

A GENERAL STUDY OF VILLAS
WITH
ONE APPLICATION IN SYRIA

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WITH
ONE APPLICATION IN SYRIA

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American University of Beirut
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Dedicated to

My Professors in the Engineering Department

Whose guidance and personal interest in my

work have enabled me to write this Thesis.

Walid Kayyali

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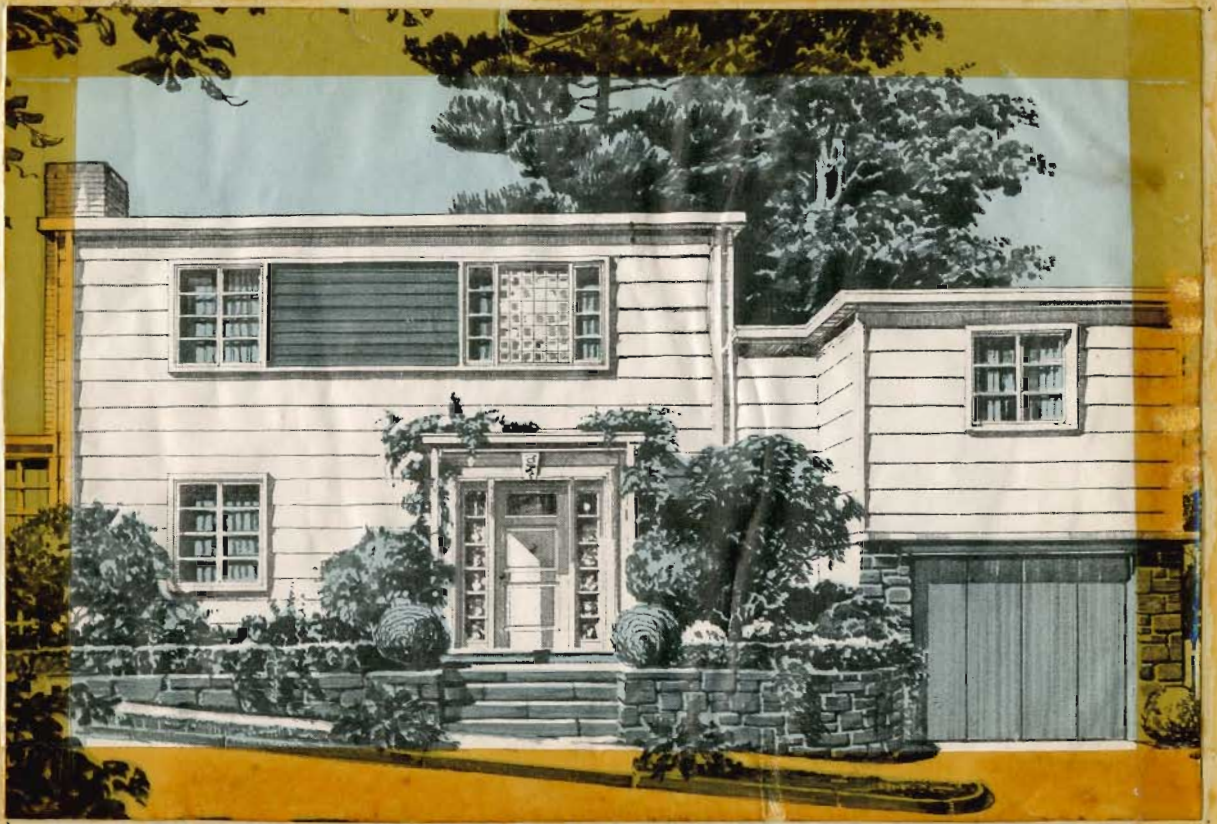


"The social characteristics of an age determine the characteristics of its arts, and this more so in architecture than in any other art...Reduced to its simplest elements, architecture is the art of providing 'ordered shelter' for a multitude of human activities"

W.COATES

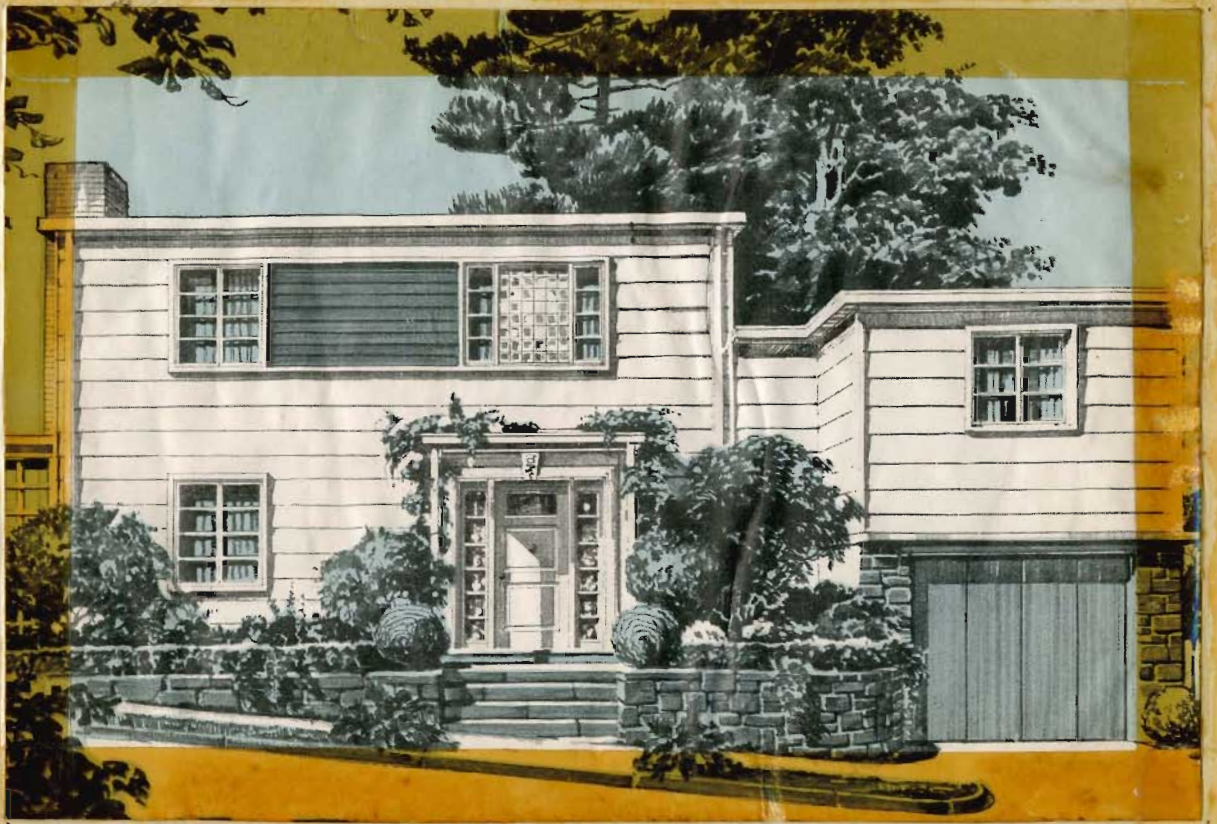
INTRODUCTION

* The Villa of primitive habitations is for me and the most related construction and the fundamental place in architectural design. It started with man, as a cave, during the stone age, when he sought shelter from the natural elements and wild animals... Then it followed his progress and his possibilities, according to his social and economical conditions, and adapted itself to his character; these reflected character, were its simple character. Now is the image of thought expressed, involving the gate of the world. As your house is, so you are. Today the Villa is considered, as one of the great leg-



