



Technology is only one element that architecture deals with, but it is inescapable. Buildings have to be built with something, and building technology is simply the way in which materials are used and labor is organized. There is always a point where we must consider the relationship between design intentions and the reality of building, and it is my contention that in any healthy architecture these two things cannot be far apart.

From the inception of the modern movement, many architects were totally uninterested in historical issues because those issues did not help their thinking or contribute to the way they resolved buildings. One of the basic tenets of the modern movement was that regardless of what you designed, it had to be closely related to the way it was built. Even more than that, you had to make a point of it. Today; some architects in the modern tradition are still looking for a technology that will symbolically appear progressive and modern, a symbol of a new architecture for a new era. But by comparison with other areas of technological development, there is really no "high technology" in architecture. In the latter part of the 20th century, high technology is what scientists use to send Voyager and Mariner into space. In architecture we have nothing more than an expression of high technology used for artistic purposes.

We are now going through a period when ideas and the consensus within the architectural profession are shifting rapidly. Certain attitudes toward design that were vigorous ten years ago no longer exist. Many people who were working in the midst of the stream have suddenly been left high and dry. Some architects may survive to find themselves again in the stream, but for many the current will move away.

Right now we are dealing with several coexisting aesthetic systems. Aesthetic systems tend to get defined as a framework and architects establish their own particular standards within them: what's good, what's bad, what's better than the other. But once the yardstick of one system is used to measure another aesthetic system, the architects working in the first system will, by definition, be dreadful in the second because they will not measure up at all. For example, you cannot judge the architecture of a Norman Foster or a Michael Graves at the same time with the same yardstick. One or the other will appear to be a bad architect.

You can do architecture that depends on a system of proportions, or on a relationship to human beings, or on historical traditions. And with any of these if you are good, you can end up with a work of art.

Technological Expression

I think that architects work within the context that happens to coincide with their own particular interests and ways of searching. Some architects are working at the edge, pushing. Some may be pushing for the maximum recollection of history, some for the maximum expression of industrialized materials. But these efforts are really at the edge. The edges are always the silhouette; they immediately become noticed.

But you don't need to make an architecture that represents the past. And you don't need to make an architecture that represents the future. Neither of these two positions deals with the reality of getting buildings built today. They are both idealized tendencies that have been fighting with each other. Those architects will go farthest whose efforts are reinforced by the ideas of the present.

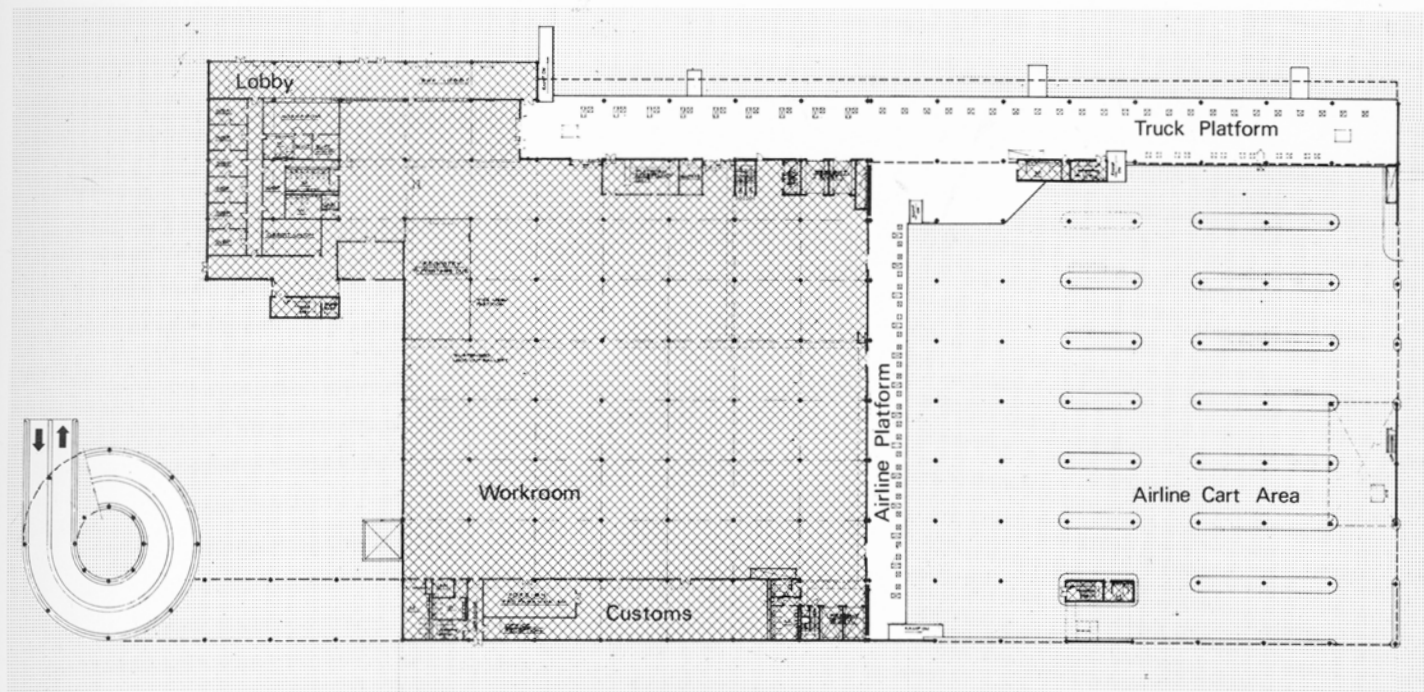
I believe that a healthy architecture should represent today—should deal with the technology of today—and the technology of today is industrialized. But not all *that* industrialized.

