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THE DESIGN OF ROCKEFELLER CITY

BY

RAYMOND HOOD

OF THE ARCHITECTS OF ROCKEFELLER CITY

HOW definitely the day of the architectural one-man show has passed is borne out with unmistakable emphasis in the planning of Rockefeller City. Within the remembrance of the youngest of us is the time when an architect, with the aid of a few draftsmen, planned, designed, and supervised construction of an entire project. Rapid growth in the size and complexity of architectural problems, however, has forced all of us to realize that in the face of them our own capacities are relatively limited and that we must consult freely with experts in allied arts and sciences. If this is to be regretted from the standpoint of individual expression, it is nevertheless inevitable, and it is responsible for general improvement in the quality of our architecture. Certainly no one man can cope successfully with the problems that one of our great buildings imposes on the architect.

The process of developing the plans for Rockefeller City has been going on for approximately four years — although the group which is now in charge of the project has been working on the problem for only two years. It would be impossible to estimate the number of official minds that have engaged in untangling the complexities of the problem; and certainly the number of unofficial minds that have pondered over it is even a more meaningless guess. Architects, builders, engineers, real estate experts, financiers, lawyers — all have contributed something from their experience, and even from their imagination. With expert advice on all problems constantly available to the architects, nothing has been done hastily, nothing without consideration from all angles, or without estimating the probable consequences. Throughout, there has been a marked absence of architectural whimsies, of which most of us architects are guilty from time to time.

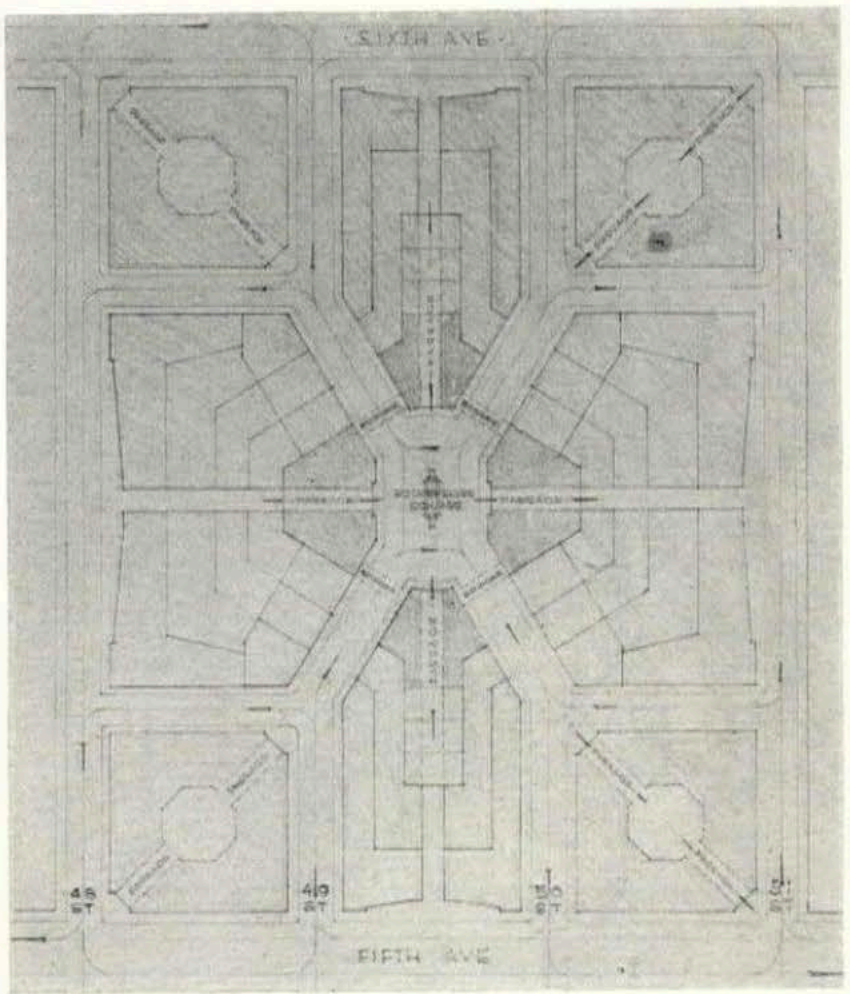
I have, and I suppose every architect has, done things of which I was not entirely certain. On a single building operation, something may be risked for the sake of experimentation, but on a two hundred and fifty million dollar development, and one which may set a precedent for many in the future, mistakes can be so costly that they become catastrophes. It is needless to say that every man associated with Rockefeller City knows that he is risking his reputation, his professional future on the success of Rockefeller City.

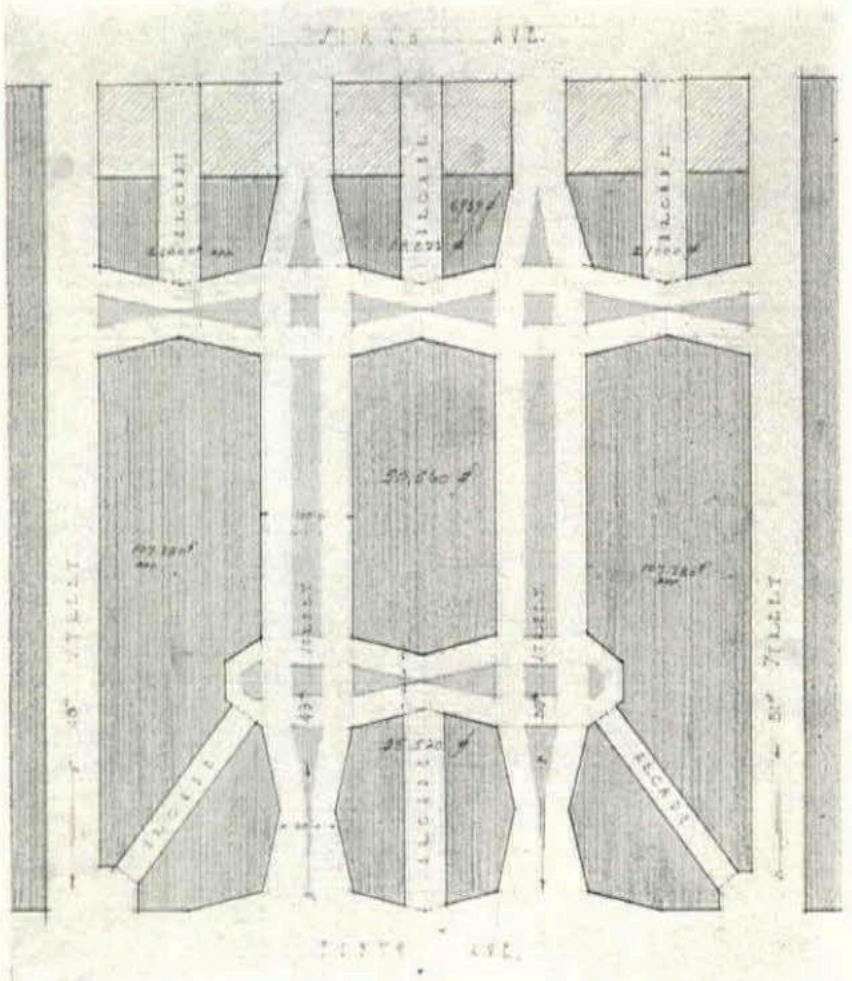
The property to be developed consists of the greater part of three large city blocks, extending from 48th Street to 51st Street, and from Fifth to Sixth Avenues. An accompanying illustration shows the exact area controlled by the Metropolitan Square Corporation, which is the holding company for Mr. Rockefeller. It contains 513,000 sq. ft., or between twelve and thirteen acres.

The property was acquired from Columbia University on a lease hold, and since there is a twenty-year cancellation and re-appraisal clause, it is evident that Columbia is vitally concerned in the financial success of whatever venture is tried on the site.

