Incidents of Image Travel

by

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Abstract

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The story of any work of architecture is in a certain sense the story of an architect's personal collection of physical images and associations. Inevitably, decisions about the form of a building are influenced, consciously and unconsciously, by a designer's own storehouse of particular physical references. These references or analogues from the physical world guide an architect during a design process in much the same way that certain remembered incidents or conversations might serve a novelist as he writes.

The purpose of my thesis is to identify a range of issues, relating to processes of defining habitable physical space, in order to make explicit some qualitative criteria which have been important to me for gathering certain of my own particular images and associations. I hope that by so doing I can intensify a relationship between form references and design as a means of increasing the effectiveness of a design effort. My assumption is that the capacity of a building to provoke positive associations in people is significantly determined by the variety, continuity and appropriateness of whatever analogues the architect has drawn into his decision making process.

A major part of this thesis is a design exploration of a commercial hotel complex on Long Wharf in downtown Boston. This exercise attempts to test the validity of explicitly incorporating particular physical references into an architectural project.

Thesis Supervisor: _____

Maurice Smith
Professor of Architecture

Contents

List of Illustrations

In any design exploration there is normally an ongoing interaction between those issues which grow out of the specifics of a given problem, i.e., the site program, etc., and those which derive from more general atttitudes and interests of the designer. In this exploration both types of issues play a role in defining criteria for selecting and interpreting particular references. Before going into the specifics of the site and program, it will be helpful to identify certain issues of formal organization which are basic to the development of my thesis.

1) In general, the examples I collected reflect a type of spatial ordering which is not controlled by or tied back to any single reference point. My assumption is that when a single point is effectively controlling an ordering of physical territory, one's options for exploring that space are severely restricted. I believe it is desireable to allow people to understand the space of a building by enabling them to move through it in a variety of unrestricted ways. Therefore, one criteria in selecting an initial set of references was that they illustrate instances where space had been organized so

that no single point was controlling paths of movement.

2) Just as options for moving through space can be minimized by a single point focus, they can also be restricted by rigidly self-contained boundary conditions. In an effort to intensify a wide range of options between access and enclosure, I was interested in finding physical examples which could serve as analogues for an additive field or fabric form of organization. This type of spatial ordering is characterized by an ongoing continuity of incremental relationships which are neither point controlled, nor defined by exclusive boundary conditions. I looked for references which reflected additive growth processes rather than ones resulting from subdivisions of self-contained boundaries.

3) Continuity in a field or fabric type of organization can be developed through the overlapping of space defining elements. My assumption is that places should at once define and be defined by both their built and unbuilt surroundings. A criteria for selecting certain references was that they demonstrate ways in which places are given form by a spatial overlapping of elements. This relationship can be described as a reciprocal condition, or a reciprocal continuity.

4) One of the ways by which a reciprocal continuity between places can be reinforced is by making space defining elements articulate particular places in a partial rather than

completed fashion. I believe people have simultaneous needs for both physical protection and outlook. When the boundaries of a place are completely contained, the possibility for outlook is minimized. Conversely, if there are no clearly defined boundaries at all, the option of being in a protected place is impossible. I was interested in finding examples of partial or open definitions which would help to establish a range of places, that allowed the possibility of many different interpretations. These interpretations would vary depending on relative needs for containment and outlook.

5) The particular directions of a fabric organization are also important. They make space legible in terms of orientation and principal paths of movement. Differences in direction, both laterally and vertically imply easier and more difficult ways of getting from one place to another. It is by relating to the principal directions of a given context that a building may begin to respond in a positive way to its surroundings. I looked for a variety of examples where clearly different directions had been established to deal with conditions of movement, orientation, edge definitions, etc.

6) Variations in the size and density of space defining elements are further ways of articulating differences between places. Perceptions of relative size variations in a building can provide clues as to how certain spaces might be used. Differences in the density of a fabric may suggest which places

Trees on a slope.

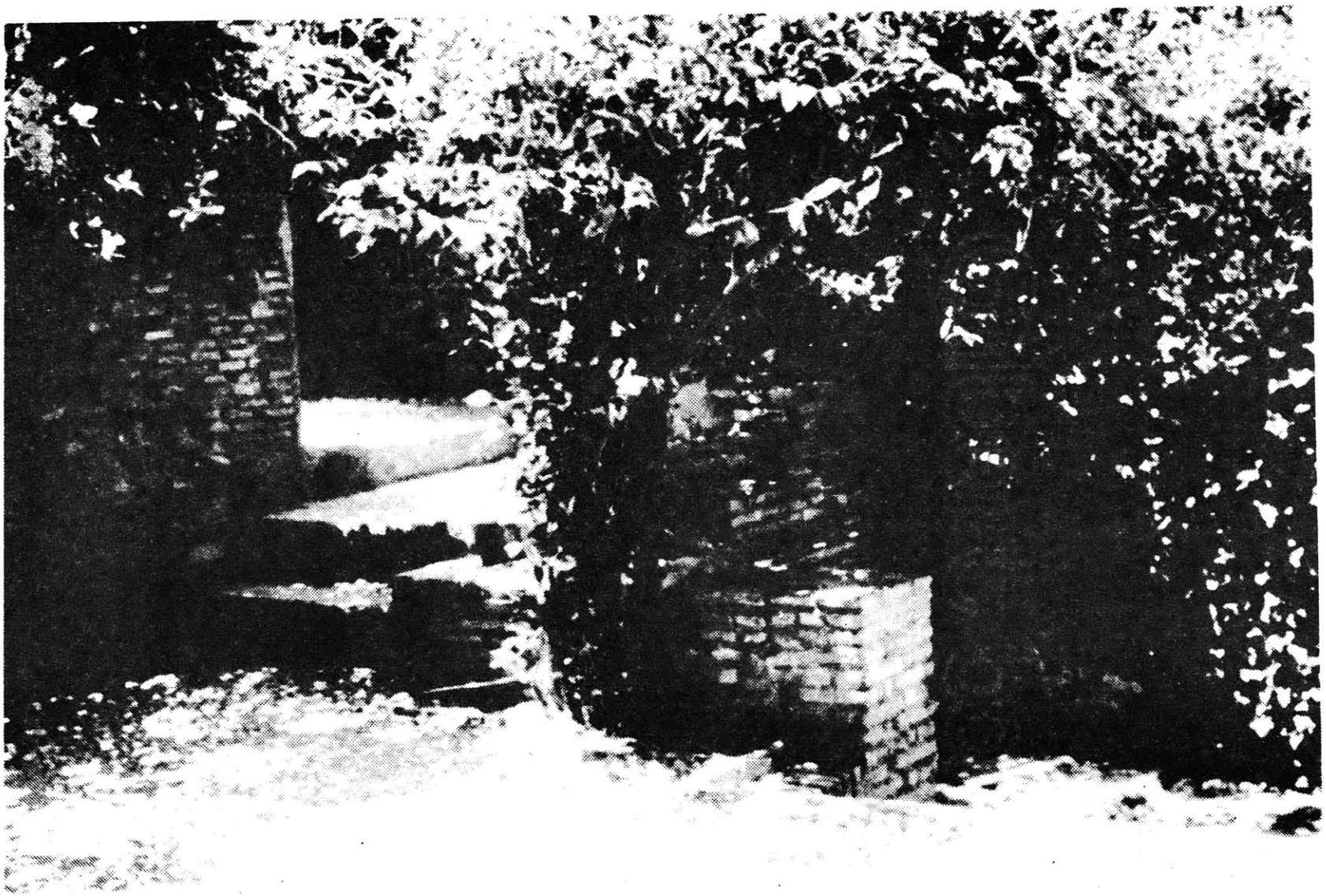
are more public or private by virtue of their relative accessibility. I wanted to find particular references which showed how such variations might be used to intensify the capacity of a fabric to accept a variety of particular interpretations.

The Chinese drawing of trees on a slope (p. 11) illustrates how a certain deployment of what is essentially an open linear framework can suggest an analogue for a three-dimensional spatial field. Its formal organization is generated neither by any exclusive boundary conditions, nor by any single point focus. The trees are organized into three clusters whose edges are made by a series of partial or open definitions.

These partial definitions are variations of U's, L's, and S's, which are among the most useful tools for articulating place containments. Their forms offer possibilities for both protection as well as outlook.

The clusters are passing or overlapping each other's territories in both the vertical and horizontal directions in a manner analogous to the classical yin yang symbol. This condition of overlap where the territory of one cluster coexists with the territory of another is characteristic of a reciprocal form of relationship. It is a fundamental way of establishing continuity in a field organization.

The articulation of the field of trees also begins to suggest primary and secondary "ways through." The variations

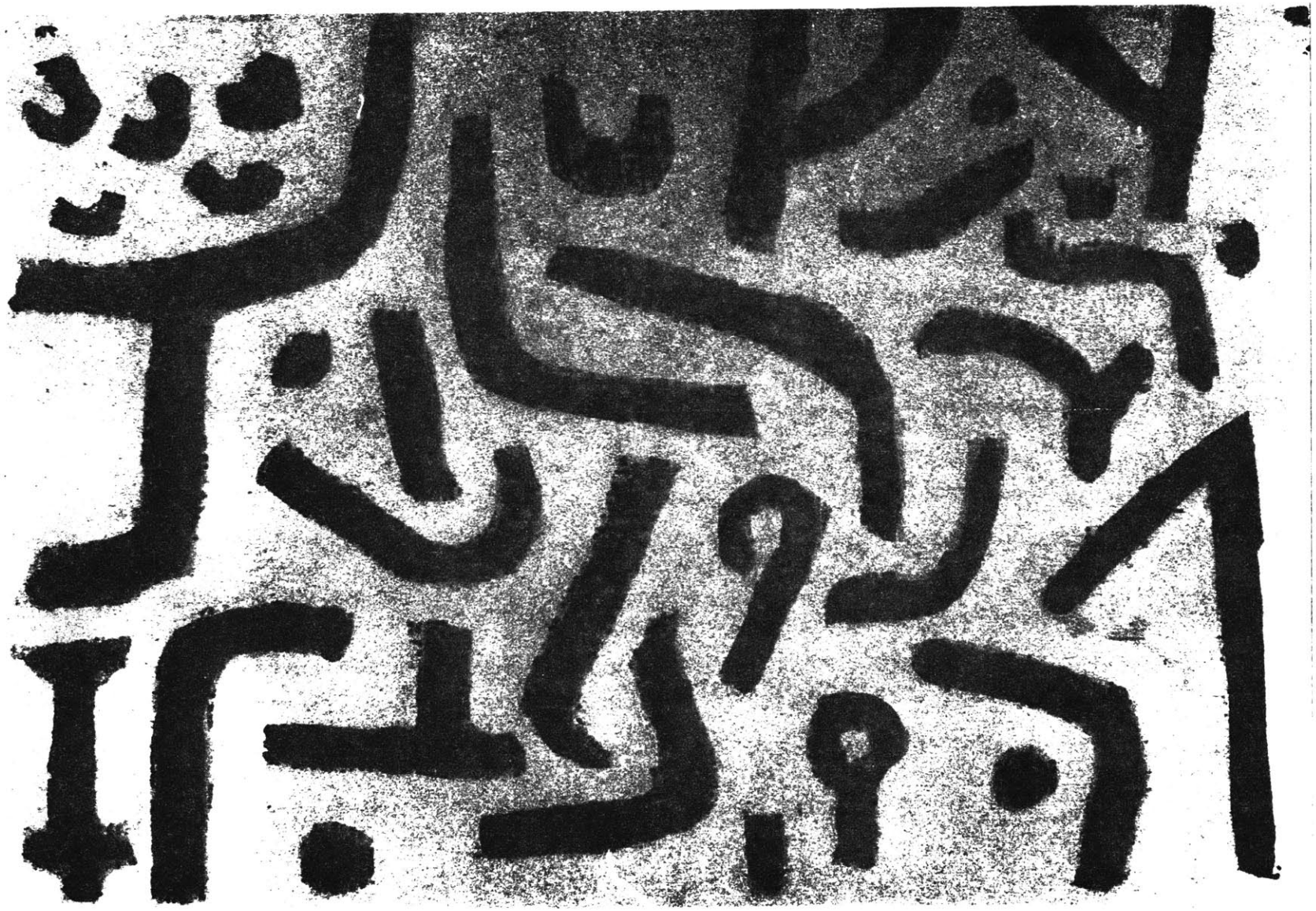


Steps in the garden of the Alhambra.

of relative size and density set up readings of which places within the field might be more penetrable than others. There is also a differentiation between a ground zone defined by the trunks, and an upper region inhabited mainly by branches and leaves. These upper and lower zones also relate in a reciprocal fashion. Furthermore, the direction of the trunks is predominantly vertical while the direction of the branches and leaves has a clear horizontal orientation. As a whole, the field of trees illustrates a variety of different associations related to partial containment, reciprocity, lateral and vertical directions, size, density and access; all of which represent major issues for my exploration.

The picture of steps and walls, overgrown with vegetation in the garden of the Alhambra (p. 13) illustrates in another way an interaction of partial containment and access. The zone of the open definition made by walls and vegetation in the right of the picture is defining and defined by a way through the space. One passes up the steps to the left and on into another territory only partly revealed. Similarly, in the landscape painting of the Ming Dynasty era (p. 15) an extraordinary range of partial definitions, made primarily by the continuous surface of the ground, describe a field of ongoing three-dimensional territory that extends beyond the boundaries of the picture itself. The space of the painting is ordered not by any single point focus, as in a Renaissance perspective, but rather by a series of interdependent relationships having to do

Landscape painting from Ming Dynasty.



