Giant Spider Conch (*Lambis truncata sebae*).
Sea of Shells

A photographic study by Christer Lindberg
With an essay by Thomas Malm

Transco-Script
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Thomas Malm, born 1960, is a biologist and anthropologist, and Professor of Human Ecology at Lund University, Sweden. He has travelled widely in Oceania - his 'Sea of Shells' - since 1983. It was during fieldwork there that he amassed the bulk of shells shown in this book. His award-winning dissertation, Shell Age Economics - Marine Gathering in the Kingdom of Tonga, Polynesia (1999), was the first monograph about the cultural significance of marine invertebrates in the Pacific islands.
The sky is a shell,
Earth is a shell,
The shell of man is woman,
For by her he enters this world.

Tahitian song of creation
**Introduction**

“Here, with a board for a table, and a shell for an inkstand, I wrote an account of what I had passed through ...” James Oliver, a poor shipwrecked sailor in Fiji, dipped his pen in the ink and began his dramatic narrative.

Today, almost two hundred years later, we write these lines on the keyboard of a computer, and no inkstand is to be seen on our desk. But seashells decorate it; they still fascinate people and are utilized in manifold different ways, as they have since the dawn of the human race. The Fijians used them, and so did Oliver the sailor. This is a book about the beauty of these jewels from the ocean.

Throughout history, the shapes and lustre of seashells have inspired many a poetic mind. Shells lend themselves remarkably well as metaphors for life, moods, and personalities. Some of us are open, others are closed like oysters. And if we can hear a sound that we imagine to be the sea, when we hold a shell to our ear, it is because of a structure in our internal ear named after the Greek word for spiral shell: the cochlea. The old Tahitians used to say that everything in this world has a shell. Perhaps they were right.

Nina Möller and Frederik von Pallandt, ‘Listen to the Ocean’ (1960)

Chambered Nautilus (*Nautilus pompilius*), Giant Marlin Spike (*Terebra maculata*), and Tiger Cowrie (*Cypraea tigris*).
Sea Shell, Sea Shell,
Sing me a song, O Please!
A song of ships, and sailor men,
And parrots, and tropical trees.

Amy Lowell, ‘Sea Shell’ (c. 1920)
The world began as a shell, and a shell it remains. So the Tahitian chant of creation tells us. Taaroa, the ancestor of all gods, had been living in darkness, enclosed in a shell. One day he struck out, and the shell cracked and opened. Taaroa called out, but the world was void, and only his echo replied. From one piece of his shell he then made the dome of the sky, from other pieces rocks, sand, and the ocean, and it was shells that he used for making the stars:

The great and wonderful universe,
That is nothing but Taaroa’s shell,
He it is that gives it life in perfect order.

As Taaroa had shells, so everything in this world has a shell, the people of Tahiti said. The land is a shell its plants, stones, and water – and the shell of all humans is the woman, since it is from her that we come forth. Hence, the song concludes, “no one can name the shells of all things that are in this world.”

It was to become my “fate” to study some aspects of that wonderful order of land and sea, and Tahiti was the first South Sea island where I set foot. But long before that, for me too, it all started with a shell …

I remember the soft, murmuring call of a distant coral sea. My uncle held the opening of a helmet shell close to my ear, and I could have concurred with the lyrics of R. Alex Anderson’s ‘Haole Hula’:

I hear the swish of rain as it sweeps down the valley.
I hear the song of wind as it sighs through the trees.
I hear the crash of waves on the rocks and the beaches.
I hear the hissing surf and the boom of the seas.

I do not know where my uncle had purchased the seashell. Neither do I know exactly where it had once been picked, because this species (Cypraecassis rufa) has a wide distribution in the Indian and Pacific
Black-lipped Pearl Oyster (Pinctada margaritifera).

Oceans. But I was sure that it must have been in a tropical lagoon like the one I had seen in a series of television programs about a Swedish family that went to Polynesia.

I was about five years old at the time. My mother has reminded me that when I was even younger than that, I often asked her to sing a song about a barefoot boy who picked shells in the hot sand. To identify with him was easy, even though I lived in an inland town surrounded by dark forests, because I spent the summers by the coasts of Sweden and Denmark together with my parents. The shells, starfish, and crabs that we found there captured my interest, and searching for animals or their empty exoskeletons at the waterside has been one of my favorite pastimes ever since. I took my first steps towards becoming a scientist while wading there, with a bucket and bag net in hand.

Some readers may give a smile of pity at this assertion, but to me it is a comforting thought that the father of modern science, Sir Isaac Newton, must have had a similar reflection in mind when, towards the end of his life, he looked back at his early days as a man of learning and said:

I was like a boy on the sea-shore, and diverting myself now and then finding a smoother pebble or prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.

One truth that I was to learn, as I grew up, was that what I had heard from the shell was not a call of the ocean, but an echo of other sounds enhanced through the enameled coils that had once harbored a living animal, a mollusk, crawling over the sand on its foot and producing the shell with its mantle. Nevertheless, thus began my dream about the sunlit islands of
Oceania and the wonders of a blue lagoon far beyond the lakes and beaches of our northern realm. Thanks to a number of writers I also came to understand that I was certainly not the only one smitten with this long to travel:

There is in the nature of every man, I firmly believe, a longing to see and know the strange places of the world. Life imprisons us all in its coil of circumstance, and the dreams of romance that color boyhood are forgotten, but they do not die. They stir at the sight of a white-sailed ship beating out to the wide sea; the smell of tarred rope on a blackened wharf, or the touch of the cool little breeze that rises when the stars come out will waken them again. Somewhere over the rim of the world lies romance, and every heart yearns to go and find it.

I read those words by Frederick O’Brien in White Shadows in the South Seas (1919), one of the many books that I borrowed at the public library. Little did I know then that in years to come, I was going to experience not only one but many lagoons as blue as anything that I had ever seen in my reverie.

Ahead of me were several journeys to islands with names that sounded as if they had been coined for singing. Bora Bora, Rarotonga, Tongatapu, Savaii, Waya, Oahu, and Pohnpei are some of those upon whose reefs and shores I have strolled in search of nacreous gems. There, by my own hands or from local

Banded Engina (Engina zonalis).
vendors, I amassed the bulk of shells and shell artifacts in my collection.

This is certainly not the only thing I have spent my time doing in the Oceanic archipelagoes, but it has enriched me as a traveler and researcher. I longed to do it as a boy, and I long to do it again, for mine is an ever alluring sea of shells.

Like Pablo Neruda – Chilean poet and Nobel laureate, who had some 9,000 shells in his possession – I could say: “The best things I have collected in my life are my shells. They gave me the pleasure of their prodigious structure, the lunar purity of their mysterious porcelain.” He called them “small countries of mother-of-pearl” and described them as “immobile legacies imprisoned by a furious wave.” To him, the shell was a metaphor for the diversity of life within the boundaries of rigid mathematical proportions, a source of never ending enchantment.

I understand him, and many times, when I have held a gorgeous shell in my hand, I have also agreed with Robert Louis Stevenson, who once wrote: “It is perhaps a more fortunate destiny to have a taste for collecting shells than to be a millionaire.”

“No one can name the shells of all things that are in this world.” Dr. X, an authority on shells, would have agreed that this ancient Tahitian statement was literally true. He did not know the names of all mollusks, but the many that he knew were so precious to him that he became notorious for avoiding making new acquaintances. Behind his almost xenophobic behavior lay his fear that learning the name of a new person would inevitably result in him forgetting the name of a shell!

That anecdote may very well be true. It was told by a Swedish zoologist with the intention of making his readers realize that our cognitive abilities are limited, and that students of biodiversity therefore have to specialize. Malacology, or mollusk biology, is a field vast enough to allow for numerous subfields, and no one could possibly remember more than a fraction of the names of the world’s approximately 85,000 extant known species – and, without any doubt, many more await discovery.

A characteristic feature of these animals is their soft bodies to which the word ‘mollusk’ refers – mollis means ‘soft’ in Latin – and although not all of them have any exoskeleton, the majority does. Their bodies are interesting and can be colorful as well, sometimes
even tasty, but more than anything else about mollusks it is their shells - and, of course pearls - that have fascinated people all over the world. Already Aristotle studied them with the eyes of a biologist, and his great master Plato said in Phaedrus that “we are bound to our bodies like an oyster to its shell.”

Next to flowers, perhaps, it is hard to imagine an art-form of nature’s more universally beloved than a seashell. Even a broken shell can have a certain beauty, and shells that are unattractive when found may display the most exquisite patterns after cleansing or photographic magnification.

