

## Architecture

# Art and Building By the System

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THE BUILDINGS in our cities today have been designed by competitive economics and cheap energy. They are fiscal and mechanical marvels. Yes, they have been designed by architects too, but forget any Fountainhead idea of genius fighting business and the mobocracy for art.

The art of construction is a very pragmatic thing. It is usually the art of cash flow and code compliance and hitting the market right. It is not artistic inspiration transferred to paper to be executed by compliant craftsmen-builders. It is a conditioning and sometimes crippling set of limitations through which the architect may guide a concept, if he has one, with considerable struggle.

What comes out of the process may eventually be art, depending on the quality of the mind and the idea and the talent engaged in the struggle. But the process of design, and the art of architecture, are a lot of things most people never think about.

This fact is suddenly becoming very clear with the energy crisis. Abundant, cheap energy harnessed to 20th century technological innovation has created today's big buildings. It has also made them extremely profitable, by bringing into existence huge volumes and floor areas artificially ventilated and lit and totally climate-controlled, which society and its builders measure by the rentable square foot.

Historical restrictions on building size—the practical height of a bearing masonry wall or the weight an arch could carry—have been swept away by modern technology. The architect sees this technology as a challenging design and building tool; he is fascinated by new materials and structural systems and radical engineering techniques; and he has done a fine job of utilizing all of this functionally and programmatically.

But he has invented nothing, or very little, except for using the new engineering innovatively. This,

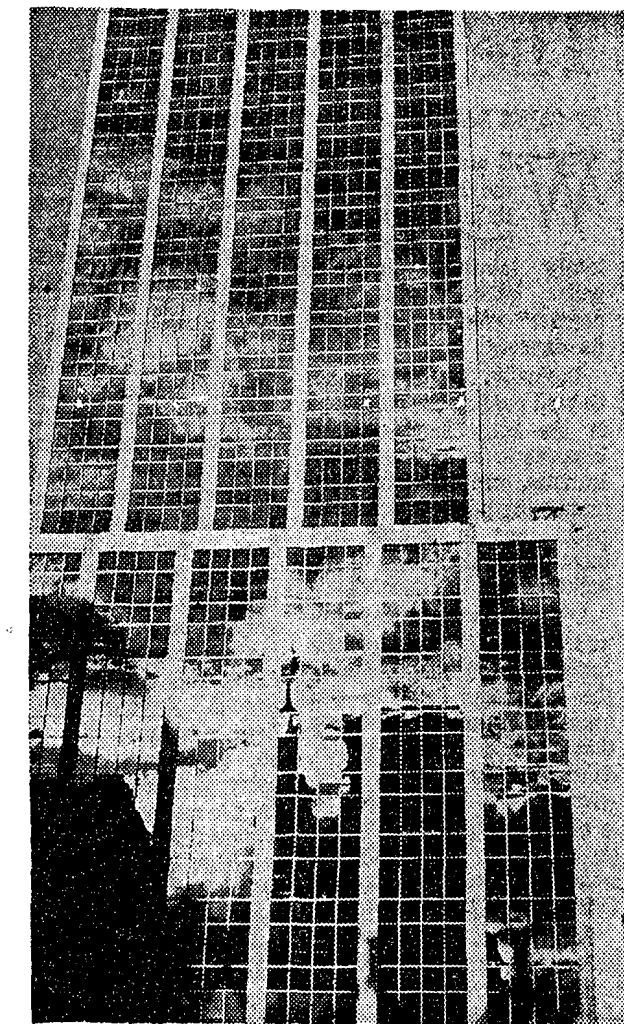
however, is no small accomplishment. In fact, this is where art comes in: the architect has devised a system of esthetics to deal with and express this structure. As mechanical advances have helped, he has pushed these functional and expressive design systems—the skin wall, the glass box, the concrete sculpture, the superscraper—to adventurous esthetic limits.

Normally, which means almost always, this has to be done within allowable costs. That can vary from tight speculative lids to regal corporate indulgence, but with today's extraordinary inflation of land, money and materials, the demands get harder to meet all the time. The architect's job is always to translate an engineering-economic formula into a building.

That building is further liable to all of the restrictive regulations with which the modern community has surrounded the act and art of construction. The structure and its surroundings are shaped, quite literally, by zoning codes that may demand setbacks, towers or open space and diagram height and bulk. There are construction and fire codes that require certain materials or dictate performance standards that rigidly affect specifications and design. Materials vary in supply and cost; there can be a switch from steel to concrete or vice versa at a time of market shortage; manufacturers tempt with newly developed kinds of metal, glass and plastic.

And then there are the further restrictions of custom and practice. The wheels of production, from manufacturing and distribution to union operations, are set in certain inexorable grooves, and to change course would be derailment—expensive, time-consuming and destructive to the system.

It would, in fact, be revolution. There is a stunning rigidity and inertia involved in all such established processes that is equally destructive of creativity and architecture. It is also frequently destructive of simple logic and efficiency. Find a better



Glass skyscraper, Third Avenue, New York  
 A lot of things one never thinks about

way to do something, and you can't do it. But as society becomes more complex, the system becomes more elaborately intractable.

All of which means that the architect who designs today's buildings within this system, faced with the energy crisis, isn't going to make a revolution tomorrow. He can't, and no professional vows or manifestos will make it possible. Quite aside from the serious economic dislocations that would result, the system won't adapt that quickly, if at all.

In fact, a look at some of the energy crisis recommendations in connection with building, from suggested code revisions to structures that would seal themselves even tighter into life-support boxes with minimum glass and less contact with the outside world, reveals proposals that are both frightening and depressing. Their advantage and their

inevitability, is that they are achievable within present practice.

There will be some sensitive exceptions, of course. But this further dehumanization may be the only immediately viable way of combating waste within current production methods, without radical industrial dislocation. It is certainly the course of least resistance. And the rigidities of the much-vaunted efficiencies of the investment and building system created by the economics created by the system will only be intensified, for the still greater loss of art and humanity.

There are several villains in this picture. One is known as low first cost. If the initial cost is cheaper for certain kinds of wall systems and sealed windows, even though different kinds would lead to long-term savings in money and energy, the ones with cheap first cost will be

chosen. The higher subsequent costs of maintenance and operation will be passed on to the user.

If customized climate design and environmentally responsive details add to first costs, they will not be considered. If uniformly controlled air and light throughout the building make not only standardized sterility but a lower initial bill, that is the choiceless choice. First costs are everything to the investor and the banker, and proven first costs are preferable. This is no road to innovation or amenity.

Another factor is society's slow awakening to the deleterious effect of this kind of inhuman, standardized building on people and the environment. And it is only being recognized now because this effect, too, is being read in dollars and cents, in the decaying or lifelessly renewed city core, the uncertain tax base, and the inability to attract business or residential activity. Many of those who are able have fled the dehumanized city; those who cannot, riot in the dehumanized slum.

The knife against the architect's throat, if he wants change, is always economic. Both his ambition and his results answer ultimately to this factor. Today a lot of building is simply a set of standardized minimums, from dull to shoddy. If the architect's good ideas are pricey, and they may be good for art, humanity and building, they get axed.

Society is beginning to pay a fearful price for all this, and concern is increasingly apparent where none existed before. You don't measure social or urban health in kilowatts and foot candles. You don't predicate livable cities on first costs. It is not only dwindling resources that must be dealt with, but people and life and urban amenity and environmental quality and the pursuit of happiness that the founding fathers thought essential, but the builders of cities consistently subvert.

It is all part of the art of architecture, give or take an energy crisis.