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INTRODUCTION

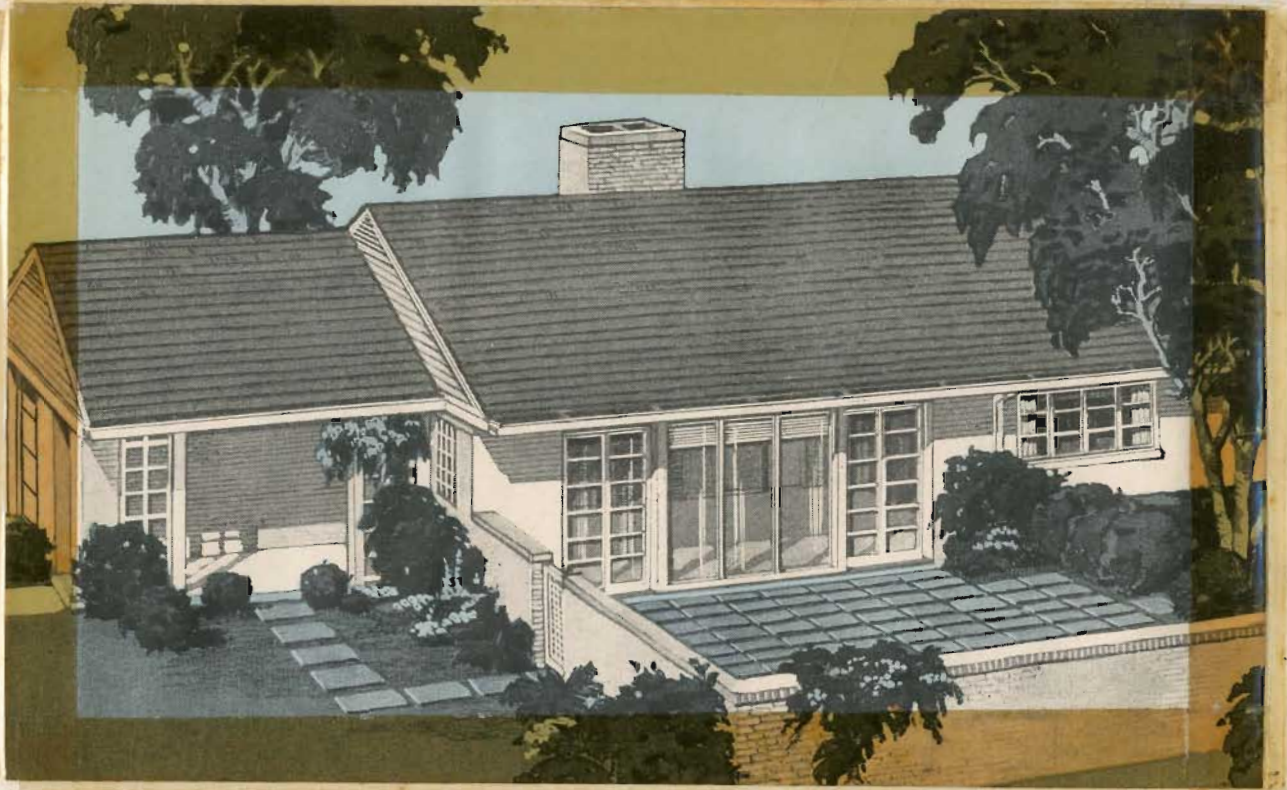
● The Villa or private habitation is for the man the most related construction and the fundamental piece in Architectural design. It started with him, as a cave , during the stone Age, when he needed shelter from the natural elements and wild animals... Then it followed his progress and his necessities, according to his social and economical situation, and adapted itself to his character, " Home reflects character. More it moulds character. Home is the image of thought exposed, inviting the gaze of the world. As your home is, so you are". Today the Villa is considered, as one of the most impo-

-important problems in connection with human life.

So long as the town is unable to offer the people a healthy life in pleasant surroundings, the Villa will be built more and more on the outskirts by the people who work in the city, but who escape after business-hours from its dirt, ugliness and noise.

I am not pretending that the building of Villas is a good or even a possible solution to the problem of housing the people, but I believe that for some time to come, the majority of people will continue to want to live in detached houses or Villas, and it is important for the relation of the Villa to modern architecture and the modern social system to be appreciated. Hence our duty is to work for its progress and development.

Is there a greater service we can render to Humanity?



WHAT IS A VILLA

- Every private dwelling place forming a unit free from any other units and offering all means of comfort and tranquility, is called a villa. This comprises cottages, bungalows..etc, all private habitation, even though, they differ in importance.

The ideal purpose of a villa is to fulfil the social requirements of a person and adapt itself to his life it is then no wonder if it followed the changes in his habits and expressed his needs, thus registering his education and his social condition "As your home

is, so are you."

The villa has been built during all ages and every originality in a villa of a certain period, denotes the typical feature of that Age. These originalities were in the traditions of that age. An inspection of the evolution of the villa, as we shall see later on, shows a continuous struggle between the human needs and the social restrictions of a period; when the former was stronger, the villa looked like a place which provided its share in life; and when the latter was stronger, the villa showed a picture which was inconsistent with its purpose.

"The Villa is a machine for living in." This phrase has become famous since Le Corbusier coined it in 1923; but what does it mean? He certainly meant to emphasise the utilitarian function of the villa. A beautiful car body with an efficient engine is an absurdity; so is a beautiful house which is not a good contrivance for living in. Use come first. That is the meaning of the old doctrine which has the new

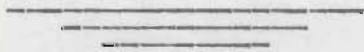
name of Functionalism. Functionalism means that Architecture begins with use, but not it ends there. Le Corbusier, the greatest formulator of this doctrine, says "Architecture goes beyond needs". By this he means physical needs. But Architecture while satisfying our physical needs must at the same time satisfy our need of beauty. There must be no contradiction, no sacrifice of the one for the other. The good Villa is a contrivance which shelters us and supplies the mechanism of our life pleasantly.

If we are to define a Villa fully, then we must decide what we mean by shelter and what our lives demand of the mechanism and what is pleasant to us.... There is also, the very important economical consideration. In short, the kind of shelter and mechanism needed is relative: it is governed by what the builder can supply, therefore, chiefly by geographical, technical and economical conditions. At the end we can say the chief functions of the Villa, are, to satisfy the needs of shelter, eating, sleeping,

recreation, health, cleanliness and beauty; in addition there are certain important needs which come under the ideas of hospitality, nursery, privacy, ceremony, service, storage, communication....etc.

Therefore the art of building Villas is now, more complicated than it has ever been.

What I propose is to study the problem not only as it is at the present, but also as it was in the past, and as it will be in the future.





THE OLD VILLA

- The point of view from which I am going to analyse the Old style buildings, which are considered as the standard of those days, will differ from that with which it has been described in the history of building construction. Some say, that there is nothing left for criticism ; books have been written on the subject describing every fineness of proportion, admiring the symmetry and secret of beauty that come out of every nolocaust[?] and temple, accepting all these things as the standard patterns of beauty; but forgetting what is the most important, namely the function of these buildings. The judgement should not be based on its detailed form , but on the building as a whole, on the feeling that it gives, as to its function...Did these Villas succeed in their purpose...? Are they fit for dwelling in ..? Did they take care of their functions when they design them..?

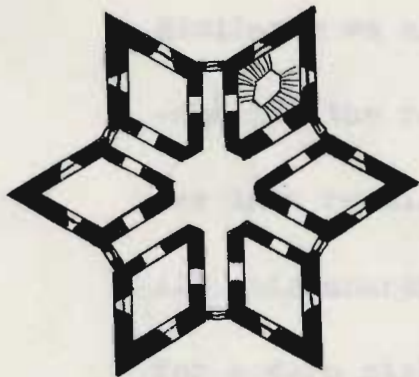
Houses are built to live in and not to look on. Therefore let use be pre-ferred to uniformity, and beauty, except when both may be combined.

Old palaces were full of riches and splendor, but they were not fit for dwelling, in the full meaning of the word. They were dominated by formalism and diverged from their purpose to become pieces of arts and monuments, bound by the spirit of absolute symmetry. Hence slowly, they diverged of their purpose as dwelling-places and moved towards religious and monumental building which where made for the dwelling of leaders and gods. The interior of such buildings was arranged to fit the exterior and in spite of that it served man ;because his care was limited to external artificial appearance. Barrock houses for example, with artificial appearance and surroundings, have no relation to orientation or position with regard to the main direction of wind and sunlight. The position and shape of the rooms of the building should ^{be} restricted to form, then the work of

*Poor Sentence
Construction*

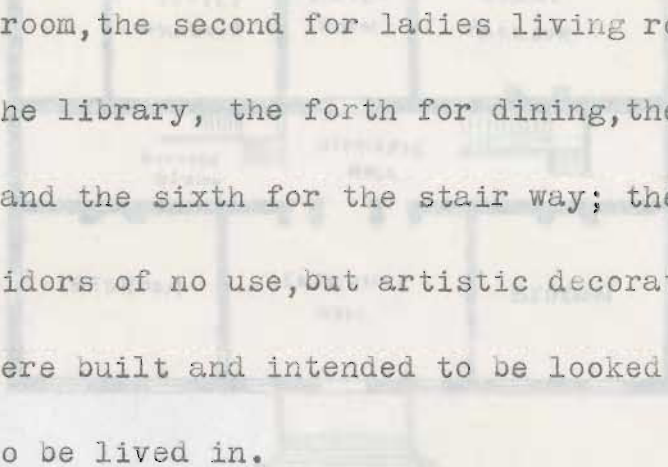
the builder, is to produce a piece of art with all sort of artificialities and, often forget, that the main purpose of the building is for dwelling; he often sacrifices confort for artificial decoration.

