

NEW HORIZON IN MARINE PRODUCTS EXPORT-EXQUISITE HANDICRAFTS FROM SHELLS AND CORALS

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Molluscs and corals are natural objects of enchanting beauty and immense utility. These marine denizens gifted with fascinating ornamentation and eye catching designs and colours unparalleled in the living world, were objects of man's adoration and appreciation from time immemorial. Molluscs in general had a tremendous impact on Indian tradition and economy and were popular among the common man as ornaments, currency and as panacea to ward off evil spirits, even at the inception of human culture and civilisation. Handicrafts with shells is age old in our country and rings and bangles carved out of shells were worn by people of all walks of life even from very early time. In modern times, molluscs and corals have loomed large in our industrial, technological and aesthetic aspects of life. They form raw material for many Calcium carbonate based industries as well as domestic appliances,

besides being attractive curios. A set of corals and molluscan shells in the show-cases as a symbol of status and pride to any house wife has come to stay. The demand for polished shells and handicrafts thereof, at home and abroad was an incentive to many entrepreneurs in South India, especially in the Ramanathapuram District of Tamil Nadu, to start cottage industries producing beautiful curios and several utilitarian objects with molluscan shells. Many fishermen families are engaged in collecting shells and corals for these firms. Our survey shows that nearly 25 small establishments dealing exclusively with shells and shell articles are thriving at present in Ramanathapuram District. An attempt is made in this article to describe and illustrate some of the shell products of handicrafts which we hope will open up a new horizon in our endeavour of marine products export.

Ornaments from Molluscan Shells

"VIP Garlands": This garland (Fig. 1) generally made to suit the formal occasions of welcome to distinguished persons are specimens of immaculate workmanship and attraction. They range from 50 to 75 cm in length and 10 to 15 cm in breadth in each arm and are made of mainly the small univalve, *Pyrene* spp. strung on nylon

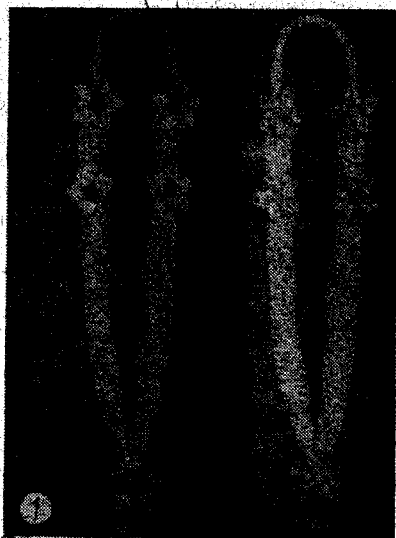


Fig. 1. Two designs of VIP Garlands. Endless varieties are possible by varying combinations of shells.

threads. 20 to 25 such threads are fastened together in parallel rows. Rosettes of *Placuna placenta* (window-pane oyster) superimposed with cowreys and cone shells and olivids are glued symmetrically on both arms with a central pendant of *Conus* and *Xancus* (Sacred chank). The price of a garland varies from Rs. 50 to 60 depending on the size and varieties of shells used.

Eve chains and Necklaces: A number of attractive designs of single string chains (Figs. 2, 3) with or without pendants are made of gastropods for women and children of all walks of life. Rameswaram, Keezhakarai and Cape Comorin are the main centres of their production. *Pyrene*, *Umbonium*, *Planaxis*, *Olivia*, *Nassa*, *Cyprea* and

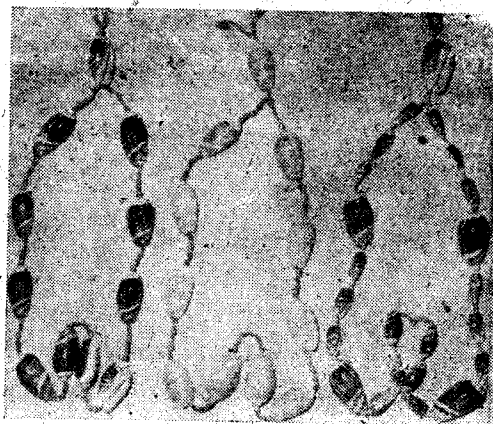


Fig. 2. Single string Eve chains

littorinids are the common shells used. Each chain is made of a single species of mollusc or there may be an admixture of many species. Many a visitor from abroad

to Rameswaram Temple were found to take a couple of these chains home. Instead of entire shells, beads carved out of Sacred Chank, Beggar's-bowl (*Melo indica*) and