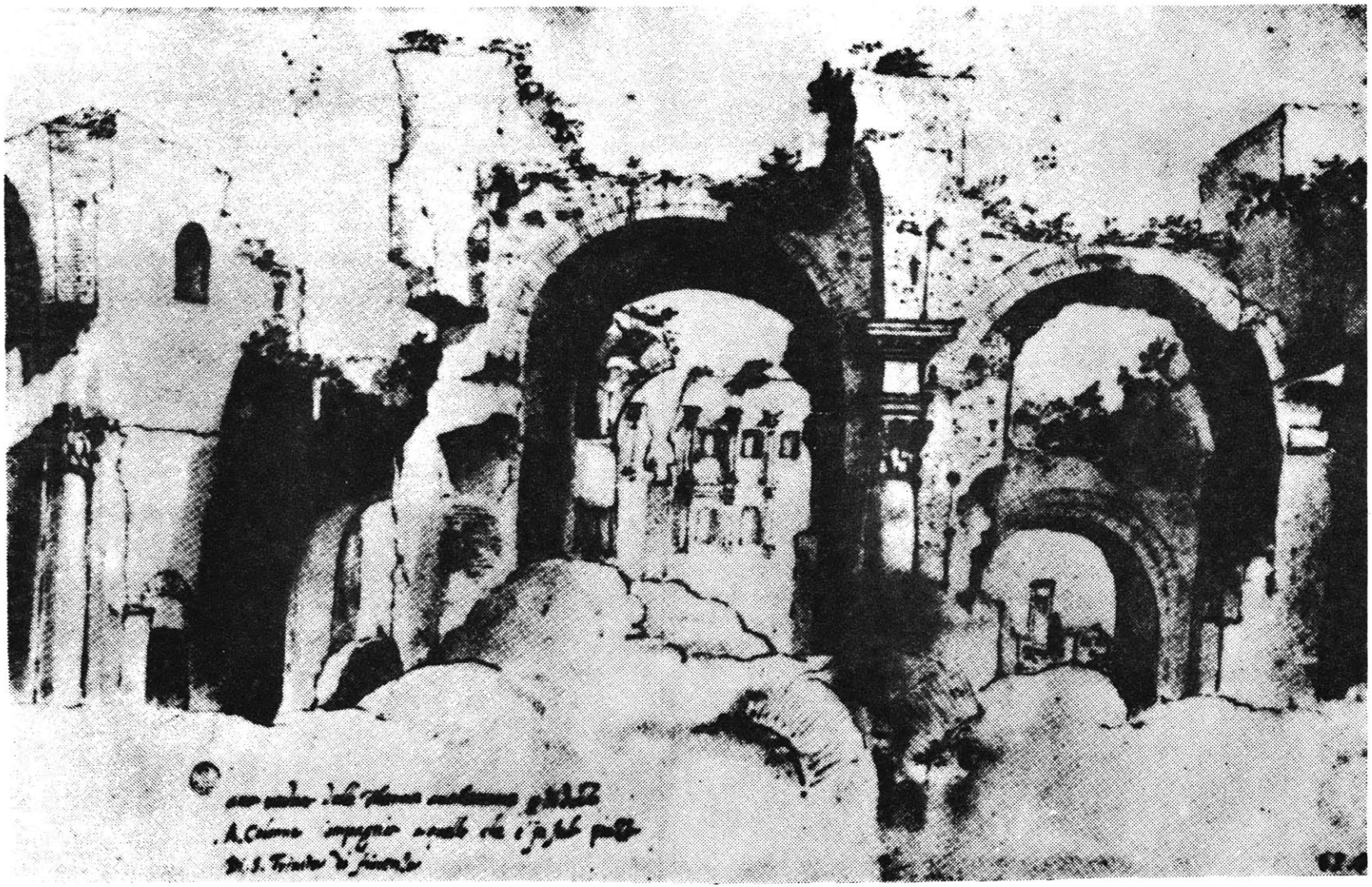
Paul Klee.

with one's association with size, distance, scale, direction, etc.

Some comparable concerns can be seen in a painting by Paul Klee (p. 16) where ongoing space is defined by an interaction of different partial containments, overlappings, sizes, and directions. Again one's associations are projected outside the edges of the painting. This reinforces an ordering of space based on a continuity of incremental relationships rather than a subdivided whole.

A type of reference from the built form world which sometimes illustrates certain aspects of a fabric organization is the ruin (p. 18). Unfortunately ruins are usually appreciated for the nostalgic evocation of what they once were, rather than for the physical qualities of space produced by their disintegrated state. As a transparent fabric of relationships a ruin offers a simultaneity of associations with different ordering systems seldom found in completed spaces.

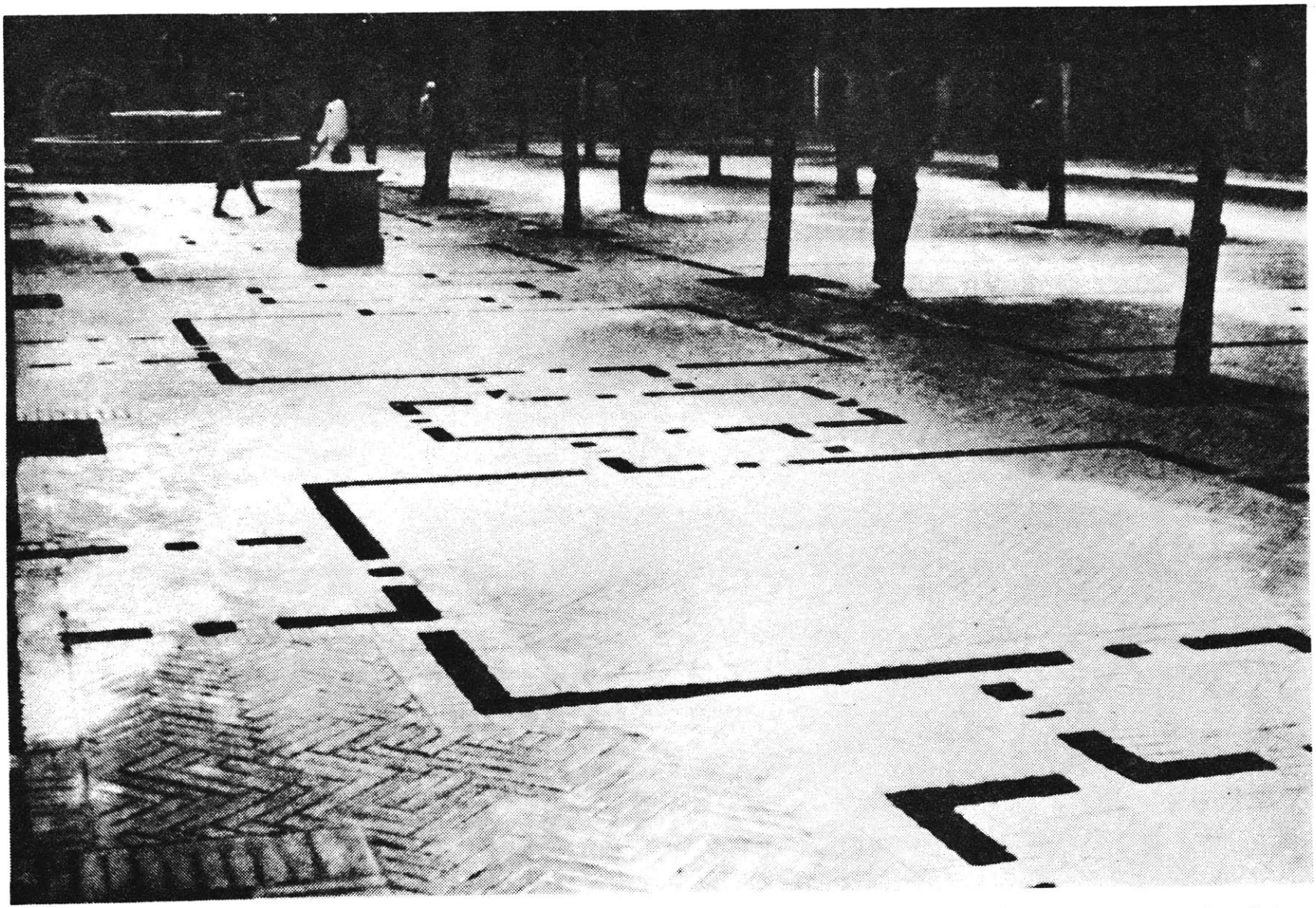
If any severe hierarchies or discontinuities existed before, the passage of time can occasionally transform them into a varied landscape of partial enclosures, unique views, unusual scale relationships, etc.; all of which celebrate the absence of restrictive point controls or exclusive boundary conditions. Instead one is able to perceive many different incremental variations of ongoing space. Although these qualities, found in certain ruins, are clearly not the result of anyone's intention, they nevertheless are analogous in their



Roman ruins.

fabric-like relational structure to the Chinese landscapes or the painting by Paul Klee.

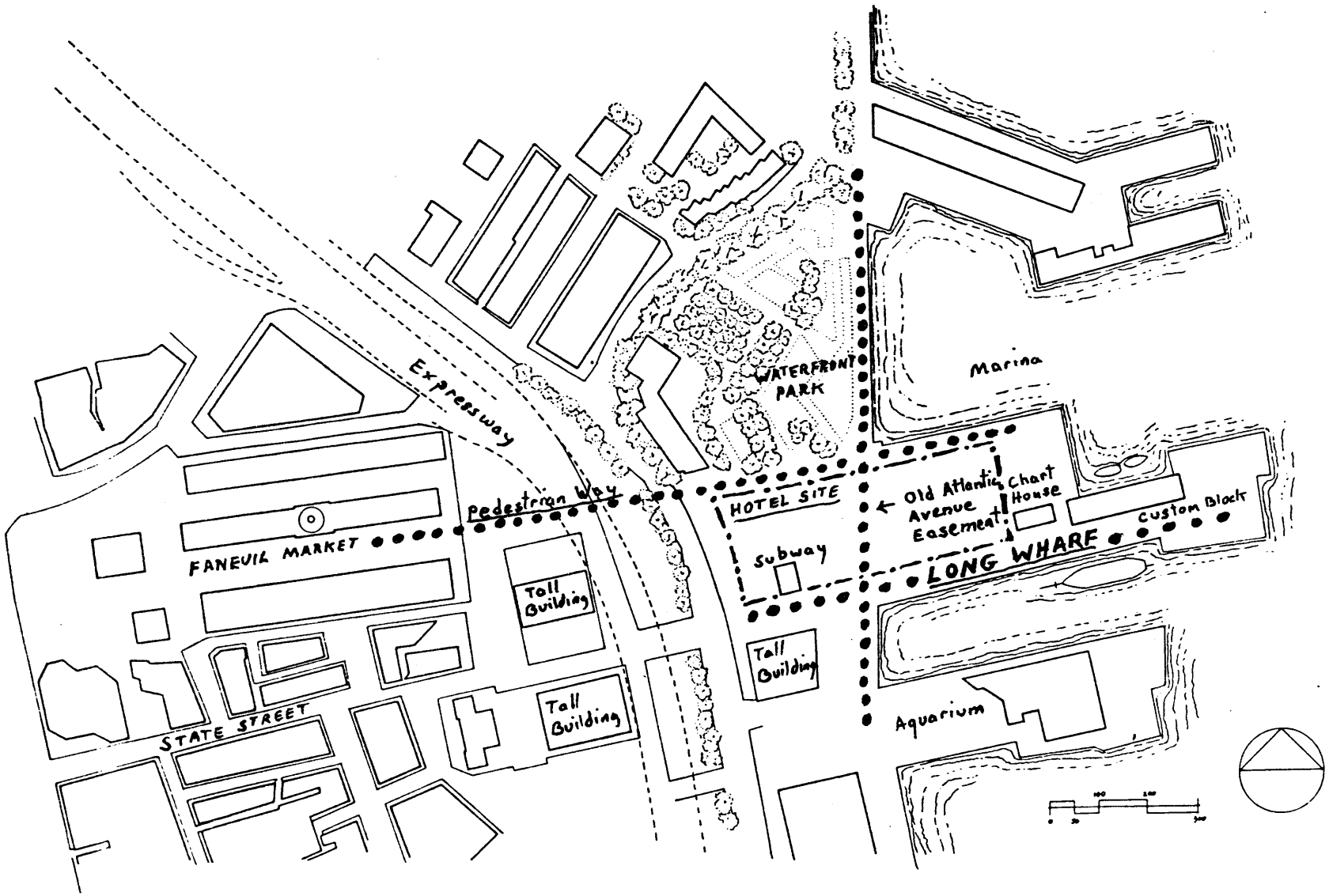
Even in instances where an organization is generated through a regimented addition of figurative elements, as in the court of the Mosque in Cordoba, it is possible to perceive a non-boundary controlled ordering process. The geometry of the individaul squares which organize the ground surface of the court is apparently self-contained. However, the way, in which the perimeter of each element is actually made out of additive segments, never allows the containment to be completely expressed. Instead there is always a condition of implied overlap between one element and the next, producing a varied and continuous fabric of relations. One's perception of this surface is neither guided by any single point focus, nor is it restricted by constantly completed containments.



