A GRADUATE DORMITORY FOR

THE MASSACHUSETTS INSTITUTE

OF TECHNOLOGY

By
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July 14, 1952

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By Elton C Gildow

Submitted for the degree of Master in Architecture in the Department of Architecture on July 14, 1952.

This thesis deals with the problems of housing graduate students. A graduate dormitory is realized as different from the average dormitory since the graduate student is more mature, more advanced academically and socially than the undergraduate.

After determining statistically the continuing need for graduate housing at M. I. T., a site was chosen in the area of the campus reserved for student housing by the campus planning committee.

The dormitory reflects the special needs of the graduate students in the arrangement of study and sleeping rooms, the lounge and conference areas, and dining and recreational facilities as well as blending with the M. I. T. campus.

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216 Newbury Street Boston 15, Massachusetts July 9, 1952

Pietro Belluschi, Dean School of Architecture and Planning Massachusetts Institute of Technology Cambridge 39, Massachusetts

Dear Sir:

The following thesis "A graduate Dormitory for the Massachusetts Institute of Technology" is submitted in partial fulfillment of the requirements for the degree of Master of Architecture.

Respectfully yours

Elton C Gildow

This thesis has been written and designed with the helpful assistance and criticism of the following persons, whom I wish to thank sincerely

Prof. L. B. Anderson

Mr. T. G. Hansen

Mr. Enrico Peressutti

Mr. Bob Kimball

Buildings and Power

Prof. Huntress

Deputy Dean of Graduate Students

Mr. H. K. Dow

Director, Graduate House

my classmates and associates

Mr. Dick Tavis

Mr. Vern Shogren

Mr. Don Jarvis

Mr. George Skiaderassis

STUDENT HOUSING

Housing of the student body of colleges and universities is recognized now as one of the most important elements of the physical developments of the institutions. In the past it has been considered merely as a necessary accessory to acedemic and administrative elements, a necessity because of the difficulties of transportation which made commuting to and from homes impossible and because college

towns were not able to house all students in private homes or hostages. Early housing was destined to provide a place only for sleeping and studying, but conditions of actual living should contribute their proper share to a well rounded college experiance, especially since higher education has become so specialized. No longer should this period of education be an idealized, sheltered existance, apart from life and concerned primarily with the accumulation of learning from books and experiments. It should be a mecca for socialogical experimentation in cooperative group living. The proper housing of students could become the major tool of this aim.

GRADUATE HOUSING

Graduate housing is unique because of the conditions which necessitate its existance. It is hard to imagine another existance in which a large number of unrelated persons of varying backgrounds live in such close relationship, all pursuing varying branches of knowledge in advanced stages.

Housing for graduate students, both men and women, has been sadly neglected in college and university plants. It is due to the fact that graduate work is pursued by a limited number of students who are usually little interested in the affairs of undergraduate life and who are consequently a misfit on the The viewpoint of the graduate student campus. is entirely different than that of the undergraduate. The graduate is neither an immature person nor is he a novice. He is attending a graduate school with a very definite goal in mind and most of his efforts are expended in pursuing his scholastic aims. He has neither the time nor the inclination to join in the extra-curricular life which is so important a part of the younger students' training and experiance. Because he has become a mature person, the facilities for his living and recreation must provide for a different kind of existance.

It has been found expedient to separate such facilities from those of the undergraduates, not to divorce the two types entirely, but to

recognize the new needs and to unify the graduate group which in most colleges is inadequately housed in undergraduate units or off the campus. It is especially necessary to bring the graduate into close contact with men and women of the same status, that of a graduate student, so that he will not become either a slave to his work or unsociable.

The elements to be considered in housing for graduate students are as follows:

- There should be more free space for group meetings and socials apart from the sleeping or studying area.
- 2. Study rooms should be small, preferably large enough for only one or two students to do their own homework and research.
- 3. Sleeping units should be likewise small and useful for only that purpose.
- 4. Dressing facilities should be more adequate.

 There should be sufficient hanging space,
 drawers, storage area, and space for
 toiletries which are solely reserved for
 the individual.
- 5. Plumbing facilities should be conveniently

.....

located in relation to sleeping and dressing facilities, but may serve a larger number of students than should be accommodated in either the study or sleeping rooms.