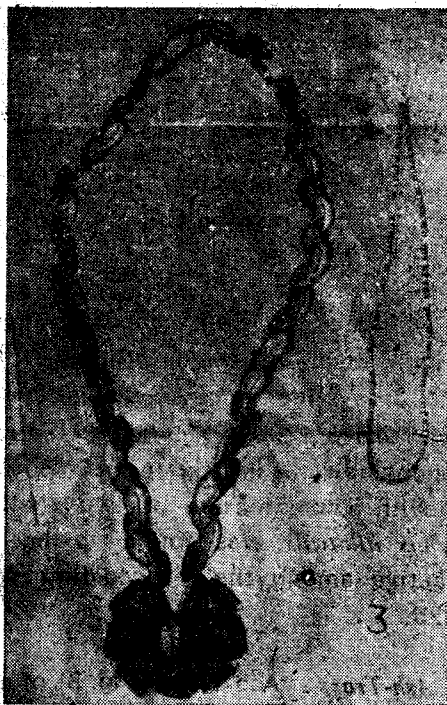


Fig. 3. A chain of *Cyprea* with a pendant. The one figured at the right side is made of shell beads.

olivids are also used in which case the chains are more costly than those made of entire shells.

Necklaces made of carved pieces of shells mainly those of *Turbo*, *Trochus*, *Xancus* and *Nautilus* strung on silver or gold threads (Fig. 4) are costly items of ornaments. A necklace strung on silver thread may cost upto Rs. 60.

Ear Rings and Studs: A number of varieties of ear-rings and studs are carved by shell artisans out of *Trochus*, *Turbo* and

Xancus. Gold or silver is used as fasters. A fairly good pair is being sold at Rs. 15, but cheaper ones are also available.

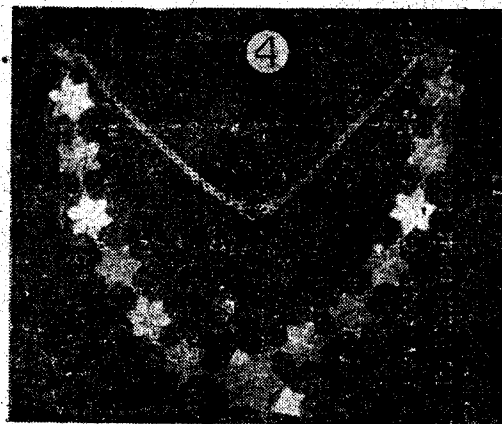


Fig. 4. Necklace, from carved out bits of *Turbo*.

Rings and Bangles: Rings (Fig. 5) and Bangles (Fig. 6) of different sizes and patterns from shells are possible. The Shell Bangles of Bengal are famous for centuries and is traditional among some people around the suburbs of Calcutta. Precisely cut shell pieces are often studded to rings of precious metals instead of

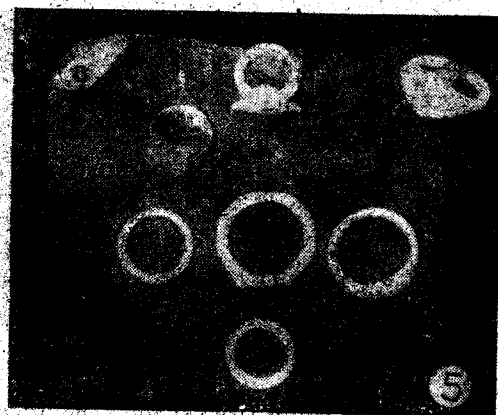


Fig. 5. Chank-rings, different sizes and designs are available.

precious stones, Shell bangles are comparatively costly items in South India since they are brought from Bengal and a set of four is being quoted between Rs. 6 to 15.

