



ARCHITECTURAL FORUM / MARCH 1966

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PUBLISHER'S NOTE

Though our editors will never think of it quite that way, each of you is a short pencil stroke in what we call a "subscriber profile." We have just received the first official sketch of you in the form of a report from the Business Publications Audit of Circulation Inc., of which the FORUM is a member.

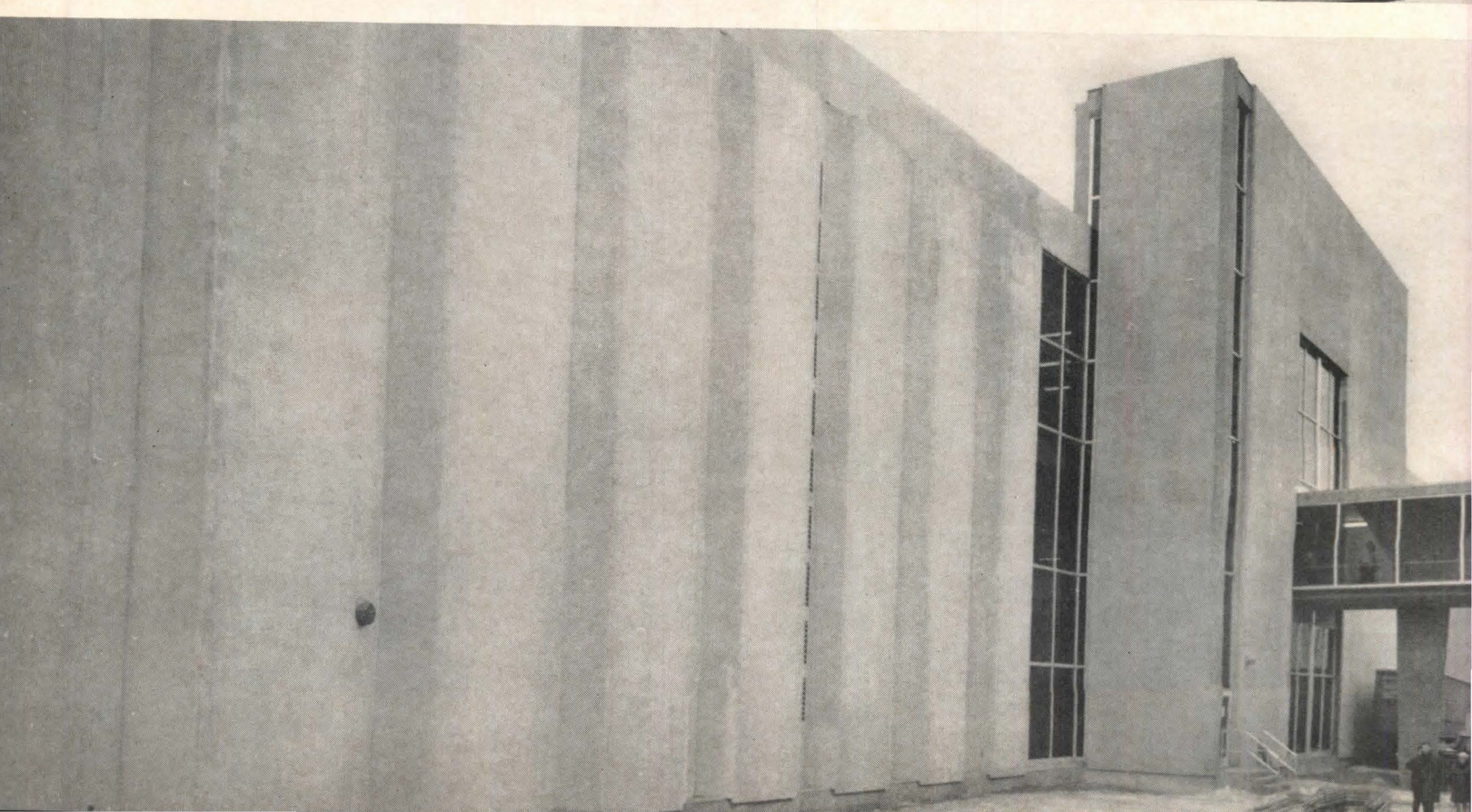
To begin with, 25,766 of you—constituting 82.8 per cent of our readership—are architects, and, what's more, architects who have taken the trouble to send back cards saying that you wanted the magazine. Another 5,342 of you are in planning, engineering, and other fields closely related to building design, construction and urban development.

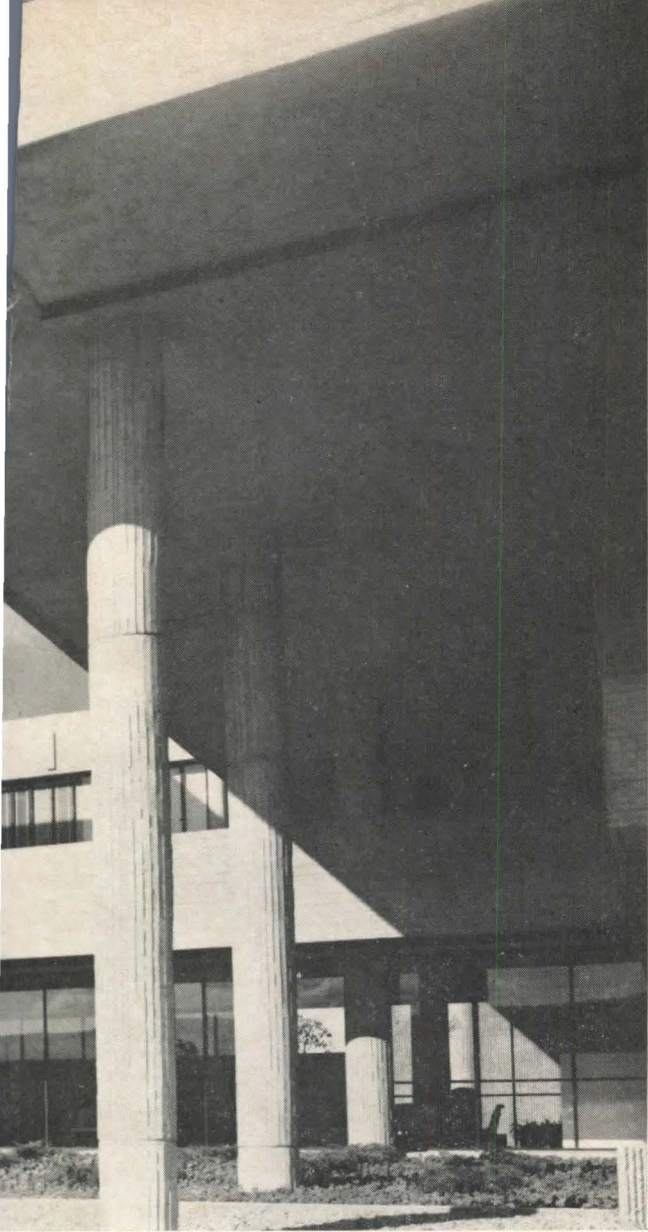
Of these 25,766 architects—an imposing number, we think—a total of 10,972 of you are principals or partners in architectural firms, 5,387 are staff members in architectural firms, 3,664 have your own individual practices, 293 are staff members of engineering firms, and 5,450 are in a variety of other occupations.

