

THE ERNEST MARTIN HOPKINS CENTER

Dartmouth College Hanover, N.H.

A thesis submitted in partial  
fulfillment of the requirements  
for the degree Master in  
Architecture at Massachusetts  
Institute of Technology

submitted: 2nd September 1955

by:   
\_\_\_\_\_

Frederick A. Stahl  
A.B., Dartmouth College

to: \_\_\_\_\_

Lawrence B. Anderson  
Head, Department of Architecture

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by: Frederick A. Stahl

ABSTRACT

A small college and community in close association generate together deep common bonds of interest and experience, and act as mutually vitalizing elements. The varied character of each contributes to a rich continuity of activity which should find sympathetic expression in physical terms. A balance point exists where the common ground may be most fully developed and where the invigorating interchange most naturally occurs. It is the purpose of this thesis to provide the architectural framework for such a civic-college focus.

Hayden Nov. 2 to 1955

Submitted for the degree:

Master in Architecture  
in the Department of Architecture

2nd September 1955

2nd September 1955

Pietro Belluschi, Dean  
School of Architecture and Planning  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dean Belluschi:

In partial fulfillment of the requirements for the  
degree Master in Architecture I herewith respectfully  
submit a thesis entitled "The Ernest Martin Hopkins  
Center; Dartmouth College, Hanover, N.H."

Sincerely,

Frederick A. Stahl

## ACKNOWLEDGEMENTS

I wish to express my thanks to those individuals who have given their suggestions and encouragement so generously during the development of this thesis design:

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TABLE OF CONTENTS

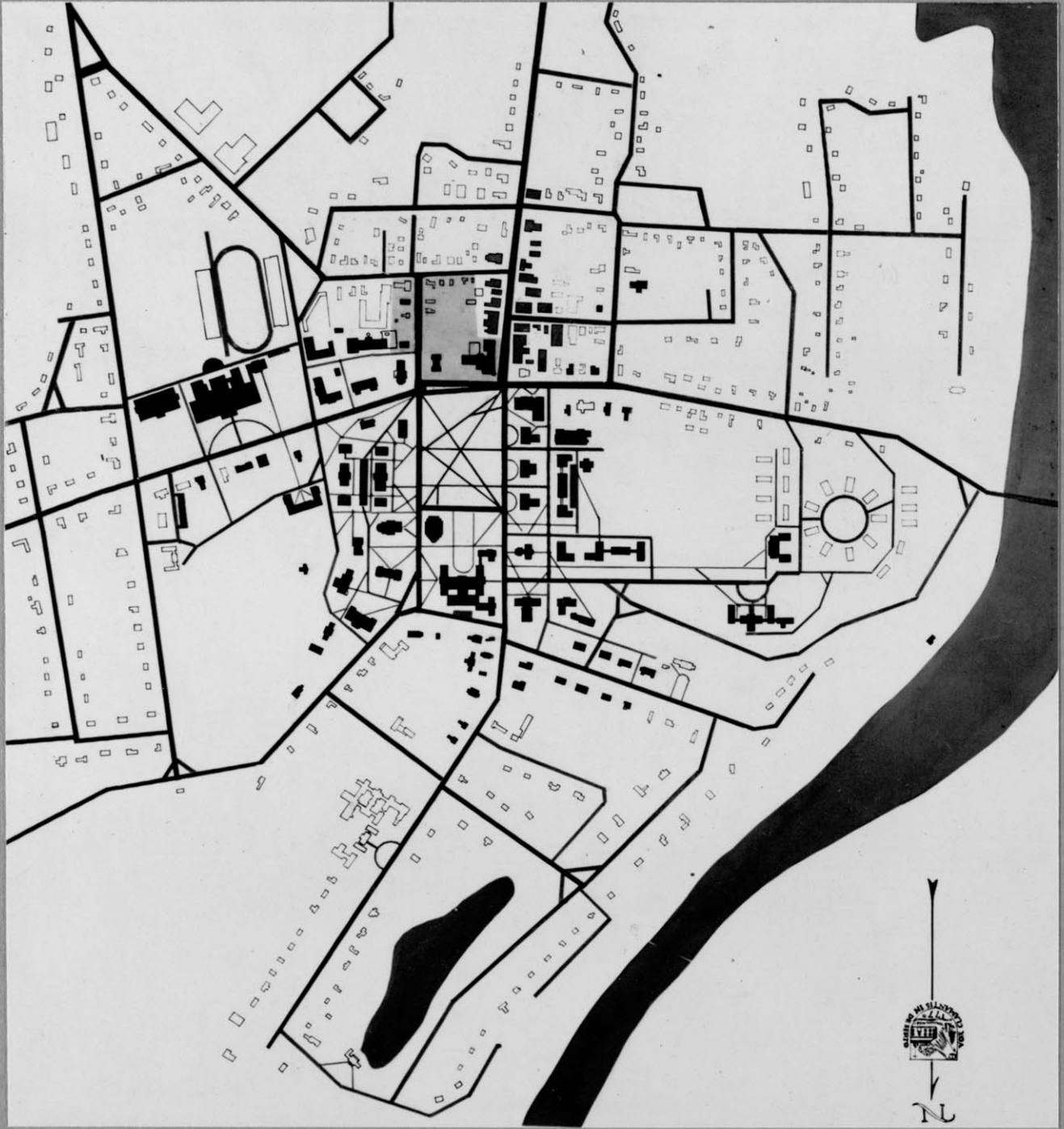
ABSTRACT.....I  
LETTER OF SUBMITTAL.....II  
ACKNOWLEDGEMENTS.....III  
FUNDAMENTAL BACKGROUND MATERIAL.....1  
DEVELOPMENT OF THE PROGRAM.....4  
DETAILED PROGRAM REQUIREMENTS.....7  
VITAL DESIGN REQUIREMENTS.....9  
THE DESIGN PROJECT.....10  
ELEMENTS OF THE DESIGN.....12

## FUNDAMENTAL BACKGROUND MATERIAL

Dartmouth College is a small New England liberal arts school, one of our oldest and most distinguished educational institutions. It is situated in the heart of Hanover, New Hampshire, on a high plain above the Connecticut River, a site well known for its exceptional beauty. The college and town share an intimate association, the product of nearly two hundred years of community experience. Since its founding in 1769 by royal charter from King George III, Dartmouth has grown steadily in size and stature, and the associated community has prospered as well.

The traditional approaches to the settlement have been up the Connecticut Valley from the south, the road on the Vermont side crossing the river at Hanover (the present day Wheelock Street) and the road on the New Hampshire side entering the town from the south (Main Street). At the crossing of these axes a center developed, a large open civic green to the north and a commercial development along Main Street to the south.

The first permanent college buildings were constructed on a slight rise set back somewhat from the eastern edge



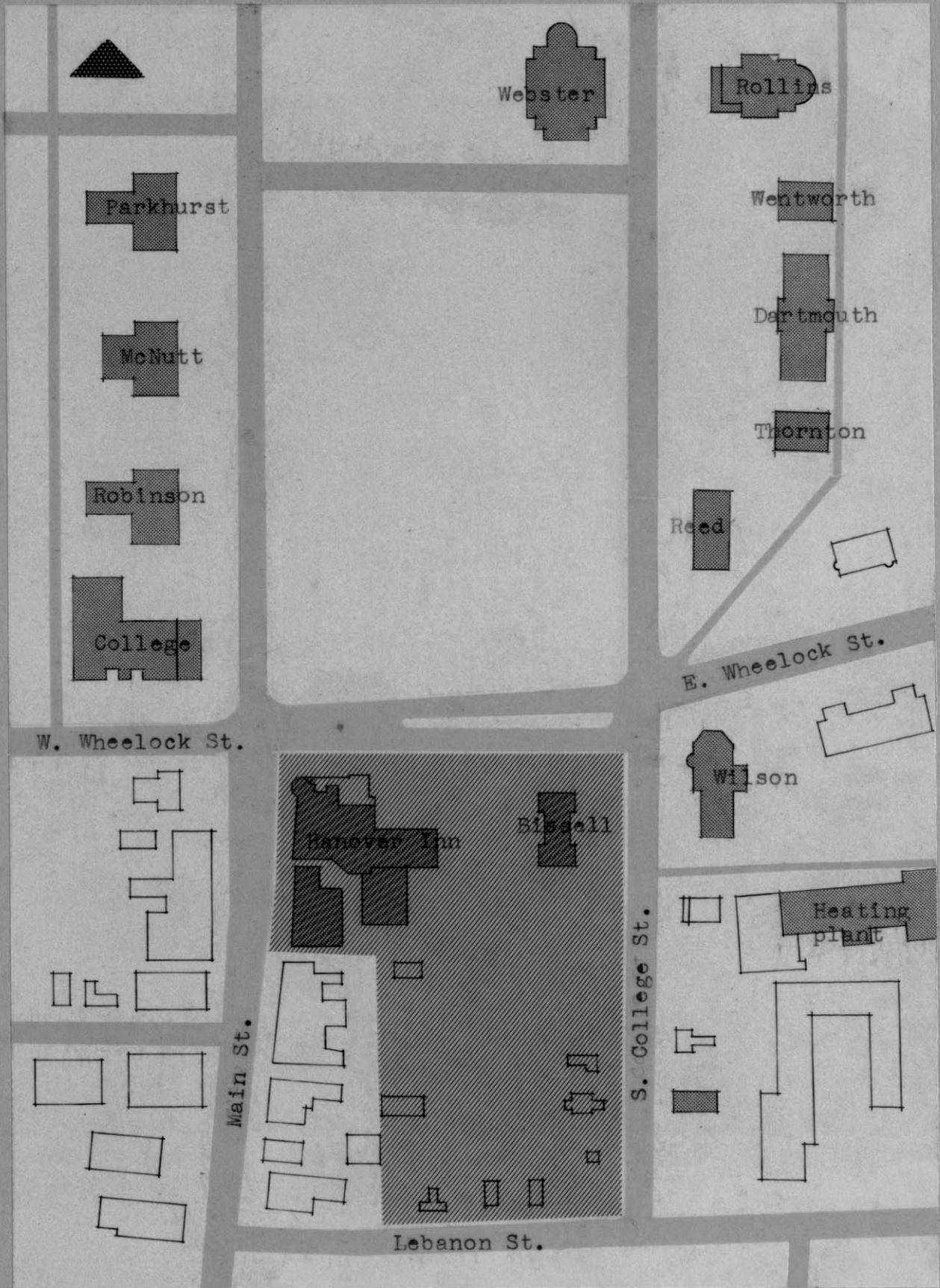
of the common, and by 1840 what is known as the "old row" - Dartmouth, Wentworth, Thornton and Reed - had been completed. The remainder of the open space was enclosed by substantial residences and community buildings, including the inevitable white-painted classic church. At the key crossing of Main and Wheelock Streets an Inn was established, and, enlarged in time, still dominates this corner.

