Visitors to the museum's Maritime History Hall are often puzzled by the large, yellow metal object at the side of the ramp as they proceed into the exhibit. On closer inspection, especially from the front, this object seems to have aspects of a submersible craft of some type, with a large glass viewing port and lights for illumination. It might appear to be an earlier, cruder version of one of the underwater exploration vehicles more familiarly seen on Jacques Cousteau's television series.

The museum's exhibit is a restoration of a steel submersible known as the "Aquascope," used in the Chesapeake Bay in 1954 for scientific and photographic work. In the first half of the twentieth century, underwater access in the bay was largely the province of commercial divers, using professional equipment and trained personnel— an activity definitely not readily available to those professional and amateur naturalists who wanted to know more about the marine life within the Chesapeake and to view it directly within its own habitat. Modern scuba gear, however, has made it feasible with modest resources of money and training to dive in almost any part of the estuarine Chesapeake for pleasure, for scientific and archaeological discovery, or for commercial reasons, including in recent years the harvesting of oysters from their beds on the bay bottom. We forget how recently this underwater access has developed.

An account of one of the earliest attempts to penetrate the depths of the bay using homemade steel helmets and a large, modified steel boiler was described in the article on the "Bentharium" in the fall 1986 issue of the Bugeye Times. One of the creators and users of the "Bentharium" in the 1930s was Gilbert C. Klingle, Baltimore metallurgist and amateur naturalist, whose interest continued after World War II. In 1951 Klingle wrote about his experiences with the Chesapeake Bay in a book entitled The Bay, including a description of his underwater explorations in the "Bentharium." The Bay is still relevant and highly readable, as attested to by the Johns Hopkins University Press 1987 reprint that is still in print.

The "Bentharium" had some limitations—size and comfort being two of them. It was large, hard to manage, and did not encourage long periods of marine life observation. Presumably Mr. Klingle was involved with war work that increased his knowledge of the fabrication of metals for underwater work. In any event, he convinced the National Geographic Society that he had designed a two-person submersible that would permit exploring and photographing the Chesapeake for a modest investment. The society obliged with financial and technical support, enabling Klingle to build the submersible he called "Aquascope" and to devote many hours in 1954 to his explorations, photographed by NGS equipment and staff. The results of the many dives near Gwynn Island on the western shore of Virginia were reported in an article in the May 1955 issue of the National Geographic Magazine with a title descriptive of Klingle's commitment: "One Hundred Hours Beneath the Chesapeake." Included in the article were (Continued on page 7)
MUSEUM HOSTS CONFERENCE OF MARITIME MUSEUMS

One of the prestigious events of the spring at CMM was the annual conference of the Council of American Maritime Museums. Solomons and the museum hosted the meetings and related events from Wednesday, April 17, through Saturday, April 20. Over ninety directors and staff members from the leading maritime museums attended, with attendance representing thirteen states, including Hawaii, and Canada.

The conference theme was museum exhibits, with several sessions of critiques of recent exhibits, as well as reactions from attendees. Social events, which provided opportunities for the exchange of information and ideas about the museums represented, included an opening reception at CMM, a luncheon at the Lighthouse Inn, a tour and luncheon at Sotterley Mansion, followed by a return to Solomons on the Wm. B. Tennison, and a closing dinner at Evans Seafood House. A concert in CMM's auditorium on April 18, open to participants as well as the public, featured the Menhaden Chanteymen, a group from Beaufort, North Carolina, who presented authentic African-American maritime work songs once associated with America's largest volume fishery. There were also tours of CMM facilities.

One of the traditions of CAMM conferences is a "goody bag" for registrants, complete with small tokens of cultural significance to the area in which the conference is held. Preparing these "goody bags" was but one of the many details that CMM's staff and volunteers worked on jointly during the pre-planning and the conference periods, assuring the success of this conference.

CONNEMARA IN CONCERT

On Saturday, July 20, the museum will feature the Washington-area Celtic folk group Connemara in a concert of sea songs and ballads. Connemara, a Celtic word meaning "large body of water," is a four-member group led by Grace Griffiths of Hazelwood (and formerly a member of the popular Irish group, The Hags). Connemara's repertory includes traditional and contemporary songs of Scotland and Ireland—ballads, historical songs, sea chanteys, and intricate instrumentals.

Connemara features, among others, Tracie Brown playing Scottish Harp. She was the 1987 U. S. National Champion of the Scottish Harp, and took a bronze medal in the 1985 All Ireland Harp Competition.

Tickets for the concert are $8.00 each and will be sold at the door. Refreshments will be available before the concert and during intermission. Come and spend a musical evening at CMM. Enjoy the rollicking and mournful tunes of the Celtic Isles in the cool comfort of CMM's auditorium. Doors open at 7:00 p.m.