The odds are about one in five that you live in the Middle Atlantic region: nearly 20 per cent of our circulation is to the states of New York, New Jersey, and Pennsylvania. California, however, has more FORUM subscribers within its borders than any other single state (3,718). Alaska has the fewest (36) and, we presume, the coldest.

\* \* \*

The editors begin this issue by viewing President Johnson's 1966 urban program with impatience, viewing the state of IBM's heralded building program with alarm, and viewing a new building at a major university with something less than enthusiasm, thus fulfilling the FORUM's pledge to be a critic of the environmental scene. I found in all three articles a confrontation of issues that needed to be faced, and the saying of things that needed to be said. L.W.M.





# IBM

## THINKS TWICE

When architects think of the International Business Machines Corporation, they are apt to think of buildings like the one at the upper left: adventurous, distinguished, designed by a big-name practitioner (in this case, Paul Rudolph). Over the past decade, the blocky IBM monogram has been made a symbol of enlightened corporate patronage.

But recently that monogram has been appearing on buildings like the one beneath: ungainly, undistinguished, and, worse yet, designed by engineers for a package builder. Overnight, it seems, IBM has become less a patron than a hard-nosed client out to build cheap and fast.

The apparent change, beginning late in 1963, has become the most talked about open secret in architecture. IBM, the story goes, became fed up with the cost of what the big-name architects were doing. Some jobs in design were cancelled altogether, others were cut to the bone. Finally, IBM began letting major contracts to those arch-enemies of architects, the package builders.

In outline, the story is substantially accurate. IBM has indeed gone through a sharp change in building policy. But in reality, the situation is more complex—and more instructive—than the rumors have it. To find the facts of the situation,

The handsome new manufacturing, engineering, and administration building at East Fishkill, New York (upper left), was designed by Paul Rudolph in 1963; IBM would never do it that way again. A nearly completed factory at Endicott, New York, was designed by Burns & McDonnell, Engineers (for the package contractor, Huber, Hunt & Nichols); IBM didn't do it this way before.

the FORUM talked both to IBM officials and their architects.

The conversations were necessarily guarded and mainly off-the-record. From them, however, certain conclusions emerge. One is that IBM was never as open-handed a patron as it had been pictured. Another is that the corporation still has architectural aspirations, although more limited than in the past. And a third is that its change in policy was brought about less by a search for real economy than by a conscious change of image.

In 1956, when IBM started its design program, it had been in the computer business only a few years. Thomas J. Watson Jr. had taken over from his aging father, and was remaking the corporation inside and out. Watson wanted every visible part of IBM—buildings, graphics, and products—to bespeak a growing company that had tied its future to advanced technology.

To guide his design revolution, Watson chose Eliot Noyes, whom he had met when Noyes was designing an IBM typewriter in the office of Norman Bel Geddes. Noyes, who had a background in both architectural and industrial design, had since opened his own firm. Watson invited him to become IBM's "consultant director of design."

Noyes brought in Paul Rand to design the IBM monogram, and set about giving the company's products the clean-line, no-nonsense look they have had ever since. He then turned to the task of giving IBM's buildings architectural quality to match its growing corporate leadership.

# IBM: Progress

Noyes himself broke the architectural ice, first by remodeling IBM's Manhattan headquarters and then by designing a crisp new laboratory (top, right) for its production complex in Poughkeepsie, N. Y. The laboratory was not intended as a prototype, however: Noyes had convinced Watson that the only consistent thing about IBM buildings should be quality. His idea was to bring in top architects—one of the first was Eero Saarinen for the Rochester, Minn., factory (second from the top)—then let them react in their own ways to the specific conditions at hand.

This idea was adopted and applied to the three kinds of building programs that IBM had underway. The first was the construction of "corporate buildings" for IBM's own use and ownership (the Poughkeepsie labs, the Rochester factory, Saarinen's research center at Yorktown Heights, N. Y., shown at bottom right).

The second was construction of IBM branch offices throughout the U.S., built by entrepreneurs partially or wholly for IBM occupancy. In exchange for substantial leases as the bellwether tenant, IBM obtained a large share of control over design and construction. Some of IBM's biggest urban landmarks (the 13-story Pittsburgh branch by Curtis & Davis, the 19-story Seattle branch by Minoru Yamasaki) were built under this arrangement.

The third was construction of overseas branches through the subsidiary IBM World Trade Corporation, a program that constituted a privately financed architectural Marshall Plan. Europe is dotted with impressive IBM buildings (among them Marcel Breuer's sculptural research laboratory on the French Riviera, third from top).

