While many buildings display a strong relationship with their site, few if any have as intimate a connection as the Monterey Bay Aquarium has had since 1984 with the precious body of water on whose shoreline it stands.

Its architecture incorporates original structures from the Cannery Row district, but the aquarium draws on its site in a more literal, sustaining way as well. Unfiltered seawater from the Monterey Bay flows into some of the aquarium's exhibit tanks, bringing the nutrients and organisms that exist naturally in the natural ecosystem to the indoors. EHDD principal Chuck Davis, FAIA, was instrumental in designing the seawater system and the architecture that supports it, to make the Aquarium into an extension of the bay where human visitors can explore, learn and enjoy without disruption to the natural ecosystem out on the bay.

The pivotal architectural legacy of the Aquarium is its seamless integration, experientially and operationally, with Monterey Bay itself. When you're in the structure, you're a part of the bay, and the same is true for the creatures on display. Jellyfish, tuna, sharks, and other denizens of the offshore environment live in the aquarium in water that is largely the same as they would many yards offshore, out of view of visitors.

It's "a benchmark and role model for aquariums everywhere," one juror said of the project. Breaking free of the traditional design of aquariums as episodic series of display tanks and pools, the aquarium tries to immerse its two million visitors per year in exploring the ecosystem outside, in the Monterey Bay. They can, essentially, dive into the ocean without getting wet.

The facility "opens to the water so successfully," said another juror. "It's not slavishly contextual but adds more and respects what's there." The design puts half the structure over land and half over the water of the Monterey Bay, visually bridging the two realms. Exhibits are arranged in a fluid layout that entices visitors to meander among them, not march along a prescribed path. There are "so many different kinds of spaces," a judge said. "It gives you a sense of discovery."

Unique architectural challenges grew out of the decision to invite seawater into the building. Seawater is among the most corrosive substances in the world, and its use led the architects and engineers to many innovative construction solutions that were well ahead of their time, including the use of epoxy-coated rebar and aluminum ductwork coated on both sides against airborne salts, as well as concrete pilings encapsulated within fiberglass sleeves in order to prevent damage over time from marine-bound organisms. Heating and cooling for the building and its tanks come from a seawater-based heat pump system.

Perhaps most remarkable of all its technical accomplishments is that the aquarium’s condition has remained virtually unchanged in over a quarter century. Recent testing of some of the
concrete in the exhibits has indicated that it should withstand the corrosive saltwater environment for 490 years. When the aquarium was reevaluated in 2010, the Philadelphia-based architecture and engineering firm Ballinger concluded that no major repairs were needed and that the aquarium was still in exceptional condition. Only very minimal repairs have been required through the years, primarily for equipment that lasted beyond its anticipated service life, and generally where more durable equipment was not available at the time the Aquarium was constructed.

The Monterey region has a centuries-long relationship with its watery neighbor, but in the years before the aquarium was built, that relationship was anxious after cataclysmic declines in the fisheries that had supported the area's canneries. The aquarium has been a centerpiece and innovator in the development of a tourist industry that focuses on eco-sensitive exploration and enjoyment of the surrounding resources. With its continued success since 1984, the building has been expanded and renovated multiple times, always with EHDD involved.

Since its opening on what had been a derelict stretch of Cannery Row, the aquarium has transformed public expectations about aquariums with its tight focus on the ecosystem around it and how that can be protected, enhanced and treasured by human visitors. Programs such as the internationally respected Seafood Watch program, the foundation for the global sustainable seafood movement, have grown out of a tradition of innovation that stems from the Aquarium’s inception.

Additional Credit

- Acoustic Consultant: Charles M. Salter Associates
- Construction Manager: Rudolph & Sletten, Inc.
- Engineer – Civil/Geotechnical/Structural: Rutherford & Chekene
- Engineer – Control Systems: Pipeline Systems, Inc.
- Engineer – Electrical: Cammisa & Wipf
- Engineer – Mechanical: Guttmann & Blaevoet (formerly Guttmann & MacRitchie)
- Exhibit Design: MBA Exhibit Design
- Lighting: Architectural Lighting Design

Jury Comments

Still a brilliant, gritty adaptive reuse, and still at the forefront of interactive museum space.

A benchmark and role model for aquariums everywhere.

2016 Institute Honor Awards for Architecture Jury

- Josiah Stevenson, FAIA (Chair)
- Leers Weinzapfel Associates Architects
Boston
José Alvarez, AIA
Eskew+Dumez+Ripple
New Orleans
Brad Cloepfil, AIA
Allied Works Architecture, Inc.
Portland, Oregon
Roberto de Leon, AIA
De Leon & Primer Architecture Workshop
Louisville
Julie Eizenberg, FAIA
Koning Eizenberg Architecture, Inc.
Santa Monica, California
Julie Engh, Assoc. AIA
Highland Associates
New York City
Elizabeth Hallas, AIA
Anderson Hallas Architects, P.C.
Golden, Colorado
Danielle Jones
AIAS Representative
Zelienople, Pennsylvania
Christian Zimmerman, FASLA
Prospect Park Alliance
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