Artists, jewelers, poets, and architects have been inspired by the shapes of shells – Sydney Opera House is one example, the Waikiki Shell (an outdoor venue in Kapiolani Park) another. There are mathematicians who have marveled at the perplexity of their progressive coils, whereas psychologists have recommended shell-collecting as a way of soothing the mind. And from fascination is just a step away to sacredness.

The chank shell (Turbinella pyrum) is one of many species of religious significance. Hindus associate it with the god Vishnu, particularly if it (unlike most shells) is coiled counter-clockwise, seen from its apex,
and they use it for making blessed bangles. Vishnu, they explain, was once diving into the sea in order to rescue sacred writings that a demon had hidden in such a shell. As they hold a chank in their left hands, Brahmans recite the following prayer:

At the mouth of this shell is the God of the Moon …
In this chank is the chief of the Brahmans.
This is why we worship the sacred chank.
Glory to thee, sacred shell,
blessed by all the gods,
born in the sea,
and formerly held by Vishnu in his hand.
We adore the sacred chank
and meditate upon it.
May we be filled with joy!

There is something mysterious about these exoskeletons of mollusks and a seemingly endless variety of themes that interest ordinary collectors as well as specialists on evolutionary biology. The Mediterranean cone shells, for instance, are so variable in color and shape that they were given almost 200 different scientific names before anyone realized that they all referred to one and the same species (Conus mediterraneus)!

We shall never know when, where, or why a human’s attention was first drawn to a mollusk shell. Perhaps it was in a past so distant that this ancestor of ours could not even be considered as a human.

Since there are chimpanzee populations that use stones or pieces of wood to crack nuts open, it is reasonable to expect prehistoric hominids having been able to do the same with succulent mollusks that they found among the beach rocks before beginning to forage further out.

There are species of macaques and baboons that search for littoral clams and crabs, and western lowland gorillas routinely wade into swamps in forest clearings where they feed on aquatic herbs. Our closest primate relatives, the bonobos, have been observed feeding on aquatic plants, repeatedly immersing themselves in water up to the shoulders during the process and catching shrimps during bipedal wading.

The common notion that all monkeys and apes shun water is clearly wrong, so the hypothesis that a prehistoric population of hominids acquired semi-aquatic behaviors such as picking mollusks is by no means far-fetched.

For some reason, most experts on human evolution do, however, not even wish to hear about an
alternative to the prevalent theory that prehistoric apes gradually transformed into more human-like species after having left the rain forest for a life on the African savannah. But others have suggested that it was through gathering in water that the characteristic human anatomy and physiology developed before human evolution proceeded in terrestrial habitats. Features such as upright stance, reduced fur, the layer of subcutaneous fat, sheltered nostrils, voluntary breath control, and the diving reflex – a redistribution of the circulating blood by selective vasoconstriction and a lowering of the pulse rate – might indicate a different scenario.

Perhaps we are descendants of primates that spent a considerable part of their time searching for food in aquatic environments, and even diving for it, during one prolonged phase in our evolution. Exactly why, when, and where – and, indeed, if – is a matter of debate, but it is a hypothesis well worth considering. I, for one, like to think that whenever I see myself mirrored in the surface of water while bending down to pick up a shell, it is a reflection of the very activity that made us human.

Be that as it may; an indisputable fact is, in any case, that the study of human prehistory frequently involves encountering shells. In the d’Arcy-sur-Cure Caves of Burgundy, France, for example, Neanderthals who once inhabited it left behind a collection of shells and fossilized corals. We also know that those early representatives of our own species, Homo sapiens, referred to as ‘Cro-Magnons’ adorned themselves with belts and head-bands of shell about 35,000 years ago. And evidently, some Neolithic people had food habits involving eating Lyrate Cockle (Lyrocardium lyratum), a species eaten in Oceania for thousands of years.
that we now associate with gourmets, because there are huge, more than 7,000 years old kitchen middens by the coasts of Scandinavia consisting of oyster and clam shells that were thrown away after the meals.

Not only the supposedly aphrodisiac oysters, but many other mollusk species are still highly regarded as food. There are Inuits who at great risk climb down through holes in the Arctic ice in order to pick mussels from the sea-floor while it is left dry at low-tide. And in Hawaii, limpets, or opihi, are often obtained where the waves are the roughest, the latter a theme for a popular contemporary song by Craig Kamahele:

Opihi man in the sun,
Opihi man, grab your bag and run,
Opihi man, another swell is coming your way.

Shells have, thus, continued to follow humankind on its paths through history. Occasionally, they were potential hazards as carriers of parasites and infectious diseases, and boring clams - or “shipworms” - have ended the sailing days of many a wooden vessel. But the main significance of shells has been as food, raw material, and items of beauty and value.

Visitors to Samoan villages can still hear the call of conch trumpets at the time of evening prayer, and when such a sound is heard on the beach at Waikiki, swimmers know that a catamaran will soon reach the shore.

Similar signals have been made with pink conchs that were traded all the way from the Caribbean into the deep rainforests of the Amazon and on to the Andes. Long before Christ, triton shell trumpets were used around the Mediterranean for ceremonial purposes, perhaps by priests or priestesses dressed in
precious cloth dyed with the purple, mucous fluid of murex shells. One Mediterranean people, the Phoenicians, circumnavigated Africa and sailed to the British Isles in search of new beds of valuable murex shells. According to the Greek tale, another daring seafarer, Jason, ventured to search for “the Golden Fleece,” and what he was looking for may have been cloth made of the silk-like byssal threads of pen shells.

As anyone who has heard about Atahualpa and Pizarro knows, the Conquistadors who came to the land of the Inca were hungry for gold. Much less known is that a major basis for the power of the son of the Sun God was the shells of thorny oysters of the genus Spondylus. They represented rain and fertility, and were used for ritual offerings as well as ornamentation. Archaeologists have found traces of a marine trade system linking southernmost Peru to Ecuador. Although the Inca had their centre of power high up in the Andes, their empire was thus highly dependent on seashells that quite literally were worth their weight in gold.

Egyptian pharaohs and Roman emperors were not less captivated by the colors and shapes of shells, and many later potentates would become collectors: from

Triton’s Trumpet (Charonia tritonis).
Louis XIII of France and Peter the Great of Russia to Prince Albert I of Monaco, and even Cuba’s Fidel Castro. Conchology – the study of shells – was regarded as “the queen of natural history studies” during the Victorian era, and to the Japanese, whose emperor Hirohito was an ardent collector well versed in marine biology, it is known as “the emperor’s science.”

So great was the recording mania of some wealthy connoisseurs that they were prepared to pay a fortune to purchase certain rarities. Among the most sought-after was the precious wentletrap (*Epitonium scalare*). Clever Chinese are reputed to have made excellent imitations of it from rice-paste during the eighteenth and nineteenth centuries. If procurable, such a fake would now be worth much more than the real shell!

Most people nowadays would, however, find it futile to collect shells solely for investment purposes. In time, shells will not gain a patina to increase their appeal but rather diminish in beauty. Rare species are likely to become more readily available and cheaper, unless import restrictions or protection by law make them difficult to acquire. Even so, there are still illusive collector’s items that fetch high prices on auctions, and to this very day there are Papuan hamlets in the interior of New Guinea where a man cannot get a wife until he has been able to raise enough capital in the form of cowries.

Shells or shell artifacts have, in fact, been used as money in many parts of the world, not only New Guinea. On the American Northwest coast, tusk shells of the genus *Dentalium* were a kind of currency, and the early colonists who crossed the Atlantic to settle along the coast on the opposite side of the continent, from New England to Virginia, soon began to use the so called *wampum* as money, a decorative belt made of white whelk shells or blue and purple clams. Such belts had a long history as trade items and prestige goods among the native peoples and were even produced by white Americans in factories before this practice was outlawed.

The history of cowrie shells in magic and economy is also an interesting one. The word can be traced back to Sanskrit, where *kaparda* simply meant ‘shell.’ To the Romans it was known as *porcellus* which referred to the rounded shape and meant ‘little pig.’ Porcelain got its name from the likeness to the glossy surface of the cowrie. The scientific name of its genus, *Cypraea*, ‘from Cyprus,’ is connected to another resemblance: that between the opening of the shell and the private
female organ. Aphrodite, or Venus, the goddess of love, was said to have been born out of a shell by the coast of Cyprus:

> Of august gold-wreathed and beautiful Aphrodite I shall sing to whose domain belong the battlements of all sea-loved Cyprus where, blown by the moist breath of Zephyros, she was carried over the waves of the resounding sea on soft foam.

