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MARINA CITY A CRITIQUE

Early in 1963 tenants began moving into an apartment building called Marina City. Located in Chicago, the project represents an eventual investment of some thirty-six million dollars. Designed by Chicago architect Bertrand Goldberg, Marina City will eventually have not only two sixty story apartment buildings, but also a marina (hence the name Marina City) for seven hundred boats, a sixteen story office building, parking for nine hundred cars, a fifty-four lane bowling alley, and a twelve hundred seat theater. Upon completion the two towers will become the world's tallest apartment buildings as well as the world's highest reinforced concrete buildings.

Although bold in concept and design (however), Mr. Goldberg's building complex is less than a total aesthetic success. While it appears that the twin apartment buildings will have no trouble remaining at full occupancy, complete financial success does not necessarily connote complete artistic success. Indeed, it might be argued that any apartment building built on Marina City's site would have been a financial success regardless of how puerile or tasteless the building. While it is not my argument that Marina City is entirely tasteless, I do think there are a number of valid criticisms which can be made. It certainly is not necessary to bow down in mute admiration only because a new idea or an unusual construction (Marina City is both these things) is before our eyes.

In trying to access the merits and faults of Mr. Goldberg's project I shall concentrate on a critical description of the design after a brief comment on the location of the building and the impact on the surrounding area which the project is likely to make.

(see map)

The site of Marina City is certainly one of its greatest assets. Located directly across the Chicago River from the Loop, the site (3.1 acres) is the closest to the Loop ever to be used for residential purposes. Those who inhabit Marina City and work in the Loop, as most tenants undoubtedly will, are not going to get much exercise walking to work. The site, however, while certainly one of the most desirable from the point of view of convenience, was previously undeveloped. While the north side of the river would seem only natural for an apartment building, there were a number of problems involved.

Among other things, the area immediately north of the river is one of warehouses and empty lots followed by a rooming house district. Heretofore in Chicago, the high rises which went up in the city stretched in a narrow band along the lakefront. Marina City also rises over railroad tracks that extend further east to service the Chicago Sun Times and Chicago Tribune with newsprint. Thus, the structure went up in a previously decaying section which had nevertheless an amazing potential for development.

Hence, Goldberg's project was bound to have a profound influence on the entire surroundings. Any investment of thirty-six million dollars will change the face of an area and when that amount of money is concentrated in such a prime location, whatever disadvantages the neighborhood may have had to begin with are likely to be outweighed by the changed facade and new land use.

With the phenomenal growth of boating in Chicago over the past few years, the riverside location was yet another asset. The crowding of Chicago's harbors assured that if additional facilities could be created, they would find a ready market. The concept of having the

the "basement" serve as a yacht basin was unique to say the least. Certainly it would add to whatever snob appeal the building might already have.

The riverside site of the buildings allows the bystanders to get a very good perspective of the project. The twin towers stand out from anywhere along the river and almost seem to forcibly attract the attention of the viewers. Being able to look at the buildings from a distance without having the view obstructed obviously accounts for some of the project's success as an attention getter. The Chicago River is wide enough so that looking at the buildings from the south, across the river, makes the towers stand out in clear isolation from their less stark surroundings. The uniqueness of the buildings firmly commands the viewer's attention, and thewarehouses behind slip from view in spite of their massive construction.

At the center of each tower is a thirty-two foot (inside diameter) concrete core which rises the full height of the building's five hundred eighty-eight feet. These concrete cores hold the utilities, five elevators, and stairs. The walls of the core vary from thirty inches at the bottom to twelve inches at the top. During the construction, it was the core which rose first. Both cores were started before the parking ramps and apartment floors were begun. They had hatchways for man lifts and interior hoisting, and a platform for a Linden Crane on top of the core which served to facilitate outside hoisting. (see picture)

The parking ramps and apartments are supported by sixteen reinforced concrete columns which rise on the periphery of the circular sites. They are quite visible as they rise for the first twenty floors, and where the apartments start they tend to recede from view and their

earlier prominence. Part of this is the result of the fact that the twenty floors of parking are not enclosed with walls. In fact in viewing their lower levels one's glance completely penetrates through the entire building interupted only by the massive core in the middle and the sixteen pylons which stretch from bedrock one hundred-ten feet below the surface to the top of the building.

While the view of these lower floors allows one to see right into the interior of the building, exposing the guts of construction as it were, nevertheless, this result is less than satisfying. Some of the trouble lies no doubt in the fact that there are really no floors as such in these parking facilities. Rather what Goldberg has presented us with is a twenty story ramp. There are no separate levels as such, just a seemingly endless ramp which winds its way upward. Cars are all parked on this continuous slope, and thus will poke their noses out at the world below from a twenty story vantage point.

It might be wise to stop for a moment before going on and consider the role of the automobile in Goldberg's scheme of things. To others, the automobile and the city are (an) anathema to each other. The growth of expressways and high speed throughways is bemoaned by many. People scream because houses are destroyed and whole neighborhoods must be disrupted in the seemingly infinite battle of getting the car into the center of the city. For the suburbanite who wouldn't think of using more efficient means of public transportation the car reigns supreme.

