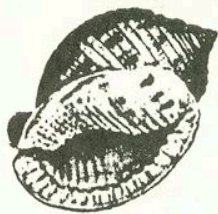


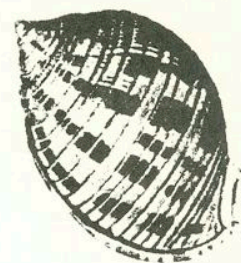
NORTH CAROLINA SHELL CLUB



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WELCOME TO 1990 - SHELL CLUB'S 34th YEAR

Fort Fisher NC **SUMMER MEETING** May 18th and 19th, 1990

Meeting place: Fort Fisher (N C State) Aquarium
U S Highway 421, 20 miles S of Wilmington

Friday, 18 May 1990

7:30pm Registration; refreshments; socializing; whatever !

8:00pm Comments by President Wenzel

The History of Malacology and Malacological Literature, a short talk by Richard E Petit of N Myrtle Beach SC, followed by questions for Dick on **anything** involving mollusks; Dick is well-known throughout our field, was 1987-8 President of AMU after providing successful results in various AMU activities; his current prominence revolves around his being the most well-known dealer in "shell books" (he has many 100s, some dating back to the early 1800s). **Please** bring to the meeting **any** mollusk questions that have been frustrating you !

Announcements; door prizes; further discussion of Saturday's shelling

Saturday, 19 May 1990

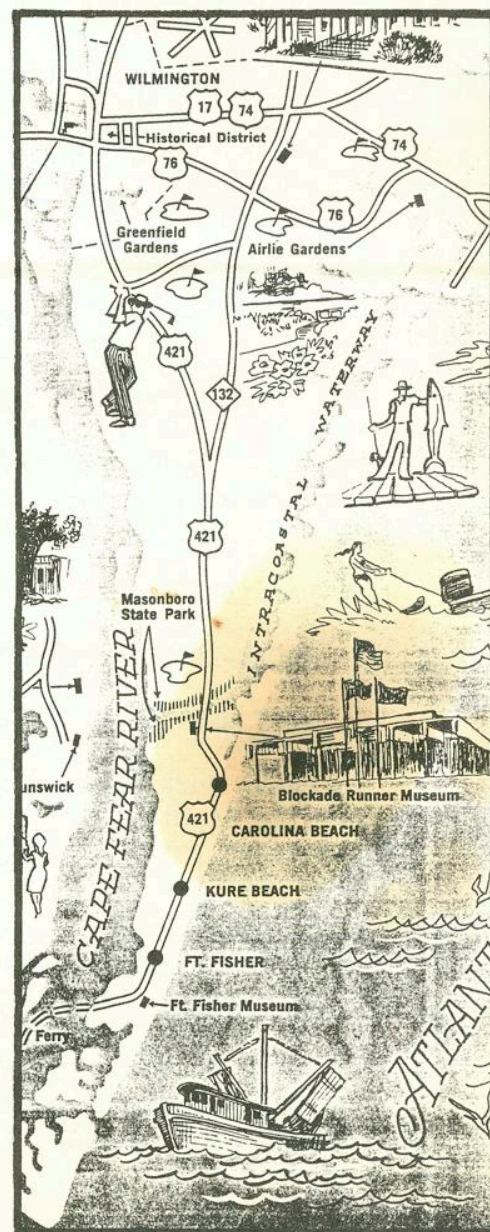
7:30pm Registration; refreshments; "find of the day" award

8:00pm Business meeting

The Making of a Shell by Gail Miller, Educator at the Fort Fisher Aquarium; an intriguing title for a program and a subject this Editor has pondered often. The programs this weekend should give us a very interesting and much-needed background for the activities of our mutual interest and for the Club's being.

Door prizes; other announcements

This Editor expresses unlimited gratitude to **Neal Schey** and **Dorothy and Dean Weber** for the fantastic wealth of information provided by them on the following 3 pages. **Marvelous !**



FORT FISHER, the bulwark of defense of Wilmington during the Civil War, remains as the largest earthwork fort in the former Confederacy. It is located on the peninsula north of the entrance of the Cape Fear River, called New Inlet. Started in 1861 this gigantic structure was not completed until 1864. It was named for Colonel Charles F. Fisher of Salisbury, who had been killed in the First Battle of Manassas. It extended from Cape Fear River all the way across the peninsula for half a mile and then south down the beach for a mile. Here occurred the most fiercely fought land and naval battles of the war. The Federal fleet alone fired 2,000,000 pounds of metal. The fort fell with Forts Johnston and Caswell.

LODGING

We have accidentally hit the weekend of the spring festival on the island which contains the aquarium and the motels. Thus you should make your reservation right now. There will literally be dancing in the streets on Saturday night.

ADMIRAL'S QUARTERS, 1-919-458-5050. For 1-4 occupants: upper street room \$30, 1st floor street efficiency \$35, ocean room \$42, ocean efficiency \$48.50.

THE SAND DUNES, 1-800-535-4984. Room for two \$31 or less, efficiency for two \$33 or less, room or efficiency for four \$39.90 or less.

OCEANSIDE MOTEL & COTTAGES, 1-919-458-5121. Small cottage for two \$35, room for two \$40, medium cottage or room for four \$45, large cottage for four \$55.

NELSON'S MOTEL, 1-919-458-9011. Room for two with refrigerator \$40, efficiency for two \$42.

TRADE WINDS, 1-919-458-8742. Room for two \$42.