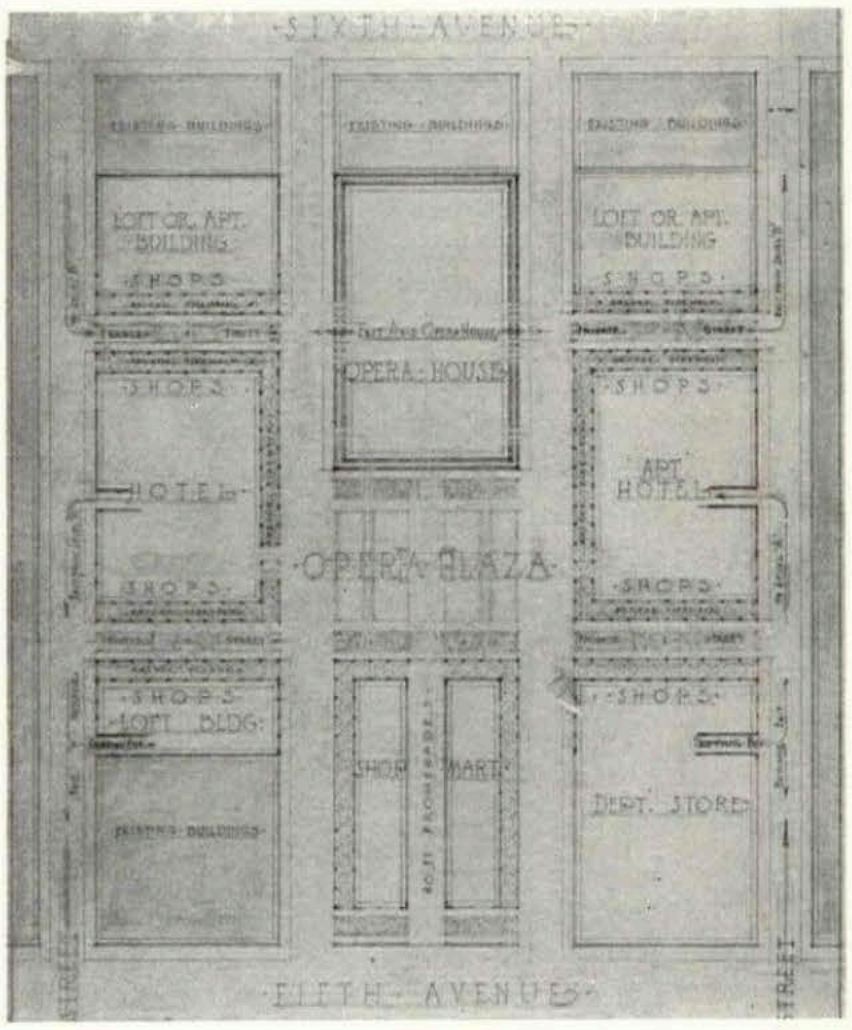
So, conscious that the development must first of all pay its own way, we started to work. During the early stages, each of the three associated archi-

Two other articles in the series on Rockefeller City appear on pp. 77 and 81 of this issue. One is by L. Andrew Reinhard on the organization of the project, the other by W. K. Harrison on office practice





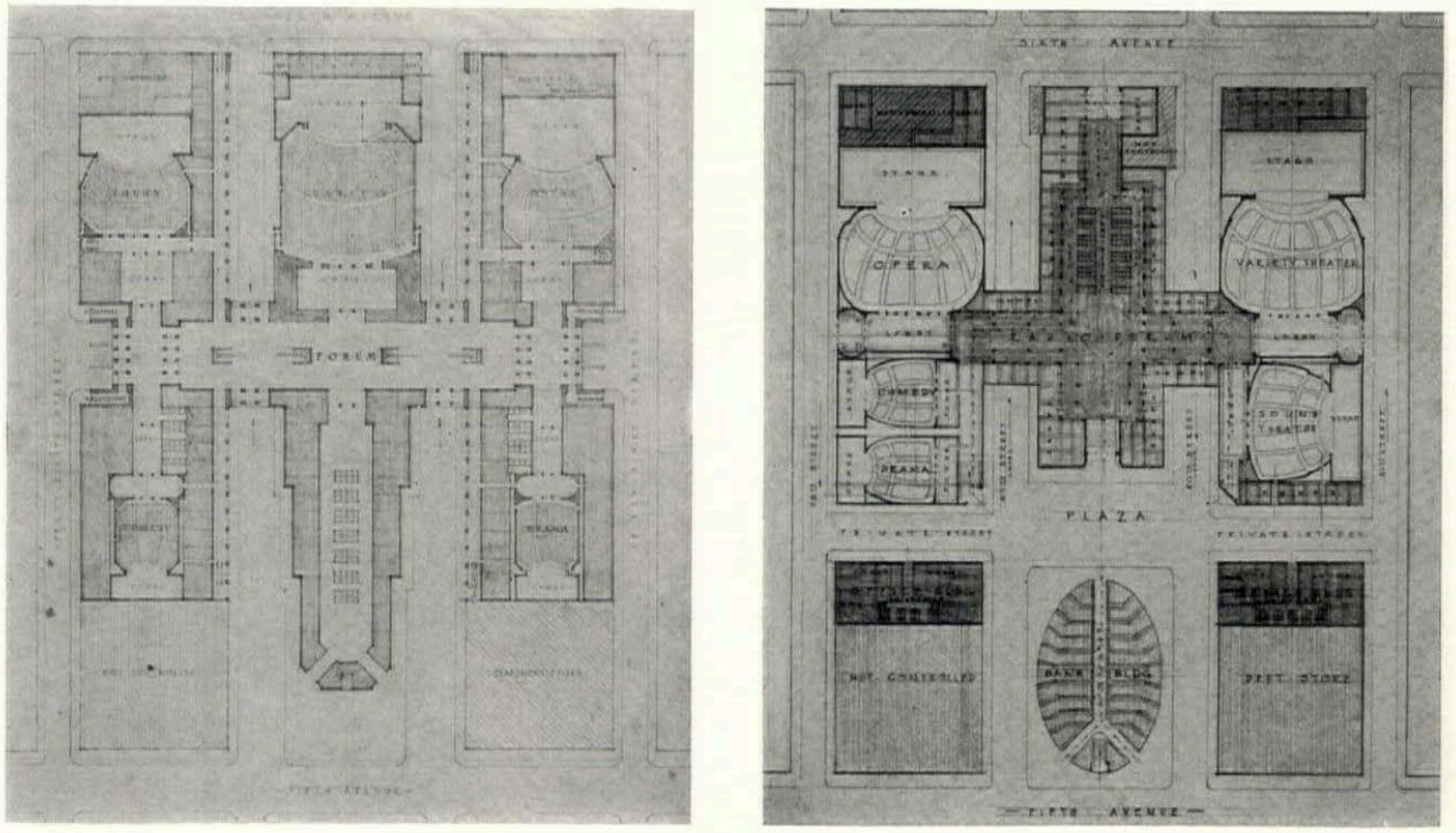
The six ground plans on these two pages are representative of the great number of studies made in developing the present plan. At the left is an attempt to build up a pyramid unit, and at the right, one which employed an interesting deviation from the present system of street traffic



This is the earliest plan of the development in existence, made before its limitations had been definitely established. Although this is only one level of an interesting two level plan, its similarity to the present scheme is remarkable

tectural offices made independent studies, with the intention of obtaining as many varied attacks of the problem as possible. Reproduced on these two pages are five typical studies made in the general working out of the ground plan. I would not attempt to guess how many such solutions were made; I doubt, however, if there were many possible schemes that were not studied before the present plan was adopted. And, even after arriving at a definite scheme, changes are continually being made to coincide with rental developments.

In general, the approach to the problem was the same as that which is followed on any large commercial building operation. It may be summed up briefly in those two words which have come to mean so much in the architect's vocabulary — "cost" and "return." This thought, I know, is unpalatable to some architects. Certainly I was taught to believe that the overstressing of the financial end of an operation would result in very little good, and that good architecture could be produced only when restraint of this sort was lifted from the architect. To be sure, the architect is always supposed to analyze in a vague way his spending of the client's money, but there was always the advertising value of good art to fall back on if the figures did not work out well — and then the client's pride could be drawn on heavily in case of necessity.