Court of the Mosque, Cordoba.

The Long Wharf site, located on the edge of downtown Boston (p. 22), is a long, clearly directional area of land fill (approximately 600' x 280', 148,000 sq. ft.), lying along an east-west axis. Its northern edge borders on Waterfront Park and is aligned with a path leading directly to the Faneuil Hall Market. This path is the major source of pedestrians coming to the site. The southern edge is a continuation of State Street, leading directly to the farthest projecting point of the Wharf. The western portion of the site faces a group of high rise buildings, and the expressway, which I am assuming will either be taken down, or converted for some habitable use. In either case it will not be considered as a major pressure on the site. To the east lies the old chart house, the custom block building and views of the harbor. A major north-south pedestrian easement, a remnant of the former location of Atlantic Avenue, traverses the middle of the site.

The competition kit, given out by the B.R.A. only goes so far as to specify a luxury hotel of up to 300 rooms with appropriate eating, entertainment, athletic, and parking facilities. In addition the program calls for the ground level



Long Wharf and surroundings.

to be developed as an intensive zone of commercial activity, including shops, restaurants, bars, professional offices, meeting rooms, etc.

The following uses and approximate square footages were assumed as the principal programmatic elements for the enclosed space of the hotel.

--rentable ground floor and second floor space (for shops, bars, restaurants, professional offices, etc.)	250,000 sq.ft.
--200 transient guest rooms (@400 sq. ft.)	80,000 sq.ft.
--dining and lounge facilities for transient guests	5,000 sq.ft.
--kitchen	2,500 sq.ft.
--25 permanent resident apartments (@1500 sq. ft.)	37,500 sq.ft.
--swimming pool	5,000 sq.ft.
--locker facilities	2,000 sq.ft.
--dance rehearsal studio	3,000 sq.ft.
--day care center	2,000 sq.ft.
--craft workshops	2,000 sq.ft.
--exhibition space	5,000 sq.ft.
--banquet hall	3,000 sq.ft.
--kitchen	2,000 sq.ft.

--bar		2,500 sq.ft.
--ballroom		4,000 sq.ft.
--game room		3,000 sq.ft.
--auditorium		5,000 sq.ft.
	total	410,000 sq.ft.
--parking		225 places on one underground level

These are the major design objectives, reflecting my interpretations of the specific conditions of the program and the site. They formed the basis for selecting particular physical references which guided the design of the hotel.

1) to organize the site as a varied, three-dimensional field whose principal direction follows the east-west direction of the site. This would reinforce the major directions of pedestrian movement along the wharf and would correspond to the way wharf buildings of the area relate to their sites. It would also maximize the most advantageous solar orientation.

2) to develop the ground level primarily as rentable commercial space for shops, bars, restaurants, professional offices, meeting rooms, etc.

3) to establish a generous reciprocal continuity between the space of the north and south sides, in order to avoid producing a separation of the site into a discrete front and back.

4) to offer a variety of options for people to move through

the built and unbuilt zones of the site in terms of different outdoor and covered or colonade-like ways of distribution. Five major pedestrian ways at ground level include:

-a recuperation of the former Atlantic Avenue, as a major north-south pedestrian easement, which traverses the center of the site in an axial manner.

-a continuation of the virtual path, extending from Fanueil Hall Market, along the site's northern edge.

-a continuation of State Street along the southern border, which extends to the farthest projecting point of the wharf.

-a deflection or redirection of the path coming from Faneuil Hall into an implied diagonal way across the the site to the southeast. This would provide open access to internal portions of the site, as well as make a way for people coming from Faneuil Hall (the major flow of pedestrian traffic to Long Wharf), who enter the site at its northwest corner, to get to the south side and thereby the end of the wharf.

5) to offer a variety of use definitions at the building's edges for outdoor cafes, extension of shops, etc. In particular the building should define a major public open space on the north side of the site, which would have direct access to Waterfront Park. A generous reciprocal edge

condition between a part of the building and a part of the public park would intensify the richness of this unique adjacency. In addition the building should open itself in plan and in section as much as possible to the south, in order to define a range of other outdoor places, which would benefit from a southern exposure, as well as provide views of the harbor.

6) to have the form of the hotel respond in some way to the difference between the geometry of the former Atlantic Avenue and the geometry of Long Wharf.

7) to incorporate a range of different building methods, in order to offer a variety of conditions, relating to the differences between places for public distribution, privacies, outlook, etc.

8) to locate the highest portions of the building in the western and northern zones of the site, in order to maximize views, and the benefits of orientation for the site as a whole. In addition this would maintain a large scale appropriate to the big open spaces of the park and marina to the north and the high rise buildings to the west. Furthermore, by terracing down to the south, a range of upper level outdoor use spaces can be made at the same time as the scale is reduced to one more appropriate to the chart house and custom block to the southeast.

9) to restrict continual ground level vehicular access to the site by locating the principal drop off point, access to underground parking and main lobby in the southwestern corner of the site. This would keep the greatest portion of the site free of vehicular traffic. Service access to the rest of the site would be along the north and south edges, either late at night or early in the morning, as is done in the Faneuil Hall Market.

10) to organize the upper regions of the hotel in terms of two differentiated zones, linked by a continuous public way at an intermediate level. One would include those activities, restricted to short-term guests of the hotel; eating facilities, lounges, private rooms, meeting rooms, etc. This zone would have its principal access via the main lobby facing the western edge of the site.

The other zone would include apartments for long-term residents of the hotel. In addition, it would have studio, workshop space, athletic facilities (swimming pool, exercise room, locker facilities, etc.), and a day care center all of which would be open to the general public. This zone would have its principal access from a lobby, located in a northeastern region of the site.

11) to connect these two regions by continuous public way with access to the upper outdoor terraces. This reference

level would contain a range of entertainment facilities which would be for the short-term guests, and long-term residents, as well as for the general public. These facilities would include dining room, ballroom, bar, game room, and exhibition space.

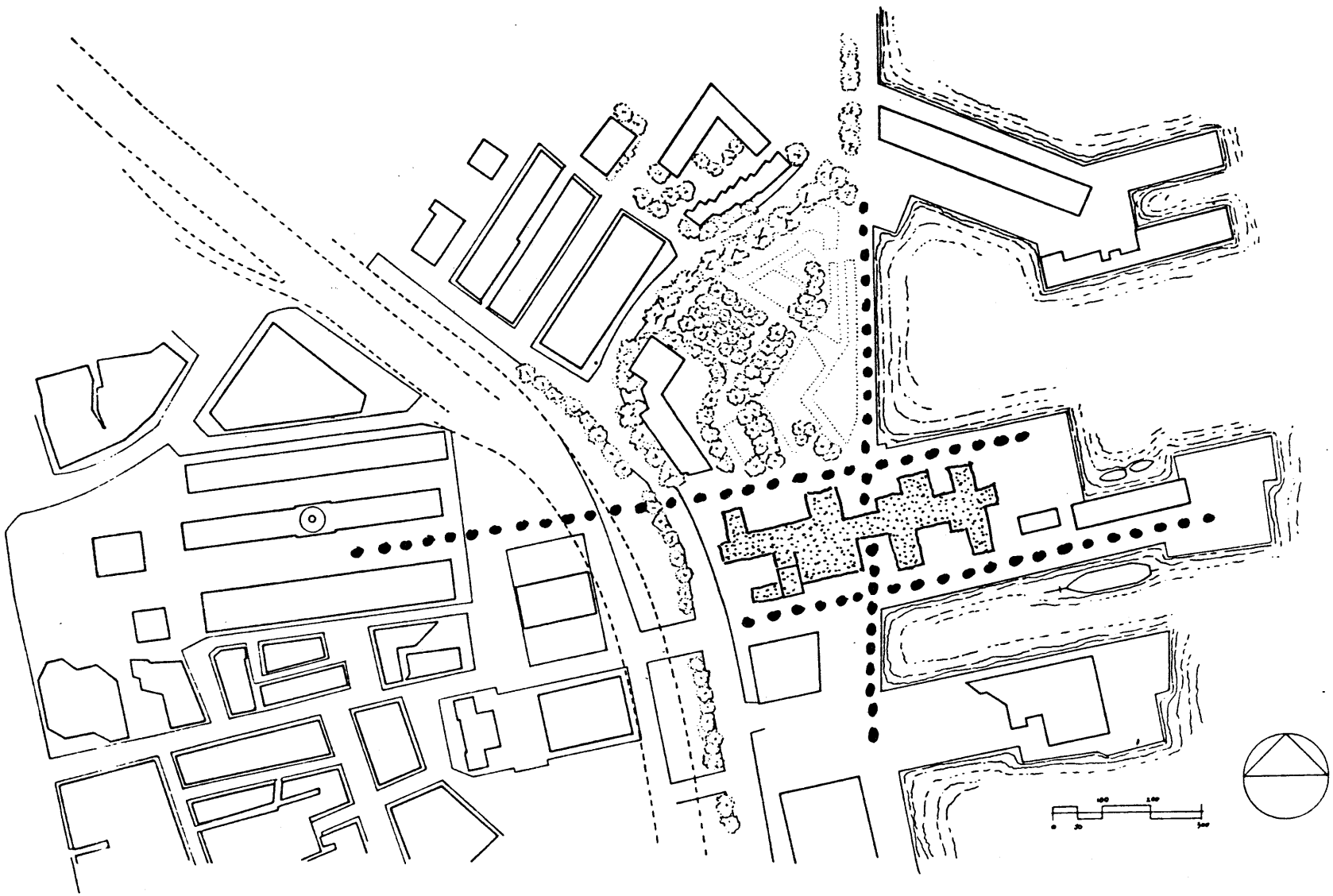
12) to provide an auditorium or large collective meeting place which could be used both by guests of the hotel and the general public.

4

The highly directional form of most wharves tends to generate a pattern of pedestrian movement, characterized by a linear distribution back and forth along the edges. This is certainly true of Long Wharf. However, the site's approximate 300 foot width, together with the nature of the program, necessitated, from the outset, a search for some form of organization, which did not literally cover the site with enclosed structure. This would leave open space only at the outer edges, in the manner of the more typically narrow wharf buildings of the area. In the process of looking for different examples of how built and unbuilt spaces could be additively deployed in relation to linear paths of movement, three alternative diagrams for the site organization were considered.

One type was an organization defined by a central east-west spine, which could be extended laterally from certain points out toward the edge of the wharf. The physical references for this type of organization included Teotihuacan, Ixkun and Nakum, two ancient Guatemalan towns, Bakema's project for an extension of Amsterdam and Sauve, a medieval French village.

In Teotihuacan (p. 32) a central axis of immense

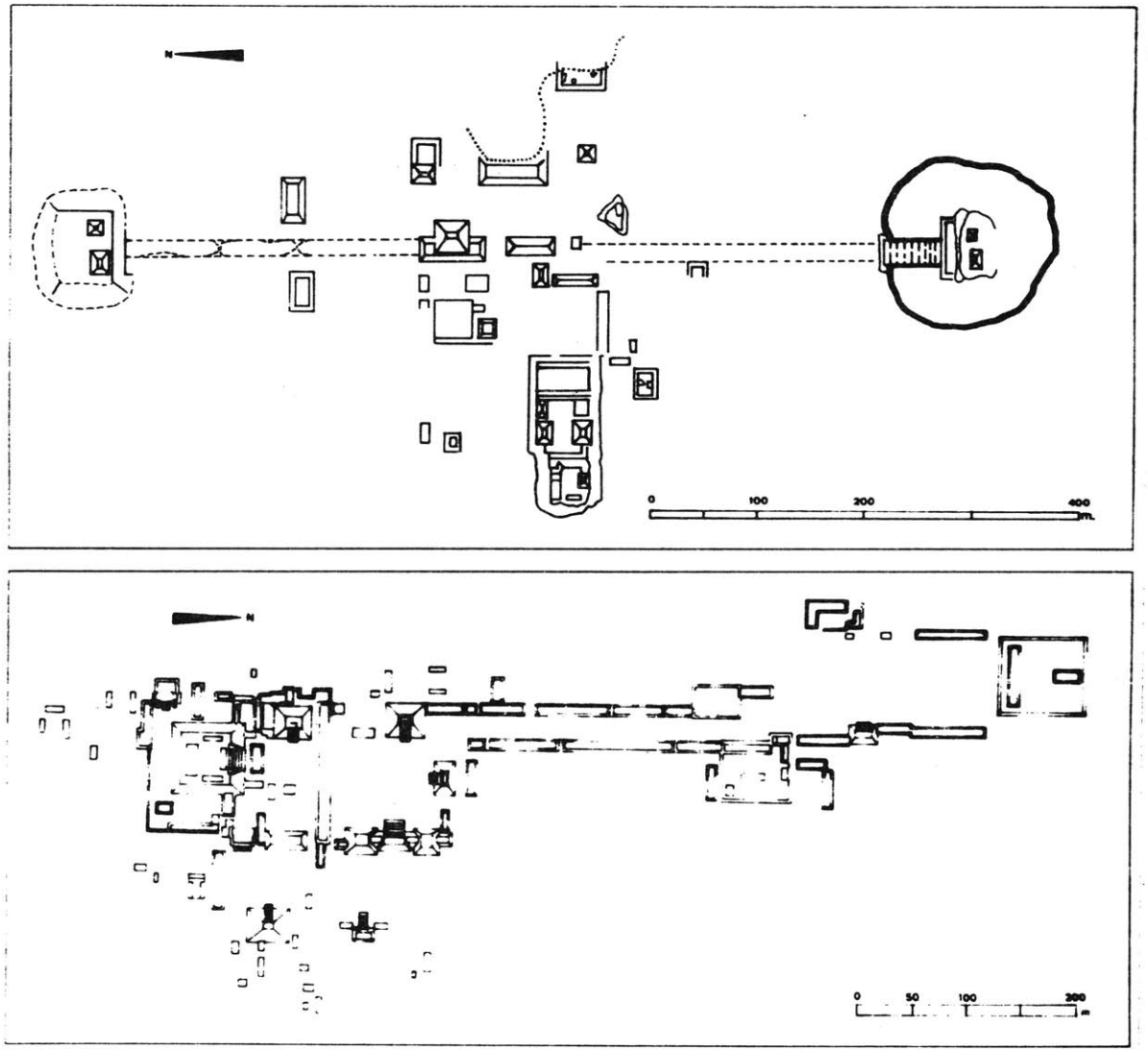


Spine organization diagram.