SOUTH WIND MOTOR INN, 1-800-874-9874. Room for two \$43 or less, efficiency for two \$51 or less, add \$3 for each additional person.

The above are all in Kure Beach and will have an 8% tax added. If you can't get a reservation or prefer the dazzling lights of the big city, here are three of the lower-priced motels in Wilmington:

DAYS INN, 1-919-799-6300, 504C Market St.

ECONO-LODGE MOTOR HOTEL, 1-919-762-4426, 4118 Market St.

BEST WESTERN CARLINIAN, 1-919-763-4653, 2916 Market St.

To reach Kure Beach, you don't have to go through busy Carolina Beach with its traffic lights. Instead, after crossing the big bridge onto the island, take the first paved road to the right, past Carolina Beach State Park. It is uncrowded and has no traffic lights.

SHELL COLLECTING

LOCATION 1: Masonboro Island

Neal and Ira Schey are hosting a trip to uninhabited Masonboro Island just north of Carolina Beach. This island is eight miles long and has no dwellings or other structures on it.

However, when you get there, you may wonder what all those people are doing on an uninhabited island, for both the north and south ends of the island are heavily used by day visitors. This makes the middle of the island the least visited and having the best potential for shells. By walking four miles north, then, you can theoretically improve your chances.

Low tide on the ocean is at 9:25 a.m. and 10:01 p.m. on Saturday. The boat can take only six people at a time, so several trips will be required if there is strong participation. Thus the first trip will be at 7:00 a.m. Seats will be assigned in both directions in order of registration. To register, telephone Neal Schey at 1-919-395-1280 or send her a post card at 218 Chimney Lane, Wilmington, NC 28409. There is no charge for the excursion.

The first trip back will be at 11:00 a.m. The last trip back will be at 3:00 p.m. for anybody who walks the four miles north or who wants to linger on the island until then. Although the boat can be beached on Masonboro, there may be some wading in shallow water while disembarking. Be prepared with bare feet or old tennis shoes. Take a lunch and water if you will be there awhile; there are no refreshment stands. Take a hat and sun lotion to prevent sunburn.

The fact that we are visiting an uninhabited island doesn't automatically mean sensational shells. We are limited to what the ocean wants to yield and junonias may be in very short supply.

Here are directions for reaching the dock at Old Chimney, where there is parking:

Go back toward Wilmington -- over the bridge and past Carolina Inlet Marina (on your right). About 1/2 mile later, you'll see a "Hill Valley Walk" street sign on the right. The next road is Old Chimney entrance. Turn right. About 1/2 mile on the right is the Scheys' house (name on the mailbox). To get to the marina, go on past Scheys and three more houses. Turn right on the small dirt road and go around to the marina parking lot. We'll be there waiting!

LOCATION 2: The overlook at Ft. Fisher

Take Route 421 south from Kure Beach. Pass by the Ft. Fisher Museum on the right and park by the monument and overlook on the left. Try the little beach south of the overlook and keep walking south as far as you wish. There are no homes and only two buildings down that way. An alternative is to drive a little further south, turning left on the Aquarium road and parking in the first lot to the left. There are rest rooms there and the refreshment stand may be open.

LOCATION 3: The back road at Ft. Fisher

This road is for Off Road Vehicles Only. Don't take it with an ordinary car. It is a left turn just after the parking lot referred to just above. At about 1.7 miles, there is tidal water on the right in which people wade to collect live shells for eating. Low tide in this water may be much later than at the ocean, perhaps as late as 11:55 a.m.

LOCATION 4: The ocean beach at the Aquarium

A path from the aquarium leads over a footbridge to the ocean beach. Turn right (south) and it is two or three miles along the beach to the end of the island and there are no buildings. If you turn right before the beach, it is 1.3 miles along the back road to the live collecting area mentioned above.

LOCATION 5: The north end of Carolina Beach

Take Route 421 north from Kure Beach. At the lake on your left, leave 421 going straight on Woody Hewett Ave. That avenue becomes Canal Dr. (no street sign) and dead ends in a mile or so. North of that point is about a mile and a half of beach without buildings leading to Carolina Beach Inlet. Parking appears very difficult; the right side of the road has a No Parking sign.

LOCATION 6: Kure Beach and Carolina Beach

All of the previous destinations are on the uninhabited portions of the beach. There is about six miles of inhabited beach in between.

RESTAURANTS

FISHERMAN'S GALLEY. Mostly seafood, also steaks and chicken. \$6-\$10 for most dinners. Opens for breakfast on Saturday and Sunday at 7:00 a.m.

CROW'S NEST. Opens at 11:30 a.m. on Saturday. Lunch \$5-\$7, dinner \$8-\$27.

OCEAN VIEW. Daily lunch specials \$4-\$5, sandwiches, dinner \$5-\$10, not fancy. Opens for breakfast on Saturday and Sunday at 7:00 a.m.

BIG DADDY'S. Opens at 5:00 p.m. on Saturday. \$9 and more.

All the above are at the only traffic light in Kure Beach. A greater variety of restaurants can be found at the more crowded Carolina Beach about three miles to the north. Hardee's and McDonald's, on 421 there, open for breakfast at 6:00 a.m. on Saturday.

