

## ARCHITECTURE

# Piano's Forte: Museum as Ecosystem

By DAVID LITTLEJOHN

San Francisco

Renzo Piano has been the architect of preference for original and dramatic new museum projects ever since he and Richard Rogers shocked Paris with their radically modern Centre Pompidou in 1977. In tranquil contrast, Mr. Piano has designed two of the most elegant small private art museums I have ever seen—the Menil Collection in Houston (1987) and the Beyeler Foundation north of Basel (1997). After designing a “native”-looking cultural center for New Caledonia in the south Pacific (1998), his Genoa-based workshop accepted several commissions to enlarge and improve existing museums across the U.S.

But now he has designed a new museum (if that is the word) as novel and exciting as anything since the Pompidou. Over the past eight years Mr. Piano, working with a small army of collaborators, replaced a complex of 11 buildings in Golden Gate Park with a single light-filled glass and concrete home for the California Academy of Sciences. Its \$488 million cost (70% paid by private donations) included moving 38,000 living creatures and 20 million dead specimens elsewhere for 3½ years, then moving them all back.

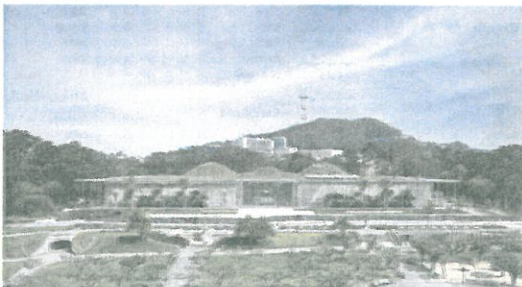
The academy, founded in 1853, is primarily a research institution, sponsoring scientific expeditions around the world. But over the years it began to do more and more collecting and exhibiting, until it included a major aquarium and planetarium as well as extensive terrestrial displays. Now all are housed in a single building, for a unified experience and a common purpose.

Most of the contents visible to the public are alive: snakes slither, alligators and octopuses appear to sleep, birds and butterflies fly about a living rain forest. Tens of thousands of sea creatures make their home in undersea habitats that meander through the building. The undulating green roof is covered with 1.7 million native plants. You can climb up the rain forest on spi-

raling paths, walk under Amazon floodwaters through a transparent tunnel, take a glass elevator up to admire the dense flora that rolls over the seven hills of the roof. Much of the visitor's experience is that of actually being in distant, alien, exotic parts of our planet—or (in the planetarium) of our universe. Rocks, fish and plants in the world's largest indoor coral reef can be seen from above as well as from under water. Broad, sometimes curving transparent walls hold back 500,000 gallons of sea water. Temperatures and humidity change, winds blow, waves ripple, skies darken, jungle birds screech.

The new California Academy of Sciences was designed to demonstrate not only the origin and the unique rich-

ness and diversity of the planet we inhabit, but also the ways in which these are threatened by man. It is no accident that the two primary exhibition areas are devoted to tropical rain forests and coral reefs—two major earthly environments now radically shrinking. Or that the two big areas of didactic displays focus on evolution and global warming. Many of the habitats and living creatures shown here are in danger of extinction. The ultimate thesis of “Fragile Planet,” the spectacular opening planetarium show, is that Earth still seems to be the only planet capable of sustaining what we call life—and that if we continue to threaten or reduce life on Earth, it may be the end of the story.



Photos: Tim Griffin

The building is relatively easy to navigate. The three central bays compose an immense, glass-walled conservatory, separated into three glass-divided spaces (visitors' entrance, central atrium, employees' entrance). One can look clear through the building from north to south into the greenery of Golden Gate Park. Standing in the 96-by-72-foot atrium (which Mr. Piano calls a piazza), one can also look into the park to the east and west, down long symmetrical wings 35 feet high. Depending on the weather, this piazza can have a translucent, transparent, or wholly open ceiling, over an intricate double spiderweb of steel beam and cable trusses.

Each of the wings, east and west, houses a huge truncated sphere, 90 feet in diameter. The tops of these two partial spheres, bursting through the roof,

form the two most prominent dome-shaped hills atop the building, each punctured with portholes for light and temperature control. The glass globe to the west encloses a four-level tropical rain forest: the Amazon in flood, a forest floor from Borneo, a higher tree level from Madagascar, and a Costa Rican canopy. Each level is full of living plants and creatures, as well as related displays. The enclosed hemisphere to the east houses the planetarium, sliced off at an angle under the seats to overhang the surface level of the great Philippine coral reef. Here one can cross over Indiana Jones footbridges inches above gliding sharks and rays.

Beyond the two spheres, lighted by the great east and west garden walls,

partly old, partly new—is even less interesting to look at than the brown copper sheets that cover the façade of Herzog & DeMeuron's de Young Museum of 2005, which it faces across a formal promenade of pollarded plane trees. The academy's green roof has been written about a great deal, whether because of Mr. Piano's original conceit (a visual counterpart to the surrounding hills, a piece of the park pushed up by a building), its supposed symbolism (the seven hills of San Francisco), its contribution to the building's super-green status (natural insulation, rainwater absorption, wildlife attrac-

tion, etc.), or the extraordinary difficulty and ingenuity of its design and construction. But in no way does it fit visually with the austere, geometrical box underneath it. The only place you can see it all clearly is from the observation deck atop the de Young tower.



Renzo Piano's new \$488 million structure for the California Academy of Sciences (left) contains a real rain forest, which visitors can ascend on spiraling paths.

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In the month since it opened, Mr. Piano's new home for the academy has become one of the most popular attractions in this tourist-mobbed little city. Take public transportation (and save \$3 on the museum admission fee), avoid weekends, aim for the morning, and book early for planetarium seats and an environmentally correct gourmet lunch. The penguins are fed at 11 a.m. and 3:30 p.m.

Mr. Littlejohn writes about West Coast cultural events for the Journal.