The college prospered and expanded its campus development. Wilson Museum, originally the college library, and Rollins Chapel were added in 1885, and gradually the common ground fell within the college domain. In the first decade of the 20th century, Webster, McNutt, Parkhurst, College and Robinson Halls were added, completing the enclosure of the large central space on the north and west.

The commercial district, restricted effectively to one block on Main Street because of a steep grade below Lebanon Street, became intensely developed, while the college, with open land on three sides, grew outward from the center in a series of concentric rings.

Blocks of roughly similar mass were placed at regular intervals outward from the common, first a ring of dormitories, then the fraternity houses, graduate schools and





athletic facilities. Buildings at the core, once of mixed use, gradually became administrative and instructional in character. Large residences, displaced from the center, moved outward to the more desirable river bank and pond.

A great period of building followed the First World War during which the graduate schools and much of contemporary Dartmouth was laid out in the fashionable academic Georgian Revival. The culminating achievement, Baker Library with its associated Art Department and English House , provided a new and richer environment for the intellectual life of the College community.

## DEVELOPMENT OF THE PROGRAM

During this period much thought was also given to the establishment of a similar focus for social activity and cultural pursuits not provided for in Baker Library.

The first program for such a development, to be called Dartmouth House, was submitted in 1931. The proposed building was to have provided dining facilities for the student body, a new and improved Hanover Inn, a student union, a graduate club, a large theater and facilities for student activities.

In time the dining facilities were absorbed in a new dining hall, and the program was rewritten for a new project, the Dartmouth Center of Music and Drama, emphasizing the cultural rather than the social aspects of the previous program. This building, widely publicised just before World War II, would have provided a large theater for the entire student body, a "little theater", a concert auditorium, broadcast facilities and enlarged accommodations for the Hanover Inn.

The question of site was given careful attention in each of these programs, and although the Bissell Hall site was considered to have serious disadvantages, namely its size and the difficulty of providing parking, it was

chosen each time because of its prominence in the central group of important college buildings and its accessibility from all parts of the town and college.

Design studies for both programs were made, and in the case of the second were carried to an advanced stage, but in the post-war period it was considered advisable to reappraise the needs of the college and prepare a new program.

I believe that several thoughts were uppermost at this time regarding the project. First, it was thought desirable to create a suitable environment in which cultural activities might become a more important part of the natural life of the community, and individual creative work in the arts might be encouraged. It was important that the center should serve to unite the various groups of the college and community and act as a general focus of activity. A third consideration was the memorial quality of the project, dedicated to President Emeritus Hopkins.

The present program, which was made available in a preliminary form, proposes the following main elements, with necessary secondary facilities: an auditorium-recital hall, a legitimate theater, galleries and study facilities for the Dartmouth College collection, studios and workshops for creative design work, and new student recreational and dining facilities.

The proposed site, now occupied principally by Bissell Hall, is bounded by Wheelock Street, College Street, Lebanon Street and the college property line just east of the Main Street commercial district. A certain amount of freedom is permitted, however, and there is a possibility of realigning Main Street (as proposed in previous schemes for this site) and closing College Street south of the common. It is required that Brewster Hall, a dormitory for college employees, remain intact, but the other small buildings on both sides of College Street and the north side of Lebanon Street may be removed. Parking is considered to be a serious problem on this site, and the possibility of acquiring land just south of Lebanon Street adjoining the site has been mentioned.

## DETAILED PROGRAM REQUIREMENTS

## Auditorium-Recital Hall - capacity 900

house.....8100 sqft  
 lobby  
 stage

## Exhibition Galleries and associated spaces

gallery for the permanent collection.....2600 sqft  
 main exhibition gallery.....3000  
 main entrance and temporary exhibition.....1800  
 print gallery.....350  
 live storage of paintings.....600  
 print library  
 study room  
 seminar room

checkroom  
 toilets  
 telephones

assembly of shows  
 cleaning and restoring  
 general office  
 smaller offices  
 packing and shipping  
 main storage room

## Legitimate Theater - capacity 400

house.....3600 sqft  
 lobby  
 stage & wagon stages

vestibule  
 make-up room  
 dressing rooms  
 toilets, showers & lockers  
 green room  
 office & studio  
 rehearsal room  
 loading & receiving

workshop  
 paint shop  
 property room  
 costume storage & shop  
 scenery storage

#### Design Center

architecture.....	1000	sqft
painting.....	1000	
sculpture.....	1000	
basic design.....	1000	
graphic arts.....	600	
photography.....	600	
wood shop.....	4000	sqft
forge & metal shop.....	1200	
machine shop.....	1200	
ceramics shop.....	650	
finish room.....	1000	
storage and drying of lumber.....	400	
offices for the design staff.....	400	

#### Student Recreation Center

card room  
 billiard room  
 ping pong room

dining room - capacity 100 .....	2000	sqft
snack bar.....	400	

#### Miscellaneous Elements

lounge with a view of the campus.....	3000
music studios and practice rooms.....	2400
radio and television broadcasting.....	1600
banquet hall (used also for dances).....	7000