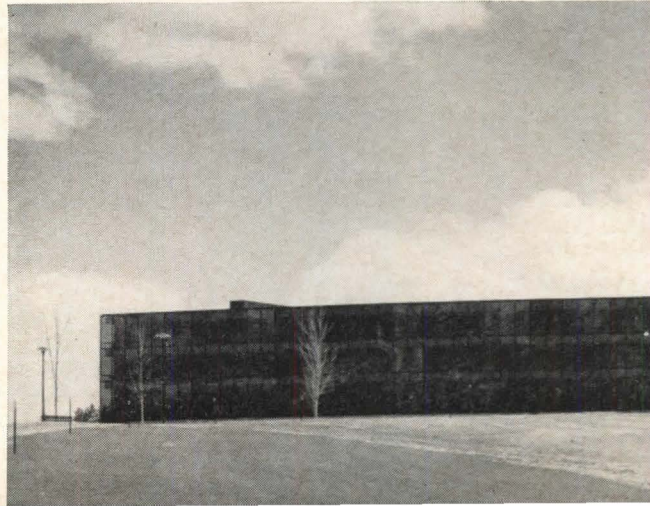
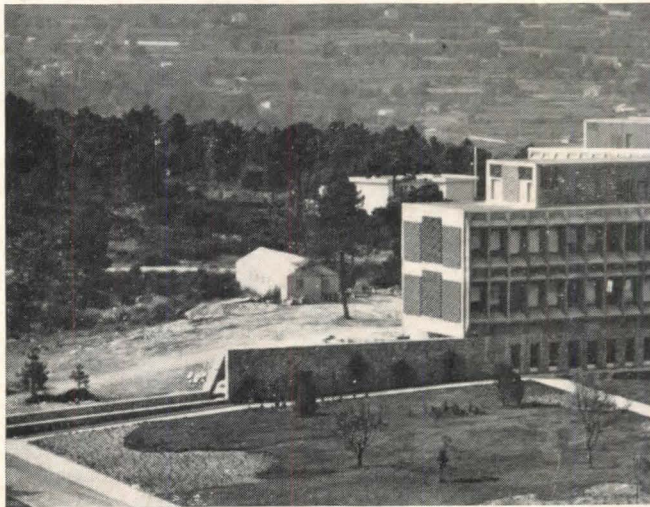
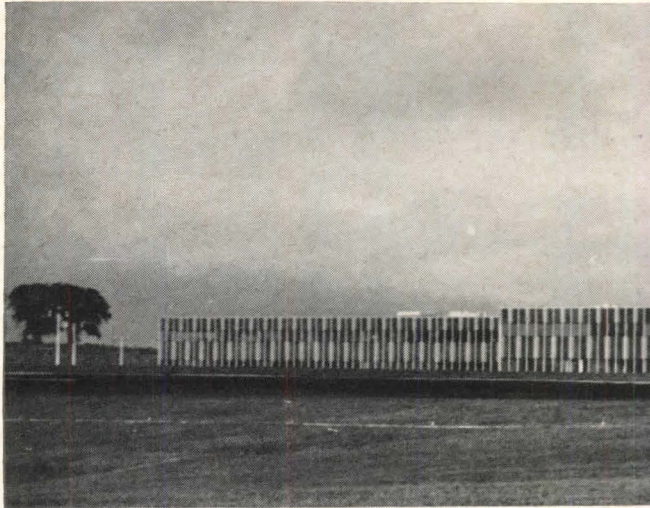
Architects chosen for the flood of prestigious IBM commissions of the late 1950's dealt directly with the IBM people who would

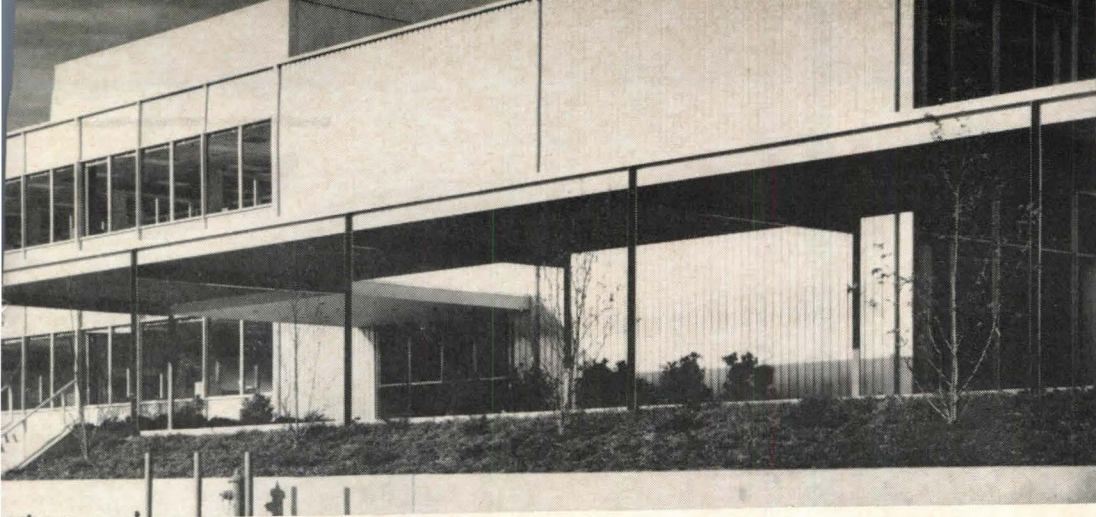
use their buildings. There was no overall control of design, except for an undogmatic review by Noyes in his role as consultant. Watson's interest in good architecture, coupled with Noyes's direct access to Watson, was a potent influence during this period.

It is important to record that even in these early years not every IBM building was an architectural landmark. The company built its share of mediocrity, and received its share of complaints from architects about the kinds of contractors it used and the number of changes it made. Economy waves came and went with regularity. The company's building policy was by no means fixed on a goal of excellence at any cost.

**B**y the early 1960's, in fact, this policy had changed in a way that foreshadowed what was to come later. As the rate of building increased, IBM felt the need for more centralized control of its construction program. All company-owned projects were placed under a Corporate Facilities Planning Department, which prepared preliminary layouts and worked closely with architects. This department, in effect, became the client, rather than the people who would use the buildings. Control over the design of leased branch offices was given to regional sales headquarters in Los Angeles, Chicago, and New York.