The problem remains, however, of what to do with the car once you've gotten it into the central city. It is hardly efficient land use to give up the central business district to parking lots. In fact, in New York City new parking lots are echewed precisely because they offer a place to park. The feeling is that there is too much traffic already so why should more vehicles be encouraged to join the mess.

Thus, cities face a large problem with the automobile. Condemned though it is by exponents of mass transit development, the automobile seems to have lost none of its attraction as a vehicle for commuting. Into this complex equation, therefore the financing Building Service Employees' International Union drops Marina City. Here, right next to the heart of the Loop is dropped additional parking for some nine hundred cars. In a sense, the whole philosophy of these two apartment towers is now at odds with itself. The whole concept of parking on such a scale is on the one hand complementary to this kind of development, and on the other hand contradictory.

To provide nine hundred parking spaces for eight hundred ninety-six apartments really is saying something. To quote Architectural Forum, "Architect Goldberg, a lifelong Chicago resident, is a firm believer in centralization and in-town living, tied closely to in-town working, or what he calls 'the time tested principle of living above the store!'"[1] One might be tempted to ask for what possible reason anyone would need a car if they only had to go downstairs to work. If one "lives above the store" and has all one's needs conveniently close by, then why should one need a car. Since one of the avowed aims of Marina City is to lure the forty-five to sixty year old population back to the city from the suburbs, it would seem strange to put so much emphasis on the automobile, which is certainly one of the greatest scourges of suburban living. The architect himself realizes this,

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1. Architectural Forum May 1962, p. 118

"Our specialists living and working in the same building complex need only vertical transportation."[2]

If the people living in Marina City don't have any need for a car then, then somebody else must. This last fact brings us round full circle to the suburban commuter intent on finding a place to house his gas-devouring machine. Hence, it would seem that the benefits of this temple to Henry Ford will not accrue primarily to those who reside within. Instead, space has been made for the cars of nearly a thousand people most of whom will in no way have any connection with the Marina City towers other than finding it a handy place to park. Any assumption that the parking was designed primarily for the tenants is ludicrous. One needs a car in Marina City's location as much as would a man living in a penthouse atop the Pan Am building in New York City.

In observance of these conditions it becomes clear that though Architectural Forum has called Marina City "by all odds, the most amazing structure to go up in Chicago since....1893,"[3] the project cannot ever be considered only as a residential complex. As the rental brochure says, Marina City is a "city within a city." The commercial aspects can not be separated ever from the more mundane concepts of "home" and "shelter". Having a home on top of a twenty story public parking garage will require a good deal of adjusting to.

Parking garages and high rise apartment buildings are certainly not mutually exclusive. In the past, however, the garage, while a necessary adjunct, never achieved the prominence it is now accorded in

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2. "Living Above the Store" An address at the Design Conference at Aspen, Colorado on "Environment," June 28, 1962, by Bertand Goldberg

3. Architectural Forum, May 1962, p. 100

Marina City. Usually in the Chicago high rises we find the garage tucked nicely underground or at the most confined to two or three floors at the base. The jump from this to Marina City's twenty floors out of sixty is a jump which I take with a great deal of reluctance. It is, of course, a personal view, but I find Mies van der Rohe's 860 Lake Shore Apartments far more satisfying with the cars tucked out of sight safely beneath the ground.

The architect has stated that he has "protected more than $4 million in annual income by this design and (I have made) the project more attractive for all the tenants."[4] The order of values is particularly interesting here, financial income from the garage is of primary importance and the effect on the tenants is purely secondary. Thus to make the project pay, you need a garage of this size. Consequently, due to site limitations it is inserted in the lower part of the residential tower and the architect then hopes for the best. I do not think, however, that the garage adds to the visual success of the apartment towers.

Turning to the more mechanical results of a garage of this sort, there are a number of other points to be made. Merely having a twenty story garage which is dependent upon ramps poses enough problems in itself. It is cumbersome enough retrieving a car from a garage with elevators, but the thought of having a car driven in a tight circle for twenty floors is almost unthinkable. The developers promise fully attended parking and I think it is well they should. In any event, it is hard to see how the present design can be very efficient.

"Chicago Central City"

4. An address presented at Investment Women of Chicago, Bar Association, February 1, 1961, by Bertrand Goldberg

Denied elevators, the car hops will be forced to avail themselves of central man lifts to reach the automobiles. While they won't have to walk far, the lifts are rather slow in operation. Upon reaching the car the hikers will then have to drive lengthy distances to get them out of the revolving labryinth. In a highly optimistic estimate Mr. Goldberg has said it would take two and a half minutes at ten miles an hour to descend.[5] This in itself should tax well the dubious skill of car hikers who should be a bundle of nerves by the time they reach the bottom.

A quick glance at the floor plan of Marina City will be sufficient to see the problem of logistics involved in extricating a car from the upper reaches of the garage. Perhaps the situation would not be so bad if the cars only had to drive down or up. With two-way traffic, however, the problem is compounded. There simply is not much room to maneuver if one is trying to descend at a reasonable speed. On the outside, for instance, the cars may be parked either parallel to the restraining cables or perpendicular to them. If the former is the case there is more room to turn in, but it is also an inefficient use of space since this way only one car can be accomodated to each bay. If the latter is the case, as was designed, then there is more efficient use of the space available but precious little room to maneuver in, particularly when faced with oncoming traffic around a blind curve.