The most famous depiction of the happy event, described in this Homeric hymn, is a painting made in the 1480s by Sandro Botticelli and now kept in the Uffizi Gallery of Florence. In accordance with an ancient motif, it shows the goddess ascending from a scallop, a common souvenir for pilgrims and crusading knights, but in Antiquity, cowries rather than scallops were associated with sexuality and fertility. The Romans called them *Concha Venerea*, ‘the shells of Venus,’ and their women wore them as a precaution to sterility.

From their origin in the Indian Ocean, money and gold-ring cowries were traded to peoples in the Middle East, Egypt, Caucasus, and Northern and Western Europe. Money cowries, known as ‘snake heads,’ have been found in the graves of Viking women buried in northern Norway about 600 A.D. Well into the twentieth century, they were adorning harness in Finland.

In China, they were used as money at least 4,000 years ago, but their origin is uncertain. Thor Heyerdahl’s book *The Maldivian Mystery* (1986) gives the impression that money cowries were endemic to the Maldives, but they are actually common throughout the Indo-Pacific region. The Maldives were a particularly important source of money cowries,
though, and something resembling a world bank developed there.

The Maldivians cultivated them on palm fronds placed in the lagoons and exchanged them for rice and other necessities from the Bengal. According to a statement by an Egyptian monk of the sixth century, these atolls were known for their export of shells, and 500 years later an Arab referred to them as the ‘Cowrie Islands.’ The famous Arabian adventurer Ibn Battuta wrote in the fourteenth century that he had seen cowries being exchanged at the market places of Mali and Benin at a rate of 1,150 shells for one dinar.

Slave traders on the Guinea coast of western Africa often demanded cowries as payment for slaves. Hundreds of tons of cowries could be brought each year to a single British port before being redistributed to the slave market. In many African cultures they are still used for decoration.

Europeans who traded around the Indian Ocean were also regularly asked to pay for their purchase with cowries, whose value in rupees was set by the shell bank of the Maldives. As they loaded their ships with more and more shells, up to 50 tons per vessel, devaluation was inevitable. In 1740, the Indian rupee exchanged for 2,400 cowries, and less than a hundred
years later the rate was 6,500. At the beginning of the nineteenth century, a man in the Indian state of Orissa paid many millions of cowries for building a bungalow.

After all, ‘globalization’ is just a new word for shell-trade.

* * *

“These small fragments of land appeared offered to the sky by water and pressed to earth by stars.” Aviator Charles A. Lindbergh had the Hawaiian Islands in mind when he wrote these words, but they could just as well have been about Oceania in general: a water continent of mostly small islands spread out over more than a third of the earth’s surface.

As the Pacific Ocean is so much larger than the land areas within it, it is hardly surprising that marine resources have been of tremendous importance to its people from times immemorial. Since the original settlers on most small islands must have found precious little to eat among indigenous plants and animals living on land, colonization thousands of years ago would have been impossible without the rich marine faunas immediately exploitable. Only later would the domesticated animals and plants that they introduced have grown and multiplied to an extent where they could provide food.

Readers of old narratives about that blue side of our planet will soon realize that the ingenuity of marine resource-use came to interest foreigners already in the early era of European exploration. Sir Joseph Banks was one of them, and in his eighteenth-century
prose he wrote the following about Tahiti, which he visited together with Captain James Cook in 1769:

The Sea about them in the neighbourhood of which they live supplys them with vast variety of fish ... more perhaps than our own Island can boast of. I speak now only of what is more properly called Fish; but almost every thing which comes out of the sea is eat and esteemd by these people. Shellfish, lobsters, Crabbs, even Sea insects and what the seamen call blubbers [jellyfish] of many kinds conduce to their support.

Since those days, the words ‘South Pacific’ or ‘South Sea Islands’ immediately conjure up visions of lagoons full of fish, crustaceans, mollusks, sea urchins, and other creatures in a multitude of shapes, colors, and patterns. Therefore, to talk about Polynesia, Micronesia, and Melanesia, as the three large island areas of Oceania are called, invariably conveys the presence of the sea and its biological diversity.

Another participant in Cook’s expeditions, ship’s surgeon William Anderson, may have been the first Westerner to appreciate this beauty. Even without any mask and snorkel, he was stunned at what he could see of the lagoon at Palmerston, an atoll in the group that was later given the name Cook Islands. He wrote that “the Eye could never tire but view every spot with fresh transport; and wonder for what purpose Nature should want to conceal a work so elegant.”

It can be safely argued that with the main exception of Australia and the largest islands whose inland people simply lived too far away from it, the bulk of animal protein in Oceania has traditionally always been obtained from the marine environment. Whereas mollusk meat may have been quantitatively inferior to fish in terms of its relative contribution to the diet, archaeological studies on one of the Tongan islands
have, for instance, shown that at least 30 species of mollusks were eaten there about 3,000 years ago.

Then, as now, one of the most highly appreciated mollusks was the shell-less octopus. All over Oceania, archaeologists have unearthed parts of a kind of octopus lure that is still used by some island people. It is made of a stone which is covered with concave discs cut out from the dorsal side of a large spotted cowrie shell. A slender stick with vertically projected segments of leaves and sometimes a hook is attached to it. The lure is held in a fishing line and suspended in the vicinity where an octopus can be expected to be. If an octopus sees the lure, it dashes out from its lairs and seizes it, rippling all over in waves of silver, black, and brown, holding on so tenaciously that the fisherman can flip it right into the canoe.

Biologists may reflect that the lure attracts the octopus because it resembles a crab, a favorite prey of octopuses, but the islanders say, somewhat surprisingly, that it is instead taken for a rat. According to a widespread legend, an octopus once rescued such a shipwrecked rodent from drowning by carrying it ashore on its back. The rat left without a word of gratitude but not without leaving some excrement on its saviors head that made it spotted forever. From that day on, the insulted octopus hates the rat and never misses a chance to take revenge!

As this example of island lore shows, mollusks have not only been important as food among the peoples of Oceania. Before the arrival of the Europeans, shell was on many islands – the atolls, in particular – the only locally available raw material suited for the manufacture of efficient cutting and working tools, such as knives, adzes, gouges, razors, and fish hooks. Even on the high, mountainous islands where basalt and other stone was readily available, shell was of great significance. One of the most spectacular artifacts preserved from early-contact Tahiti is a costume which is decorated with shiny pearl oysters and had been worn by a priest during mourning rites. It was obtained by the first Cook expedition and is now kept in the British Museum.

In my own cabinet of South Sea shells and curios there are two items whose history is also connected to Captain Cook. One day when I was visiting my friend, the late Swedish author Sverre Holmsen, he gave me two earrings that he had once received from an English lady as a token of appreciation for his books about Tahiti where he had lived in the 1930s. As it would turn out, they have an intriguing history, and
One of the Marquesan earrings allegedly given to Sir Joseph Banks by “Queen” Purea in 1769.

through them I feel a certain connection with the great era of exploration.

The earrings, both with small tiki, ancestral representations, carved into them, are made of sperm-whale teeth. Attached to one of its ends, each earring has the apex of a cone shell that was used as a stopper and placed in front of the pierced earlobe. Such ornaments (taiana) were only produced in the Marquesas Islands, but according to the family tradition they had been given to Sir Joseph Banks by “the Queen of Tahiti.”

Purea, as her name was, may have had the stately manners of a queen, but no paramount monarch ruled over Tahiti at that time. Cook wrote that she was the “head or chief of her own family or tribe, but to all appearance [had] no authority over the rest of the inhabitants.” He was almost right, because she was not a chief herself but the wife of a chief in one of the districts on the island. She was about 40 years old and rather obese, which was a mark of beauty in the eyes of her people. Banks described her as “tall and very lusty, her skin white and her eyes full of meaning; she might have been handsome when young but now few or no traces of it were left.”

After the return of Cook’s expedition to England, the Admiralty commissioned a literary talented Londoner, Dr. John Hawkesworth, to edit the journals of Cook and Banks for publication. The explorers were far from pleased with his effort, for which he had been pre-paid the princely amount of £ 6,000. Not only had he minimized or omitted valuable geographical and scientific information, but he had reveled in the passionate meetings between the white men and the
local belles, mostly basing his descriptions on his own vivid imagination. Many readers were amused by the hint about a love affair between Banks and “Queen Oberea,” as Purea’s name was erroneously written. (O Purea means: ‘It is Purea.’)

Banks was a handsome man in his mid-twenties who no doubt was popular among the Tahitian women, and it was briefly mentioned in the journals that Purea had once insisted on sleeping in his tent by Matavai Bay, where HMS Endeavour was anchored.