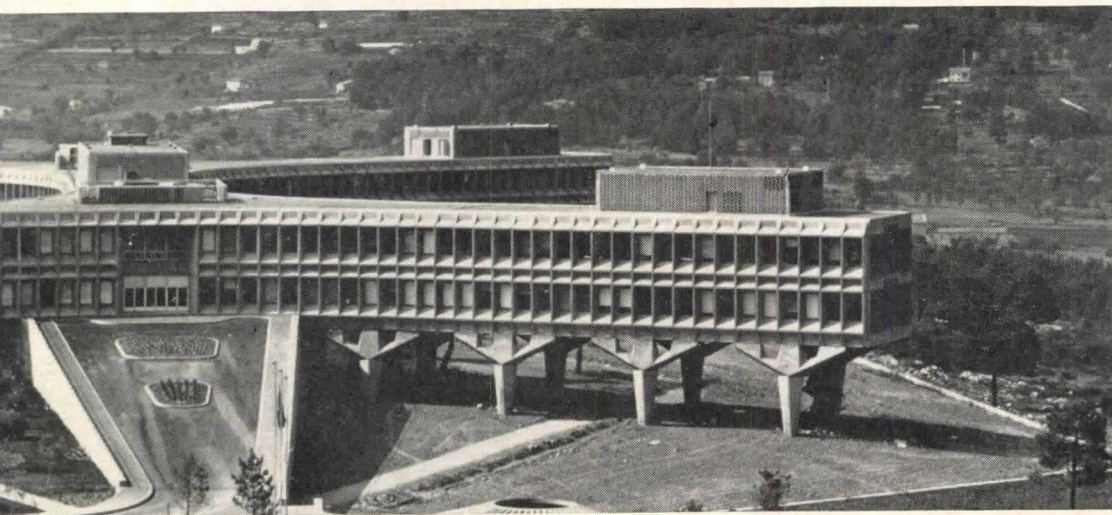
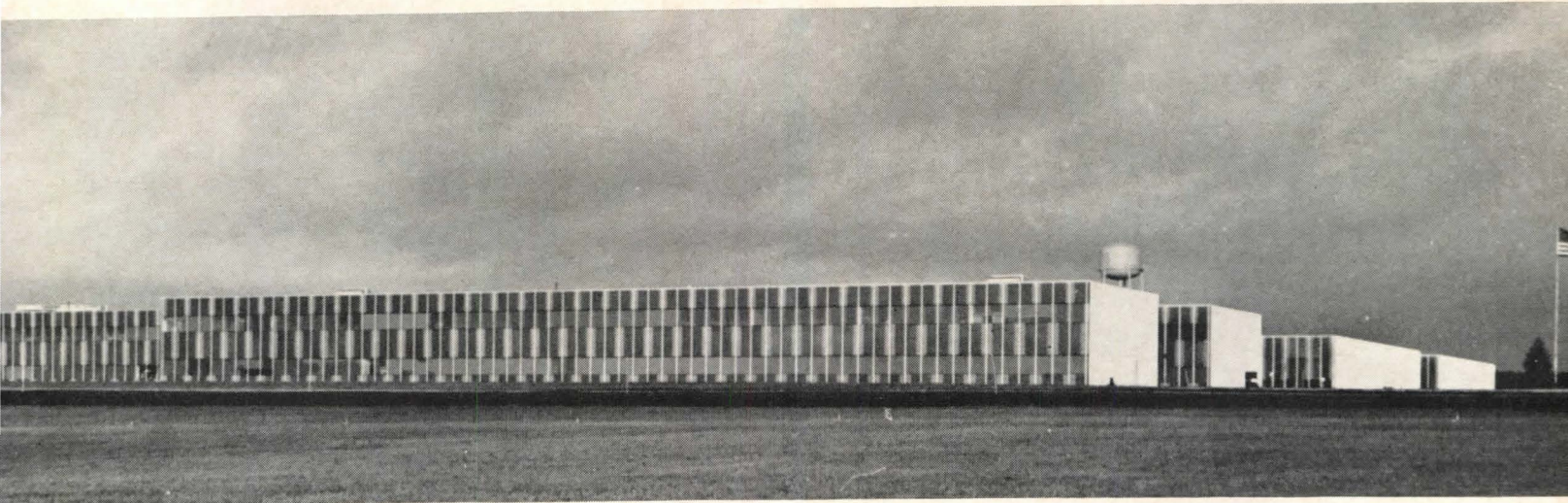
One architect who worked on several IBM buildings, before and after this change was made, recalls wistfully how "satisfying" it was on his first job to work directly with the people who would have to live with the project. Later, he said, he was subject to "policies from above, inflexibly applied" and "conventional, often old-fashioned concepts of economy." There was always a second line of communication for Watson's policies through Eliot Noyes. But even a man of his energy couldn't be everywhere at once.





Eliot Noyes's product development laboratory at Poughkeepsie, New York (left), was heralded in the Forum (February 1957) as introducing "a whole new public personality" for IBM. With curtain walls of aluminum and gray porcelain enamel, Noyes demonstrated that there was an alternative to "Williamsburg" and "Late Newton High."

One of the other early achievements of IBM's new design program was a factory at Rochester, Minnesota (below), by Eero Saarinen & Associates. Its vivid blue porcelain-enamel clad walls, folding around landscaped courts, made it, said the Forum (October 1958 issue) "a vibrant departure from yesterday's dreary factories."



While IBM was building a reputation for forward-looking architecture in this country, its wholly owned subsidiary, IBM World Trade Corporation, was building with equal sophistication in Europe—also under the watchful eye of Eliot Noyes. Marcel Breuer's Development Engineering Laboratory at La Gaude (left), near Nice on the French Riviera was the most impressive.

The most dramatic architectural image produced by the IBM design program was the 1,000-foot curved facade of Eero Saarinen's Research Center at Yorktown Heights, New York (below). The building introduced a new concept of windowless laboratory spaces and was an unprecedented effort to blend architecture and terrain. "At only \$23 per square foot," commented the Forum (June 1961 issue), "such elegance is quite an achievement."



