Architecture Today

The Swiss urban planner Le Corbusier regarded his own brand of high-rise, mass-produced architecture as the only alternative to political revolution. Four decades later, it seems, an architect's most revolutionary act is not to build at all. Facing public disenchantment with everything from skyscrapers to urban renewal projects to suburban tract housing, many architects are "thinking small"—or leaving their wilder schemes on the drawing board. Others taunt their colleagues and the public with towering glass-and-steel parodies. Unfortunately, architects, unlike doctors, cannot bury their mistakes. Here Peter Blake surveys the products of the past half century; Reyner Banham describes the latter-day tug-of-war between architectural "hawks" and "doves"; and Rem Koolhaas looks at the future.

THE MODERN MOVEMENT: WHAT WENT WRONG?

by Peter Blake

It is not too difficult to figure out what has gone wrong: The theorists of modern architecture simply promised too much. They promised that modern buildings would be cheaper to build, solve the problems of war and peace, and put an end to social and economic injustice. Modern architecture promised bliss. But the so-called Modern Movement, the clean-lined, often massive, essentially urban, "skin-and-bones" architecture that developed in Europe and the United States between 1910 and the 1950s, delivered on few of its promises.

The propagandists of the Modern Movement—Ludwig Mies van der Rohe, Walter Gropius, Charles Edouard Jeanneret (Le

Corbusier), and many others—were hardly con men, though they were, perhaps, a little starry-eyed. Yet the public and the critics—and those who commissioned buildings—certainly shared their belief that modern architecture was "functional and efficient."

Modern buildings were thought to be cheaper to build, even after many buildings of lightweight metals and plastics proved to be much more costly than conventional structures built of conventional materials—brick, stone, wood. Because cheapness seemed to be a virtue, people were willing to overlook modern architecture's frequent failure to stand up to normal wear and tear. Mies believed, in any event, that technologists were about to achieve a spectacular breakthrough and invent a new, universal, sound-, weather-, damp-, and heat-proof material that could be used to envelop us all—without leaking. The architects of Boston's new, all-glass John Hancock Tower may have shared his belief—until they had to remove some 10,000 sheets of mirror-coated, double-glazed glass from the Tower before the winds did it for them.

"Machines for Living In"

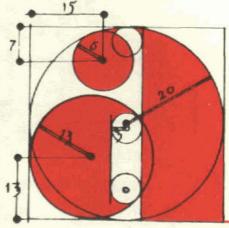
People also felt that certain recurrent concerns of the modern masters—"public housing," for instance—suggested that modern architecture would be a major weapon against social and economic injustice. Plato had observed long before that architecture (as well as the other arts) could help transform a society. But despite the graphic descriptions of slums by Western writers in the 19th century, not much was done in the way of public housing until the 1920s. The *Siedlungen* ("Settlements") of Weimar Germany—medium-rise, concrete-frame buildings housing low-income factory workers—then began to enchant do-gooders around the globe. In the United States, similar, drab, windswept apartment clusters have been a mainstay of urban renewal efforts since the Housing Act of 1949.

While few echoed Le Corbusier's assertion that modern architecture was an alternative to war, a good many people *did*

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Construction design, letter "a" (c. 1930) by the Bauhaus's Joost Schmidt. The Bauhaus influence was felt in everything from typography to wallpaper to buildings. Tubular armchairs, indecipherable clocks, nickel-coated lamps, bare walls, everything written in small letters—such was the issue of a marriage of art and technology.

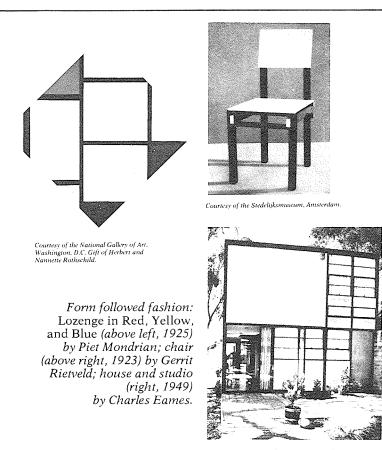
> From The Bauhaus by Hans M. Wingler © 1969 by The Massachusetts Institute of Technology. Reprinted by permission



regard modern buildings as far healthier than old-fashioned ones. Richard Neutra, who helped import the modern movement from Europe to the United States, and who was something of a hypochondriac besides, actually thought that modern architecture would cure whatever ailed you, and he called some of his sunny, breezy California creations "health houses" to buttress that curious claim.

Le Corbusier and his students also believed that a city of tall skyscrapers, spaced far apart, separated by acres of parks, and linked by elevated superhighways, would be "radiant" and ideal for man; that narrow streets were disgusting; that large, monumental plazas were "for people" (and not for icy winds and driving rains). In *Towards a New Architecture* (1920), Le Corbusier argued that buildings should be designed in a functional manner, just as airplanes and ships were. A house was a "machine for living in"; a city, a machine for efficiently organizing industrial society.

Walter Gropius believed in much of the above. It was Gropius who in 1925 helped bring the Modern Movement to maturity by moving the Bauhaus, the German design institute in Weimar, to a new building in Dessau. There the institute's fledgling architecture seminar grew into a full-blown department as the Bauhaus continued to preach the unity of design: in fabrics and paintings, in graphic art, furniture, and sculpture. A spare, industrial kind of design—"a program for Everyman" came to be known as the Bauhaus Style. When Nazi pressure forced the Bauhaus to close in 1933, its staff fled to Harvard and the Illinois Institute of Technology, carrying the vision around the world.