Such a position can be seen in the problem of designing and building a house where the most developed technology is wood frame construction. It is the most economical, the most available, the most developed, and the one that will allow you to have the greatest number of aesthetic choices. In New England, you would use clapboards or shingles; in Southern California, chicken wire and stucco. Those would be the most appropriate technologies and you would get the best results for the least money. This is what labor knows how to build. This is what we interpret as a house today and what future buyers will want from a house. And it will be more adaptable to additions and alterations.

If you are doing a highrise office building, you really cannot talk of anything except concrete or steel structure, and some sort of enclosure that will not be structural, but will probably be a curtain wall. How you use this for an artistic expression is another issue.

You cannot build a building that does not conform to codes and government regulations. You cannot pretend that there are no labor unions. You cannot pretend that there is still a high level of craftsmanship. Those facts are pragmatic and real.

One has to make architecture with the things that are available: with the technology that is available, with the social system that is available,



with the economics that is available. That's the only architecture which allows the development of forms that can be carried on by other architects and which other generations can develop and transform. They can continue relating to what is really there.

Worldway Postal Center

The Worldway Postal Center at the Los Angeles Airport is an international mail handling facility, the first fully mechanized post office to be located at a major U.S. airport. Post office officials had a very clear idea of what they wanted and gave us what virtually amounted to a design of the building. While many architects receiving this kind of design package would spend a lot of time redefining and redesigning it, we didn't. Since their requests and recommendations seemed to be appropriate to their needs we took their plan and built it with a few minor modifications.

We designed a tough, industrial building with no frills. We wanted it hard and tight. I mean physically hard, like brick and concrete, to take a good deal of rough use through many years, and tight, with no projections or added elements.

The Post Office Department wanted round concrete columns with conical capitals to support floors of flat slab construction. They prefer this structural system because holes can be cut at almost any point in the slab and a number of ele-

ments like conveyor belts, catwalks, or ducts can be suspended from it in a similarly random manner. At the Worldway Postal Center we exposed the round columns on the exterior. We set panels of brown brick between the columns and cut the capitals flush with the exterior surface of the wall, exposing a parabolic knuckle of concrete at the joint of the column and floor, which looked very much like a Romanesque capital.

This simple action transformed the utilitarian structure into an element of great beauty that gave order and form to the whole project.

Pacific Design Center

Equally pragmatic were the bases for the 1971 design for the Pacific Design Center in Los Angeles. We developed the program for the 13 acres of interior design showrooms and ancillary retail facilities that the building houses along with our developer client. The bulk of the building was derived from two constraints. One was the desire to put all the parking for the building on the ground. The other was to keep the building as low as possible because showrooms on the upper floors tend to receive less traffic. For this reason, we have aligned showrooms on the top two floors along a central galleria space which is capped by a 60-foot (18-meter) high barrel vault, glazed on the north side.

Since our client was interested in spending as little money as possible and since we were interested in varying the perimeter, roof profile, and

The functions of the Worldway Postal Center are allocated within the rigors of the structural grid, as can be seen from this ground floor plan.