Teotihuacan.

proportions operates as the primary spatial organizer. The axis is doubly loaded in an asymmetrical manner by clusters of object-like elements. These clusters define particular differences along the axial route. The individual clusters are often articulated very figuratively by means of biaxial symmetries, size repetition, etc. However, the relationships between clusters are usually not controlled by any self-contained geometry or axial alignment apart from that of the central avenue. The complex, as a whole, is not defined by any exclusive boundary conditions, although it is evident from the severity of the central axis, as well as the totally controlled geometry of the main structures, that such organizational tools were certainly part of the builders' vocabulary.

An interesting feature of the plan organization is the extent to which an extraordinary number of non-directional square elements are additively deployed to generate a field, which nonetheless has clear primary and secondary directions of growth. The immense number of size variations, from the small cell-like elements to the gigantic pyramids, is also fundamental to reinforcing a reading of the plan as continuous fabric, rather than a single point controlled organization. A range of differences not only in sizes, but in edge conditions is also evident. Note the changes in the boundary conditions on the four different sides of the great central pyramid, from very self-contained on the side opposite the axis, to very open



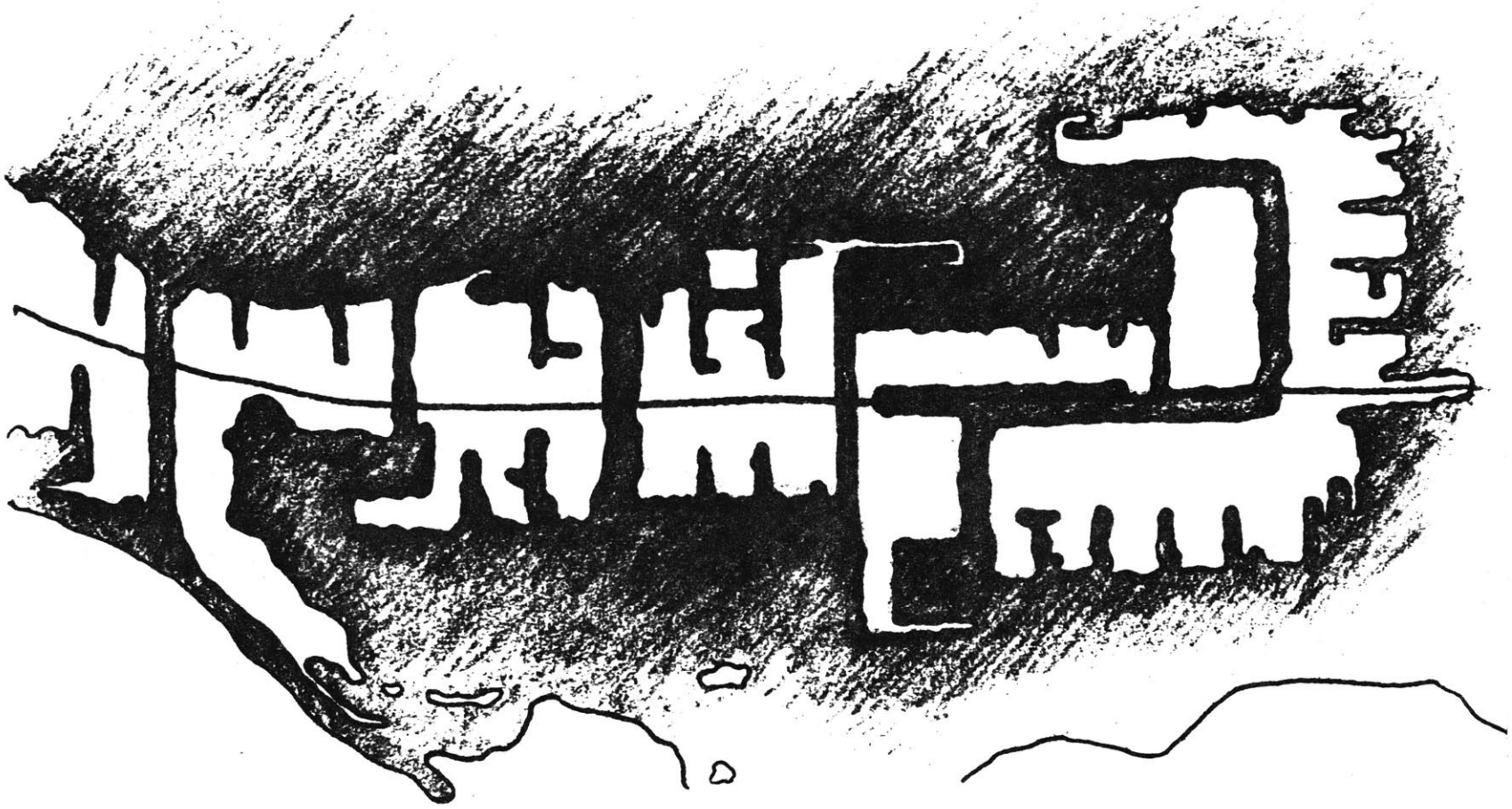
Ixkun (top), Nakum (below).

on the adjacent side.

A comparable use of a primary central axis is found in Ixkun and Nakum (p. 34). In Ixkun (above) the axis is terminated by symmetrically aligned objects, while the center of the path is defined not by a single space, but rather by a field of different objects. In Nakum the axis is terminated in two plaza-like spaces. Of particular interest is how the center of the northern plaza is shifted west of the axis, while the southern plaza's center is located to the east, thereby allowing the built structure to define territory outside itself in a reciprocal manner. The order of Nakum is less intensely hierarchical than that of Ixkun. This results both from its asymmetry, as well as from its continuity of spatial definition, which is unlike the classical tripartite organization of Ixkun.

A theme of a central spine and incremental growth is again evident in Bakema's project for an extension to Amsterdam (p. 36). Here elements of man-made ground are built out into the harbor along a central linear transportation route. As with Teotihuacan, Bakema's project is a kind of linear stub, accessed at one end, rather than a line which is accessed at some central point. The form is a reflection of that condition, expanding to define more territory at the terminating end of the spine.

It is interesting to note the variety of ways in which the water relates to the edges of the project; the way

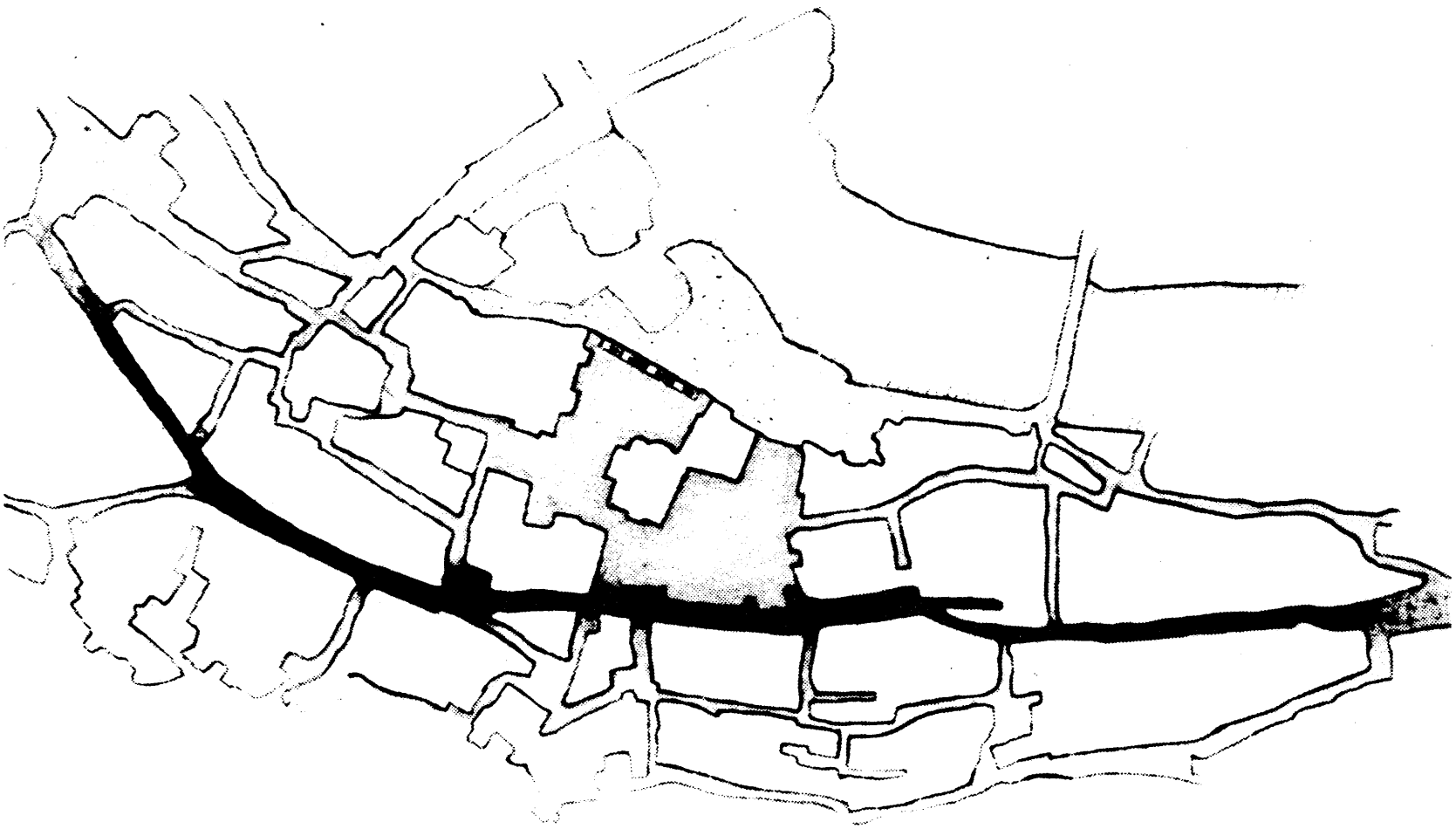


Bakema's project for the extension of Amsterdam.

it penetrates through the zone of the land forms, marking alternative water routes. If one were to read the land forms as enclosed space and the water as outside space, this would be an interesting diagram for how outside distribution might provide access to internal regions of a building, as well as through passage.

In Sauve, a medieval French village (p. 38), built along a river, there is a principal street, which operates as a kind of main spine. From this major street public plazas and secondary streets are organized. Unlike the previous examples, the distribution in Sauve is both actively defining and defined by the form of the buildings. As in many linear European towns, the main street moves along the contours of the ground and passes through a principal plaza, which serves as the town's major collective space. Here, as is normally the case, the church and town hall are located. One of the particularly interesting features of Sauve is the way in which the space of the plaza is partially defined by an open edge to the southeast, which provides both direct access down to the river, as well as an outlook over the valley.

Attempting to organize the Long Wharf site around a central spine, I found two major difficulties. First, while a spine seemed as if it could be satisfactory in terms of the internal organization of the hotel, it left connections with the context unresolved. Its direction terminated in an open



Sauve.