From the Museum of Modern Art. Courtesy of Julius Schulman.

Most of the architects commonly identified with the "international style" of the Modern Movement dreamed of a dazzling, geometric urban world of mass-produced prisms, vast and pure, surrounded by greenery and bathed in sunlight. They first gave form to that sparkling image at *micro* scale—designing houses, for example—whenever they got the chance. Their students continue to recreate it at *macro* scale, from Brasilia to Teheran, from Boston to Osaka and beyond. The charming sketches for Ideal Cities produced by Le Corbusier in the 1920s are today a grotesque reality on the edges of Isfahan and the outskirts of Munich and Zagreb.

Why? In part because the images created by these talented propagandists were rooted in a seemingly compelling logic. The

earth's population explosion surely dictated high-density living and mass production of buildings; high-density living just as surely dictated vertical cities. Vertical cities would need lots of space between their towers (to let the sun in), and high-speed, high-capacity transportation networks—including highways to connect them.

That logic has turned out to be seriously flawed. Highdensity living turns out to be quite easily attained with clusters of low-rise patio-houses, and the densities achievable, without much trouble, are about five times the average densities now existing in New York City.* Mass production of buildings has turned out to be more costly than conventional technology, and often much less efficient and durable. Moreover, transportation costs have gone up due to fuel prices and generalized inflation.

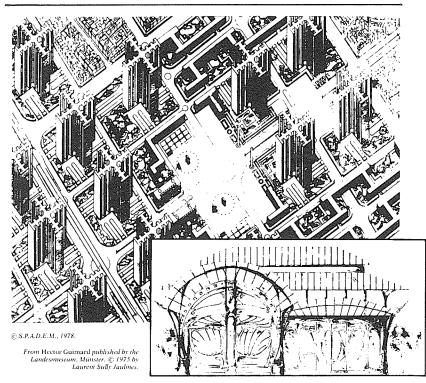
Life Mirrors Art

Still, at least two generations of younger architects—my own included—were seduced by the modern dogma. In the first place, the prototypes offered by pioneers like Mies, Le Corbusier, and others were easy to copy, as they were meant to be. Mies liked to say that he didn't see any reason to invent a new architecture every Monday morning—nor would mass production allow it.

But there was another reason, a rather more insidious reason. The Modern Movement surrounded itself with a certain aura that made all of us architects feel as if we were riding the crest of a wave. It wasn't just that modern dogma seemed to make sense in functional terms; it seemed to make sense in aesthetic terms as well. There seemed to be a straight and steady progression from the Purist paintings of Amédée Ozenfant to Machine Art, to Le Corbusier's and Charlotte Perriand's tubular, chrome furniture of the 1920s. There seemed to be a straight progression from Miro's paintings and Calder's mobiles, to Charles Eames's furniture and to some of Oscar Niemeyer's fanciful buildings.

We felt, in short, that we were part of a broad, allencompassing movement, like *Art Nouveau* at the turn of the century, when all of the visual (and sometimes even the musical and literary) arts were clearly acting in unison. Just as *Art Nouveau* saw the whiplash curves of Van Gogh and Toulouse-Lautrec translated into the Paris *Métro* stations of Hector Guimard and the buildings of Antoni Gaudi, so architecture's

^{*} The population density in New York City is about 50 persons per acre.



Le Corbusier's "Plan Voisin" for the center of Paris (1925) and Hector Guimard's contrasting notion of a Parisian architecture (Metro station, 1900). The former is consciously abstract, geometric, and mechanistic; the latter is regarded by critics as naturalistic and "organic."

Modern Movement seemed to spring from new developments in the graphic arts.

Which was, demonstrably, silly.

Art Nouveau was so all-pervasive in part because it was rooted in "organic" forms found in nature, and these forms could be translated, without effort, into objects and other structures designed to serve humanity. There were, of course, certain limitations. The shape of a wave breaking on a beach might be a very good shape for a wave and a beach, but not necessarily for the facade of an apartment house. Still, natural forms by and large seemed to be appropriate as a source of design ideas.

By contrast, forms derived—as the Modern Movement derived them—from two- or three-dimensional geometry are much less flexible, much less adaptable to real life. For example, Piet Mondrian's exercises in plane geometry, when translated by

abstract designer Gerrit Rietveld into the shape of a chair, resulted in some terribly funny, and totally un-besittable home furnishings. The Purist/Cubist abstractions of the 1920s became the aesthetic norm in architecture.

Modern architecture still strives to stay à la mode. It is right up there with the latest examples of pop or minimal art. In fact, some of its practitioners are really much better than the artists with whom they claim kinship. Joern Utzon, with his opera house in Sydney, Australia, can hold his own as a Futurist sculptor. And Robert Venturi's design for a Football Hall of Fame (a huge football) exceeds a good many things that pop sculptor Claes Oldenburg has done. In short, the dictum of architect Louis Sullivan (1856–1924) that form should follow function often seems to be practiced in reverse.

And now some nasty questions have arisen. Is it appropriate for a building to be, primarily or solely, a Work of Art? Should not a building be a Work of Accommodation—accommodation to the human condition, to all of its demands, including, of course, the demand for beauty? The most important form to be considered in the design of the human habitat, is, after all, the human form—not that of the cube, the sphere, or the cone (Cézanne's trilogy). Yet somewhere along the line, modern architecture became, almost exclusively, a captive of modern art. And it has not flourished in captivity. It is not necessarily all that much fun to live in a work of art, or to work, play, procreate, or learn in one. It may often be better to inhabit, say, a recycled loft or factory.