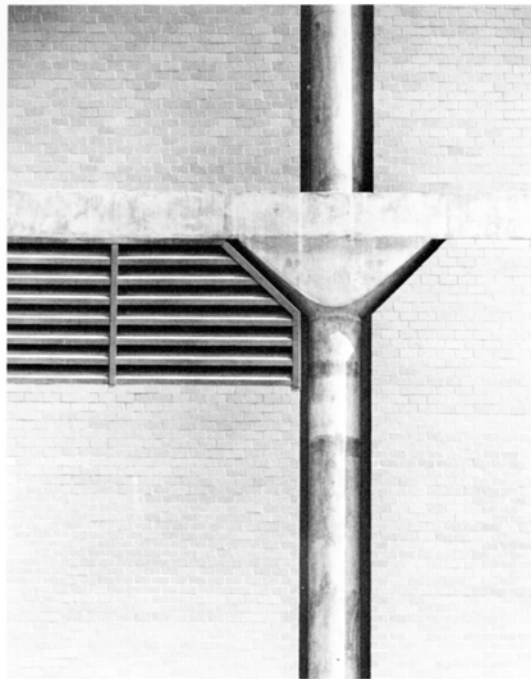


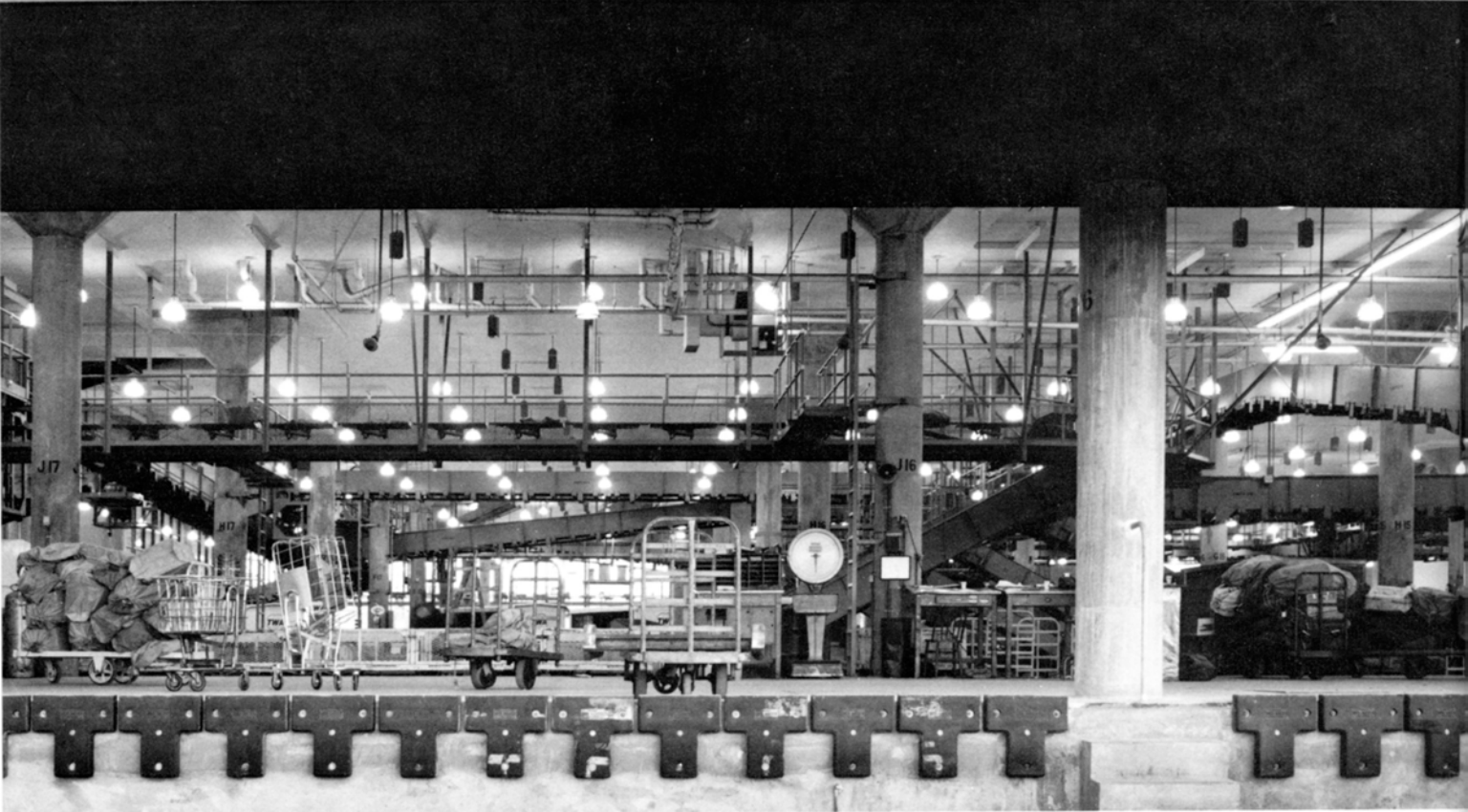
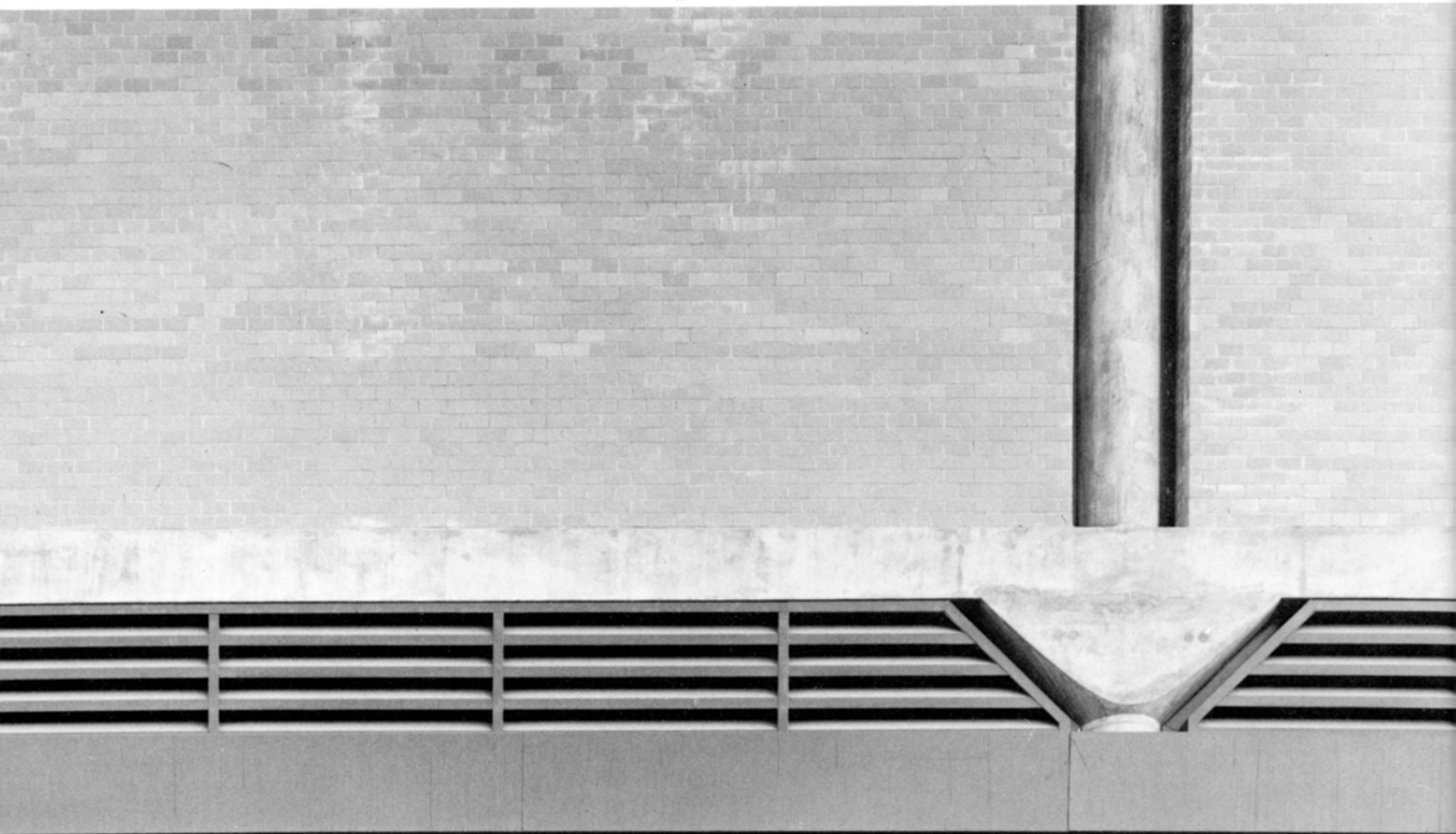
Opposite page: In the front elevation of the Worldway Postal Center the hybrid quality of the frame and skin building is readily apparent.