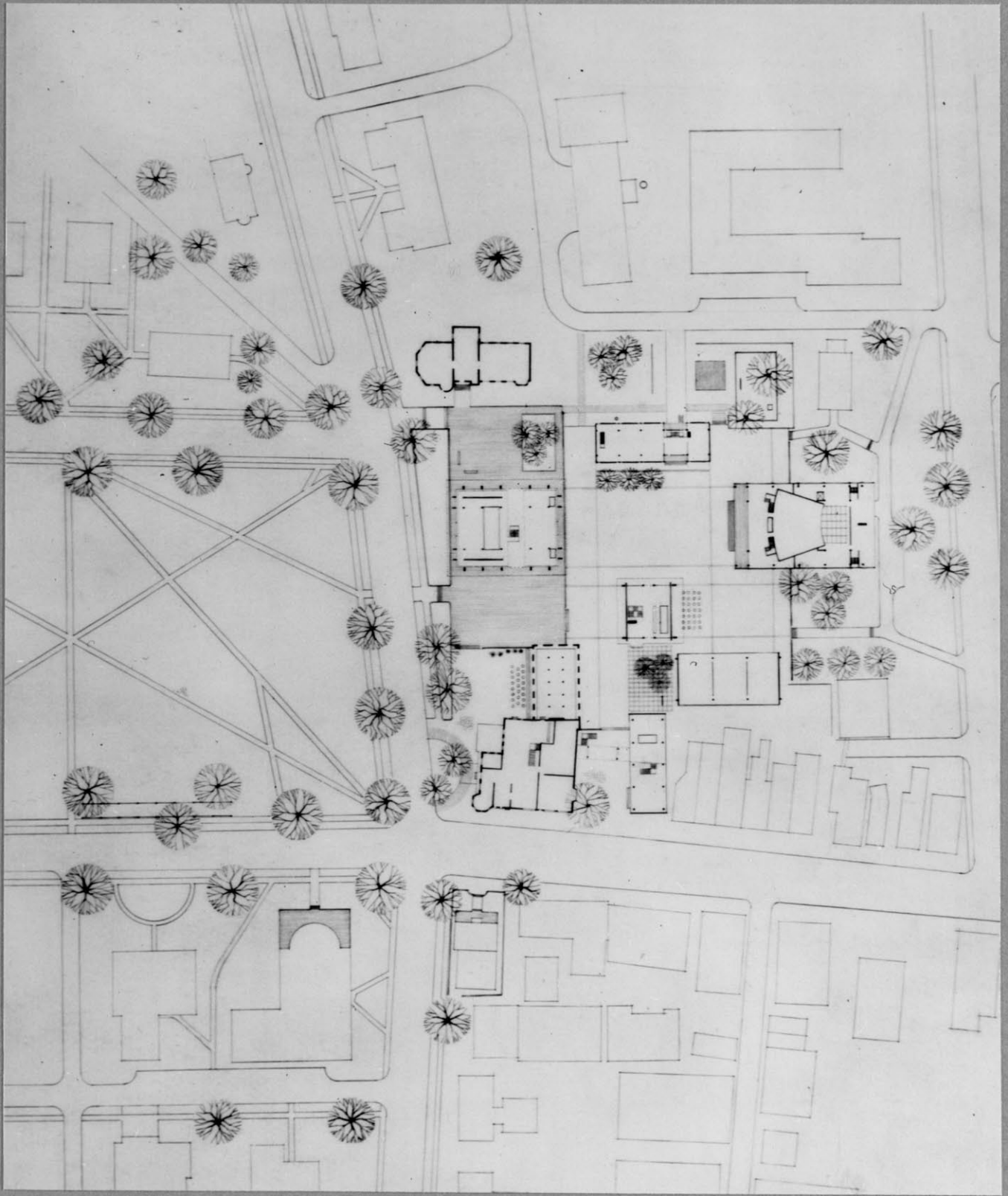
## VITAL DESIGN REQUIREMENTS

Aside from the detailed requirements of the program, it was felt that certain generalized design requirements were apparent in the problem. The most important of these, I think, was the provision of a rich and varied spatial experience, supplementing and strengthening the existing pattern of public open spaces and providing a suitable framework for the new significant activities of the college-community center. A new spirit of urbanity and excitement should flow naturally from this vital core and find expression in the grouping and sequence of enclosed and open spaces.

Another major consideration was the problem of completing and balancing the south enclosure of the central college green, maintaining a mass and scale consistent with the other structures while providing an adequate expression of the spirit of the new center.

A third important consideration was the relation of the new complex to the adjoining buildings on the site: Wilson Museum, the Hanover Inn, Brewster Hall and the business blocks.





## THE DESIGN PROJECT

The main element of site organization in the proposed Hopkins Center design is a paved plaza enclosed by the principal buildings. A series of connected pedestrian open spaces link this central civic ground to the college green and the downtown commercial district.

The main approach from the campus leads through a court in front of the Hanover Inn which is intended to amplify the present small terrace and porch. It is thought of as a meeting place, somewhat sheltered by the high masses of the Inn and gallery, a place to pause and enjoy the view of the library and the old row across the open common. Broad steps lead down to an intermediate brick paved terrace level and the entrance to the gallery. The high glass entrance lobby serves as an enclosed connection through to a small court formed by Wilson Museum and the new design center building, thus bringing the museum into focus in the new development.

At the lower level lies the main plaza, enclosed by the high gallery at the north, the theater on axis at the south, the longer mass of the design center building at the east, and the small, freestanding student recreation building and the Hanover Inn wing at the west.

Pedestrian access from Main Street is through a narrow channel maintaining some of the feeling of intense activity and providing a transition into the more ample scale of the main plaza. It is proposed to tear down the college owned store blocks to provide this approach, and to construct a new alumni center building connected to the Hanover Inn by an elevated bridge at the mezzanine level. The small entrance court formed by the Inn, the alumni building and the bridge leads on into another small court at a slightly lower level which serves as entrance space for the student recreation building.

Automobile access has been provided from the south, off Lebanon Street, and from the east, where a new service road connects Lebanon Street with the existing service drive just south of Wilson Museum. College Street south of the campus has been closed, and the oil storage tanks of the heating plant have been relocated in order to lay out the drive at the edge of the college property.

Pedestrian access from the south is up a planted slope on either side of the theatre and through the small courts formed by the new commercial block on the west and the design building and Brewster Hall on the east.

Pedestrian access from the east service road is through a sculpture garden and outdoor work area connected to the design studios and workshops.



