

ONLY IN MENTAWAI

Unique Primate Vocalisations and Songs in an Isolated Indonesian Island Group

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Linda Burman-Hall

University of California, Santa Cruz <lbh@ucsc.edu>

ABSTRACT: Biogeographical isolation has produced a unique rainforest biome and indigenous culture in Mentawai. While its huge surf is famous worldwide, Mentawai's ecology and peoples remain comparatively unstudied. Although Mentawai evolved almost as many endemics as the Galápagos, its hunter-horticulturalists are surprisingly unrelated to Sumatran peoples. This study explores gibbon vocalisations and traditional animist beliefs and songs about gibbons and other primates in Mentawai's three southern islands and makes a case to document and preserve this intangible cultural heritage. The most important of Mentawai's six endemic primates is the Kloss's gibbon (*Hylobates klossii*, locally called *bilou*), a small, black, monogamous, singing ape. The *bilou* plays a significant role in the traditional animist cosmology of Mentawai: simultaneously considered a changeling human, a rainforest spiritual guardian and a resource for shamanic healing, at times the *bilou* spirit can also be an evil trickster or harbinger of death. Deep in the rainforests, mated female *bilou* sing solo or "duet" melodiously with each other along mutual territorial boundaries. While deforestation and modern hunting endanger all Mentawai primates, humans still imitate the *bilou*, and elderly (*Si*)*Kerei* (shaman) again can perform the endangered animist heritage of *bilou* songs.

KEYWORDS: Mentawai, (Si)*Kerei*, Songs, Primates, Bilou

Introduction

Within the Indian Ocean, Mentawai certainly constitutes its own "sea of islands" (Hau'ofa 1993). Except for Island Biogeography, Island Studies have too often focused mainly on the shoreline. For Mentawai, a striking eco-region with remarkable inhabitants, we need far more. Archaeologist Cyprian Broodbank has proposed the useful conceptual term "islandscape" comprising "land, coast, sea, horizon and sky", in summary, "three bands and two liminal zones" likely to find reflection in local cosmology (2000: 33, 23).¹ Part 1 of this article will establish that unique terrestrial and marine life, dramatic plate tectonics and massive waves, unusual human genetics and unique primates are all conjoined and interact through the Mentawai aquapelago, complemented by a rich animist culture. According to the extended conceptual framework for Island Studies recently proposed by Hayward (2012), Mentawai — a remote island group in the Indian Ocean (Figure 1)

¹ I am indebted to Helen Dawson's citation of this double quote from Brookbank in her contribution to the debates around conceptual terminology (2012: 17-18).

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traditionally populated by hunter-horticulturalists connected and sometimes divided by water — will be explained as equally “aquapelago”² and archipelago, given the degree of engagement of Mentawaians with both ocean and land. Parts 2 and 3 deal respectively with Mentawai primates, and the *bilou* as a central image in traditional Mentawai culture and beliefs. Part 4 compares Mentawai *bilou* beliefs in ecomusicological context with other cultures’ beliefs about wildlife vocalisations. Parts 5 and 6 respectively show human imitations of *bilou* “song” and songs from Southern Mentawai about the *bilou*. Part 7 discusses the difficulty and importance of documenting and preserving Mentawai’s traditional music. Conclusions are presented in Part 8, and Acknowledgements in Part 9.

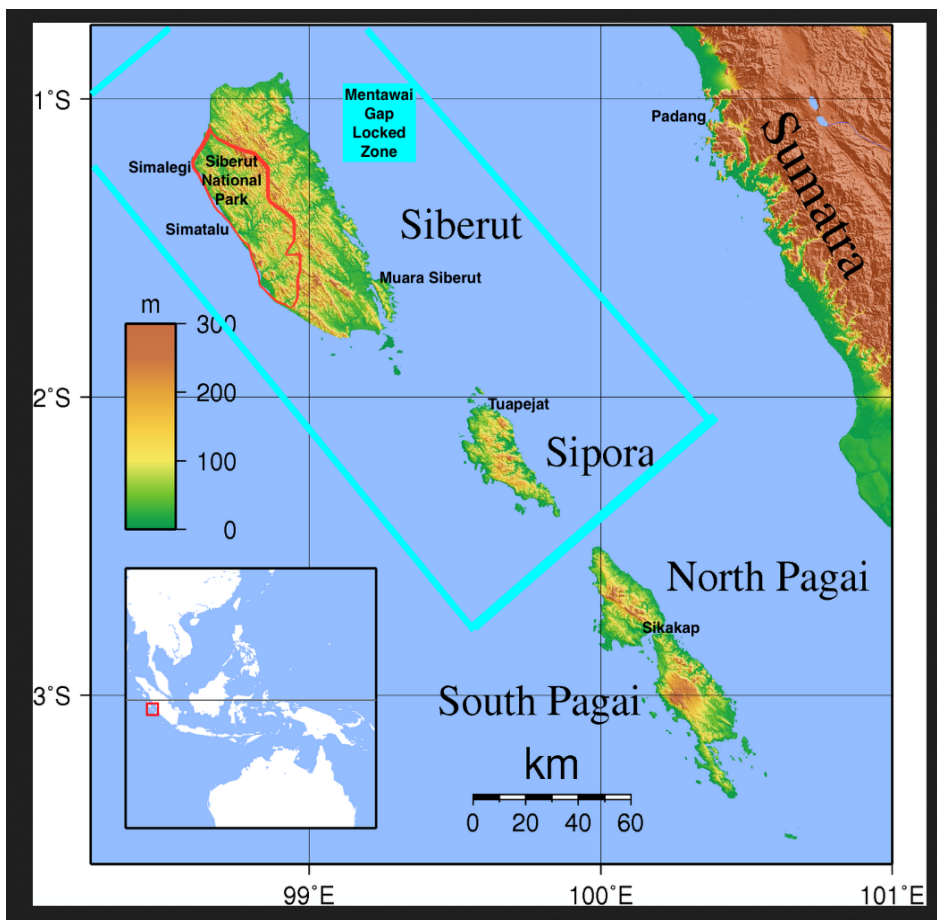


Figure 1 – Map of the Mentawai Islands (adapted from Wikimedia Commons by the author)

² Hayward (2012) introduced the term “aquapelago” as an extended definition of archipelago that recognised and emphasised the significance of human livelihood activity in the surrounding waters of an archipelago. An aquapelago is “an assemblage of the marine and land spaces of a group of waters and their adjacent islands” (ibid: 5-6).

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1.1 Terrestrial Mentawai

Isolation promotes speciation, the evolution of distinct flora and fauna. The lengthy isolation of Mentawai has allowed the survival of relicts of early Indo-Malayan terrestrial fauna as well as the evolution of numerous endemics. Due to the cumulative effect of its isolation, Mentawai is second only to the Galápagos in its number of endemic species.³ While Sumatra has much greater botanical diversity,⁴ approximately 15% of Mentawai's trees and other plants are estimated to be endemic. Mentawai's lengthy isolation has allowed the survival of relicts of early Indo-Malayan terrestrial fauna as well as the evolution of numerous endemics.

1.2 Oceanic Mentawai

United by the ocean, Mentawai is much more than a simple constellation of related lands. The archipelago claims its distinct identity through centuries of cultural flows and human interactions along and between the adjacent islands and their marine environments. In 2011 a team of leading island scholars presented a strong case that inhabited archipelagos were actually dynamic “assemblages” created by groups that “act in concert” to create a particular archipelagic identity via:

fluid cultural processes, sites of abstract and material relations of movement and rest, dependent on changing conditions of articulation or connection (Stratford, Baldacchino, McMahon et al, 2011: 122).

In response, Hayward proposed, in addition to the alternate term “aquapelago” used whenever land and ocean are inseparably significant to a culture (see fn 3), two additional derived terms: “aquapelagic assemblage” to refer to the processes of continual change “along aquatic ecologies at the interface of human sociality and marine environments” and an “aquapelagic society” (or state) as:

a social unit existing in a location in which the aquatic spaces between and around a group of islands are utilised and navigated in a manner that is fundamentally interconnected with and essential to the social group's habitation of land and their senses of identity and belonging. (2012: 5)

Thus the Mentawai Islands, traditionally considered an archipelago, also function fully as an aquapelago. The characteristic land-sea interactions of water travel, surfing, fishing and foraging rights, and natural disasters and challenges such as earthquakes, tsunamis and rising sea levels, all continually force aquapelagic Mentawaians to find new solutions to survive. The seventy-some small and larger islands of Mentawai are normally accessed

³ In the Galápagos, 80% of the land birds and 97% of the reptiles and land mammals are endemic, as are over 20% of the Galápagos marine species. Mentawai has at least seventeen endemic mammals (39%), of which the seven endemic primates are of exceptional interest. UNESCO has claimed that 65% of the animals in the biosphere reserve area of Siberut National Park, are considered to be endemic (Unattributed, nd: online). Galápagos has only two endemic marine mammals, while Siberut, the largest island in Mentawai, has four. While Sumatra has much greater botanical diversity, approximately 15% of Mentawai's trees and other plants are estimated to be endemic.

⁴ 10,000 species of plants are estimated to live in Sumatra, including 17 endemic genera (Unattributed, nd: online).

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only by boat.⁵ Unlike Tahiti, Fiji or the Hawaiian chain, the growing international recognition of Mentawai is not due to popularisation of an established distinctive indigenous culture, but instead results from a confluence of unusual forces in the ever-present ocean. Because fishing is one of the few protein sources, members of numerous Mentawai clans have claimed historical land rights for foraging and hunting on the 65+ uninhabited small islands, and marine rights for fishing at traditional fishing spots the clan has used for generations, as well as fishing off specific shores and over specific coral reefs. Historically, women fish in the coastal waters and rivers for smaller fish, snails or shellfish, while Mentawaian men, who in previous generations set offshore nets held by wooden floats (*talakat battau*) —with some floats carved to resemble a (guardian) — will work to fish and also to capture sea turtles.⁶



Figure 2 – Ocean travel by dugout and motorboat at Sikakap Harbor, North Pagai (photo L. Burman-Hall 2011)

Earthquakes and tsunamis have long challenged the Mentawai chain, with massive quakes recorded in 1797 and 1833 (Natawidjaja et al, 2006; Sieh et al, 2008). The residents of North and South Pagai will never forget the major tsunami of 25 October 2010 when a magnitude 7.8 earthquake in the ocean southwest of the Pagais generated a powerful tsunami that caused 450-500 deaths and extensive structural damage in South and North Pagai, and

⁵ There is no public airport on Mentawai yet.

⁶ Hunting sea turtles is mainly done at night on ritual occasions by teams of four men in a dugout canoes with lamps to attract the turtles. Sadly, greedy entrepreneurs have introduced dynamite fishing, which kills both fish and turtles indiscriminately. Stun fishing using potassium cyanide unfortunately contaminates sea turtle meat, causing the death of several islanders in recent years (Tulius, 2017b).

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some damage in Sipora.⁷ Unfortunately, scientists at Earth Observatory Singapore and elsewhere predict that Mentawai is due for another major quake anytime. Although several earthquakes in the last century have released the built up tension along the balance of the entire Sumatra-Andaman zone, a stubborn stretch ± 300 km long is located within the Sunda forearc east of the Mentawai, and this specific area has not seen a quake in almost two centuries. Known as the ‘Mentawai Gap’, this fault is regarded as a “mature seismic gap” or “locked zone” (Figure 1) because the large strain accumulation gives it the potential to rupture anytime in a single event (generating a 8.3-8.5 magnitude earthquake) or in smaller events. Whether its eventual release will trigger a major tsunami for Mentawai and the city of Padang east of Mentawai depends on the depth of the displacement. As distinguished earth scientist and earthquake analyst Thorne Lay explains:

If the future Mentawai Gap event ruptures the deeper part of the boundary like 2005 and 2007, under the islands, the local tsunami will likely be moderate and the impact on Padang small. However, should the rupture extend from deep all the way to the trench, it can generate a very large tsunami that would hit the islands hard (p.c. 2016).