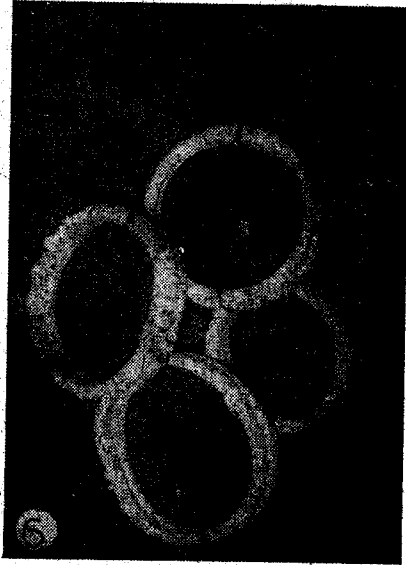


Fig. 6. A set of Bangles from Bengal.

Household Articles:

Table lamps: Table lamps (Fig. 7) with shells are beautiful items of utility in living



Fig. 7. Table lamps from shells. The price varies according to the type of shell used.

and bed rooms. *Lambis lambis*, *Trochus niloticus*, *Melo indica*, *Nautilus* sp *Xancus pyrem* and *Murex ramosus* are the shells commonly used as shades. The shells are at first polished either by treating with weak acid or grinded mechanically before providing electric fittings. The base is either another shell or is made of wood. Among numerous designs and varieties of lamps available, those of *Trochus* and *Turbo* are the most expensive and may cost upto Rs. 75.

Bathi-Stands: Bathi-stand forming an essential item in Hindu religious life, is made of a wide range of shells. *Trochus*, *Murex*, *Bursa*, *Lambis*, *Thias* and *Tonna* are the popular shells utilised for this purpose. One with a combination of two shells of *Trochus niloticus* was found to be very attractive among the lot, costing about Rs. 25.

Ash-Trays. Ash-Trays (Fig. 8) of many designs are possible with various shells. Larger specimens of those species used in making bathi-stands are converted to

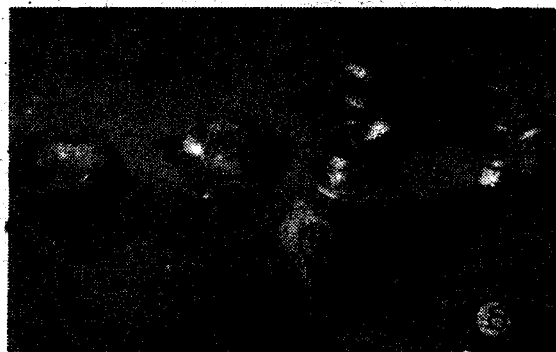


Fig. 8. Ash-Trays from *Trochus* and Sacred Chank. The Cigarette rest is made of stainless steel.

ash-trays, Cigar and cigarette rest. The base is often made of stainless steel.

Besides the items already mentioned shells are used as base for mounting plastic flowers (Fig. 9), pendant for key chains



Fig. 9. Bunches of plastic models of flowers mounted on shells.

(Fig. 10), lockets for jewellery, milk-feeder for babies etc. Fair sized shells are carved with sceneries and greetings which serve as valuable presents.

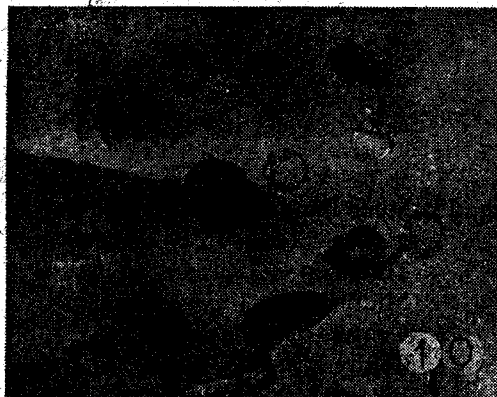


Fig. 10. Key chains with shells as pendants

Items of Curios:

Artistic combinations of gastropod and bivalve shells yield hues and varieties of toys and models (Fig. 11). Models of mammals such as Antelope, Deer, dancing Peacocks, pecking and preening pairs of Sparrows and Sea-Gulls, wading Ducks



Fig. 11. Dolls, models and toys of innumerable types are possible with shells.

and dancing beauties are all possible with sea-shells. Suitable colours provide added attraction. Pilgrims to Rameswaram can take dome "Sivalinga" made of shells, if they desire so, at moderate cost. Generally, gastropods like, *Cerithium*, *Cerithedia*, *Phalium*, *Planaxis* and *Conus* along with bivalves like, *Donax*, *Atactodea*, *Arca*, *Cardium* and *Gafrarium* are utilised in making dolls and models. The Tusk-shells (*Dentalium*) are of immense utility for this purpose.