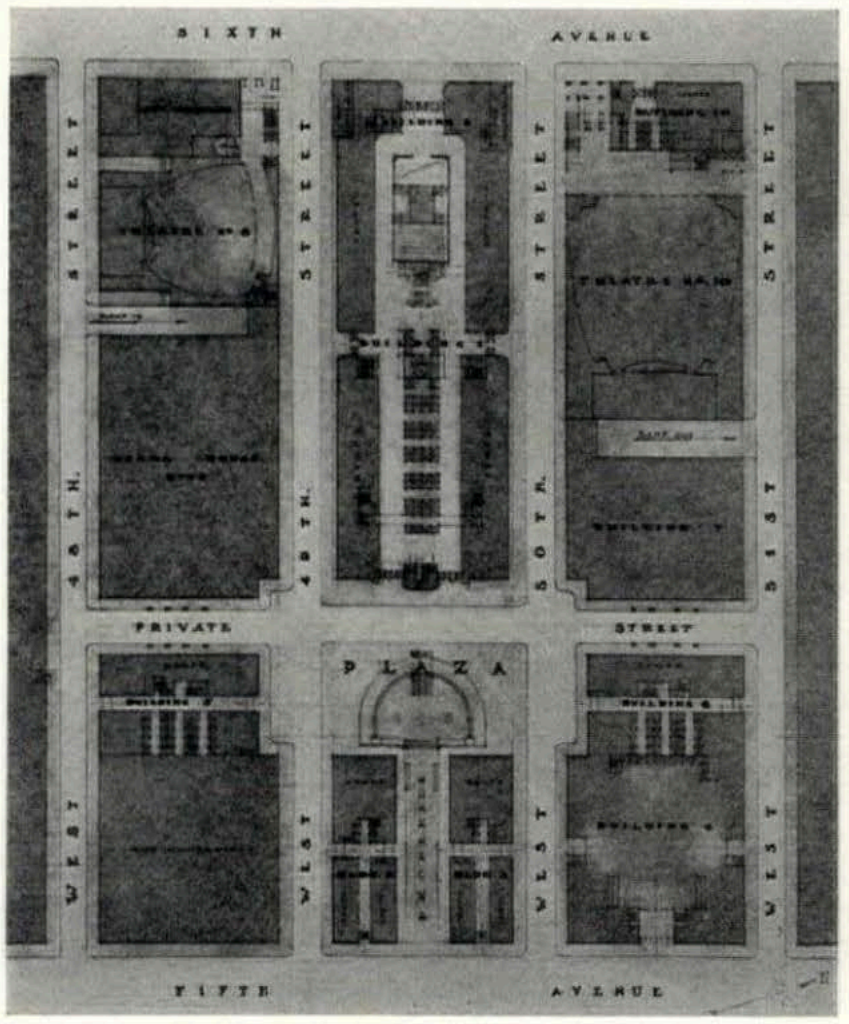


These plans are more strictly steps in the working out of the existing plan, since the requirements were known. Although each is marked by a forum connecting the group, the one at the left has an open plaza on Fifth Avenue, and the right one has a cross street and an enclosed plaza

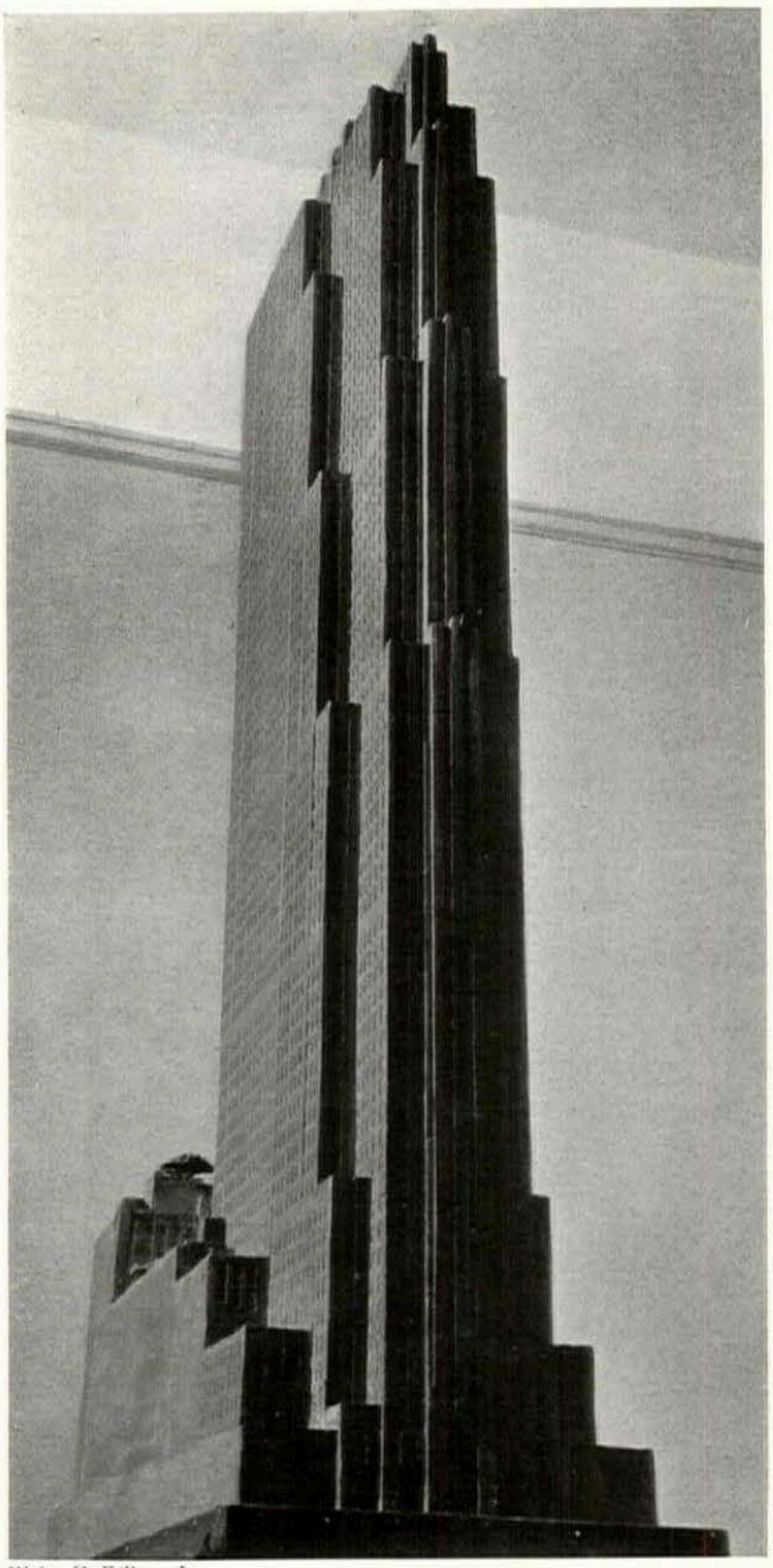
Far from being a handicap, this discipline, I am convinced, of being obliged to make a project stand on its own financial feet and to submit its details and materials to a constant critical analysis leads to honesty and integrity of design. Under this stimulation, the cobwebs of whimsey, taste, fashion and vanity are brushed aside, and the architect finds himself face to face with the essentials and elements that go to make real architecture and real beauty.

Since street level space in this district earns many times as much as office space in the upper stories, one of the guiding principles in the plan was to obtain the maximum ground floor area and street perimeter. The office space above of necessity had to be ideal, which meant flexibility for arrangement and all outside space of shallow depth from the windows.