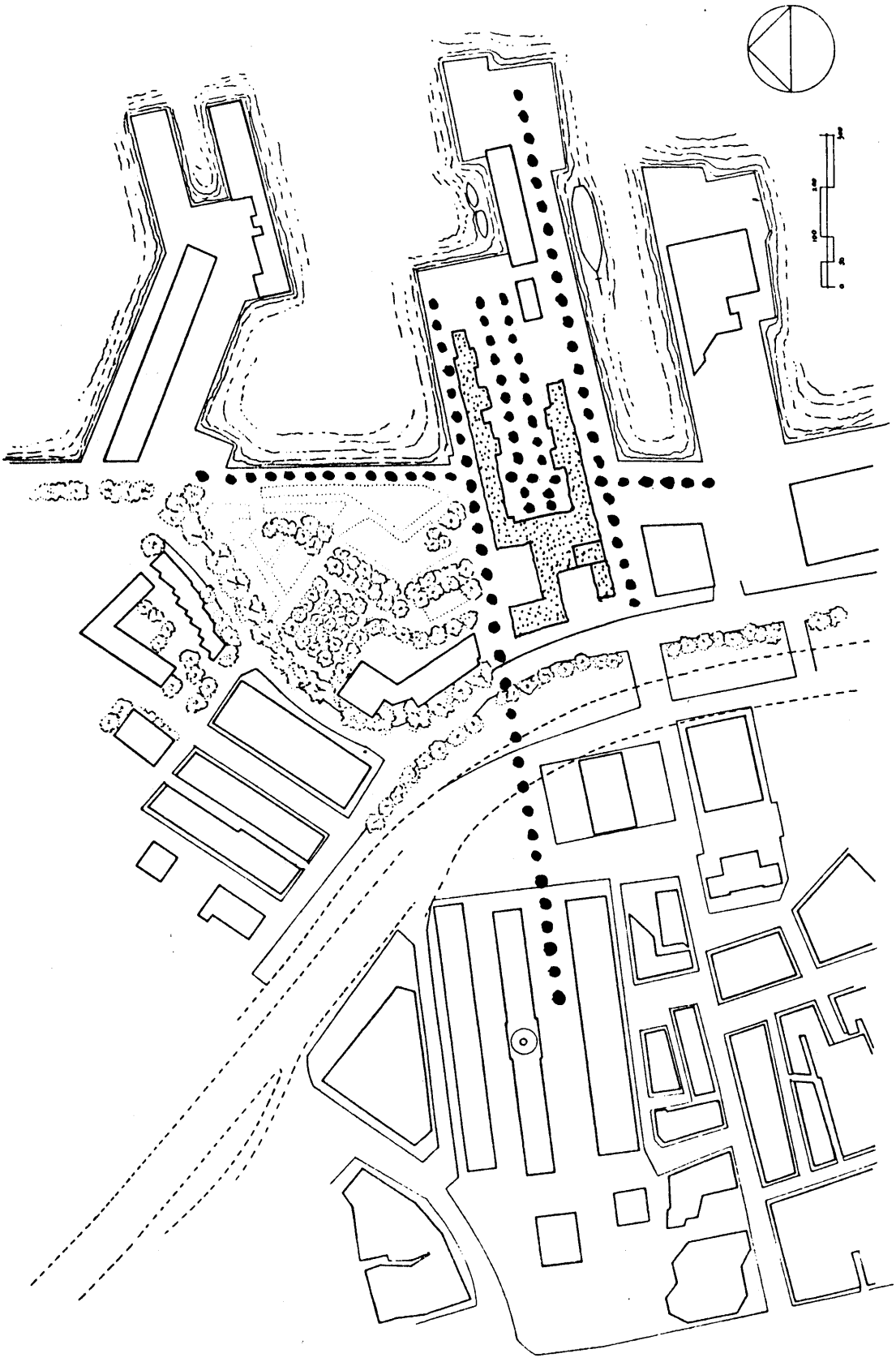
space opposite the Chart House, which seemed purposeless, or unconvincing as the arrival point for such a strong direction. Of course, one could have developed some kind of special place at that point to deal with the directional force of the spine. However, I felt that this would still fail to resolve a condition of the building's main distributional force, pointing towards a place, which had no outstanding significance for the context as a whole.

The other major deficiency of the central spine was that it effectively minimized, rather than reinforced, the intention of establishing a generous reciprocal continuity between the northern and southern regions of the site because it emphasized such a clear center line division between the two. Moreover, the diagram was not satisfactorily responding to the major point of pedestrian entry to the site, namely the northwest corner. Nor did it offer any particular way for moving from the main entry point of the site to the termination of the wharf. The end point, as in any peninsula, is a very special place, a place one particularly wants to experience, both for its unique quality of outlook, as well as for the special sensation of being surrounded by water.

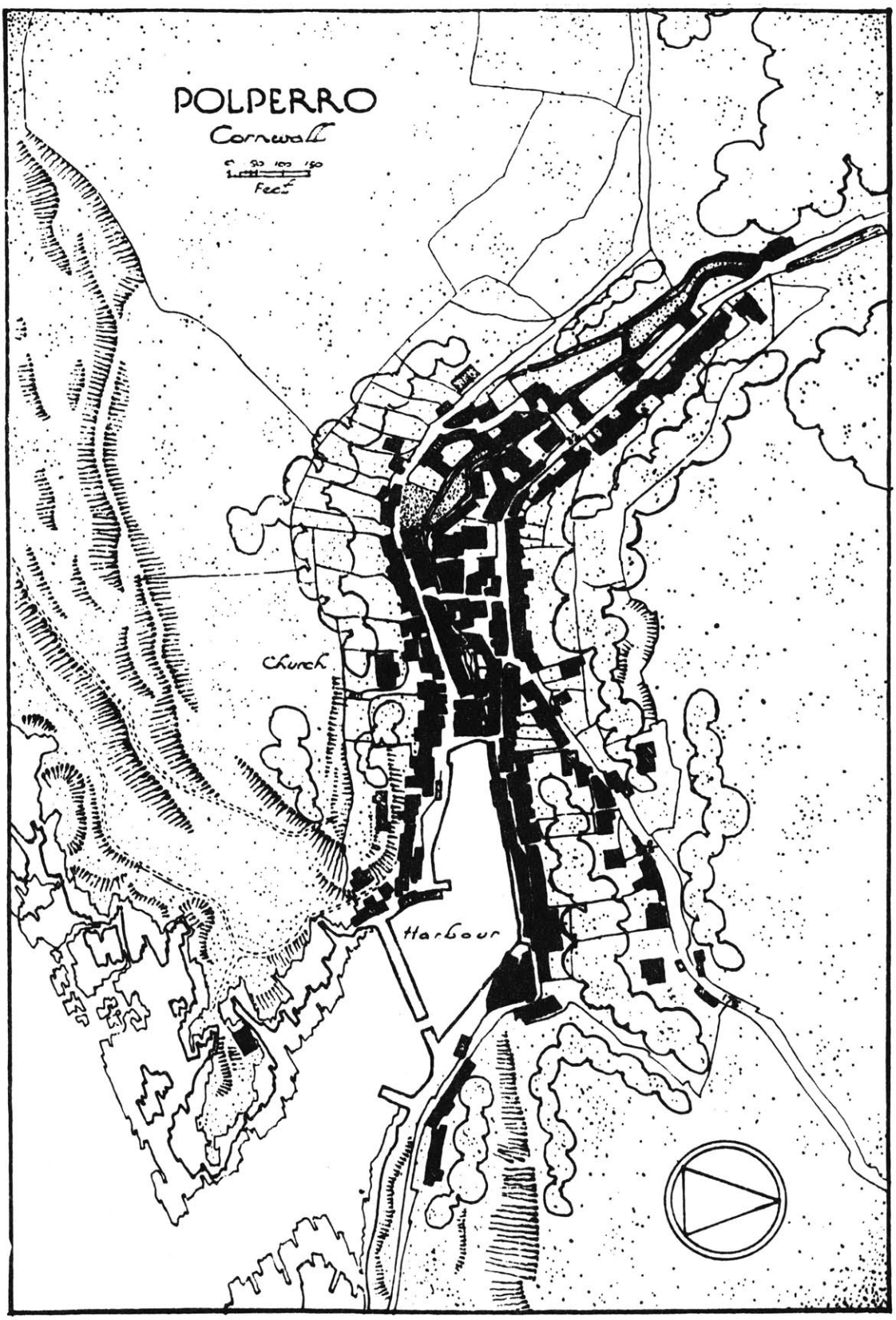
Another approach to the site organization was, rather than think in terms of building from the center outward toward the edges, to first establish a hard outside edge condition and build inward. This would leave the center of the site open as a kind of harbor-like space, open to the east. Two references were particularly helpful in this diagram; Polperro, an English harbor village (p.42), and Aalto's project for the Levekusen Cultural Center (p. 43). Both are clearly directional linear organizations, characterized by a large collective open space, defined by two fingers, extending from a major built collective zone.

An interesting feature of Polperro is the resolution of the two slightly shifted directions of the fingers, coming together at the inner most point of the harbor. There is an implied spatial passing of the two different geometries, which defines a public territory at the water's edge. The difference between the two fingers is also reinforced by the north one having an internal, double loaded street access, while the south one is a single loaded situation, facing the water.

A similar concern for differentiating two finger-like



Harbor organization diagram.


POLPERRO
Cornwall
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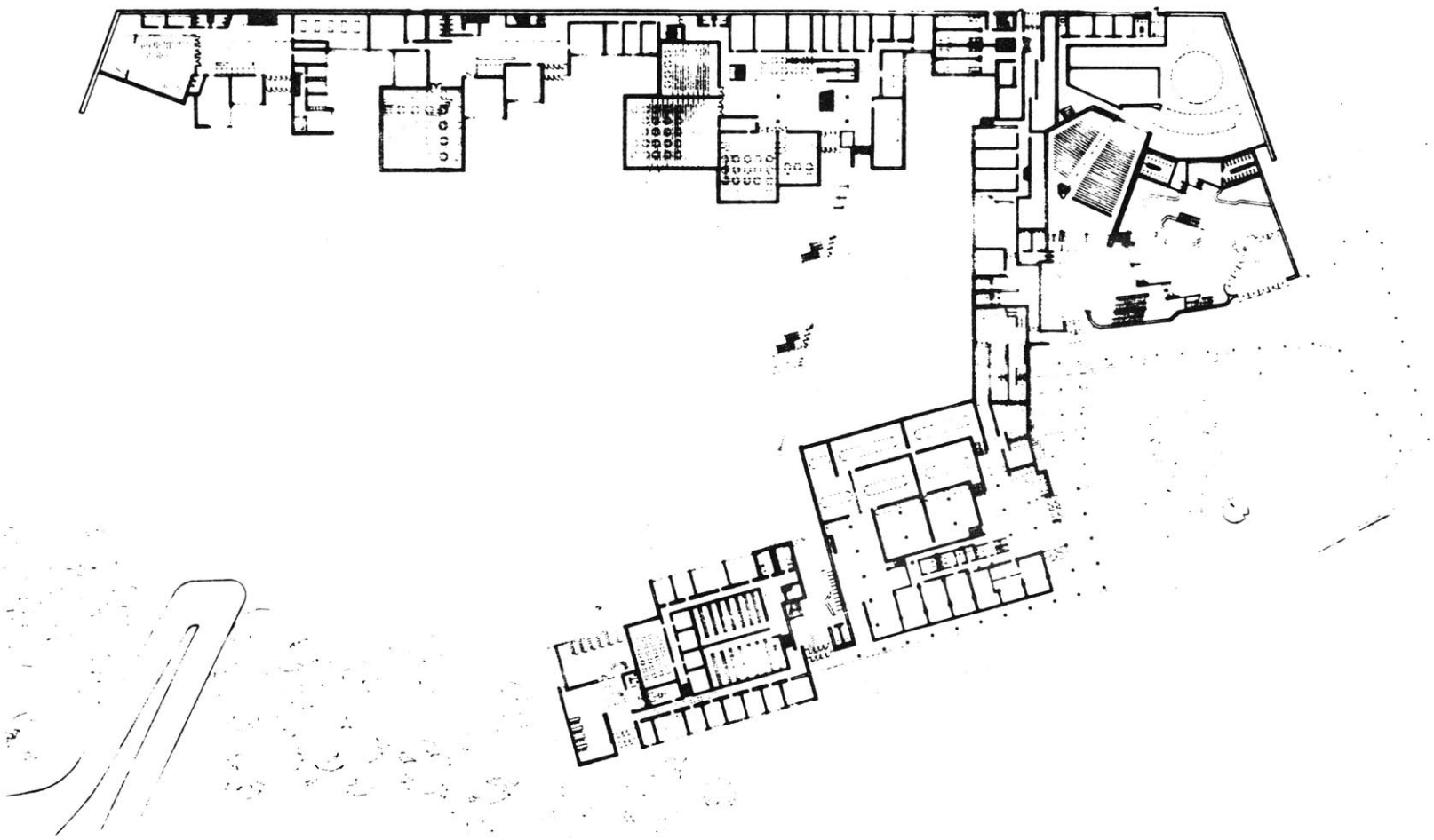
Feet
Church
Harbour



Levekusen Cultural Center.

buildings is evident in Levekusen. The longer finger has a very articulated internal distribution. It also has a range of edge conditions, providing many different points of shared access to the open space. The shorter finger is defined by two rock-like elements having separate entries. The geometry has also been shifted to reinforce this difference, as well as to produce an outward opening condition for the outdoor space. It is also interesting how Aalto effectively joins the two by making an entry situation with a large rock-like zone, containing collective uses, auditoriums, etc.