An anonymous jester made a small fortune out of a poem inspired by this, and it went through not less than five editions in one year. Thus sounded the first verse:

I Oberea from the Southern main,
Of slighted vows, of injur’d faith complain.
Though now some European maid you woo,
Of waist more taper, and of whiter hue;
Yet oft with me you deign’d the night to pass,
Beyond yon bread-tree on the bending grass.
Oft in the rocking boat we fondly lay,
Nor fear’d the drizzly wind, or briny spray.

It is best to leave that doubtful part of the story and return to the question about where the earrings came from. Without any letter by Banks to confirm their
provenance, one can only speculate about whether it was he who had got them and, if so, how they had come to Tahiti from the Marquesas Islands which he never visited.

The Marquesans were once great seafarers who settled Hawaii and, according to oral traditions, travelled to Rarotonga to obtain valuable red feathers. They might even have sailed to South America and brought back the sweet potato from there to Polynesia.

That the Tahitians knew about the Marquesas Islands is also clear from a map that Cook made with the help of a learned Tahitian. We do know that the people among the northwestern atolls of the Tuamotu archipelago delivered dogs, coconuts, fish, birds, pearl oysters, and plaited mats to the Tahitians in return for adzes of basalt and for stones that would not shatter when heated in the earth ovens. The Tuamotu islanders traded pearl oysters to the Marquesans as well. Hence, it is by no means unthinkable that the earrings had come to Tahiti with Polynesian seafarers.

Banks may have received the earrings as a gift or a purchase in Tahiti – possibly from Purea – or later on from some mariner who had been to the Marquesas Islands. In any case, the trade in seashells and shell artifacts was in the seventeenth and eighteenth centuries established when Westerners like him made landfall at Pacific Islands from where they returned with huge numbers for the curiosity cabinets and for dealers in natural objects.

The year before Banks arrived in Tahiti, the French circumnavigator Louis Antoine de Bougainville had noted that the Tahitians wanted to barter shells, among other things, for iron. And 125 years earlier a participant in Tasman’s expedition wrote that the Tongans “bartered for old nails and other trifles their cloths and necklaces, made of mother-of-pearl beads, between which small white shells were threaded, and mother-of-pearl fish-hooks.”

Following Cook’s epic voyages, the value of a shell collection largely came to be judged on the quantity and quality of its specimens from the ‘South Sea.’ A most remarkable evidence of this was a public auction in 1786 of shells that had belonged to the second Duchess of Portland, including many obtained in the Pacific by Cook and Banks. It lasted almost a month!

The flows of pearl oysters and basalt in between Tahiti, Tuamotu, and the Marquesas also exemplify that inter-island exchange of shells, in one way or another, existed there long before the first ships from
Europe came to anchor, and this was certainly not unique for those eastern parts of Oceania.

In the Trobriands and other islands of the Massim region of Papua New Guinea, at the other end of the Pacific, anthropologists have studied the intricate *kula* exchange system of shell valuables.

Pearl oyster shells were also traded from the coast all the way up to the highlands of New Guinea, where they are still precious. When Papua New Guinea became an independent nation, *kina*, as these shells are generally known, became the name of its currency.

To take another example, many hundreds of years ago the people of Lakeba and Naigani in Fiji specialized in the production of shell valuables that were distributed within a network that incorporated communities in Tonga and Samoa.

And shells remain important as gifts or trade items, as those of us know who have got shell garlands hung around our necks upon departure from the islands or when we have gone browsing in the souvenir stores of Honolulu.

It so happens that these days the shell necklaces most commonly seen in Hawaii and Tahiti are not

Costate Tun (*Tonna allium*).
infrequently imported from the Philippines. But those that are still produced in Oceania do represent a very old relationship between humans and the sea, and they are almost always made by women.

Most studies on the use of marine resources there have, however, been focused on the catching of fish, which is mainly an activity of the men, often far out at the open sea, whereas much less attention has been paid to the gathering carried out by women and children in the lagoons and on the reefs, within a short wading distance from shore.

It took me more than ten years of travelling and researching before I came to realize this.

* 

It was a pleasantly cool morning on Tongatapu, the capital island of Tonga, shortly after my return to this last kingdom of Polynesia. Hundreds of fiddler crabs stood by the holes in their otherwise water-covered territories, waving to one another with red and yellow claws.

From where I sat on a beach rock, I could in the distance see a split wreath of green islets, from Poloa and Atata in the west, continuing to Pangaimotu and Onevai in the east, while the surf was breaking in white foam on the reef and little fishing boats were waiting to return with the tide, bringing their catch to the wharf where it would be offered for sale. As always, during low tide, there were many women and children in the lagoon and on the reef, picking, as I had been told, “clams and little things like that.”

All of a sudden, I was struck by the thought that there was something timeless in the scenery in front of me. Behind me, where children had just passed by on their way to school, there was a line of Western style houses along a road where cars now and then were driven at moderate speed. Out in the sea, however, people did what they had always been doing in that environment, or so it seemed to me. Just as much as the land, it had remained a part of their life-world. The Tongan lagoons and reefs are gathering places in the widest possible sense of the term: people meet there, joke, tell news, swim and have fun, and they gather shells and seafood. Here they have what could best be described as marine gardens.

That insight was not entirely new to me. I had often seen women and children gathering marine organisms in the lagoon of Rarotonga, Cook Islands, where I had been working as a biologist ten years earlier.
The difference was that I had never seen as many gatherers at one time as I saw this morning on Tongatapu.

The discouraging title of a book by Ronald Syme, a long-time resident on Rarotonga, came to mind: The Lagoon is Lonely Now (1978). He felt that the Rarotongan Maori people to a large extent had abandoned the lagoon and their former customs for tinned foods and a more modern life. The marine zoo, where I had been employed, was located by the historically significant beach of Muri. It was said that in ancient days seafarers had met in their double canoes by the reef off that beach before departing to New Zealand. In Syme’s book, I got a glimpse of what the lagoon at Muri had been like not so long ago:

Every time one went out on that distant reef, there were the outstanding girls of the village, sea-wet hair clinging to bare brown shoulders, plaited baskets heavy with shellfish or octopus, moving along that wonderful breeze-swept reef with the free swinging stride of the Polynesian.

But times had changed. “The old pattern had vanished forever,” he wrote and continued to describe one of his more recent fishing trips in the following way:

That great, curving stretch of splendid reef had remained unvisited by anyone except myself during the sunlit afternoon. No cheerful fellows in frayed hats and shorts
carrying rods and strings of fish. Not a single pareu-clad girl ... no sound of voices laughing and calling to one another in that warm, wide and sea-caressed vastness. No men busy with their nets on the islets; no women wading in the lagoon as they searched for succulent sea-foods while their children splashed and played in the shallow water ...

In all fairness, it has to be admitted that the people of Rarotonga, too, still used the resources of their marine environment. Sometimes, I fished with them and joined them picking mollusks, but it now seemed to me that the people there had been fishing and gathering in the sea to a far lesser extent than the people did on Tongatapu. Fresh fish was occasionally sold in Avarua, the town on Rarotonga, but only one woman regularly sold seafood there - leaf packets of cooked turban shells in coconut cream - whereas a visit to the fish market on Tongatapu was like a display in marine biology.

As I was sitting here, on the Tongan beach rock, it came to my mind what a contrast the scenery in front of me was to the Rarotongan one so melancholically described by Syme.

After strolling along the waterfront for a while, I went to have a look at what some people brought ashore. I immediately noticed that they had picked more different types of seafood than I had expected. Some of these were easily recognizable and well-known to me, but the contents of two plastic bottles in particular puzzled me. They looked like some kind of thin, yellowish or pinkish noodles, and some green ones were a little bit thicker. I was told that this was lomu, teepupulu and teefihifi, and that they were regarded as great delicacies. Whatever it was, it did
Humpback Cowrie (Mauritia mauritania).

not look very appetizing to me – especially since I happened to know that the word tee meant ‘faeces.’

My curiosity was awakened that morning, and the next day I went to the sea together with some women and children with the goal of finding out what those strange contents of the bottles really were. I then learned that lomu and teepupulu were sea cucumbers, very slow-moving relatives of starfish shaped like long sausages with a rosette of tentacles in one end.

The women cut up the rather rough body of the lomu – a black and light brown creature – with a knife, pulled out the intestine, threw the animal back in the water, squeezed the intestine between the fingers to empty it and then swallowed it. The teepupulu was a longer black sea cucumber which was also cut up before being thrown back in the water so that pinkish contents – the gonads – came out and could be eaten or be carried home in a container. The animals would regenerate after some time, so that they could be used again. Teefihifihi was something green which I was told came from the mulione – whatever that was. Further on, I would learn that it was the egg bands of a mollusk without any external shell, a so-called sea hare.

