Special Issue-Scripps Centennial Public Aquariums and Museums at Scripps



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The public aquariums and museums at Scripps Institution of Oceanography trace their origin back to 1903 when a group of San Diego citizens formed the Marine Biological Association of San Diego, the founding organization of Scripps Institution. The purposes of the association were to establish a research institution that would carry out a biological and hydrological survey of the waters of the Pacific Ocean, and build and maintain a public aquarium and museum. Early public exhibits consisted of a few aquaria in the main Scripps laboratory building and some marine artifacts placed on laboratory tables.

In 1912, the Marine Biological Association deeded its property to the University of California Regents and became the Scripps Institution for Biological Research of the University of California. Scripps cofounder E. W. Scripps saw to it that a provision for maintaining the aquarium and museum was part of this deed agreement. However, the aquarium and museum have had a low funding priority throughout much of their 100-year history, primarily because they are secondary to the basic purposes of the institution: research and teaching.

It was not until 1916 that the aquarium exhibits were housed in their own facility, a small building simply called the "Aquarium" (Figure 1). At the same time, space for a museum was included in the new library.

In 1951 a new building, which combined the aquarium and museum, was constructed with \$225,000 in state funds. The T. Wayland Vaughan Aquarium-Museum included a small aquarium with 18 tanks, the largest being 2,000 gallons, and a series of museum exhibit cases for depicting Scripps research and marine artifacts. Unfiltered seawater was supplied to the aquaria through an open or "flow-though" system from an intake located at the end of the pier approximately 1,000 ft offshore in about 20 ft of water. The aquaria were meant primarily for the exhibition of local species.

By 1965, when I arrived at Scripps, the aquarium-museum building had fallen into disrepair. Its exhibits and life-support system were not up to current standards and the aquarium's husbandry practices were primitive. It was hardly of the quality one would expect of the public's window into the greatest oceanographic institution in the world. As the facilities new full-time director, it was my responsibility, in the words of Scripps Director Fred Spiess, "to stop the facility from being an embarrassment to the institution" (Figure 2).

I took this charge seriously, and we set about making improvements beginning with the aquarium exhibits. Subs and filters were added to the tanks to permit recirculation within each aquarium for temperature control and to provide a suitable habitat for burrowing species. The husbandry and the life-support systems were upgraded and a disease-management program was put in place. Community tanks with naturalistic habitats replaced the existing species-type exhibits. The geographic range of the exhibits was expanded to include the colorful tropical marine life of the Gulf of California and later extended to include the diverse communities of the tropical western Pacific. Collecting expeditions supported by the participants made the expanded program possible.

A comprehensive education program was developed, including lesson plans tied to curricula for visiting school groups (Figure 3). Weekend and summer school classes were developed, some offered through the University of California Extension Program. An annual symposium for teacher enrichment was developed, often on ecological topics. A major change in the school program resulted from the construction of a tide-pool exhibit in front of the building. This became a focal point of visiting school groups. Scripps naturalists conducted field trips or "ecotours," some in local waters and others extending to exotic destinations.

Cultural and art presentations included special events in the museum such as Eskimo Art and Pacific Coast Birds, an exhibit by Canadian artist Fenwick Lansdowne, as well as underwater photography exhibits by well-known photographers.

Although preliminary planning for a new aquarium-museum began in 1966, it was not until 1985, with the celebration of the University of California, San Diego's twenty-fifth anniversary that a fund-raising campaign got under way. A \$6 million gift from the Stephen and Mary Birch Foundation made the dream a reality.

Following additional fund-raising, architectural design, and an extensive community review, construction began on July 1, 1990. The new aquarium-museum opened in September of 1992 (Figure 4). The 50,000 square-foot building, exterior space, and parking lot cover approximately four acres.

The aquarium's core exhibits are now organized in zoogeographic units covering the eastern Pacific, from Alaska to Central America, anchored by a 70,000-gallon



Figure 1. In 1916, the first aquarium building was constructed.



Figure 3. For the first time, the aquarium and museum were under one roof with the construction of the T. Wayland Vaughan Aquarium-Museum.

kelp forest exhibit and an outdoor tide pool on the Preuss Plaza.

The museum wing, Exploring the Blue Planet, offers an overview of ocean sciences illustrated by research projects at Scripps. The program was funded largely by the National Science Foundation and made possible by the near-miraculous work of Ruth Shelly as exhibit curator. The building also includes classrooms and administrative facilities.

The original mission of the Stephen Birch Aquarium-Museum was to serve as the interpretive center for Scripps, with the goals of increasing public understanding of the oceans, promoting proper utilization of ocean resources, and generating public support of marine sciences.

Its objectives were to display regional marine life of southern California and the Gulf of California in naturalistic, attractive educational exhibits; display marine life collected on Scripps expeditions in special temporary exhibits; provide a comprehensive marine



Figure 2. Funds to maintain the aquarium were often sparse and resulted in what has been described as "benign neglect," as is clearly evident in this photo.



Figure 4. The opening of the Stephen Birch Aquarium-Museum in 1992 enabled Scripps to achieve for the first time the vision of its first director William E. Ritter, who saw the aquarium and museum as being "essential and integral elements in our plan for public education."

education program with emphasis on youth education; provide interpretive museum exhibits with emphasis on Scripps research; provide research support by supplying scientists with specimens for research; and provide technical assistance and advice and to study and improve methods of capturing, handling, and maintaining marine animals. Today, annual attendance is approximately 350,000 visitors.

Nigella Hillgarth, who was appointed executive director of Birch Aquarium in 2002, is working toward a long-range plan to maximize Birch Aquarium's role as the interpretive center for Scripps research, by communicating exciting research in the form of dynamic, interactive exhibits. Her vision is in keeping with that of the institution's first director, William E. Ritter, who saw the aquarium and museum as being "essential and integral elements in our plans for public education."