

Focus: California Academy of Sciences Reopens

The Open Museum

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On the morning of September 11, 2001, I was in a hotel room in San Francisco, having just arrived from a two-week tour of planetariums in Japan. Just before 6 a.m. I received a call from the managing director of my office in New York that something terrible had happened at the World Trade Center.

I was just about to participate in a week-long session at the California Academy of Sciences with a group of astrobiologists, astrophysicists, California Academy leaders, an Apollo astronaut, and other designers in an exploration of what kinds of exhibitions and programs the new California Academy should include under the title “Earth and its Place in the Universe.” To discuss such a topic at a moment when our own place in the universe seemed rather tenuous was to wonder about the value of our enterprise in relation to a world in great need of positive intervention. We had to wonder what, indeed, were we doing? What is the role of a natural history museum—repository of our finely tuned passions for esoteric knowledge, and for great unanswered questions—in a world where individuals, groups, and governments are bent on destroying whatever they perceive to be in the path of their ambitions?

That was a moment of cataclysmic change, the outcome of which is still, in 2008, barely understood. All of us who met that morning in shock and uncertainty have returned to a state of normalcy altered in ways we mostly do not feel. But the question of what it is we are actually

making when we create a museum, and what value it has in a complex and turbulent world, remains as pressing as ever.

The new California Academy of Sciences represents a community investment of nearly a half-billion dollars. It is a natural history museum with an embedded aquarium—the Steinhart—at its core. It is a much-heralded green building currently on track for achieving a LEED Platinum certification, one of the first museums in this country to do so. It embodies the ambitions of a board of trustees, administrators, researchers, educators, paid and volunteer staff, many stakeholder groups, and local residents. It also embodies the aspirations of its architects, designers, and builders. But what is this place? Why is it a place at all?

Natural history museums are generally thought to represent the natural world. Jay Rounds has often said they represent the disciplines that study the natural world. I’d go still further by describing them—indeed, all museums—as *places of self-representation* for the community that creates them. I believe they represent the shared aspects of self-identification that bind members of a community together, by presenting to others—the public—the objects of collective passion. For a board of trustees, the principal objects may be the building that is the most public face of the institution, and the museum’s educational exhibits. For researchers, the principal objects may be the specimens and knowledge that define their interests and identity as



The aquarium under construction in June 2006. Everything visible is at the lower level, with the Philippine Coral Reef in the foreground, Water Planet at center. California Coast is the round window just to the right, and the beginnings of the Rainforest are at far right. *Photo by Tom Hennes, courtesy of Thinc Design.*

scientists. Seen this way, the museum is a kind of communal living room, if you will, displaying the totems that represent the owners and, in fact, bind them together as a recognizable whole.

How that living room opens itself to outsiders and the degree to which they are able to feel themselves a part of it is a measure of its attractiveness and ultimate success. In this respect, the museum is a contact zone¹ among divergent communities brought together, often serendipitously, through experiences and interests they hold in common, or in which they are able to discover unexpected common ground. One group sees its reflection in the other's representation.

So how does this work in Golden Gate Park? The architect Renzo Piano is said to have been awarded this project because he walked into his interview with the trustees

armed with nothing more than a sketchpad and an open mind. What he heard, and reflected back, was an aspiration—particularly acute in San Francisco—to live an ethic of sustainability in a lush park setting of rolling hills. Piano told them that people in the building should need to look no farther than the park itself to find themselves in nature. His “Flying Carpet” green roof—“a piece of the hillside lifted up”—was born and became the paradigmatic icon for the project.

In the post-Corinthian era of museum-building, this boldness of understatement came to acutely reflect the mixture of high social aspiration and environmental consciousness that characterize this board of trustees. Through times of project expansion, cost escalation, and inevitable retrenchment, the undulating green roof of the building remained the core of the proj-



Main Coral Reef, with the first corals in place on a sculpted substrate. Eventually, living corals will fill the view. Mike Shakespear, Thinc's project director for the Steinhart, is seated at left. *Photo by Tom Hennes, courtesy of Thinc Design.*

ect for those in positions of power. Even when they felt it necessary to make choices to reduce the energy-effectiveness of the building to maintain capital budgets, the roof and the naturally-ventilated museum space beneath it continued to represent an aspiration to “walk the walk” on sustainability.

While this aspiration was widely shared in the project team and throughout the organization, those whose focus was the visitor experience and environmental education remained far from reconciled to the building beneath the roof because it imposed an urban regularity on the unfettered expression of the natural world that was, for them, its purpose. It remained for the design teams to work out the integration of exhibitions that represented “explorable landscapes” into the urban clarity of the building scheme. For the Steinhart

Aquarium in particular, this seeming either-or conundrum ultimately became a both-and proposition, in which the crispness of the building could be balanced by the organic presence of the living exhibits, and vice-versa. To accomplish this, the above-water views became sharply defined park-like interventions cut into the rational building structure. The below-water views were strengthened through highly specific, naturalistic settings that accentuate the perceptual and subjective qualities of the environments they represent—as expressed by the biologists in their lived experience of the real places. At those moments, architecture either disappears or moves to a defined edge of the frame.