However, the cars are finally parked, it remains clear that while Goldberg's idea is a novel one, the execution of the garage section of the towers leaves much to be desired. Undoubtedly too, the architect saw an excellent chance to reduce costs by eliminating walls on these floors . Indeed, he certainly was not the first to have such an

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5. Ibid

idea. Directly across the river stands a Municipal Parking Garage with vertical restraining cables in place of walls. Goldberg was wise to make his restraining cables horizontal and in this way keep the fluid lines of the building clean and free from contradiction. What could also have been borrowed from the Municipal Garage, however, would have been their automobile elevators. It would appear that elevators could have been installed for moving the cars to different levels without sacrificing any of the buildings integrity and indeed adding to it.

In fact, car elevators would have enabled Goldberg to eliminate entirely the ramp he is left with. As it is now, the first twenty floors rise on a gently ascending incline. At the top of the garage the transition is made to regular floors with the revolving ramp abruptly eliminated. The result is that the upper section of the building, which is a carefully ordered regular design, is juxtaposed to a carefully designed irregular section. The first twenty stories are all tilted at an angle, while the top forty stories are all horizontal to the ground at the bottom of the site.

While this result is not necessarily intrinsicly a bad thing, nevertheless, in this case it has not worked out as well as it might have. As can be seen from the pictures, the intersection of the two sections remains somewhat rough. It might even be argued that no matter what was done the change would still be an abrupt one. Furthermore, when one considers the fact that car elevators would have eliminated any need to curve and tilt the first section then the decision arrived at is even harder to understand. It seems hard to escape the conclusion that some other solution could have been found which would have added more overall to the aesthetic success of the building. Goldberg's answer, however, while direct, to the point and is even a little brutal in its execution, particularly

in the light of the much more delicate and detailed work on the upper stories.

With but a few exceptions, I think the architect has succeeded quite well in his execution of the residential floors of the towers. There is none of the brutalism and commercialism seen in the garage below. Rather, there is a much different sense of lightness and obvious attention to detail. Gone is the eccentricity of the lower floors and in its place a well thought out, ordered design.

These upper floors, twenty-one to sixty, bear a faint resemblance to Mies van der Rohe's glass skyscraper project of the early twenties. The extending, curved pads of Marina City's balconies, however, tend to add a more sharply defined aspect. Goldberg was also almost certainly influenced by Wright's Johnson's Wax Tower in Racine, Wisconsin. Regardless of the genesis of the concept, Goldberg's towers retain a distinctiveness all their own. In this respect architect Goldberg owes no one a debt.

In these residential floors, the accent shifts sharply from the horizontal emphasis, seen in the garage, to a vertical emphasis. The helix structure of the garage quickly changes to a clear vertical upsweep. This change in emphasis is primarily accomplished by the addition of the balcony pads. This, in turn, breaks up each floor into a series of sixteen half moons which jut out a short way from the face of the building. The result is that the horizontal sweep of the lower floors is broken up, and the eye is forced to follow the vertical sweep of each tier. Every apartment has at least one balcony, and the largest apartments have two and a half. The balconies

seem to extend like small lily pads, and the sheer symetrical profusions of these pads gives the tower a honey-comb effect when viewed from below. (See pictures)

When Marina City is viewed from anywhere near the base of the project this honey-comb effect is quite pronounced. The apartment units are almost uniquely cellular in structure. One almost waits for a hugh bee to alight on one of the balconies and disappear inside. The apartment wedges also fit very closely the Corbusian ideal of being self contained units which can be slid out of their chest of drawers and replaced with ease. The apartments being wedge shaped however, they more nearly resemble pieces of pie, some thicker than others, but which all fit nicely together in a large and somewhat chic pie.

Goldberg has been rather careful in his detailing of the upper floors. His treatment of the balconies reveals this. (See balcony detail) There is a gentle vaulting visible on either side of the balcony pads. Thus the pads seem to sprout like leaves though they are attached firmly to two branches and not just one. Tucked away in these vaults are the more utilitarian services such as water drains and structural supports.

To the right and left of the visible drain openings can be seen the air conditioning intakes. These intakes, which have ruined many another high-rise in Chicago, are here carefully recessed and are not even noticeable from street level. They are nicely out of they way above the balcony entrance and exit doors.

As a final point in discussing Goldberg's detailing, I think it would be amiss not to comment on the balcony railings he has

chosen. The railings are quite simple and follow exactly the curve of the bay. Unencumbered with any ornamentation, these wrought iron railings make a pleasing contrast to the reinforced concrete seen elsewhere in the building. The thin, vertical members show up well in contrast to the smooth (thanks to fiberglas forms) concrete faces.

The apartments themselves (efficiency, one and two bedroom), are all wedges of "pie in the sky." The architect has compared his floor plan to a tremendous sunflower.[6]

> At the heart of the flower is the efficient core containing all the utilities. And each petal of the flower equidistant from the core becomes a bay which contains an apartment, or which combines with other bays to make a larger apartment.