6. Eating, library, and recreational rooms should be a part of the housing group and available to both men and women of other groups.

Emphasis should be placed on the necessity for adequate areas for gathering and exchanging ideas with other students, faculty members, and friends. It should be so organized that the student will meet and know many different personalities without sacrificing any of his personal privacy. It should be, in a sense, the training ground for all kinds of social contact between human beings. In the classroom the student is taught how to think; in his living quarters he should apply that thaught to the art of living.

The architecture which should be applied to the problem of graduate housing can be the visible expression of adequate communal

living and if carefully applied to this problem it will be one of the greatest possible aids to its perpetration. A more complete experience in communal living than now exists should not be forced by the architecture. However, present housing furnishes an inadequate working area for social life as we see it today. This is clearly explained by the fact that students feel it necessary to leave their college dormitories to seek additional companionship, recreation, a wider variety of social contacts, and various other forms of freedom which are hampered by present housing facilities.

THE PROBLEM AT M. I. T.

Graduate students at M. I. T. fall into three categories, as far as housing is concerned. The first category includes those who live at home and commute to and from school. M. I. T. is becoming more important in the fields of graduate and post graduate research, especially since the United States Government and those

industries involved in war machines have become vitally interested in electronics and associated projects which M. I. T. is well equipped to handle; graduate students are coming to the Institute from all the states and many foreign countries. Therefore, the number of graduate students who are able to live at home and commute is becoming almost negligable, and are considered as such in this thesis.

The second category includes those graduate students who are married. At the present time some of them are being housed at Westgate and Westgate West, temporary housing provided by the Institute, and the rest live in apartments in Cambridge and the Boston area. Plans are being considered to continue housing married students and staff members on the campus in permanent buildings. Since the war the percentage of graduate students who are married has been about forty per zent. This percentage has remained steady for six years and the school sees no reason to assume it will change.

Since this thesis is concerned with single men only, it is noted that although the

married graduate students make up sizeable portion of the total number of graduate students their percentage does not change.

Thus the problem of increasing graduate student housing for single students will not be affected by a change in housing needs due to an increase or decrease in married students.

The third category, the single graduate student who will not live at home, is the largest category and the one in which this thesis concerns itself. This group may be divided into two parts -- those who live in the campus and those who live elsewhere. graduate students who live off campus are concentrated in rooms, apartments, and boarding houses in Boston and Cambridge. small number live in fraternities, but few graduate students find time to engage in formal or organized extra-curricular activities, and so avoid the fraternity life. Many live in the Back Bay area, where rooms, light housekeeping apartments and efficiency appartments are available. Most of this Back Bay area depends on students from M. I. T., Harvard,

Boston University, and Boston College for their rentals. Recently there has been an influx of small business into this area. Specialty shops, cafeterias, small business, and even commercial buildings are invaiding this rooming house and residential area, diminishing the number of rooms available to students. It is evident that this trend will continue, forcing the students to find housing either on the campus or at a greater distance from M. I. T.

In addition to the increased need for graduate student housing caused by the decrease in facilities in the Back Bay area, the number of graduate students is increasing. The Institute intends to maintain the number of graduate students at the present level (based on acedemic facilities) insofar as there is to be no increase in the total quota. The present quota is 1,230 graduate students. In recent years there has been an increasing trend among the graduate students to work at teaching or staff jobs part time. A graduate student may take one-third, one-half, or two-thirds of a full schedule and work the remaining

time. Thus, a student may count for less than full time student and there may be more than 1,230 students enrolled in the graduate school without filling the quota. In the spring of 1952 there were 51.1% of the graduate students doing staff work and although there were 1,586 students enrolled in the graduate school the quota was only 81.9% filled. This indicates that there are and will be increasingly greater numbers of graduate students needing living quarters near the institute. The presently inadequate facilities at the graduate house will become even more inadequate as this trend continues. This, also indicates a need for new facilities.

Graduate students at M. I. T. have lived a rather "hand-me-down" existence since they have been housed on the campus. Their forst home at this campus, the old senior house, and their present home, the old Riverbank Court Hotel, are places where they could be housed rather than graduate dormitories. Although the present graduate house is in need of repair (the ground floor, lobby, and desk are

to be renovated in the immediate future)

M. I. T. feels that the building is too

valuable to abandon for dormitory space.

