

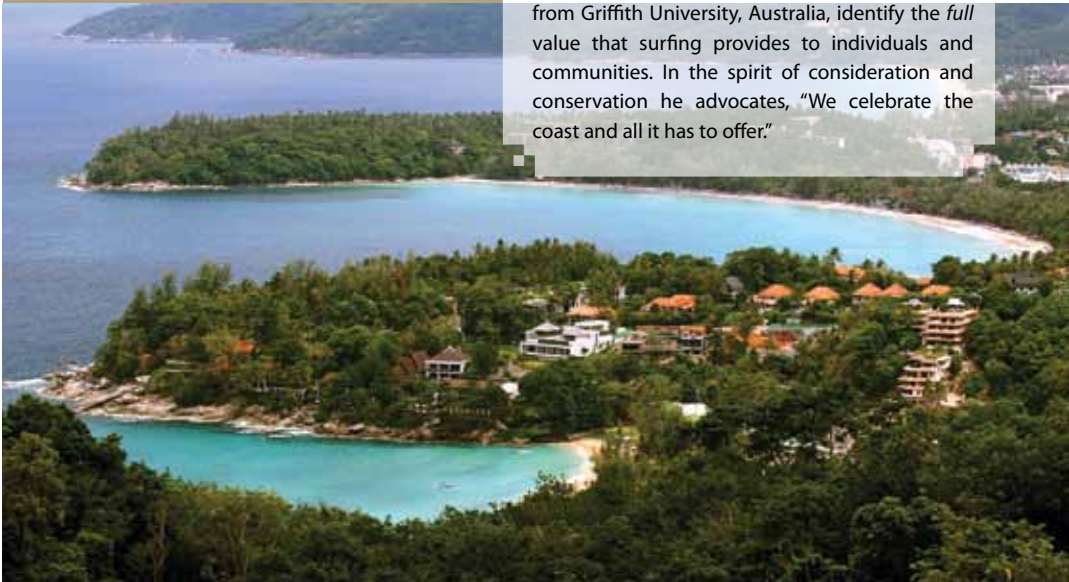
Surfing and Coastal Resource in THAILAND

The tropical resort island of Phuket Thailand has exotic beaches, a dynamic tourism economy, and a distinct new surfing culture. In recent years, recreational surfing in Phuket has gained rapid popularity—it has also gained attention in domestic and international magazines and on the internet. Nonetheless, Thailand's Andaman Coast remains a mysterious and nostalgic place—in the minds of the people who make up the tapestry of coastal cultures—and in the memories of the tourists who come each year.



By Steve Andrew Martin
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The sport of surfing is fundamentally dependent on limited *coastal resources* which are more than physical and tangible settings—they encompass the people who interact with the coastal environment and each other. From the perspective of sustainability and conservation, coastal resources are normally discussed in the scheme of *Coastal Resource Management (CRM)*. CRM is an increasingly in-style field of study which integrates our understanding of natural and human elements, much like the discipline of geography includes physical and human geography. Researchers, such as Neil Lazarow from Griffith University, Australia, identify the *full* value that surfing provides to individuals and communities. In the spirit of consideration and conservation he advocates, "We celebrate the coast and all it has to offer."



The Littoral

The littoral is generally considered as the place where the land meets the sea—a shifting, dynamic, and unpredictable zone in a constant state of flux. Unrelenting change, in terms of weather, waves, tides, life systems, and natural disasters, make the littoral a majestic no-man’s land—one that is increasingly difficult to understand from the CRM perspective. Consider that coastal zones contain rich resources, produce goods and services, are home to considerable commercial and industrial activities, and provide for tourism and outdoor recreational activities, such as surfing. Surfing depends on how coastal geography and weather patterns cause waves to break near beaches and reefs, and quality surfing waves are animated natural phenomena—never the same two days in a row.



Surfing waves on the Andaman Coast

Andaman Coast

The 739-kilometer Andaman Coast has been a lively area of research and discussion for some time, especially after the 2004 Banda-Aceh Tsunami, when individuals, organizations, and governments devoted great attention to the region. Hotly debated research topics continue to include community reconstruction, tsunami warning systems, tourism development, industrial development, fisheries, aquaculture, water quality and pollution, environmental degradation, coastal erosion, mangrove deforestation, habitats, hazards, marine debris, public access, climate change, and coral reef sustainability. Thailand’s coastal resources face intense natural changes, as with the tsunami and periodical events of coral bleaching, while human activities impose other pressures on the natural environment in coastal zones.