All apartment entrances lie in the circular corridor which surrounds the central core, housing the elevators. Obviously due to the circular shape of the buildings, the apartments are narrower towards the inside of the building and then open out towards the glass walls on the outside. Having rooms which were not square would at first seem a disadvantage. Aside from waste involved in purchasing wall to wall carpeting, however, the disadvantages are hardly overwhelming. In fact, there are desirable benefits indeed. One of the results is that the interiors all seem to flow outward and to naturally open out upon the balconies. All the rooms seem to turn their attention outward towards the city. This is all the more enhancing considering that Marina City surely has one of the most spectacular views in the city. Goldberg has called this "dynamic space" as opposed to "static space." He says, "The effect of the apartment design, radiating from the small central core to an increasing dimension toward the outer window wall is one of tremendous unconfined space, with more and greater space

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6. Ibid.

always beyond the viewer."[7]

A final few criticisms must be made concerning Marina City. Perhaps the most galling and obvious flaw in Goldberg's design lies in his treatment of the very top of the towers. Certainly Goldberg is not the first to fail in coping with elevator machinery housing. Nevertheless, his failure is particularly sad in the light of an otherwise successful building. The architect simply stops his building short with the sixtieth floor apartments. Left to rise above for a painful distance is his central core. Nothing is done to hide the core. It simply sticks out like a sore thumb. While the elevators are assured a prominent housing for their innards, aesthetics are thrown to the wind. When one looks at a Meisian solution for the same problem, there is no comparison between the two. Mies carefully integrates his little rooftop house into the scheme of the rest of the building, whereas Goldberg has simply let the chips fall where they may.

As if this were not enough, to add insult to injury, there are plans to affix to the east core a four hundred thirty-seven foot television antenna.[8] Since the towers are five hundred eighty-eight feet tall to begin with, an antenna of this size almost doubles the overall height of the structure. In retrospect, therefore, it would seem that this is hardly a fitting end for a residential apartment building. The accent is on commercialism both with the garage below and with the TV antenna above. In between lies the work of art, a significant contribution in the continuing evolution of the apartment building.

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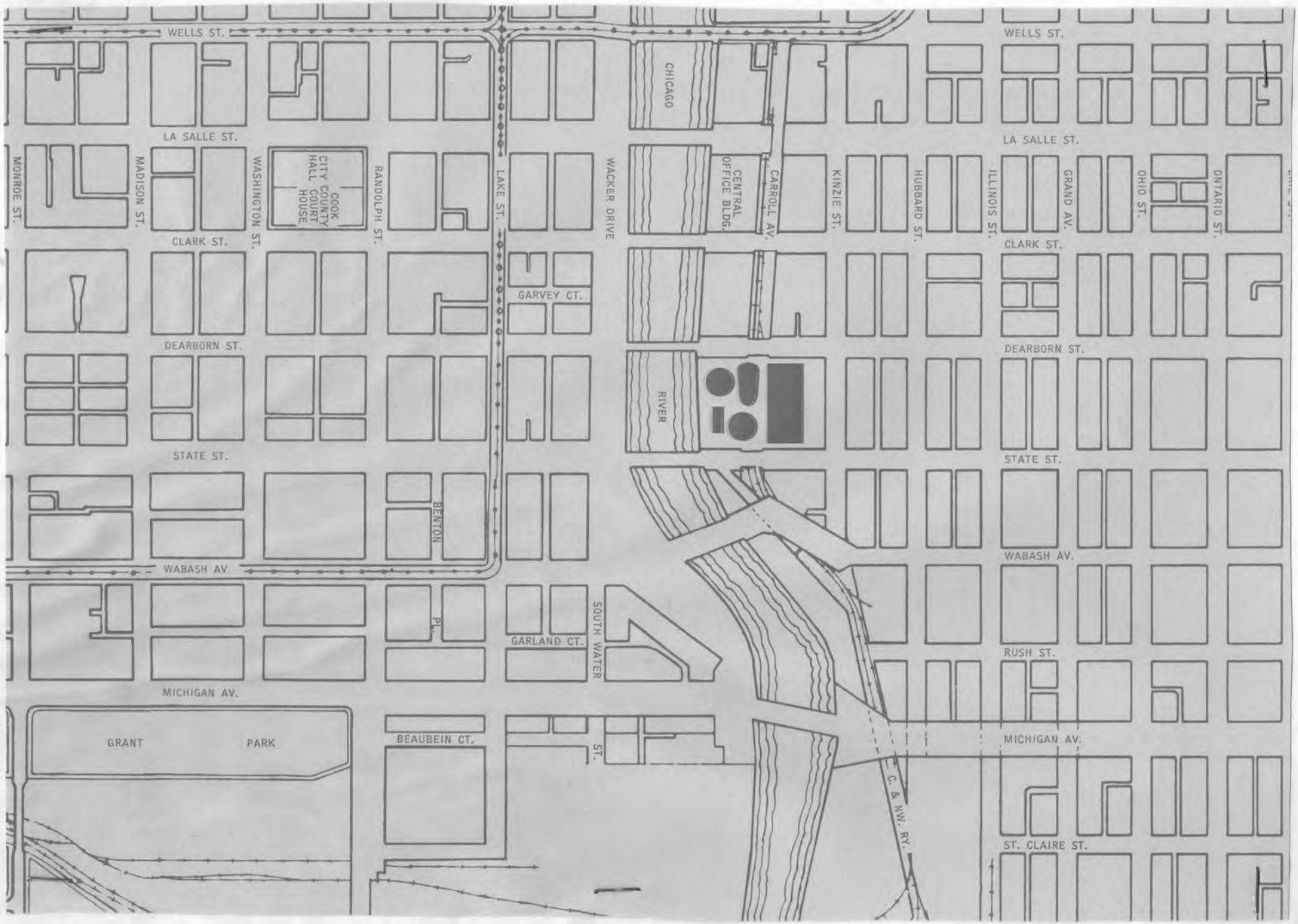
7. Ibid.