Islands worldwide are differentially adjusting to the ocean’s gradual rise. As the world’s third-largest ocean, the Indian Ocean contains roughly 20% of the Earth’s surface water. For decades, along the northern coast of the Indian Ocean, sea levels have been rising an average of 1.27 cm a decade ($\pm 1/2$ ""). On its northeastern coast, Sumatra (along with the Mentawai Islands) and Java are particularly affected. Just a half metre of progressive sea level rise (19.5") would probably cause about 1,500 of Indonesia’s 17,000 islands to disappear. Given that individual Indian Ocean zones have differences in the amount of sea level rise, and that in the face of rising sea levels, some reef islands surprisingly become larger rather than smaller, the cumulative effect of sea level rise on the Mentawai aquapelago may be somewhat uneven (Unattributed, 2010).

1.3 Traditional Mentawai Culture

While geographic distance from the larger island of Sumatra certainly accounts for Mentawai’s outstanding range of botanical and zoological endemics, the profound genetic and cultural distance of the Mentawai indigenous people from Sumatran peoples is actually much greater than the physical distance suggests.⁸ A major study of DNA from 2740 non-family-related individuals from 70 communities across 12 Indonesian islands shows that the people of the western barrier islands — Mentawai and Nias to the north — show extreme island effects in that they are much less genetically diverse than the populations of the better known Indonesian islands or other Asian populations. This lack of diversity links the indigenous people of Mentawai to the indigenous Austronesian-speaking aboriginal tribes surviving in Taiwan and The Philippines, who also show a

⁷ The enormous magnitude 9.1-9.3 basin-wide quake in 2004 caused a devastating tsunami in Siberut, a magnitude 8.6 quake to the northwest in 2005 shook the islands, and a magnitude 8.4 quake in 2007 generated modest tsunami waves for South Pagai.

⁸ Sumatra’s dominant ethnic groups include Minangkabau, Acehnese, and Batak peoples.

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remarkable lack of genetic diversity as well as some traits in common with the indigenous people of Mentawai and Nias (Tumonggor et al 2013: Table 1).⁹

As anthropologist and island scholar Jun'ichiro Suwa has stated, islands are:

entities fundamentally interrelated with human conditions and activities... a work of imagination derived from lived experience and memory in which the island landscape is a product of natural and human environments interacting with each other. (2007: 6,7)

For more than two millennia, Mentawai human culture has interacted with the land and sea of the Mentawai aquapelago. Its “islandscape” reflects this long interaction. Correspondingly, the aquapelagic natural resources and the unique configuration of endemics in and around Mentawai have clearly shaped and influenced the cosmology and preoccupations of its human culture.

Mentawai was probably first populated in the period 2000-500 BCE. Many descendants of the original peoples continue to live in the rainforest and on the rivers as animist hunter-horticulturalists. According to the traditional stories of various clans, the first human(s) came to Mentawai from the Nias (or the North)¹⁰ after being exiled and set adrift on a raft. The first dwelling place was at the landing spot, in West Siberut.¹¹ Somewhat later, groups began to migrate from north to south within the Mentawai Islands, populating successively Siberut, Sipora and eventually the Pagais. Wherever a clan settled, the rainforest provided housing materials and other necessities, and the clans have planted and harvested coconut, banana, taro and sago. Modernisation has brought diversity. Before World War Two, the Dutch East Indies Company introduced durian and more recently, culinary and spice crops such as cocoa and cloves are purchased and grown for income. Currently, there are about 200 named Mentawai kin groups, caused by migration and fragmentation of clans due to occasional conflicts (Tulius, 2017: 109) The 2010 census showed the population of the Mentawai Islands as 76,421 and the number of Mentawaians continues to increase.

The traditional spiritual belief of Mentawai has been identified as *arat Sabulungan*, a form of animism.¹² For the traditional animists of Mentawai, *roh* (spirit) is in everything — animals, trees, rocks, mountains, rivers or other features of the natural environment. Juniator Tulius explains:

⁹ Two haplotypes — Y2 and M7c3c — each one a group of genes inherited together from a single parent, connect quite a few individuals within the Mentawai and Nias populations with the mentioned aboriginal Taiwanese; however the historical population movements during the Neolithic may have been in either direction (Tumonggor et al, 2013: Table 3). Mentawai mitochondrial DNA links with both aboriginal Taiwanese populations and those of The Philippines. Six of the 18 haplotypes are shared with other populations (Pediatama et al, 2014: 149).

¹⁰ Juniator Tulius, the Mentawai anthropologist, has collected all published and oral history stories available regarding the origins of the various Mentawai clans. Common to numerous stories are Nias as the last place of origin before arriving on Siberut - sometimes specifically Pulau Tello or Tello Island, South of Nias (2013: 101-102).

¹¹ The place the raft landed on the west coast of Siberut Island is most often identified as Simatalu, or alternately on occasion as Simalegi, currently two different settlements (Tulius, 2013: 87-106).

¹² *Arat* corresponds to the Indonesian word *adat* (customary law).

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Sa is a plural unity of something. The root of bulungan is bulu, meaning 'to offer'. Bulungan is understood as a group of unknown spirits. Sabulungan is thus a group of spirits, to which a special offering (buluat) is given. So, arat Sabulungan is the belief focused on the existence of spirits... Sabulungan is used to refer to all the spirits in the invisible world, some who are deceased human beings (ukkui);¹³ the rest of these spirits are spirits of water, forest, and so on. (2013: 69, 70)



Figure 3 -The author with Several Siberut (Si)Kerei (including a young field assistant studying traditional beliefs) (photo: L. Burman-Hall 2012)

In Siberut, many still live as animists, but in the three islands of South Mentawai, a practicing shaman — called (Si)Kerei¹⁴ — can be difficult to find. A working (Si)Kerei might identify himself as Christian to avoid trouble, since for 70 years, the government of

¹³ Explaining the *arat Sabulungan* concept of the spiritual world, Tulus wrote earlier: *Upon death, the human soul (simagere) and spirit (ketsat) return to the spiritual world. They are then called ukkui or kalimeu (spirits of the dead). Human spirits are also known as sanitu (ghost of human death).... In rituals, the ancestors are called ukkui (2013: 70, 244; see also 71 and 311).*

This use by Tulus of *ukkui* (as a ritual word) to mean ancestor spirit(s) is specific to Siberut practice; in Sakalagat (a Pagai language) and Sakalegat (a Sipora language) *ukkui* functions like the familiar Indonesian honorific *Bapak*, 'father' or 'mister'. Since the German Missionaries originally translated the Bible for the people of Pagai, all of Mentawai has subsequently learned some Sakalagat language by reading the Bible. In Siberut, in an ordinary social context, *saukkui* means a group of gentlemen (Tulus, 2017b).

¹⁴ *Si* is an honorific prefix used in Mentawaian dialects; *Kerei* is a shaman. To refer to their shaman or traditional healer, some clans and villages prefer to use *Sikerei*, others use just *Kerei*. Schefold and Tulus, as anthropologists, prefer *Kerei*, but the government of Indonesia refers to these shamans as *Sikerei*.

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Indonesia has considered *Mentawai* animism an unworthy primitive religion. Organised attacks on *Sabulungan* date from 1954, less than a decade after the nation of Indonesia was formed, when Indonesia required animist Mentawaians to convert to one of five acceptable state religions.¹⁵ Hindus and Buddhists do not proselytise, and only a few Mentawaians were willing to give up pigs and pork (a centerpiece of *Sabulungan* rituals and ceremonies) to become Muslim, so it fell to the Catholics and Protestants to hold forced conversions featuring large-scale public burnings of *(Si)Kerei* ceremonial drums, costumes and sago bark herbal medicine boxes in order to publicly shame and discredit shamanic spiritual leaders by destroying their consecrated regalia. One inducement to convert was the availability of medical care in clinics and education in church schools, so the wives and children of *(Si)Kerei* led the way. As a result of the blanket conversion of the three Southern Islands of Mentawai, only very elderly informants from the Pagais or Sipora who trained as *(Si)Kerei* before World War Two can explain traditional beliefs and remember *Sabulungan* songs they learned as teenagers. In Siberut, with access to the rugged interior dangerous and sometimes impossible in the monsoon season, conversion was successful primarily near harbours and along coastal areas where social services could have a chance to be maintained.

Traditional Mentawai villages of up to 300 people are typically built on riverbanks. The egalitarian life-ways of Mentawai people are well described for the Sakuddei clan by Schefold (2002). The traditional *uma*, or rectangular long gathering-house, is built on piles and serves as a center of social and ceremonial life. Suwa's observation that "all communal spaces are mimeses of islands" (2007: 6) certainly applies to the *uma*, which is a space quintessentially defining and centering many aspects of Mentawai culture, allowing a particular clan to function in their symbolic island as a temporary microcosm of the greater community. In a traditional clan, extravagant full body tattoos and teeth traditionally sharpened to points have been associated with reaching maturity. Tattoos are a mark of personal identity, showing an individual belongs to a particular clan; and when only partial human remains are found following a rainforest death, tattoos can confirm identity and give closure to the family. While churches have frowned on tattooing and teeth sharpening, some educated young Mentawaians have chosen traditional tattoos as a symbol of their commitment to preserve valued aspects of their animist cultural heritage. For centuries, Mentawai men have hunted the rainforest and fished the oceans to combat the severe protein deprivation resulting from their predominantly plant-based diet. With bow and arrow, Mentawai men hunt deer, wild pigs, and especially primates, or go ocean fishing, and seasonally gather fruit by climbing trees their families have planted in the communal rainforest. Men also process the starchy trunks of cycads (*Cycas edentata*), while women and children gather wild roots, hunt small animals, and dig taro root (*Colocasia spp.*).

Linguistically, Mentawai's dialects belong to the large and complex Austronesian language family¹⁶ and at least 3 related dialects are spoken in each island. The historic waves of Indic and later Muslim influences that impacted the main Indonesian islands have left few (if any) traces in Mentawai. Compared with the regular cultural and linguistic contacts between groups that have characterised the other parts of the greater Indo-Malay

¹⁵ Islam, Hindu, Buddhist, Catholic and (Protestant) Christian. Since 1998, sometimes Confucianism is considered a sixth permissible religion. Recently, Dayak animism has won its place on the Hindu spectrum, relieving pressure to convert the indigenous peoples.

¹⁶ Up to 12 Mentawai dialects are noted, depending on the analyst (see Ethnologue, 2016: online; and Arifin, Malano and Kasim 1992).

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archipelago, the indigenous people of Mentawai have had minimal contact with other cultures and languages.¹⁷ Nevertheless, from the late 18th Century, documentation shows Europeans occasionally visiting Mentawai.¹⁸

The isolation responsible for Mentawai's unique biome and human culture has unfortunately not fully protected Mentawai from exploitation. Like so many island peoples, Mentawaians have suffered centuries of rule by off-island strangers. For 350 years the VOC¹⁹ (The Dutch East India Company), interrupted by the British for a short time, and then the Japanese during World War II — have had their impact. Eventually, following Indonesia's declaration of independence from 1945, Mentawaians became ruled mainly by their Sumatran matrilineal Muslim neighbors, the Minangkabau, and by higher officials commonly from even more distant Java. Since Indonesian rule began, most Mentawaians have had their entire cosmology and belief system changed by forced Christian conversion. As non-Muslims in Indonesia, Mentawaians have had difficulties getting an education or a good job outside the Protestant and Catholic liturgical structures and, until recently, could not run for political office. Although more local autonomy has been allowed since 1998, and self-government (rather than Sumatran-based government) may occur soon, after so many years of being disrupted by colonial powers as well as the horrific tsunami of 2010, Mentawaians are currently struggling to regain their balance with nature and to find their proper place in the world. Politically, the Mentawai Islands currently form a *kabupaten* (regency) within West Sumatra Province. Tua Pejat, on Sipora Island is the regency seat or government center. Padang, the capital of West Sumatra province, lies on the Sumatran mainland opposite South Siberut Island.