The scheme we adopted was of obvious simplicity. The zoning law allowed us to cover the entire site without setbacks to an approximately uniform level of 100 ft. above the ground. Above this point we took advantage only of our 25 per cent tower rights on each block. In the middle block the tower right is concentrated in a single great unit in the center. On each of the other two blocks, it is divided in two, a tower at each end. This gives a staggered tower plan, like a five spot card. In the towers is concentrated the office space which is thus as ideal as possible, since every office

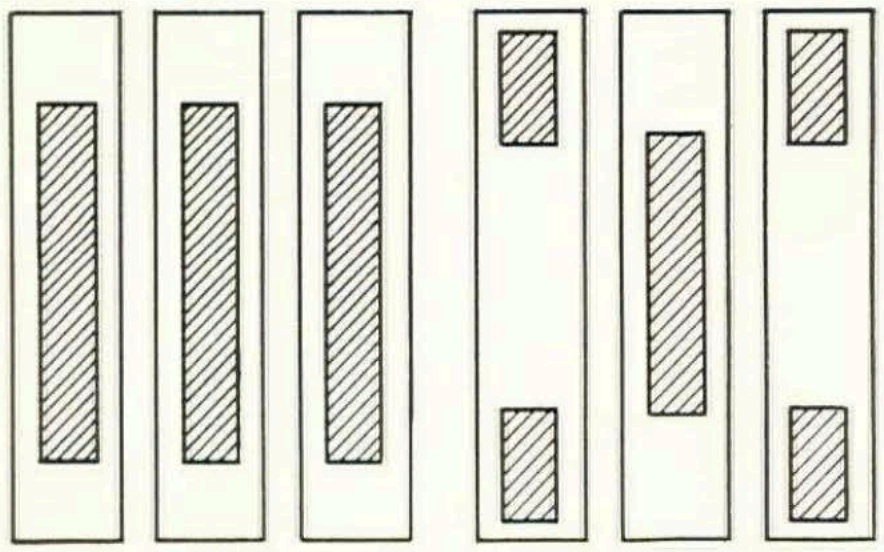


This is the existing plan of the development, which is somewhat more intensive than the others, but which is still open enough to provide adequate light and air for the Rockefeller City buildings as well as for those in the vicinity



Walter H. Kilham, Jr.

Model of the central building in the project



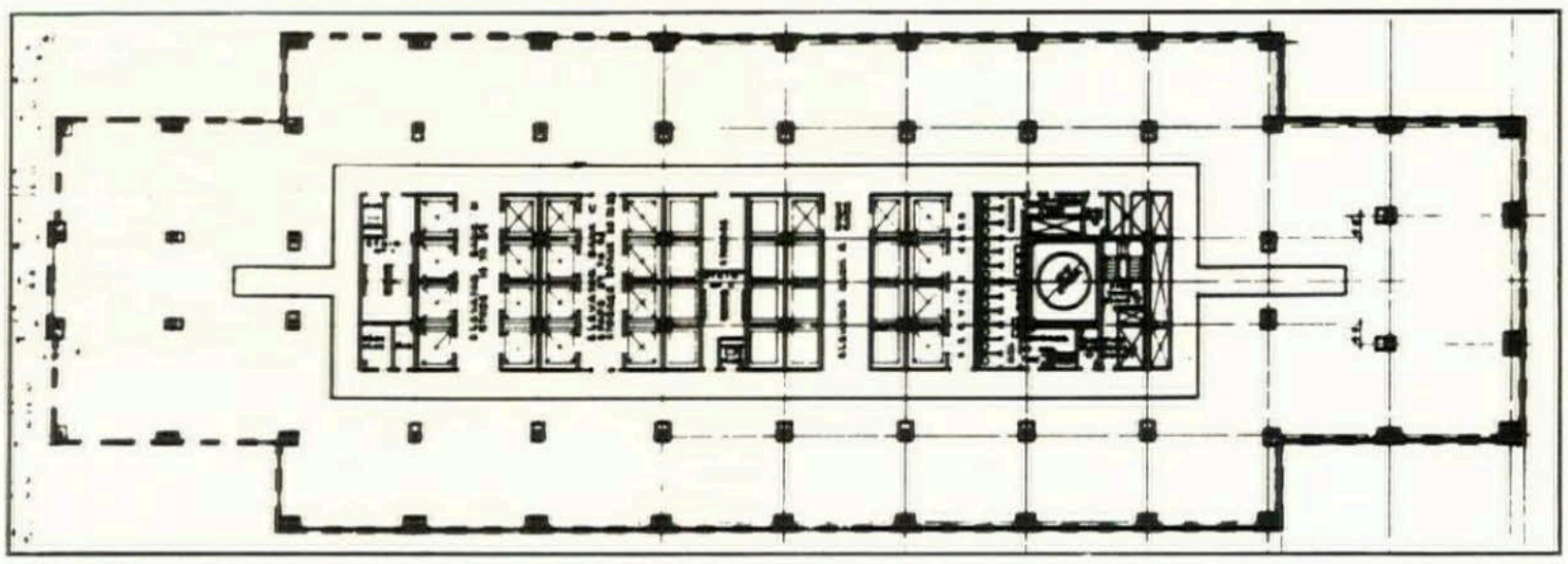
The diagram at the left shows the permissible tower rights under the zoning law; at the right is the existing less intensive staggered plan

has a protected outside view and light. In the lower part, *i.e.* below the 100 ft. level, are concentrated theaters, stores, and all those rental spaces that require direct contact with the street and can be artificially lighted and ventilated.

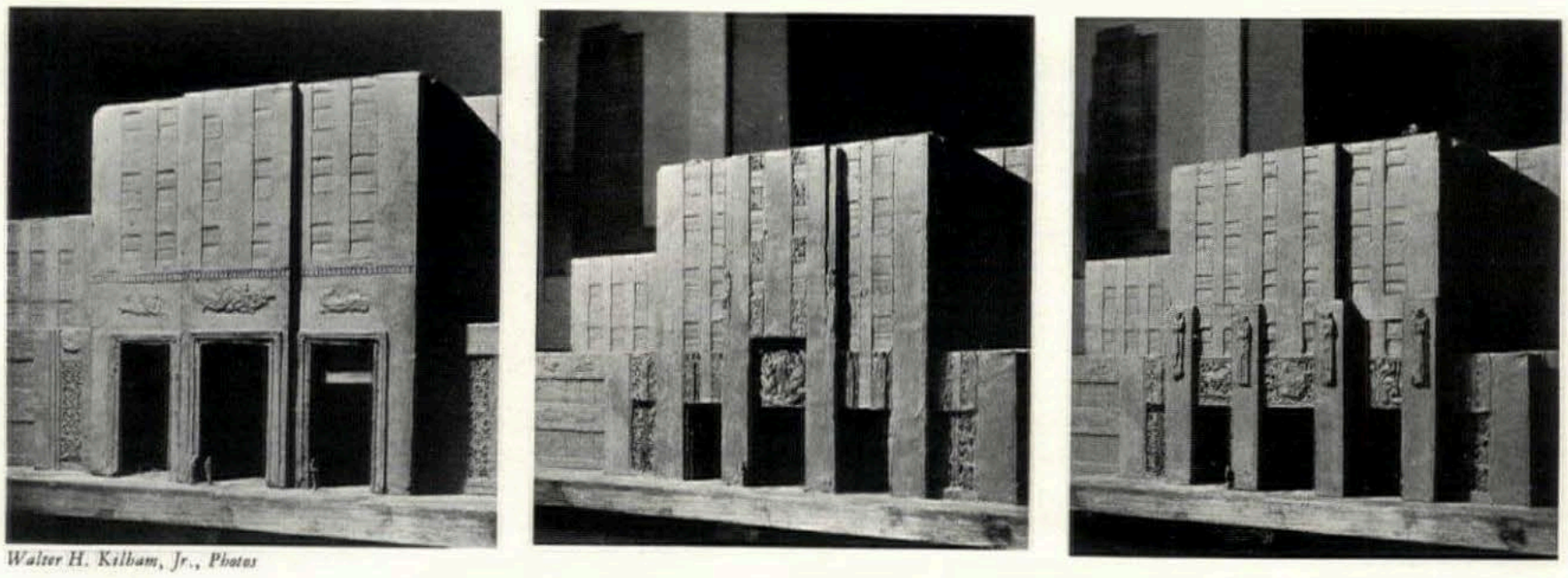
The plaza that is developed in the middle block serves three purposes. It creates a shopping center that gives additional value to the shops around it, it furnishes a distinguished setting for the three great office buildings that face on it, and by sinking its center it gives an important entrance to the basement shopping level that extends underneath the whole project, tying the buildings into a single unified scheme.