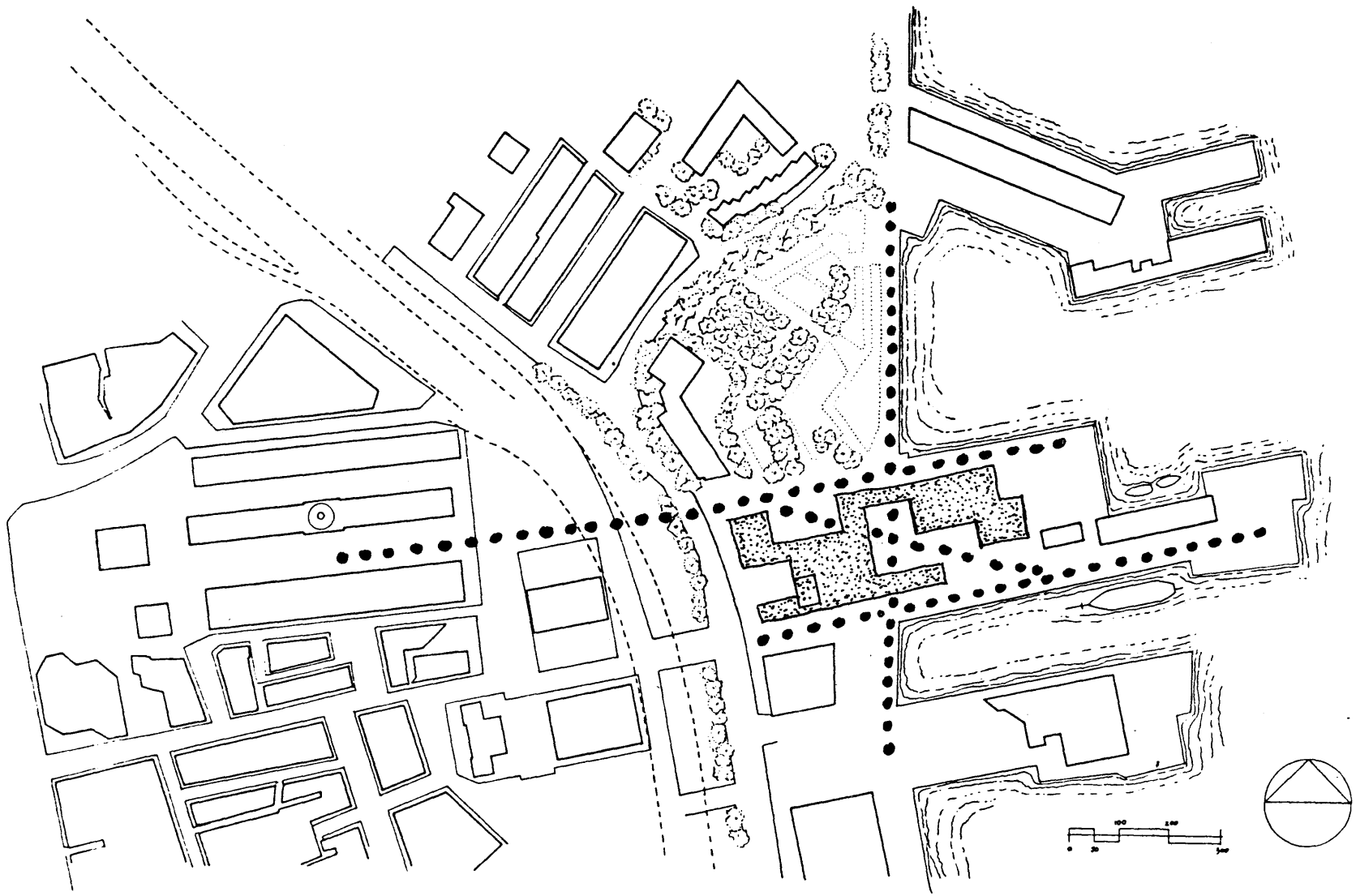
This type of organization seemed reasonable for Long Wharf in so far as the principal access to the hotel proper did want to be at the western end of the site. Also, a large collective harbor-like space seemed to be a less singular gesture than the spine since it could act as both open access and public place. I thought of it as a large outdoor room analogous to a village green, opening to the water.

It could have been satisfactorily developed to deal with a range of edge conditions, as well as most of the listed objectives. The difficulty with the harbor idea was again contextual. It still left unresolved the important issues of the reciprocity between the north and south sides and the option of a continuous pedestrian way diagonally across the site.

In order to deal more effectively with the problems of the earlier diagrams, an organization was developed, which immediately established a diagonal path across the site, as a means for locating built and unbuilt spaces.

Certain non-architectural references, which I found helpful in developing this diagram included a Chinese painting of garden rocks and a Japanese branch painting. As in the Chinese landscapes mentioned earlier the garden rocks painting (p. 47) reflects a range of additive reciprocal relationships, which are not self-defining, but rather dependent on one another for their existence and form. Each of the three principal rocks defines a zone of space, which coexists, by virtue of a physical overlapping, with the zone of its neighbor. The space of the painting is thus understood as a continuity of overlapping territories. If one were to imagine this painting as a plan organization with the rocks representing enclosed space, the territory around the rocks could be interpreted as open passages, or public ways through a field of mutually defined enclosures, or privacies.

This form of implied diagonal movement seemed a reasonable way of structuring a generous continuity between the



Diagonal path organization.

Chinese painting of garden rocks.

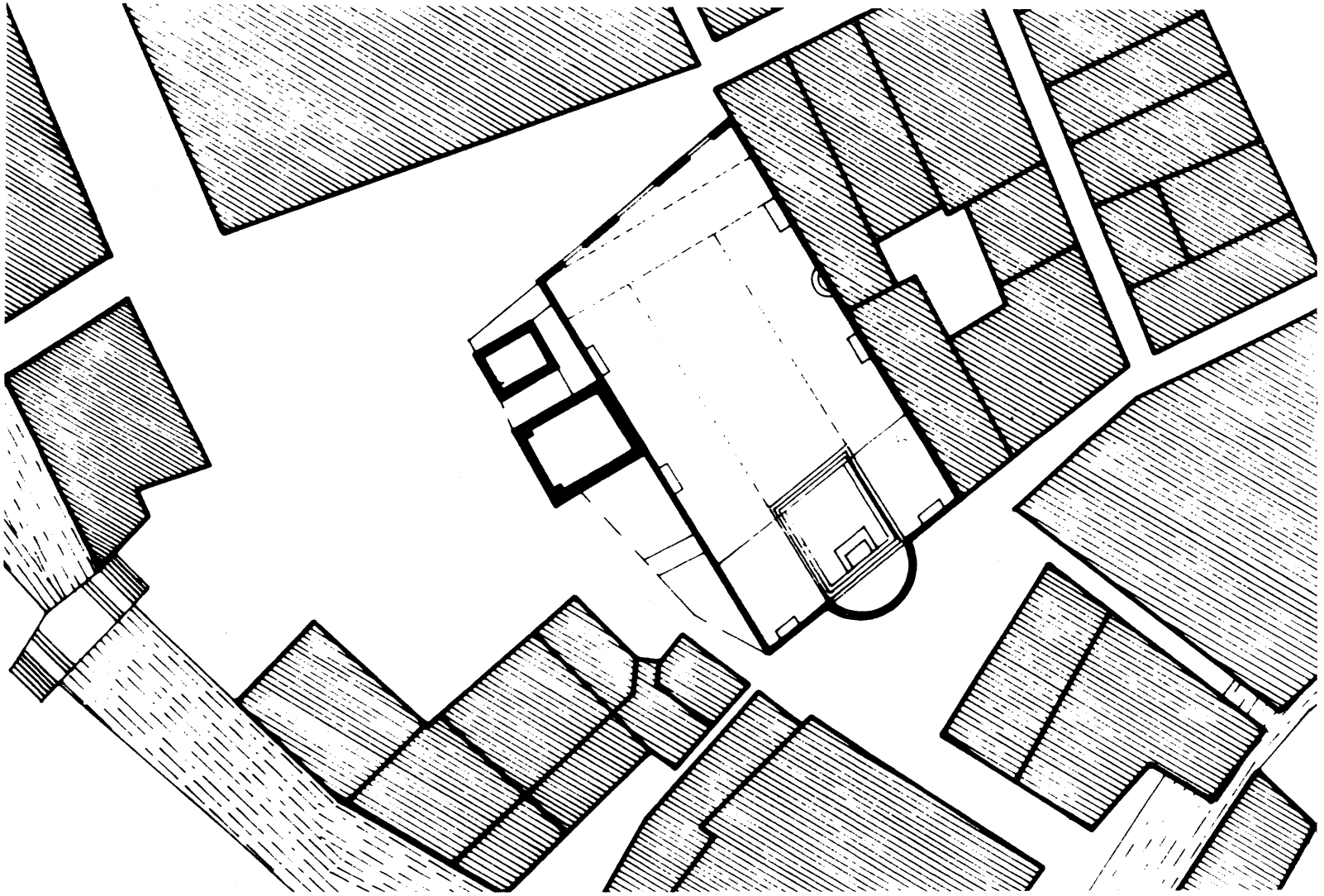
Japanese painting of branches.

north and south regions of the site. A path defined in this manner could not only provide a connection between the most intensively used entrance to the site in the northwest corner and the end place of the wharf, it could generate along its route a variety of open spaces which could be used as outdoor cafes, extensions of shops, etc.

The Japanese painting of branches and leaves (p. 48) is also about space understood in terms of direction, additive growth, and reciprocal continuity. In developing diagonal outdoor paths through the site, the example of the branches served as an analogue for dealing with a covered distribution through the building. The covered path could provide certain places of direct access to the outside, as a type of colonade and in other places be totally internalized, depending on local circumstances.

The intention was to offer options of protected, as well as "out in the open" ways of moving through the zone of the building. A branching reference for the protected distribution made sense, (1) because of the linear nature of the site, (2) because of the need for continuous covered access to all of the ground level rentable space, and (3) because of the need for the building's form to respond actively to a variety of contextual conditions, i.e., access, orientation, open space definition, etc.

Another interesting aspect of branching is what happens at the points where directions change. There is always a



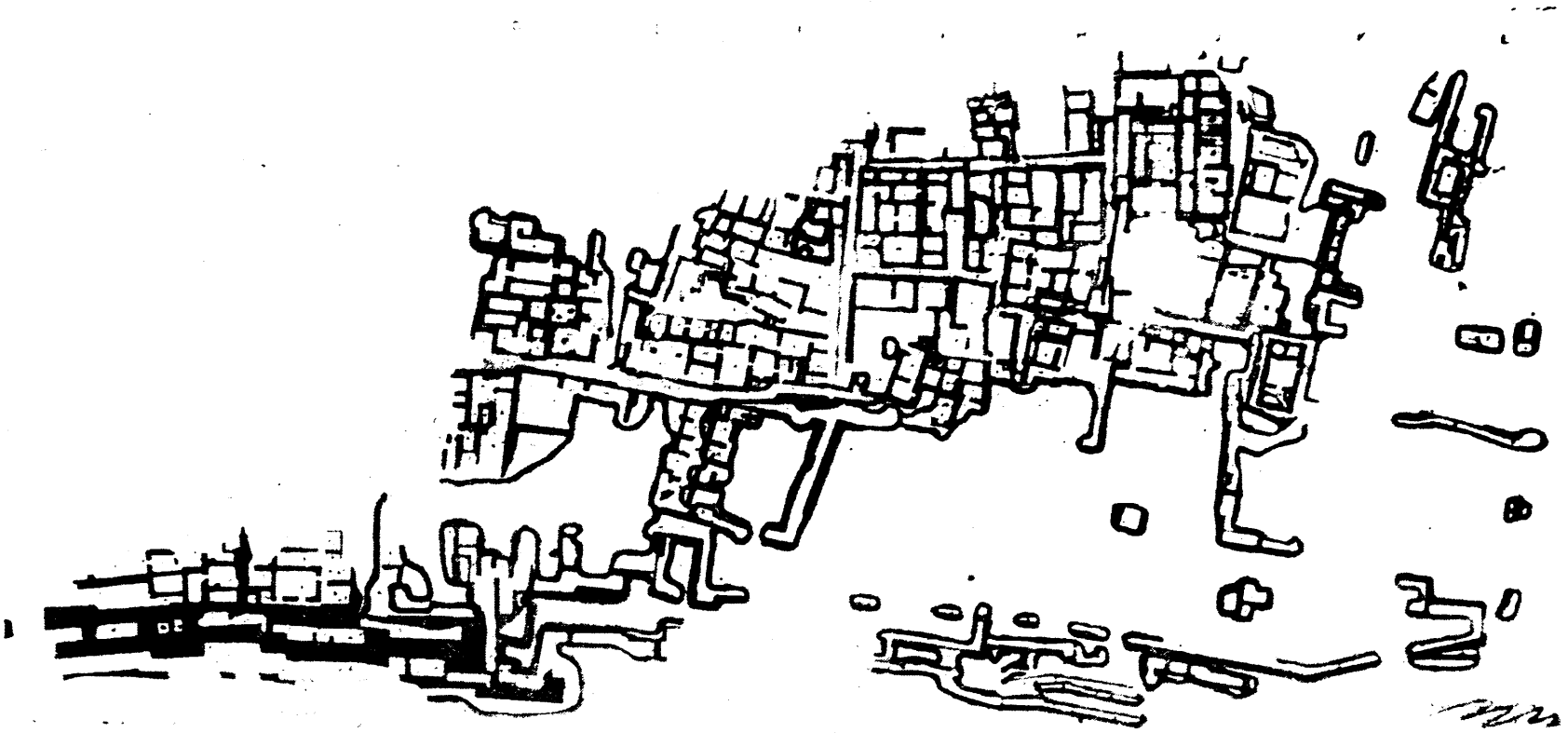
Campo S. S. Apostoli, Venice.

visible joint or hinge representing the intersection of the two directions. This passing produces an expansion of the branches' dimension, at the point of directional change one could interpret such an enlargement as a special place. This condition served as a particular reference for dealing with directional changes as actual places within the building's internal distribution.

In general then, the references of the rocks and branches helped to clarify two generic qualities of distribution. Movement between the rocks related to developing partially contained plaza-like space with more generous lateral dimension, while the branching suggested a type of situation where more channeled or street-like space was needed.