ACTIVITIES

There are a number of attractions in the Wilmington area, including a battleship and historic sights. At Ft. Fisher, you could take the car ferry to Southport. Or, you could visit the aquarium; it will be dark there at our evening meetings. A live river otter has been added to the displays. Large sharks and other fish are there. The programs during the day on Saturday are these:

- 10:00 a.m. Jellyfish and their Relatives
- 12:00 noon The Invisible Reef
- 2:00 p.m. Waterbirds
- 4:00 p.m. The Wonder of Dolphins

The museum at Ft. Fisher is open from 10:00-4:00. A brief movie about Civil War history will be shown to you upon request. There is no charge.

MEMBER PROFILE: ROSE P. BUNCH

"Home On The Farm" is the title of a poem I wrote about our place outside Raleigh on highway 70 west. Thirty four years of love and enjoyment. A three and one half acre lake winds across the front with pastures and woodland. Turkey creek on the east side with fern and wild flowers. Cranes, both young and old, with ducks and Canadian geese visiting our lake. The most memorable sight was the morning after an ice storm; the lake almost frozen over, a flock of wood duck stopped by! Home on the farm, where life unfolded its many charms, for our two sons, David and Henry. My husband Luther loves the land and grows Japanese maple trees; large vegetable garden. He retired from N. C. State University March five years ago. He also helps David with his horticulture business except when the fish are biting. In 1966 he was chairman of building our new church, Leesville Baptist, where we have been members for thirty two years. We are active in many church activities and Luther was ordained as a deacon in 1966. I have taught Sunday School, Bible school, served on committees, and now am secretary. Our sons were baptized there. Henry is employed by Memorex-Telex as an engineering's assistant. We enjoy planned family dinners.

At a very early age I was introduced to the arts which is my first love. I was in Operettas and started piano lessons in elementary school. Last recital I played the "Blue Danube Waltz". In high school I continued piano, sang in the chorus, worked on newspaper, and won a typing award. Also played basketball and we won the Franklin county championship in 1947.

My father, a business man, steered me into business education. I attended Raleigh School of Commerce, a private school, for one year. My employment career was with Carolina Power and Light Company in Zebulon and with N. C. Department of Motor Vehicles. I worked part-time later with Department of Revenue and School of Textiles at N. C. State University.

The excitement came in November of 1978 when Luther brought lots of shells from Portsmouth Island. He was there planting beach grass with the Soil Science Department. Soon he and Henry joined the N.C. Shell Club. They went to Big Pine Key, Florida in August 1979. They chartered a boat with Ed Hanley and shelled five to twenty five miles south east of Big Pine Key. They found 26 species.

In 1976-1977 our beach house was built on Topsail Island. We can see the ocean from the front deck and the sound from our back deck. I started collecting and the gifts from the sea were captivating. The marvelous beauty of color and design is fascinating.

Henry entered the N. C. Shell Show in 1979. He won a blue ribbon for his "Seascape" of common shells found on Topsail Island. The Florida shells were entered in the novice division.

My dear friend, Connie Troutman, gave me a membership to the club December 6, 1980. By this time I had seen her beautiful shell flowers and wanted to learn the art. October of 1984 I had made 450 stems of flowers. Two hundred stems were arranged in a glass bowl and entered in the Shell Show. I was inspired to write a poem for Connie to show my appreciation. The boys love the floral arrangements and later they will be their "forever flowers" from their mother.

continued

One arrangement adorns my dining table! The next year I made a pink pearl mirror and gave it to the boys God-Mother, Peggy Privette. I gave David and his wife, Susan, a mirror made of green turbos with creme coquina flowers for their 5th anniversary. In our family room, along with portraits of our two sons, hangs a large seascape. On the bookcase sits two 8 by 10 pictures of coquina flowers on black velvet. I have made many pieces of shell jewelry and entered a small case in the 1988 show. Also a small rustic plaque hangs in the laundry room. Last year I used a chambered nautilus to fill with shell flowers. This one sits on one of two large lighted cabinets with glass shelves and sliding glass doors. Each shelf displays shells from a different place. I have six collections: N. C., Florida, Indo-Pacific, world wide, Red Sea and Great Harbour Key. A fair estimate of species is several thousand. I have collected in N. C., Florida and the Red Sea. The Indo-Pacific I purchased as well as a very old world wide collection which is my largest. My craft shells are kept in a travel trunk lined with colorful shell paper. Any gastropod or bivalve that looks like a flower is a favorite with me.

My best collecting was at Sneads Ferry (Millis Fish House) last year. I have one wooden cabinet which holds growth series, two tall metal cabinets waiting to be filled, some in boxes, and the N. C. shells are in low metal cabinets that stack. I collect shell books as well as shell book-ends.

Luther and I enjoy our grand-daughter, Lauren, 2 1/2 years old, and happily await the arrival of our second grand-child in February, 1990. This year I plan to travel to China, Thailand or the Philippines. In the future, I hope to visit Puerto Rico and other wonderful places. I love nature in all its natural forms. As Shakespeare wrote, "One touch of nature makes the whole world kin".

THE ROSE

"In memory of my beloved Mother"

My talent is silent until it speaks to you,
Then God's creatures of the seas come for
you to view!

The beauty of the seashells one cannot describe,
Until the flowers are made to come alive!

I wish my Mother could see the rose she brought
out in me!
For now I have grown like the beauty of the
seas.

Seashells are flowers you see!
Mother nature and wonders of the seas!

When I start to work, the flowers begin to grow.
Then God's creations put on a magnificent show!