The staggered tower scheme described above has one obvious advantage for our neighbors, as compared with the more usual composition of towers on office buildings grouped about a monumental light court, the advantage of turning our light courts out so that they furnish light and air to our neighbors as well as to ourselves.

With the grouping of the buildings definitely approved, and the approximate capacities of the various buildings already determined, the study of



Typical floor plan of building above, consisting simply of 27 ft. rentable area around the core



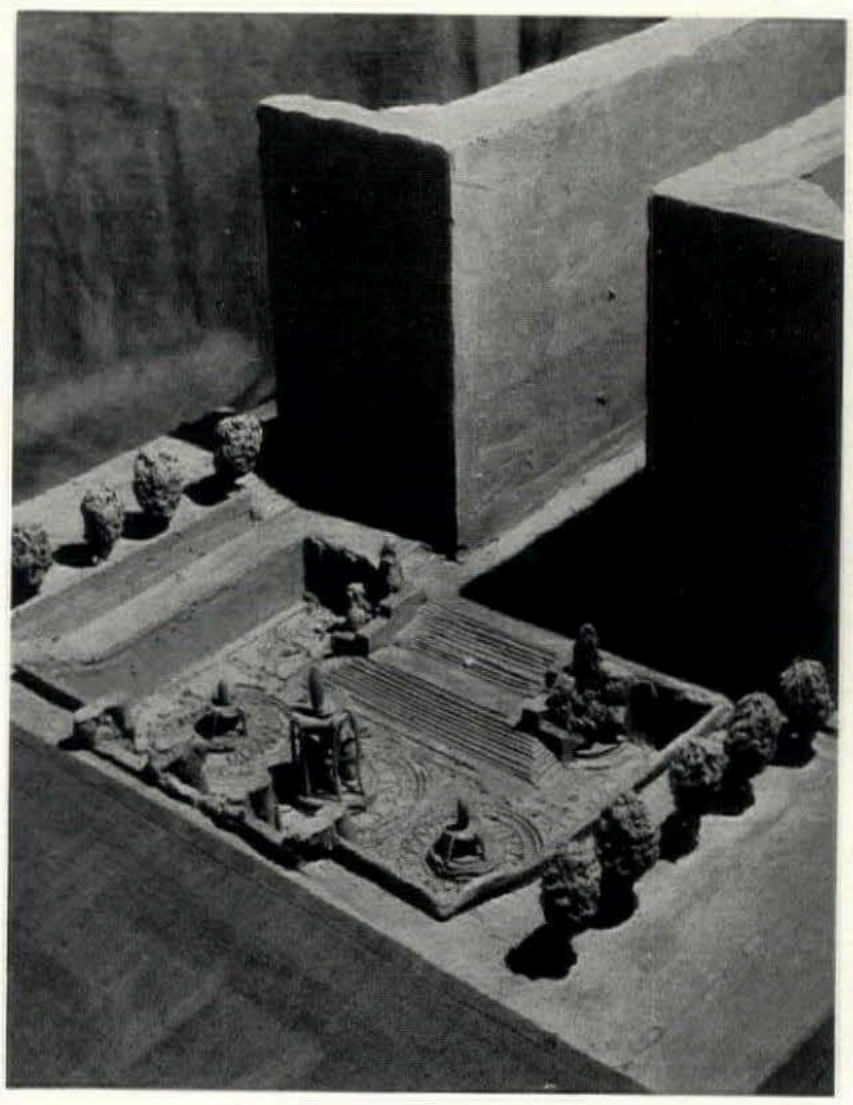
Walter H. Kilham, Jr., Photos

Three plaster studies for a triple entrance to the building on the opposite page

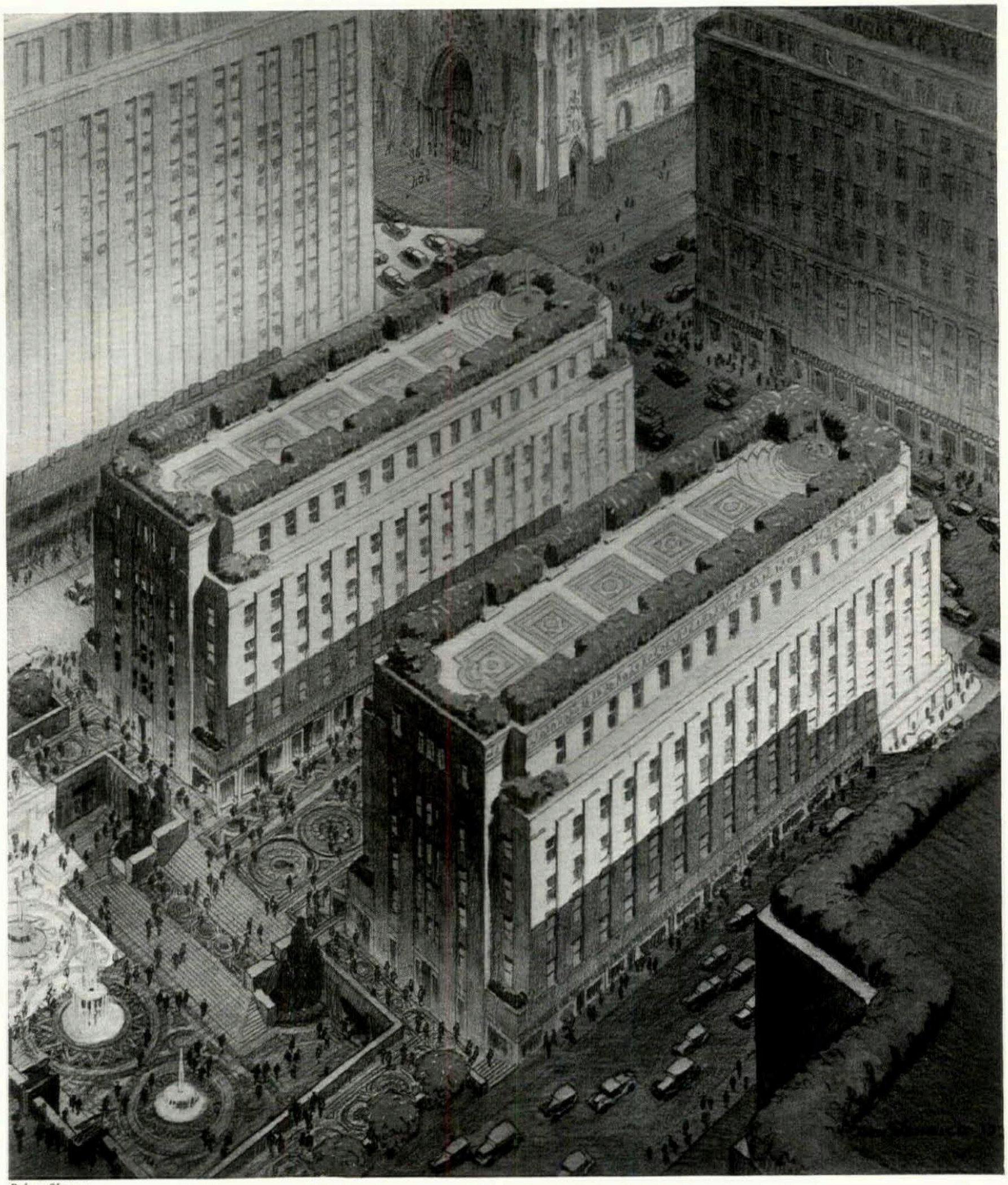
the definite planning of each building followed the same course that is taken on every large commercial building. In the 66-story tower, which we refer to as Building No. 9, we have worked out a scheme which is likely to have an important bearing on all future commercial office buildings. Grouped in the center are the elevators, and the service facilities, and surrounding them on each floor we have stretched the 27 ft. of lighted space that experience has proved is the maximum to be allowed to provide adequate light and air to all parts of the building. Although many a building has been planned upon this principle, we have carried the principle to its logical conclusion. As each elevator shaft ended, we cut the building back to maintain the same 27 ft. from the core of the building to the exterior walls. By so doing, we have eliminated every dark corner; there is not a single point in the rentable area of the building that is more than 27 ft. away from a window. A study of the plan (see page 4) will establish more clearly what is meant.