During the next few days, my interest in fangota, as marine gathering was called, grew rapidly, and so did the notes about it in my diary. I did not yet realize it, but that was how I began a quite different research project than what I had had in mind upon my arrival to Tonga. I could not have chosen a more pleasant study. Finding exquisite cowries, cones and other
shells while reef-walking or snorkeling was to me a delightful learning experience where, as it were, the biologist and the anthropologist in me merged so that I became a human ecologist—a researcher specializing in the relationship between culture and nature.

Before then, I had not given much thought to the common sight in the early mornings of children and women walking out in the lagoon. They often carry some piece of yam, taro or plantain left over from the evening meal, and look for some tasty seafood that they can eat with it raw for breakfast.

If it is low tide after a dark night, one is likely to see more gatherers than otherwise, because many of the desired animals may then still be out of their hiding places and be easy to find. Clams and other mollusks are often picked without having been previously seen. Gatherers then move their hands and feet over the lagoon bottom in order to feel a protruding shell.

The ideal is to be able to spot by observing the eyes or mouths of fish and invertebrates that bury themselves in the sand, but if the desired organisms cannot be sighted because the water is too rippled, coconut meat is chewed and spit out in a circle close to where one is standing. This makes the surface temporarily calm enough to provide a clear vision. As a matter of fact, to calm down an upset person is also called fakatofu.

Within the one and a half year that I carried out my research in the field, the organisms gathered came to represent a vast catalogue of species that had more than 230 local names and had been utilized for at least 50 major purposes. I say “had,” because many uses have become obsolete as a result of three and a
half centuries of foreign impact, or acculturation in anthropological jargon, and was something I learned about from literature and a few elderly people.

In Cook’s days, for example, Tongans shaved themselves with the help of clam shells, but according to a participant in his third voyage this was “rather painful and tedious, and observing how expeditious and clean we performed it, they were desirous of trying it also; and it so far exceeded their expectations that scarce a day passed without plenty of customers.” No wonder, then, that the Tongans soon were to prefer European razors.

Among the more curious practices that I encountered was to diagnose virginity with the help of a white shell (Ovula costellata), called puleoto, which is still often worn by female dancers in a chord around the neck. A legend tells of two sisters who once took the liberty to bathe in a pool without bringing any food to the eels that lived there. The eels became enraged, and the frightened girls ran as fast as they could until they reached the end of the island where they jumped into the sea and were turned into rocks. These two rocks, so the story goes, do not rest at the bottom of the sea but float side by side, covered with puleoto shells. Fishermen have sworn that they have seen these rocks. It is said that if anyone picks shells from them, he must immediately put them in his mouth and keep them there until he reaches shore, because this will imprison the spirit within the shell.

If treated this way, the shell will have a pinkish glow from within, like the color of the skin of the two maidens. It is also said that it can indicate whether or
Flea-bitten Cone (Conus pulicarius).

not the girl wearing it is a virgin. When it touches the body of a woman who has lost her virginity - something which she is not supposed to have done before her wedding night - the shell will show its protest by flipping over.

This story demonstrates that some understanding of Tongan thinking was necessary for research on the use of shells and an activity so seemingly simple as picking them. After joining the women and children in searching for shells, sea cucumbers, sea urchins, crabs, and edible algae, or bringing home the catch to the household where I was staying, I soon found out that the Tongan men regarded this as a task for women - in fact, not as ‘work’ (ngaue) at all - and unworthy of a man’s attention.

A Tongan man doing such gathering regularly would have become a laughing stock, for he should either take care of the agricultural work in the bush or go fishing with nets, hooks, and spear.

I remember the hearty laughter of the women who told me that one afternoon, while I had been in town to do some errands, two little girls had knocked at the door and asked if I was home, saying: “We were just wondering if Tomasi wanted to come with us to the sea and pick shells.” They would probably not have asked if Thomas, or Tomasi, could “come out and play” had he been a Tongan man, but he was presumably harmless - just like the other village fool.

What the Tongans thought about William Anderson, who came to Tongatapu in 1777 with Cook’s ship Resolution, is unknown. He was one of the very first white visitors to explore the lagoon and the reef of
this island, and in describing what he found he did not hide his enchantment:

The many reefs and sholes on the N side of the island afford shelter for an endless variety of shell fish, amongst which are many that are esteem’d in Europe, such as the true Hammer oyster .., a large indentated oyster & several other but none of the common sort, Panamas, Cones, a sort of the gigantic cockles found in the East Indies, pearl shell oysters and many others, several of which I believe have been hitherto unknown to the most scrupulous enquirers after that branch of Natural History.

I am sure that I would have enjoyed some reef-walking with Anderson, and also with James Norman Hall who wrote the following delightful description of the children of the Tuamotu Islands in Faery Lands of the South Seas (1921):

I spent most of my time with them, played on shore with them, went fishing and swimming with them; and found in the experience something better than the renewal of boyhood because of a keener sense of beauty, a more conscious, mature appreciation of the happiness one has in the simplest kinds of pleasures. Sometimes we started on our excursions at dawn; sometimes we made them by moonlight. I became a collector of shells in order to give some purpose to our expeditions along the reef. I couldn’t have chosen a better interest, for they knew all about shells, where and when to find the best ones, and they could indulge their love of giving to a limitless extent.

Rough Turban (Turbo setosus).
That “love of giving” is a manifestation of how Oceanic people have learnt about interdependence from an early age, because the core of most of their cultures is the social centrality of reciprocity. This is something that keeps the social networks together, and it can be of vital importance for life on small islands in the world’s biggest ocean where all of one’s possessions can get blown away in a hurricane. Therefore the children must learn how to find, use, and share local resources, and the store house of the ocean is practically at anyone’s door.

In The Lagoon is Lonely Now, Ronald Syme mentions how during World War II, the pilot of a Catalina experienced some engine trouble and had to bring the machine down on the lagoon of an uninhabited Pacific island. A year later, a passing destroyer sighted a gleaming object on the other side of the reef and a boat was sent away to investigate. The remnants of the pilot and the other five crew members were found together with a notebook which told the tragic story about how they had all died of hunger and thirst, despite the fact that there were hundreds of palm trees and a lagoon swarming with organisms. They had simply not known how to use these resources. Syme writes: “Any ten-year-old Polynesian child, already wise with the ancient knowledge, could have kept those fliers alive and in good health until the destroyer came steaming across the ocean.” That conclusion is quite plausible.

When I hear about the growing biological illiteracy in Western urban environments, I often think of Oceanic girls and boys I have met and who have taught me a lot not only about shells but also about many other animals and plants of their island world.
Apart from a number of shells for my reference collection, what I got during the first weeks of participating in the marine gathering carried out by Tongans – doing what they also were doing, not merely observing it – was a form of what one could call ‘embodied knowledge.’ But I was not sure about what use I could have of this particular knowledge, unless I got the desire to try to live like a Robinson Crusoe on a desert island. I therefore figured that it was time to proceed to study other aspects of Tongan culture.

Thus far I had assumed that marine gathering was a well-documented activity, but I did take some time to search local libraries and archives for information, perhaps enough for writing a paper. To my surprise, I found very little. It turned out that most of the works that mentioned marine resources and their exploitation in Tonga were either very brief or highly specialized – often both.

Since the main part of the seafood obtained by women probably was consumed within the semi-subsistence economy, it did, on one hand, not appear to be of any major significance for export fisheries development. On the other hand, I noted that it was definitely of importance for providing local families
with protein, and sometimes they could get an extra income by selling seafood, shell-crafts, and specimen seashells in town.

I also realized that there was a sad story that needed to be told: one about the destruction of coral reefs, of marine pollution, of over-exploitation, and of island people who for better or worse turned their backs to more and more of their old ways.

This book is about shells as an art-form of nature, so I will not dwell upon the subject of conservation of nature here; I have done so in a number of previous writings. Suffice to say here is that I decided to henceforth pick only a single specimen of each species that was not very abundant, and neither pick nor buy any species that could be regarded as threatened. The reader is kindly advised to do likewise, wherever shelling may take her or him. Do not behave like a fauna kleptomaniac!

On the beaches I used to find empty shells of giant clams, or Tridacna as their genus is called, and most of them were by no means gigantic but so small that it was a pity that someone had been eating the contents before the clam had grown big enough to reproduce. As a matter of fact, some of them had been taken illegally from nurseries established to assure the breeding stock. To prevent such marauding, the government had to employ so-called ‘clam cops.’