-Rose Bunch

THE NEW FLORIDA "FISH"

The State of Florida has amended its Statutes creating a uniquely new definition for marine fish, requiring a saltwater fishing license, and covering other related matters.

First, for the definition of "marine fish." The term has been broadened beyond the wildest imagination of the ichthyologist. At least the State still confines the designation of marine to the saltwater species. The new, all-inclusive definition of fish, however, is uniquely Florida. Remember, things are different here! Marine fish now "means any saltwater species of finfish of the Classes Agnatha, Chondrichthyes, and Osteichthyes, and marine invertebrates in the classes Gastropoda, Bivalvia, and Crustacea, or the phylum Echinodermata, but does not include nonliving shells or Echinoderms." Inclusion of the three classes of fish is standard. The Agnatha are the jawless lampreys and Chondrichthyes are the cartilaginous fishes, like rays and sharks; the Osteichthyes are the common bony fishes. Inclusion of selected invertebrates in the definition of a term commonly used to define vertebrates is strictly legaleese. There is no biological basis for this redefinition.

The new Florida fish includes all the living echinoderms. (Note: the nonliving ones are excluded.) This is the phylum that includes the starfish, sand dollars, etc. All Crustacea are now marine fish. (Dead ones are not excluded, although with a broad definition of shell, their shed exoskeletons may be excluded from the category.) This is the group of lobsters, crayfish (crawfish, etc.), crabs, shrimp, etc. Two classes of the phylum Mollusca have been redefined as fish, the gastropods and the bivalves. Their nonliving shells remain non-fish as do the remaining molluscan classes, the Amphineura or Polyplacophora (chitons), Scaphopoda (tusk shells), and Cephalopoda (Nautilus, squid, octopus, etc.).

The nitty-gritty of this realignment of marine organisms is to enable the State to collect a fee for a license to collect them. This legislation and license is strictly for noncommercial collection or possession and has nothing to do with commercial harvest which is already heavily and expensively regulated.

"No person, except as provided in this section, may take, attempt to take, or possess any marine fish [consult above new definition] for noncommercial purposes unless he has obtained a license from the department [Natural Resources]." The license is good for 12 months from the date of issuance and must be in the holder's possession, ready to show any law enforcement officer upon request, while collecting. Resident licenses cost \$12 per year. Nonresident licenses run \$15 for a 10-day period or \$30 per year. Vessels licensed to carry more than 10 customers are required to purchase a \$800 annual client fishing license. \$200 and \$400 licenses are available for smaller vessels. Individuals who fish or collect only from such vessels are not required to have personal licenses as well.

In addition to those fishing from licensed vessels, persons under the age of 16 are exempt from the licensing requirement. Some persons (those with a valid Florida driver's license or voter registration card) of age 65 and older are also exempt. If fishing from land or a structure fixed to land (like a town or private dock) a license is not required. It has been reported that once a person dons a face mask, even in mere inches of water, or swims out to an island in the Indian River lagoon to collect around it he is no longer classified as fishing from land and the license is required.

CAUTION: This is the Editor's interpretation of the legislation which took effect 1 January 1990. It does not constitute a Legal Opinion.

(the above revision to our long-standing understanding of taxonomy was taken from "the CAPSULE" of the Astronaut Trail Shell Club of Brevard Inc, Melbourne FL, 1/24/90)

Apr 20-22 Greater Georgia Shell Show, Atlanta, Georgia.
 Apr 27-29 St Louis Shell Show, St Louis, Missouri
 May 5-6 Long Island Shell Show, Freeport, Long Island, New York
 Jun 3-7 The A.M.U. Annual Meeting, Marine Biological Laboratory, Woods Hole, Mass.
 Jun 10-17 World Aquaculture Society, Halifax, Nova Scotia.
 Jun 22-24 Jacksonville Shell Show, Jacksonville, Florida
 Jun 23-24 IX Salon International du Coquillage, Lutry, Switzerland
~~Jul 5-7 Broward Shell Show, Ft. Lauderdale, Florida~~ cancelled
 Jul 9-13 COA Convention, Melbourne, Florida (Holiday Inn Oceanside)

and . . . it's not too late to sign up for the "First Asian Shell Collectors' Convention" in SEOUL KOREA, 25-30 June 1990. Be the FIRST from NCSC !

USEFUL INFORMATION FOR THE CONCHOLOGIST

Several standards for grading specimen shells have been used throughout the last hundred years, with many dealers employing their own systems. Some degree of standardization has now been reached, with perhaps the best having been published in the *Hawaiian Shell News*. Unfortunately, the poorest of the grades was called "commercial" a term long in use to describe shells sold in bulk lots regardless of condition or specimens with crudely filed lips. We recommend the following which adopts most of the HMS grades.

GEM

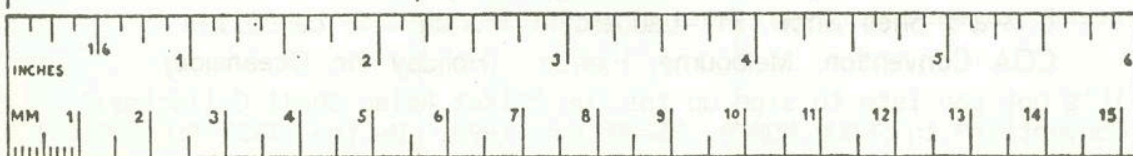
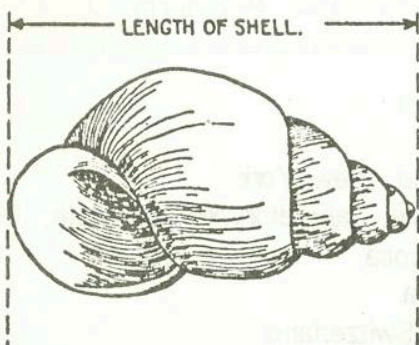
A perfect specimen, fully adult, normally colored, and without any visible breaks or flaws. Gastropods must have a perfect spire, with intact nuclear whorls, no broken spines, outer lip without chips. Bivalves must have matching valves. Gastropods that are accompanied by their proper operculum and have the periostracum properly preserved intact are sometimes referred to as *super-gem*. No excessive oiling. Well cleaned inside and out.