Top: Within this highly structured grid an incredible variety of different functions and cladding materials are in-filled while still maintaining a taut facade.

Bottom, left: The ramp to the employee parking on the roof is split from the building by two bays.

Bottom, right: Detail of the recessed column showing the cut mushroom capital and the flush brick and louvers.





interior plan, we searched for an appropriate structural system. A uniform 30-foot (9-meter) square steel column grid proved to be the most economical, efficient, and buildable structure. It was simple and straightforward.

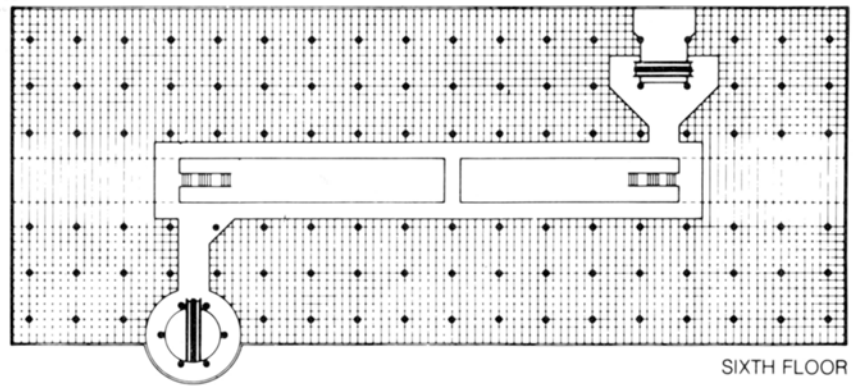
One of the most economical facades for a building of this type is a continuous glass skin. Since there was very little need for clear glass windows, we were able to use spandrel panels of glass, spraypainted with a ceramic grit and then oven baked. A layer of insulation was added to the inside surface of the spandrel, making the facade fairly energy efficient.

Unlike stone glass is a fragile material. It embodies a changing, impermanent, and finite architecture suitable for the functions we house today. The transparency, reflectivity, and perceptual qualities of the material are enhanced by treating it like a skin, as a positive element and not a void. By wrapping the glazing envelope tightly around the building masses, we enhanced the crystalline nature of the extruded form. By very lightly gridding the skin, we were able to hold the surface planes without losing the fragile quality of the material. The neoprene mullions that zipper the pieces of glass together are very flush against the surface and protrude only $\frac{3}{8}$ inch (9.5 millimeters) from the skin.

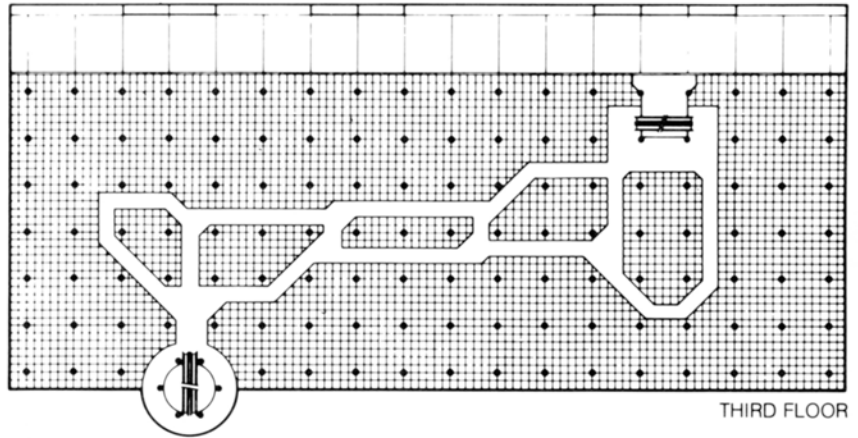
This is one of the aesthetic decisions upon which the strength of the building rests. The other was to make it very blue. Because the spandrel glass is cladding and not windows, we felt that it should have a definite color. We had chosen blue to reflect the blue of the sky. The client had some doubts about that color and wondered if there weren't alternatives. So we presented about ten, ranging from white to very dark colors, saturated to unsaturated. We made a very systematic study, covering a model in different color papers. The yellows looked terrible; the greens were awful; in a pastel shade, the building lost its form. So we ended up recommending only two colors: the blue and a dark desaturated red. We presented the alternatives knowing that when the decision was made, we could go along with the client's choice.