As the need for dormitory space continues,

graduate students are being placed in Burton

House (a former apartment hotel), another

step in the "hand-me-down" process.

In answer to questions concerning a graduate center or a graduate dormitory at M. I. T.,
Mr. Robert Kimball, of Buildings and Power,
commented that the institute plans no immediate
new buildings other than an auditorium and a
chapel across Massachusetts Avenue from the
main entrance to M. I. T. Even these buildings
are subject to availability of funds. A new
graduate dormitory would be built, however,
if money were made available.

The Institute obtains money from three main sources:

- 1. Student fees and tuition -- used for year to year operating expenses.
- 2. Industrial grants -- used to support researsh and scholarships (at the graduate level) and occasionally academic buildings or labs.

3. Individuals and alumni -- usually dedicated to build libraries, stadiums, etc. and occasionally dormitories.

A building fund exists at M. I. T. and some of this money is set aside for needed dormitories, but at the present this fund is small. If a new graduate dormitory were to be built at M. I. T. the money would have to be raised by a collection from the alumni or from other doners interested in the Institute.

THE PROGRAM

Dormitory facilities for 540 men

General Social rooms

library

lounge

conference rooms

music rooms

dining hall

private dining or meeting rooms
refreshment bar
recreational facilities
table tennis

pool tables

sun deck

Administration

control desk

general office

suite for housemaster

guest rooms for visiting V I P's

Service

mailboxes

linen chute
kitchen and pantries
public rest rooms for men and women
public coat room
rest and locker rooms for men and women employees
dining room for employees
maintenance room
painting room

receiving room

cooking facilities for students

telephone booths

storage

porters' closets

Among the considerations for the type of building and equipment is this poll, conducted at M. I. T. in 1951 with regard to student housing. A sampling of all students in different housing situations was included. The answers of those in the present graduate house (the old Riverbank Court Hotel) are separated from the total answers to show their preferences.

Question	% yes grad house	%yes all others
Do you favor contract feeding?	25	40
Do you favor cash and carry		
feeding?	85	65
Do you favor smaller dormitories		
i.e. 100 people?	20	40
Do you feel one of many and wish		
to live with a smaller group?	20	35
Do you prefer common lounges to		
be smaller and private?	60	65

Do	you favor entry type housing		
	(like Harvard)?	40	50
Do	you favor corridor type		
	housing (like M. I. T.)?	55	50
Do	you favor quadrangle and hous	ie	
	type housing (like Yale)?	6 5	55
Do	you prefer high block type		
	housing (Baker House)?	40	50
Do	you prefer single rooms?	68	65
Do	you prefer double rooms?	55	50
Do	you prefer triple rooms?	40	35
Do	you prefer suites?	80	55
Do	you prefer apartment type hou	sing	
	with kitchen and bath?	50	55
Do	you favor movable furniture?	85	85
Do	you favor built in		
	furniture?	80	25
Do	you favor less emphasis on		
	study rooms and more on		
	relaxing areas?	50	50

THE SITE

The Institute's policy in future building is to keep the area east of Massachusetts Avenue for academic buildings and the area west of Massachusetts Avenue for dormitories, housing, athletics, and a student center -- or all functions other than academic. The plans for the west portion of the campus is at present

in a state of flux, future building and planning depending on the lowering and re-routing of traffic on Massachusetts Avenue, placing of overpasses and service roads, and acquisition of buildings fronting on Memorial Drive and Massachusetts Avenue not now owned by M. I. T. Since these questions cannot be settled solely by the Institute and plans concerning them cannot proceed until the outcome is known, it would be foolish to conceive an overall plan which might be disturbed by outside forces at any time; however, progress in planning and thinking should continue in a flexible manner.

It has been a policy in the past to give student housing the benefit of the view and atmosphere of the Charles River. The Graduate House, Burton House, Baker House, and the Eastgate Apartments are examples of this policy. Such a policy has its advantages and disadvantages. It certainly gives the tenants of these buildings a fine view and pleasant character in an industrial area. However, it shuts the river off from the rest of the campus and

along Memorial Drive or Enbankment Road. The actual life and movement of M. I, T. takes place on the side of the buildings away from the river. The buildings next to the river are so close to Memorial Drive that there is no room for activities on the river side of the campus. The Great Court, the largest open space on the campus facing the river, is empty most of the year. There are no beaches or sunning areas laong the bank of the river and Memorial Drive prevents any expansion to the edge of the river.