H. G. Wells once wrote of his own work: "I refuse to play the artist, . . . I write as straight as I can, just as I walk as straight as I can, because that is the best way to get there." He added, parenthetically, that "if sometimes I am an artist it is a freak of the Gods." Architects, too, should design as straight as they can: And if the end product turns out to be a work of art, then we may all be grateful for the windfall.

HAWKS, DOVES, AND FLIGHTS OF FANCY

by Reyner Banham

"Murky chaos" is how Philip Johnson saw the condition of architecture in 1960. But even one of America's most thoughtful architects could hardly have foreseen how much murkier the prospect would become.

Almost half of the qualified architects in the most depressed architectural centers, such as New York and San Francisco, are reckoned to have been unemployed in recent times. The profession has yet to recover fully from the 1975–76 slump, when the value of all new construction (including homes, factories, and public buildings) actually declined by 5 percent, compared to 10 to 15 percent increases in each of the previous three years. Recent graduates of the more than 100 U.S. schools of architecture are still having trouble finding jobs; half of those graduating since 1971 have taken work in unrelated fields. According to the U.S. Bureau of Labor Statistics, competition for jobs in architecture—where annual salaries for licensed professionals average \$20,000 to \$25,000—will be intense throughout the 1980s.

The problems are not only economic. Left leaderless by the passing of two generations of dominant father figures, from Le Corbusier to Louis Kahn, the architects of the once self-assured Modern Movement appear directionless, guilt-ridden, and divided in the 1970s. After a century or so of Messianic, reformist zeal (shared by politicians and social thinkers) that equated social progress with technological progress, the Movement now finds its products despised, its practitioners out of work.

The profession clearly has reason to be concerned, not the least because the demand for new architectural design has been declining far faster than the demand for buildings. One result: The support staff (e.g., landscapers, draftsmen) in architectural firms is actually growing faster than the number of architects, which has held steady in recent years at about 50,000.* Archi-

^{*}Who are these 50,000? According to a 1975 survey by the American Institute of Architects, the typical AIA member is white, married, male, and 46; 0.7 percent of its members are black, 1.3 percent Chinese or Japanese, 0.9 percent women. Some 75 percent of all architects are AIA members.

tects are also beginning to do out of expediency what founding Modernists from William Morris to Walter Gropius had urged on principle: Eliminate the distinction between architect and builder. In practice, this has tended to happen at the great and small extremes of the profession. The very large, omnicompetent architectural firms like Houston's Caudill, Rowlett and Scott—big enough to dicker with banks and argue with governments—serve at once as designers, engineers, consultants on law, lighting, landscaping and you-name-it. (Caudill, Rowlett and Scott employs 100 architects out of a total staff of 300.) They routinely deliver finished buildings for a comprehensive fee to such clients as multinational consortia and Arab oil shaykhs.

The Tough and the Tender

In like manner if not scale, individual architects in lower Manhattan, downtown Washington, and other areas have been turning themselves into expert recyclers of discarded buildings, drumming up their own financing, bending their own backs to the labor involved, often guinea-pigging as their own first tenants, and generally not behaving like members of a gentlemanly, liberal profession. Ironically, the recyclers are almost the only group of architects who have lately escaped public odium (although there is growing concern in some areas that inner city restorations are forcing low income families from their neighborhoods). They lovingly breathe new life into familiar old structures. Even big firms are getting into the act. If there is one piece of recent architectural work in the United States that seems completely beyond criticism, it must be the extraordinary restoration of Boston's 18th-century Quincy Markets-Faneuil Hall area by Benjamin Thompson Associates.

Most architects, however, are neither in Kuwait nor Manhattan's SoHo. They work not for corporations or themselves, but for small firms with a staff of perhaps a dozen. They still do business according to the written and unwritten rules of the

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profession, keeping their fingers out of construction and high finance. Their relations with a client tend to be personal. But even this "silent majority" of architects experiences to some degree the conflict between the "tough" and "tender" approaches to the profession, between what might be styled the "hawk" and "dove" stances.

The architectural "hawk" takes a tough approach: "Glass is still the cheapest first-cost enveloping membrane, rectangular floor plans are still the most convenient, the energy crisis is not yet critical enough to rule out full air-conditioning, and whatever your old environment was like, I'm in business to provide you with a better one!" The most representative U.S. hawk at present (certainly the most envied) is John Portman, whose glitteringly faceted towers, such as Renaissance Center in Detroit, are now a standard adornment of striving U.S. downtowns. Portman's solution to urban problems is typically hawkish. He provides a cleaner, better, brighter (and violence-free) environment *inside* the glass fortress as an alternative to the urban mess outside. Unfortunately, it is becoming clear that the new glass "downtowns" can drain the streets of trade and people, leaving them more deserted and dangerous than ever.*

Small Is Invisible

The "doves" have few conspicuous successes (or failures) to their credit, in part because their current approach tends to follow E. F. Schumacher's slogan, "Small is beautiful." This inevitably produces less visible results. (One of the few truly "visible" dove buildings is the Centraal Beheer office complex in Apeldoorn, the Netherlands. This "house for a thousand people" achieves an intricate intimacy by giving practically every office worker a desk on a semiprivate balcony overlooking interior courtyards.) In England, Sir Hugh Casson's new apartments in a historic neighborhood near Salisbury Cathedral are so inconspicuous that many would-be critics have apparently been unable to find them. In the United States, dove architects have begun to fill some of our more remote areas with highly individual dwellings of energy-conscious design (that is, run primarily on sun, wind, and sweat).