When the blue was chosen, we prepared about twenty large Plexiglas panels with different shades of blue ranging from gray to red blue and more or less saturated. The present blue was selected over the lighter shades which have very little reflection and much less contrast.

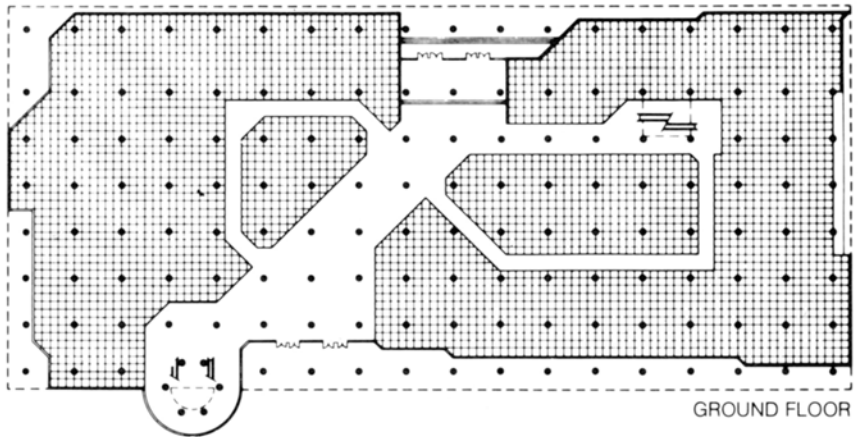
The choice of blue and the building's graphically strong profile were an attempt to give the building a personality, an image. All buildings have images. Traditionally architects have been conscious of all the aesthetic impressions, associ-



SIXTH FLOOR



THIRD FLOOR



GROUND FLOOR

Opposite page: Looking through the skin of the facade into the guts of the Worldway Postal Center: the loading dock and airline cart area.

Above: Plans showing the variety of corridors at the Pacific Design Center.



Above: The massing of the Pacific Design Center responds directly to programmatic variations within. Superimposed upon them are aesthetic notions. The barrel vault, for instance, is supported by a haunched beam on one side, not because it is structurally advantageous but because we wanted an asymmetrical profile.