Meat from the giant clams is a highly appreciated seafood, and their shells are commonly used as ash-trays or decorations in gardens and cemeteries. Smaller specimens can be picked by hand on the reef, but bigger ones whose undulating blue mantle-lips shine at the deeper sea-bed are usually taken by divers.

In Tonga it is only customary for men to dive, and they bring heavy shells to the surface from depths of up to six fathoms or more. When a man has sighted a large giant clam, he calls fellow fishermen for assistance and then dives half way to it and pulls down a spear-like weight which is connected by rope to a tire floating on the surface. The weight is placed near the clam before the diver swims up for breath. After that, he dives closer to the bottom and puts the weight inside the opening of the clam, which is then closing its shell around it. He swims up to breath once again and then dives down to support the clam from dropping off as it is hauled up by the men in the boat.

Among Westerners, such mollusks have become known as “killer clams,” but malacologists assure us that the frightful tales about how huge clams have
clamped down on a diver’s arm or leg and caused him to drown, or how he has been forced to cut off his fastened limb with a knife, has never been authenticated.

The biggest species (Tridacna gigas) is not found in Tongan waters, but those giant clams that occur there can reach a size impressive enough to make the men’s diving for them an exciting activity, not to mention the catching of sharks and other big fish. Compared to that, what the women do in the marine environment does not include much to be admired by Tongans.

Further search for information revealed that a few researchers in Tonga and other parts of Oceania had also concluded that the women’s gathering of shellfish had been considerably ignored, not to say depreciated. Staff at the fisheries departments of two island nations had told one scholar that women were not fishing at all – at the same time as women, within plain view, could be seen gathering shellfish and hand-lining.

Much more had, in fact, been written about the use of shells in the ancient past than about what anyone sitting at the waterfront of many islands could still observe and even participate in without breaking any tabu (or taboo) which, incidentally, is a Tongan word (tapu) referring to the sacred or forbidden.

I made up my mind and decided to continue my research about this neglected field of study. It resulted in a monograph which I called Shell Age Economics (alluding to anthropologist Marshall
Sahlins’ classic Stone Age Economics, 1972). As it happened, it was the last doctoral thesis defended at my university during the past millennium, but none of the newspapers took any notice of that. Instead, they wrote about the first thesis presented in the new millennium. It was about fish.

*

More than thirty years have passed since I went to my first Polynesian island, and the photographs in this book remind me of many islands, people I have met, and the little boy that I was when I imagined hearing the call of the Pacific Ocean from my uncle’s helmet shell. I am still hopelessly in love with that entire sea, its islands, nature, music, and people.

My long-time friend and colleague Christer Lindberg may not share that particular passion, but among the many things that we have in common is that we both appreciate art, and he is certainly also someone who has taken his boyhood dreams seriously. In his case, a deep interest in the native peoples of North America attracted him to anthropology, and it was as doctoral students in this field of comparative social and cultural studies that our paths crossed. I had found my way into it after having become interested in Oceanic
people while working as a biologist in the islands, and it would later lead to a position at the Human Ecology Division at our university.

Christer and I had known each other for some twenty years when, one day, he told me that he had an idea for a book that we should work on together. I knew that he had an interest in photography, but I thought that it was limited to Native Americans and cities like New York or Paris and did not include anything about nature. His suggestion was to produce a book about the Lund University Botanical Garden, where I used to take my students on excursions.

I was a bit hesitant, but somehow he talked me into it. To make that story short, a couple of years later, and in good time for the 150th anniversary of this park, The Green Heart (2012) was published, with more than two hundred photos taken by him and sixty brief stories about plants and their cultural history that I had contributed.

Just as I was about to finish the last essay, he asked me what I thought about a new idea that he had got: a book about my collection of shells. Again, I was reluctant to a book project. For one thing, I told him, there were already many beautiful books about shells, and my collection was fairly modest. Anyhow, I let him borrow a few boxes with an assortment of smaller shells, assuming that he would soon give up the idea.

Sometime later, he asked if I wanted to have a look at photos that he had taken. As we had done so many times before, while working on our book about the botanical garden, we sat down in the office in his patrician apartment.

While music from the loud-speakers filled the room together with the smoke from his cigarettes, I then saw them, one by one on the computer screen: the magnified pictures of shells that in reality often were so small and insignificant that most people would not have bothered picking them, but now they were gorgeous beyond imagination. Most astonishing was that he had never looked at other photos of shells. He had just used his own creative imagination while photographing them in his home studio, and the result did not look like anything else that I had ever seen.

I simply had to see what he could do with my other seashells and shell artifacts. He took more photos, I had another look, and then I knew that there was no way back. The pictures brought back memories to me.
Somewhere deep inside I could hear the surf against the shores of the islands. It was as if the shells had been inscribed with ancient types of writing, poetry in a secret language of sand, coils, and ocean foam.

I am right, I said to myself, as I sat down to write this essay for a book that I had planned for three decades until Christer made me realize it: mine is an ever alluring sea of shells.
There’s a lone phantom island
Somewhere out on the blue.
Though we all go on seeking
Those who find it are few.

James Norman Hall, ‘Far Lands’ (1950)
Dawn
Bull Mouth Helmet (*Cypraecassis rufa*).
Blackfoot Paua (Haliotis iris).

The heavens settled,
The dawn began to glow,
The dawn began to flash,
The early morning light shone on Hikurangi.

Maori chant of creation
O East Wind!
You burst forth into the world of light,
while, far below,
the life generating waters
explore the primeval source
of the divine surge of life.

Chant, Tuamotu Islands

Giant Honeycomb Oyster (Hyotissa hyotis).
Smooth Spider Conch (Lambis lambis).
They sleep on the ocean floor like humming-tops
Whose music is the mother-of-pearl octave of the rainbow,
Harmonious shells that whisper forever in our ears,
The world that you inhabit has not yet been created.

*Kathleen Jessie Raine, ‘Shells’ (1951)*

Cone Top Shell (*Tectus conus*).
Crenulate Auger (Terebra crenulata).
As the tide rises, the closed mollusk opens a fraction to the ocean’s food, bathed in its riches. Do not ask what force would do, or if force could.

May Sarton, ‘Of Mollusks’ (1980)

Cockscomb Oyster (Lopha cristagalli).
Often 'tis in such gentle temper found,
That scarcely will the smallest shell
Be moved from where it sometime fell,
When the last winds of heaven were unbound.

John Keats, ‘On the Sea’ (1819)

Textile Nerite (Nerita textilis).
Gather a shell from the strown beach
And listen at its lips: they sigh
The same desire and mystery,
The echo of the whole sea’s speech.

*Dante Gabriel Rossetti,*
‘The Sea Limits’ (1850)
Horned Turban (*Turbo cornutus*).
Shell of the bright sea-waves!
What is it that we hear in thy sad moan?
Is this unceasing music all thine own?
Lute of the ocean-caves!

Amelia Welby, ‘To a Sea-Shell’ (1845)
Columnar Cerith (Ceritium columna).
Mole Cowrie (*Talparia talpa*).
I saw the sea-shell's lips burn like a flame
When the wave closed and caught it
with a breath of laughter,
And whispered in its ear the ocean name
That it sings o'er and o'er forever after.

Avanelle L. Holmes, ‘A Beautiful Life’ (1871)
Troschel’s Murex (*Murex troscheli*).
Discrepant Venus
(Gafrarium dispar).
In the heart of the mussel shell
lies the pearl of light,
The island of rising dawn.
We are thy children
beyond the endless sea,
Beyond the eastern
and western sun.
Thou art our mother
who sawest our sails depart.

Sverre Holmsen,
‘Singing Coral’ (1951)

Black-lipped Pearl Oyster (Pinctada margaritifera) with mabe pearl.
Costate Tun (Tonna allium).
Necklace Cerith (Clypéomorus batillariaeformis).
Go to the island of my dreams
And seek for a beautiful beach
Upon which the king may dwell.

Legend of Hotu Matua,  
Rapanui (Easter Island)

Dragon’s-head Cowrie  
(*Monetaria caputdraconis*)  
and other shells from Rapanui.
Gold-ringed Cowrie (Monetaria annulus).
The handle of my steering paddle thrills to action,
My paddle named Kautu-ki-te-rangi.
It guides to the horizon but dimly discerned.
To the horizon that lifts before us,
To the horizon that ever recedes ...