Ideally, dovish house design incorporates "userparticipation" in the planning process. There has been one no-

^{*}One super-hawk building that has had exactly the opposite effect is the Centre Pompidou in Paris, a highly adaptable culture machine of glass, steel, and exposed, overscaled, colorkeyed plumbing. It makes no concessions to the neighboring 18th-century buildings, yet, mysteriously, has revitalized the area in a way American urban planners have yet to equal.

THE TOP TWENTY

In 1976, the American Institute of Architecture (AIA) asked 75 top U.S. architects to list what they considered the "proudest achievements" in American architecture. They named a total of 175 structures; the 20 receiving the most mentions are listed below.

Thomas Jefferson's University of Virginia led the field with 29 votes, trailed by Rockefeller Center with 22. Tastes change. An AIA poll in 1948 failed to elicit any mention of the University of Virginia and showed the Folger Shakespeare Library (Washington, D.C.) in the No. 1 spot.

The results of the 1976 survey:

1. University of Virginia, Charlottesville, Va.: Thomas Jefferson, architect, 1826.

2. Rockefeller Center, New York City: Reinhard & Hofmeister; Corbett, Harrison & MacMurray; Hood & Fouilhoux, 1940.

3. Dulles Airport, Chantilly, Va.: Eero Saarinen, 1962.

4. Falling Water, Bear Run, Pa.: Frank Lloyd Wright, 1937.

5. Carson Pirie Scott Building, Chicago: Louis H. Sullivan, 1899.

6. **Seagram Building**, New York City: Mies van der Rohe and Philip Johnson; Kahn & Jacobs, 1958.

7. **Philadelphia Saving Fund Society**, Philadelphia: George Howe and William Lescaze, 1932.

8. **New City Hall**, Boston: Kallman, McKinnell & Knowles; Campbell Aldrich & Nulty; Le Messurier & Associates, 1968.

9. Trinity Church, Boston: Henry Hobson Richardson, 1877.

10. Lever House, New York City: Skidmore, Owings & Merrill, 1952.

11. Robie House, Chicago: Frank Lloyd Wright, 1909.

12. **Brooklyn Bridge**, New York City: John A. and Washington Roebling, engineers, 1883.

13. Johnson Wax Co. Building, Racine, Wis.: Frank Lloyd Wright, 1939.

14. Ford Foundation Building, New York City: Kevin Roche, John Dinkeloo Associates, 1967.

15. **Grand Central Terminal**, New York City: Reed & Stem; Warren & Wetmore, 1913.

16. Glass House, New Canaan, Conn.: Philip Johnson, 1949.

17. Gateway Arch, St. Louis, Mo.: Eero Saarinen, 1967.

18. Monticello, Charlottesville, Va.: Thomas Jefferson, 1770.

19. Monadnock Building, Chicago: Burnham & Root; Holabird & Roche, 1893.

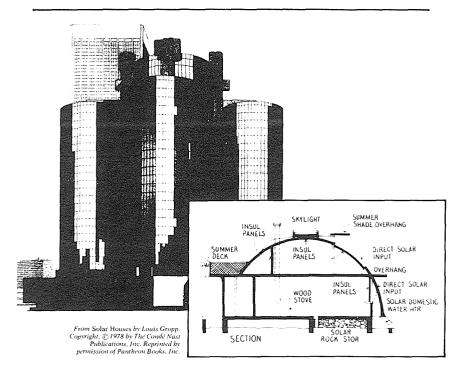
20. Reliance Building, Chicago: Daniel H. Burnham & Co. 1895.

table success in this area: The Swedish architect, Ralph Erskine, working out of a storefront office, produced in Newcastle, England, a mile-long, but varied, "megastructure" dotted with colored sheds of wood and corrugated plastic—a dramatic "humanization" of the giant apartment block that Erskine might have built had he not consulted the prospective tenants.

The Mystique of Draftsmanship

The average architect would prefer to give Erskine all the credit, anyway. Participatory design is a dove extreme that makes most architects nervous. If people can design their own accommodations, who needs architects? Why bother with the long (7-to-10-year) training in the niceties of design that the average professional must undergo? If there can be such a thing as a defensive hawk posture, a fair number of younger middleaged, conspicuously well-educated, and internationally linked architects have now adopted it. They stand firmly on a traditional view of architecture as, above all, an art of form. Implicit in this approach is an abandonment of the moral imperative to improve society and change the world by the creation of totally original design. This retreat from Utopia is also an oblique retreat into erudition rather than originality. "Contrary to Modern Movement theory," wrote Lance Wright, editor of the London Architectural Review, "imaginative copying is always a more architectural art than 'original invention.'"

The most persistent hero of this trend has been Liverpooltrained James Stirling, who has looked to the 1920s and '30s for inspiration. Stirling is animated by a fundamental preoccupation with drawing, the most secret ritual in the arcana of architecture. The mystique of draftsmanship is something that architects fall back on when they are in a falling-back mood, and most of the so-called Rationalists-an almost purely theoretical troupe of architects who lecture on college campuses and are masters at the drawing board, but produce few buildings-are falling back into much further reaches of history than Stirling. Their work persistently evokes elementary block-like forms, pitched roofs, the vault and the column, the circle and the square—in short, the geometric monumentality of the visionary architects of the French Revolution. "Visionary" is indeed their operative word. Anything goes so long as it's not actually going to be built! Yet there are buildings that come perilously close to such exotic visions: The long "extruded section" of Cesar Pelli's Pacific Design Center in Los Angeles, paneled out in ethereal blue glass that reveals nothing of its interior workings or con-



John Portman's hawkish Bonaventure Hotel in Los Angeles (1975), and plans for a dovish contemporary solar home in Illinois, designed by Michael E. Jentzen. Most architects avoid such hawk and dove extremes.