8. Popular Science, April 1963, p. 82

Goldberg defends this integration of living and working on the grounds that it is the only way to preserve the central city and ensure an equitable tax base. Perhaps this kind of consolidation will be the ultimate answer. Nevertheless, it was said that when President Kennedy moved into the White House, where a similar integration exists, he walked around the block in the morning just to pretend he was "going" to work. Thus, we may also find as time goes on a reluctance to destroy the physical and mental separation between where we work and where we live.

In conclusion therefore, it would seem that Goldberg's Marina City is in many ways a brilliant success and in other ways far less than successful. In any event it is a striking step in the history of architecture. There are isolated faults but then there always are in prototypes. In Mies' first glass houses at 860 Lake Shore he forgot to add a garbage shute. It seems Goldberg has forgotten to finish his work at its apex. The fact remains, however, that the project is unique in design and unique in execution. A complex of this sort represents one major effort in rescuing the central city, and on the whole Goldberg has achieved not only an "amazing structure" but an aesteticly rewarding one too.

yes, but is it unique in conception? Is this sort of mechanical solution the only way to "rescue the central city"? Isn't this just another tall apartment house with extra parking beneath? Will it really change the world? How does this compare with Kahn's ideas for rebuilding the city? Personally I don't think it does, This is just another way around the problem, not something new. Is this kind of thing all we really need to solve our problems?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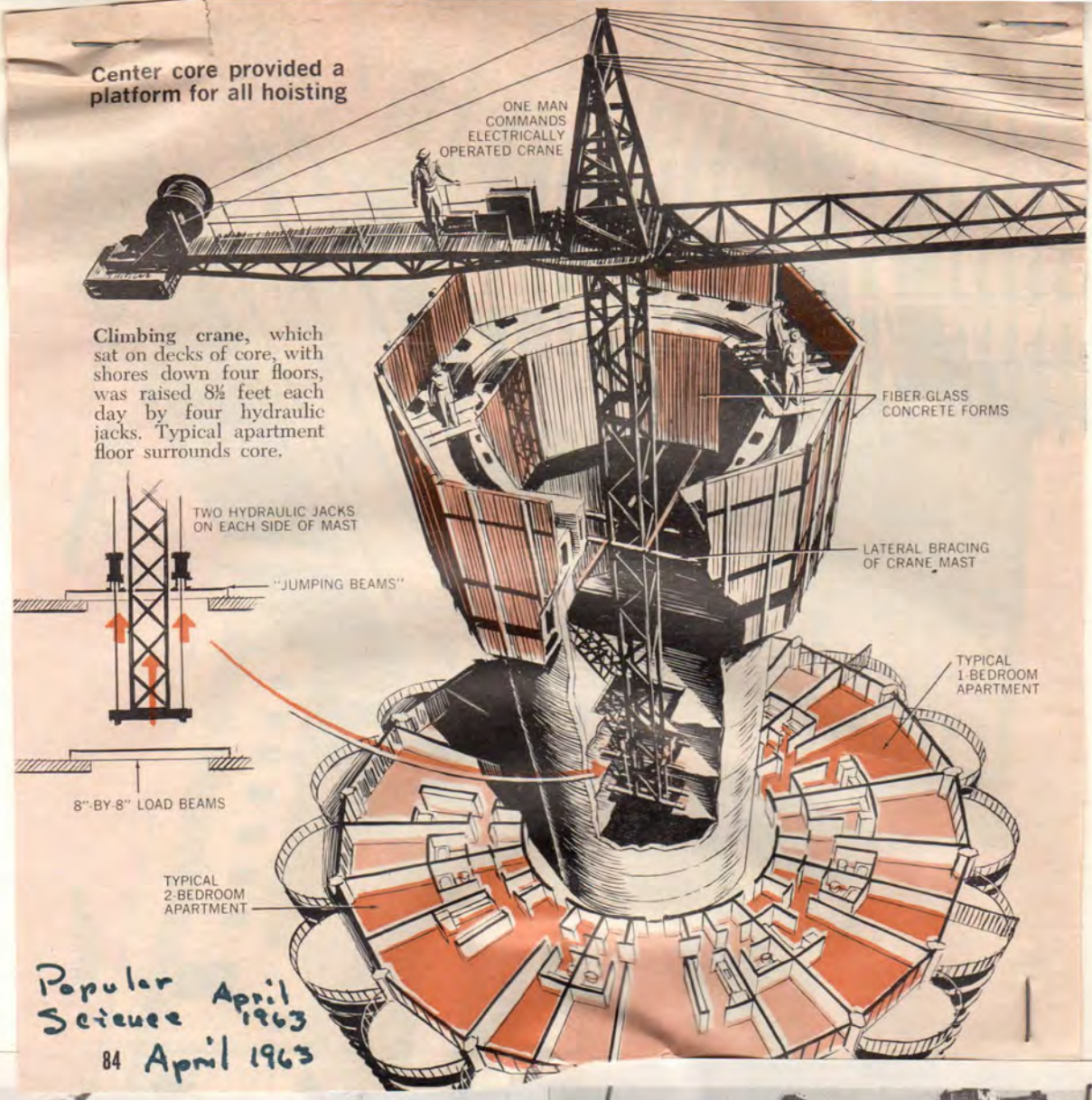
CHICAGO'S NEWEST apartment house is Bertrand Goldberg's Marina City, 65-story cylinders scalloped round with balconies. Lower floors serve as ramp garage. Structure has been called Chicago's most amazing since the 1893 Ferris wheel.