Since each of the buildings is to be discussed in later articles, there is no necessity for outlining them here. Perhaps one of the most interesting features of the design, and certainly the one which seems to have stirred the imagination of the public more than any other, is the utilization of the roofs of the lower buildings for gardens. Those of us who work in offices above the twentieth floor in large cities know too well the dismal appearance of a bird's-eye view of a large city. The tenants of Rockefeller City, for whom the buildings are being constructed, are entitled, we believe, to the most consideration in the allotment of beautification, or perhaps ornamentation. Exterior ornamentation of our great skyscrapers is in large measure both wasteful and wasted. It seemed wholly logical, therefore, to cover the roofs of the lower buildings with beautiful flowers, shrubs, fountains, and to transform them from eye-sores into beautiful vistas. It is intended that these beautiful gardens, too, shall pay their way. As every architect knows, it is one thing to propose something beautiful on the basis of its being beautiful and quite another thing to propose the same thing as a producer of revenue. In this instance, there was far more interest displayed in what the newspapers call "The Modern Hanging Gardens" when it was pointed out that the gardens themselves can be treated so as to bring in a revenue commensurate with their cost, as well as to provide a feature of such great attraction to the paying public and the tenants alike.

I doubt, in fact, if we ourselves as yet appreciate how much these gardens will do for both the



Suggested development of the central plaza



Palmer Shannon

A REPRODUCTION of one of the architect's perspectives looking toward Fifth Avenue and showing the two smaller buildings and a study of the plaza behind them. These buildings replace the oval building which was included in the announcement of Rockefeller City plans and serve as a Fifth Avenue gateway to the entire Rockefeller City development. This picture indicates an interesting feature of the Rockefeller City design: the roof gardens which are being developed as an important part of the project. The plans for these landscaped areas are elaborate and if they are completed a botanical expert will collaborate with landscape architects to develop one of the most unusual areas of botanical gardens in the world. It is expected that admission to them will be charged so that in addition to providing a most attractive vista to the tenants of the adjacent buildings the roof gardens will become economically justified. It is obvious that such landscaping schemes imply a number of highly technical engineering problems. When plans for these gardens are completed, articles about them and the solutions to the construction problems will be included in forthcoming issues of THE ARCHITECTURAL FORUM



Wurts Bros.

An air view of the area to be occupied by Rockefeller City, showing in the center of the picture the excavation for the 68-story building shown on page 4 and, in the background, the steel frame work for the 31-story building on the corner of Sixth Avenue & 51st Street

Rockefeller group itself, and our neighbors, for these gardens instead of being sunk in a well of surrounding buildings, as in Bryant or Gramercy Park, will be lifted up to the general level of the roofs of the city so that they can be seen from every skyscraper and tower within range of the site.

In the sub-basement is arranged the mechanical services, and the deliveries for the whole group. The level is reached by ramps from 48th and 51st Streets.

An express station of the new Sixth Avenue subway will give direct access to the first shopping basement, and naturally every other possibility of access to the group by subway and tunnel is being studied, although as yet there are no results to be announced.

It has been impossible, obviously, to do more than to outline the general development of the plans of this project. It has been founded upon the principle that concentration in a metropolitan area for business reasons is a desirable condition. We are aware that many oppose that view. Nevertheless, the commercial success of urban life is dependent upon concentration, which provides immediate access to those with whom we have to deal. Every large city has its insurance district, its financial district, its garment center, its theatrical district. These are essentials to city life. Decentralization means loss of time and inconvenience. The Radio Corporation of America has adopted Rockefeller City as its center, which has this advantage over other commercial centers. Instead of being in a few scattered buildings within fifteen or twenty minutes' walk of each other, they are all under one roof, within a minute or two of each other. It is the belief of those who are responsible for this project that other interests will follow the lead established here to provide even closer coordination than is now possible.

We have been given a great opportunity. In a sense, for the first time in the history of building development, capital has allied itself with building as a partner. Heretofore, the relation of capital to building has been that of a lender, of a mortgage holder. If Rockefeller City is successful, we shall prove what architects have contended — that, given a great opportunity, they will accept the responsibility and show that order and commercial success are not incompatible. If it fails (and it will have failed, if it cannot stand on its own feet and is only sustained by pumping in money every year to make up a deficit) it may be many years before capital will give another such opportunity to architects.

CHRONOLOGICAL SUMMARY OF ROCKEFELLER CITY

IN 1801, the present site of Rockefeller City, then three and a half miles from New York City, was purchased by Dr. David Hosack, professor of botany at Columbia College for $4,807.36. He bought the property for the purpose of establishing a botanical garden. After spending more than $100,000 for improvements, he sold the property to the State of New York in 1810 for $74,268.75. The State permitted the property to fall into ill repair, and in 1814 it was granted by the State to the Trustees of Columbia University, who accepted it rather reluctantly because the land had depreciated in value to less than $10,000.

By 1857, however, values had increased to such an extent that 16 lots were sold to the Dutch Reformed Church for $80,000, and approximately 25 years ago, the entire block from 47th Street to 48th Street was sold for $3,000,000. The three blocks north of this were held, due to the foresight and tenacity of the University trustees, and they now form the basis of the Rockefeller City site.

1928

December 6. Incorporation of the Metropolitan Square Corporation.

1929

January 22. Lease to Metropolitan Square Corporation signed with Columbia University retroactive to October 1, 1928. Covering three blocks above mentioned.

October 1. Contract signed between Metropolitan Square Corporation and Todd, Robertson & Todd, and Todd & Brown as builders and managers covering development as builders' managers of property.

1930

May 5. Conditional building agreement signed with the Radio Corporation of America, the National Broadcasting Company, Radio-Keith-Orpheum Corporation, and the Victor Photophone Company.

May 17. Demolition started.

July 1. Contract with architects executed. Architectural firms retained thereby — Reinhard & Hofmeister, Corbett, Harrison & MacMurray; Raymond Hood, Godley & Fouilhoux.

Contracts with H. G. Balcom, structural engineer, and Clyde R. Place, mechanical engineer.

August 13. Plans for general development approved by Columbia University.

1931

March 6. Tentative plans made public.

July 26. Excavation started.

September 4. Revised plans, eliminating two theaters and oval-shaped building shown on first plan, approved by Columbia University.

September 11. First concrete poured.

September 14. $65,000,000 loan obtained from the Metropolitan Life Insurance Company.

October 16. Contracts signed for 70-story office building, International Music Hall, and Sound Motion Picture Theater with general contractors Hegeman-Harris Company; John Lowry; and Barr, Irons & Lane respectively.

October 29. Final lease signed by Radio Corporation of America, National Broadcasting Company, Radio-Keith-Orpheum Corporation, and R. C. A. Photophone Company for 1,000,000 sq. ft. of office and studio space, and for two theaters.

November 1. Hartley Burr Alexander retained by the architects in advisory capacity on Rockefeller City plans.

November 30. First steel erected for International Music Hall.

