

## DAMS, DOMES AND THE BATTLE OF STYLES

By ADA LOUISE HUXTABLE

**P**ERIODICALLY, the Museum of Modern Art comes up with a show that makes, or records history, or both. In a series of such landmark exhibitions it has given the art public and the art market the definitive word on Cubism, Surrealism, De Stijl and Art Nouveau, started the Van Gogh sunflower syndrome, still going strong on another part of this page, and established many other movements that remained amorphous until the museum provided brilliant crystallization.

When one of these shows comes along, it's a notable event. Twentieth Century Engineering, a photographic exhibition inaugurated this week in the museum's new garden wing galleries, where it can be seen until Sept. 13, is the latest of these eye-opening presentations. Like the rest, it does homage to a major subject by putting it on display in such a way that its import can't be missed and the visitor leaves thinking that this is a basic truth that he has always known.

### Modern Monuments

He hasn't, of course, although in this case he may have been aware of dams, bridges, domes, highways and instruments of the space age as engineering products of remarkable competence and complexity. But the museum makes it clear once and for all that 20th-century engineering is producing 20th-century monuments of lasting significance, and that the art of construction is the greatest art of our time.

The show will do much to establish and popularize the meaning and importance of engineering-architecture with the general public. On a more

specialized level and with almost uncanny timeliness it raises pertinent questions for the profession in a period of crisis, for at this moment of extraordinary success and activity architecture is divided into two bitter camps.

The forms and philosophy of modern architecture have grown directly out of the remarkable technological advances of the 19th and 20th centuries that led to revolutionary new ways of building. Its roots are firmly in the kind of structural engineering that this exhibition stresses. The steel skeleton, the most important development since the post and beam and the arch, changed cities from rows of low masonry buildings to streets of curtain-walled skyscrapers. Reinforced concrete broke open

the world of form. No one questioned that form followed function and structure made style.

Now the profession is split wide apart, between those who still feel that architecture is properly the expression of structural techniques, and those who have broken with this principle for a more free-wheeling kind of design. It is a deep and serious split, much like the old realism-abstraction battle in painting; each side convinced of its own virtue and the opponents' sin.

Oversimplified, the lines are drawn between the show-the-bones versus the cover-up or slipcover schools of design, guts versus embroidery, steel versus lace.

This puts Mies, the far-flung firm of Skidmore, Owings and Merrill, I. M. Pei, et al.,

on one side, building solidly, beautifully and conservatively on basic structural systems, seldom departing from the proper revelation of structure's presence and importance, preserving its visual and sensory integrity, clearly suggesting its basic role no matter what manner of enrichment is used.

For these architects, it's structure first, last and always, for that is the miracle of building, and building is primarily a structural art. It is for this observer, too, if anyone wonders where we stand. (We are taking it for granted that the architect is fulfilling his functional program in the process.)

### Dissenters

In the other camp are men like Paul Rudolph, Philip Johnson, Minoru Yamasaki and Edward Durell Stone, all of whom would scream bloody murder at being lumped together, but that is exactly how the first group lumps them. It not only lumps them, it considers them traitors to modern architecture.

Their work seeks special, pleasing effects—dramatic, decorative, historical, exotic, luxurious and sensuous—and it's not always too fussy about camouflaging or dissembling structure to do it. It is sophisticated, romantic, experimental and exploratory; its construction can be quite secondary to purely ornamental, social or emotional ends.

Yamasaki, for example, has been known to have a love affair with a folded plate roof because he was as interested in the look of accordion pleats as in the provision of shelter. Stone has gift-wrapped everything from embassies to gas stations in grilles and screens. Johnson might be called a structural esthetician.

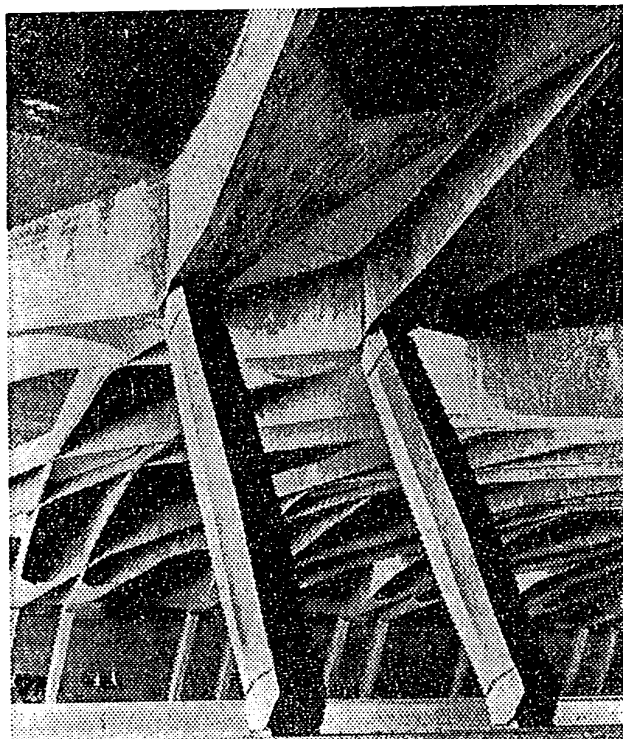
In the case of Rudolph, and it is a very special case indeed, basic construction is not denied or hidden, but exploited theatrically for its most dramatic aspects. Call him a structural expressionist. This trend toward a strongly plastic, picturesque approach is in the ascendancy among the talented younger generation. But it's a far-out use of structure, nonetheless.

The point that the museum show makes, pertinent to both groups, is that there are no easy, right-or-wrong answers to architectural design, even in the purely utilitarian construction of the engineer. For engineering, too, involves free choice. In dealing with primary requirements, like the containment of water pressure, and restrictive elements, such as site, stream size and topography, the engineer makes numerous subjective decisions. He can build a wall, arch or buttress dam of many possible variations of detail and configuration. His choices determine the form and appearance of the result.

### Decisions

So do the architect's subjective decisions determine his results, whether he is a "structural purist" paring his building to its beautiful bones, or a romantic experimenting with decorative taboos. It is all part of progressive change, in a period of transitional modern design, and we intend to sit tight and watch the game. We'll even keep score.

But both sides might remember an engineer's definition of architecture, by Pier Luigi Nervi, one of the stars of the museum's show. "Architecture is structural truth, correctly conceived and carried out with love."



**ENGINEERING**—Concrete structure in Turin display hall by R. Morandi, at Modern Museum.