Surfing waves on Karon Beach—Phuket

In January 1988, the Socio-economic Policy and Forecasting Unit (SEPF) at Chulalongkorn University completed an in-depth study titled *Coastal Resource and Tourism in Phuket* for Thailand’s Office of National Environment Board (ONEB). As an unprecedented field research, the study surveyed the littoral of Phuket, with a focus on the implementation of tourism planning and infrastructure as a substitute for previous critical economic activity, namely tin mining. Fisheries (including aquaculture) and agriculture (mainly rubber, coconut, and pineapple) were found to be complimentary to tourism, inasmuch as they provide seafood and produce for hotels and restaurants on the island.



Tin Mining and the Coastal Environment

The Andaman coast has experienced two irreversible events severe to the coastal environment—one a result of human activity—the other a result of natural calamity. First there was offshore tin mining which degraded coral reefs and seawater quality, and secondly, there was the wicked Banda-Aceh Tsunami, which devastated the Andaman's coastal resources, including some surfing environments.

For most of the 20th century, tin mining was carried out extensively on coastal lands and waters in Thailand. A 1988 study by Hansa Chansang called *Coastal Tin Mining and Marine Pollution in Thailand* showed that offshore dredging along the Andaman Coast resulted in marine pollution in two ways: first the direct physical destruction of the environment; secondly, the pollution attributed to suspended mine tailings, which increased the murkiness [turbidity] of coastal waters and the smothering of organisms in near-shore areas. The study identified that the mining activity and tin wastes severely damaged local open-water ecosystems and coral reefs. The research also points out that there was some relief during the monsoon season when various reefs partially recovered following the natural removal of sediment by the surf and ocean currents. The surf and winds of the monsoon actually provided reef relief by washing the reef and by preventing the tin barges from working at sea.

When Captain Edward Thomas Miles invented a tin mining boat in 1909, Phuket became first place in the world where tin mining operations engaged marine vessels for dredging ore from the sea bed. Between 1975 and 1985, global tin mine economics stagnated, yet in 1981 there were over 6000 small boats operating in the Andaman Coast province of Phang-nga. With the decline of the mining sector, the Tourism Authority of Thailand (TAT) announced plans to develop Phuket into a major center of tourism. In 1983, the government established the *Seawater Standards for Bathing* act in order to conserve the coral reefs at Bang Tao and the Andaman Coast. Indeed, the reef at Bang Tao was once nicknamed *Tin Smelter Reef*.



Offshore Tin Mining
(Source: Phuketdata.net)

Mining on the Andaman Coast was pervasive in the provinces of Phuket and Phang Nga—the very ones which receive the best and most consistent wave activity for surfing in Thailand. Long-time resident surfers recount that many years ago, when off-shore tin mining was still practiced in Phuket, the water quality was worse than today.

Tsunami and the Coastal Environment

The 2004 tsunami was an unprecedented blow to the natural environment, devastating Andaman coastal resources as never before—killing over 6000 people, destroying boats and buildings, overturning corals, knocking-down mangrove forests, and swamping the littoral with high concentrations of salt (salt invasion). The tsunami damaged many of Thailand's surfing areas, and made it obvious how vulnerable the littoral is.

The Andaman coast was virtually scoured by the tsunami, and many beaches and surf sites were wrecked. Perhaps the most ruined area known for surfing was Pakarang (Reef) Point in Khao Lak, which had been a haven for expatriate surfers. Surfer-journalist Matt Blauer explains that the entire point was stripped clean of all sand and coral deposits, and enormous corals were ripped up and thrown onshore. The surfing areas at Pakarang Point were drastically altered, and one surfer, 53-year-old David "Taxi Dave" Samman died while building his retirement home at the time of the tsunami. Over the past 5 years, sand and coral deposits have been slowly returning, and no less than four surfing areas are again surfable, to some extent.