A house grows from within to without. The outside of a house should be dictated by the inside, as the form of the animal body is dictated by the skeleton, the disposition of the organs and the functioning of the various systems . To build from without to within, is again , façadism .It leads to such ridiculous anomalies as a W.C. at "Studley Castle", which was made 18 feet long in order that the symmetry of the facade shall not be broken, or interrupted.



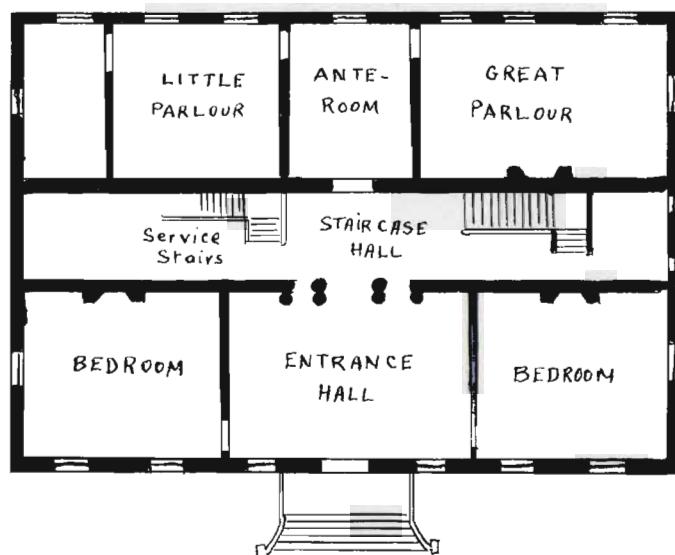
Sternberg Palace

Another example, is the Palace of Sternberg shown on the fig. With its star-shape, which represent the device of the family, this palace has six rooms of equal dimensions; one for the living



-room, the second for ladies living room, the third for the library, the fourth for dining, the fifth for kitchen, and the sixth for the stair way; then it has six corridors of no use, but artistic decoration. Such houses were built and intended to be looked on, rather than to be lived in.

When building construction changed from absolute symmetry to the free style, where there was no restriction to standard rules, the chances for comfort remained the same, because, they only occurred a change from care in the general appearance to a care in the individual decoration of every room or partition. Thus we can see in many castles, the kitchen at 100 meters or more from the dining room and at 200 meters from the water supply. Similarly we might find sleeping quarters at the entrance and the reception quarters at the end as you can see in a renaissance type of house shown on the next page. All this anarchy of design, was the basis of revolution for Modern style, and paved the way to the success of the



The Renaissance type of house

of the new ideas in the art of construction. The Arch-

itect discovered that with the trend of modern thought, there is no place for superficialities; at an age when clearness of expression is the aim of people, there is no room for futile and camouflaging decoration. The triumph of the new builder against the old, lies in the simplicity of expression, confort and harmony.

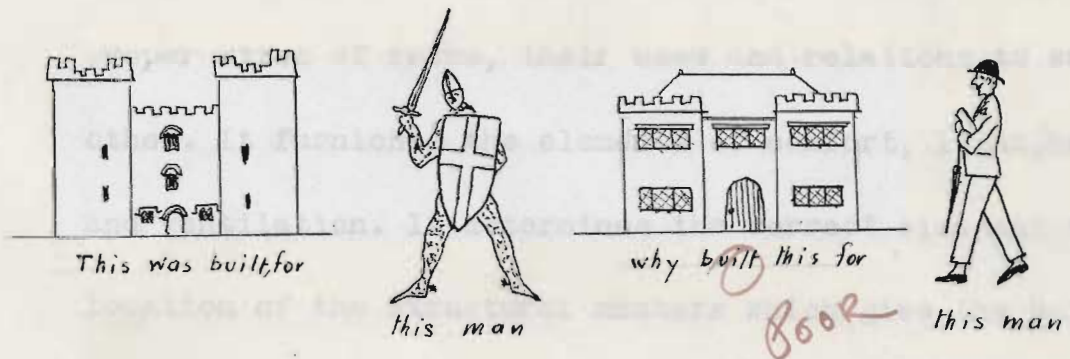
We shall not forget that the present age has developed from past age-s in culture and civilisation; while in the past, culture was restricted to a few circles, within the national boundaries; tōday the modern trend is toward an international culture within the reach

of every one.



THE MODERN VILLA

● In these days, through the application of scientific discovery to practical requirements, we have found a new freedom and a wider interest; a new attitude of mind and logical use of space; that is dependent upon our facilities for travel and change; and we are determined to avail ourselves of them, to enjoy our lives and to free ourselves from subordination to our surroundings; from the narrow limits of the old type of houses (see fig)



The modern home, is no longer permanent from generation to generation; families ties, inconsistent with freedom of living, are broken. We demand spaciousness, release

from encumbrances, from furniture, and trappings that overload our rooms, possessions that tie us, and tools that are very old.

The Architect is evolving a new plan, designed for service: a plan that is consistent with the new outlook on life, the new mode of living; that makes economical and logical use of space; that is dependent upon comfort, convenience and mechanical devices for lightening labour, saving time and making housework very pleasant.

The modern design of Villa, as we said before, must concern itself with both the function and the beauty.

The practical or the functional design deals with the proper sizes of rooms, their uses and relations to each other. It furnishes the elements of comfort, light, heat, and ventilation. It determines the correct size and the location of the structural members which give the building strength. The Villa, as we said before, is a machine for living in. Use comes first; a good Villa is built from within to without. The function is the beginning

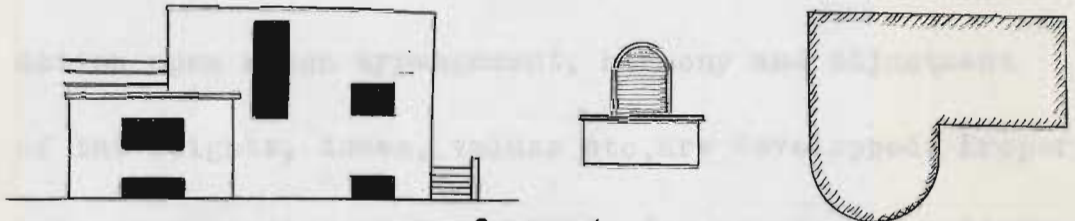
of the Villa, it is the foundation upon which the scheme of the structure rests.

.From a satisfactory arrangement of the plan units, we arrive now to the enclosing of these units by the shell, which we call: the exterior. The exterior of a Villa, must work hand by hand with the plan or the function. A good Villa must have beauty; not beauty which is applied to the surface as an after thought, but beauty which comes from an intelligent consideration and combination of function, strength and appearance.

Between the elements upon which, the design of the modern Villa should be developed are the followings :Contrast, proportion, scale, balance, unity, and character.

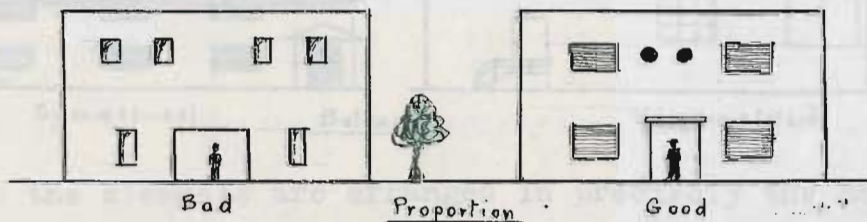
Contrast is a natural quality; our physical impressions are made possible through contrast; it is only through contrast that we are able to live and enjoy the experience of sight, sound and touch. Not only it is possible for us to see the villa through the elements of contrast, but also the villa is given beauty and interest by the

difference between the types of treatment which are introduced. Some of these contrast are shown on the fig.



Contrasts

Proportion is largely a matter of relationships. It is evident by a comparison which the eye makes between the size, shape and tone of the various objects or parts of a composition.