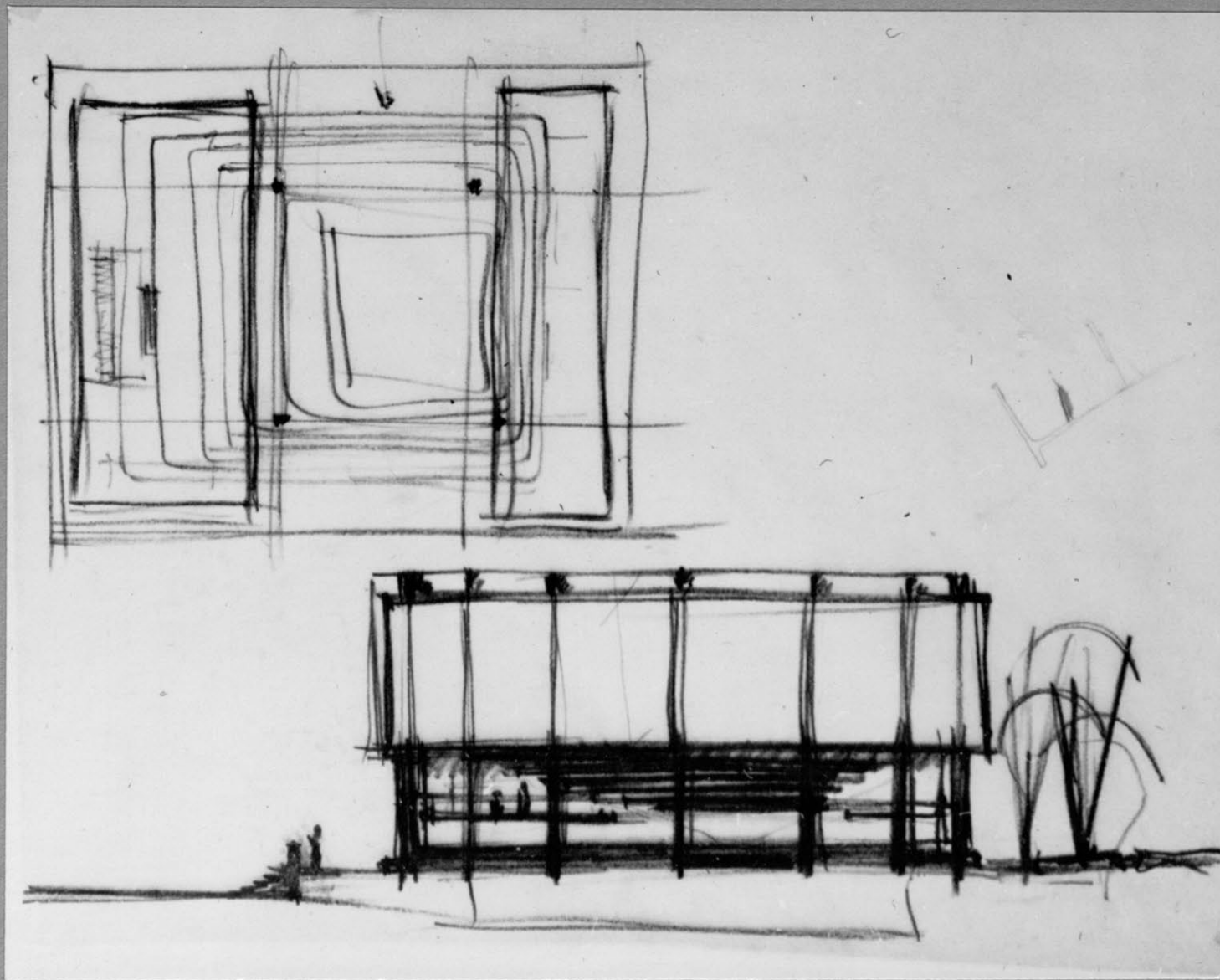
## ELEMENTS OF THE DESIGN

### Gallery-auditorium

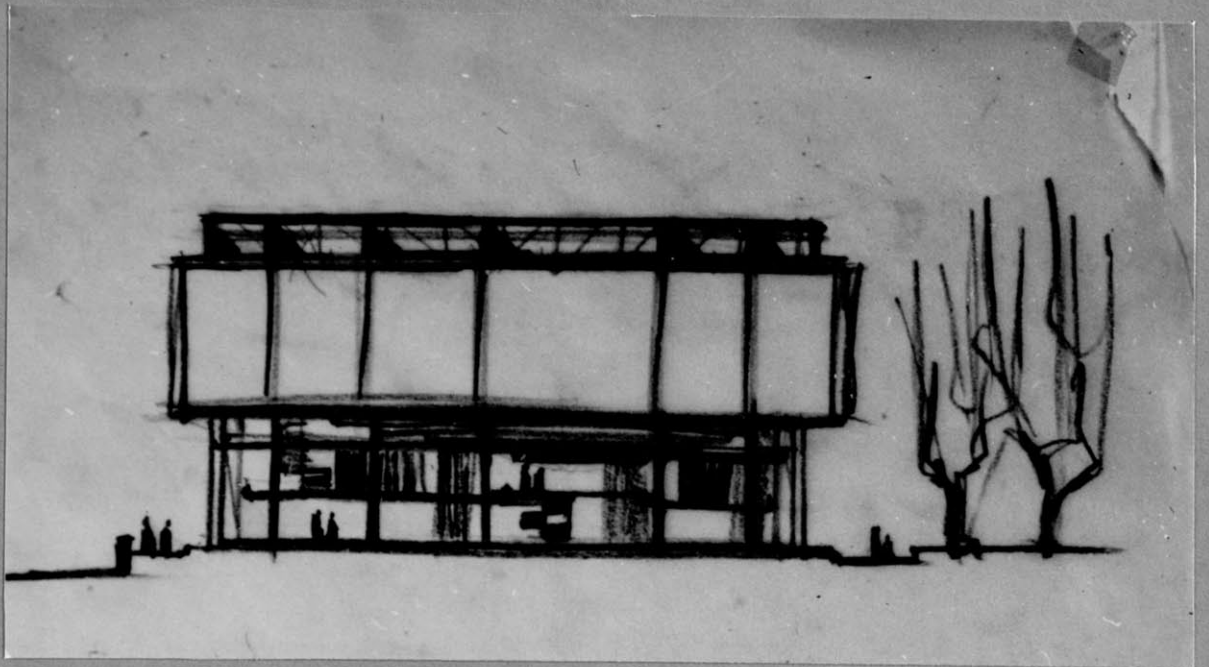
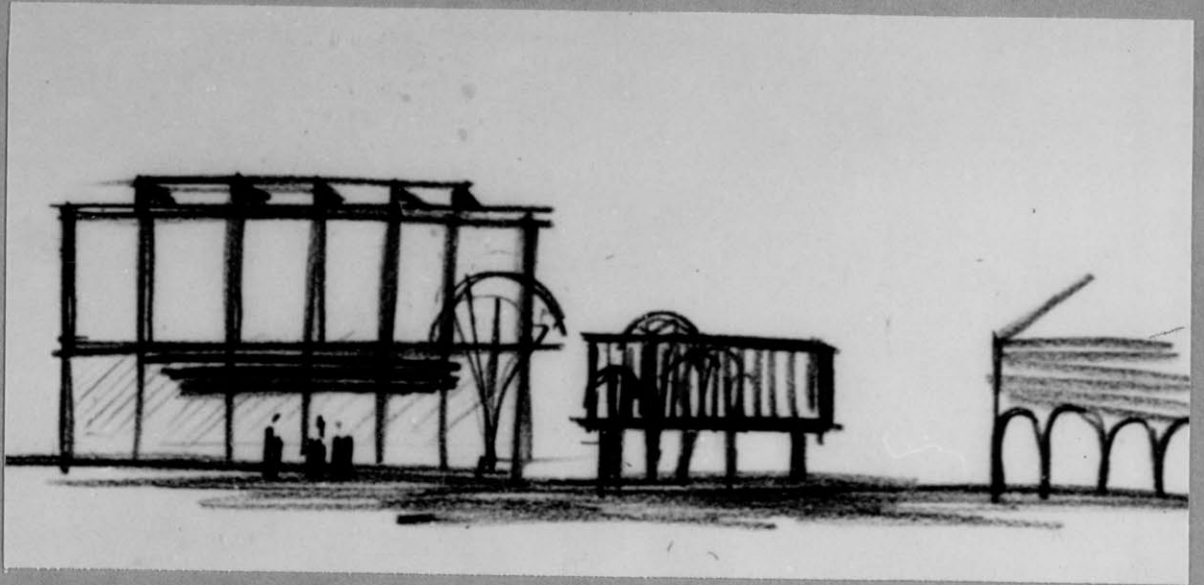
The gallery-auditorium is essentially a solid brick box lifted high in the air on a freestanding colonnade, under which are placed simple platforms in a glass enclosure. It is a block similar to the Hanover Inn in importance, balancing and stabilizing the southeast corner of the college green

The great entry hall extending through the building and crowned by the suspended auditorium floor serves as a large temporary exhibition space, reception area and main lobby. Off the main entrance space on the same level is a gallery for the permanent collection, with associated study rooms, a print gallery, library and seminar room, and a service core containing toilets, coat room and access to storage vaults below.

A suspended stair leads up to the free mezzanine platform and the main lounge, divisible by sliding wood screens into smaller lounge and bar areas, which serves as foyer for the auditorium-recital hall. At the same level, connected by bridges across the main entrance lobby below, is the main exhibition gallery, intended for large visiting collections







and special showings from the permanent collection. This area may be open or closed to the public during the use of the auditorium, as may the other galleries with the exception of the main entrance exhibition space.

From the lounge level, stairs lead up against the glass wall overlooking the campus to the auditorium-recital hall above, a great rectangular room with a series of depressed seating terraces falling from a surrounding promenade level toward a central platform. Flexible seating has been provided so that the stage may be located at one end of the room, as in conventional auditorium practice for lectures, or in the center for small orchestral concerts and chamber recitals. All seats are mounted on swivel bases to adapt to the varying stage positions. An open lighting gallery surrounds the seating area above the promenade, and provides space for broadcast and lighting control booths.

#### Theater

This building is a large rectangular brick enclosure open at the ends to provide a large elevated recessed porch overlooking the main plaza and a glass facade to the south enclosing the service facilities of the theater. Suspended over a balcony and lower level seating area is a plywood shell forming the auditorium enclosure, free within the inner volume. Separating the seating from the service areas at the rear are the stage, side stages and stage tower.



The entrance, on axis with the gallery, provides an open elevated level for observation of activity on the plaza and from which presentations may be given to an audience assembled in the open space and observing from the open galleries and porches of the other buildings. The lobby is entered from the porch under the suspended mass of the projection, sound and broadcast facilities at the rear of the balcony. Access to the lower level seating is at either side of a ticket bar, and stairs at the sides of the lobby lead up to an intermediate aisle of the balcony.

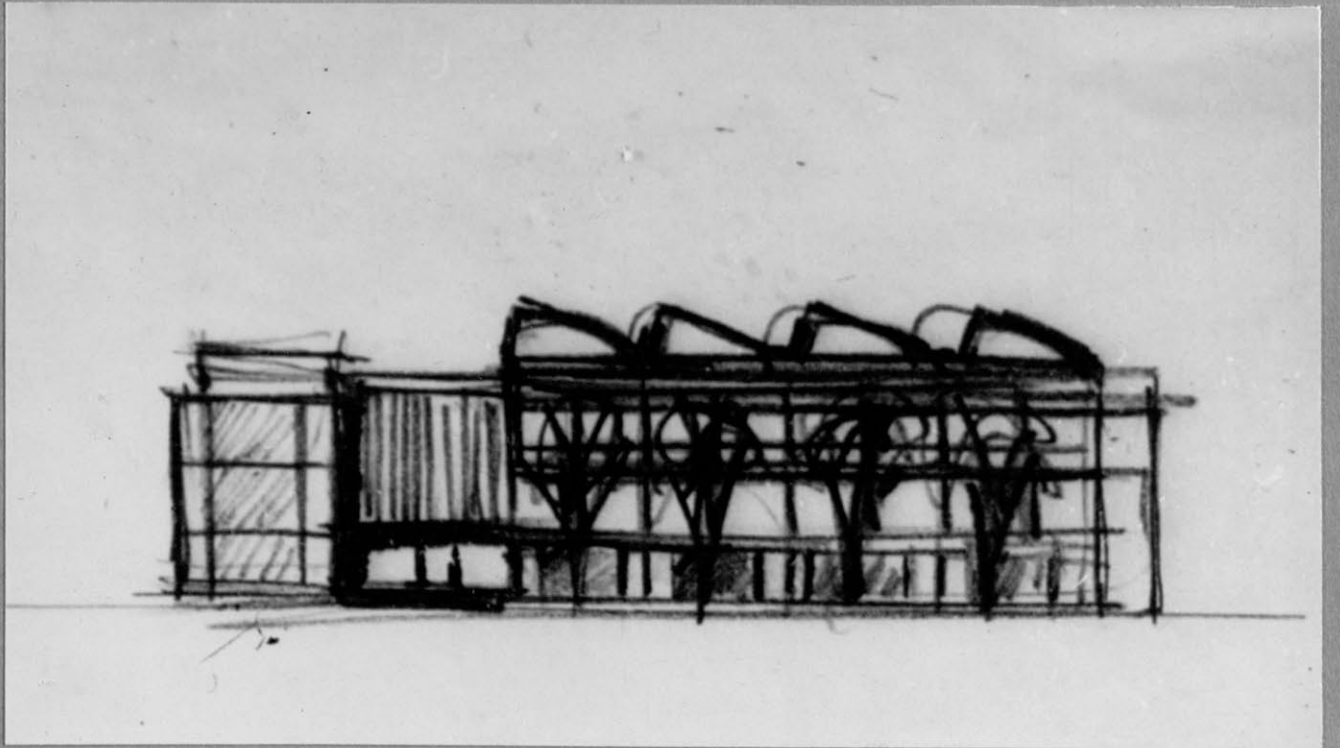
The stage area is fully trapped, with large wagon stages and adjoining areas for painting and repairing scenery. At the lower level, accessible from the service drive at the rear, is a loading dock, lift, stage entrance and vestibule, locker and toilet rooms, and storage space. At the stage level are the green room, an office and studio, and a rehearsal room. The second level provides space for radio and television broadcasting, and the third provides dressing rooms, make up room, costume storage and shop. Major construction of scenery will be carried on in the wood shop of the design center building.