For the community of researchers, there was a different kind of representation. When the design teams began the exhibition planning process in spring of 2001,



Surface of the California Coast with the Rainforest at left. This was the first trial run of the wave machine in April of 2008. *Photo by Blair Parkin.*

then-executive director Pat Kociolek told the project team that the San Francisco community did not understand that the California Academy of Sciences was a leading research institute. One of the key design and institutional challenges would be to make research visible on the public floor—in other words, to directly represent the indigenous community of working scientists at the California Academy, and to give insights into their research.

As with the Darwin Center at the Natural History Museum in London, part of the solution was to literally make research visible in what became the Research, Collections and Administration (RC&A) Block: a research center running the length of the building along its south side, with penetrations to the exhibition floor at ground level. Similarly, a Naturalist Center—prototyped in a temporary facility during the period when the old California Academy

was demolished and the new was under construction—became a zone for mixing education, research, and collections with visitors interested in a range of self-directed activities. These included handling, identifying, and working with collections that visitors themselves brought in or special collections the Academy would make available to them. This kind of live, person-to-person interaction among the public, educators, and research staff was prototyped in other spaces in the temporary building as well, and will likely continue in a variety of places on the public floor of the new natural history museum and the Steinhart Aquarium.

CAS researchers are also represented in most of the major exhibits of the Steinhart Aquarium through ecologically accurate representations of very specific places where they conduct significant bodies of research. In this aquarium-in-a-museum,

an enormous amount of effort and investment has gone into making these living exhibits as complete and accurate as possible. This is not because visitors are expected to notice the detail or accuracy on their own, but rather to enable educators, guides, and scientists to utilize the richly detailed exhibits as resources for storytelling with visitors. Of course, such detail has the added benefit of bragging rights with peers in other institutions. In fairness, it should be said that the designers themselves find parallel self-representation here, along with the same bragging rights.

So how do visitors find points of entry or representation for themselves in the new California Academy of Sciences? This is, of course, a burning question that can only be answered once the new facility is in operation. One way is through the kind of interaction that the Naturalist Center and other, similar areas of the natural history museum offer. In the Steinhart, it is certainly hoped that the public will respond spontaneously and deeply to the new living exhibits and to the immersive heart of the aquarium, the Water Planet, which is intended to embody the intricate connection between water and life. It is also hoped that the many areas for person-to-person facilitation built into the large exhibits and throughout the Steinhart Aquarium will provide opportunities for genuine contact, exchange, and self-reflection. For this kind of experience, only operational practice will foster or defeat success.

For another kind of self-representation, however, there is the nascent example of the 210,000-gallon Philippine Coral Reef exhibit. This habitat will be the largest indoor living coral reef in the world, growing over the next 20 or so years into a spectacularly vibrant environment. In order to begin that growth, however, CAS biolo-

gists, led by Terry Gosliner, Senior Curator of Invertebrate Zoology, expanded their long-established field research and, more importantly, their relationships with Philippine biologists, conservationists, and communities of fisherfolk—both for collection and husbandry of key species for the new exhibit, and to build a sustainable link to the real place the exhibit represents. This durable relationship has continued to grow in the past several years to include basic research, changing sustainability practices, new public educational programs, student mentoring, and increasing scientific exchange.

Meanwhile, California Academy has reached out to the local San Francisco Bay Area Filipino community as a newly active constituency at home. A welcome result of that relationship, according to education director Meg Burke, has been that the local community has increasingly come to recognize something of its own patrimony—the richness of its coral reefs—as a point of interest and community pride. Through interpretive media, community relations, and programming, this naturalistic habitat could become shared ground for the disparate communities conducting research, living near and on the reefs, and living in San Francisco—all united by a common interest in the representation and preservation of a treasured natural place, and their varied relationships to it.

Whether the new California Academy will be judged worth the investment is not for me to say. If it is so judged, however, I believe it will be because it has successfully created a meeting place where many different communities are brought productively into contact with one another. Even in the age of virtual communities, its *placeness* gives it the attractive power to convene disparate groups of people who find rep-

resentation and common purpose there. The Philippine Coral Reef, the California Coast exhibit, Rainforests of the World and the many areas where Academy staff, other specialists and the general public freely make contact will be those convening spaces, whose online echoes will extend their presence over great distances.

So what is the California Academy's place in the universe? How shall we judge its value, not just to the community that builds it, but to the world as a whole? It could well be argued that changing that world in some way and to some degree is the point of all this self-representation, by fostering people's awakening to the natural world or by stimulating shifts in behavior and policy to sustain that world and ourselves within it. Museums are no longer about freezing the world around them, if indeed they ever were. I would suggest that change, however defined by the institution and its community, is the ultimate purpose of any museum today and the measure of its success. Otherwise, why build? Why

even exist? If the California Academy can claim success by building a place in which the first stage of change occurs—the mingling of groups and ideas that don't ordinarily mingle—then it can indeed argue that the investment is well spent.

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Note

1. For a compelling discussion of museums as contact zones, see Clifford (1997).

Reference

Clifford, J. 1997. *Routes: Travel and Translation in the Late Twentieth Century*. Cambridge, MA: Harvard University Press.