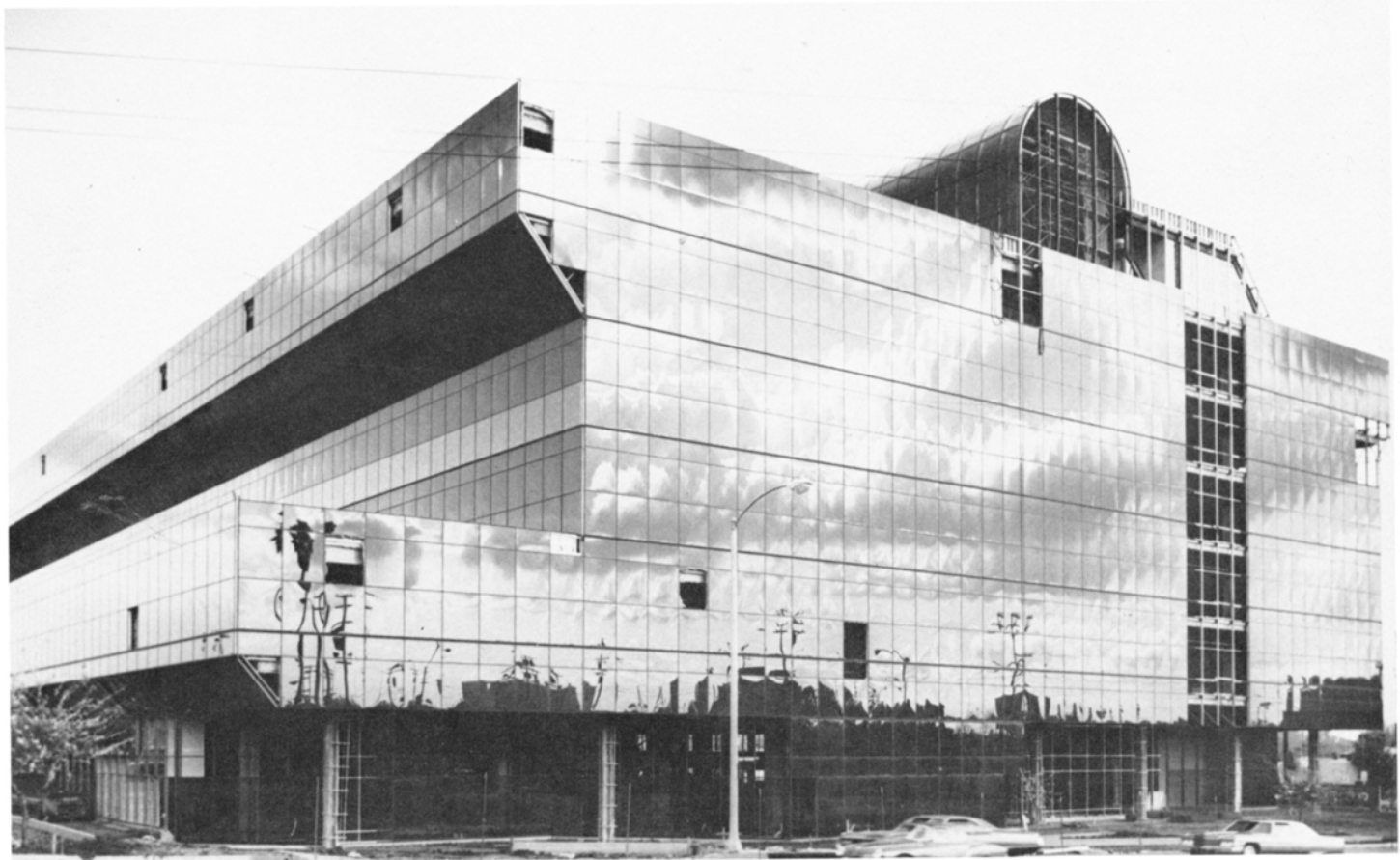
Opposite page: Inside the galleries on the sixth floor: in addition to its programmed functions this space has played host to events ranging from fashion shows to weddings.



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ations, and moods that a building evokes. I tend to think about it very early in the design process (although not quite at the beginning). By making the large mass of the Design Center completely distinct from its surroundings, it enhances the scale of the surrounding buildings. It is like looking down a street in a port city: you see an ocean liner which is enormous in scale, but which doesn't change the scale of the little buildings around it.

The building has had a decided effect on the community. Other buildings in the previously depressed area are being spruced up; some are even painted blue. Movies have been made there. Pilots on Pacific Southwest Airways even point out the building as they fly overhead. The building is fully rented. Its concentration of design showrooms has made the area even more of a design center than before.

If the color of blue was not a given, neither was the extruded profile. They were opportunities that were perceived and developed, artistic possibilities completely attuned to the technological realities. Blue doesn't cost any more than another color. There is no additional skilled labor required to make it or to install it. Decisions like these—which take advantage of working with the grain of how the building will be made rather than against

it—are for me the appropriate way to use technology. And the appropriate way to make art in architecture.

A long taut wall has great beauty. The Crystal Palace did not depend on the correct proportions of its doors or its relationship to historical elements. It depended on immensity, on sheer vigor, on newness, on the extraordinary light running across the top. That building could have been a hundred feet longer and it would have made no difference. At the Pacific Design Center, the impact likewise depends on the long expanse of the tight blue wall. That becomes very beautiful in itself.

It amused me to find that other architects who visited the building found different aesthetic intentions in it. O.M. Ungers felt that its strength came from the continuity of the grid wrapping over and around the building. Giancarlo de Carlo saw it as a series of interior spaces. Most other architects see it as a statement on scale and color. We all do not respond to a work of art in the same way, and a building is much more than a work of art.

Art in architecture and the beauty of the building come from pushing, with sensitivity, a particular quality to its limit.

Top: Under construction, the fragility of the Pacific Design Center's cladding is most apparent.

Bottom: During the latter phase of construction when the cladding is almost complete, the facade begins to acquire some of the fragile perceptual qualities of glass.