The present plans for west campus include an auditorium and a chapel in the immediate vicinity of Massachusetts Avenue. The plans include razing the Coop, Bexley Hall, and the business building across from the Main entrance to the Institute. A student center is contemplated just east of the Rockwell Cage. This area, approached from both Memorial Drive and Massachusetts Avenue, containing a student center, a chapel, an auditorium, a grand view of the Massachusetts Avenue entrance to the

academic buildings and a view of the athletic facilities would certainly be a good public relations item for M. I. T. The only building "misplaced" in this area is the old Riverbank Court Hotel. If new housing for graduate students were provided and the old Graduate House town down, M. I. T. would present a "living" entrance to those who pass, at the same time gaining much needed parking space near the main buildings and the auditorium.

There is another piece of open land on the M. I. T. campus, however, which leads from the river to the housing area. A graduate dormitory could be placed in the space now occupied by the solar house in such a way as to expose the students to the river atmosphere, the Boston skyline, and the river breezes. Such a dormitory would keep the graduate students in the housing area, allowing the campus planning to continue without a major change. It would place the graduate students in the dormitory section of the campus without integrating them completely with the undergraduate activities. They would be close enough to share whatever

undergraduate interests they want and at the same time be able to pursue their own interests unhampered.

The solar house and a few units of Westgate would have to be razed in order to have space for a new graduate dormitory in that area, but these buildings are of a temporary character and will be removed in a few years according to the present plans of the institute. The area can be planned to include graduate student parking, something which is lacking in the present situation. The students living at the Graduate House will continue to live there while the new building is being erected and move in when it is completed. would suggest that the existing Graduate House be torn down, opening the entrence to the Institute and allowing for needed parking space.



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DORMITORY FACILITIES

THE STUDY-SLEEPING ROOM

Any space as tight as a dormitory is essentially an envelope around furniture, and a lot can be accomplished if the groupings are determined before the size and shape of the envelope are irrevocable set. The dormitory study should begin where the student spands a major part

of his time --- his desk and his bed. These, together with the wardrobe, form the nuclei for the three groupings in plans of rooms.

Since the war costs of construction, service, and maintenance have risen considerably and student housing costs have been effected. One of the larger costs is that of board. author lived in the graduate house for one semester, eating breakfast and lunch in the graduate house cafeteria and dinner at a restaurants in the nearby area. The next semester the author, with two other graduate students, moved to Eastgate Apartments where the share of the rent was five dollars a month higher, but where taking advantage of the cooking facilities saved twenty-five dollars a month on food. Even including five dollars a month for furniture, the apartment was cheaper than living in the Graduate House, to saw nothing of the more pleasant surroundings. Many students have discovered this method of reducing costs -that of buying groceries at the markets and doing their own cooking. Many of the students

now living at the Graduate House rent refrigerators and buy hot plates and do cooking on a small scale to offset high prices and low income.

The management of the Graduate House is not opposed to the idea of students cooking in their rooms, if facilities permit it.

The sleeping and study rooms were approached from two considerstions: First a room that would permit a student to work in privacy, avoiding disturbance from those living in the same area, and second, a room that would put the student into contact with others and prevent his living an isolated life in the midst of potential companionship. The rooms were divided into doubles and singles, to provide for those who like to be relatively independent in their work and to also provide for those who do not like to live alone. four students have access to a bathroom and a kitchenette, leaving the students to decide for themselves whether or not they will avail themselves to the opportunity to cook for themselves. It was felt that a greater number of students per kitchen would be confusing in

storing food, eating at the same time, etc.

The student rooms consist of the three basic groupings of desk, wardrobe and bed, in addition to access to a bath and kitchenette. This is in keeping with the idea of providing a club like atmosphere rather than another dormitory. With the site already described, the student rooms should be oriented to the sun and view. Built in furniture and equipment was necessary in order to reach and maintain a desireable character for each room. Sapce for sitting in each room was also considered a necessity.