FINE

An adult shell with only minor flaws or with not more than one shallow growth mark. Must have original color and gloss. A cone or volute lip may have one small chip or some roughness; a *Murex* or *Spondylus*, for instance, may have one or two minor spine breaks. No repairs, such as filed lips, mended knobs or filled sponge holes. Well cleaned inside and out.

GOOD

A reasonably acceptable shell with few defects, such as growth marks, broken spines, worn spire or lip chips. Specimen may be subadult, but must display all the characteristics of the species. Well cleaned inside, and quite well cleaned outside.



POOR

Worn or faded, with obvious breaks, loss of spines, eroded spire or other loss of characters due to exposure of weather or rough handling under adverse conditions. Referred to as "commercial grade" or "beach specimen" by some specimen dealers.

SUPPLEMENTAL SYMBOLS

JUV—juvenile or immature specimen. May be gem in the case of a half-grown specimen in a species that does not form a curled or flaring lip in the adult, such as *Cypraea* or *Strombus*.

W/O—with operculum (in gem quality the operculum must have come from the very specimen at hand).

FULL DATA—detailed geographical origin, habitat, exact date of collecting and original collector.

BASIC DATA—localized geographical data as supplied by field dealers (Zamboanga, Philippines; or off Anping, Taiwan; Tampa Bay, Florida), year of collecting; original collector or dealer.

1 inch (English) }
 1 pouce (French) } = 12 lines
 1 pollex (Latin) }
 1 Zoll (German) }

1 Ligne (French) = 2.25 mm.

1 line (English) = 2.11 mm.

1 linie (German) = 2.18 mm.

3' 4" 6" means 3 ft., 4 inches, 6 lines

1 inch = 25.37 mm.

1 fathom = 6 feet

1 meter = 39.37 inches

1 nautical mile = 6,080 feet

1 statute mile = 5,280 feet

1 degree latitude = 60 nautical miles or
about 69 statute miles

♂ = male

♀ = female

♂♀ = hermaphrodite

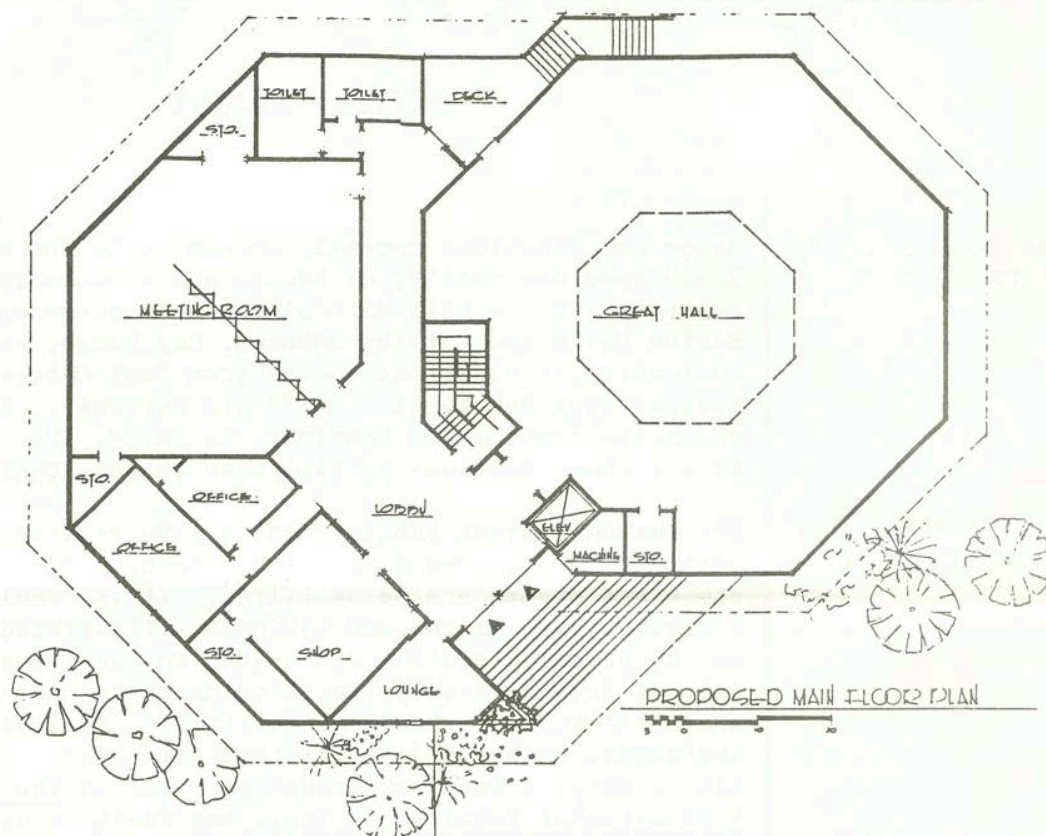


This Editor wants to be sure that all members are aware that on some day in the future there will be a **Shell Museum** to visit at Sanibel. This and the following page are excerpts from the newsletter issued by the group working toward the reality of that Museum, which will cost \$1,250,000 and be situated on 8 acres donated by a family who settled on Sanibel in 1899.