Proceeds will benefit the museum.
SEARCH Lectures Covered Fossil Record of Marine Mammals

The recently completed spring 1991 lecture series, sponsored by the Solomons Environmental and Archaeological Research Consortium (SEARCH), dealt with the fossil record of the different kinds of marine mammals. The four invited speakers talked about recent discoveries that have led to a significant increase in our knowledge of marine mammal evolution. To judge from the large attendance at each of the talks, it was apparent that there is considerable local interest in marine mammals. This summary of the lectures is for those who were unable to attend, or for those who would like a record of what was discussed.

The series started off on February 8 with Dr. Philip Gingerich of the University of Michigan. Dr. Gingerich has been working on the oldest and most primitive fossil whales, the somewhat reptile-like archaeocetes Pakicetus and Basilosaurus. These strange early whales come from fifty-million-year-old deposits in Pakistan and Egypt. His most intriguing discovery is that Basilosaurus from Egypt had functional hind limbs (see drawing). Modern whales have a remnant of the pelvis, but no hind limb bones that can function as a leg. The structure of the hind limb in this very ancient whale supports the idea that the earliest whales evolved from mesonychid condylarths, a group of carnivorous land-dwelling fossil mammals.

Next up was Dr. Daryl Domning (Howard University) on March 9, who traced the fossil record of the Sirenia (sea cows). We learned from Dr. Domning that sirenians, which include the living dugong and manatee, were a much more diverse and numerous group of mammals in the distant geologic past than they are today. Curiously, their closest living relatives seem to be elephants. The group reached its peak during the Miocene (five to twenty-five million years ago), when the worldwide climate was more tropical than today. Perhaps the most amazing sirenian was the gigantic Steller's sea cow from the Bering Sea off Alaska, which became extinct in the mid-eighteenth century due to overhunting. These enormous sirenians reached over thirty feet in length and were so buoyant with blubber that they could not dive underwater.

On April 27, Dr. Larry Barnes (Los Angeles County Museum of Natural History) picked up the whale story where Dr. Gingerich had left off. He outlined the evolution of the different kinds of mysticetes (baleen or whalebone whales) and odontocetes (toothed whales). Dr. Barnes discussed early fossil baleen whales from the Oligocene (approximately thirty million years old) that had both teeth and baleen plates, and demonstrated how the skulls of whales and dolphins are transformed by “telescop ing” of the bones. He also described how odontocetes are able to echolocate and communicate underwater. We heard about a number of bizarre long-snouted forms—the so-called river dolphins—whose possible ancestors are found as fifteen-million-year-old fossils in the Calvert Cliffs of southern Maryland.

The final lecture in the series was given on May 11 by Thomas Demere of the San Diego Natural History Museum. Tom talked about fossil pinnipeds: the seals, sea lions, and walruses. Pinnipeds are probably the most controversial group of marine mammals due to the question of whether all pinnipeds share a common ancestor or whether the sea lions and walruses evolved from bear-like carnivores, while the true seals are more closely related to weasels and otters. We also learned that some of the oldest known fossils of true seals come from southern Maryland (their bones are on exhibit in our museum’s fossil display), and that the true seals seem to have their origin in the North Atlantic, while the oldest sea lions and walruses are from the Pacific Ocean.

Look for the topic and schedule of talks for the next SEARCH lecture series, to be announced soon in an upcoming Bugeye Times. We hope to see many of you there. (Mike Gottfried, CMM Curator of Paleontology)

ANOTHER “BUGEYE BALL” IN SEPTEMBER

One of the highlights of the museum’s twentieth anniversary celebration in 1990 was the “Bugeye Ball” at the Solomons Holiday Inn. So successful was this dinner/dance event—over 120 members and friends attended—that a repeat is planned for September 1991 at the same place. The date has been set for Friday evening, September 27. An excellent dinner will be followed by dancing to the music of “Fancy Pants,” the group that was so popular last year. Specific details will be mailed to members later in the summer, but mark your calendar now for September 27!
PATUXEN DISCOVERY

For the second year, the museum dev Family Discovery Day — a series of activiti the variety of programs available at CMM weather this year added to the pleasure of the museum’s boat basin. Photographs interests that are served during “discovery appeal through the years. Plan now to atte
FAMILY DAY, 1991

...the first Saturday in May to Patuxent... to appeal to all ages and to demonstrate reflecting our local heritage. The beautiful... on both land and in the water... these two pages attest to the variety of... "an annual event that should grow in... in May 1992.