GENERAL SOCIAL ROOMS

LIBRARY

The library in the Graduate House would be never used except for the numerous periodicals. A library is necessary, however, because many of the alumni give books and sets of books to the graduate house and these must be displayed

somewhere to promote relationships between the school and the alumni. If a few best sellers were added to the subscriptions to periodicals the library should become more popular among the students. Also if the library were given a position of prominence and view, it should become more popular.

LOUNGE

Since the lounge takes care of many people at certain times (graduation, meetings, parties, etc.) it should be of fairly large size. There should be no cross circulation in the lounge, though it should be near the entrance and the desk. There should also be gathering spaces on the living floors for the convience of the students.

CONFERENCE ROOMS

These rooms should be rather private, but view and character should not be sacrificed in achieving privacy. They should be flexible in order to provide for various sized groups. Provisions for television could well be handled here.

MUSIC ROOMS

The music rooms provide for practicing of instruments and listening to phonograph records. They should be in a quiet place, but view and sunlight are very important.

Music is best appreciated under pleasant surroundings. The music should not interfere with study rooms or other areas which desire quiet.

DINING HALL

This should be readily available from the main entrance and the circulation from the study rooms. It should have a pleasant outlook and, if possible, opportunity to expand outside in the summertime. Since the students are to be given an opportunity to cook and eat on their rooms it is difficult to determine a dining room size, but an area that will handle the maximum number expected (graduate dinners, etc.) should be provided. An assumption of one half the number of bed spaces is used in determining the size of the dining hall.

PRIVATE DINING ROOMS

These rooms should be flexible, in order to handle different sized groups, and they should insure quiet and privacy during the time they are used. They should also have a pleasant outlook and he adjacent to the main entrance.

REFRESHMENT BAR

This space could be rather free and open, expandable to the outside and near the circulation to the living floors.

RECREATIONAL FACILITIES

Table tennis, pool tables, and sun bathing facilities should be near the circulation to the living floors and could be in the same area. The noise from these areas should not be allowed to disturb other areas, but the resulting containing of the noise should not completely enclose the areas. The areas should be placed where they are free, yet not adjoining the study areas.

DARK ROOM

The dark room should be near the main circulation and could very well be in the basement.

ADMINISTRATION

CONTROL DESK

The control desk could very well be combined with or near the GENERAL OFFICE. The desk should overlook the main entrance and the circulation to the living areas without being in the main line of circulation. The desk should be be available to the service

entrance for handling of laundry, mail, etc.

SUITE FOR HOUSEMASTER

The housemaster's suite should be located off the main lines of circulation to insure privacy for the housemaster in his living, but yet not too remote from the rest of the students since there are weekly meetings of the student organization and the housemaster, occasionally held in his suite. The housemaster should have all the comforts and conviencies of any respectable apartment and not have his private life invaded by the students.

GUEST ROOMS

The guest rooms are considered necessary by the staff of the graduate house for those people who attend conferences, seminars, meetings, etc. at M. I. T. for a short time -- up to a week or ten days. The guests could be well cared for, have dining facilities available, and be able to circulate among the graduate students if they were housed in the graduate dormitory. Their apartments would be similar to the housemaster's suite and near the main entrance.

SERVICES

MAILBOXES

The mail should be handled at he main desk.

Each student should have a mailbox with his own key. The bokes should be near the desk and the main entrance, as well as the service entrance.

LINEN ROOM

The linen room could well be in the basement, connected to the porters' room or a smaller linen closet on each floor by the LINEN CHUTE.

KITCHEN AND PANTRIES

The kitchen and its service, store rooms, and pantries should be next to the dining room, private dining rooms, and refreshment bar.

It should be on the same level as the services and the service entrance and on the same level as the eating spaces. It should not be prominent or interfere with the main circulation. It should be well ventilated and arranged for maximum efficiency.

PUBLIC REST ROOMS

These rest rooms should be in the main lobby and easily available from the dining room.

PUBLIC COAT ROOM

There should be a public coat room in the main lobby.

REST AND LOCKER ROOMS FOR EMPLOYEES

The porters, maintenance crew, and kitchen employees should have their locker rooms,

complete with showers and rest rooms located in a pleasant atmosphere, but out of the way of the main circulation. The employees should have their own dining room located near the locker rooms and the kitchen.