# IBM: Crisis

At the end of 1963, IBM's building program underwent an upheaval that made all the previous changes seem minor. To many architects working on IBM projects at the time, it seemed like a cataclysm.

For one thing, control over all building in the U. S. was turned over to a single, central Real Estate and Construction Division, headed by the former general manager of IBM's Typewriter Division, H. Wisner Miller Jr. The title of the new division indicated one major reason for its establishment: IBM had decided to invest in some real estate—its own branch office buildings.

The other reason soon became clear: central control would make possible a sweeping change of design direction throughout the company. IBM's architectural image up to that time had been fine for a company working its way up in a pioneering field, but now the situation had changed. Computers had become very big business indeed and IBM held an awesome lead, with over 70 per cent of U.S. production. Smaller producers that had been passed at the first turn—or

entered the race late—were snapping at the company's heels.

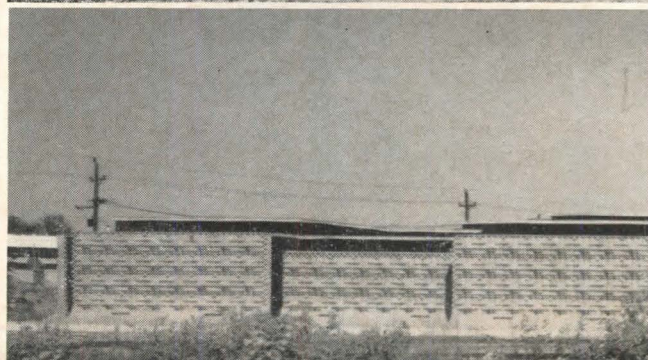
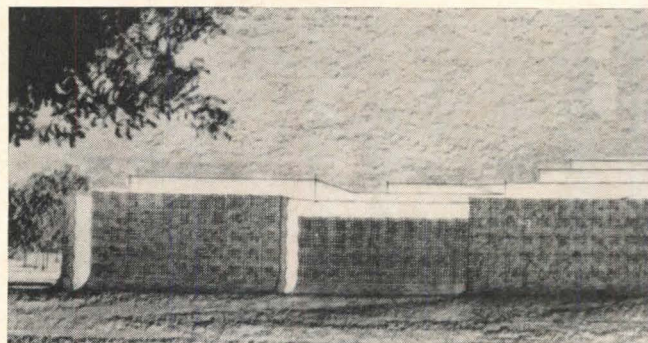
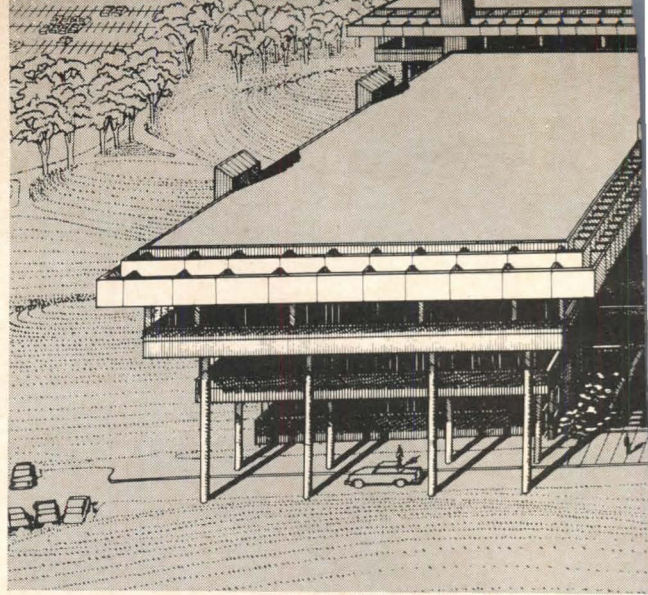
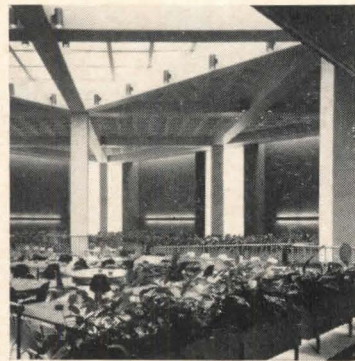
In this situation, IBM apparently decided that an image of wealth was a liability. Customers might suspect they could get a better deal from plain-pipe-rack competitors; the federal government—both a customer and a regulator—might begin to wonder about IBM's domination of the field.