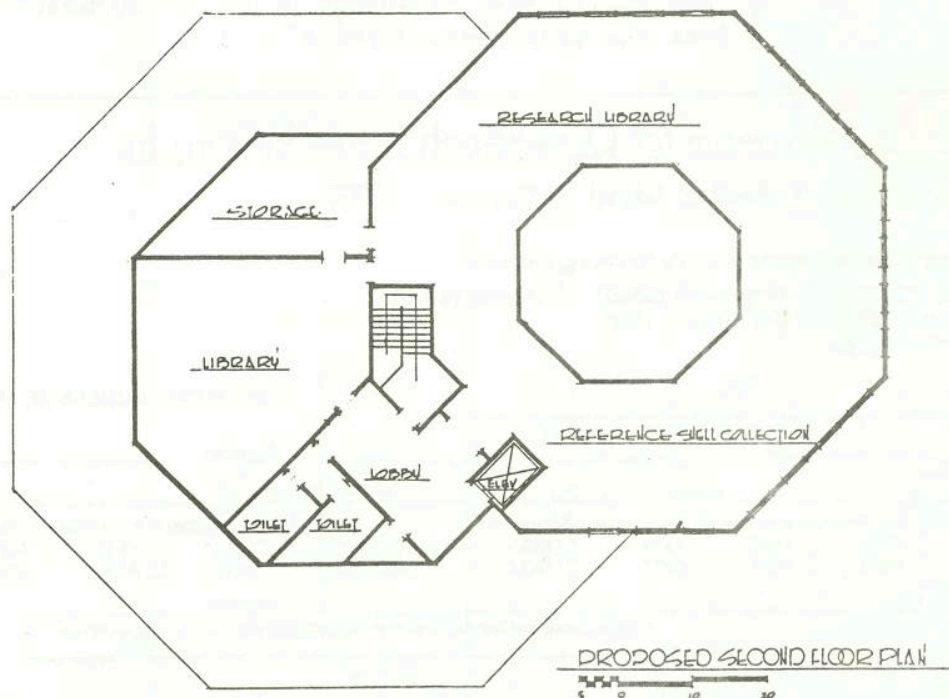
The Shell Museum & Educational Foundation, Inc.

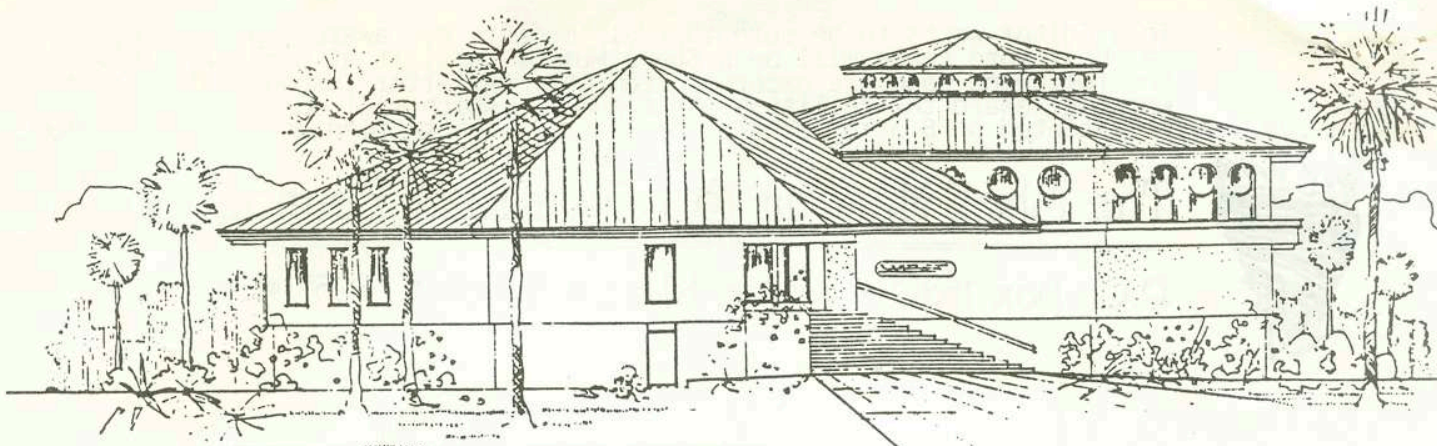
P.O. Box 1580 • Sanibel Island • Florida • 33957 • (813) 472-9397

MAIN FLOOR
72-ft. Great Hall
Meeting Room for 150
20' x 20' Shop
Large Entrance Lobby



UPPER FLOOR
Library for Public
Research Library
Reference Collection
Shell Vision Bank





SANIBEL • CAPTIVA

MAJOR COLLECTIONS RECEIVED FROM FL, PR

Major contributions recently presented to the shell museum: 2,500 specimen shells, 85 books, and a much appreciated monetary contribution (to help with storage and curating expenses) by **Marion Dakin and Dorothy Johnson**, Key Largo, FL... A large collection of excellent shells from **Suni Cabrera**, shipped to Sanibel from Puerto Rico in 22 big cartons... A fine collection of shells from **Miriam Schriner**, La Belle, FL. Our sincere thanks to all these generous participants in our acquisition program.