Maori deep-sea chant

Limpet (Patella sp.).
Triton’s Trumpet (Charonia tritonis).
Leaving hulls of heavy wood
Spirits fly as free as terns,
Through the burning torches’ flames
Toward red clouds in the west.
Shell-trumpets blare,
Drums roll,
Hear the echo from Temehani’s mountain!

Sverre Holmsen, ‘Singing Coral’ (1951)
Vomer Conch (Euprotomus vomer).
Mine is the migrating bird
wHING afar over remote oceans,
ever pointing out the sea road of the Black-heron -
the dark cloud in the sky of night.
It is the road of the winds
coursed by the Sea Kings to unknown lands!

Polynesian voyaging chant

Spindle Tibia (Tibia fusus).
Great ocean, deep sea,
May your billows calmly float.
O, great and mighty wind,
Blow gently.

Song from Hawaii

Fine-net Peristernia (Peristernia nassatula).
Short Cerith (*Clypeomorus brevis*).
Beaded Periwinkle (Cenchritis muriecatus).
This is the ship of pearl, which, poets feign,
Sails the unshadowed main,
The venturous bark that flings
On the sweet summer wind its purpled wings,
In gulfs enchanted, where the Siren sings ...

*Oliver Wendell Holmes*, ‘The Chambered Nautilus’ (1858)

Chambered Nautilus (*Nautilus pompilius*).
Yellowmouth Spindle (Peristernia chlorostoma).
Black-mouth Moon Snail (*Polinices melanostomus*).
Rough Turban Shell (Turbo setosus)
Landfall

Vermiculated Cone (Conus chaldeus).
Mangrove Periwinkle (Littorina scabra).
Bat Volute (*Cymbiola vespertilio*).

Islands fair and fragrant to me,
Bless’d by the sun, caress’d by the sea,
Sparkling with starlight, silvery moonlight,
Waiting to welcome me.

Victor Rittenband, 'My Alohaland' (1975)
The tropical islands of Tonga
In the Southern Pacific sea lie
Like fragments of cool rainbow color
Dropped down from the melting blue sky.

Martha Lavinia Hoffman, ‘The Cavern by the Sea’ (1890s)

Reddish Rayed Abalone (Haliotis coccopradiata).
The first experience can never be repeated. The first love, the first sunrise, the first South Sea island, are memories apart and touched a virginity of sense.

Robert Louis Stevenson, ‘In the South Seas’ (1896)
They speak of death as you might of a shell
Look out at the sea as you might down a well
The women are lascivious and the sun is redoubtable
No winter there to make sunlight a festival.

Subgrained Ranella (Bufonaria subgranosa).
Belligerent Rock Shell (Reishia armigera).
Eyed Cowrie (Arestorides argus).

Look to the Northward, stranger,
Just over the hillside, there
Have you in your travels seen
A land more passing fair?

James Norman Hall, epitaph, Tahiti (1951)
For me its balmy airs are always blowing, its summer seas flashing in the sun; the pulsing of its surf beat is in my ear ...  

Mark Twain about Hawaii (1889)
Pacific Bulla (Bulla ampulla).
And dark scents whisper; and dim waves creep to me, Gleam like a woman’s hair, stretch out and rise; And new stars burn into the ancient skies, Over the murmurous soft Hawaiian sea.

Rupert Brooke, ‘Waikiki’ (1913)
Ebony Mitre (Vexillum ebenus).
Lesser Harp (Harpa amouretta).
Beach

Rough Turban (Turbo setosus).
Billows are tumbling and lashing,
Beating and surging high.
Seashells are crawling up ... 

Song from Hawaii

Spindle Shell (Latirus craticulatus).
Strawberry Cockle (Fragum unedo).
Caribbean Crown Conch (Melongena melongena).
Evening light fires, and the silence is spreading through forests and sands where the moon goes treading. And the sea is torn and leaves its white manes to tumble through rocks with the wildest names.

Oh, the Southern Cross hangs over my door,  
And the moon flings silver on the floor,  
While the surf makes thunder along the beach,  
And the rainbow’s end is within my reach.

Don Blanding, ‘Vagabond’s House’ (1928)

Necklace Cerith (Clypeomorus batillariaeformis).
Waved Goblet (Pollia undosa).
Crenulate Auger (*Terebra crenulata*) and Orange Auger (*Terebra dimidiata*).
Necklace Cerith (Clypeomorus batillariaeformis).

From the waves to the edge of the sands
My sea shells come to land.
I gathered and strung to completeness
The lovely lei that I desire.

Mary Kawena Pukui, ‘My Shell Lei’ (1952)
When I see them
My heart tells me that I love you
More than all the little pearly shells.

Webley Edwards and Leon Pober,
‘Pearly Shells’ (1962)

Turban Shell (Turbo sp.), polished specimen.
Little Fox Miter (Vexillum vulpecula).
They build their houses with sand
and they play with empty shells.
With withered leaves they weave their boats
and smilingly float them on the vast deep.
Children have their play on the seashore of worlds.

Rabindranath Tagore, ‘Seashore’ (1913)
Elongate Spider Conch (*Ophioglossolambis digitata*).
Zigzag Venus (Lioconcha castrensis).
Treasures

Cone Shells (Conus spp.).
Old Scallop (Mimochlamys senatoria), yellow variety.
Come with me
Along the sea
Where dusk sits on the land
And search with me
For shells are free
And treasures hide in sand.

Virginia Covey Boswell (unknown title, n.d.)

Old Scallop (Mimochlamys senatoria).
Pink-mouth Ovula (Ovula costellata) and White Stony Egg Shell (Procalpurnus lacteus).
Bright sea-shells and fragments of coral and seaweed in chaplet and spray cast up by the waves’ angry quarrel. In ledges and crevices lay.

Martha Lavinia Hoffman, ‘The Cavern by the Sea’ (1890s)
The coral beds with magic colors glow,
And priceless pearl-encrusted mollusks heap
The glittering rocks where shining atoms leap
Like living broken arrows.

Ella Wheeler Wilcox, 'The Depths' (1910)
Strawberry Cockle (Fragum unedo).
Deep in the ocean’s fathomless abyss
She dives for pearls and visits briny caves,
Paints the bright sea-shells, enters to possess
The empire where the coral garden waves.

Martha Lavinia Hoffman
‘The Spirit of Poesy’ (1907)
Chinese Horn (Rhinoclavis sinensis).
Horned Turban (Turbo cornutus) and Silver Conch (Strombus lentiginosus).
... a spiny murex, with silica in its barbs, its bristling elegance of a frozen rose bedecked with mist, and its pink palate interior burned with the soft shade of a fleshy corolla.

Pablo Neruda, ‘Gongorine Mollusca’ (1950)
I stand upon land, and grow up by the sea.
I dive for pearl shell,
A lure for bonitos!
You are wise, you are mature!
You see, indeed, the value of the sacred pearl-shell of Upu,
A handsome headband for the woman with dancing eyes!

Song from the Marquesas Islands

Pearl Oyster (Pinctada maculata) with mabe pearl.
Plicate Nerite (Nerita plicata).
Tapestry Turban (Turbo petholatus).
Th’ ambitious view in courts to shine,
The proud desire to charm mankind,
To Turbo none impute;
And yet this dress of studied care,
Where emerald, azure, gold appear,
Implies no vast dislike to wear,
A royal birth-day suit.

Sarah Hoare, ‘Poems of Conchology and Botany’ (1831)
Rough Turban (*Turbo setosus*).
Though no device of human skill,
Hath plann’d thee, Trochus! at the will
of architectural pride;
Yet ne’er could architect design,
Nor Gothic aisle, nor arch combine,
Perspective, more correct than thine,
Through taste and skill preside.

Sarah Hoare, ‘Poems of Conchology and Botany’ (1831)
In the sand I gathered the graceful olive,
  wet wayfarer, purple foot,
  moist jewel in whose form
  fruit hardened its flame,
  crystal polished its marine condition
  and the dove rounded its oval nakedness.

Pablo Neruda, ‘Gongorine Mollusca’ (1950)
Polished Nerite (Nerita polita).
I have been out on the reef searching for cowrie shells but every rock has been turned by those who went before me. I am tired and disappointed but I shall keep on trying in case I find one looking for a place to hide.

Konai Helu Thaman, ‘Reef Walking’ (1992)
Little Donkey Cowrie (*Palmadusta asellus*).
And I had a Cypraea
whose spots fell
on its cape,
embroidering its pure velvet
with burned rings
of gunpowder or panther ...

Pablo Neruda,
‘Gongorine Mollusca’ (1950)

Arabian Cowrie
(Mauritia arabica).
... and another had on its back, smooth as a wineglass, a branch of rivers tattooed on the moon.