TIME March 15, 1963 PHOTOGRAPHS FOR TIME BY ARTHUR SIEGEL AND ART SHAY



Popular Science April 1963

84 April 1963

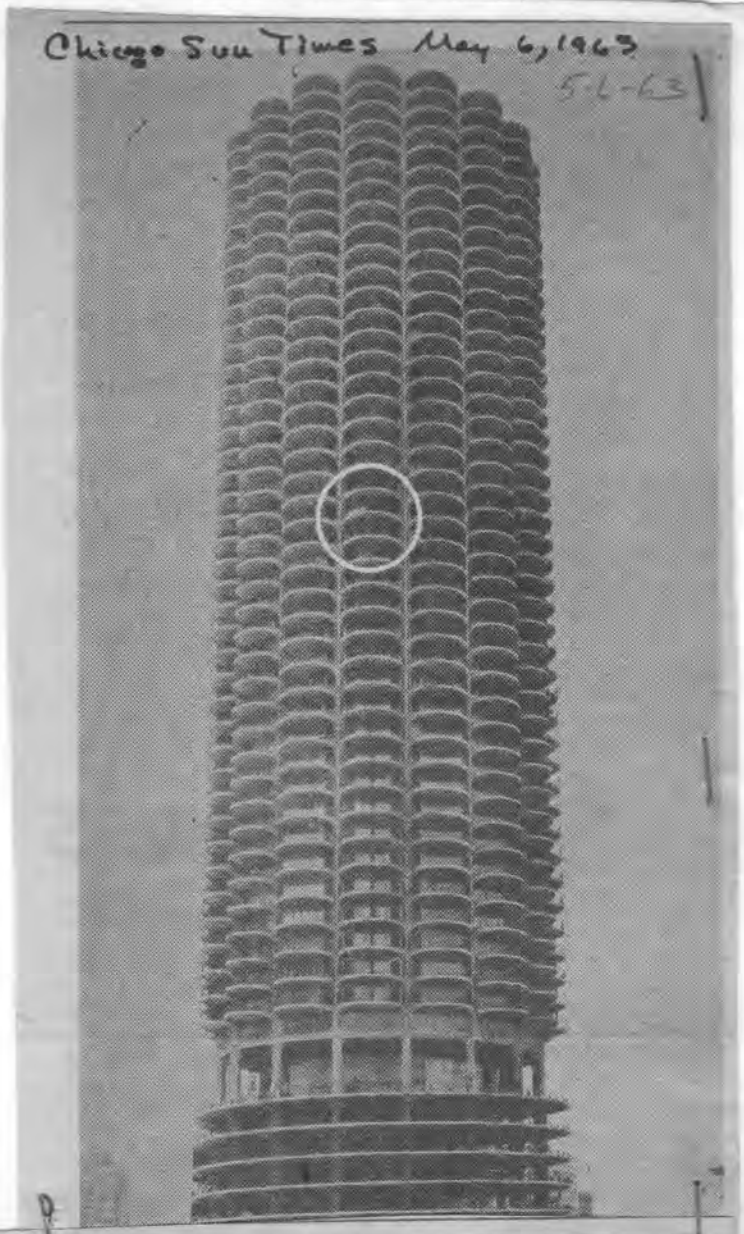
Construction of round apartment towers nears completion. East Tower (right) is at top apartment floor (60th), West Tower at 57th floor. Note separate balcony for every living room and bedroom.