MAINTENANCE AND PAINTING ROOMS

These rooms could very well be located in the basement or some other spot related only to the service entrance.

TELEPHONE BOOTHS

There should be telephone booths on each floor, connected to the switchboard at the main desk.

There should also be public telephones located in the main lobby.

STORAGE

There should be central storage for trunks and large items. There should also be storage area in the students' rooms for smaller overnight bags, boxes, books, athletic equipment, etc.

PORTERS' CLOSETS

Each wing should have a porters' closet with janitor facilities.

CONCLUSIONS

The increase in the number of graduate students at M. I. T. caused by a greater number of students doing part time work and part time studying, and the decrease of available housing in the Back Bay area of Boston, coupled with the rather inadequate use of the Riverbank Court Hotel for graduate

housing has made it necessary to investigate providing more and suitable housing for graduate students.

Granted that a building that provides a suitable environment for graduate students -- an atmosphere that provides adequate areas for gathering and exchanging ideas with other students, faculty members, and friends, an atmosphere that is a training ground for all kinds of social contact between human beings, an atmosphere that allows the graduate student to attain his very difficult goal and pursue his scholastic aims without unnecessary diversion from the task at hand -- will be more spacious and better equipped than the average dormitory. This higher cost may be passed along to the tenants if they are allowed to reduce their expendatures by doing their own cooking.

This building must not only fit into the students' life, but also merge into the surrounding campus as a part of M. I. T. It must provide a visual expression of adequate communal living. It must function well regarding service, circulation and

orientation. It must coincide with proposed campus planning. It must provide for that ever present menace, the automobile.

The problems were terrific; the time seemed short; the end is here.

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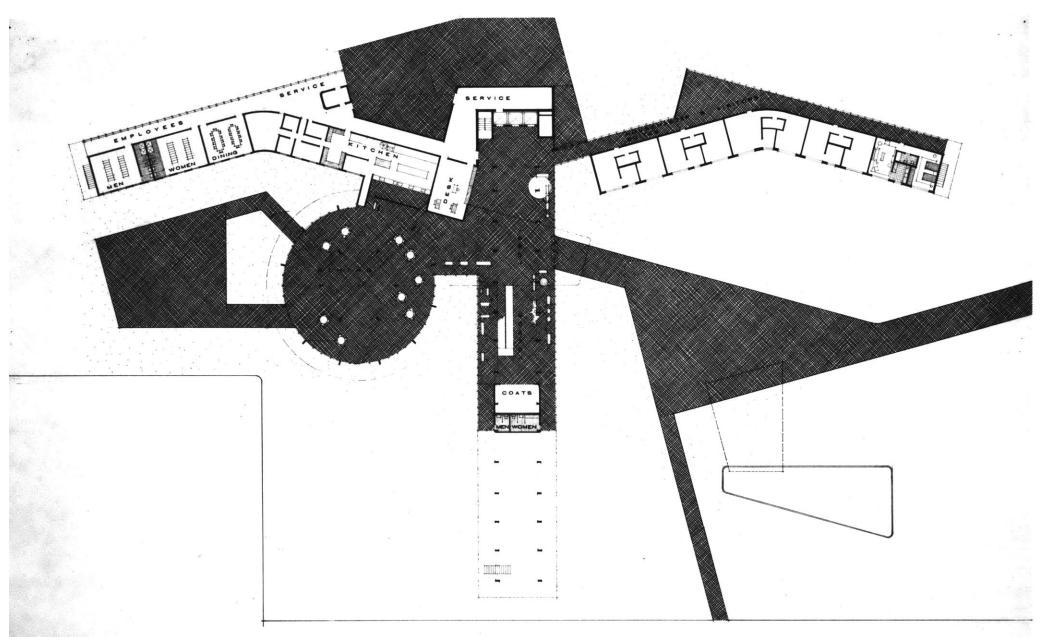
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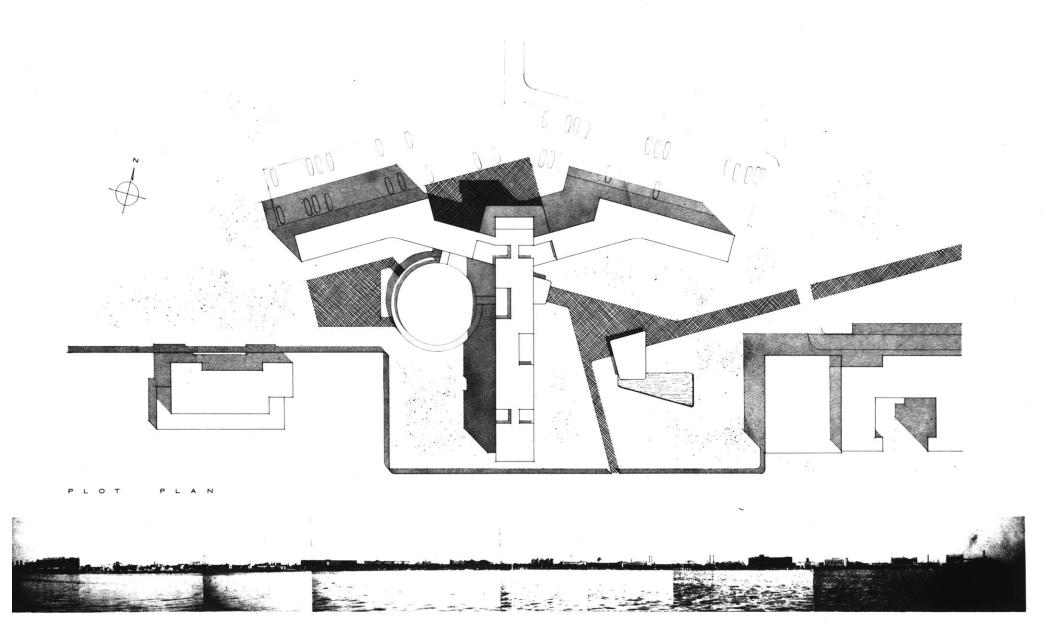
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GROUND FLOOR PLAN