FOSSIL SHELL BOOK ON HAND AND SELLING

The museum's first publication, a 1990 reprint of Olsson & Harbison's "Pliocene Mollusca of Southern Florida" is now in stock and orders are being filled. If you would like to purchase a copy of this clothbound 590-page, illustrated volume, here is the price schedule. Discounted to shell museum members: \$41.20, including shipping (Florida residents, please add \$2.35 state sales tax). Non-members: \$51.00, including shipping (Florida residents, please add \$2.94 state sales tax). If you would like a copy, please make your check out to The Shell Museum & Educational Foundation, Inc., and remit to us at P.O. Box 1580, Sanibel, FL 33957. (If you are not already a member, join now to take advantage of the \$9.80 member's 20% discount from the basic \$49.00 price.)

The Shell Museum & Research Foundation, Inc.

P.O. Box 1580 • Sanibel Island • Florida • 33957

SANIBEL
CAPTIVA

Please enroll me as a member in the following category:

- ☐ Leader (\$1,000) ☐ Benefactor (\$500) ☐ Patron (\$100)
☐ Sustaining (\$50) ☐ Contributing (\$25)

PRIMARY ADDRESS:

☐ Mr. _____
☐ Mrs. _____
☐ Ms. _____

Address _____

City _____ State _____ Zip _____

Please check the months you are at the above address

☐ JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN
☐ JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC

Phone: _____

\$ _____

- ☐ Corporation
☐ Foundation
☐ Organization
☐ Memorial

VACATION ADDRESS (IF APPLICABLE):

Address _____

City _____ State _____ Zip _____

Please check the months you are at the above address

☐ JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN
☐ JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC

Phone: _____

YOUR MEMBERSHIP SUPPORT IS TAX DEDUCTIBLE AND MUCH APPRECIATED.

PHOTOGRAPHING SHELLS

by Pete Carmichael

Photographing shells can be endlessly creative and exciting. I began fifteen years ago and my interest has not flagged in the least. In fact, after thousands of pictures, I still enjoy dreaming up new ways of composing and lighting shells.

Shell photography is rather simple compared to other types of nature photography. First off, shells don't wiggle around — unless, of course, you want to tackle live critters. We'll discuss that in a minute. For still-life shots of shells themselves, you can do best by using the following basic equipment: a 35mm single-lens-reflex camera; a macro lens with a focal length of 90mm, 100mm, or 105mm; a polarizing filter; a sturdy tripod; a cable release for tripping the camera's shutter; and a fairly large piece of white cardboard to use as a reflector.

Many amateur photographers feel that they cannot be encumbered by a tripod, but as all professionals will quickly tell you, the tripod insures maximum sharpness while allowing you to expose at even the slowest shutter speeds. You will generally want to expose shells at a lens aperture of f/22 for maximum depth of field. Selecting such a small aperture usually means exposing at a shutter speed that is too slow for hand-holding the camera. Personally, I think using a tripod gives you a feeling of more deliberation and makes you concentrate a bit harder on good composition.

As for film, I formerly used Kodachrome 25 or Kodachrome 64 slide film and Kodacolor print film all the time. I still use Kodachrome in the evenings and early mornings. Mostly, however, I have switched to Fujichrome for slides, not only because of its intense colors, but also because in most cities you can get one-day processing and mounting of slides. I would recommend Fuji 50 or Fuji 100 for slides and either Kodacolor or Fujicolor for prints.

As a background or stage for your shells, there are several readily available natural materials — sand, rock, weathered wood, old fishing nets, etc. With rare or expensive shells, it is better to bring these background materials to a place near your house that is sheltered from the wind, and where you can arrange a safe table-top set-up. You don't want one of your rare shells exposed to damage or loss by trying to pose it in a setting over which you have no control — near the beach, for example. When using natural backgrounds, keep them very simple. If the background is too complicated, the shell tends to get lost visually.

Side lighting by the sun is usually the most effective, since it accentuates the sculpturing of the shell. I also like to backlight shells, particularly when the lip of the shell seems to glow as sunlight passes through it. Use your white cardboard reflector to bounce sunlight

into the shadows of the side of the shell opposite the sunlit side. This is very important for a more natural look.

A bad habit of many beginning photographers is to let the primary subject fill only a small part of the total picture area. Learn to move in close enough with your macro lens that the shell or shells dominate the picture — at least 75% of the total area of the slide or negative.

I cannot overemphasize the value of a polarizing filter. As the polarizer is turned, you can actually see through the viewer of your camera how this filter removes or restores brilliant reflections. Generally, I like to cut off the most objectionable reflections and leave just a few of the sun's highlights on the shell to add some sparkle.

An interesting technique for obtaining shadowless pictures is to place the shell on a piece of flat pictureglass that is suspended horizontally about two feet above the ground. I prefer to use non-glare glass for this technique. Use a piece of glass that is at least 16 by 20 inches. You can use two chair seats to support the ends of the glass. Place a piece of colored matte board flat on the ground beneath the glass. Since you can see through the glass to the sunlit matte board below, the shell does not seem to cast any shadows. Using the polarizing filter in this case not only removes glare from the shell, but from the glass as well. Use whatever background color you like to complement the colors in your shell.

