

The Trouble with Shells

*I wiped away the weeds and foam
I fetched my sea-born treasures home;
But the poor, unsightly, noisome things
Had left their beauty on the shore,
With the sun and the sand and the wild uproar.*
Emerson

By Hillary Hauser

WHO HAS NOT BEEN TOUCHED by the magic of the seashell? When we were very young, or perhaps even yesterday, didn't we put that big, old shell up to our ear and listen for the mysterious echoing noise of the sea? We were told that if we listened carefully, within every shell would be the sound of the ocean. Sure enough, it always sounded just as it had been told to us.

And shells were beautiful, too, as still they are. Deep browns, flaming pinks, bright reds and oranges, yellows. Whorls and spires, daggers, points curled lips and symmetrical folds — all in a calcified shrine. Spot, stripes, dots and dashes, swirling lines radiating in an outward coil. The infinite variety of design reflected in these artistic animals of the sea would have us think that Nature had exercised her wildest, most creative imagination when She got around to the seashell. Each one is a jewel.

Therein lies the trouble. To mankind, shells *are* jewels, and are often collected for their beauty alone, their artful encasements. The rarely found shells command higher prices than the more common ones, and thus a market is born. Shell collecting is done in every ocean of the world by hobbyists, commercial collectors and serious malacologists, those people who study shells.

Then there are the shells that are harvested for the animal itself. In the Caribbean there is the queen conch (*Strombus qiqas*), with its seductive, pink-lipped shell. The shell itself is sold in curio shops and the conch meat goes into West Indian chowders, ceviches and fritters. In California, the red abalone (*Haliotis rufescens*), is the prize of commercial divers who have been picking them for years. An abalone dinner has become a rare, expensive dish in gourmet restaurants, where the price is usually "available upon request." Its shell is a stunning brick red, the inside lined with the pearly nacre we often see used in belt buckles, necklaces, earrings and other jewelry.

And what of the animal itself? We are hasty to speak of shells as shells alone, as if the shell were sitting on a reef like a rock, waiting to be picked up by an underwater rock collector. The shells belong to mollusks, which have a muscular "foot," which the animal uses for clinging to a reef or a rock and also for locomotion. As a general rule, an external shell indicates that the animal inside is a mollusk, but there are exceptions to this. The octopus and the squid (whose muscular feet have evolved into a head with tentacles), nudibranchs and sea hares are all mollusks without shells.

When we consider the animals with hard shells, it may be surprising there are ocean animals that successfully prey on them. Sometimes divers find dead shells with a tiny hole in its back, a sign that an enterprising octopus has successfully drilled through the tough armor of the shelled animal with its sharp radula. Or perhaps there will be an enormous hole where a sea otter has bashed the entire abalone on a rock to feast on the animal inside.

Understanding the life habits of the shelled mollusk does two things: First, it gives the shell lover an appreciation of his sea-born treasure, and he may even arrive at the place where just knowing how the animal lives is enough to satisfy his curiosity, live information replacing dead trophies. Second, the understanding of mollusk history is giving scientists a head start in present-day experimentation with mariculture. In California, depleted abalone beds are being reseeded by commercial divers who are raising red abalone from the microscopic *veliger* stage. In Florida, techniques have been developed for the mass-rearing of the queen conch. Scientists at the University of Miami's Rosenstiel School have successfully raised conchs from their larval stage to juvenile size. Such efforts are the very activities which give hope to an age of aquaculture, where food from the sea will be grown and harvested, rather than hunted from wild breeding stock.

Then there are the little jewels that are not sought for their meat but for their shells alone, a practice that some people liken to shooting a deer for its antlers or an elephant for its tusks. What of these shells? Some governments are placing penalties on the taking of certain species. Most malacologists and serious collectors are deeply conscientious about what they take, but then there are always those who take them illegally.

That's the trouble with shells: their beauty is often irresistible, and many people find it too difficult to leave them alone. Perhaps later they learn what Emerson points out in his poem — that the beauty of these sea-born treasures is in the sea, where they live and belong. 🐚