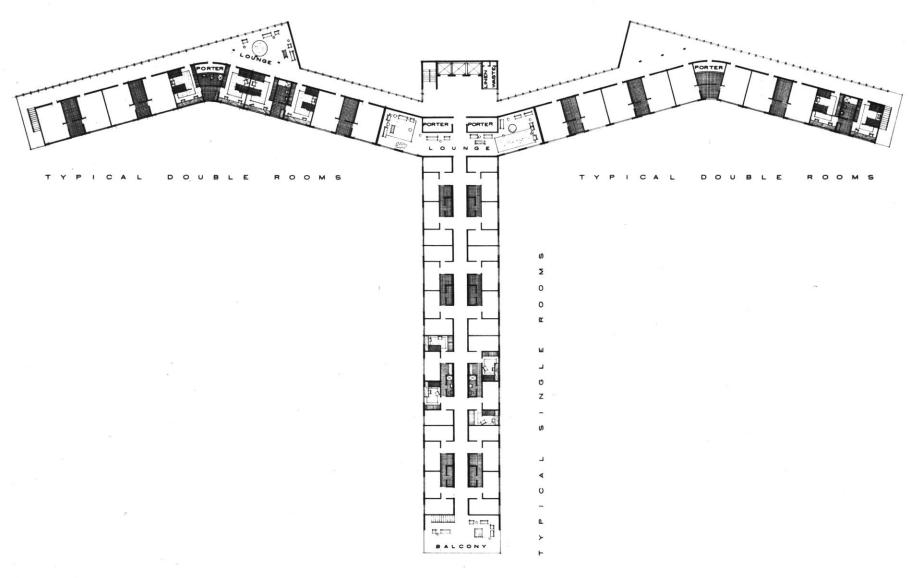






A GRADUATE DORMITORY

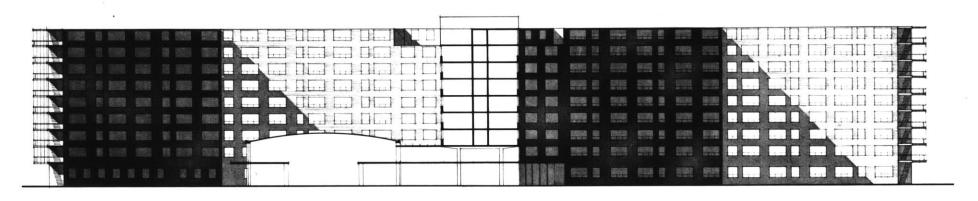
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TYPICAL FLOOR PLAN