Pablo Neruda, ‘Gongorine Mollusca’ (1950)
Gracefully striate is thy shell,
Transverse and longitudinal
And delicately fair;
But why that magic lustre bright?
For sure thou art no erudite,
Studious trim the lamp by night,
Or breathe the vesper prayer.

Sarah Hoare, ‘Poems of Conchology and Botany’ (1831)
Soldier Cone (Conus miles).
Fluted Giant Clam (Tridacna squamosa).
Passion

Umbilical False Cowrie (Calpurnus verrucosus).
Rough Horn (Rhinoclavis aspera).
The special quality of Pacific light is the way it intoxicates the mind, like the inside of a gold goblet when the eye plunges into it.

Henri Matisse, about Tahiti (1930)
I promise you the Polynesian sea and sun,
To calm down your fears,
To dry the rivers of your tears,
I promise you the Polynesian sea and sun.

Song from Tahiti

Short-tailed Latirus (Latirus polygonus).
Where the moonlight sheds its splendor,
And the perfum’d zephyrs blow,
There we’ll roam in rapture tender,
In the evening’s mellow golden glow.

Alice Everett, ‘My Heart’s Choice’ (1882)
Do you recall our meeting at a campfire that blazed near the ocean? A simple word of greeting was the start of an endless devotion.

Lyle Tomerlin, ‘South Sea Island Magic’ (1936)
Orange Spider Conch (Lambis crocata).
Casket Nassa (Nassarius arecularius).
O my belle of the peaceful night,
Feel the calm moon
Breeze-cooled
Calling you to listen.

Prince Leleiohoku, ‘Adios, Ke Aloha’ (1870s)
Top Vase (Vasum turbinellus).
Prickly Spotted Drupe (Drupa recina).

Crown the hair, and come away!
Hear the calling of the moon,
And the whispering scents that stray
About the idle warm lagoon …

Rupert Brooke, ‘Tiare Tahiti’ (1914)
Short Cerith (*Clypeomorus brevis*).
It is dusk on the Lost Lagoon,
And we two dreaming the dusk away,
Beneath the drift of a twilight grey,
Beneath the drowse of an ending day,
And the curve of a golden moon.

Emily Pauline Johnson (Tekahionwake),
‘The Lost Lagoon’ (1912)
Kettle Mitre (Mitra cucumerina).
Squamose scallop (*Laevichlamys squamosa*).

*Come with me where moonbeams light Tahitian skies, and the starlit waters linger in your eyes.*

Arthur Freed, ‘Pagan Love Song’ (1929)
Hebrew Cone (Conus ebraeus).
Shall we glide away in this white moon’s track?
Does it not seem fair in your eyes
- To drift and drift with our white sail black
In the dreamful light of the skies.

James Rennell Rodd,
‘By the South Sea’ (1879)
Scallop (Excellichlamys spectabilis).
Arms are the cradle of love,
Stars are a blanket above,
Moonbeams and stardust for sweethearts,
The night and the place invites an embrace.

Augie Goupil, ‘Tahitian Lullaby’ (c. 1938)

Black-lipped Pearl Oyster (Pinctada margaritifera).
Nakedly beautiful, 
whether it is your feet, arching 
at a primal touch 
or sound of breeze, 
or your ears, 
tiny spiral shells, 
from the splendor of America’s oceans.

Pablo Neruda, ‘Ode to a Naked Beauty’ (1956)
Prickly Spotted Drupe (Drupa recina).
Chinese Horn (Rhinoclavis sinensis).
Twice-Triple-Spotted Cowrie (*Pustularia bistrinotata*).

Wait for me under the light;  
You must always wait for me;  
If you run away, I will lose my way  
and will not be able to continue.

Song from Rapanui (Easter Island)
Squamose Scallop (*Laevichlamys squamosa*).
Chinese Horn (*Rhinoclavis sinensis*).
Aluco Creeper (Pseudovertagus aluco).
I longed to hold you near
and kiss you just once more,
but you were on the ship
and I was on the shore.

Jimmy Kennedy, ‘Harbor Lights’ (1937)
Isa Lei, the purple shadows fall,
Sad the morrow will dawn upon my sorrow,
Oh, forget not, when you’re far away,
Precious moments beside dear Suva Bay.

Fijian song of farewell
Aluco Creeper (Pseudovertagus aluco).
Vomer Conch (Euprotopus vomer).
The immense sea is beautiful by moonlight, but my love for you is greater than Mount Orohena. I am cold, I am weeping for you.

Song from Tahiti

Fringed Cowrie (*Purpuradusta fimbriata*).
Top Vase (Vasum turbinellum).
I must go down to the seas again, for the call of the running tide
Is a wild call and a clear call that may not be denied.

John Masefield, ‘Sea Fever’ (1902)
Wentletrap (Cirsotrema varicosa).
Waikiki.
At night when the shadows are falling
I hear your rolling surf calling,
Calling and calling to me.

*Andy Cummings, 'Waikiki' (1938)*

Ramose Murex (*Chicoreus ramosus*).
Chinese Cowrie (Ovatipsa chinensis).
Fancy, why lingerest thou? Thy pleasing pain
Is all gone by: remain and rest awhile.
Again perchance to wake the echoing strain
With bolder, firmer hands. Home wanderer, home again!

Mary Russell Milford,
‘Christina, the Maid of the South Seas’ (1810)
Ruby Triton (Cymatium rubeculum).
Reveries

Land snail
(Camaena palawanica).
Garter Cone (Conus genuanus).
In the profoundest ocean
There is a rainbow shell,
It is always there, shining most stilly
Under the greatest storm waves ...

Katherine Mansfield, ‘The Secret’ (1912)
The hollow sea-shell, which for years had stood
On dusty shelves, when held against the ear
Proclaims its stormy parents; and we hear
The faint murmur of the breaking flood ...

Eugene Lee Hamilton, ‘Sea Shell Murmurs’ (1895)
We hear the sea. The sea? It is the blood
In our own veins, impetuous and near,
And pulses keeping pace with hope and fear
And with our feelings every shifting mood.

Eugene Lee Hamilton, ‘Sea Shell Murmurs’ (1895)
Virgin Cone (Conus virgo).
I smile o’er the wrinkled blue
Lo! the sea is fair,
Smooth as the flow of a maiden’s hair ... 

Lucy Maud Montgomery,
‘The Sea Spirit’ (1916)
Down on the seashore I found a shell,
Left by the tide in its noonday swell;
Only a white shell out of the sea,
Yet it bore sweet memories to me ...

Rosa Vertner Jeffrey, ‘Sea-Dreams’ (c. 1890)
Unfathomable Sea! Whose waves are years,
Ocean of time, whose waters of deep woe
Are brackish with the salt of human tears!
Thou shoreless flood, which in thy ebb and flow
Claspest the limits of mortality.

Percy Bysshe Shelley, ‘Unfathomable Sea’ (1821)

Thousand-spot Cone (Conus miliaris).
Endive Murex (Hexaplex cichoreum).
Music hath charms to soothe the breast
Where passions rage, and lull to rest,
E’en in the troub’lous hour;
Voluta! such desires to heal,
Dost thou compassionately feel,
That e’en thy lineaments reveal,
Those signs of soothing power?

Sarah Hoare,
Poems of Conchology and Botany (1831)
Serpent’s-head Cowrie (Monetaria caputserpentis).
The surge and beat of the sea,
The mournful and endless dole,
They swell with a thousand questions
And overflow my soul.

William Stanley Braithwaite,
‘Twilight and Dreams’ (1904)
Old Ocean, none knoweth thy story;  
Man cannot thy secrets unfold,  
The blue waves sing songs of thy glory  
But where are thy treasures untold?

Martha Lavinia Hoffman,  
‘Lines of the Ocean’ (1907)
Granular Frog Shell (Bursa granularis).

‘Tis a dainty shell, ‘tis a fragile shell
At my feet that the wild waves threw,
And I send it thee, that its lips may tell
In thine ear that my heart is true.

Black-mouth Moon Snail (*Polinices melanostomus*).
It’s a long way the sea-winds blow
But somewhere lies a shore
Thus down the tide of Time shall flow
My dreams forevermore.

William Stanley Braithwaite,
‘It’s a Long Way’ (1904)
Honey Cowrie (*Eosaria helvola*).
The sound of the islands in in the air, calling me everywhere. The sound of the islands will always be love and aloha to me.

*Nancy Gustafsson, 'The Sound of the Islands' (1975)*
Cone Top Shell (*Tectus conus*).