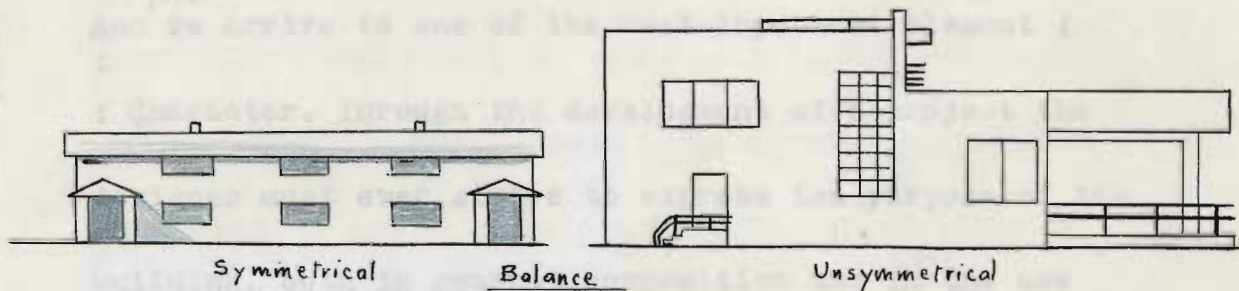


Scale has reference to proportions which are good for human needs. No matter how beautiful a composition may be, if it is of no use as a comfortable dwelling. Doors should be large enough to walk through in comfortably but not so gigantic; steps should be of such size to permit easy ascent or descent...; the window should be

of good size to permit the entrance of sunlight and fresh air....

Balance is equality; it is composition; it is the foundation upon which arrangement, harmony and adjustment of the weights, tones, values etc, are developed. Proper balance satisfies the eye, with reference, to the relative importance of the various parts of the design.

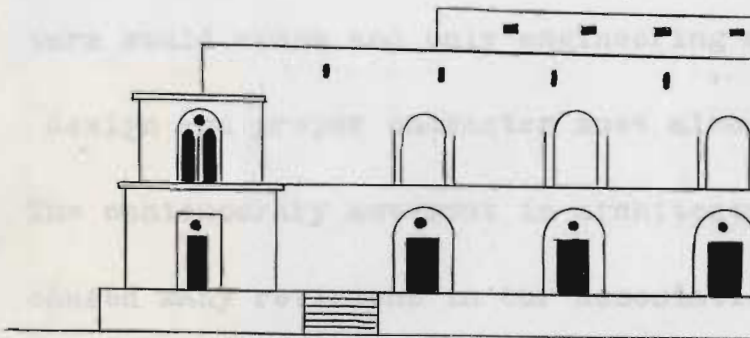
The simplest type of balance is the symmetrical balance,



which the elements are arranged in precisely the same manner on either side of a central axis. The second type of balance, the unsymmetrical, consist of arranging the larger and heavier masses nearer the center of the group, while the lighter and lower horizontal members may constitute the long arm of the steel yard.

As in music, the villa should have rhythm and harmony.

This rhythm may be in the organised movement of the eye as it travels across the facades. An example of a rhythmic facade is shown below



And ^{now} we arrive to one of the most important element ;
: Character. Through the development of a project the designer must ever strive to express the purpose of the building, both in general composition and in the use of details. Individuals have personality; they are imbued with characteristics, which influence their external appearance! Home reflects character".The character of a villa may result from the use or the purpose of the structure; it may comes also from the influence of ideas and impressions related to, or growing out of past experiences.

The ultra-modernists would eliminate all association with the past ;they would allow the function of the building to control the exterior regardless of the effect. Ifthis idea is prevailed to the extreme Architecture would erase and only engineering would exist. Good design and proper character must always be in evidence. The contemporary movement in architecture has however, caused many revisions in our assosiation of ideas. It has been necessary to adjust our points of view to the many influences which are now changing the character of our modern houses. New methods of construction have grown out of new materials and it is now possible to use openings in ways which were not practicable before. Our attitude toward physical comfort has been revolutionized The Villa must be more efficient in operation and more pleasant in its exterior and interior treatment.



C O N C L U S I O N

● And now let us consider the Villa in this country and the trend it is following ; some believe in the creation of a national style; many have favored this idea, thus imitating the one who prescribe the medicine before the diagnosis. A national style is not developed as a result of competition among architects, but follows a slow process of development. The Villa follows the trend of life led by the inhabitants of the country.

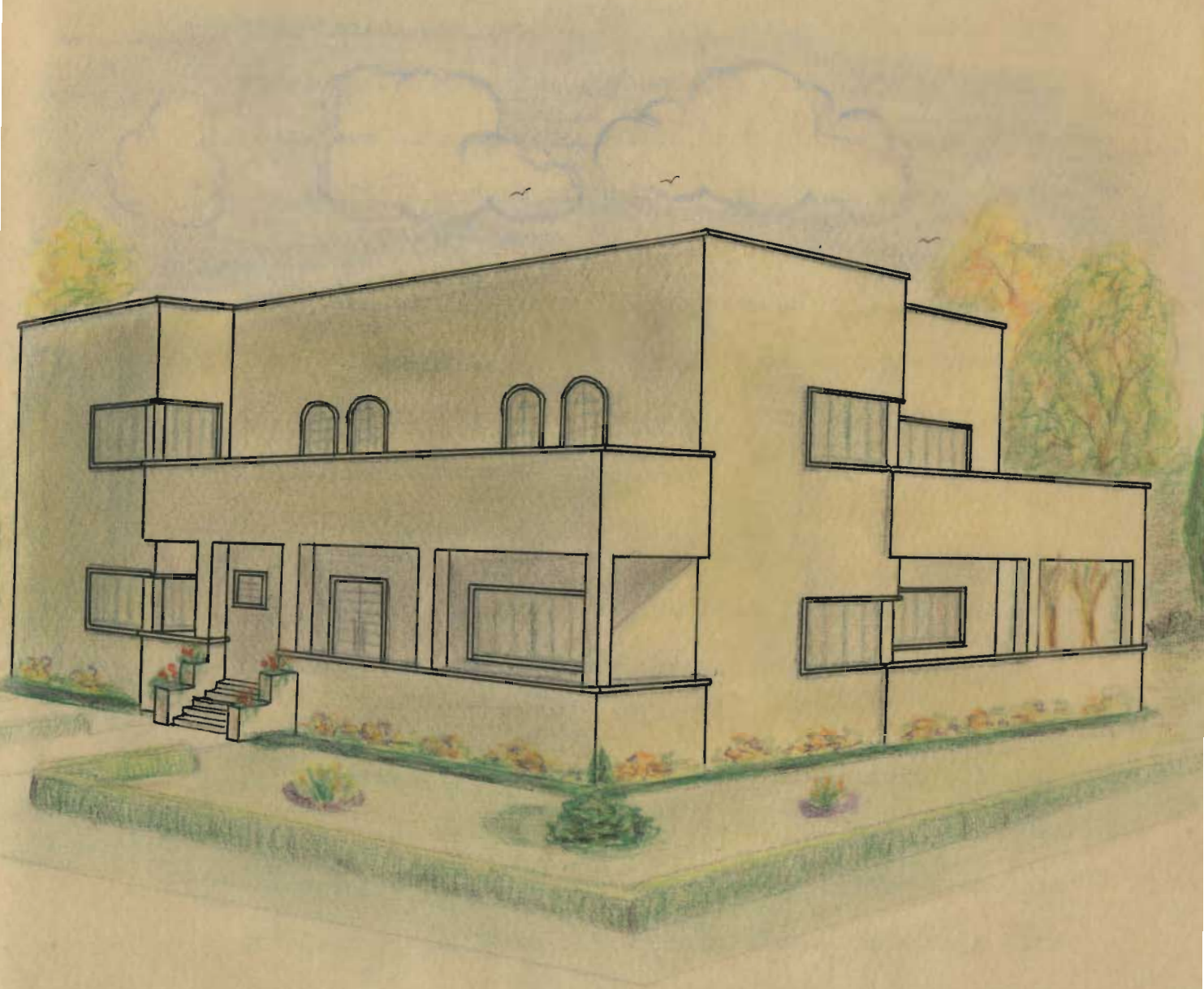
A view on one of our large streets shows the complications and contrasts that exist in our present life : you can see a 1947 model car rolling side by side with an 1850 model carriage or a trembler; then, our music is a mixture of old song, Italian opera or Vienneese waltz, added to Jazz.....and all in one piece. The same is our Villas :

a mixture of Gothic, Renaissance, Saracenic...etc styles,
and which;we called modern style...?