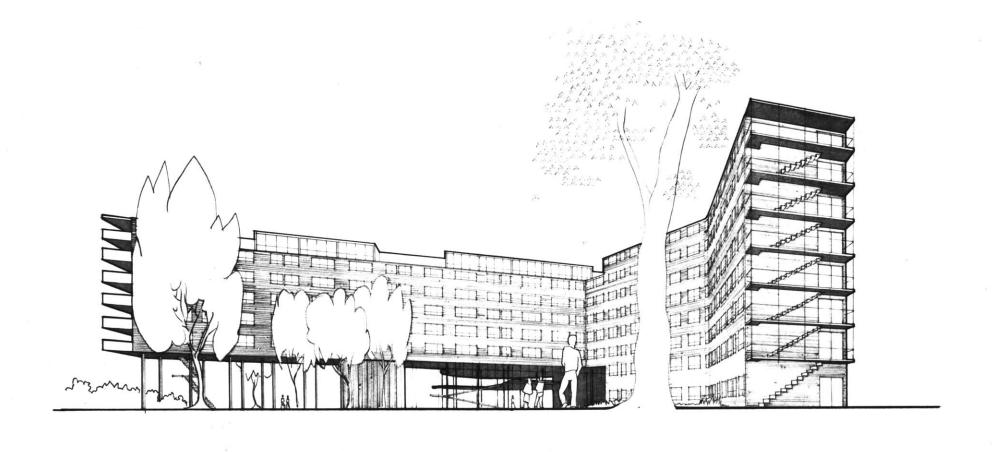


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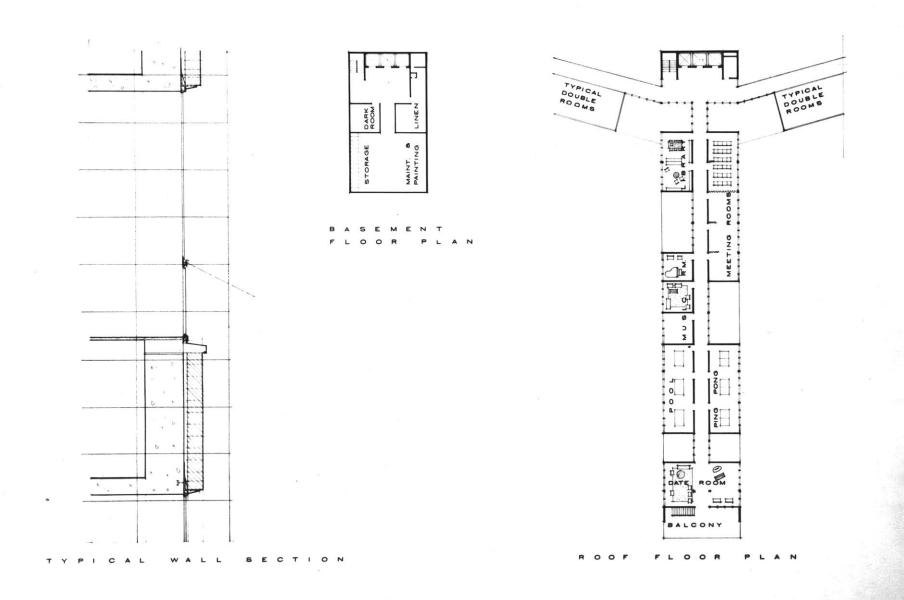


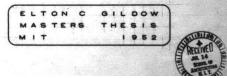


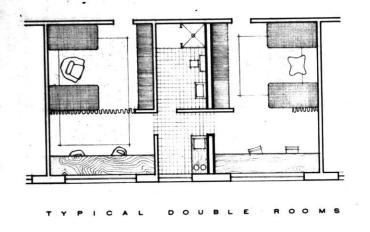


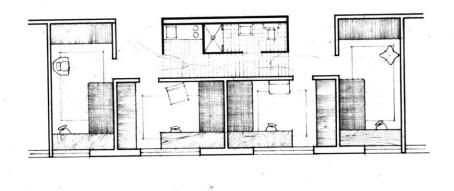












TYPICAL SINGLE ROOMS