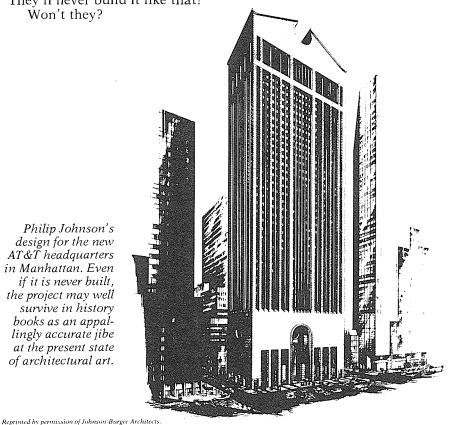
struction and makes it look like a giant perspective drawing on the sky; or the bent "extruded sections" of the roof of Arata Isozaki's library in Kita Kyushu, Japan.

Ever noted for the formalist qualities of its modern architecture, Japan seems to be where postmodern tendencies really thrive, in the work of Kisho Kurokawa above all others. Kurokawa has lately done a few urban business/residence towers that could almost be taken for a kind of running criticism of all the skillful anonymities of modern architecture. Thus, his Sony Tower in Tokyo has been "eroded" to reveal its stairs and prefabricated bathroom units for at least part of its height, as if its skin had fallen away, leaving the guts in public view. A similar "erosion" of the classic rectangular format can be seen in Hugh Stubbins's recently completed Citicorp Tower in Manhattan. Its top is sheared away at an angle to provide for an (inoperative) solar energy installation; its lower parts have been eroded until little more than four giant columns survive, rising

from an underground plaza containing a church, a modish furniture shop, and much else.

This more fanciful formal mode, with its elements of spoof and satire, appeals to all sorts of architects, as is now demonstrated by one-time Modernist and sometime hawk Philip Johnson. Johnson's design for the new Manhattan headquarters of AT&T, revealed to a bemused press last March, calls for a tower with its top slashed off two ways for plant and equipment, with a curved gap in between, producing what has been described as a neo-Chippendale cresting. At the street level, Johnson proposes the classical geometry of columns and vaults, derived ultimately from the Renaissance architect Alberti, and presented in a manner that must make the Rationalists feel they are being subtly teased. The architectural cognoscenti have so far tried to treat the AT&T building as some kind of joke: "They'll never build it like that!"

Won't they?



Philip Johnson's design for the new AT&T headquarters in Manhattan. Even if it is never built, the project may well survive in history books as an appallingly accurate jibe at the present state of architectural art.

THE FUTURE'S PAST

by Rem Koolhaas

"Why do we have a mind if not to get our way?" DOSTOEVSKY

In 1929, architect Ivan Leonidov designed an office building for the center of Moscow called the House of Industry. It was conceived as a tall, rectangular slab. Its facades consisted of a steel lattice with sliding glass panels that could "disappear" in the summer, making the walls, in effect, a transparent scaffold of human activity. Two-thirds of the way up, several floors were omitted: The gap formed a park in the air. An exposed elevatorstairwell tapered toward the top to reflect the diminishing volume of vertical traffic; a separate, freestanding lift led directly from the ground to the roof to make it easily accessible to Moscow's inhabitants.

But the most unusual feature of the building was the floor plan, a drastic architectural revision of the idea and mechanics of work itself. A square grid divided two-thirds of each floor into identical areas for every worker. These subdivisions were marked on the ground by white lines on a cushion-like rubber surface meant to combine psychological comfort with acoustic control. Potted plants further demarcated individual territories.

The remaining third of each floor was conceived by Leonidov as an *antithetical zone*, an area for nonwork that included a swimming pool, a sauna and high-pressure shower, a kiosk for news and announcements, a lavish arrangement of *chaises-longues*, a small library, an acoustic console, and a TVlike screen.

Leonidov was convinced that a human being could concentrate on any given task for only about 20 minutes. Then fatigue would begin to erode performance. He built on this thesis by making each floor of the office complex into a *recuperative plane*, where work is only one of many possible activities, each erasing the exhaustion left by the previous effort. The "office" thus became a cultural apparatus, holding out to its occupants the promise of a perpetual peak condition. (Soviet officials rejected the whole idea, and Leonidov's building was never constructed.)

Not long afterward, in Manhattan, several architects, whose names have not come down to us, conceived the Downtown Ath-

letic Club. Like Leonidov's House of Industry, the Club, built in 1931, is essentially a stack of therapeutic planes. But where each of the floors in the Moscow building was to have offered identical combinations of activities, each story of the Downtown Athletic Club is emphatically different, and the building as a whole strives not so much for an efficiency of work as for an efficiency of pleasure.

An Incubator for Adults

Each floor is devoted to a particular interpretation of "athletic" activity. But as a climb through the structure demonstrates, the layout transcends athletics.

