

Folkcraft of Okinawan coral reefs

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The people of the Ryukyu Islands have developed a deep cultural relationship with coral reefs; from ancient times, they have enjoyed and exploited coral reef environments. Animals and plants found in different reef habitats have been used in various ways, which have included their use as materials for construction, dwellings, cooking, eating and drinking, food storage, and the making of amulets, accessories and toys (Uezu 1973, 1982; Nishihira 1988, 1990).

Traditional uses of coral and coral rubble
Ryukyu limestone was used as a construction material for the castle walls of Shurijo Castle, a World Cultural Heritage site, as well as for many other buildings. Limestone and coral rubble were used for stone pavements, and piled up to form the walls of private houses. In old times, house walls were constructed using huge roughly processed skeletons of massive *Porites* corals, the fine skeletal structure of which makes it easy to process. Tabular corals were also used for walls. Maintenance or repair of these walls was difficult and cavities within them were often used as refuges by venomous habu snakes. Consequently, concrete is now used in village construction. Domed massive colonies, including poritids and faviids were used as pillar bases for wooden houses.

Massive *Porites* colonies were also used for making domestic burial urns. These also exploited the fine

skeletal character of this coral. Millet-cake-like rocks of consolidated foram tests, called “*Awaishi*”, were quarried and used as a construction material. Corals were also used for many other purposes. Wheat threshers (“*Mujishiriishi*”) incorporated roughly processed skeletons of faviid corals, making good use of the ruggedness of the skeletal surface. Tabular low-relief acroporids were also used as wheat threshers.

“*Sangozome*” is a recently invented form of material printing that seems to be peculiar to Okinawa. Structural patterns within massive coral skeletons, such as those of faviids, are printed in color onto the cloth of T-shirts and handkerchiefs. Patterns change with coral species, direction of growth, and the cutting plane.

Handicrafts, tools, and toys made of shellfish and other reef animals

Souvenir shops sell key rings composed of foraminifer tests embedded in plastic resin, wind chimes made using spines and cleaned tests of sea urchins, and various ornaments made by cutting and polishing sea shells. Traditionally, children used various gastropod shells as toys; for example, tiger cowries (*Cypraea tigris*) on strings represented cows, while smaller cowries (gold ring cowries, *C. annulus*, and money cowries, *C. moneta*) and opercula of turban shells (*Turbo argyrostomus*) were used as marbles, and strawberry conches (*Strombus luhuanus*) were

used as tops, sometimes after the upper half of the shell had been cut off.

Shellfish were used for various purposes. Tools and accessories such as “*Kaiwa*”, a wristband, and “*Kaifu*”, a chopper, have been excavated from many ruins; in addition, cowries were used for currency. Large cowries (such as *C. tigris* and the serpent’s head cowrie *C. caputserpentis*) with the dorsal parts of the shell removed were tied to the bottom of fishnets where they functioned as weights. Valves of the crocus giant clam, *Tridacna crocea*, were also used for this purpose. Valves of giant clams (*T. squamosa*) were placed facing outwards on gateposts or walls as talismans against evil influences; for similar reasons, chiragra spider shells (*Lambis chiragra*) were hung at the entrance to the pigpen. These shells were also used as hanging hooks. Modified trumpet triton shells (*Charonia tritonis*) were used as kettles. They were hung on the burner by a wooden handle screwed into a hole drilled in the center of the shell. Valves of the large mangrove clam (*Geloina coaxans*) and the common turtle limpet (*Cellana testudinaria*) were used as ladles. Besides these examples, gastropod shells were used for many other kinds of tools. As island lifestyles have become more modern, however, simple customs and cultural details that helped to maintain deep relationships with coral reefs are gradually being lost.



Left-upper: Wall constructed with limestone blocks and coral rubble (Ikei Island, Okinawa).
Left-middle: A giant clam talisman set on a gatepost (Ikei Island, Okinawa).
Left-lower: Kettle made of a triton shell (Okinawa Prefectural Museum).
Mid-upper: “Sangozome”, a coral dyeing and printing technique (Shuri Ryusen Co.).
Mid-lower: “Mujishiriishi”, a wheat thresher (Okinawa Prefectural Museum).
Right-upper: A spider shell talisman, unusually set in a palm tree (Ikei Island, Okinawa).
Right-middle: Fishnet with weights made of tiger cowries (Okinawa Prefectural Museum).
Right-lower: Domestic burial urns made of the skeletons of massive *Porites* colonies (Okinawa Prefectural Museum).