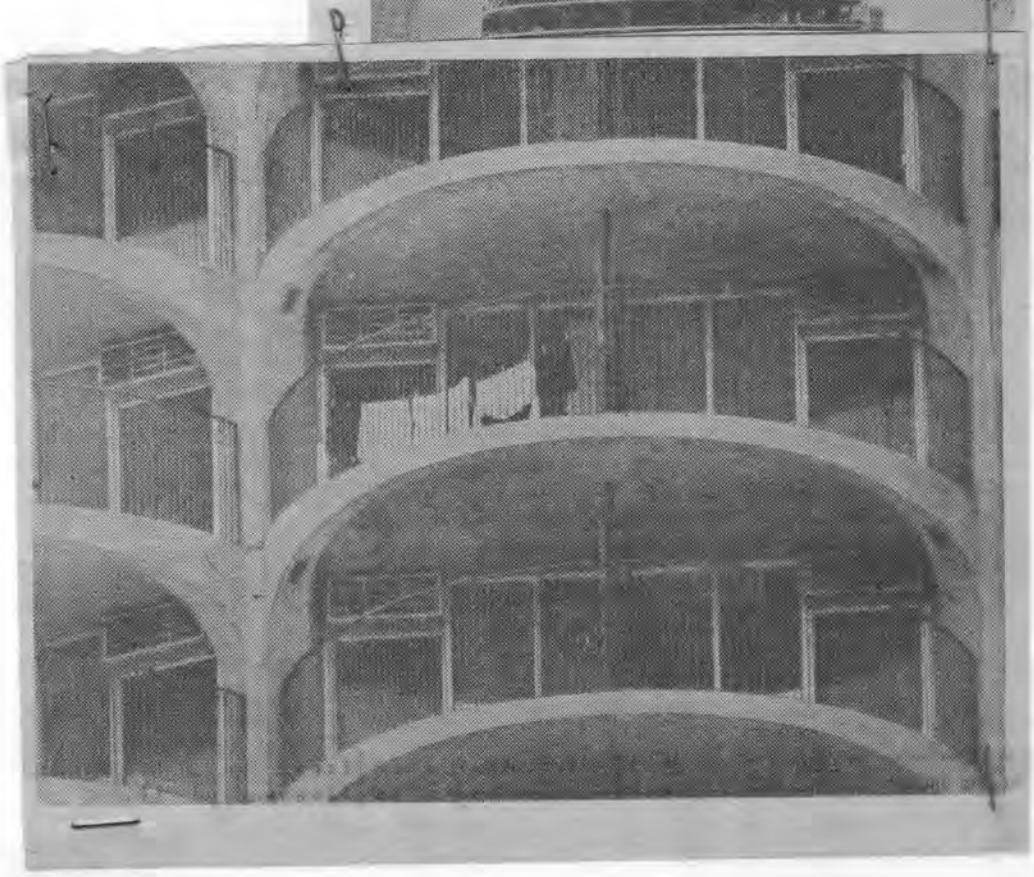
Center service cores are completed a long time ahead of the surrounding floors, permitting early start and completion of all service facilities. A Linden crane is at top of each core.