Particular built form references in which I found reflections of these general methods of organization, at a scale and complexity, appropriate to the hotel, included Campo S. S. Apostoli in Venice, Phylokopi, an ancient Minoan palace, Foligno, the palace of Tirynthe, and the Daimyo buildings of Edo. In all of these examples there is an active reciprocal interaction between built and unbuilt territory. Options for associating with many different conditions of physical definition are always offered. The ordering is by incremental continuities, rather than a singular self-contained geometry.

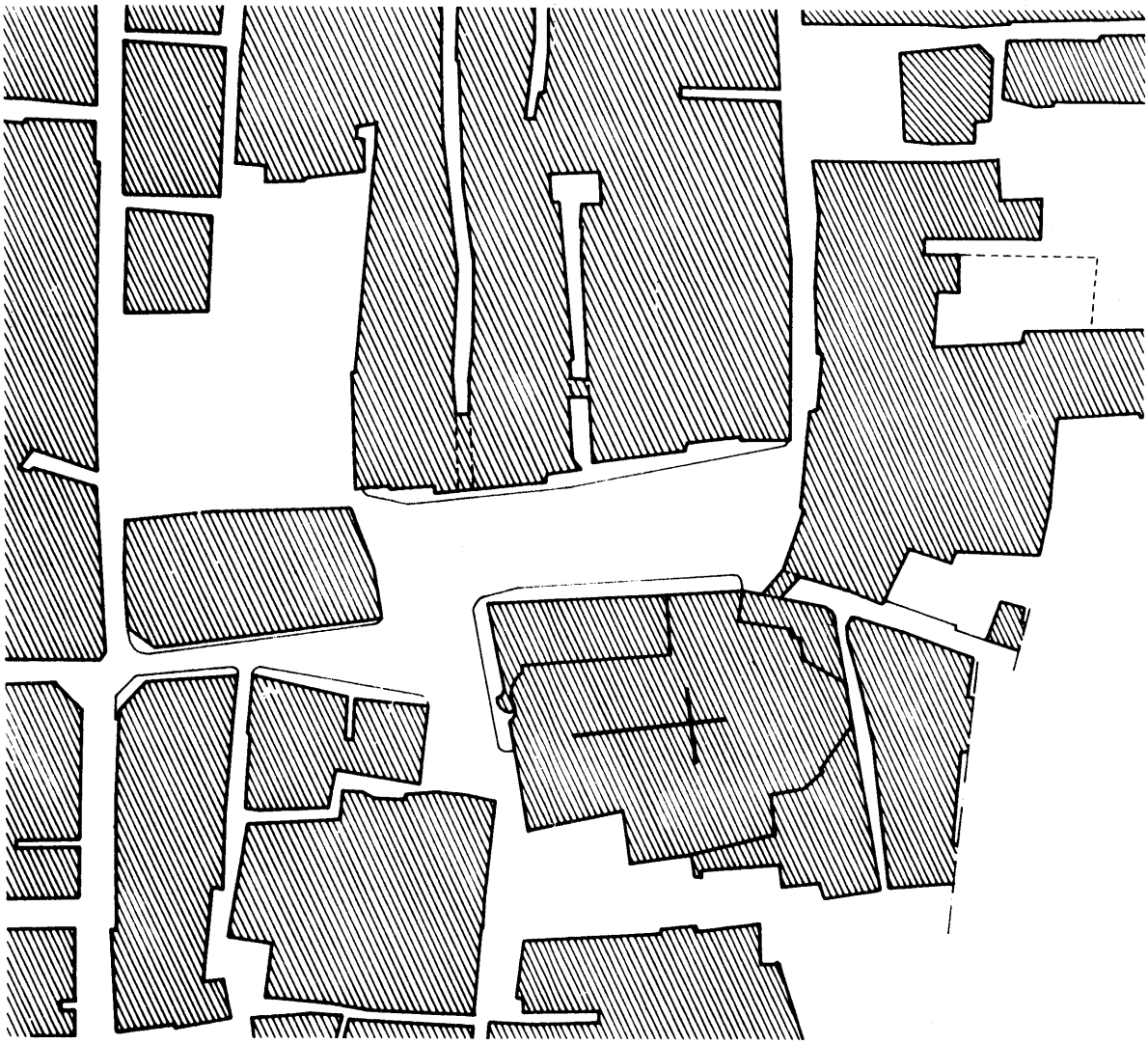
In Venice (p. 50) a variety of outside edges, varying in size and direction, generates an implied diagonal movement



Palace of Phylakopi.

across the largest open space. One can cross the plaza without physically going through all of its dimension. There are zones, defined at the edges, which provide both access to the interior spaces, as well as places for more passive activities, like cafes, etc. The actual size of the open space corresponds to the size of the interior of the church, as both are for collective use. They define each other. Thus, there is, built into the physical form of the plaza, a capacity to produce many optional associations of movement, rest, containment, outlook, etc., which are derived from conditions both internal and external to the plaza itself. Moving through the city, one would not perceive this space as a self-defined object, but rather as a special zone that is overlapping and continuous with a much larger context. Using such notions as these, I attempted to develop a variety of conditions for the public ways through the hotel.

Phylakopi (p. 52) illustrates many of the same issues in relation to a situation which, like the hotel site, is surrounded by more open territory than is the plaza in Venice. In this case one sees how larger pieces of directional building can act as rock-like elements that one moves between. The relationship, between the largest mass of the building and an attached directional piece in the lower left hand part of the plan, was helpful in dealing with the southern edge of the site, where an added piece of building is bridged to the main

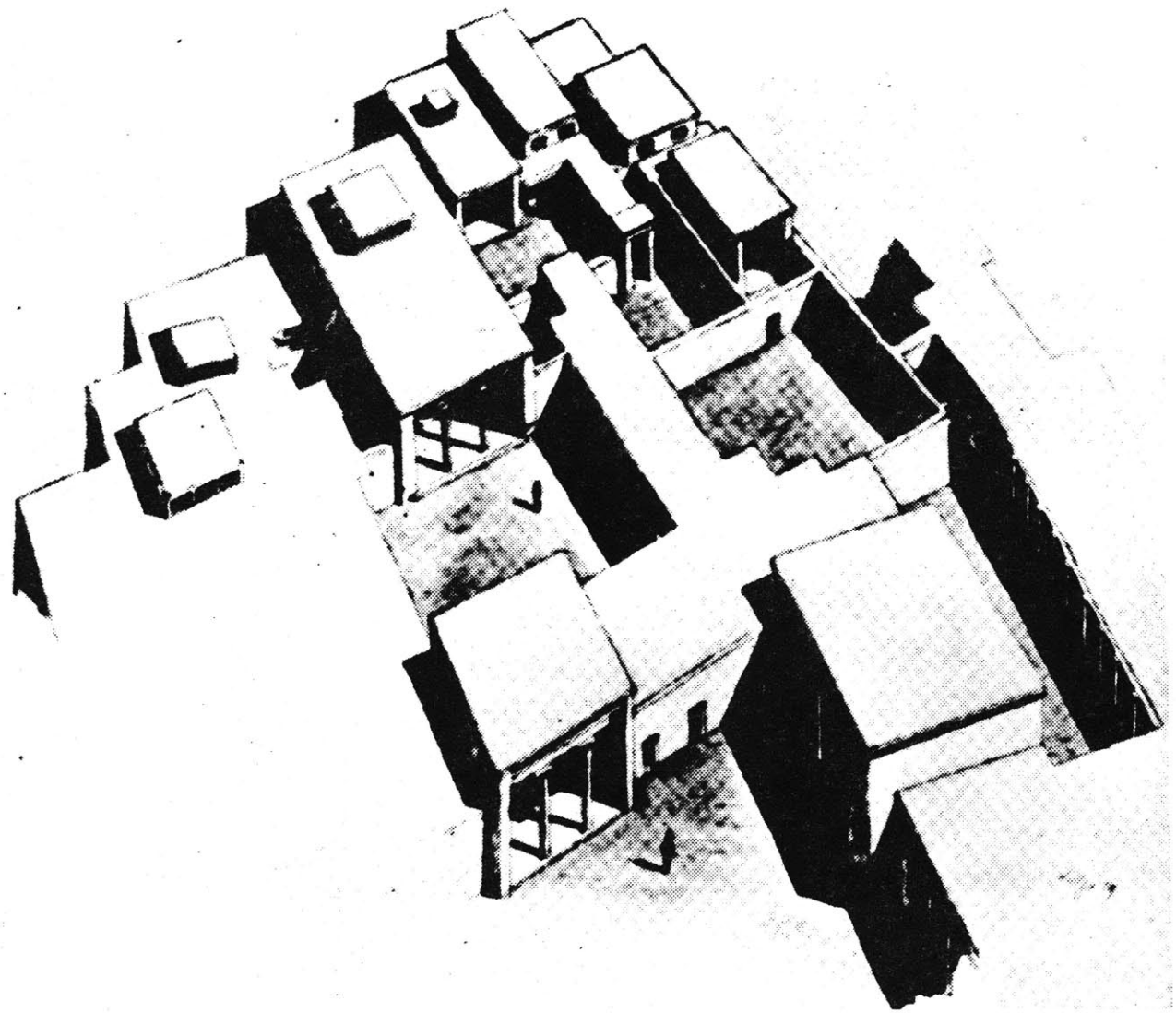


Foligno.

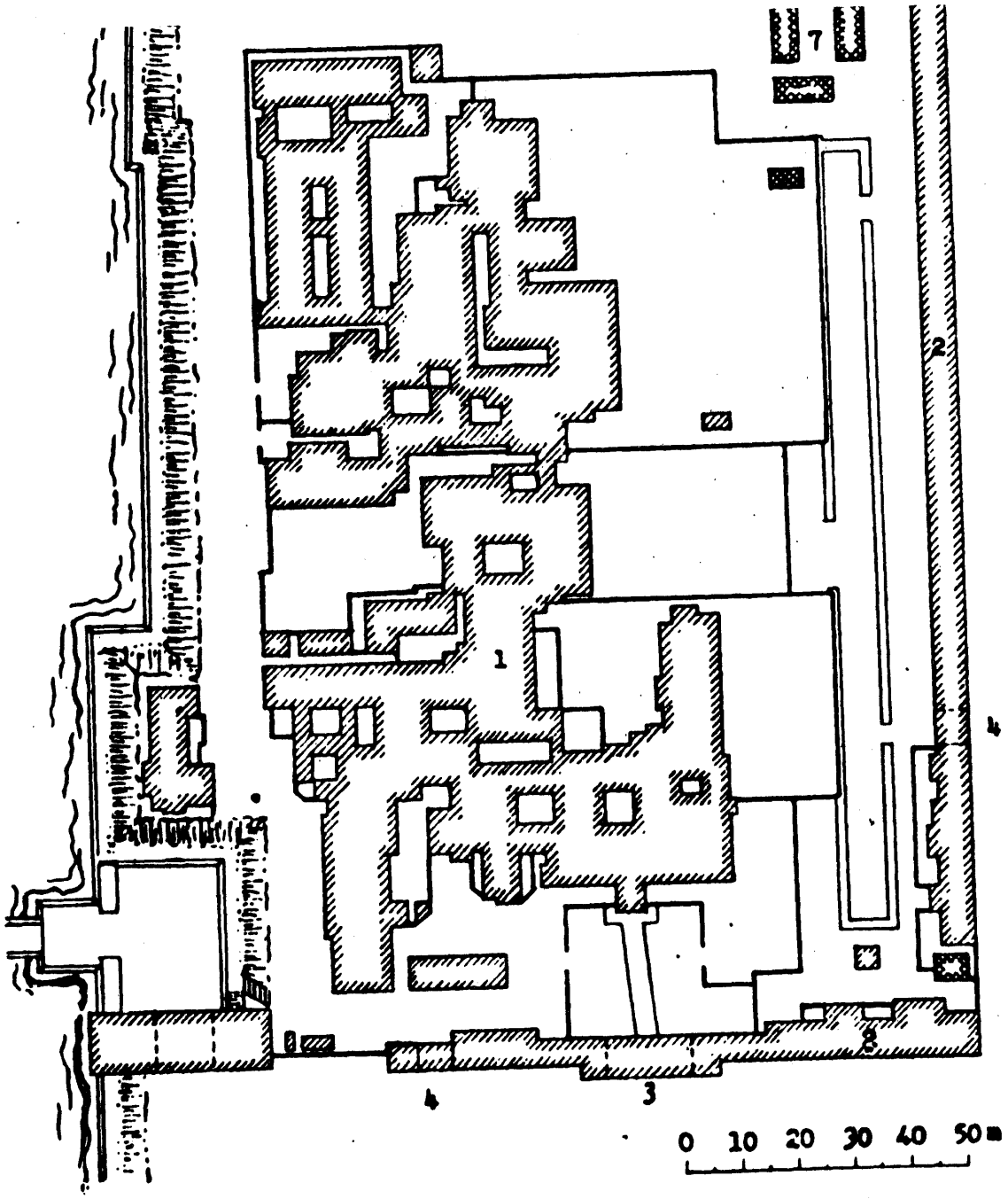
structure. This defines the continuation of State Street out to the termination of the wharf, as well as the principal open space on the southern side of the building.