### Design center building

This building is a simple rectangular element of three stories and basement, five bays in length, divided by the entrance bay into large and small open spaces at each floor. The entrances from the main plaza and the sculpture court are by steps to elevated recessed porches. The small exhibition lobby connects directly to a lounge and seminar room which may be thrown together by means of sliding panels. At the north are the machine shop and forge areas in a large open space, separated from the lobby by a service unit providing toilets, lift and storage.

A stair leads directly up through an open well to the design and office area of the student shop, directly over the entrance lobby. A large wood shop occupies the space to the north, and the architectural shop and finish room are at the south. The design and office space opens to a recessed deck over the entrance porch.

On the third level the stair lands in a small exhibition foyer from which a work corridor extends the length of the building through the studios for architecture, basic design, painting and sculpture. A small atelier for design instructors adjoins the exhibition space and opens to a deck overlooking the plaza. Four large north skylights are located above the four design studios, and only freestanding storage and



display units separate these spaces, which are treated as one large simple work area. Dirty work is confined to the long work counters separating the studios from the corridor.

In the basement level, accessible by a stair down from the entrance lobby, is a graphic arts workshop, photo studio and darkroom, ceramics workshop served by an outside stack which also connects to the forge above, and a storage room for drying lumber.

#### Student recreation building

This small and simple building occupies a key position in the total architectural composition, visible from all approaches and commanding four exceptional vistas of enclosed and open spaces. At the entrance level solid masonry walls block the north and south exposures and form a channel connecting the intimate entrance court with the main plaza. At this level is a snack bar, a ping pong and game room and a small lounge area.

A central stair leads to the larger square upper level, oriented north-south in opposition to the level below, with recessed observation porches overlooking the campus and the open country to the south. There is a dining room for 100 and a coffee room with fireplace and oriel window over the small court. The porches are for dining, after dinner

coffee and conversation.

An outdoor cafe is proposed for the south side where the projecting gallery and solid wall form a sun trap which should be useful in early Spring. At the lower level is a student beer parlor with poker room and benches around a large fireplace.

#### Commercial block

It is proposed that a new commercial building be placed just south of the student recreation center, with entrances from the east. A local beanery with summer cafe, bowling alley, billiard parlor, barber shop and the like would be logical choices in this location. Since the building is not on college property it will require cooperation from local merchants, but could be replaced by a high screen wall forming a service court for Main Street if necessary.

#### Hanover Inn and Alumni Center

The Hanover Inn has always occupied a strategic position at the pivotal point between college and town centers. In the past it has functioned as an uncommitted social center, accessible equally to all groups. The Inn corner, famous for midnight farewells to the teams and late editions of THE DARTMOUTH, has served as a rallying point for students and alumni alike. One of the important elements in the proposed scheme is the strengthening of the Inn and the

activities it has fostered.

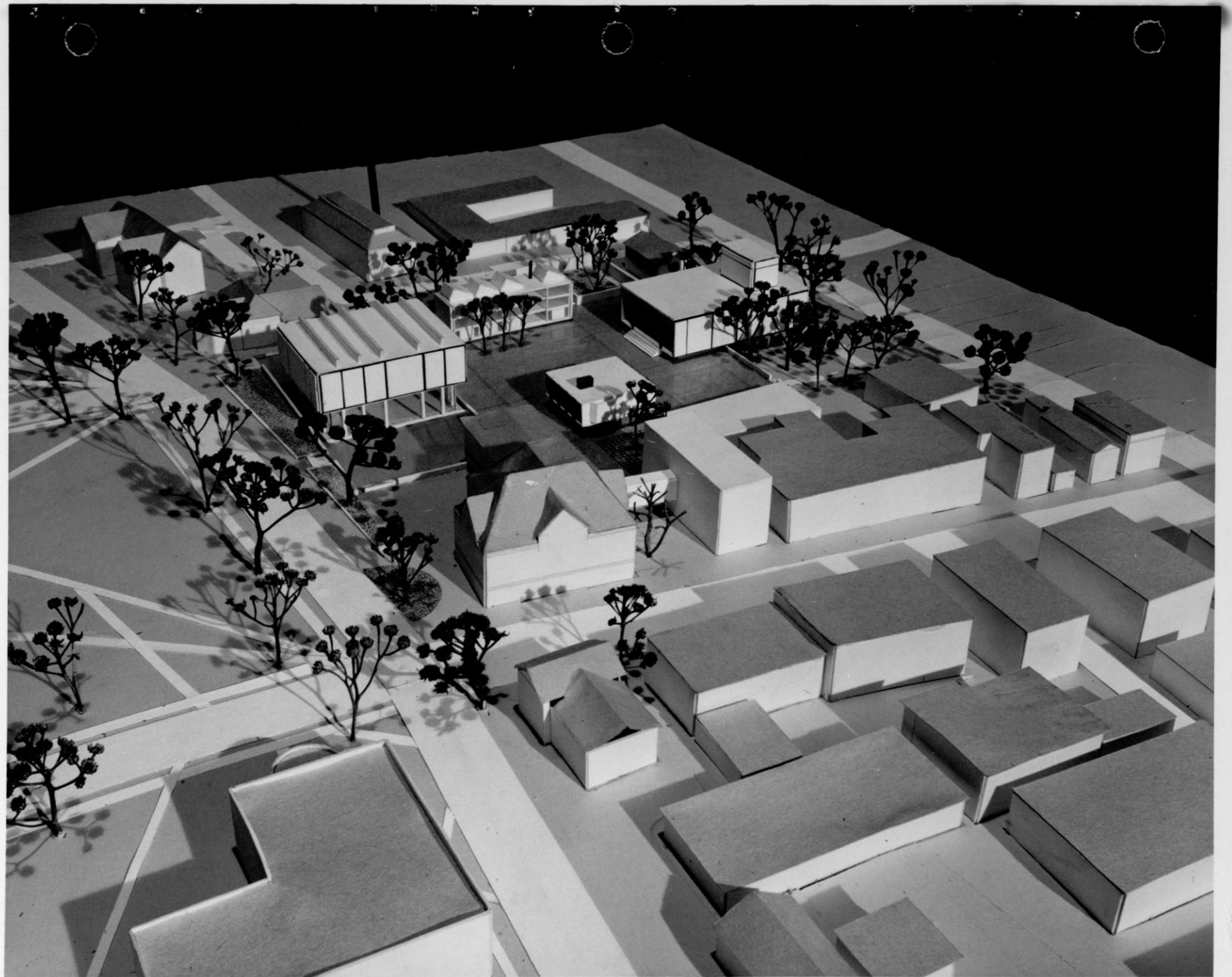
A new alumni center is proposed in connection with the Inn at the south, on the site of stores and offices now owned by the college. This building will provide meeting rooms, lounges and lobby on the ground level and a dining room above connected to the Hanover Inn main stair and thus to the Inn lobby. Several floors of hotel rooms are provided to enlarge the capacity of the Inn and accomodate visiting alumni. A new kitchen in the basement will replace the one story addition to the Inn which would have to be removed to allow access to the central plaza from Main Street.

It is proposed that the Hanover Inn dining room be remodeled to form a new banquet hall and dance pavilion opening into the Inn court and campus beyond. The existing fenestration would be removed and replaced by a somewhat smaller glass enclosure within the freestanding arcade. In summer a cafe would be located in this court, overlooking the campus, and shaded by the high Inn wing.