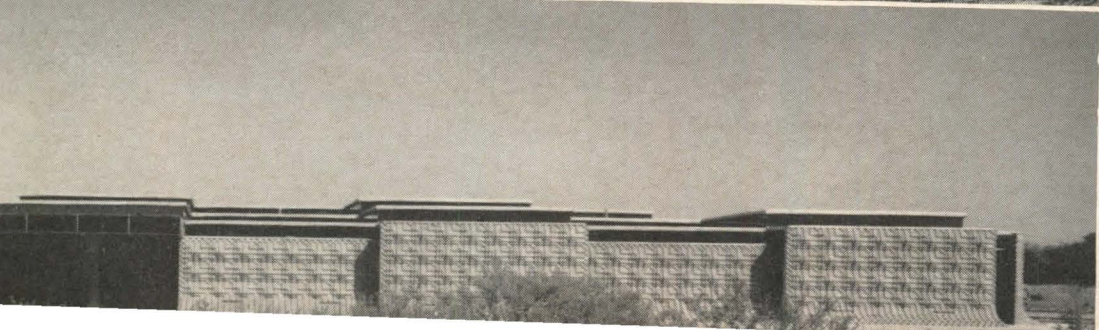
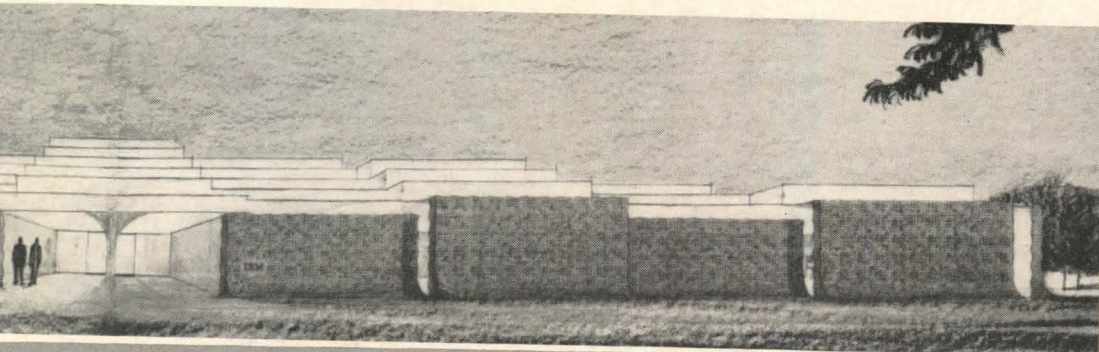
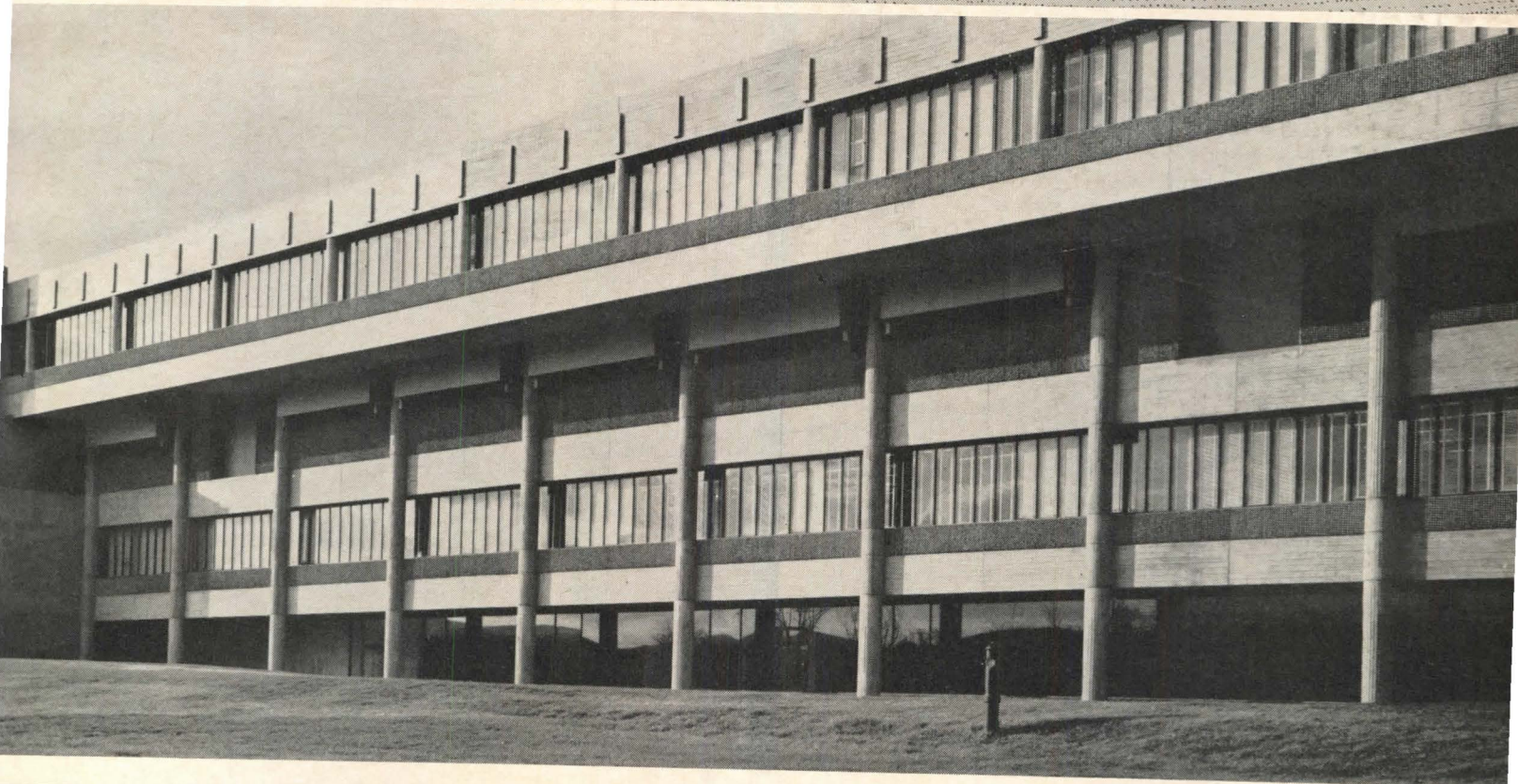
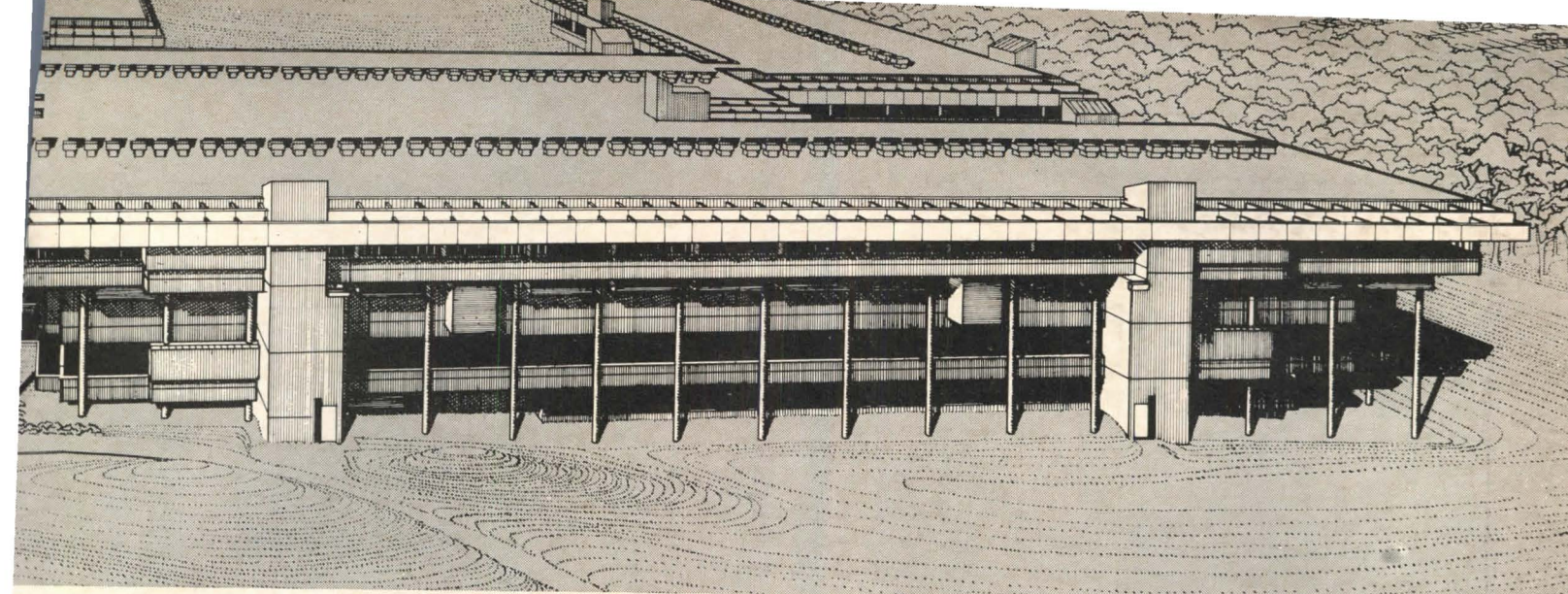
**W**HEN the wind changed the architects were the first to feel it. The new division set right to work scrutinizing every job in progress for signs of apparent lavishness. "Apparent" is the key word here: one architect who rode out the storm (and many didn't) sums up the general reaction: "IBM wanted austerity, at any price."