Replica of big mansions are also possible with shells. The one shown in Figure 12 is a model of Madras Central Railway

Station shaped by the artisans of Jamaliah Chank Industries, Keezhakarai with a combination of entire as well as pieces of *Trochus*, *Turbo*, *Cerithium*, *Dentalium* etc.

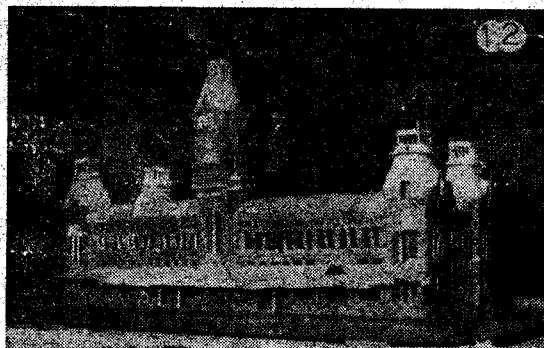


Fig. 12. A miniature replica of Madras Central Railway Station made of shells.

Same Common Shells used in Handicrafts and Their Availability Along the Indian Coasts

Turban shells, Top shells and Chanks: *Trochus niloticus*, *Turbo murmurata* and *Xancus pyrum* are the three costly items of this group, mainly due to their large size and glittering surfaces when polished. *Trochus* and *Turbo* are common on the reefs of Lakshadweep and Andaman Nicobar Islands. A small species of *Trochus* is fairly common on the rocky shores along the mainland coast.

The sacred Chank is common in the deeper waters of Gulf of Mannar and the Chank fishery is age old. An average sized good shell of any of these species alone will cost Rs. 15 to 40, *Turbo* being the costliest item at present. All these three species are used as lamp-shades, and bathi stands

in addition to making necklaces, buttons, rings. Bangles are exclusively made from Sacred Chank.

Horn shells and Peri winkles: The horn shells include a wide range of spiral univalves of the genera *Cerithium*, *Cerithedia*, *Pyrene*, and *Planaxis* found along the intertidal hard and muddy substrata of our coast. *Cerithium* and *Cerithedia* are locally abundant on mud flats, reefs and mangrove-swamps. Periwinkles constitute, *Littorina* spp *Nodilittorina* spp and are often abundant at the littoral fringe zones of rocky shores and mangroves. *Pyrene* is represented by about seven species along the east coast. This genus is very common on reefs



Fig. 13. Some important shells used in Handicrafts. Top—*Turbo murmurata*. Top right—*Conus* sp. Middle left—*Xancus pyrum*. Centre—*Cypraea* sp. Centre bottom—*Trochus niloticus*. Bottom left—*Nautilus* sp. Bottom right—*Conus* sp.

and on higher algae like, *Sargassum*, *Turbinaria* and *Pedina* growing on hard bottom. From Palk Bay and Gulf of Mannar large quantities are collected for making garlands and chains.

Wing shells: Wing shells are moderately large gastropods with finger like projections along the shell margin. The five fingered chank (*Lambia lambis*) is fairly common in and around the reefs of Palk Bay and Gulf of Mannar from where they are fished for making lamps, bathi stands and other items. *Tibia curta* is said to be common along the west coast of India.

Olivids: These include smooth-surfaced shells of moderate size and are common inhabitants of eulittoral and sublittoral zones. They form raw material for pendants and Rosettes for chains, garlands and necklaces.

Cowries: Cowries constitute a group of attractive gastropods. *Cypraea moneta* the smallest member along our coast was ancient man's "Currency" and is still astrologers, and fortune tellers, tool. The larger species, viz. *C. arabica* and *C. tigris* form paper-weights and are much coveted items of shell collectors. Not less than seven species of *Cypraea* are reported from the seas around India.