It may go without saying that the tsunami has left an indelibly negative international image of 'waves' in Thailand, while at the surface level, there is a deeper image embedded in the lives of people with direct personal experience. Five years on, coastal communities are easily upset and jumpy at the news of regional earthquakes and misunderstandings related to the tsunami warning system information, including the periodic wailing of new tsunami sirens which stand like towering sentinels along the coast. Blauer remembers in 2009, when news of an earthquake in Indonesia mistakenly provoked villages in the Khao Lak area to evacuate, resulting in traffic jams and car accidents.



Pakarang Point
before and after the Banda-Aceh Tsunami

Marine Debris

Arguably, human interaction with nature, such as surfing, feeds our minds, bodies, and spirits. Yet the surfer's connection to the ocean can be threatened by pollution, such as *marine debris*, the technical term for trash or rubbish introduced to the ocean environment. Because surfers are in, on, and sometimes under the water, they are among the first to notice contaminated waters and to encounter marine debris at the coastal zone. Thus, they are often on the forefront of environmental issues. Surfers have founded numerous not-for-profit organizations (NPOs), such as The Surfrider Foundation, The Groundswell Society, The Save the Waves Coalition, Surf Aid International, Waves for Development, and Surfers Against Sewage Ltd., to name a few.

In a graduate study I conducted on the Andaman Coast from 2007 to 2009, thousands of plastic materials were identified in the surf or washed up along the coast by various informants. Collective analysis indicated that 75% had Thai language printed on the material, 5% had various Indonesian languages, 5% had Burmese, and the remaining 15% had no identifiable markings. Exceptions include a beach cleanup alert posted by the Phuket Boardriders website in late August 2008, when the trash collected was predominantly from Indonesia.

This research has led to the conclusion that materials coming from far offshore appear degenerated and algae-covered due to their extended time at sea, whereas materials originating from local canals and coastal sources appear newer and were probably quite recently introduced to the environment. Lutz Mueller, the General Manager of Marriott's Courtyard Hotel in Kamala in 2009, says that "the rubbish originates from three sources: local businesses, picnickers [park users], and the trash that washes in from the sea." Luke Remmers, a volunteer surf instructor adds, "During the early part of the monsoon season the trash is mainly from local sources, but as the large storm systems come up from the south later in the season, they bring the foreign garbage which may have barnacles stuck to it." Michele Williams with the Mai Kao Turtle Foundation, who has initiated beach clean-ups since 2004, has witnessed how the primary source of the marine debris is the "Careless rubbish disposal by people on boats and on the beach."



Marine debris with Indonesian labeling

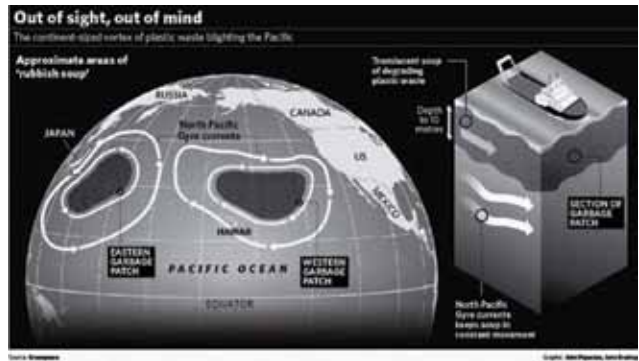
During the Andaman high season when the vast majority of tourist arrivals occur (December through February), the predominant easterly winds carry the marine debris out to sea and away from the Thai coast. Rains are less frequent this time of year and runoff from the land and overflow from coastal canals nearly stops. As a result, coastal waters appear clear and blue while the tourists are here. However, when the southwest monsoon kicks up the following April, the tourists go home and the marine debris and turbidity return to Phuket. Furthermore, fishermen and mariners who pass through the shipping lanes to Burma have reported to me that there are enormous patches of plastic waste floating in the middle of Andaman Sea "like a big rubbish soup." This indicates that what is experienced by surfers and washes up on the beaches is a mere fraction of the problem.



Marine debris with Thai labeling

Community beach clean-up in Phuket

As an example, the following diagram shows garbage patches recently documented by Greenpeace in the Central Pacific.