2. Mentawai Primates

Broad areas of primary dipterocarp rainforest — wild trees offering edible fruits and leaves — have traditionally hosted the Mentawai primates. All six primates on Mentawai are endemic, and each island has three endemic monkeys as well as the Kloss's gibbon (*Hylobates klossii*). South Mentawai and Siberut thus each have their own species of Mentawai macaque and Mentawai langur; the single species of Mentawai pig-tailed langur is present in both a northern and southern subspecies. IUCN 'Red List' data (nd) identifies that in the South Mentawai islands (North and South Pagai and Sipora), the three endemic monkeys include the "critically endangered" Southern macaque species called *Siteut* (*Macaca pagensis*), the "endangered" Southern Mentawai langur species called *Atapaipai*, (*Presbytis potenziani potenziani*), and the "critically endangered" pig-tailed langur subspecies called *Masepsep* (*Simias concolor* ssp. *concolor*). There is some variation across the three Southern islands in local names. In Siberut, the three endemic monkeys include the "vulnerable" species of Siberut macaque called *Bokkoi* (*Macaca siberu*), the 'endangered' species of Siberut langur called *Joja* (*Presbytis siberu*) and the "critically endangered" subspecies of pig-tailed langur called *Simakobu* (*Simias concolor* ssp. *siberu*). There is also some variation within Siberut in local names. Of the six primate species, the

¹⁷ According to the well-known Mentawai anthropologist Reimar Schefold, from the first millennium BCE Mentawai has had some regular contact with outside influences (1989). Mentawai aesthetic forms, according to Schefold, may show various Early Metal Age or "Dongson" elements (1991: 23-29).

¹⁸ Notably, a civilian employee of the English East India Company named John Crisp visited the 'Poggy' islands (Pagais) in 1792 because he was curious to encounter a people whose culture did not resemble anything he'd seen in Sumatra (cf Tullius, 2013: 44).

¹⁹ Vereenigde Oost-Indische Compagnie (historical spelling).

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charismatic Kloss's gibbon called *bilou* (*Hylobates klossii*) stands out. This endangered dwarf gibbon has traditionally inspired awe and reverence among Mentawaians, and plays a vital role in the traditional animist cosmology of Mentawai.



Figure 4 – Potential Primate Habitat on South Pagai (photo: L. Burman-Hall 2011)

2.1 Hunting Primates

Historically, Mentawaians have been challenged with severe chronic protein deficits. For protein, in addition to fishing, they have traditionally hunted monkeys, wild boar and deer. To help hunting, the (*Si*)*Kerei* sings to draw the curious primates; he trusts the rest will follow. Historically, the Mentawai primate populations have maintained their density across the centuries despite human hunting but conversion to Catholicism and Protestantism has weakened traditional taboos against hunting primates. In addition, the second growth and scrub in the now clear-cut areas of the former virgin forest unfortunately provides inadequate concealment for any primate.²⁰ Arrow poison has been traditionally used for hunting. Unfortunately, since WWII, .177 caliber air rifles have gradually come into popularity (Tenaza, 1987, 1988; Whittaker, 2006: 138). When traditional arrow poison is used on the shot, even a slight pellet graze will render a primate unconscious, with fatal results from the fall to earth.

Of the five monkey species surviving in the rainforests of Mentawai, hunters know traditional songs that are sung before hunting them. Of all the local primates, the local subspecies of *Simias concolor*, which may shyly hide behind leaves rather than flee the area, is considered the easiest to kill as well as the most delicious. Unlike the “vulnerable”, “endangered” and “critically endangered” monkeys mentioned in Mentawai hunting songs, the *bilou* is rarely hunted.

²⁰See Mentawai.org (nd: online).

2.2 The Mentawai Kloss's Gibbon (*Hylobates klossii*)

The various kinds of gibbons, collectively known as “small apes”, are distributed across Southeast Asia, from Bangladesh and Northeast India to Southwest China, with 19 diverse singing and brachiating species existing across 4 genera.²¹ All gibbons are classified as “endangered” or “critically endangered”.²² The Mentawai Kloss's gibbon differs from all other gibbons in several ways. Among gibbons, *H. klossii* is the only species that does not seem to eat tree leaves; furthermore, it is the only gibbon that relies on arthropods for a significant part of their diet, and may spend considerable time looking for arthropods while feeding (Marcoux 2004; Whitten, 1982b). Among the eighteen species of gibbons, a major factor differentiating *H. klossii* from all but one other species is differences in vocalisation and vocalisation habit, discussed in the following section. The *H. klossii* population is unfortunately declining rapidly with modernisation and loss of habitat. On Siberut, the most forested island, the number of Kloss's gibbons was estimated in 1980 at about 36,000. Twenty-five years later, in 2005, Danielle Whittaker estimated that Siberut, with about 40% forest cover, had at that time only about 20-25,000 Kloss's gibbons, a drastic reduction (2005b).

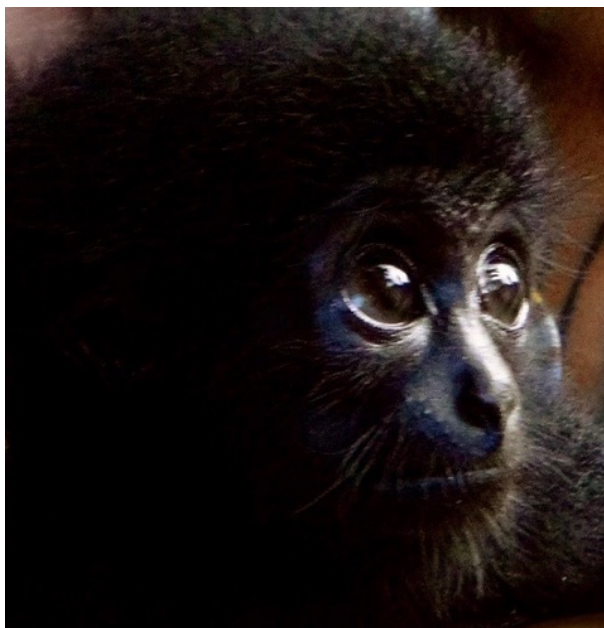


Figure 5 – Young *Bilou* or Kloss's Gibbon (*Hylobates klossii*) (photo: L. Burman-Hall 2012)

²¹ The gibbons are called “small apes” because they are of smaller body size than all members of their sister group, the great apes. Within gibbons, dwarf gibbons (*Hylobates*) are similar in weight to a cat, ± 5 kg (range 4-7 kg). The hoolocks (*Hoolock*) and the crested gibbons (*Nomascus*) weigh 8 kg (range 7-10 kg), and the large *siamang* gibbons of Sumatra and Malaysia (*Symphalangus syndactylus syndactylus*) are considerably bigger and heavier than other gibbon species, with 74-89 cm head-body length, and ± 11 kilos average weight (range 10-13 kg) (Geissmann, 2000).

²² On the difficulty of correctly estimating populations of apes, see Huizen (2016); on the current status of relative endangerment, see the IUCN Redlist.

2.21 Kloss's Gibbon Vocalisations

While scientists have written quite often of whale, bird and even elephant vocalisations²³ and sometimes evaluate this communication in terms of human aesthetics or evolution, gibbons have usually not been recognised for the musical qualities of their vocalisations. When apes of any kind are acknowledged, emphasis is usually put on great ape drumming and chest beating more than on gibbon song, because gibbon song is an innate rather than learned behavior (Fitch, 2006: 194-195). By contrast, songbirds, like humans, “exhibit vocal learning and have what has been broadly classified as ‘syntactic-like’ song production” (Petkov and Jarvis, 2012: 125). All gibbon species vocalise loudly and elaborately in ways that are specific to their species and their gender. Primatologists aim to understand how, when and why gibbons sing for and sometimes with other gibbons. Gibbon “songs” are complex and extended, and play a role in territoriality, attracting a mate or maintaining family or pair bonds (Tenaza, 1975a, 1975b, 1976; Geissmann, 1999; Geissmann and Orgeldinger, 2000). Thai gibbons have been shown to ward off and simultaneously announce predators to other gibbons by coded vocalisations (Clarke, Reichard and Zuberbühler, 2006). Gibbon calls are usually pure in tone, and occur at about the same time each day. Geissmann, who has used song vocalisations to construct a hypothetical phylogeny of gibbon species (1993, 2002a, 2002b), reports that the fundamental frequencies of gibbon vocalisations range from about .2-5 kHz (equivalent to g₃, the lowest tone on the violin) up to about 5 octaves higher (above the highest note of the piano).²⁴ The pattern of emphasis on overtones determines the perceived timbre but for simplicity, most bioacoustic studies of gibbon vocalisations show only the fundamental. Normally, the calls of dwarf gibbons including *H. klossii* will not go above 2 kHz (or 6 ledger lines above the treble clef staff; Geissmann 2017). Typically, female gibbons offer a great call lasting from about 6-30 seconds, with the singing bout lasting not more than about half an hour (Geissmann, 2000).

The great calls of both male and female *H. klossii* are well described in Keith, Waller and Geissmann (2009: 55). The first scientist to claim the great call of the (male) *bilou* as a kind of music was an ornithologist-primatologist guest of Richard Tenaza:

The Kloss gibbon's great call is probably the finest music uttered by a wild land mammal. Following the magnificent central trill is a slow, stepwise descent in a low register... we heard these lovely sounds at 4 a.m. on a moonlit night from Tenaza's camp on South Pagai. (Marshall, 1976: 237)

Along with its cousin, the Javan silver gibbon (*Hylobates moloch*) surviving in West Java, the Kloss's gibbon is unusual because, unlike all the other gibbon species, mated pairs do not perform elaborate duets together with fairly stereotypical male-female duet interactions (Geissmann, 2000)

Tenaza, who in 1972 was fortunate to find a study site in a minimally disturbed part of the Siberut forest surrounded by eleven families of *bilou* with a mean family size of 3.4, describes the sex-specific “song” bouts of *Hylobates klossii* in great detail. *Bilou* male solo song bouts, which occur before dawn, can be more complex melodically than other gibbons. Males announce their continued presence in or near their sleeping trees,

²³ Gray et al (2001).

²⁴About 200 Hz or G below middle C up to 5000 Hz.

maintaining the distance their neighbours expect (1976: 38). To perform a solo song bout effectively, a male must stay in good physical condition. Males appear tranquil as they vocalise, and seem to alternate their solo song bouts with those of their neighbours, which Tenaza called “countersinging” (1976: 43, 45, 49). By contrast, the great song bouts of the Kloss's gibbon female take place well after dawn in an atmosphere charged with excitement. The female performance is also complex and melodic, and they brachiate at the vocal climax or “trill” (Tenaza, 1976: 43; hear example on Geissmann, 2000). Providing that a rainforest ecosystem can offer adequate fruiting trees to support sufficient population density, multiple pairs of mated male and female *bilou* may settle in nearby sleeping trees. Tenaza discovered and recorded mated females with adjacent territory “countersinging” or duetting with each other for about half of their great-call performances, — synchronised extended melodic duets with one neighboring female at a time (ibid: 45-46). The balance was solo vocalisations. Occasionally, 3 or even once 4, mated females were heard simultaneously performing in a coordinated team (ibid: 46). Performing together in this manner affirms and defends each female's territorial boundaries in a cooperative way.