We are living at an age, especially in the Near-East,
where rapid evolution, is affecting every phase of our
life; thus, our duty as Engineer or Architect, is, to
look after the quiet period that follows; to lead and
directed in the correct way. Then we may have, our own
styles: in music, arts, customs.....henceforth in our
houses and:" Villas ".



A VILLA IN SYRIA



WK

C O N S T R U C T I O N

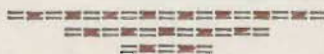
The land on which this villa is going to be built is, approximately level; its area being 1650 M²; the depth of the rock surface is varying between 0 & 1.5 M., for this reason the foundations are going to be built with rubble masonry walls. The outside walls are built with rock-face stones, from outside, and plane-face stone from the inside. Because, of the climatic conditions, the thickness of this double outside wall is: 50 cm. The inside walls are built with an ordinary masonry limestone wall, the thickness is 22 to 25 cm. No columns are used in this construction. The slabs are made of ordinary reinforced concrete.

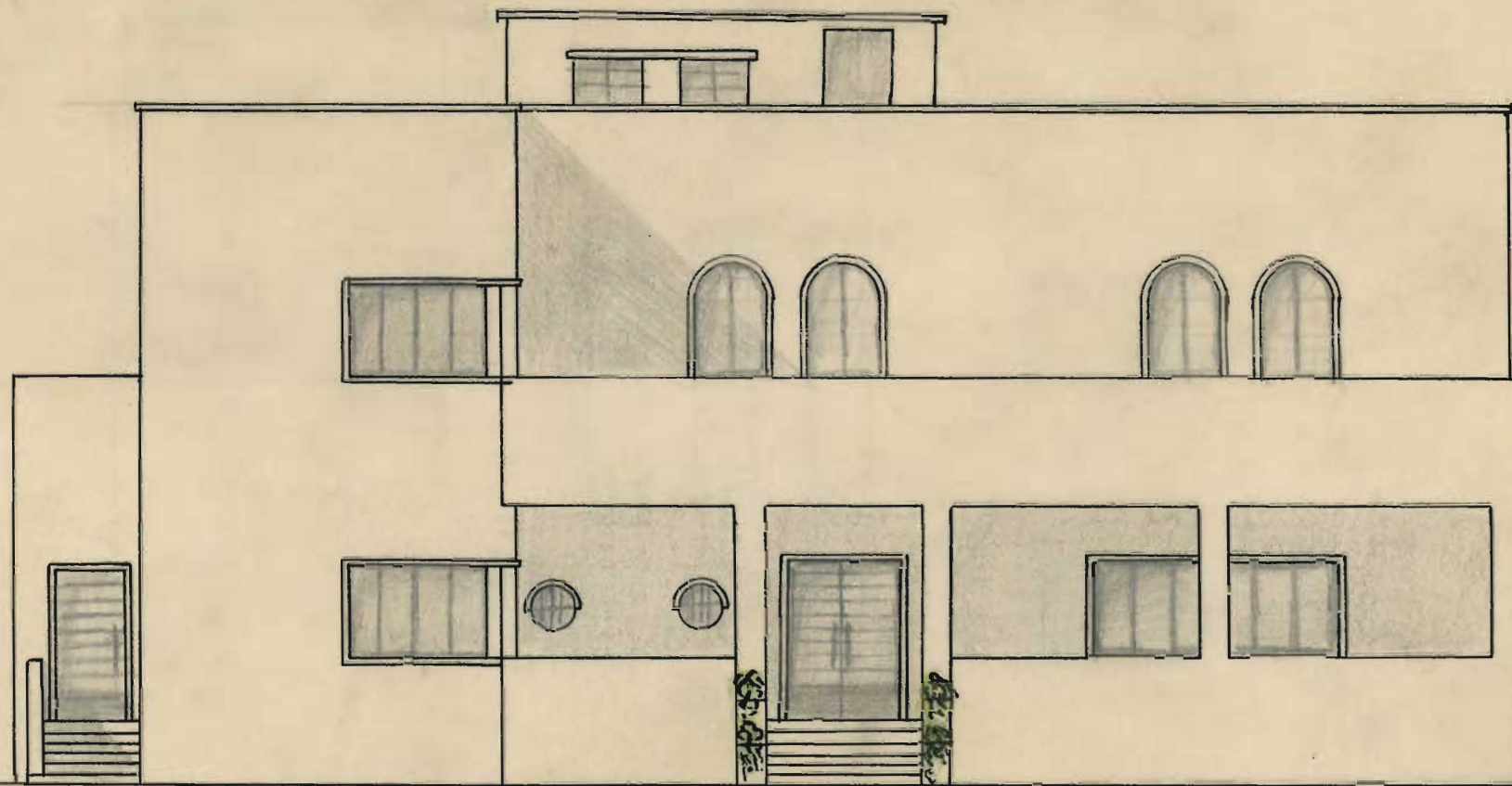
P L A N

This villa is composed of two floor. The main characteristics of the design are strength, confortability and simplicity.

On the first floor, the front door leads into a large center Hall. Off the Hall to the right, is a French-door which serve as an entry to a spacious Living-Room. This gracious Living Room has a front window 3m wide, a fire place, a window on the side south wall and also a door to a large veranda. The living-room and the dining-room

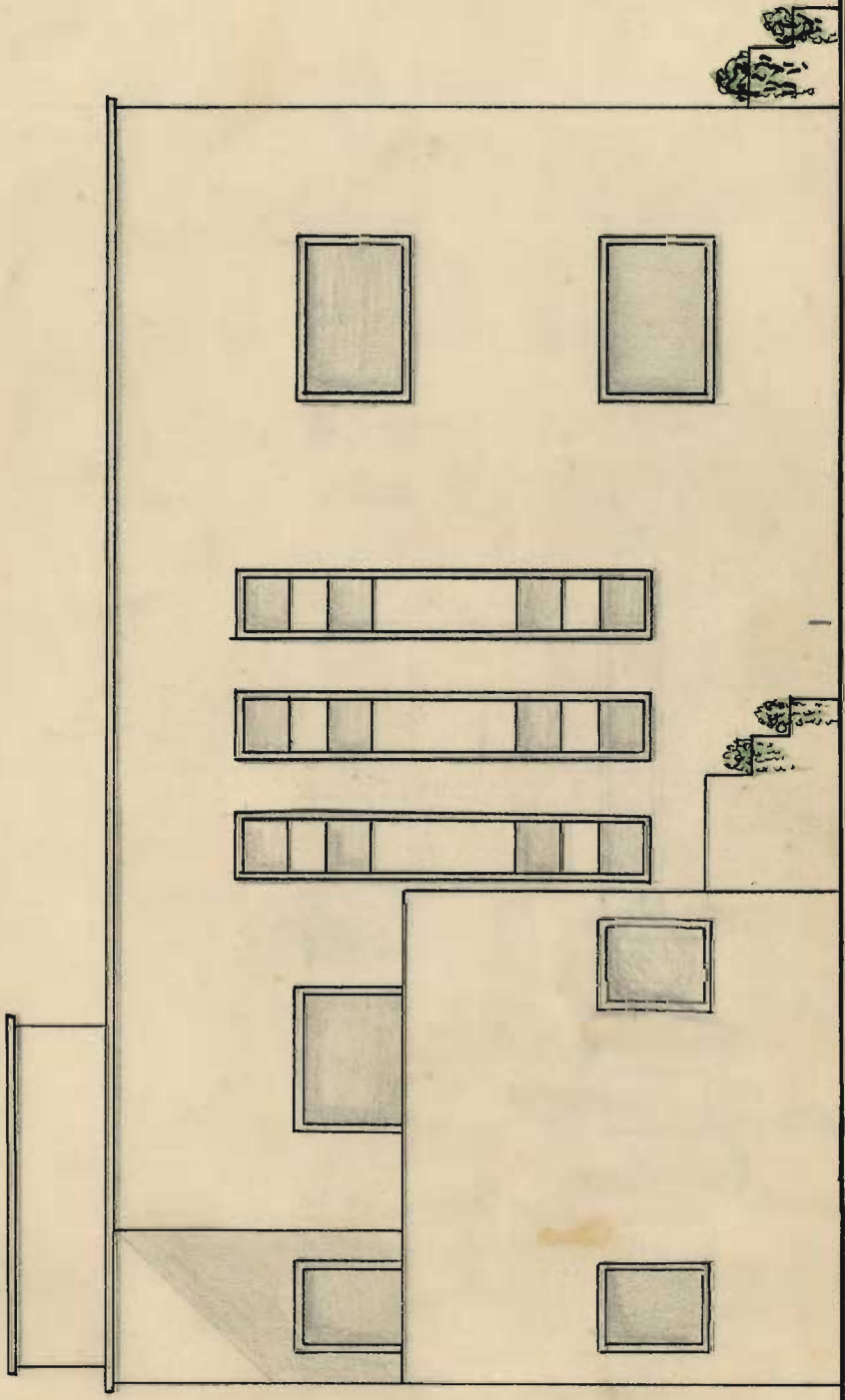
and the Dining-Room ,connected by a broad sliding door ,are in effect a large "L" shaped room with three exposure. The dining room, itself has a French door to the Hall, a window to the south and also a large door to the "L" shaped veranda. Off the Hall to the left, is the Library which may be transformed to a guest Bed-Room, with a private bath-room. The center Hall, is almost a delightful living-room with its fire place under the stairway. A hidden door at the left end of the hall, serves as a communication with the service quarters. An additional exterior entrance into the service quarters from the left side of the house ,eliminates all unnecessary tramping through the main quarters. This service quarter ,has its own BathRoom and W.C.; it has also a bed room, a large kitchen connected to the dining room by a pantry of good dimensions. The second floor is reached from the stairs, in the Hall, it has four Bed-Rooms and ^{two} bath rooms; every bath serves two bed-rooms. All these rooms are connected together with a U shape large corridor. Access to open air, from every bed room is provided by three large vrandas. Another stairway in the store room leads to the very large Flat-Roof.