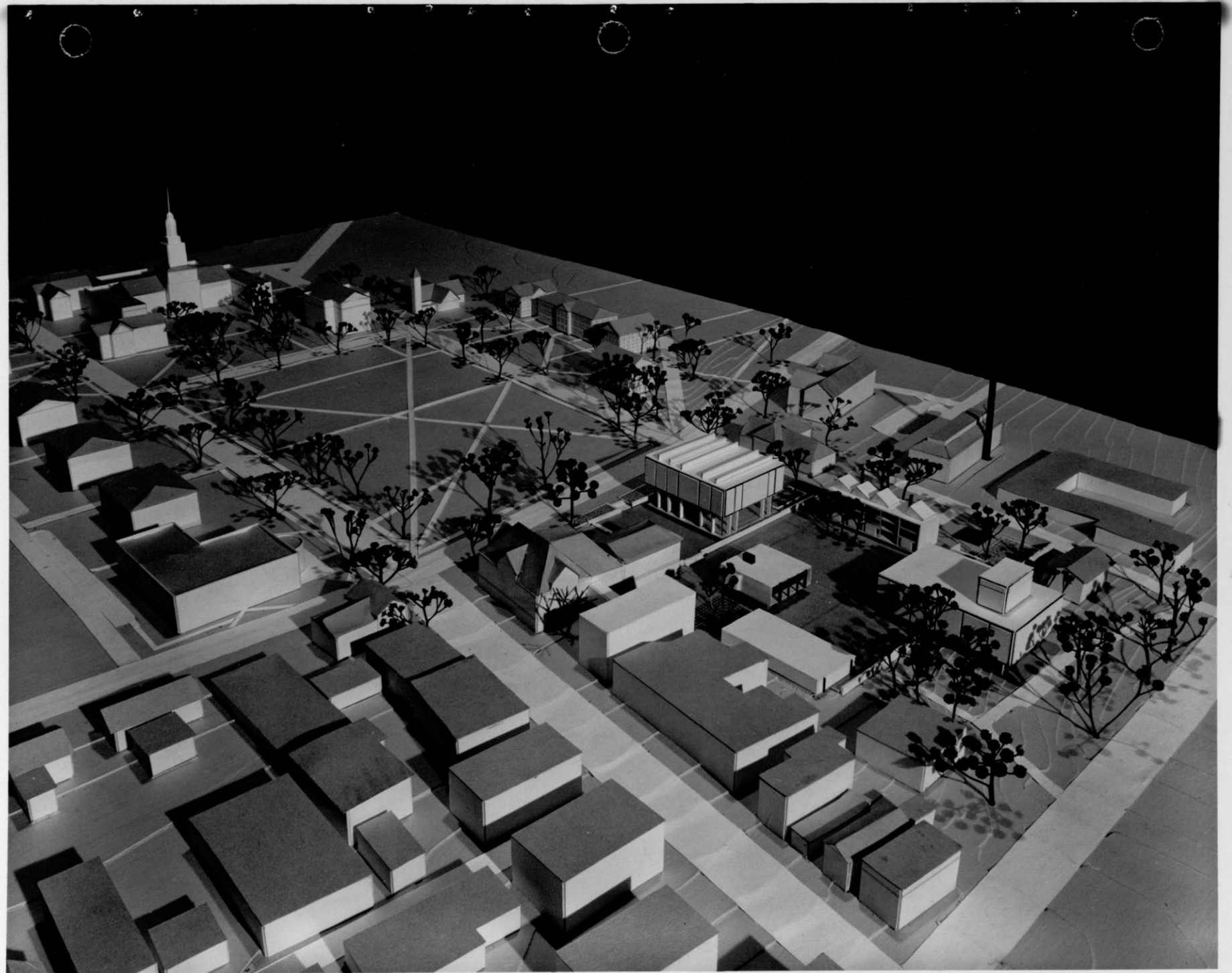
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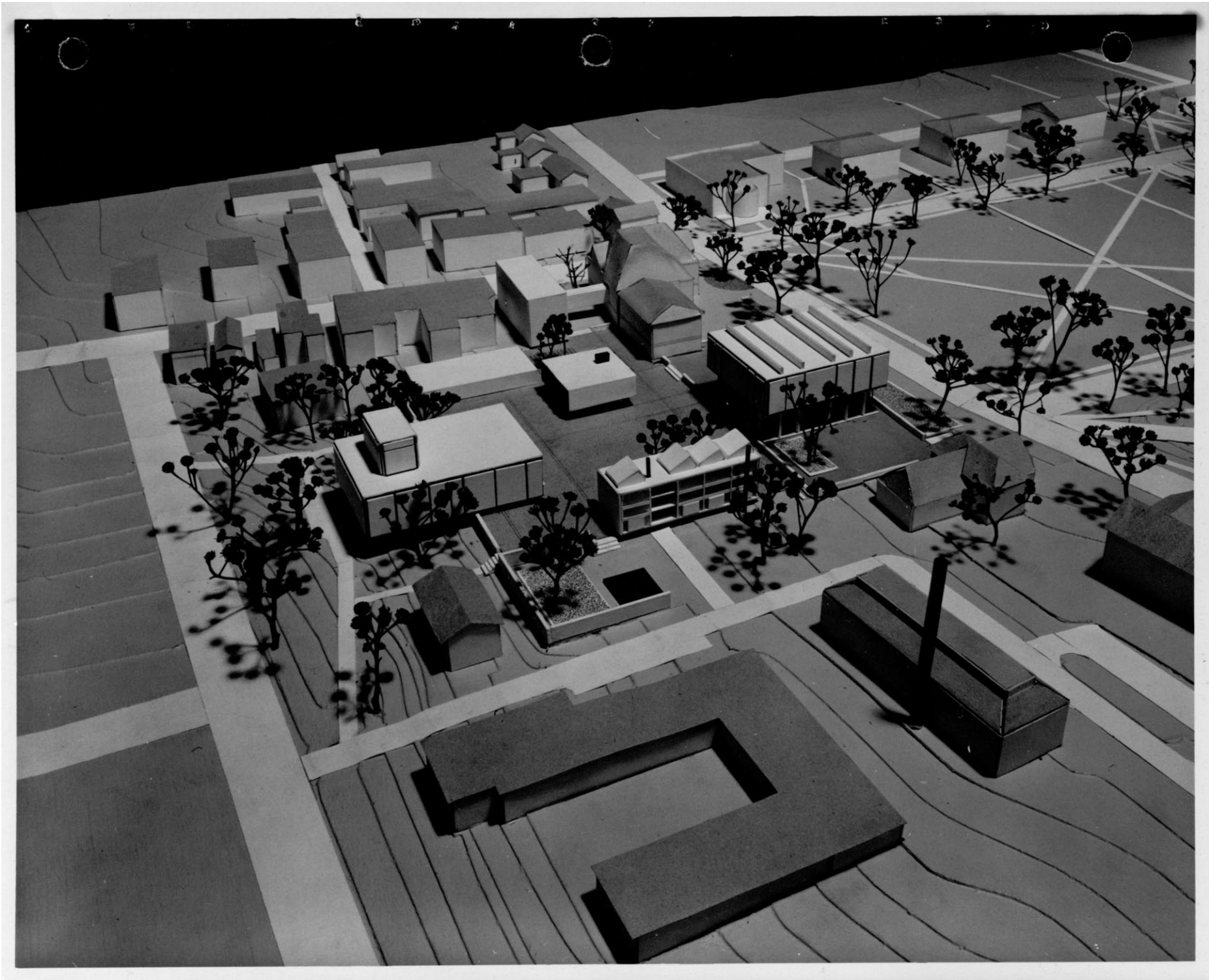
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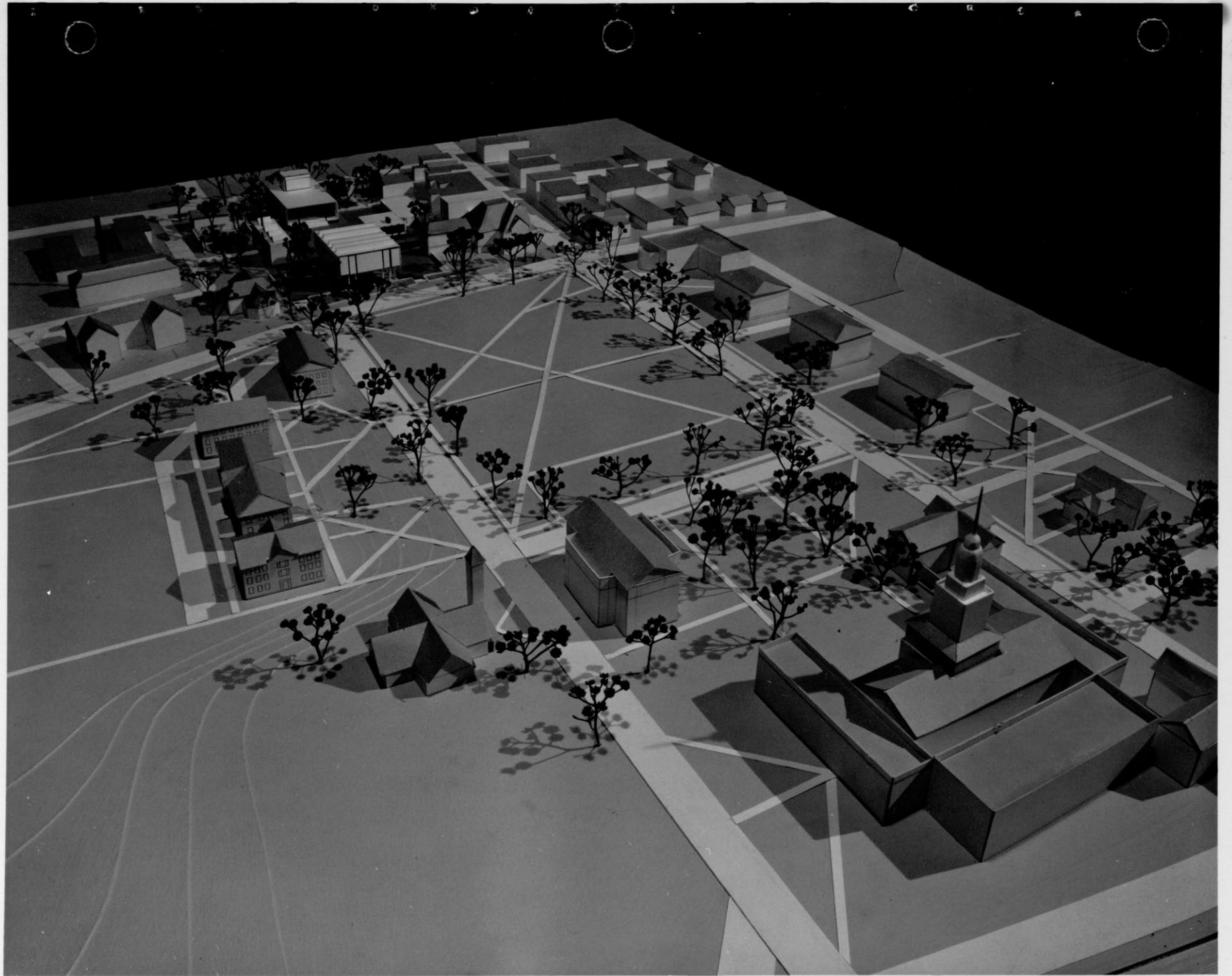
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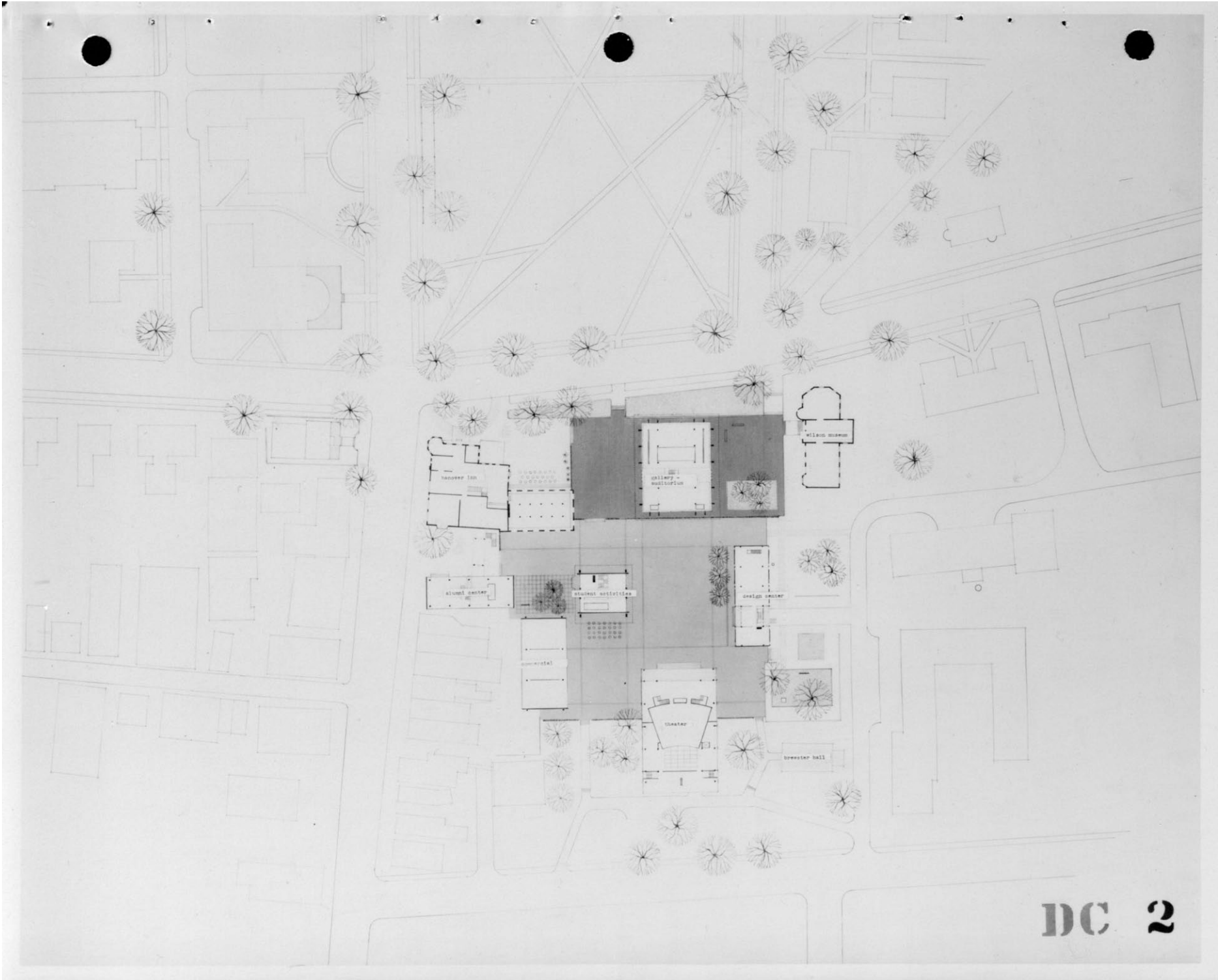
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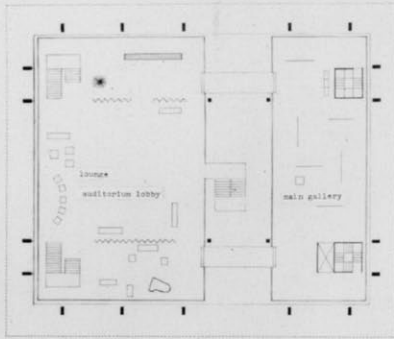