Geissmann (2017) mentions that females of any gibbon species that live close to each other — whether in nature or in captivity — generally tend to synchronise their great-calls. This is unavoidably noticed in zoos where diverse gibbon groups are kept in cage-batteries, such as in Asson (France), Duisburg (Germany), Jakarta (Indonesia), and Bangkok (Thailand); in such close quarters, females, even of diverse species, may coordinate their contrasting great-calls, making it near impossible to get a clean recording of a single vocalisation. While the great-call of a gibbon species is genetically linked, daughters grow up practicing synchronisation with their mothers, and other young gibbons — even infant and juvenile males — may also sing along with their mothers before changing to the male vocalisation at maturity. For the listener, the impression is of two or more gibbons calling together in a synchronised group, which I speculate may be interpreted by other primates (including humans) as forecasting a synchronised territorial defence.

Tenaza observed that when a *H. Klossii* mated female had neighbours on various sides of her fruiting tree, the mated female's performance tended to repeat until all the female neighbors had been engaged (1976: 45-47). Because one female leads while the other follows a fraction of a second behind, never missing the timing or turns of the melodic line, which differ subtly from great call to great call, Tenaza called this a “duet”, whereas Geissmann calls it a “synchronised great-call” (ibid). Recently, the Australian biologists Dooley and Judge have observed Kloss's gibbon females in synchronised duets in the Peleonan forest of Northern Siberut (Judge, 2014; see also Dooley and Judge 2015, and Dooley, Judge and Schmitt, 2013). At the climax of a solo or multi-female synchronised great-call is an athletic display of brachiation, sometimes with noisy branch breaking to let every nearby gibbon and indeed the entire forest see the superb physical condition of the performer(s), who can rise up to 30 feet per consecutive arm-leap in the high canopy, over and over. This display establishes fitness and ability to defend desirable fruiting tree(s). Given the density of the *bilou* population 40-45 years ago, prior to the logging of extensive tracts of rainforest, in some of Tenaza's field recordings of duetting females I have occasionally noticed a pair of females also duetting in the distance. Geissmann mentions that gibbons want to be heard individually, thus they try to produce great-calls that do not overlap with the in-progress vocalisations of neighboring groups. Because great-calls in a group song bout are typically spaced at intervals of 1-2 minutes, it is not difficult for other females to insert their own great-calls with little overlap. Whenever there is an opening, a mated female will begin, drawing one or more others to join her (2017). Until Tenaza

publishes samples of his 1972 multi-female field recordings, we have only the Gibbon Research Lab's posted recordings of a solitary male and two solitary female gibbons, respectively from Geissmann, Tenaza and Tilson (Geissmann, 2000) and cannot hear examples of synchronised *Hylobates klossii* great-call "duets".

3. *The Bilou* in Traditional Mentawai Cultures

3.1 Significance

When I first heard the haunting song of the *bilou* in Tenaza's 1972 field recordings in 2010, and later in person in the Pagais a year later, I was captivated. It changed my life. Only in the Mentawai Islands do we find a gibbon species with this degree of elaboration in its vocalisation. The elegance of complexity of *bilou* vocalisations may explain why Mentawai hunter-horticulturalists bestow special significance and spiritual power on the gibbon. In the stories and songs of Mentawai, the *bilou* is sometimes considered a changeling closely related to humans: an alienated young boy hiding in the treetops is believed to have become the first *bilou*.²⁵ It is intriguing that, according to Sinologist Robert van Gulik, Chinese Taoists long ago also ascribed changeling properties to gibbons, but in the other direction: Chinese White-handed gibbons — considered as a model for noble and appropriate human conduct — were believed by Taoists to be capable of living for centuries and capable also of transforming into human beings (1967: 42; see also Geissmann, 2000: 8).

3.2 Beliefs — *Bilou* Metaphysics

As a forest guardian in Mentawai, the *bilou* watches how humans behave in the rainforest, and may punish whoever is careless or disrespectful. Because of its special family relationship to humanity, the *bilou* may also sometimes choose to help respectful humans. Indigenous Mentawaians respect the *bilou*. Although the skulls of the endemic monkeys, wild boar and deer are routinely displayed inside the *uma* and on the veranda in the hopes their presence will keep the souls of prey within the *uma* and also lure others like them to come close to be shot and eaten, a *bilou* (living, dead, or any part thereof) should never be taken into an *uma*, and thus the *bilou* skull is normally exempt from display.²⁶ In many areas, it is forbidden to hunt *bilou*; and even if killed for food, *bilou* flesh is not considered tasty. A practical reason to avoid hunting *bilou* is that the piercing distress cry of a *bilou* will cause other primates to flee the area, ruining hunting for the day. In Siberut, hunters who want to kill the endemic monkeys may sometimes decorate the bamboo and sago lids of their arrow quivers, but they will never use *bilou* fur (Tulius, 2017b). *Bilou* and other primate images are often carved into panels or as sculptures in traditional houses.

²⁵ See Video #1: <https://www.youtube.com/playlist?list=PLBk3wxCiXRJa4sLJHhWoLlgmyGziRPcC>

²⁶ The primary fetish to insure success in hunting is the *jaraik*, a carved wooden panel featuring the local Mentawai macaque (Schefold 1979: 128-31; Schefold 2009: 167), called *Siteut* (*Macaca pagensis*) in South Mentawai, a critically endangered species, or the *Bokkoi* in Siberut (*Macaca siberu*). Among the Sakuddei in West Siberut, Schefold documented one *uma* that already in its first decade had accumulated "680 pig skulls hanging on the veranda and 11 water buffalo skulls" (the latter a gift from Sumatran friends); and displayed on the transverse beam upon entering, "35 deer skulls, 31 wild boar skulls, and some 370 monkey skulls" (2009: 160, n. 7).



Figure 6 - *Bilou* carved wooden panels (photo: L. Burman-Hall 2013)

Taboos against considering and using a *bilou* like other primates exist for a subtler reason: *(Si)Kerei* must sometimes help a villager by consulting unseen spirits including indirectly the *Sanitu Bilou* (*Bilou* Spirit) as forest guardian when someone in the community is sick or to restore balance. For those who can see any of the *sanitu* that exist in the forest, a *sanitu* is considered to be of silent and ghostly appearance.²⁷ Because a *(Si)Kerei* may indirectly request help from the *Sanitu Bilou* in diagnosing illness or otherwise helping someone in his clan, a *(Si)Kerei* may never eat *bilou* meat. Similarly, the *Rimata* as ritual leader of the clan also may never eat *bilou*. A traditional story tells that when Sitakki Gagailau climbed a tall tree and leaped from branch to branch like a gibbon he actually did become a *bilou*. The *taikmanua* (inhabitants of Heaven) asked him to return to earth and become a *(Si)Kerei* to take care of the Spirits and humans. So the original spiritual guide to traditional Mentawaians was in fact a former *bilou*! (Coronas, 1986: 58-60, cited in Feldman (1998-1999-60: 51) At times, the *bilou* spirit may act the part of an evil trickster. The *Malaikat Bilou* (Malevolent *bilou* or Angel of Death *bilou*) is sometimes blamed for leading disrespectful humans astray in the forest or into danger. The *bilou* can also function as a harbinger or announcer of death. Male *bilou* normally sing in the very early morning before dawn. If a male *bilou* is heard calling in the middle of the night rather than at the normal time just before dawn or in very early morning, it is considered a sign that

²⁷ Regarding *sanitu*, see fm16.

someone will die (or has died). The specifics of the cry determine whether it is someone old or young, and whether (in the old days) a revenge headhunt had to be undertaken (Kruyt, 1923: 61-62; Nooy-Palm, 1968: 61-62).²⁸

Only in Mentawai do we find the beliefs of an animist culture interwoven profoundly with an endemic gibbon in this way. The isolation of both the *bilou* and the Mentawai population has created a unique aspect of local cosmology, a symbolic cultural relationship between humans and gibbons that exists nowhere else. A strikingly comparable situation exists between humans and birds among the Kaluli people of the Mountain Bosavi Southern highlands of Papua New Guinea. As shown by Feld, Kaluli beliefs and aesthetics are profoundly interwoven with the calls of the surrounding rainforest birds (1990). A central myth of the Kaluli tells of the boy who became a Muni bird (fruit dove, *Ptilinopus pulchellus*), leaving the human world out of frustration and hunger (1990: 20-39; 217-238), and thereafter crying in a weeping bird's voice. In Feld's analysis:

'Becoming a bird' is the core Kaluli metaphor because it embodies the emotional state that has the unique power to evoke deep feelings and sentiments of nostalgia, loss, and abandonment. (1990: 219)

Similarly, Mentawaians tell in song or story of how the *bilou* first came to exist.²⁹ As the story goes, long ago, a young boy had a prized possession, a traditional knife that was accidentally broken through carelessness. In his anger, he climbed a very tall tree and discarded his climbing vine so he could never safely descend to the ground again. Done with the world of humans, he refuses to communicate with his uncle searching for him, and eventually he becomes a *bilou* in the trees. It is significant that a creation myth of Siberut mentions another young boy who also transforms himself — but this time into *sago*, becoming the tree of life, so his people will never be hungry.³⁰

4. Ecomusicology in Indonesian Rainforests

For the past 40 years, cross-disciplinary studies of how humanity interacts with the natural environment have enriched academic life and sometimes influenced public policy. Along with the increasing impact of industry and the built environment on biodiversity, we have seen a corresponding increase of research into climate and ecology; however, the pace of environmental and social change has doomed the physical and intangible culture of many traditional peoples. The core topic of this article — the vocalisations or “songs” of both

²⁸ In historic Yunnan, numerous literary examples show that the cry of the local gibbon was considered sad or heartbreaking through the centuries: “In short, the gibbon stands in for the troubles of life in general” (Ye and Heule, 2013: 144-146). Note that in Video Example 1 (link in fn 29 below), we have a similar association: a weeping Mentawai boy transforms into a *bilou*.

²⁹ See Video # 1: <https://www.youtube.com/playlist?list=PLBk3wxCiLXRJa4sLJHhWoLIgmyGziRPcC>

³⁰ Emulating the tree of life (*sago*) is sometimes given as an explanation for the specific placement of traditional Mentawai clan tattoos across the body. People who are getting tattoos can choose to have lines that represent the veins and trunk of the *sago* on their upper thigh. Likewise, the prickly branches of the *sago* run down the arms. Bark or roots are mirrored on their hands and ankles. On the chest, curved lines represent the *sago* flower. Some older Mentawaians believe that the ‘Tree of Life’ is the key, but clans vary in their traditions, and some clans do not consider their tattoos to emulate *sago* (Krutak, nd).

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genders of *bilou* as well as traditional songs from Southern Mentawai about the Mentawai *bilou* — bring us from the perspective of ethnomusicology, the holistic study of human music in cultural context, through *ecomusicology*, the study of the interrelationships of nature, culture and music, to what some have called *zoomusicology*,³¹ the study of animal sound production and its significance within specific animal species and populations.³² Beyond *zoomusicology* stands *biomusicology*,³³ the varied creative collaborations of biologists, neurologists, anthropologists and music cognition and education and performance researchers interested to make experimental music from non-human sounds or performed by non-humans and *acoustic ecology*, the study and creation of soundscapes by composers, ecologists and ethnographers (Allen, 2011: 416 fn5).