Helmet shells: The "Ceylon Paper weight" (*Cassia cornuata*) is the most coveted item among the helmet shells. It is the heaviest and largest gastropod available along the Indian coast and is often found in the deeper waters of Gulf of Mannar. This being not common, is always a costly

item of shell. One large shell was found to bear a price tag of Rs. 150 in one of the shops in the corridor of Sree Ramanathaswamy Temple, Rameswaram. A smaller species, *C. rufa* occurs in Lakshadweep.

Conus, Murices and Volutes: Some members of this group are very handsome, by virtue of their spiny varices and often elongated anterior canal (in Murices). Large shells of *Murex* can be used as shades for lamps, ash-trys. Four or five species of *Conus* are important objects for handicraft. Larger shells are polished and are sold as paper weight often carved with good wishes and greetings. Small shells form pendant to garlands and key chains. Volutes are comparatively cheap since the shells are thin, though large in size. The common, reddish-brown shell of *Melo indica* may grow upto 25 cm in length and breadth. It is used as lamp-shades and are not rare in the deeper waters of Palk Bay.

Tusk-shells: *Dentalium* is collected from the Intertidal zones of Palk Bay and Gulf of Mannar for making toys and models. Beaks of birds and antlers of deer are represented by *Dentalium*. A useful and worthy item made of *Dentalium* is door and window curtains, strung on nylon threads.

Bivalves: In addition to their use in various Calcium carbonate based industries, bivalves are of great value in handicrafts, especially in designing models of birds and other toys. Window-pane oysters, arc shells, wedge-clams and scallops are the common shells used in handicrafts. They are polished and painted suitably before glued to suitable positions. *Donax* spp, *Cardium*,

Atactodea, *Dosinia* and *Gafrarium* are all common on the intertidal zones along the southeast coast.

Yet another bivalve (The largest known) *Tridacna* is very common on the reefs of Lakshadweep and Andaman Nicobar Islands. However, this shell is not much favoured by artisans, probably due to their local non-availability or due to the difficulty in polishing and smoothening the outer shell. The inside has a pearly lustre, and if mounted on proper supports they will form handsome ash-trays.

Possibilities and Prospects of Export

The present society of teenagers all over the world, appears to have shed the instinct to possess jewellery of precious metals. This is more apparent in western societies. Ornaments made of molluscs, corals and plastics are gradually becoming the fashion. Molluscs and corals are also becoming highly priced curios and objects in show-cases. There are many firms in European countries, especially in the Federal Republic of Germany that sell sea-shells and corals brought mainly from Red Sea, Southseas and East Indies. A visit to some of the shops around Hamburg and Frankfurt and London by one of the authors (Pillai) during 1970 to 1972 revealed that there were nothing from our own waters, though we are rich in beautiful coral specimens and molluscan shells in our atolls and fringing reefs in Lakshadweep and Andaman Islands. The shells readily accepted by western curio collectors include, *Lambis*, *Terebra*, *Cassis*, *Murex* and *Charonia* from various parts of the Indo-Pacific, all of which are represented in our waters also. Our Sacred Chank will be an item of great interest. Corals belonging to the genera *Pocillopora*, *Acropora*, *Fungia*, *Favia* among the scleractinians and goiconics (Sea fans)

were found to be offered for sale at very attractive prices. An ordinary bit of coral 20 to 25 cm in length was quoted Rs. 30 to 120 while better shaped specimens of *Porites* (The one which is used for carbide industry in Tamil Nadu) was priced up to Rs. 1,200 (DM 400). In one of the exhibitions of aquarium and associated articles in Manheim during early 1972, a massive specimen of *Porites* about 40 cm in diameter was offered a sum of DM 2,009 by a bidder (information from the stall). This shows the values of corals and molluscs as potential foreign exchange earners. Many of our coral species cut extremely beautiful colonies in the atolls of Lakshadweep and will be readily accepted by any body with a little bit of aesthetic sense. Needless to say, that our exquisite articles of handicrafts with molluscan shells will find great demand all over the world if we make an earnest attempt to popularise them by illustrated brochures and proper display at centres of tourist interest. A small scale export of molluscan shells is already there from our country. However, we have to explore more avenues to export our molluscan articles and corals to give a helping hand to our artisans who make a livelihood by shaping molluscan shells and corals into objects of quintessence of beauty and immense utility.

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