Making model boats — an activity for kids and parents.
Photo by Douglass Alves

Family activity at the Patuxent Small Craft Guild's Skills Shed.
Photo by Douglass Alves

A display of the finished hand-made sailboats.
Photo by Douglass Alves
PAINTINGS BY ARTIST C. LESLIE OURSLER
EXHIBITED THIS SUMMER

One of the temporary exhibits this summer at CMM features paintings by the self-taught Baltimore artist C. Leslie Oursler who spent his seventy-four years living in the midst of ships and harbors. Born in 1913, Mr. Oursler retained early childhood memories of Baltimore’s bustling harbor and of the excursions he took on the city’s famous steamboats. He worked with the Chesapeake Steamship Company, the Atlantic Coast Line, and then in New York with the Marine Department of Texaco Oil, where he was particularly interested in the larger liners seen in the New York harbor. During his working years he pursued drawing and painting as an avocation, with only a few formal courses in art. When he returned to Baltimore in 1961, however, he turned to drawing and painting as full-time activities, using his observations of Baltimore harbor and his memories to create detailed, delicately colored renderings of various freighters and passenger liners. During this period he also enjoyed the friendship of maritime historians Robert Burgess and H. Graham Wood, both of whom own Oursler paintings. Mr. Oursler died in 1987.

Long interested in the Oursler paintings, the Calvert Marine Museum began collecting these in 1980 through auction purchases. In 1985, Mr. Oursler honored CMM by presenting eight oil paintings, and after his death, the museum received fifteen more paintings through Mr. Oursler’s bequest. Earlier this year, the museum encouraged long-time Oursler friend and collector, John H. Shaum, Jr., to serve as guest curator in developing the exhibit which is now on display in the museum’s Mezzanine Gallery. Many exhibit items were loaned by Mr. Shaum; one is on loan from Graham Wood; the remainder are from CMM’s collections.

Most of the exhibit consists of oil paintings of various steamships of the Chesapeake Bay as well as ocean liners. There are also paintings of bay boats, either in the water or on the ways. Several pencil sketches in the exhibit demonstrate Mr. Oursler’s method of preparing a detailed drawing prior to painting. Two special items on exhibit are a ceramic plate with the City of Norfolk and a wood-and-paper model of the steamer President Warfield.

The exhibit will remain through September 1991 and is open during normal museum hours.

The museum’s 1899 buyboat Wm. B. Tennison required significant repairs during this past winter. Portions of the bottom needed replacement—not an easy task in a vessel built from logs (nine were used originally in forming the hull structure below the waterline). Zahniser’s Inc. in Solomons, where the repairs were made, ordered special timbers, eight inches by ten inches, in lengths up to twenty feet, to repair the portions that had to be replaced. In this photo, Zahniser’s workmen are shown with the replaced section of the bow, prior to final caulking and finishing. The Tennison was back in service by mid-April, ready now for more years of service to museum visitors. The schedule for boat trips is included in the calendar in this issue.

Photo by Richard Roming
employees of the Baltimore Gas and Electric Company unload restored "AQUASCOPE" in 1989 for installation in CMM exhibit.

"AQUASCOPE" . . . (Cont. from page 1)

photographs of the "AQUASCOPE" and the first color photographs ever taken of bay life underwater. Examples of these color photographs are mounted next to the "AQUASCOPE" in the museum's exhibit.

The "AQUASCOPE" was radically different from the earlier "BENTHARIUM," the latter merely a specially designed boiler with air hoses and lifting rings. "AQUASCOPE" was designed for two persons lying prone, in relative comfort, with little wasted space. It measures slightly over seven feet long, three feet wide at front, tapering to two and a half feet wide at its rear; the height ranges between twenty and eighteen inches. A large Plexiglas window at the front permitted viewing and photography, and this window is flanked on each side by waterproof enclosures for lights. An additional light source was provided on a telescoping arm over the window - not included in the current exhibit. Access is by a small hatch at the top.

The construction design of "AQUASCOPE" was adequate to withstand pressures of up to one hundred feet in depth, and because of this construction it was not necessary to pressurize the air fed to the occupants. A surface barge, also designed by Klingle, lowered and raised the "AQUASCOPE" and serviced it with dehumidified air and a telephone for communications. The report in the National Geographic article describes the environment within the "AQUASCOPE"; although it worked well for Klingle, it certainly would not appeal to anyone afflicted with claustrophobia. When viewed against the complex exploration technology of today, the "AQUASCOPE" appears to be very unsophisticated, but was nonetheless effective for the purpose intended.

After 1954 the National Geographic Society withdrew its support, its cameras, and its lights, but left the "AQUASCOPE" with Klingle who moved to Virginia and became involved in boatbuilding. Calvert Marine Museum's director, Ralph Eshelman, was so impressed with the Geographic's article that he sought out Gilbert Klingle and convinced him that the "AQUASCOPE" belonged in the collections of a marine museum. It was transferred to Solomons in 1979, lacking lights and in need of a thorough overhaul. This rejuvenation was completed in 1988 by the shop at the Baltimore Gas and Electric Company's Calvert Cliffs Nuclear Power Plant in Lusby as a community service for the museum. Working for more than a year when other duties permitted, staff at the power plant completely disassembled the craft, sandblasted all the parts, and reassembled it in as close to original condition as possible. They even reused the original bolts if they were salvageable. Missing lights were fabricated, and the entire craft painted its original yellow - all of this in preparation for the display of the "AQUASCOPE" in CMM's Maritime History Hall.