The balance point of human-*bilou* interests and interactions, the meeting of the realms of lower and higher primates, is *ecomusicology* — or *ecocritical musicology*, which draws more from literary criticism than ecology *per se* (Allen, 2011a: 393). As the *Grove Dictionary of American Music* states, *ecomusicology* focuses on sonic issues and music, “both textual and performative, as they relate to ecology and the environment” (2013, cited prepublication in Allen, 2011a: 392). *Ecomusicology* should also address:

the affective qualities of particular landscapes to examine the physical and emotional responses that music induces in listeners and how they shape our view of the world. (Grimley, 2011: 395)

Just as the relationship of humanity to environment plays out variously according to time and place, the configuration and relationships of a culture’s sonic environment inspire diverse human beliefs, behavior and reactions. In the sonic rainforest environments of Bosavi on the Great Papuan Plateau and Mentawai’s interior and elsewhere, people are inspired in their respective cultures according to who they are and what they hear around them. The northern foothills and lowland rainforest of Mt. Bosavi where the Kaluli people live have no primates whatsoever but 125 named flying and non-flying birds in indigenous Kaluli ornithology out of the 800-some birds of Papua New Guinea (Feld, 1990: 269-278). For the Kaluli, birds are therefore the dominant cultural image and metaphor. Kaluli men typically can imitate at least 100 bird sounds, are guided in the forest by bird vocalisations, dress as birds on occasion, and aim to “become a bird” as they pass from life to death. Kaluli consider that some birds regularly speak entire phrases in Kaluli language (Feld 1990). Similarly, in Northeastern Brazil, Silvers’ found that calls of specific birds traditionally “augur” rainfall or drought (2015: 386) and Schlegel has reported on swidden preparation rituals among the Teduray/Tiruray ethnic group of southwestern Mindanao

³¹ See Soce Keller’s tongue-in-cheek opinion piece suggesting a marriage of ethnomusicology and *zoomusicology* (2012: 170). Soce Keller makes many good points but errs in claiming that, “sonic behavior among non-human animals relies on oral tradition,” (ibid); although birds in particular have a “sensitive period” when they are receptive to being aurally imprinted by adults of their species (Brainard and Doupe 2002). By contrast, gibbon vocalisations are genetically determined rather than learned from parents, as shown from Geissmann’s studies of the vocalisations of a hybrid gibbon (Geissmann, 1984). See also Geissmann (1993).

³² Some thoughts on the function of vocalisations within the *H. klossii* population are given in Part 2.21 of Kloss’s *Gibbon Vocalisations*.

³³ Two of my own ‘bio-music’ compositions utilise recordings of solo and duetting female Kloss’s gibbons - *Suara Betina* (2011a, *Female Voices*), a tape collage, and *Bilou Sapiens* (2011b, *Wise Gibbon*) a piece for pre-recorded media with paired Baroque flutes. Both performances were staged at UC-Santa Cruz Music Center Recital Hall in April 2016 and both were accompanied by Mentawai photo images by photographer-biologist Richard Tenaza.

island in The Philippines, who traditionally consult a small forest bird for permission to conduct agriculture. This cry of this ‘omen bird’ is taken to be:

the reply of the spirits of the forest according to the direction from which its call is heard... The site will only be abandoned if bad omens are received in each corner and the center; silence from the omen bird is interpreted as good and as indicating assent from the spirits of the forest (Schlegel, 1979: 938-959).

While Mentawai, with 256 avian species, is also rich in forest and sea birds that fill the sonic environment with their cries (LePage, 2017), it is the vocalisations of endemic primates that dominate the forest soundscape. Primates, and especially the Mentawai *bilou*, have therefore come to impact Mentawai animist beliefs. As a result of the central importance of the *bilou*, (*Si*)*Kerei* focus on respecting the *bilou* as a forest guardian, and utilise the *bilou* spirit to communicate with unseen powers and to assist in healing sick villagers.

5. Humans Imitating the *Bilou*

Hearing the endemic primates daily vocalising high in the rainforest, — and especially the extended great call singing bouts of the *bilou* — humans far below typically play and practice, but only someone with extraordinary skills can truly sound like a *bilou*. Traditional Mentawai people imitate all the endemic primates at times, but the degree humans identify with the *bilou* is so strong that, in areas where *arat Sabulungan* traditions remain strong, both adults and children tell *bilou* stories and affectionately sing songs about the *bilou*. In the *urai bilou* the imitation of the *bilou* at the end of each line or elsewhere are not truly intended to be literal imitations. *Bilou* images are also significant in animist house decoration. A widespread traditional Mentawai carved relief motif is a traditional ‘chain’ of *bilou* images.

6. Some Southern Mentawai Songs about the *Bilou*

As ethnomusicologist Anthony Seeger has capably demonstrated that to truly understand a musical behaviour it is necessary to account for “the total musical event and the way music is inserted into the larger social and cosmological framework” (1979: 391). Like the indigenous Suya ceremonial music of the lowland South American forests that Seeger studied (ibid: 373), isolation has caused Mentawai traditional song to remain obscure and little known outside its home territory. And like the music-making of the Suya and many other traditional societies, music-making in traditional Mentawai culture by (*Si*)*Kerei* should not be misunderstood as an artistic and/or casual activity but accepted as a “fundamental part of the social life”, as an integral part of the advising, guiding, and healing role the (*Si*)*Kerei* plays in the community, and not an optional behavior (ibid: 392).

My field research collecting traditional *bilou* songs has been conducted on the four main islands with field assistants who speak various dialects of Mentawai language. Even in Christianised areas, elders, especially (*Si*)*Kerei*, can still recall various *urai bilou* (*bilou* songs). In contrast, the younger generations are more likely to know only European-style church music (“alleluias”), patriotic songs from school, and Indonesian pop. This study offers traditional songs recorded in Sipora, the most deforested and modernised of Mentawai’s islands. Songs about the *bilou*, with and without dance, are among the endangered shamanic and traditional music of Southern Mentawai. Since 2011, my annual

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Mentawai fieldwork — including collection, translation, analysis and preservation of songs — has evolved to benefit Mentawai clans and lineages, especially in Southern Mentawai, that have largely forgotten the traditional music of their animist past. As the project continues, I plan to distribute the collected songs in CD form through Cultural Services and Education offices and schools in Mentawai, in alignment with the central purposes of SICRI.³⁴

It is significant that the female *bilou* duetting — where one female leads and the other follows accurately a split second behind — seems in fact to be the performance model for human duets, which I have only observed as a performance of two men. In western culture, when both people know a song that they will sing together, it is common to try to synchronise exactly. However, in Mentawai, there are clear leader and follower roles.



Figure 7 — Left-right - Pak Stepanos and Pak Elipas, elderly Sipora Island (*Si*)*Kerei* informants (photo: L. Burman-Hall 2011)³⁵

Conversion to Christianity has been a fact of life in the Pagais, Sipora and eventually parts of Siberut through the entire 20th Century.³⁶ Because the Indonesian Government forced Mentawaians to convert to one of the national religions in the 1950s, my informants,

³⁴ Background and Mission of SICRI are given at <http://sicri-network.org/>.

³⁵ See fn 45 and fn48, and video performances 1, 3.

³⁶ August Lett, representing the German Royal Missionary Society, was the first to arrive in North Pagai in 1901. Lett's considered the people of the Pagais lazy pagans and had no respect for their culture. He was killed on North Pagai a few years later while mediating a conflict regarding the Dutch East Indies Company's registration of villagers. According to Mentawaiian family stories, Lett's pastoral paternalism proved his undoing, since he unacceptably referred to Mentawaiian elders as "his children". Subsequent missionaries wisely concentrated on converting and influencing actual children, with the first convert in 1911 and gradually others thereafter.

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especially in the Pagais and Sipora Island, were typically elderly males in their seventies, eighties and ninteties. Several of my Pagai and Sipora informants (who never or no longer lived in primal forest) said they had not sung animist songs in 50 or 60 years; one reported he had not sung or even thought about the *(Si)Kerei* songs in 65 years. In general, as a result of the six decades when it was generally forbidden to study and practice *arat Sabulungan* and practice as a *(Si)Kerei*, my informants in the three islands of South Mentawai all have been quite elderly.

The Catholic Church arrived in the islands about 50 years after the Protestants, just in time to offer a limited choice during the forced conversions. Rather than criticise local culture, Catholicism attracted converts by a syncretising aspects of *arat Sabulungan* and by adopting familiar Mentawai tribal symbols. The Catholic Church refers to this as “inculturation” (Tulius, 2017b). Mentawai traditional symbols were displayed at the entrance of the Catholic church in Sikakap in the 1970s and 1980s, including a prominent monkey skull attached to the large processional crucifix used in services. In 2012, the priest in the Catholic mission in this same North Pagai town was accommodating enough to allow me to record *(Si)Kerei* songs in the sanctuary of the Santa Maria Asumpta Church and also at the Gereja Santa Maria Raturasario, Matobé branch, North Pagai. The simple fact that my 2012 recordings were made in sanctuaries of the Catholic Church by permission allowed various elderly former *(Si)Kerei* to recall and perform songs learned in their youth without concern for family recriminations for engaging in a previously prohibited activity.³⁷ Similarly, in South Pagai, the Protestant school at Makelok village allowed my 2013 team to record informants in a classroom.^{38 39}

The following discussion refers to some songs about the *bilou* that I collected in recent years on Sipora Island, South Mentawai.

Video Example 1: *Urai Kamaman-Kamaman*⁴⁰ (‘The story of how the *Bilou* came to be’) (L. Burman-Hall, 2015)⁴¹:

<https://www.youtube.com/playlist?list=PLBk3wxCiXRJa4sLJHhWoLIgmyGziRPcC>

This is a very emotional song for Pak Elipas, as he cries before and after and also while singing it (see fn 32). It tells the story of how the world came to have the *bilou* gibbon in it.

³⁷ My gratitude to Pastor Frelly Pasaribu, who in 2011-2013 was head of Santa Maria Asumpta in Sikakap; and Primus Salamanang, who at the time of the recording was Sekretaris Jemaat Khatolik at Gereja Santa Maria Raturasario, Matobé branch, North Pagai.

³⁸ My gratitude to the Gereja Kristen at desa Makalok, dusun Mapoupou and adjacent district Talopulei, with district head Bapak Marinus, on the eastern coast of South Pagai.

³⁹ In 2011, during the controversies in the Southern Islands which led to the defeat of a plot to destroy large tracts of communally owned forest in order to plant huge plantations of *kelapa sawit* (oil palm, *Elaeis guineensis*), I became acquainted with Ruslianus Sabelau, at that time Camat Pagai Selatan³⁹ who subsequently moved to Sipora, the administrative capital for the Mentawai Islands, and who hosted my 2014 and 2015 fieldwork at his home in Tua Pejat.

⁴⁰ *Kamaman* in Mentawaian refers to mother's older or younger brothers (Nooy-Palm 1972: 42; Tulius 2017b). Also see Tulius (2017b) for further discussion.

⁴¹ Video 101-30 July 2015. Recorded in Tua Pejat, Sipora (timing: 1'56"). Text transcription and translation by Juniator Tulius (2017). Informant: Pak Elipas Paipai Pak. Elipas Paipai was born in Sioban, Sipora in 1940. In 1967, he moved to Mapadegat Beach, Sipora. At the time of the recordings, he was a 74-year old widower with 7 children and 16 grandchildren. He is the brother of another *(Si)Kerei* informant, Pak Stephanos Pagohulu.

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Once there was a young boy who asked his uncle to make him a very special scabbard for his traditional waist dagger (*palitai* or *palittei*). The uncle made an ornate scabbard and the boy was very proud of it. But one day the boy let his mother use the knife and she was careless where she left it, and the special scabbard became broken. The song recounts that the upset and angry young boy runs far away into the forest, and uses a climbing vine or liana to ascend a high tree. At the top, he discards his climbing vine so he can no longer descend. When his *kamaman* (maternal uncle) searches, he sings “Uncle, go home, it is night... I feel sad and discouraged”. Eventually, the boy becomes a *bilou* crying in the trees. According to Pak Elipas, some Siberut and the Pagai Islands residents know this story, but do not have it in song form, and that only a few on Sipora know this song. I have not yet encountered this story in Siberut, though Tulus confirms it exists (2017).

Text:

Kamaman..., kamaman oi, toiliake ekeu masoiboan, baan pasioong, kamaman oi i... i...

Kamaman..., kamaman baan gagaba aku kamaman oi, toiliakan ekeu ka lalep oi. kamaman

Kamaman..., kamaman, baan gaba aku, masoiboan toiliake ekeu.

Kamaman..., mabele bagaku, samba manguknguk aku ka inangku, ai takki uman palitteiku, kamaman oi, kamaman. Kamaman, kamaman oi, toiliakan ekeu masoiboan.