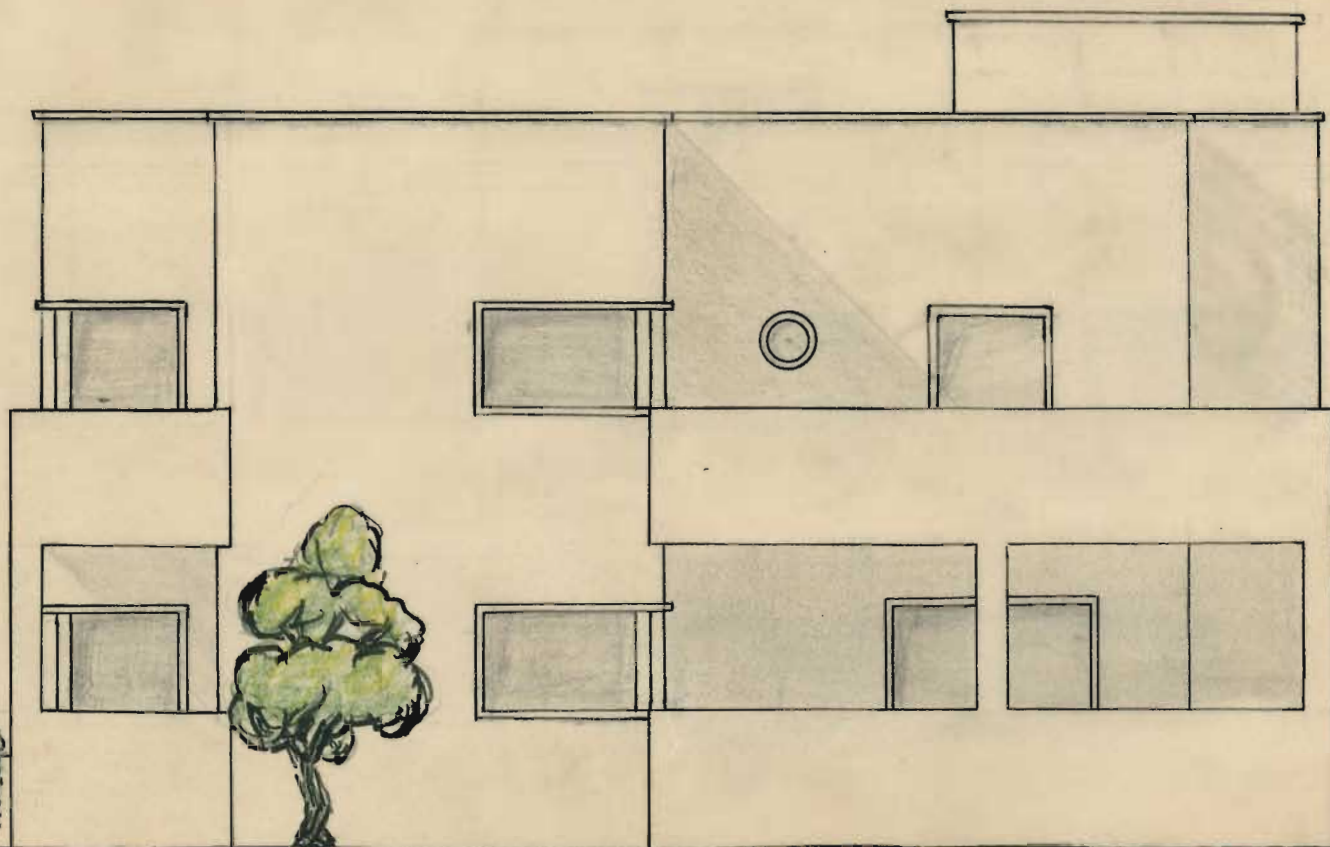


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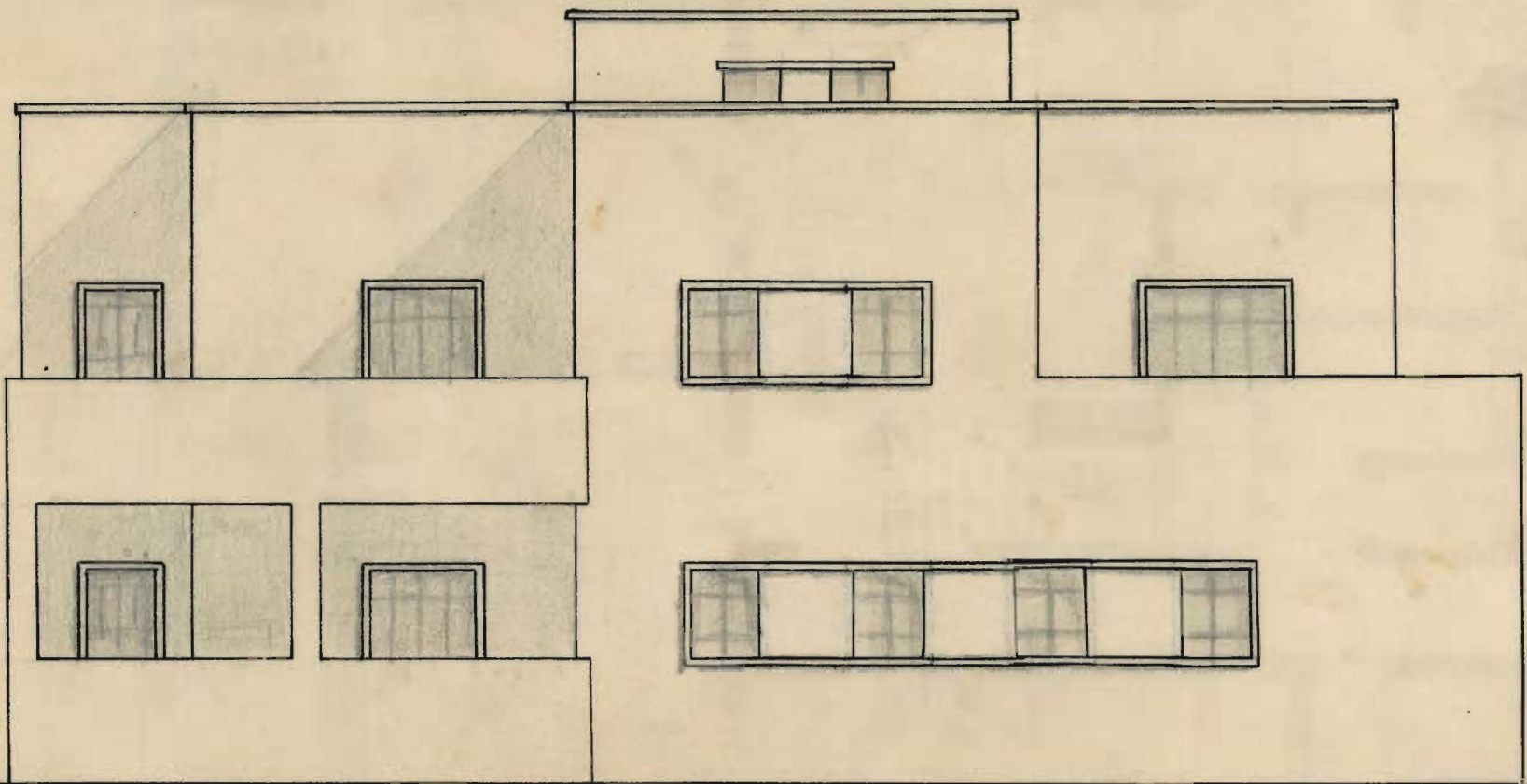
WEST FAÇADE