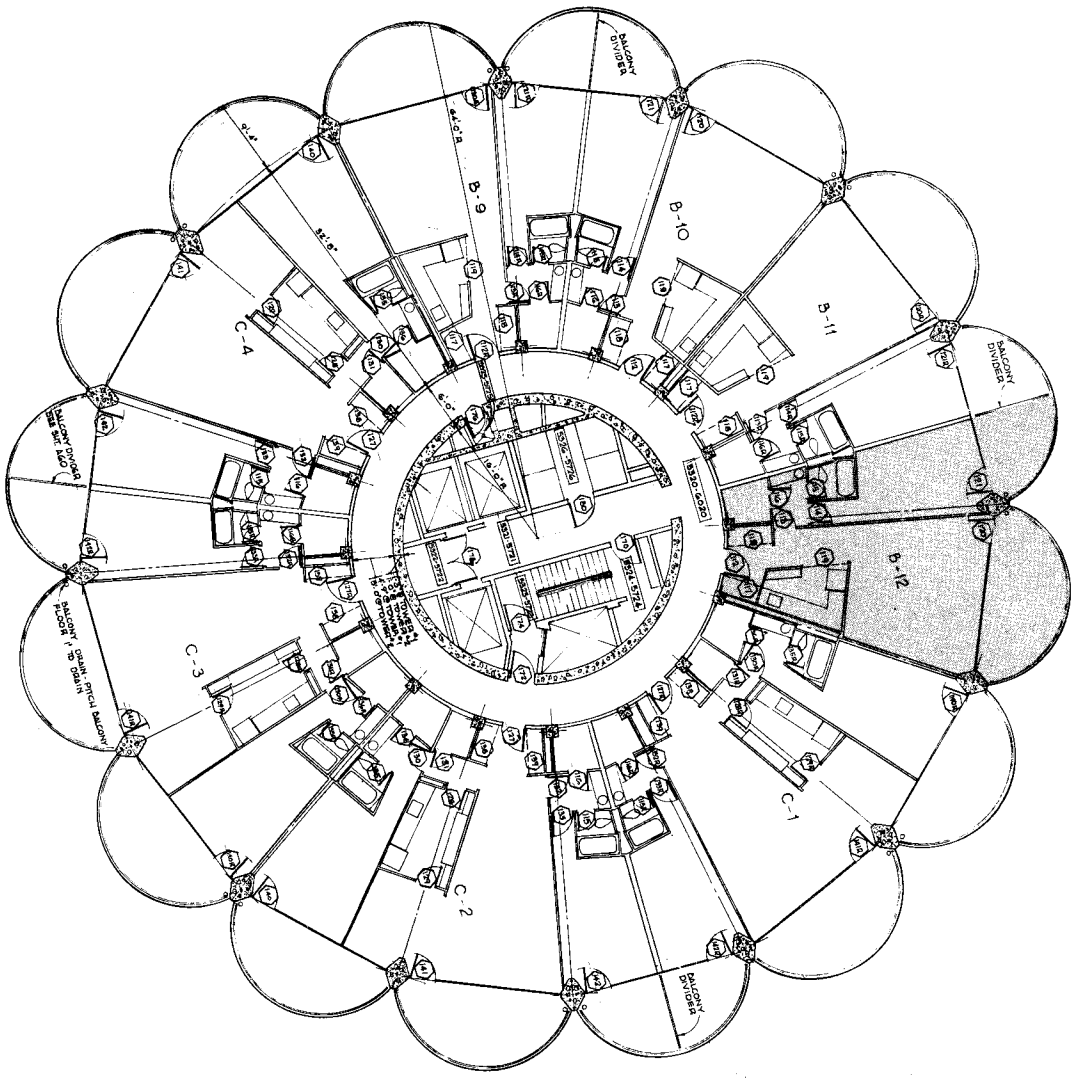
Civil Engineering, December 1962

Chicago Sun Times May 6, 1963

5-6-63



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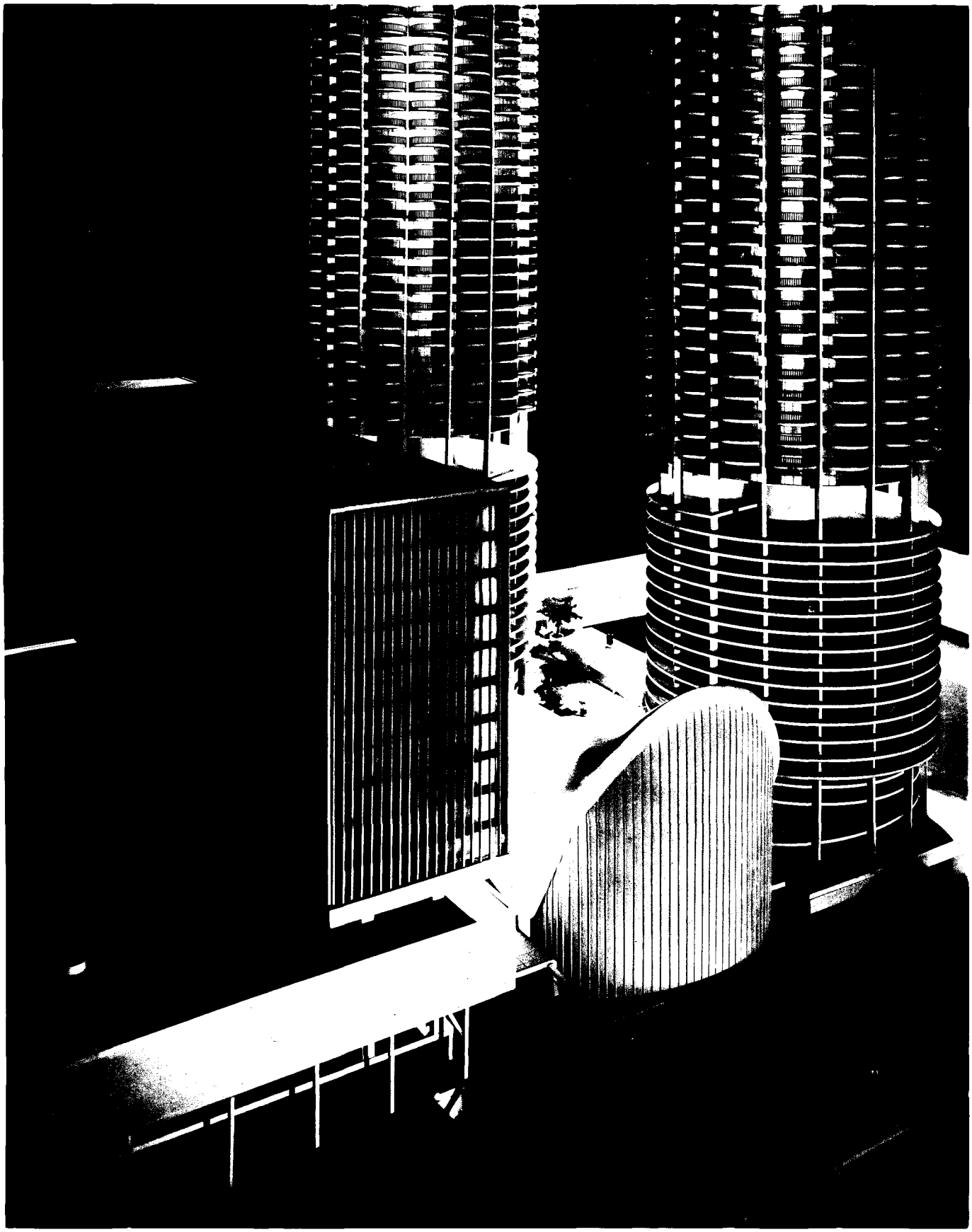

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