfare. For 48 years things remained stable, until a second visit by foreigners took place in 1770 when the Spanish explorer Gonzalez de Haedo arrived from Peru. Spanish accounts made no note of warfare among the Rapa Nui and they included marvelous descriptions of the impressive Mo'ai that still studded the shoreline and adorned the interior. Four years later, in 1774, the situation was drastically different.



Half buried Mo'ai at Rano Raraku

When James Cook visited Rapa Nui in 1774, the population had apparently experienced a steep decline and every single Mo'ai on the island, save for those untransported examples left standing but half-buried under the shifting and eroding soil at the quarry of Rano Raraku, had been toppled. The impressive statues had not

merely fallen over in a random way. They had been intentionally pushed. In some cases, large boulders were strategically placed so that when the Mo'ai were pulled down, they would crash onto the stones as if onto anvils, and their necks would shatter. Thus, numerous decapitated symbols of ancestral glory were ignobly destroyed.

Disparate theories exist as to why the Mo'ai were toppled. The classical view asserts that the Mo'ai were destroyed as a result of inter-clan rivalry. This view holds that when resources began to diminish, each clan sought to improve the relative position of their own mana not only by increasing the size of their Mo'ai, but also by interrupting the flow



Toppled Mo'ai

of mana to other clans by destroying their Mo'ai. Unfortunately, this view does not make chronological sense. The Mo'ai were all still standing in 1770, well after the cult of the birdmen had supplanted the status of the ariki. If the destruction of the Mo'ai was a function of the inter-tribal strife that led to the development of the cult of the

birdmen, then the Mo'ai would have to have been toppled before the first Birdman was appointed, and they were not.

A second theory about the impetus for the destruction of Mo'ai is that it was done by marauding warriors loyal to the currently sitting Birdman. Since the Birdman was granted absolute authority, his minions could sack the villages of



Decapitated Mo'ai

other clans, plunder their goods, and destroy their Mo'ai with impunity. Since the Birdman rotated, so goes the theory, the plunder also rotated until all of the each clan's Mo'ai were thrown over. The primary basis for this second theory is that a large number of obsidian blades litter the Rapa Nui landscape, and proponents of the Birdman-induced destruction theory surmise that warfare continued even after the new cult had arisen.

Recent analysis of the plentiful obsidian artifacts tells a different story. That analysis indicates that the obsidian tools in question are clearly not weapons. A study of the blades indicates that they were used for a variety of mundane tasks other than warfare. Combined with a complete lack of additional evidence to support the belief that the Rapa Nui were engaged in warfare under the Birdman's rule, including eye-witness accounts

by visiting Europeans, this new evidence convincingly refutes the argument that the Mo'ai were torn asunder by warring clans.

So why were the Mo'ai destroyed? My own view is that they were intentionally dismantled by the Birdmen with the cooperation of the populace as a last attempt to vanquish the vestiges of the previous religious view. As noted, the population of the island had radically declined in the short span of 48 years between second contact and third contact with Europeans. All sources agree that disease played a significant part in the decimation of the population, as the Rapa Nui had no immunity to new infectious processes. Tuberculosis seemed to be the most virulent culprit and the island's population was estimated to be as low as 2,000 by a French expedition that landed in 1786.

By combining old and new theories, I would like to offer a third interpretation of Mo'ai destruction. We can date the destruction to taking place after the ascension of the Birdman cult, and we can rule out excessive violence during the Birdman period. It seems reasonable, therefore, that in the face of devastating disease, the new religion needed to stamp out all remnants of the old religion in order to consolidate spiritual power in the Birdman figure himself. Perhaps the diseases were being sent by the dead ariki who were jealous of their lost status. Perhaps the people were agitating against the Birdman out of frustration and were turning back to their old ways. In either event, the Rapa Nui had to summarily cut ties with all that was old, and that meant that the Mo'ai had to go. To the detriment of those of us who enjoy exploring ancient places, neither explanation changes the fact that the Rapa Nui intentionally tore down their greatest collective achievement.