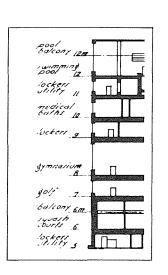
The lower 15 floors are accessible only to men. Their sequence from ground to top corresponds to an ever-increasing refinement of activity. Floor 7 is an interior golf course, a synthetic English landscape with grassy hills (real) and a small stream that curls invitingly across the terrain. After nature's near-total eclipse in the Metropolis, it is now re-created as merely one of the city's congested layers. Stopping on the ninth floor, the guest finds himself in a vestibule leading directly to a locker room. There he undresses, puts on trunks and boxing gloves, and enters an adjoining space equipped for boxing and wrestling. On the southern side of the locker room, there is also a small oyster bar.

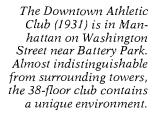
Eating oysters with boxing gloves, near naked, on the ninth floor—such is the "plot" of this rectangle.

The 10th floor is devoted to preventive medicine. There are sections for massage and rubbing, an 8-bed station for artificial sun-bathing, and a 10-bed rest area, all arranged around a Turkish bath. In one corner, there is a medical facility, with a capacity of five patients. A doctor here is in charge of the procedure of "colonic irrigation"—the literal invasion of the human body with cultured bacteria to modify and improve its natural metabolism.

From the 17th to the 19th floors, the men, perfected in the lower part, are allowed to communicate with the opposite sex. The final 20 floors are devoted to hotel accommodations.

Rem Koolhaas, 34, is a partner in London's Office for Metropolitan Architecture, which is devoted to "further development of a Culture of Congestion." He was born in Amsterdam and studied architecture at the Architectural Association in London, where he still teaches. He is the author of Delirious New York (1978) and co-author of a forthcoming study of Russian architect Ivan Leonidov.







Such fanatical pursuit of a transcendent peak physical and mental condition amounts to a form of human redesign. The Downtown Athletic Club provides its clients with traditional athletic pastimes that have been crossbred with modern technology. The result is an incubator for adults, who, impatient with the pace of evolution, can reconstruct themselves into new beings.

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LOCKING NORTH

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From Melnikov: Solo Architect in a Mass Society by S. Frederick Starr. © 1978 by the Princeton University Press. Reprinted by permission.

Melnikov's Laboratory of Sleep (1929). Beds were to be built in, with the floors sloping gently to obviate the need for pillows. Beneficent technicians would enhance the sleeping environment with sounds and scents.

Again in 1929, again in Moscow, Konstantin Melnikov drafted Green City as an entry in a competition to design a combination of vacation resort and Communist suburb. Melnikov's proposal envisioned, among a variety of other therapeutic inventions, a system of diagnostic "laboratories" that would encircle the Russian capital somewhat like a chain of motels. Soviet workers would check in after an exhausting stint at the factory (Stalin's policy of rapid industrialization was just beginning) and be assigned to special dormitories that were filled with mixtures of oxygen and other gases. These would induce appropriate types of sleep and dream, and in the process cure whatever psychic or organic imbalance had been diagnosed by teams of paramedical receptionists. From a control booth at the end of each dormitory, sleep supervisors could adjust the gas composition, humidity, and air pressure; they could also add smells and reproduce, on a special acoustic installation, the "rustle of leaves, the cooing of nightingales, the soft murmur of waves." The beds could even be made to rock gently.

Synthetic Nature

Like the Interior Golfcourse at the Athletic Club, Melnikov's Laboratory of Sleep represents an approach to architecture that absorbs all of the new technology at its disposal and assembles it into larger-than-life visions. "Cure through sleep and thereby alter the character," Melnikov proclaimed in one poster; "anyone thinking otherwise is sick." This architecture was not inhuman. It was an attempt, in the early days of the Soviet Union, to make clients of the masses. The creation of a "new Soviet man" was a task not just for ideology but for architecture.

So too the task of creating a "new Metropolitan man." In 1930, the famous Manhattan impressario Samuel ("Roxy") Rothafel went on a fact-finding tour of Europe in search of inspiration for Radio City Music Hall, which was being designed

under his personal supervision. With his architects, he went to Moscow, where Melnikov showed him his "Sonata of Sleep" designs (the scheme had been rejected by Soviet authorities). Roxy was impressed by Melnikov's vision of a beneficial, synthetic environment and saw its relevance to his own enterprise. Back in Manhattan, he incorporated several of the themes of the Laboratory of Sleep into the new Radio City Music Hall.

The Music Hall is more than an entertainment palace; it is the first completely synthetic resort in the heart of a Metropolis; it offers a replica of nature, appropriately intensified, to the inhabitants of Manhattan.

Return to Disneyland

The theater's vast ovoid interior is covered with plaster rays that extend across the entire ceiling, containing the audience like a firmament. The curtain is made of a specially developed synthetic fiber, so reflective that it "outshines the sun." When the lights are slowly dimmed, the impression of a sunset is inescapable. When they are switched on again, the theater offers the spectacle of a sunrise. There are three or four such complete cycles in each performance. If the metaphor is taken seriously, the audience lives through three or four accelerated days.

In a further escalation of the artificial, Rothafel used the air-conditioning system for more aggressive purposes than simple cooling. At first he considered adding laughing gas to the hall's atmosphere, so that his 6,200 daily visitors would be transported to another world at once. He gave up the notion only after urgent pleading by his lawyers, substituting for the N_2O emanations what he believed was health-giving Ozone.

In the end, his theater combined super-time with superhealth, a union that was caught perfectly in his Melnikovian boast, used in advertising, that "A visit to Radio City Music Hall is as good as a month in the country."