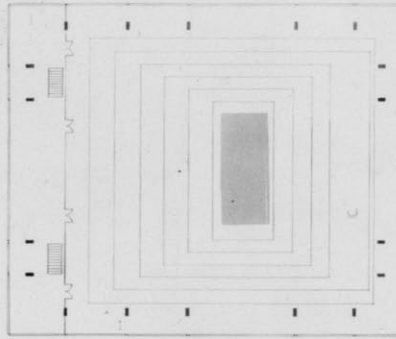
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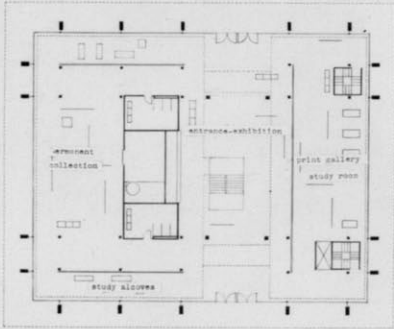
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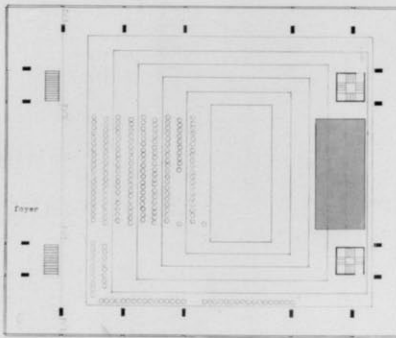
mezzanine