Kamaman, manguknguk aku, kamaman oi, kamaman.. kamaman.. toilingan kamaman, kamaman... kamaman..

(Uncle..., dear uncle, go home it has been night, do not expect, dear uncle

Uncle..., uncle, do not look for me uncle, go home.. uncle.

Uncle..., uncle, do not look for me, it has been night, go home.

Uncle..., I feel sad and discouraged about my mother, (because) the (wooden) scabbard of my dagger was broken, dear uncle, uncle.

Uncle..., dear uncle, go home it has been night.

Uncle... I am discouraged, dear uncle, uncle..

Uncle... go home uncle, uncle..., uncle..)

Comment: Major 10th in compass, starting the first three times of the 6 phrases on the octave of the lowest note and going to the highest note (as 3rd of the triad); thereafter starting on the highest note. The phrase chooses the triadic notes coming down to the lowest note in the scale then continues in mid register from the 5th above the lowest (tonic) note. A short-long quasi-iambic free rhythm occurs throughout.

Video Example 2: *Urai Sanitu Bilou* (Song of *Bilou* Spirit) (L. Burmann-Hall, 2014)⁴²:

<https://www.youtube.com/playlist?list=PLBk3wxCiXRJa4sLJHhWoLIgmyGziRPcC>

⁴² Video 36-28 July 2014 (timing 0:48). Recorded in Tua Pejat, Sipora. Text transcription and translation by Juniator Tulus (2017). Informant: Pak Bicar Samangililai Pak Bicar Samangililai is from Saureinu village, Sipora. He was born in Sipora. At the time of the recording, he was 93 years old (94 in 2015). With a healthy wife and 8 living and 3 deceased grandchildren. Pak Bicar is a (Si)Kerei..

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Text:

*i..i..i..i..... ia onda... ia onda... ia onda.....i.. i.. i..
ia onda... ia onda... ia onda.....i.. i.. i..
koi ekeu...ko ko ko ko...*

([Sound like a *bilou*] ... it is certain.. it is certain
It is certain.. it is certain.. it is certain
You come.. come.. come in....)

This is a simple song sung by a (*Si*)*Kerei* on behalf of someone in the village who has carelessly done something to disturb the balance of the rainforest (for example, cutting a tree, taking fruit, taking off clothes to shower or swim, cutting a liana to drink its fluid, hunting, urinating, defecating, or anything else) without asking permission of the forest spirits, or who has otherwise hurt or showed disrespect to Nature. The apology is directed to any of the *Sanitu Bilou* (Guardian *Bilou*) family of spirits, who may make people sick or lost in the forest as punishment.⁴³ The *Laki Kiao* (another family of spirits who are said to resemble elves with large ears) will usually ask the *Sanitu Bilou* “Why is that person sick, and how can this sickness be cured?” When the *Laki Kiao* has heard from the *Sanitu Bilou* what act of disrespect caused the imbalance leading to the sickness and how it can be cured, he can then tell the (*Si*)*Kerei* what herbal medicine and other actions will work to put things right so there can be healing and a return to balance. A (*Si*)*Kerei* can see the *Laki Kiao* and also the *Sanitu Bilou* and other spirits, but normal humans cannot.

Comment: Pak Bicar dances as he sings. In the song, the (*Si*)*Kerei* imitates the sounds and gestures of the *bilou* and associated spirits in order catch their attention, make an earth offering to them, and invite them to be present. Melodically, the line moves diatonically. Three times a primate cry sequence introduces the sung line.

Video Example 3: *Urai Bilou Sipaguile (Bilou Game-Song)* (L. Burman-Hall, 2014)⁴⁴:

<https://www.youtube.com/playlist?list=PLBk3wxCiXRJa4sLJHhWoLIgmyGziRPcC>

Text

*Bilouuuuu... oi bilou leleu... tolimai pabuile mai et.. apona irot pabuileleu le..
Bilou... oi togannu bilou kai leleu.. oiii bilou...
Bilou leleu sibuile mai leleu...koa le bilou leleu... i... koi ii...
Koilou oi bilou majilei.. ei majilei kabuntet mairurubai lelei...
Oi bilou.. oi simarubai leu.. oi bilou leleu..*

(Gibbon... forest gibbon... return our caring... that tightly attaches to the forest
Gibbon... the child of forest gibbon... dear gibbon
Forest gibbon, our caring forest... Come to us the forest gibbon... come... come

⁴³ As Tulus explains, local people sometimes still logically blame the *Bilou Teiteileleu* (*bilou* from the mountain ridge'), for causing people to get lost, by luring them with song deeper and deeper into the forest, finally vanishing to strand them (2017b).

⁴⁴ Video 68 27th July 2015 (timing: 1:22) — Recorded in Tua Pejat, Sipora. Text transcription and translation by Juniator Tulus (2017). Informant: Pak Stepanos Pagohulu. Pak Stepanos Lives in Tua Pejat, Sipora. Born in 1941, he was 73 years old and his wife was still living when recorded. At the time of recording, he stated he had 8 children and 16 grandchildren. He was trained as a (*Si*)*Kerei*.

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It is clear to see gibbon... staying at the treetops of forest
Dear gibbon... dear forest... dear forest gibbon)

Comment: This shows a *bilou* family — a mated pair of adult *bilou* playing with their child. Like all gibbons, *bilou* mate for life. According to Pak Stepanos, in Siberut local people know the dance-game, but they do not have the words. In Sipora, both the song and the dance game are known. The text illustrates the traditionally close feeling of Mentawai animist families with the forest and the *bilou*.



Figure 8 — Pak Bicar, elderly (*Si*)*Kerei* from Sipora Island at his distant home on the edge of the forest, with family and friends including the author (photo: L. Burman-Hall 2015)

Video Example 4: *Urai Joja Samba Bilou*— (L. Burman-Hall, 2016)⁴⁵:

<https://www.youtube.com/playlist?list=PLBk3wxCiXRJa4sLJHhWoLIgmyGziRPcC>

Text:

Bilou-bilou leleu

Bilou mai le, bule ioi...(bago..bago.. bago. gulu gulu...) Pabilou...

Apona irororoi jobanuri bilou leleu...

Iroroi Ulaumanua... iroroi (bago... bago..bago.. bago. gulu gulu...)

Polingkomanna kabuntetnu kaitukan leleu...

Oi.... oi bilou (bago..bago.. bago) leleu... apoina irororoi kabuntetnu kaitukan leleu?

Roroi polingkomanna bilou... i... (bago..bago.. bago. gulu gulu...)

Oi bilou... bilou leleu mai ne oi...

⁴⁵ Recorded July 2015 (timing: 1:01). in Tua Pejat, Sipora. Text transcription and translation by Juniator Tulus (2017). Informants: Pak Stepanos Pagohulu (right) and Pak Elipas Paipai (left). Regarding Pak Elipas, see fn 45.

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Gibbon... forest Gibbon
Our gibbon, hope to come,(*bago..bago.. bago. gulu gulu...*) any Gibbon.
What forest Gibbons greet
He greets *Ulaumanua* (the almighty)⁴⁶... he greets(*bago..bago.. bago. gulu gulu...*)
Its place is on the treetops of *Katuka*...⁴⁷
Dear... dear forest gibbon...(*bago..bago.. bago...*) what do you worship in the
treetops of *Katuka*?
Worship gibbon's place... (*bago..bago.. bago. gulu gulu...*)
Dear gibbon... our forest gibbon.

Comment: This song shows the *joja* of Siberut Island (Siberut langur) instead of its Southern Mentawai relative, the *atapaipai* (*Presbytis potenziani potenziani*). The *joja* is an aggressive leaf-monkey, sung by Pak Elipas (on left) irritatingly calling and commenting *bago-bago-bago-bago-bago* on everything Pak Stepanos playing the serene *bilou*, sings (at right). The *bilou* comes across as sophisticated next to the coarse clowning of the *joja*.⁴⁸ The text anthropomorphises the *bilou*, speculating about what the *bilou* worships.

7. Protecting Mentawai's Endangered Music Heritage

Safeguarding the endangered musical heritage of animist Mentawai must be considered in the greater context of protecting habitat and endemic wildlife and preserving intangible cultural heritage (including language). All are challenging and go against the tide of increasing modernisation. To have even limited success, all require close cooperation of diverse indigenous and modernised peoples with the forces of business, industry and government. Given that about half of the world's 6000 languages are in marked decline, the twenty year old field of Language Maintenance has received much scholarly and public attention, and thus provides potentially appropriate models for the maintenance of endangered musical traditions (Grant, 2012: 33).

Grant identifies four factors encountered by linguists engaged in preservation. She argues these factors may also impact efforts to preserve endangered musics and other aspects of intangible culture. The first factor is that *language ecology*, the socio-cultural context of a language, is dynamic; consequently various changes within a society impact the performance and utility of language (ibid: 34-35). Secondly, Grant implicates *purism*, a conservative tendency that can impact both native speakers and linguists when documenting a language and/or facilitating its continued use. Purism often causes older or even archaic forms to be privileged or recreated rather than actual current usage (ibid: 36-37). As a third factor, *intervention* in the affairs of a community by outsiders can be unappreciated, and may even be perceived as inappropriate interference caused by a

⁴⁶ *Ulaumanua* (or *ulau manua*): *Ulau* = outside of or beyond something. *Manua* is the sky or the universe, or can also be translated as the Being. One *manua* derivation is *Sirimanua*, a human being. *Ulaumanua* thus refers to what's beyond human beings, and can thus be translated as 'the almighty' (Tulius, 2017b).

⁴⁷ The *Katuka* tree is *Shorea dipterocarpaceae*, a dominant emergent tree of the Mentawai rainforest, reaching 55 metres in height. By climbing to the top of an emergent *dipterocarp* tree, a *bilou* can often find sunlight and distant views.

⁴⁸ About the Chinese Lar gibbon: "The gibbon is better than the monkey, the former is clean, gentle and recluse, the latter is dirty, noisy, greedy and vulgar" (van Gulik, 1967: 80).

paternalistic attitude (ibid: 40-41; Ladefoged, 1992: 810). And finally, the spectre of *inefficacy* looms at almost every turn: the reversal of language loss turns out to be nearly impossible, due to socio-cultural change. In music as well as language, only a very determined community can hold on to and revitalise its traditional expressions in the face of constant context change (ibid: 42-43).

Similarly, pressure of context can impact creative figures in some cultures as strongly as they press collectors and preservationists. This was demonstrated by Indonesian composers from Bali, who had complained of feeling constrained by Bali's traditional Hindu-Buddhist culture in the face of exposure to new western percussion and experimental gamelan works. A cross-cultural team of ethnomusicologists, composers and psychiatrists I directed in Bali and California in 1995-97 studied how context controlled creative change within Balinese music culture and Balinese music abroad⁴⁹ The composers and their Balinese co-performers compared contexts that wanted them to stick to traditional music — such as some international gamelan teaching programs — with “living in a zoo” or “being a museum exhibit” and were happy to be commissioned to compose for the liberal environment of the Balinese conservatory and University of California campus students. Not even internationalised Balinese composers renowned for forging creative pathways beyond their inherited intangible culture can afford to discount the primacy of context.

8. Conclusion

8.1 Only in Mentawai

Only in Mentawai can we still hear the *bilou* singing in the rainforest. Only in Mentawai can we also hear females singing the fascinating and melodically complex great cry of the *bilou* together.⁵⁰ Only in Mentawai does an extant traditional culture invest considerable power and imagination in a “singing” primate, correctly identifying the *bilou* as quite closely related to humans. Only in Mentawai do we find humans imitating with varying degrees of skill the vocalisations of the *bilou*, and only in Mentawai do we have animist invocations calling the *bilou* to come help a (*Si*)*kerei* heal someone. And only in Mentawai do we find stories and songs and featuring the *bilou*.