The House of Industry, the Downtown Athletic Club, Green City, and Radio City Music Hall reveal the conceptual core of what is now called—usually with a sneer—Modern Architecture. All manifest an ambition to conquer a new territory. Their creators—Leonidov, Melnikov, and the rest—shunned traditional architecture with its passive reliance on dignified urban decors as a means of generating a dignified culture. They wanted to contribute to the modern age directly. The blueprint was all, in their view, not for its formal niceties and promise of spatial quality, but because, with its inscribed functions, it was the equivalent of a musical score, a notation of the roles per-

formed by the human occupants. To establish a world totally fabricated by man, to live inside fantasy—this was the ambitious program they had set themselves, a program that to be realized could never be openly stated. Who would allow it?

This view of architecture was triggered by a specific mutation in the forms of human coexistence: hyperdensity, the simultaneous explosion in certain parts of the world of both modern technology and human population. From this mutation, modern architects derived their vision of an architecture equally mutant, and perhaps compensatory and retaliatory as well. Their object—dangerous, manipulative, artificial, experimental, and behavioralist in the extreme—was the transformation of the Metropolis into a colossal laboratory, not only, as in Melnikov's case, of sleep, but of life itself.

But there are opportunities commensurate with the dangers of this approach. It claims for architecture a role in human experimentation, not just in designing the laboratory. If the Metropolis is already transforming its inhabitants, why not take the process into our own hands? Only in this way can we invent the "plots" for the disinherited, scriptless urban masses, the drifting castaways of the 20th century.

At this moment, however, a persistent if unspoken coalition of the two major architectural avant-gardes—the Rationalists in Europe and the Post-Modernists in America, both of them susceptible to a misguided "historicism" in their designs threatens this 50-year-old Architecture of Congestion with deliberate extinction. The best minds in modern architecture are ready to abandon the claims staked out in the 1920s for an activist profession with a capability, and indeed a responsibility, for redesigning the human environment. The new architects are determined to pose the issues of architecture in traditional terms once more. Doric columns, pediments, moldings, piazzas —all are making their prodigal return.

This conflict makes it both simple and difficult to predict architecture's future. If this reactionary coalition wins, there will be no future—only an empty imitation of the past that will make Disneyland a monument to authenticity. If the coalition loses, the future of architecture will be as unpredictable as ever.

BACKGROUND BOOKS

ARCHITECTURE

Architects and builders have always had more in mind than mere shelter or work-and-storage space. Old and new buildings celebrate the glory of religions (the temples of Angkor Wat in Cambodia, Istanbul's Hagia Sophia, Chartres Cathedral); of governments (Britain's Houses of Parliament, the Kremlin, the U.S. Capitol); of families (the Marlboroughs' Blenheim Palace, the Rockefellers' Japanese house in Pocantico Hills, N.Y.).

Renowned designers and unknown masons have collaborated on monuments to victory in war (the Arc d'Triomphe); on tombs for the powerful (Egypt's Pyramids, the Taj Mahal); on huge complexes for public gatherings (Athens' ancient Theatre of Dionysius, Australia's modern Sydney Opera House, Houston's futuristic Astrodome).

Yet despite architecture's importance, its history is still largely taught in colleges as part of art history. Hence, the excellent bibliography in J. M. Richards' illustrated **Who's Who in Architecture; From 1400 to the Present** (Holt, 1977) cites many volumes in the Pelican History of Art series.

One of the few books that purports to cover world architecture over the centuries is Sir Banister Fletcher's **A History of Architecture on the Comparative Method**, first published in 1896 (Scribner's, 18th ed., 1975).

Fletcher's old-fashioned text is illustrated with black-and-white photographs and diagrams. He includes every kind of Western architecture from Stonehenge, through the medieval kitchen and buttery, to Rome's Palazzo Farnese (atop which Michelangelo added a story), and to the Johnson Wax buildings in Racine, Wis. Most later writers fail to follow Fletcher's good example in going beyond the Western tradition to describe the architecture of the East (from the Mesopotamian claybrick fortifications, c. 3500 B.C., onwards) and the indigenous design of Canada, Mexico, and Central and South America.

R. Furneaux Jordan's A Concise History of Western Architecture (London: Thames & Hudson, 1969, cloth; Harcourt, 1970, paper) provides strong chapters on Christendom's Romanesque (4th-11th centuries) and Gothic (12th-16th centuries) ecclesiastical construction. Jordan calls Henry VII's Chapel at Westminster, with the lace-like stone of its vault, "the end of English Gothic. There was nothing more to do."

A useful reference is **The Penguin Dictionary of Architecture**, compiled by John Fleming, Hugh Honour, and Nikolaus Pevsner (Penguin, 1966, 1973, paper only). Such succinct entries as "Dwarf Gallery. A wallpassage with small arcading on the outside of a building" help the reader who tends to get lost in the rococo prose of some writers on architectural subjects.

American architecture has been well-served by historians, sociologists, and writer-practitioners like Frank Lloyd Wright (1867–1959) and Louis Henri Sullivan (1856–1924).

Wright's **An Autobiography** (Horizon Press, 1932, 1977) was followed by his book about Sullivan, for

whom he once worked. In **Genius** and the Mobocracy (Horizon Press, 1949; enlarged ed. with photographs, 1977), Wright laments both Sullivan's death—alone and penniless and "our present servility in the art of architecture."

Sullivan, considered the first master architect of the skyscraper, designed many Chicago buildings and The Bayard on Bleeker Street in New York. An artist, he decorated the facades of his buildings with terracotta ornamentation. His own story of his life, told in the third person, is **The Autobiography of an Idea** (AIA, 1924; Dover, 1956, cloth & paper).