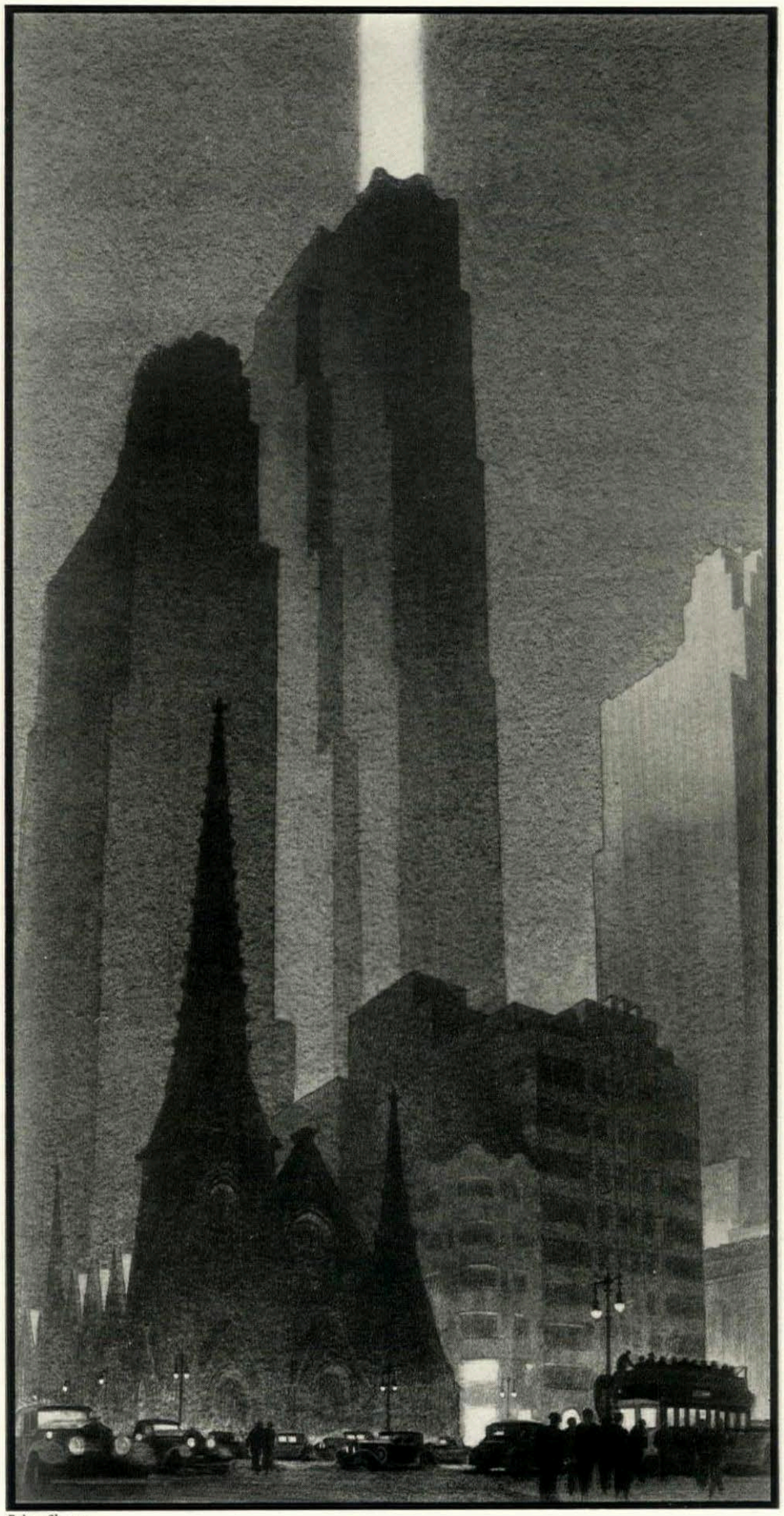
December 1. Contract with New York Steam Corporation covering all steam for heating, etc. required by Rockefeller City.

December 3. Contract with United Electric Light & Power Company covering supply of all electricity for lighting and power.



Palmer Shannon

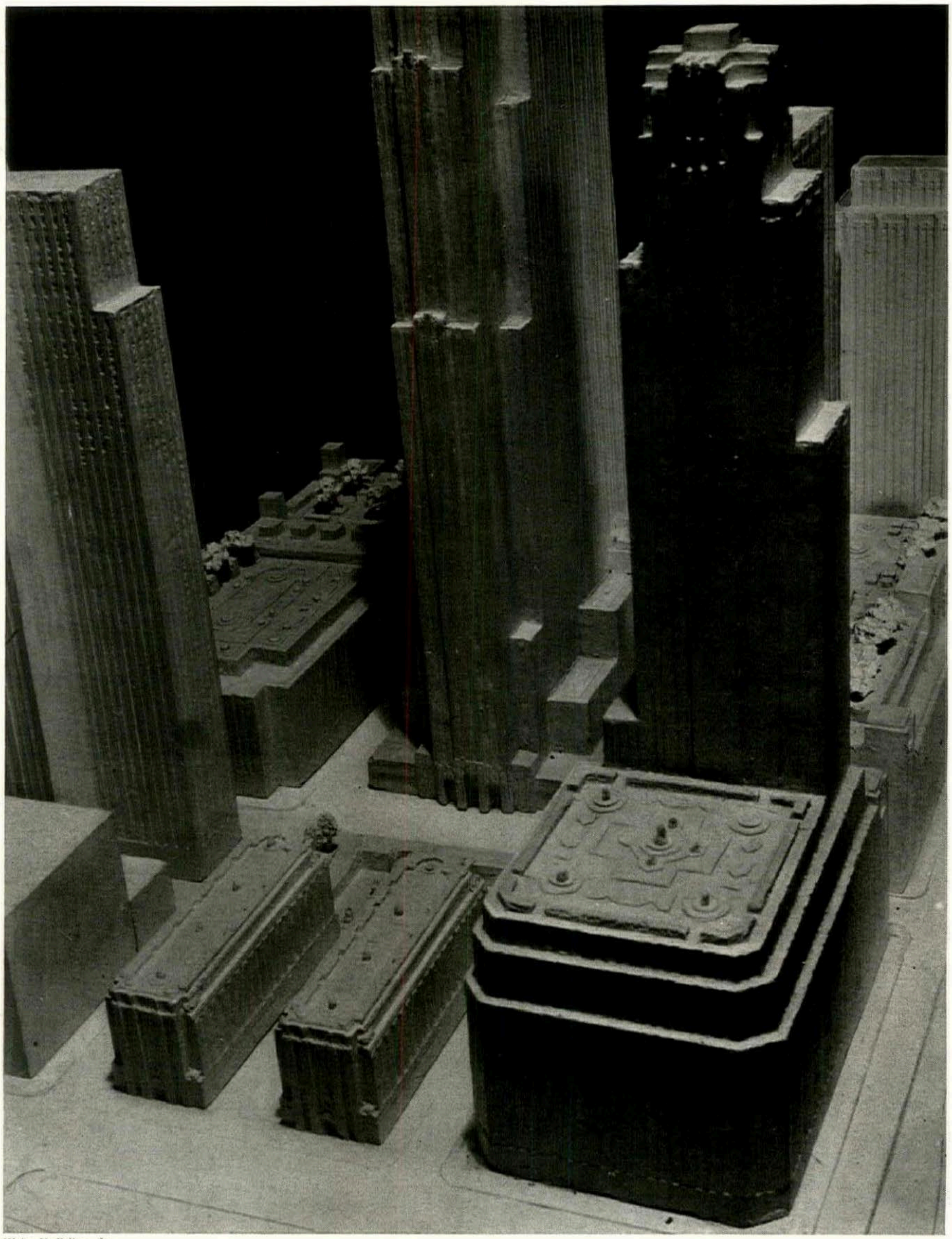
View from Fifth Avenue of two proposed buildings for occupancy by foreign interests



ROCKEFELLER CITY
NEW YORK, N. Y.