The price, in some cases, was waste. Stories abound of carpet removed or fine wood painted over. On one project glazed brick judged too elegant for walls was reportedly disposed of by building storm sewers out of it.

A typical example was the tale of what happened to a modest employee cafeteria at Endicott, New York (left). Designed by Sherwood, Mills & Smith as an inward-focused refuge in a drab industrial neighborhood, it was scored by a high ranking IBM executive as a "country club". Planters, carpeting and a sculptured wood screen—all installed in full accordance with program and budget—were removed.

Where it was not yet too late, designs were cut back on paper. The effect can be seen by comparing designs for two buildings, as published in the FORUM, with the same buildings as constructed (right). These two designs were as extravagant in form as any IBM ever accepted. The finished buildings not only show the immediate effect of IBM's austerity drive, they represent a kind of architecture IBM no longer seems to want at any price.





Paul Rudolph's IBM building at East Fishkill, New York (above), was conceived as a factory, laboratory, and headquarters for the Components Division (which no longer exists as such)—all in the same elegant package (top view, from February 1964 issue). One of its most expensive features, a mechanical floor sandwiched between the two occupied floors (except where all three are used for offices) was a requirement of the client. In a last-minute effort at economy, the concrete sunshades were removed, leaving their stubs as reminders of a silhouette that might have been.

IBM's Garden State Branch in Cranford, New Jersey, by Victor Lundy (left), also bears the scars of the new austerity policy. Its exotic stepped-pyramid roof, with clerestories at every step to light the 220-foot-square interior (top view, from December 1963 issue), was lopped off, leaving a mere fringe of setbacks around the edges (bottom view, from June 1965 issue).



# IBM: Outlook

The package builder appeared on the IBM scene only after the newly formed construction division was beset with a sudden demand for millions of square feet of space. Unlike earlier surges of construction, this one was composed largely of factories.

In April 1964, to meet mounting competition head-on, IBM introduced its new "360" line of computers, which made such an overwhelming hit that the company has so far been able to fill only a portion of several thousand "360's" on order. In an effort to catch up with the backlog, IBM reportedly boosted its annual construction budget from around \$30 million in 1962 and 1963 to around \$70 million since then. Miller estimates that "85 to 90 per cent of current building effort stems directly from the 360".

Of the 19 major projects started under the new division, nine have been built under package contracts. Miller claims he has turned to the package dealer only where speed was the overriding consideration. He is aware, he says, of the virtues of the architect-designed, architect-supervised building, but he insists that they cost time and money. Most architects will concede that professional service takes more time, but contend that it insures greater economy, in terms of value received.

One of the undoubted attractions of the package builder is that he offers space of a specified quality at a definite cost, on a prescribed schedule. Much corporate decision-making—and reconsideration—is simply eliminated, but there is a need for more detailed programming.

For some of his new building projects, Miller has recently tried a phased-construction system not uncommon in industrial building: Contracts are let in sequence, the architect remaining in control from start to finish. IBM seems pleased with this approach, which has allowed occupancy of some space barely a

year after the start of planning. (The AIA Industrial Buildings Committee, which urged Miller to try it, is equally pleased.)

Having tried at least three distinct methods of building design, IBM is naturally coming up with a mixed bag of results. Some of the best architect-designed IBM buildings completed in the past year—buildings like the Philadelphia branch office (right) and the Milwaukee branch (Nov. '65 issue)—were actually designed before the division was established. The phased-construction system is producing big straight-forward factories by big production-oriented firms (top right). The package-contract buildings (lower right) are, predictably, the least impressive.