John Burchard, M.I.T.'s emeritus Dean of Humanities, and Albert Bush-Brown, head of the Rhode Island School of Design, ask some interesting questions in The Architecture of America: A Social and Cultural History (Atlantic-Little, Brown, abr. ed., 1966, paper): Did the confused American architecture of the 19th and early 20th centuries reflect the turmoil of a people "who had lost the values of a unitary, agrarian, Protestant society and were trying to come to terms with a pluralistic, technological-urban, heterogeneous" one? Have any building types emerged on which Americans would lavish "extra money, extra labor, extra love," such as were brought to the Acropolis or to Mont St. Michel? Not yet, it seems.

Other noteworthy studies include Architecture in the United States: A Survey of Architectural Styles Since 1776 by the University of Michigan's Ralph W. Hammett (Wiley-Interscience, 1976) and The Rise of an American Architecture (Praeger, 1970), in which Henry-Russell Hitchcock writes on American architecture's influence abroad, Albert Fein describes the "ideal" and the "real" U.S. city, and Vincent Scully discusses American houses from Monticello onward.

Picture books on American architectural history crowd American coffee tables. Two of the best are Wayne Andrews' eclectic **Architecture in America** (Atheneum, 1960; rev. ed., 1977, cloth & paper) and G. E. Kidder Smith's two-volume **A Pictorial History of Architecture in America** (America Heritage/Norton, 1976).

Kidder Smith drove 130,000 miles to photograph some 3,000 structures. He moves from the gable and chimney detail of the Ironmaster's House, in Saugus, Mass. (1646), to the sunstruck court of the Salk Biological Research Institute at La Jolla, Calif. (designed by Louis I. Kahn, 1967) and "The Strip" in Las Vegas, Nev.

The Strip provides the focus for a much-talked-about work on "vernacular" architecture in the United States, Learning from Las Vegas (M.I.T., 1972; rev. ed., 1977, cloth & paper). Robert Venturi, Denise Scott Brown, and Steven Izenour note that modern architects see in the suburban residential landscape, with its Regency, French Provincial, and "Prairie-Organic" modes, its carriage lanterns, mansards, and "split-level sheds," the debased values of a consumer economy. These architects, they argue, throw out "the variety with the vulgarity."

The history of the stark Bauhaus influence on American architecture and design (in fabrics, furniture, graphics, even art education) has its own superb monument in **The Bauhaus** by Hans M. Wingler (M.I.T., 1976). Harvard, where Walter Gropius was appointed a professor in 1937, and M.I.T. became centers of the U.S. Bauhaus movement.

The Language of Post-Modern Architecture by Charles A. Jencks (Rizzoli, 1977, cloth & paper; rev. ed., 1978, paper) says what has gone wrong with modern architecture. A *New York Times* reviewer wrote that Jencks's "basic point—if God wanted chapels to look like boiler houses he would have given Chartres a smokestack—comes through with clarity."

In Kicked a Building Lately? (Quadrangle, 1976, cloth; 1978, paper), the *Times*' own architecture critic, Ada Louise Huxtable, sees burgeoning public sensitivity to what architects and builders are doing to harm or enhance cities and neighborhoods. "My obsessions are now shared," she writes, "and my co-conspirators are everywhere."

of Huxtable's Many coconspirators are in the growing architectural preservation movement. In Presence of the Past: A History of the Preservation Movement in the United States before Williamsburgh (Putnam's, 1965), Charles B. Hosmer, Jr. chronicles the saving of Philadelphia's Independence Hall, Virginia's Mt. Vernon, and other historic landmarks, along with unsuccessful efforts to prevent the destruction of many more prior to the 1949 creation of the National Trust for Historic Preservation.

A new surge of interest in saving the best of the older suburban houses (Tudor, Norman, Spanish, Dutch Colonial, Georgian) may lead to more books like **Scarsdale: From Colonial Manor to Modern Community** by Harry Hansen (Harper, 1954). This interesting mix of social journalism and architectural history was commissioned by the Town Club of Scarsdale, N.Y.—a village founded in 1701 that grew up to be a commuters' haven for upper-middle-class families moving out of Manhattan.

Until the 1940s, the typical Scarsdale dwelling was a two-story, 8-to-12-room house, often with dormers. The post–World War II threat from "hit-and-run builders of lookalike houses," as one Scarsdale oldtimer called them, led to new local regulations in 1950 that restricted dimensions, roof shapes, and other elements of design.

Hansen's book is far more readable than Herbert J. Gans' sociological work, The Levittowners: Ways of Life and Politics in a New Suburban Community (Pantheon, 1967; Vintage, 1968, paper). Gans lived in Levittown, N.J., for the first two years of its existence; oddly enough, he has next to nothing to say about the mass-built houses he and his neighbors occupied, beyond the fact that the "mixture of house types" had little social impact ("the variations in number of bedrooms encouraged people to make family-size rather than class distinctions").

More than 50 years ago, Lewis Mumford, master critic of the urban scene, published **Sticks and Stones: A Study of American Architecture and Civilization** (Dover, rev. ed., 1955, cloth & paper). His conclusion, as good now as it was then: "Sooner or later we will learn to pick our way out of the debris . . . towards the things that are symbolized in the home, the garden, and the temple. Architecture sums up the civilization it enshrines."

EDITOR'S NOTE. The American Institute of Architects' librarian Susan Molton, assistant librarian Stephanie Byrnes, and Mary Rapp, librarian of the National Trust for Historic Preservation, assisted in the research for this essay.