8.2 Bilou: Central to Mentawai Culture yet Endangered

This article has detailed the behaviour of the culturally most significant primate, the *bilou*, and what Mentawaians have made of it through the centuries. It is clear how exceptional the *bilou* is — both for its vocalisations and for the extent to which Mentawai traditional animism revolves around the *bilou* as a touchstone and counterpoint for human identity. *Bilou* taboos, tattoos, decorative motifs and fishing floats reveal the strength of humanity's bond with the *bilou*. The music itself shows how traditional Mentawai culture casts the

⁴⁹ My University of California team of 5 UC professors and 4 Balinese professors documented as each Balinese composer created a traditional style work for their home village, a more adventurous *kreasi baru* (new composition) for the Denpasar Conservatory, and finally a number of experimental compositions for American students at two UC campuses. (See Barkin and Burman-Hall, 1993.)

⁵⁰ Synchronised *bilou* vocalisations seem to require both adequate fruiting trees and a sufficient population of mated females in one spot at the same time (see fn35).

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bilou simultaneously as a changeling human and a rainforest spiritual guardian. A *bilou* vocalisation at the “wrong” time is a harbinger of death, yet (*Si*)*Kerei* can reverently approach the *Sanitu Bilou* for indirect healing help. Meanwhile, stylised (thus unrealistic) *bilou* vocalisations are part of numerous songs, and the actual calls are imitated as entertainment by whistling and falsetto vocals by all ages with varying degrees of success. Unfortunately, deforestation and modern hunting methods have caused the *bilou* and other Mentawai primates to be greatly reduced in numbers. Similarly, the combined effects of colonisation and forced Christianisation has caused the songs of the *urai bilou* musical repertoire — which express the singular relationship between the *bilou* and humanity and rests on core cultural beliefs about the *bilou* — to become as endangered as *bilou* itself. The “songs” of the *bilou*, and the unique female duetting, now float over far fewer trees, and the *bilou* — a multi-dimensional focus within *arat Sabulungan* cosmology— is endangered along with its habitat.



Figure 9 - Children greeting our docking party where the *bilou* lives, near Betumonga village, North Pagai (photo: L. Burman-Hall 2011)

8.3 Safeguarding Heritage and Building Mentawai Identity in the 21st Century

The distinctive *bilou* gibbon, the narrow genetics of Mentawaians, and the constellation of *bilou* beliefs all exist because Mentawai is geographically, biologically and culturally isolated. Yet Mentawai’s location in a zone of dangerous surf and severe seismic risk seems only to have magnified the effect of these forces. The aquapelagic society of Mentawai is currently challenged to overcome the effects of isolation by developing cultural tourism and eco-tourism as income sources while finding a way to reconfigure surf tourism so it can also benefit Mentawai residents. Mentawaians are gradually gaining greater opportunity to work together and to take charge of their aquapelago. Together, they can preserve the primal forests that remain as critical habitat for endemic wildlife, together they can safeguard the beaches, oceans, small islands and reefs. Mentawaians must resist deforestation and *kelapa sawit* (oil palm plantation) monoculture at every level of society

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as killers of wildlife and therefore of ecotourism, and corrosive to pride in their heritage. Beyond the designated biosphere reserve of Siberut National Park,⁵¹ the endangered wildlife of the Southern Islands will soon be extinct unless additional reserve areas on Sipora and the Pagais are designated. For these areas, only true reforestation can preserve the spectacular range of Mentawai's unique wildlife as symbolised by its endangered and critically endangered primates. With public awareness and good management, a healthy forest ecosystem can support ecotourism that balances and complements the existing surf tourism, bringing the offshore visitors to the main islands to enjoy the Mentawai wildlife, with lessons in natural medicine traditional horticulture and the intangible animist legacy that should also be passed to the younger generations.

Although surf tourists come to relatively remote Mentawai surf camps, the profits currently flow outward and do not significantly benefit the main island populations. With the relative relaxation of Catholic attitudes toward indigenous culture, elderly (*Si*)*Kerei* suddenly can perform the endangered heritage of *bilou* songs again without criticism from their Catholic families. Although Mentawai Protestant churches still generally feel the older animist heritage should remain suppressed until forgotten,⁵² in Catholic villages the population is just beginning to be free to reclaim their animist heritage to the degree they are willing to do so. Ethnic Mentawaians may now consider how to develop signature tourist performances that build appropriately on their traditional heritage of songs, dances and stories. The situation in Mentawai now may be compared to the situation that faced the Hindu island of Bali in the 1930s: tourists need entertainment, and Bali Hindu local culture needed to develop a sellable secular art that could take place on a schedule.⁵³ Like the priests in Bali long ago, the (*Si*)*Kerei* of Mentawai feel the indigenous arts should only be used for ceremonial occasions and not for entertainment. But like Bali long ago, indigenous secular performances are needed to attract and build tourism to benefit the population.

When promoting tourism, Mentawaians proudly claim their islands as *Bumi Sikerei* ('Shaman Earth'). Meanwhile, in the Southern islands, only a few (*Si*)*Kerei* and their songs about the *bilou*— almost fatally engulfed by the tides of Christianity — still hang on here and there to be recorded. The preservation and future relevance of Mentawai's rainforest life and lifeways will remain uncertain for some generations. To the extent that Mentawai's children can experience the rainforest and its cultural legacy, the actual *Bumi Sikerei* will live on. From this perspective, the actual (*Si*)*Kerei* — bearers of the older tradition and preservers of Mentawai's unique patrimony — deserve to be honored, respected and supported, and assisted in passing the intangible heritage of Mentawai, including its traditional songs, to future generations.

⁵¹ Siberut National Park comprises 1,905 km² or 47% of the island of Siberut.

⁵² The imported music of Mentawai Catholicism and Protestantism consists of European "alleluias" and hymns considered unsuitable for tourist performances.

⁵³ At that time, despite music and dance taking place in temple ceremonies, Bali had only sacred genres of music and dance, and thus no specific secular tourist arts whatsoever to schedule and sell as tourist performances. Working with Bedulu villagers, the painter Walter Spies (1895–1942) created *kecak* vocal percussion that told an episode from the Ramayana epic. Today *kecak* is widely popular, and performed for tourists in every region of Bali, along with other subsequently created secular arts that exist primarily for entertainment.

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BIBLIOGRAPHY:

Allen, A.S (2011a) 'Ecomusicology: Ecocriticism and musicology (Colloquy)', *Journal of the American Musicological Society* v64 n2: 391-394

----- (2011b) 'Prospects and Problems for Ecomusicology in Confronting a Crisis of Culture (Colloquy)', *Journal of the American Musicological Society* v64 n2: 414-419

----- (1990) 'Can Siberut be Saved', *Cultural Survival Quarterly Magazine*: <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/can-siberut-be-saved> — accessed 17th August 2017

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

Anonymous (2002) *Hylobates klossii*, Wisconsin Primate Research Center, 'Kloss gibbon (*Hylobates klossii*)', Primate Info Network, online: http://pin.primate.wisc.edu/factsheets/hylobates_klossii.html — accessed 22 June 2017

Anonymous (2010) 'Sea-level Rise in the Indian Ocean Differs by Region and Low-lying Pacific Reef Islands can Grow or Shrink in Size Depending on Conditions', United Nations Environmental Program; Environment for Development, online: http://na.unep.net/geas/getUNEPPageWithArticleIDScript.php?article_id=56 — accessed 22nd June 2017

Anonymous (2015) 'Unlocking Tsunami Secrets: Mapping Disaster Risks for Western Sumatra', Research Center for Geotechnology, LIPI, online: <http://geotek.lipi.go.id/> — accessed 22nd June 2017

Anonymous (2016) 'Mentawai', *Ethnologue: Languages of the World*, online: <https://www.ethnologue.com/language/mwv> — accessed 22nd June 2017

Arifin, S, Malano, N and Kasim, Y (1992) *Fonologi bahasa Mentawai*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Jakarta: Departemen Pendidikan dan Kebudayaan

Barkin, E and Burman-Hall, L (1993) *Music in Bali*, Pacific Rim Research Project Phase II, Bali, Indonesia (August 1990) (co-producer and videographer; with Elaine Barkin [UCLA])

Brainard, M.S and Doupe, A.J (2002) 'What songbirds teach us about learning' *Nature* v417 (6886): 351–358

Burman-Hall, L (2000) *Prima: New Music from Bali*, Indonesian new music compositions by I Nyoman (Komang) Astita, I Wayan Rai, and I Wayan Suweca and environmental sounds: <http://www.gamelan.org/catalog/cassettes.shtml>

----- *Bilou Sapiens* (201b) 'Wise Bilou' Bio-music composition using taped sounds of mated female *bilou* duets and other Mentawai primates, assisted by Baroque flutists Lars Johannesson and Alissa Roedig. *Santa Cruz Baroque Festival #4* (15th April), Music Center Recital Hall, University of California, Santa Cruz

----- *Suara Bettina* (2011a) 'Female Voices', Bio-music composition using taped sounds of mated female *bilou* duets and other Mentawai primates, Women's Voices Concert (15th April), Santa Cruz New Music Works

----- and Tenaza, R.R (forthcoming) *Mentawai: Listening to the Rainforest*, Experimental multimedia collaboration - a surround sound meditation on endangered primates and their habitat (53 minutes)

Clarke E, Reichard U.H, and Zuberbühler K (2006) 'The Syntax and Meaning of Wild Gibbon Songs', *PLoS One* v1 n1: e73 (<http://dx.doi.org/10.1371/journal.pone.0000073>)

Dawson, H (2012) 'Archaeology, Aquapelagos and Island Studies', *Shima: The International Journal of Research into Island Cultures* v6 n1: 17-21

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

Dooley, H.M and Judge, D.S (2015) 'Kloss Gibbon (*Hylobates klossii*) Behavior Facilitates the Avoidance of Human Predation in the Peleonan Forest, Siberut Island, Indonesia', *American Journal of Primatology* v77: 296-308

Dooley, H.M, Judge, D.S and Schmitt, L.H (2013) 'Singing by male and female Kloss gibbons (*Hylobates klossii*) in the Peleonan Forest, Siberut Island, Indonesia', *Primates* v54: 39-48.