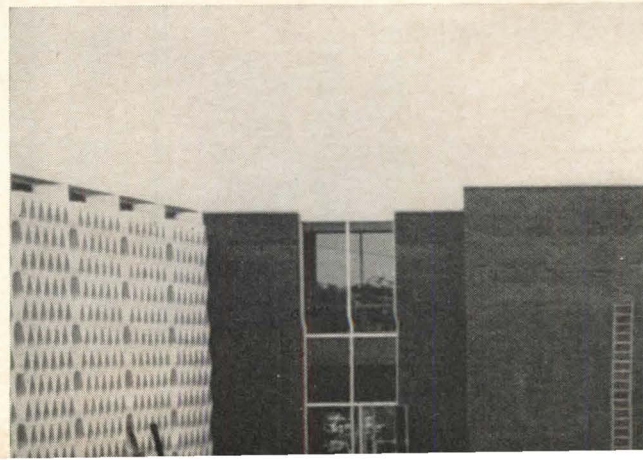
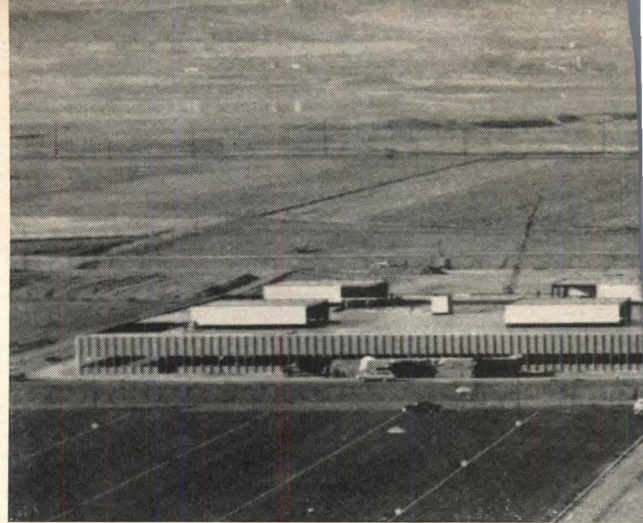
**W**HERE IBM will go from here appears uncertain. Miller is quite willing to go on building all three ways, depending on the situation, but he clearly wants no artistic nonsense from his architects. ("In some cases," he told a Building Research Institute conference last year, "architects resist accommodating the owner's needs under the guise of architectural integrity.")

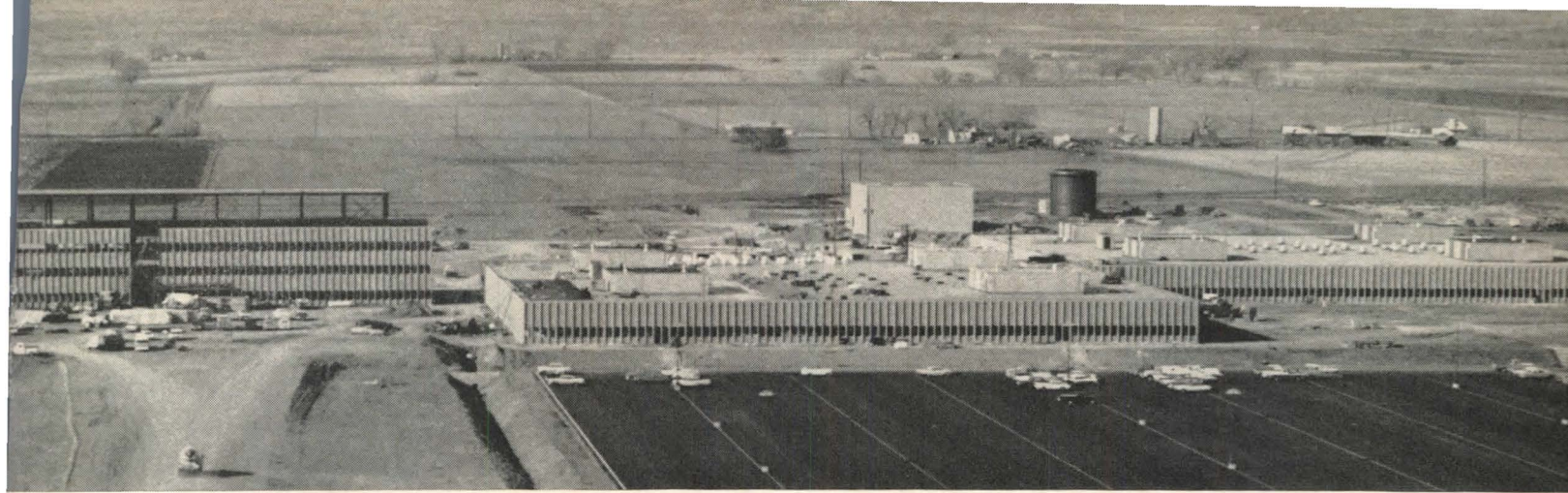
Noyes, who should know, says the period of adjustment is about over and predicts that IBM will begin some fine buildings in the near future.

Watson, whose attitude will count the most in the long run, isn't saying much about architecture at the moment, at least not publicly.

The lesson of the IBM story to date seems to be this: IBM turned to the architects not so much for quality or efficiency but for an *image*. Image-making is a seductive job for the architect; it leads to extravagance—of form if not of cost—and diverts attention from the task of solving straight-forward problems. And the danger for the architect as image-maker is clear: the day may come when the client no longer wants that image.

—JOHN MORRIS DIXON





The scale of IBM's present building program is indicated in their 465,000-square-foot manufacturing complex now under construction at Boulder, Colorado (above). It was designed by Smith, Hinchman & Grylls following a phased system, with contracts let for site work, foundations, etc., before later stages of design were completed. Walls are of precast panels, with a coarse exposed aggregate. The Rocky Mountains give the plant a fortuitous backdrop.

IBM is still building branches all over the world, all of them designed by architects. The recently completed Philadelphia branch (left) by Vincent Kling, the first one of them to be actually owned by the company, brings the sharp contrast of dark glass and limestone to the general drabness of Penn Center.

The new Los Angeles "aerospace" branch office (right) is one of several recently designed by Eliot Noyes, IBM's consultant director of design. In an apparent effort to demonstrate the economies possible through design, he has been experimenting with precast concrete wall systems that include built-in sun control.

A products development laboratory at Poughkeepsie, New York (below), is one of the recent IBM buildings constructed under package contracts. In a mere 12 months from the start of planning, at a cost of about \$14 per square foot, the company obtained 150,000 square feet of just plain space.

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zian, Sickles Service. Page 34: Ezra  
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