The rest of the history of the Rapa Nui people is not happy. Peruvian slave traders killed and kidnapped half of the remaining population in 1862. An international outcry reversed the crime, but when the surviving slaves were returned home in 1863, they brought small pox with them and caused further reduction in the indigenous population. In 1866, an ex-convict Frenchman named Jean Baptiste Dutrou-Bornier delivered



Sunset over the Mo'ai on Ahu Tahai

missionaries to the island and decided to turn the territory into a sheep farm. He carted some men off to work in Tahiti and recruited others to assist him in consolidating absolute authoritarian control. By 1877, when Dutrou-Bornier was killed in a dispute involving his behavior toward pre-pubescent girls, the island's population had fallen to 111. Chile annexed Rapa Nui in 1888, but the inhabitants of Easter Island were not granted citizenship and voting privileges until 1966. Although there currently is an interesting indigenous rights movement, including agitation for self-rule, the prospects of independence from Chile appear dim. According to the 2012 census, 5,761 people make Rapa Nui their home, up significantly over the past few decades, but only approximately 60% of those inhabitants are Rapa Nui.

Before closing, I want to do more than just provide a simple overview of the history of this interesting place. For many, the story of Rapa Nui has been viewed as a cautionary tale. The "ecocide" that took place there has been used to sound alarms regarding the way in which other cultures might inappropriately interact with the environment. Many

of the suppositions regarding the nature of the environmental decline on Rapa Nui can be questioned, but what stands out for me as the true lesson of the rise and fall of the Rapa Nui is not only ecological. More importantly, it is a lesson in how power is exercised.

Adam Smith was wrong; not entirely, but importantly. Many have argued along with Smith that the free market, if left unfettered by oversight and control, would be guided by its own invisible hand to generate wealth and prosperity for all. Few are able to believe that intelligent people, free to choose and capable of exerting economic pressure, would ever use their liberty to harm their own self-interest. Therefore, the laissez-faire-ists would argue, the collective will of individual actors will invariably result in societal gain. Rapa Nui proves otherwise.

On Rapa Nui, each clan possessed a valuable commodity that put it in control of some economic force. Each also entered into free exchange with the other clans to gain access to additional desired goods. For some time, the clans cooperated and the collective effort of the entire population was capable of fantastic feats of engineering. As stress on the environment increased, however, and competition mounted, the desire of each clan to increase its own position overpowered the force of the free market, and the entire social structure destroyed itself. Each clan could surely have seen the disaster coming, but each clan also desired to be the last group standing. As a result, all clans fell together – or at least they would have, if it weren't for the Birdman to the rescue. Of course the Birdman came too late in the game to hold collapse off forever, but for a time, and perhaps if left to their own devices, the Rapa Nui might have been able to save themselves.

I cannot help but to see analogues to the present situation in our own culture. We have created a system of political power that, when properly balanced, supports the free exchange of ideas and the collective advancement of our people. But power is not unlimited, and once people have it, they are reticent to let it go. Just as the ariki built larger and larger Mo'ai in an effort to solidify their own authority, our incumbents build tighter and tighter more gerrymandered districts to solidify their authority. Gerrymandering is the sin of American politics, and it is resulting in our own self-

destruction just as surely as did the over-heated building efforts of the Rapa Nui. When we gerrymander districts to pander to our own constituencies, we empower the extremes. We find ourselves catering more and more to those who can elect us to our local posts, and we lose sight of the common cause. Pushed away from moderation, we are unable serve the general good. And even though we can see, with our own eyes, how our political systems are utterly broken, we cling to our parochial sources of control while burning down the collective house. No one need look further than the current state of the Republican primary process to see that we are in trouble, and that each candidate is so convinced that he is the only hope that he is unable to see communal need. I can almost hear Donald Trump and Marco Rubio in an argument, each one screaming at the top of his lungs: “My Mo’ai is bigger than yours!”

Where, I ask, is our Birdman to the rescue?



A sleeping giant at Tongariki

Sources

In addition to a variety of minor sources found on the internet and in travel guides, the bulk of the information presented in this paper was gleaned from:

Fischer, Steven Roger The Island at the End of the World: The Turbulent History of Easter Island, Reaktion Books, 2005

Hunt, Terry and Lipo, Carl “Revisiting Rapa Nui (Easter Island) Ecocied” in *Pacific Science* (2009), vol 63, no. 4:601-616

Lipo, Carl and Hunt, Terry, et al “Weapons of War? Rapa Nui Mata’a Morphometric Analyses” in *Antiquity* (2016) vol 90, issue 349, pp 172-187

Diamond, Jared Collapse: How Societies Choose to Fail or Succeed, chapter 2, Penguin Press, 2011

Other than the maps and the photos of the Sooty Tern and Kavakava, all photos were taken by Michael A. Gillette in December, 2015