Coral Reefs

Coral reefs, as a coastal resource for tourism and the economy, are key to activities such as snorkeling, diving, fishing, and recreational surfing. As with other tropical areas, surfing waves in Thailand mainly occur either on beaches (beach breaks) or on coral reefs (reef breaks). The depletion of coral in Thailand is widespread and has been attributed to human activities, such as tin mining, hotel construction, and private and commercial coral collection. Although the imposition of legal control measures by the Thai authorities has curtailed the coral trade, the SEPF (1988) reported that “backdoor trade” in coral, on both the small and large scale continues. Recent articles in the *Phuket Gazette* have reported on the arrest of contemporary coral poachers. Chris Dunbar, an oceanographer in Phuket, stresses that in the wake of the Banda-Aceh tsunami there are a number of issues involving the Andaman reefs and fisheries, and organizations are working cooperatively to support biodiversity conservation, sustainable coastal management, and sustainable economic activities.



Long Tail Fishing Boats

Marine debris in the Pacific
(Greenpeace)

Cultural Seascape

Thailand’s cultural seascape includes the lives and social fabric of the people who make up the tapestry of coastal communities. An adventurous surfer is likely to encounter the cultural diversity of the Thai littoral, including Thai, Thai-Chinese, Thai-Muslim, and the *Chao Lay* (more commonly known as the *Sea Gypsies*). *Chao Lay* is the title the King of Thailand gave all the indigenous peoples of the Thai littoral whose different ethnic groups and clans encompass a myriad of languages and histories. Matt Blauer suggests that, although these ethnic groups, such as the *Moken*, may identify with the term *Chao Lay*, and are more or less proud of that, the Thai fishermen here do not consider themselves *Chao Lay*. “It’s okay to assume that an indigenous *Chao Lay* is a fisherman, but not to assume a fisherman is *Chao Lay*; nor is it correct to assume *Chao Lay* are *Moken*, because there are many ethnic groups other than the *Moken*. This is similar to assuming that all ethnic groups in Burma are Burmese.”

Thailand’s cultural seascape is under increasing pressure in the wake of the tsunami and the tide of tourism. Whereas scores of coastal inhabitants lost their families, dwellings, or fishing boats in the waves, they continue to cope with the changes in habitat and livelihood that accompany coastal development. Nevertheless, there is a

new and unanticipated wave on the Thai coast—Surf entrepreneurship. The genesis of surfing in Thailand led to businesses rethinking the monsoon and re-identifying the low/rainy season as surf/summer season. In Phuket, surfboard rental stands have sprung up like mushrooms in recent years. Surfing is a new image on the Thai cultural seascape.

Coastal Resource and Conservation

Coastal resources in Thailand have endured environmental pressures from human activities and natural calamities, including the tsunami, tin mining, and tourism. For surfers, we cannot help but face environmental issues. As oceanographer Chris Dunbar put it, “The surfers know; they are out there in the water.” When we surf, the seawater gets in our eyes, ears, and up our noses. Surfers have intimate contact with coastal resources, such as water quality, coral reefs, fisheries, and the cultures which inhabit the changing littoral.

Recreational surfing in Thailand is inextricably linked to the discussion on coastal resources—in terms of the physical and human environments—and in our concerns for clean waters, beaches,



reefs, and for public education and community action. In recent years, and as an innovative example, Coastal Resource Management in Australia has expanded to include the conservation of surfing areas as marine-protected *surfing reserves*. In Australia, the protection of surfing areas, as natural and valuable assets, receives strong community and governmental support. I would like to suggest that surfer and non-surfer alike can recognize the dynamic and fragile nature of the Thai littoral, and join in the conservation of invaluable visual, biological, and recreational *coastal surfing resources*.

Abbreviated references and further reading:

(Ruyabhorn and Phantumvanit, 1988); (Chansang, 1988); (Socio-economic Policy and Forecasting Unit [SEPF], 1988); (Martin, 2008, 2009); (Lazarow, 2008, 2009); (Farmer & Short, 2007); (Green Peace, 2009); (Phuketdata.net); (Phuket Gazette, 2009). **Interviews:** (Blauer, 2009); (Remmers, 2008); (Mueller, 2009); (Williams, 2009); (Reynolds, 2008); (Dunbar, 2009)

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