"AQUASCOPE" is but one example of the artifacts that make up the exhibits of this museum. Each has a story of its own. Visitors to CMM are able to see the artifacts that make up the exhibits of this museum. Each has a story of its own. Visitors to CMM are able to see the environment within the "AQUASCOPE"; although it worked well for Klingle, it certainly would not appeal to anyone afflicted with claustrophobia. When viewed against the complex exploration technology of today, the "AQUASCOPE" appears to be very unsophisticated, but was nonetheless effective for the purpose intended.

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"SCHOONER FARE" FOUR - ANOTHER SUCCESS!

The beautiful weather on May 25 brought out nearly eight hundred fans of "Schooner Fare" for their fourth appearance at the museum's boat basin, in the continuing series of Waterside Music Festivals. Again sponsored by Zahniser's Inc., the successful program raised needed funds for the Estuarium exhibit. As in past years, the governing boards of the museum and the Calvert Marine Society thank not only Zahniser's, but also the extensive personal efforts of Ellen Zahniser and Linda McGilvery. Thanks also to the staff members from the Calvert Bank who volunteered their help on the evening of the concert, serving as ushers and selling refreshments. A new participant this year was the Kiwanis Club of Calvert whose members sold crab cakes and hot dogs.

LET'S PUBLICIZE CMM'S DRUM POINT LIGHTHOUSE!

The museum's store is now selling T-shirts, sweatshirts, and lightweight jackets in all sizes, as well as canvas tote bags - each with the design of the Drum Point Lighthouse. Our store has exclusive sales rights. You can enjoy shopping for these useful items with your ten percent membership discount, and at the same time you will support the museum and publicize one of its distinctive attractions.

MORE DONATIONS SOUGHT FOR EDUCATION DEPARTMENT

To help out with programs for the general public, the museum's Education Department seeks donations of the following: fossil shark teeth for the Discovery Room, shaft tongs or parts of shaft tongs, and aquariums or aquarium parts (don't worry if some parts are missing). Anyone with these items should call the Education Department at the museum.
VOLUNTEER SPOTLIGHT –

Marilyn Force
Assistant for Docent Operations, Discovery Room

“I don’t think there’s anything more fulfilling than working with children,” say Marilyn Force, as she explained her interest in volunteering. In two short years, Marilyn’s volunteer role has progressed from hosting and assisting with school tours, to the operation of the museum’s popular Discovery Room. You’ll soon see new discovery boxes on ducks which dive or dabble, Joshua Barney’s raids, and local beach trash — activities currently planned by her volunteer committee. “Demonstration boxes,” to be used along with an adult, are also in the works.

“Marilyn Force has become the point person for the Discovery Room,” says Craig DeTample, curator of education. “She has galvanized the volunteer staff to improve and expand Discovery Room activities.”

Marilyn’s creative interest in working with children did not start in the museum. While living on Guam, Marilyn hosted a children’s television program for five years which delighted local families with stories, crafts, and appearances by a puppet named “Droopy Dragon.”

Here at CMM, Marilyn finds the variety of volunteer opportunities appealing. In the Discovery Room, most people “just think of one phase of it,” says Marilyn. But volunteers can participate in planning programs, costumes, greeting visitors, bird identification, microscope work — almost any interest can be used. This summer there will be an active junior volunteer crew, for those under sixteen.

Marilyn Force invites everyone to find out more about the Discovery Room, now open daily. And, she promised, “they’ll really be happy if they come and help us — it will make their summer.” To learn more about the Discovery Room program, or any of the volunteer activities at CMM, call Layne Bergin at the museum.

COURSES TO BE OFFERED ON CELESTIAL NAVIGATION

The museum will offer two celestial navigation courses this summer. “Lifeboat Celestial Navigation,” or an introduction to sunlight navigation, will be offered weekday evenings July 8 through 12, from 7:30 to 10:00 p.m. This course teaches you how to fix your position at noon, and is a pre-requisite for the second course, unless you have prior celestial navigation experience.

“Celestial Navigation by H.O. 249” uses H.O. 249 methods that allow you to get a fix by sighting in on any identified celestial body. This course will be held weekday evenings July 15 through July 19. These courses each are $125 for CMS members and $150 for non-members. You must register for “Lifeboat Navigation” by July 5 and for “Celestial Navigation by H.O. 249” by July 8. A non-refundable registration fee of $30 is due at the time of registration, with the balance due the first night of the class. Call the museum at 326-2042 for information or registration.