NORTH FACADE

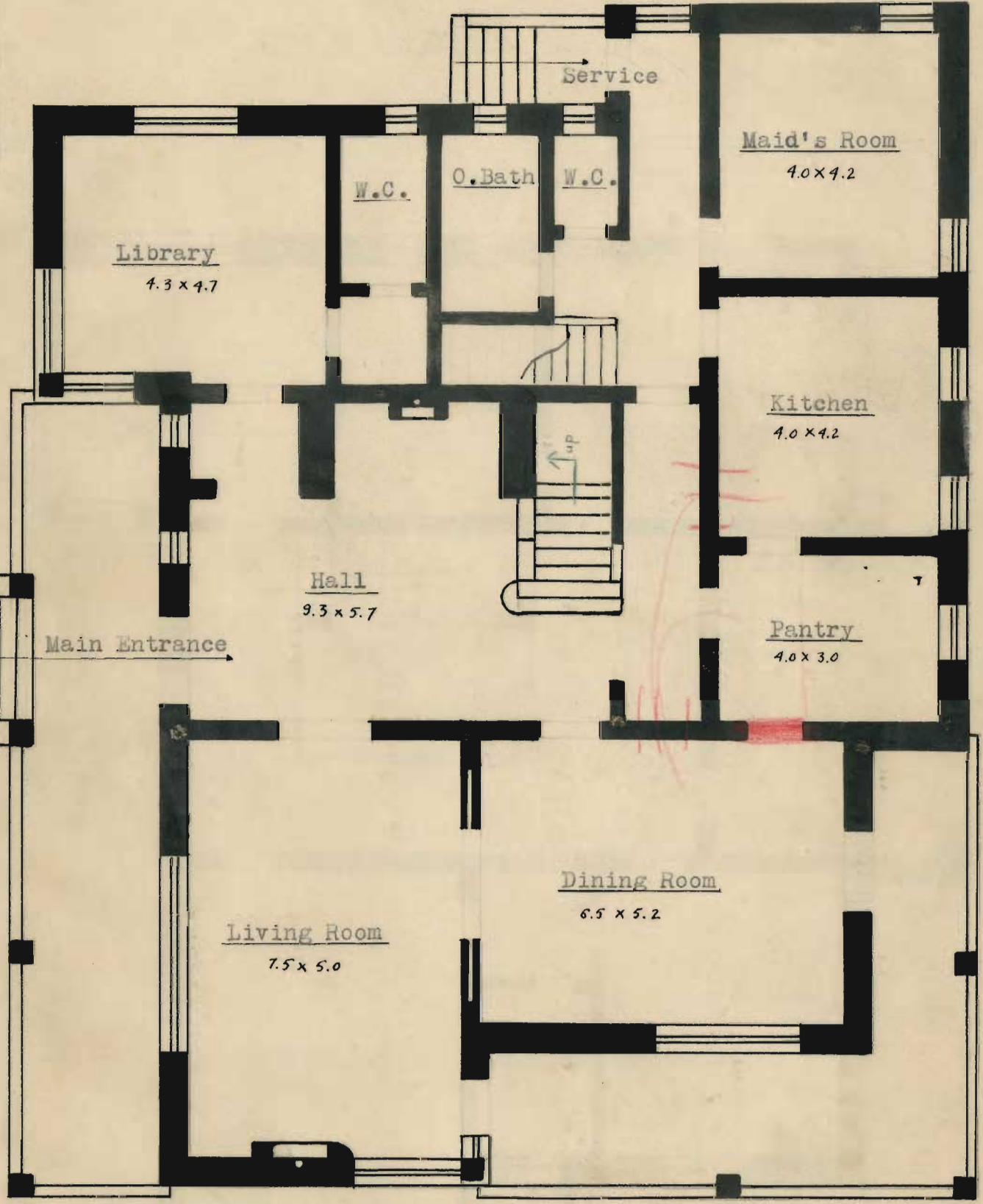


SOUTH FAÇADE



24.