Ethnologue (2016) 'Mentawai': <https://www.ethnologue.com/language/mwv> - accessed 17th August 2017

Feld, S (1990) *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression* (Second Edition), Philadelphia: University of Pennsylvania Press

Feld, S and Brenneis, D (2004) 'Doing Anthropology in Sound', *American Ethnologist* v31 n4: 461-474

Feldman, J.A (1998-1999) 'The Call of the Dead: Gibbons in the Art of Mentawai, Indonesia', *Journal of the Iris & B. Gerald Cantor Center for Visual Arts at Stanford University* v1: 47-54

Fitch, W.T (2006) 'The biology and evolution of music: A comparative perspective', *Cognition* v100: 173-215

Geissmann, T (2002) 'Duet-splitting and the evolution of gibbon songs', *Biological Reviews* v77: 57-76

---- (2000) *Gibbon Research Lab*, <http://www.gibbons.de/main/index.html> — accessed 17th August 2017

---- (1999) 'Duet songs of the siamang, *Hylobates syndactylus*: II. Testing the pair-bonding hypothesis during a partner exchange' *Behaviour* v36: 1005-1039

---- (1993) '*Evolution of communication in gibbons (Hylobatidae)*', unpublished PhD thesis, Anthropological Institute, Philosoph. Faculty II, Zürich University (English text, German summary)

---- (1984) 'Inheritance of song parameters in the gibbon song, analysed in 2 hybrid gibbons (*Hylobates pileatus* × *H. lar*)', *Folia Primatologica* v42: 216-235

Geismann, T and Orgeldinger, M (2000), 'The relationship between duet songs and pair bonds in siamangs, *Hylobates syndactylus*', *Animal Behavior* v60 n6: 805-809

Gray, Patricia M, et al (2001) 'The Music of Nature and the Nature of Music' *Science* v291 n5501: 52-54

Grimley, D (2011) 'Music, Landscape, Attunement: Listening to Sibelius's *Tapiola* (Colloquy)' *Journal of the American Musicological Society* v64 n2: 294-398

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

Hau'ofa, E (1993) 'Our Sea of Islands' in Waddell, E, Naidu, V and Hau'ofa, E (eds) *A New Oceania: Rediscovering Our Sea of Islands*, Suva: University of the South Pacific: 2-16

Hayward, P (n.d.) 'SICRI Background and Mission', (Small Island Cultures Research Initiative) SICRI Network, online: <http://sicrinetwork.org/> — accessed November 2016

---- (2012) 'Aquapelagos and Aquapelagic Assemblages', *Shima: The International Journal of Research into Island Cultures* v6 n1: 1-10

---- (2005) 'Culturally Engaged Research and Facilitation: Active Development Projects with Small Island Cultures', in Evans, M (ed) *Proceedings of the First International Small Island Cultures Conference*, Sydney: Small Islands Cultures Research Initiative: 55-60

Huizen, J (2016) 'One ape, two ape: why counting apes is so difficult — but crucial', *Mongabay Series: Great Apes*, 19th April, online: <https://news.mongabay.com/2016/04/one-ape-two-ape-counting-great-apes-difficult-crucial/> — accessed 17th August 2017

IUCN (International Union for Conservation of Nature) (nd) 'Red List of Threatened Species': <http://www.iucnredlist.org/search> - accessed August 16th 2017

Jensen, G and Suryani L.K (1993) *Trance and Possession in Bali: A Window on Western Multiple Personality Disorder and Suicide*, New York: Oxford University Press

---- (1992) *The Balinese People: A Reinvestigation of Character*, Oxford University Press

Keith, S with Waller, M.S and Geissmann, T (2009) 'Vocal Diversity of Kloss's Gibbons (*Hylobates klossii*) in the Mentawai Islands, Indonesia' in Whittaker, D and Lappan, S (eds) *The Gibbons: New Perspectives on Small Ape Socioecology and Population Biology, Developments in Primatology: Progress and Prospects*, New York: Springer Publishing: 51-71

Krutak, L (n.d.) 'Tattoo Anthropologist', online: <http://www.larskrutak.com/> — accessed 17th August 2017

Kruyt, A.C (1923) 'De Mentawaiers', *Tijdschrift voor Indische Taal. - Land.- en Volkenkunde* v64: 61-62

Lepage, D (2017) 'Mentawai Archipelago', online: <https://avibase.bsc-eoc.org/checklist.jsp?region=IDstbame> — accessed 17th August 2017

Loeb, E.M (1929) 'Mentawai Religious Cult', *University of California Publications in American Archaeology and Ethnology* v25 n2: 185-247

Marcoux, A (2004) 'Hylobates klossii: Kloss's gibbon', Animal Diversity Web, University of Michigan Museum of Zoology, online: http://animaldiversity.org/accounts/Hylobates_klossii/ — accessed 20th April 2017

Marier, P and Tenaza, R.R (1977) 'Signaling behavior of apes with special reference to vocalization', in Sebeok, T.A (ed) *How Animals Communicate*, Bloomington and London: Indiana University Press: 965-1033

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

Mentawai.org (nd) 'Historical background: History and Prehistory of the Mentawai Islands': <http://www.mentawai.org/miscellaneous-articles/historical-background-history-and-prehistory-of-the-mentawai-islands/#ixzz4MRBlf9iO> - accessed 18th August 2017

Mitchell, A and Weitzel, V (1983) 'Monkeys and Men in the Land of Mud': https://s3.amazonaws.com/academia.edu.documents/43672949/mud.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1503283165&Signature=AOy8VntFHwATNKV3r1BSz34GA%2Bc%3D&response-content-disposition=inline%3B%20filename%3DMonkeys_and_Men_in_the_Land_of_Mud_1983.pdf - accessed 17th August 2017

Nattiez, J and Dolphin, J (1983) 'Sound and Sentiment by Steven Feld — Book Review', *Yearbook for Traditional Music* v15: 173-177

Nettl, B (1984) 'Sound and Sentiment by Steven Feld — Book Review', *American Ethnologist* vii n2: 394-395

Nooy-Palm, CHM (1972) 'Mentaweians', in LeBar, F (ed) *Ethnic Groups of Insular Southeast Asia* vi: 41-44

Nooy-Palm, H (1968) 'The Culture of the Pagai-islands and Sipora, Mentawai', *Tropical Man* vi: 61-62

Pediatama, T, Syukriani, Y and Shahib, (2014) 'Mitochondrial DNA Analysis of the Mentawai Population', 6th International Conference on Bioinformatics and Computational Biology – BICoB, online: https://www.researchgate.net/profile/Todia_Pediatama/publication/261027725_Mitochondrial_DNA_Variation_Analysis_of_Mentawai_Population/links/02e7e533be923a1b83000000.pdf — accessed 17th August 2017

Petkov, CI and Jarvis, E (2012) 'Birds, primates and spoken language origins: behavioral phenotypes and neurobiological substrates', *Frontiers in Evolutionary Neuroscience* v4 n12: 125-148

Prayoga, R (2004) 'Siberut Biosphere Reserve Project Plan; to conserve forest, water and 2004 culture in a threatened island', *Conservation International Indonesia*, online: http://www.rareplanet.org/sites/rareplanet.org/files/Rully-Plan_05-01.pdf — 17th August 2017

Pullella, P and Marsh, S (2015) 'Pope calls for new economic order, criticises capitalism', *UK Reuters*, 10th July: <http://uk.reuters.com/article/uk-pope-latam-bolivia-poor-idUKKCN0Pjh29520150710> — accessed 17th August 2017

Reeves, G (nd-1) 'Historical Background: History and Pre-History of the Mentawai Islands', *Mentawai.org*, online: <http://www.mentawai.org/miscellaneous-articles/historical-background-history-and-prehistory-of-the-mentawai-islands/#ixzz4MRBlf9iO> — accessed 17th August 2017

---- (nd-2) 'Preface: General Information and Preliminary Issues', *Mentawai.org*, online: <http://www.mentawai.org/anthropology-92-93/mentawai-general-information->

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

culture/#ixzz4MRKTIllqas — accessed 17th August 2017
Scheffold, R (2002) 'Mentawaians', in *Encyclopedia of World Cultures Supplement*, Farmington Hills: The Gale Group

---- (1989) 'The Origins of the Woman on the Raft: On the prehistory of the Mentawaians' in Wagner, W (ed), *Mentawai Identitaet und Wandel auf Indonesischen Ausseninseln*, Bremen: Veroeffentlichungen aus dem Uebersee-Museum Bremen Reihen C Deutsche Geographische Blaetter, v5: 1-26

---- (1979) *Speelgoed voor de zielen: kunst en cultuur van de Mentawai Eilanden*, Delft: Volkenkundig Museum Nusantara

Scheffold, R and De Jonge, N, with Dekker, V (eds) (1991) *Indonesia in focus: Ancient traditions, modern times*. London: Kegan Paul

Scheffold, R and Nas, P.J.M (eds) (2009) *Indonesian Houses: Survey of Vernacular Architecture in Western Indonesia: Vol 2*, Leiden: KITLV

Schlegel, S (1979) *Tiruray Subsistence: From Shifting Cultivation to Plow Agriculture*, Manila: Ateneo de Manila University Press

Seeger, A (1979) 'What Can We Learn When They Sing? Vocal Genres of the Suya Indians of Central Brazil', *Ethnomusicology*, v23 n3: 373-394

Silvers, M (2015) 'Birdsong and a Song about a Bird: Popular Music and the Mediation of Traditional Ecological Knowledge in Northeastern Brazil', *Ethnomusicology* v59 n3: 380-397

Suwa, Jun'ichiro (2007) 'The Space of Shima', *Shima: The International Journal of Research into Island Cultures* v1 n1: 6-14

Stratford, E, Baldacchino, G, McMahon, E, Farbotko, C and Harwood, A (2011) 'Envisioning the Archipelago', *Island Studies Journal* v6 n2: 113-130

Tenaza, R.R (1975a) 'The functions and taxonomic implications of singing among Kloss's gibbons (*Hylobates klossii*) in Mentawai Islands', *American Journal of Physical Anthropology* v42 n2: 334

---- (1975b) 'Territory and monogamy among Kloss' gibbons (*Hylobates klossii*) in Siberut Island, Indonesia', *Folia Primatologica* v24: 60-80

---- (1976) 'Songs, choruses and countersinging of Kloss' gibbons (*Hylobates klossii*) in Siberut Island, Indonesia', *Zeitschrift für Tierpsychologie* v40: 37-52

Tilson, R.L (1981) 'Family Formation Strategies of Kloss' Gibbons', *Folia Primatologica* v35: 259-287

Tulius, J (2012) 'Family Stories: Oral Tradition, Memories of the Past, and Contemporary Conflicts over Land in Mentawai – Indonesia', (unpublished) PhD thesis, Leiden: University of Leiden, online: <https://openaccess.leidenuniv.nl/handle/1887/20262>

Burman-Hall: Only in Mentawai – Unique Primate Vocalisations and Songs

----- (2017a) 'Contemporary contentions of ancestral land rights among indigenous kin-groups in the Mentawai Islands in Indonesia', *Heritage and Rights of Indigenous People*, Leiden, KITLV: 91-122, 285-286

Tumonggor, M.K et al. (2013) 'The Indonesian archipelago: an ancient highway linking Asia and the Pacific', *Journal of Human Genetics* v58: 165-73

Unattributed (nd) 'Tropical Rainforest Heritage of Sumatra', World Heritage Convention: UNESCO, online: org: <http://whc.unesco.org/en/list/1167> — accessed 22 June 2017

van Gulik, R (1967) *The gibbon in China; An essay in Chinese animal lore*, Leiden: Brill

Wickler, W and Seibt, U (1982) 'Song splitting in the evolution of duetings', *Zeitschrift für Tierpsychologie* v59: 127-140

Wickler, W and Whitten, J.E.A (1980) 'Saving Siberut: A Conservation Master Plan', Bogor: World Wildlife Fund

Whittaker, D.J (2005a) 'Evolutionary Genetics of Kloss's Gibbons (*Hylobates klossii*): Systematics, Phylogeography, and Conservation', (unpublished) PhD thesis, New York: City University

----- (2005b) 'New population estimates for the endemic Kloss's gibbon *Hylobates klossii* on the Mentawai Islands, Indonesia', *Oryx, the International Journal of Conservation*, v39 n4: 458-461

Whitten, A.J (1982a) 'The ecology of singing in Kloss gibbons (*Hylobates klossii*) on Siberut Island, Indonesia', *International Journal of Primatology* v3 n1: 33-51

----- (1982b) 'Diet and feeding behaviour of Kloss gibbons on Siberut Island, Indonesia', *Folia Primatologica* v37: 177-208

Whitten, T (A.J) (1982) *The Gibbons of Siberut*, London, Melbourne and Toronto: Dent and Sons

Wilting, A et al (2012) 'Mentawai's endemic, relictual fauna: is it evidence for Pleistocene extinctions on Sumatra?', *Journal of Biogeography* v39: 1608-1620

Ye, S and Heule, F (2013) 'An Evaluation of Robert van Gulik's *The Gibbon in China* and its Place in Modern Sinological Discourse', *Southeast Review of Asian Studies* v35: 141-160

DISCOGRAPHY

Schefold, R and Persoon, G (2009) *Songs from the Uma; Music from Siberut Island (Mentawai Archipelago), Indonesia*, 2 CD set

Yampolsky, Philip (1995) *Music from the Forests of Riau and Mentawai*. Music of Indonesia, v7, Smithsonian Folkways

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