REINHARD & HOFMEISTER,
CORBETT, HARRISON &
MacMURRAY, HOOD &
FOUILHOUX, ARCHITECTS

Palmer Shannon

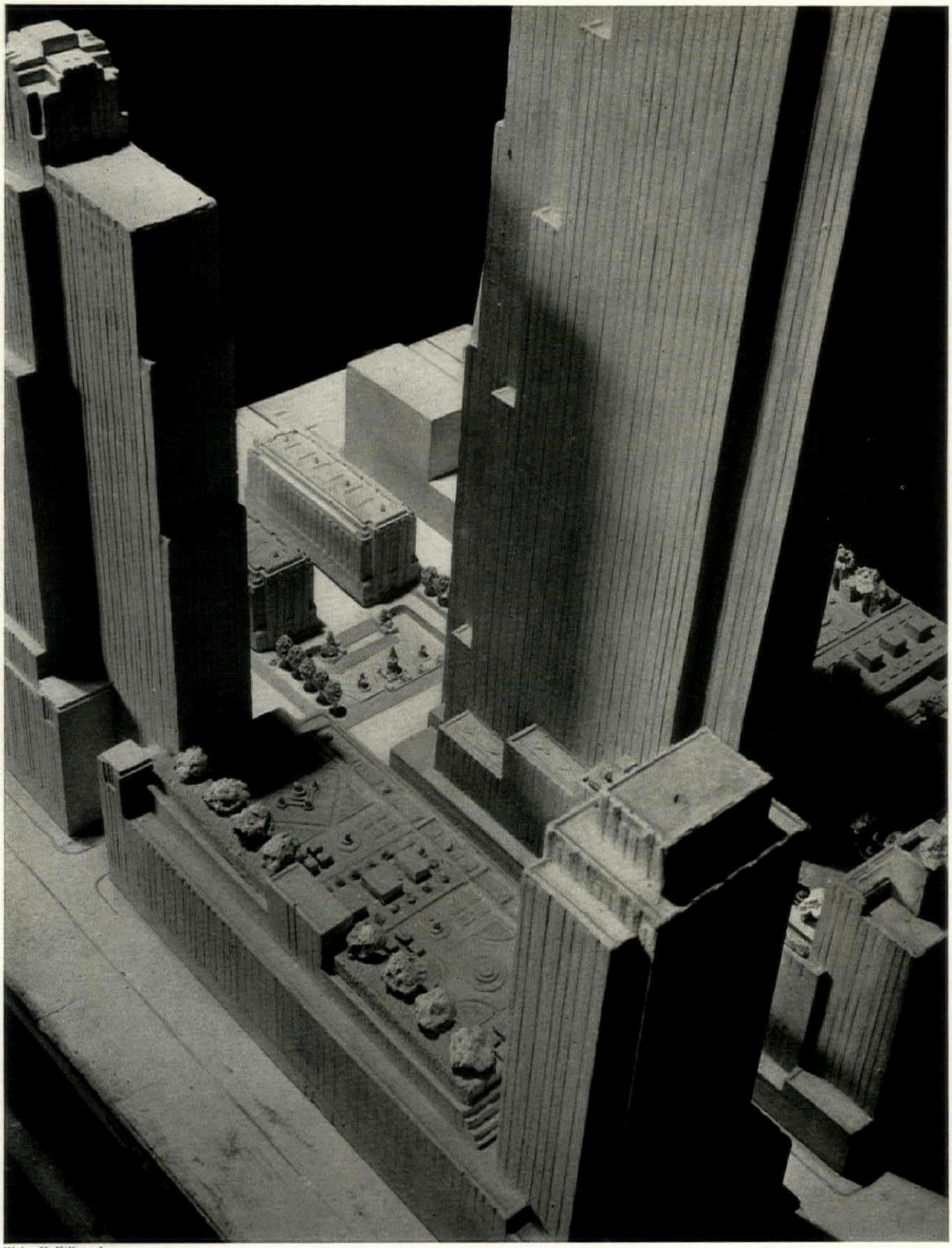


Walter H. Kilham, Jr.

LOOKING DOWN FROM ACROSS FIFTH AVENUE. FROM THE CURRENT MODEL

ROCKEFELLER CITY, NEW YORK, N. Y.

REINHARD & HOFMEISTER, CORBETT, HARRISON & MacMURRAY, HOOD & FOUILHOUX, ARCHITECTS

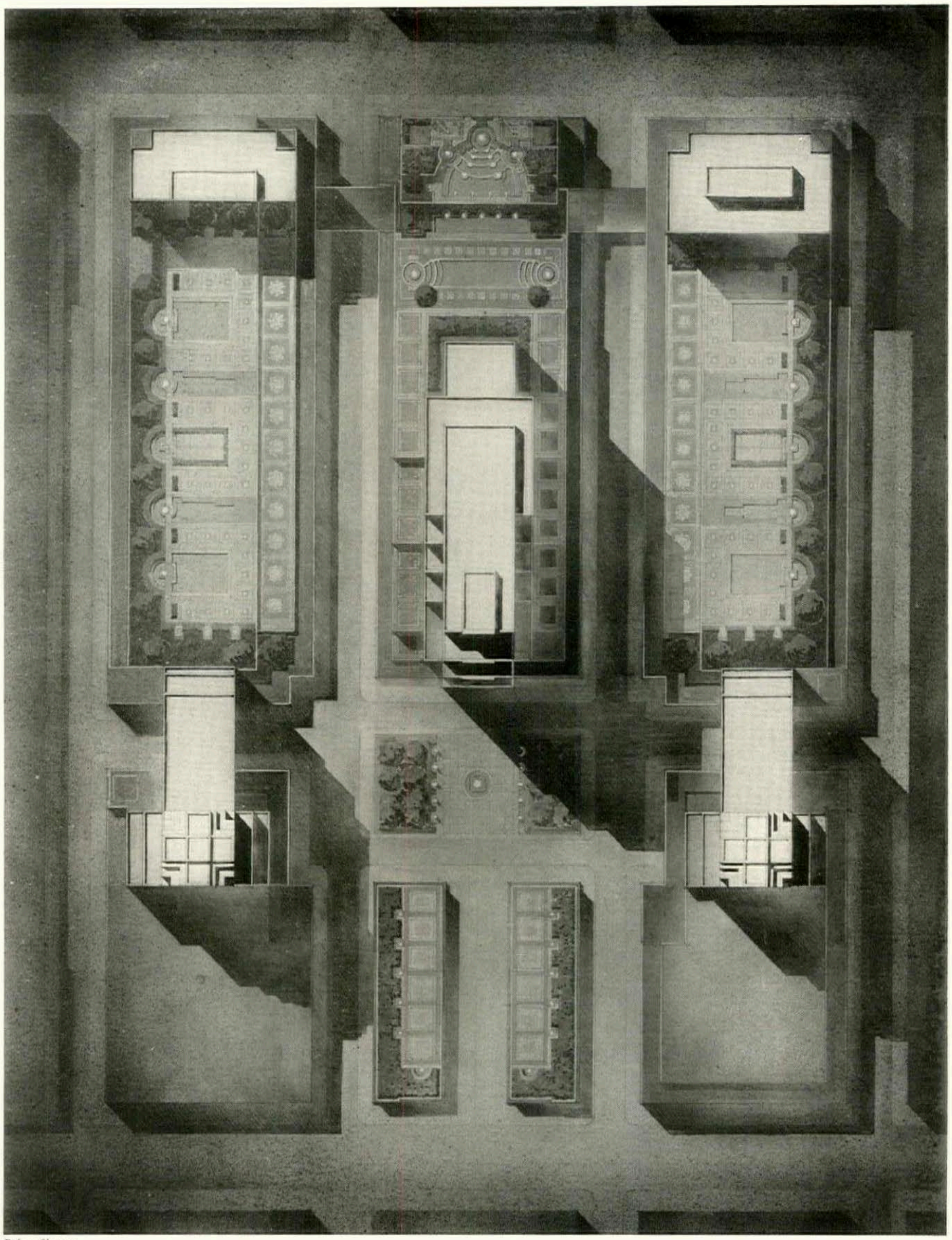


Walter H. Kilham, Jr.

LOOKING ACROSS THE LANDSCAPED ROOFS TOWARD FIFTH AVENUE FROM SIXTH

ROCKEFELLER CITY, NEW YORK, N. Y.

REINHARD & HOFMEISTER, CORBETT, HARRISON & MacMURRAY, HOOD & FOUILHOUX, ARCHITECTS



Palmer Shannon

RENDERED PLAN SHOWING THE "HANGING GARDENS" ON THE ROOFS

ROCKEFELLER CITY, NEW YORK, N. Y.

REINHARD & HOFMEISTER, CORBETT, HARRISON & MacMURRAY, HOOD & FOUILHOUX, ARCHITECTS