EAST FAÇADE

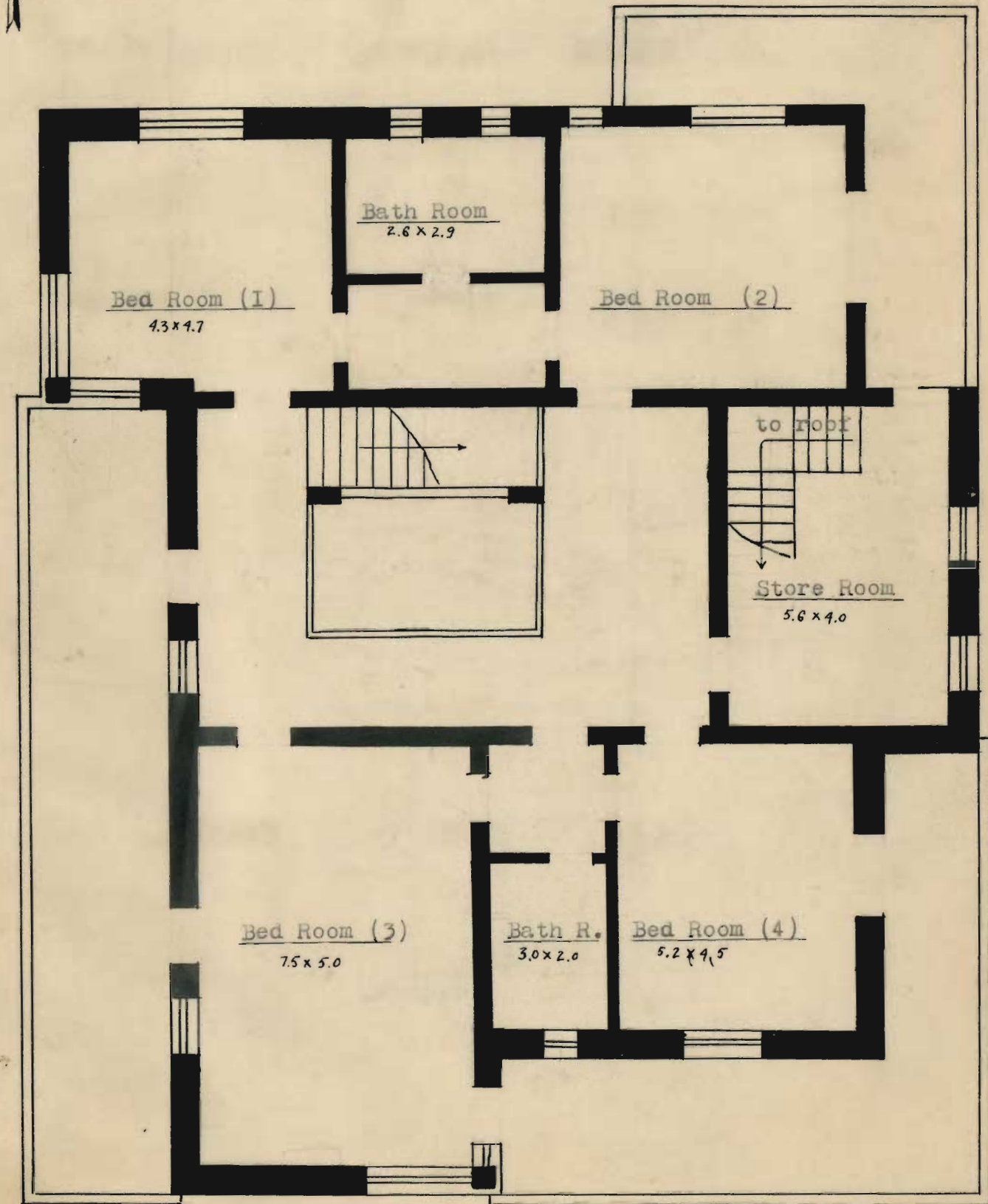


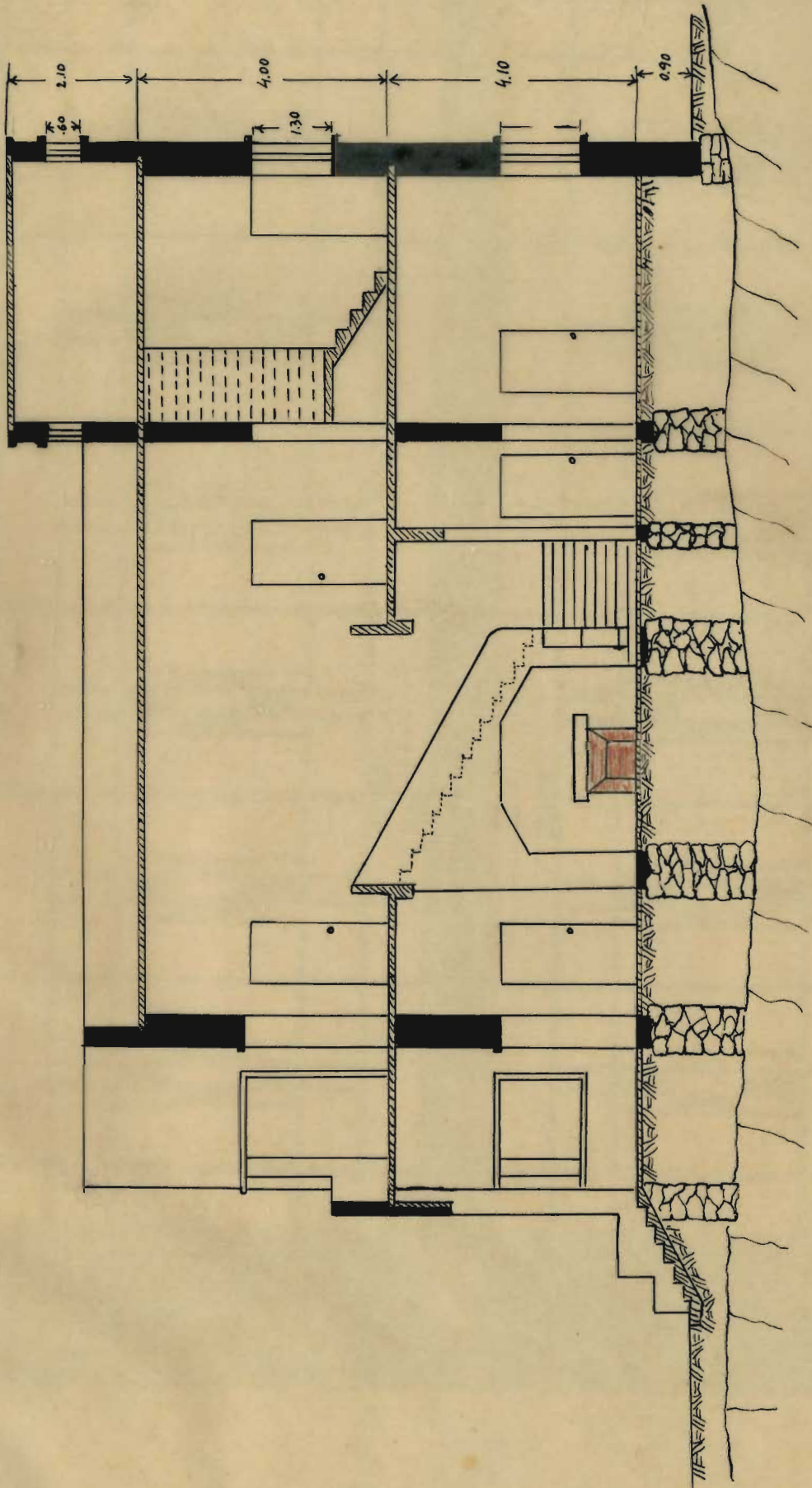
Plan of the First Floor

Scale: 1/100

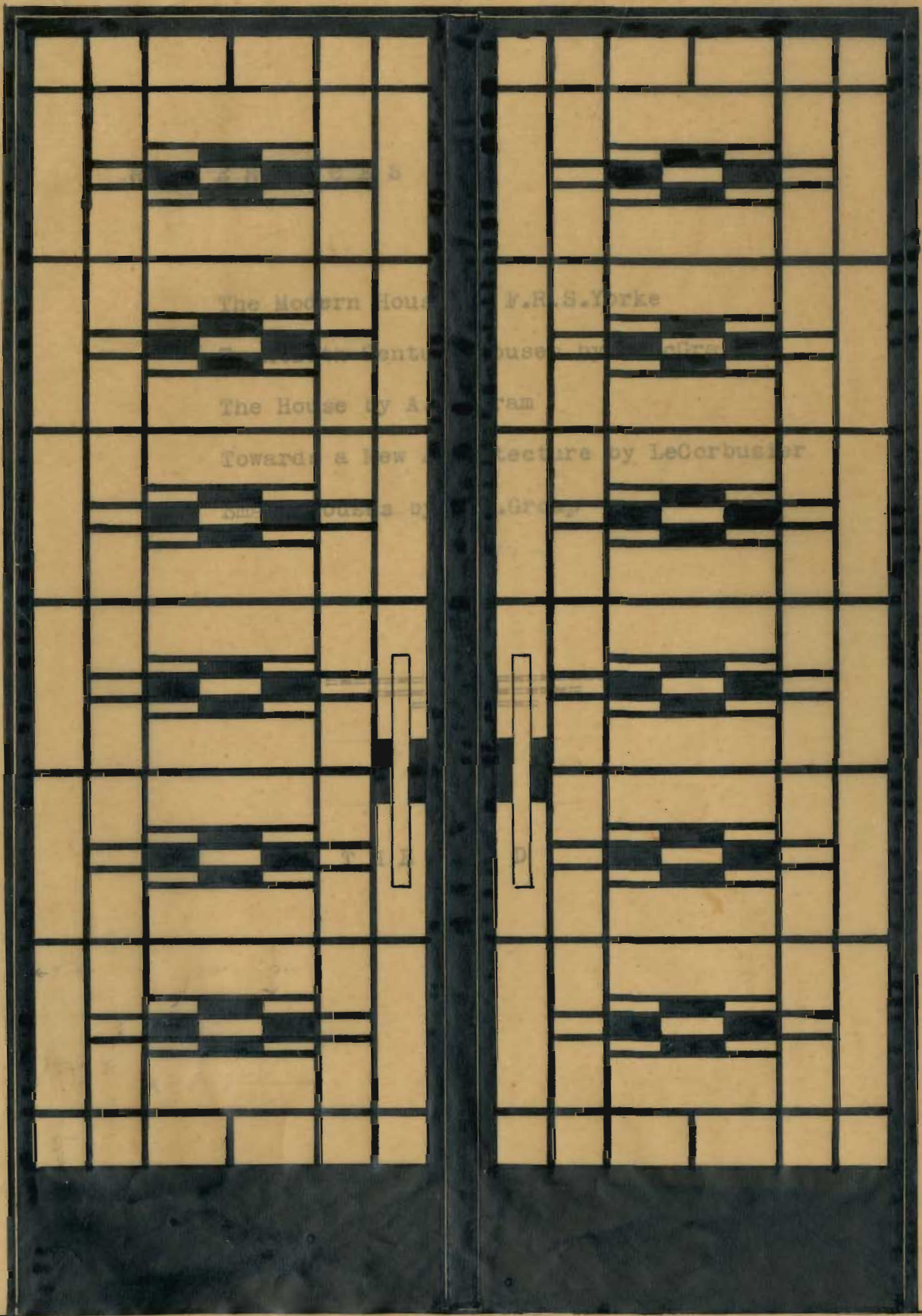
Plan of the Second Floor

Scale :1/100





SECTION EAST - WEST



The Modern House by F.R.S. Yorke
The House by A. G. ...
Towards a New Architecture by LeCorbusier
The House by G. ...

MAIN ENTRANCE DOOR

R E F E R E N C E S

The Modern House by F.R.S.Yorke

Twentieth Century Houses by R.McGrath

The House by A.Bertram

Towards a New Architecture by LeCorbusier

Small Houses by H.E.Group



T H E E N D