To photograph live shells, you are much better off using electronic flash than natural light, since the flash fires fast enough to stop subject motion as well as camera movement. (You will not be using the tripod in this case.) Keep your animal alive and active. Place a flat rock or a piece of sand-colored tile (about 10 inches square) in the bottom of a cooking tray that is about four inches deep. Fill the tray with clean, recently-obtained ocean water. Clean the snail's shell as well as possible and place the live critter on the flat rock or tile. When it emerges, it will spread out its foot and slither about, but it will not be able to dig down as it would in its natural mud or sand habitat. Move your flash unit close enough so that you can use a lens aperture of f/22 for maximum depth of field.

There are endless refinements and variations on the simple concepts I have just given you. Many of my former photography students have started with these basic ideas and have come up with innovations that are startlingly beautiful. You can do the same. Stick with it and you will have many years of creative fun with your shell photography.

(we have taken the above article from the COA "American Conchologist", although it first appeared 11/88 in the "Junonia" of the Sanibel-Captiva Shell Club; Pete is one of world's best shell photographers)

Changes to September 1989 Membership List

Margaret Blades
P O Box 324
Beaufort NC 28516-0324

Martha Elliott
3845-B Johnson Street
High Point NC 27265

V Ruth Hood
221 Azalea Circle
Sunset Beach NC 28468

Lois P Johnson
8123 Blue Heron Dr #311
Scotts Hill NC

Louise R Mason
23 E Roberta Rd
Tarheeland Acres
Shalotte NC 28459

ADD: Mrs A Lincoln Sherk
752 Austin Lane
Winston-Salem NC 27106

Marion R Magee
2117 Fisher Avenue
Indianapolis IN 46224

Sally Zimmerman Mason
Route 5, Box 387
Wilmington NC 28409

Lavera Browne (dec'd)
614 E Branch Drive
Newport NC 28570

BOO! OUCH!

by Betty Hamann

In my lap was a small dishpan in which had been dumped my morning's haul of small shells collected at low tide on Flamingo Beach. This was in October 1989 during a shelling trip to the Pacific Coast of Costa Rica, under the auspices of Peter Bright and his Shells of the Seas. Nearly all the molluscs, perhaps 30 or more, were Agaronia propatula (Conrad, 1849), a member of the Olive family. Just as the tide began to come in, these common critters had appeared at the waterline, popping out of the sand or making their characteristic give-away sand trail.

I separated the shells, leaving only the Agaronia in the dishpan, and was startled to notice an amazing phenomenon: For nearly every Agaronia, there was a corresponding separate posterior portion of the animal's foot. This unattached piece was roughly kidney-shaped, approximately 20mm x 8mm. Ergo, the frightened Agaronia had tried to protect itself by self-amputation. When grasped by Enemy Betty, a part fractured off and the animal thought he had escaped me !

Such self-amputation is called AUTOTOMY, the ability of certain animals to release part of the body that has been threatened or seized by a predator. It is a reflex action by which appendages of crabs⁽¹⁾ and other crustaceans and the tails of some salamanders and lizards may be cast off under stress. The process is found also among certain worms and spiders. Most shellers are probably familiar with the autotomy of the arm of a seastar⁽²⁾. Regeneration of the autotomized part may follow.

I know this phenomenon occurs within the genus Harpa, but what other snails autotomize ? I would be very interested to hear more from readers about this strange trait.

- (1) ...Steinbeck. The Log from the Sea of Cortez (1958) xxxiii 267... two huge hairy grapsoid crabs...were difficult to catch, and when caught, battled fiercely and ended up by autotomizing.
- (2) "Sea star" rather than "starfish" is used in affectionate memory of Corinne Edwards.

References: Encyclopedia Britannica, VanNostrand's Scientific Encyclopedia, McGraw-Hill Encyclopedia of Science and Technology, McGraw-Hill Dictionary of Scientific and Technical Terms, A Supplement to the Oxford English Dictionary; and Rehder, H.A. 1973. The family Harpidae of the World, Indo-Pacific Mollusca, vol. 3, no. 16, pp 207 and 210.

(Alta VanLandingham sent in the above article, with the additional comment: "I had the same happen with Harpa harpa when I was in Palau, so now we know at least two species that do the same thing---reject parts in hopes that predators or shell collectors will think they are dead and leave them alone!" Betty is a longtime member of the National Capital Shell Club and other clubs and now resides at 807 NE First Street, Apt 8W, Delray Beach FL 33483.)

Fall Meeting

September 14th and 15th 1990

Pine Knoll Shores NC

The meeting will be at this Aquarium and lodging will be available at Atlantic Beach, Morehead City, Beaufort, etc. The Friday night session will be occupied principally with our annual auction . . . please be thinking of the contributions you will make to this event for the Club's benefit . . . think "big" and think "much" !

Shell Show

October 19th, 20th and 21st 1990

Wilmington NC

The Club will again avail itself of the hospitality of the Independence Mall, 3500 Oleander Dr (US76), Wilmington. What will you show ?

Dinner Meeting

November 17th 1990 (Saturday night)

Morehead City NC

Mark your calendar now for this big evening . . . dinner at the Galley Stack Restaurant at Spooners Creek, at the west edge of Morehead City, and a fascinating program by Dr William M Kier of UNC, ex-Duke, on the surprising squid and its activities.

1991 Forecast

The Club will try to arrange one of the 1991 meeting for Ocracoke, whenever the only adequate meeting place (at the School) will be available.