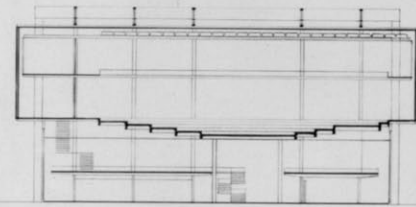
auditorium small concerts



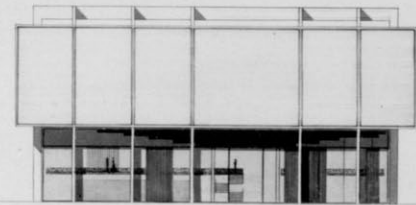
main level



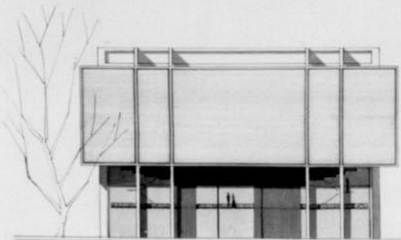
auditorium seating for lectures



section



west elevation

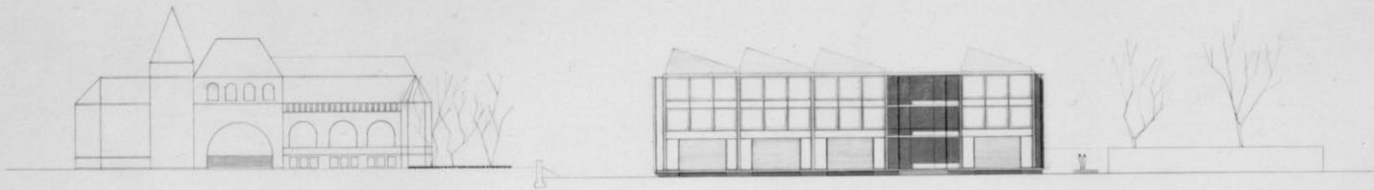
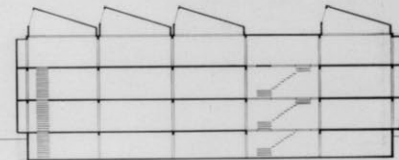
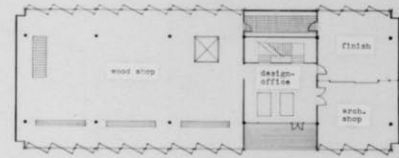
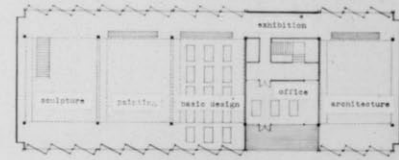
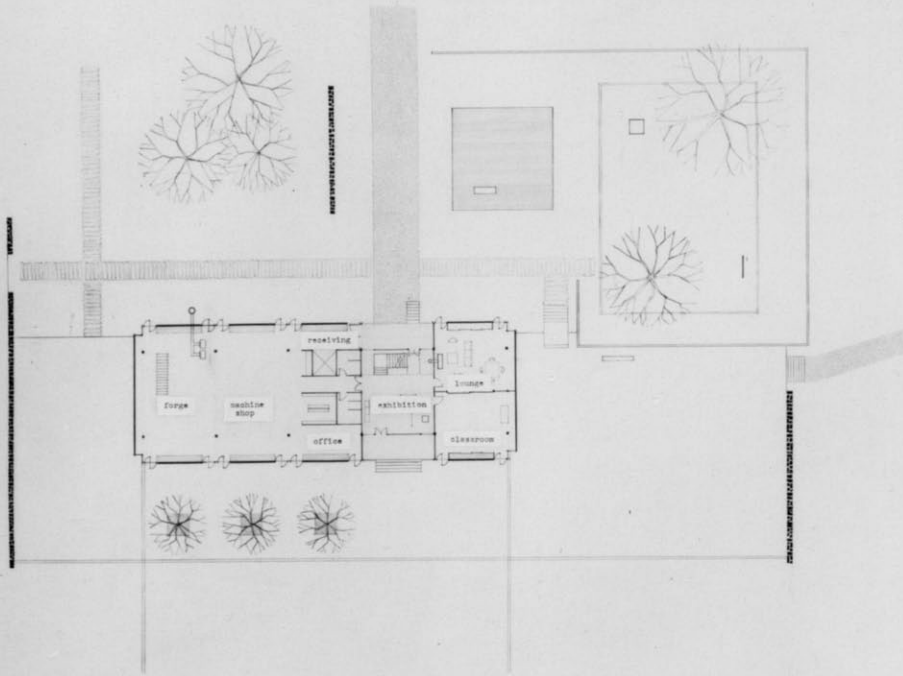


elevation from the square

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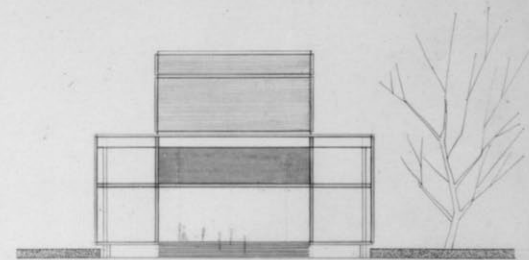
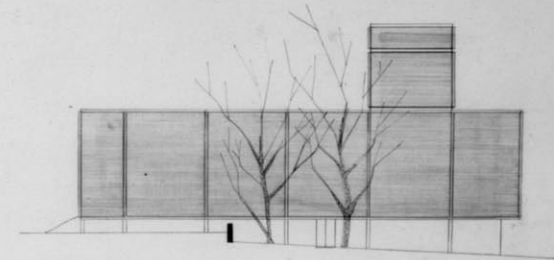
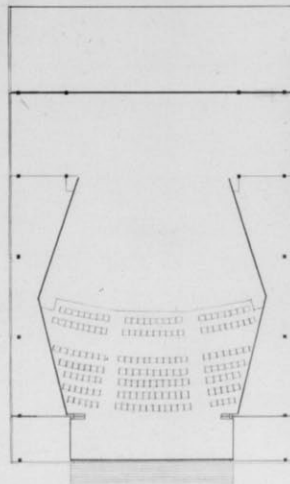
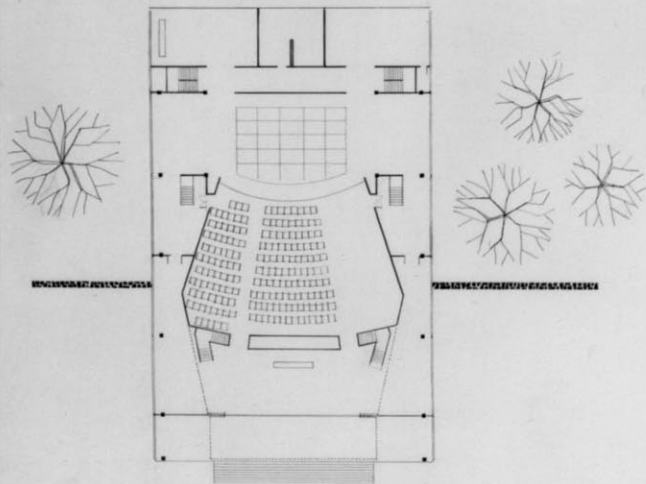
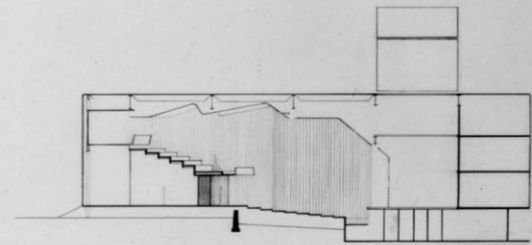
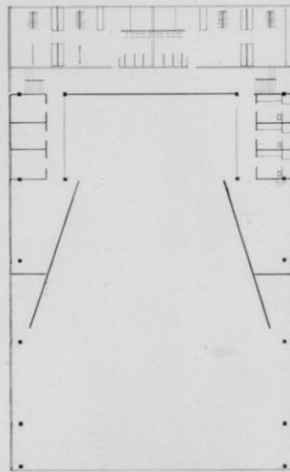
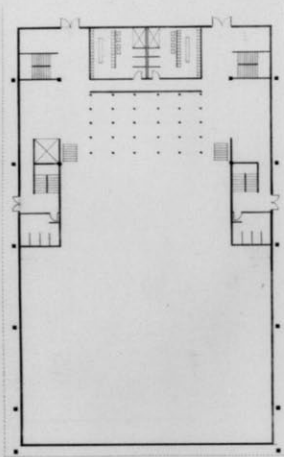




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Theris

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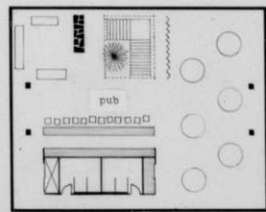
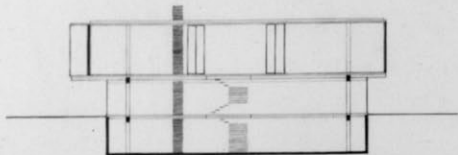
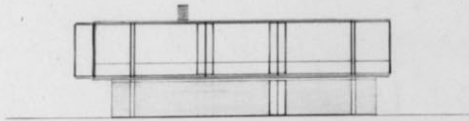
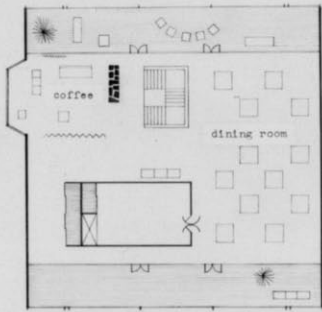
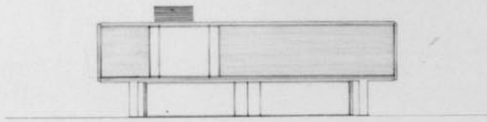
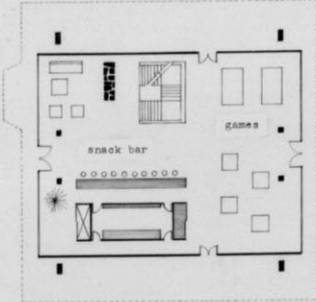
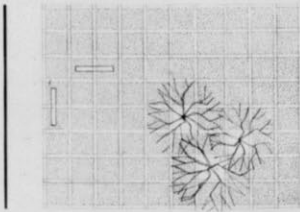
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