In most situations it is necessary to deal simultaneously with the interaction of open plaza-like spaces and more channeled street-like spaces. In Foligno (p. 54) both types are operating to make rich patterns of possible associations. However, in any spatial articulation it is the definitions of the corner, which reinforce the sense of containment. In Foligno the corners of the plazas are often broken to allow for access. This, on the one hand, offers many options for where one can move. But it also deemphasizes the possibility of stopping along the edges of the space because one is usually in the middle of a path, rather than off to one side. There is always a need to balance these conditions by offering, in terms of physical definition, the choice of moving or pausing.

In Tyrinthe (p. 56) and Edo (p. 57) a branching form of protected distribution acts to provide both access to internal zones of the building, as well as outside space at the edges. The forces of an internal branching are reflected in their configurational structure. This enables one to understand the complex form of the buildings, both from inside and outside, in terms of the general directions along which people move. This was an important concern in so far as the hotel was conceived as an ongoing field of places that would invite active public exploration; rather than as a single place



Palace of Tyrinthe.

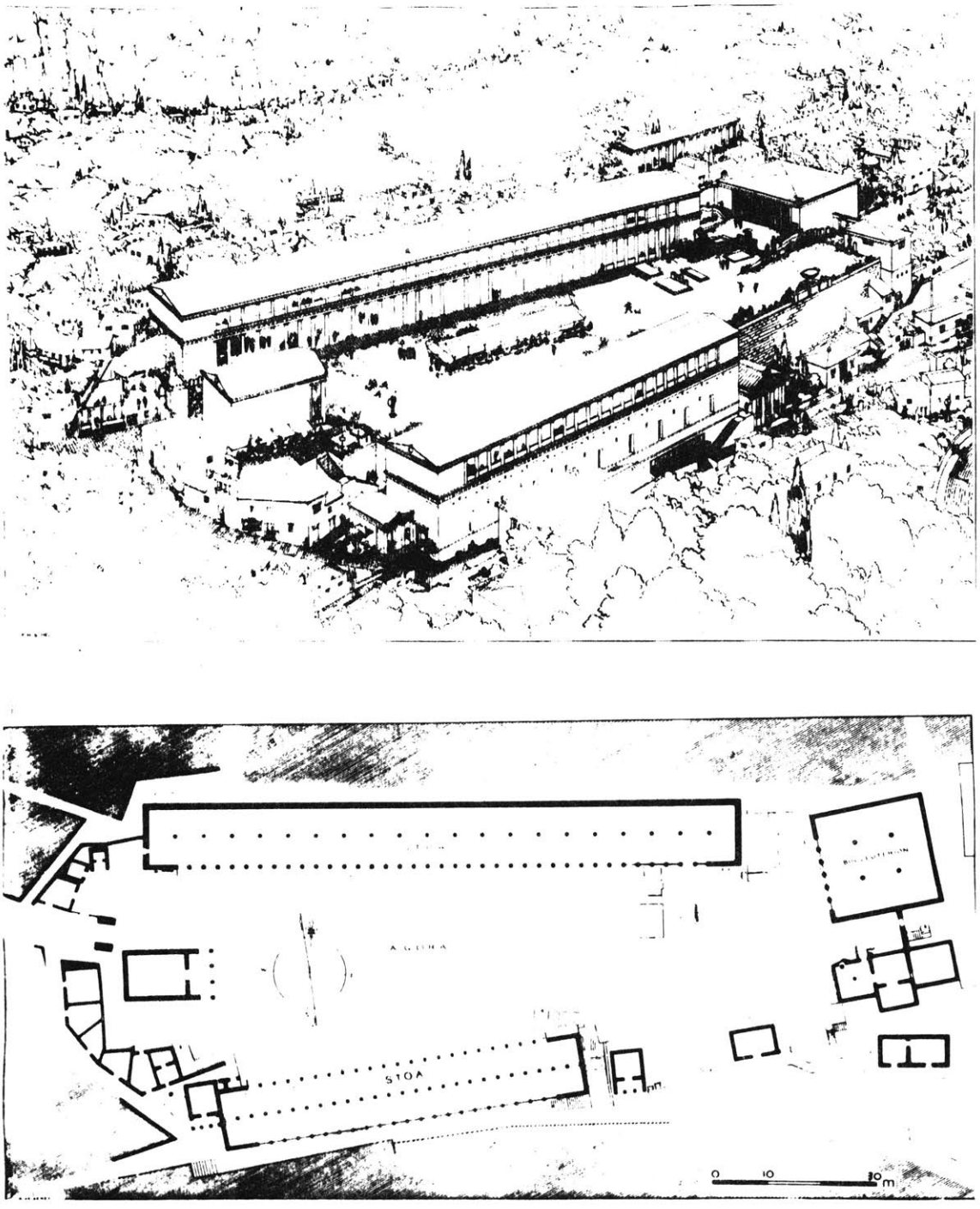


Daimyo buildings of Edo.

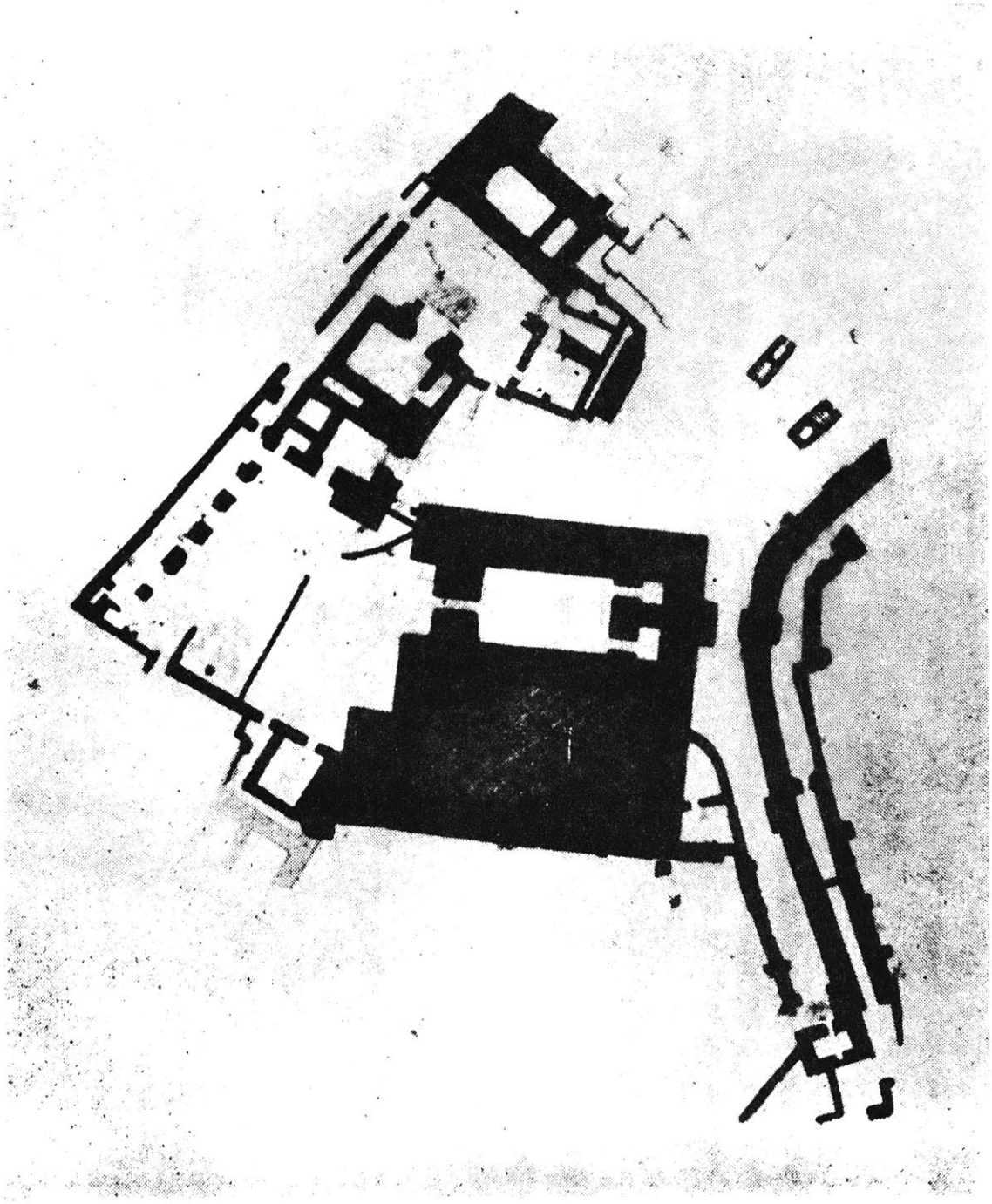
which one simply came to and occupied. Tyrinthe and Edo were also interesting because they illustrated a series of variations on using an additive form language to make a range of hard to soft edge conditions, as a means of responding to different contextual situations.

Another way of relating to particular contextual situations, is to build certain regions of a building with a shifted or displaced geometry, which changes one's directional associations. Instances of directional shifts are numerous. Some have already been evident in previously discussed references, such as Aalto's Levekusen project on the Campo S. S. Apostoli in Venice. The ones I have selected, in general, refer to a desire to have the hotel's organization reflect the 10° shift between the geometry of the old Atlantic Avenue easement and the geometry of Long Wharf. My intention behind incorporating this shift or displacement was both to respond to the direction of the easement, as well as to intensify the legibility of the implied diagonal movement between the northwest and southeast regions of the site. I looked for situations, where subtle shifts had been used to define plaza-like open space and more channeled street-like zones.

In Assos (p. 60) there is a slight difference in the alignments of the two stoas, which creates the need, or the opportunity, to resolve the different directional forces at the ends of the Agora. What was interesting to me was the way in which the displaced geometries of the stoas seemed to



The Agora of Assos.

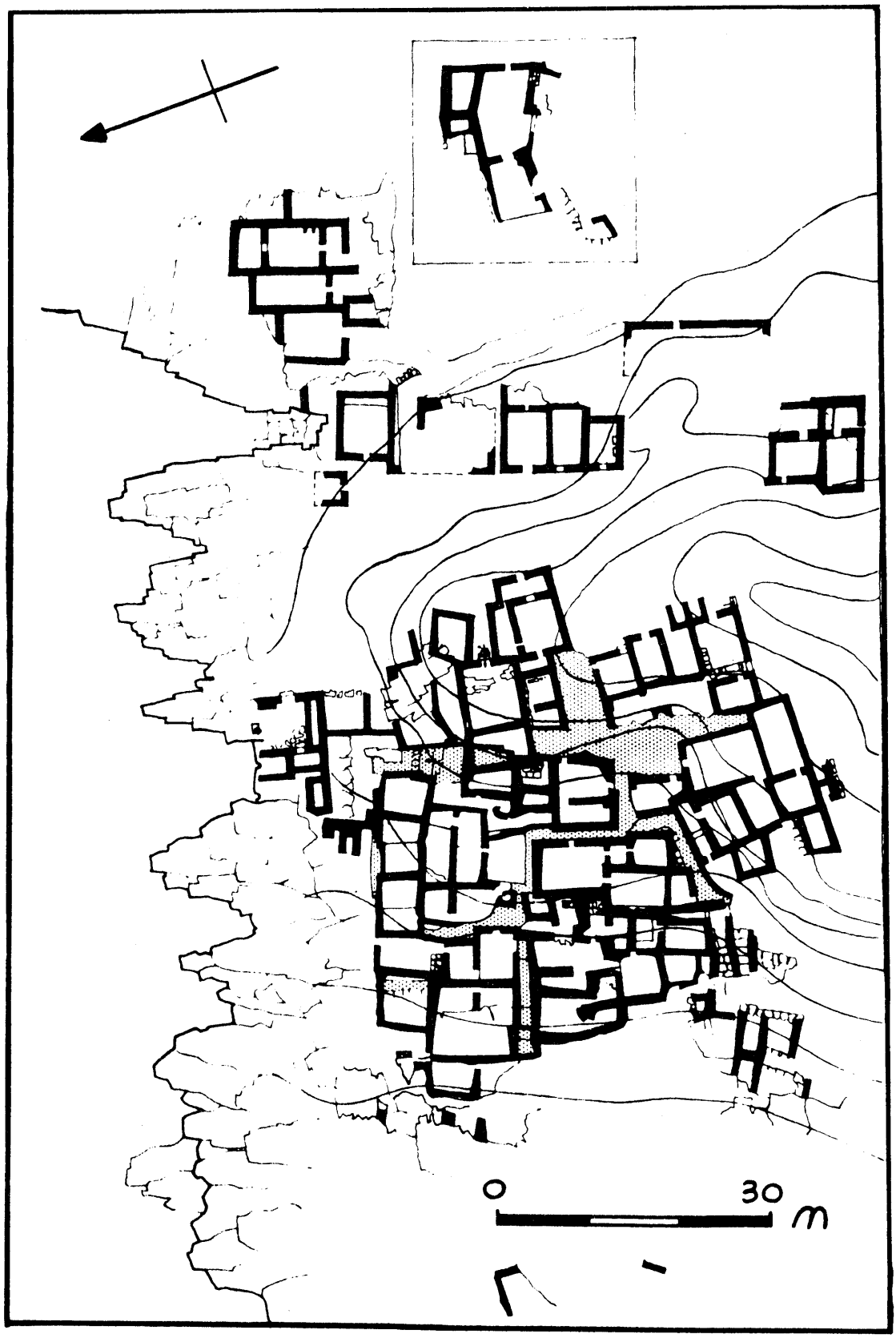


The Ziggurat of Mari.

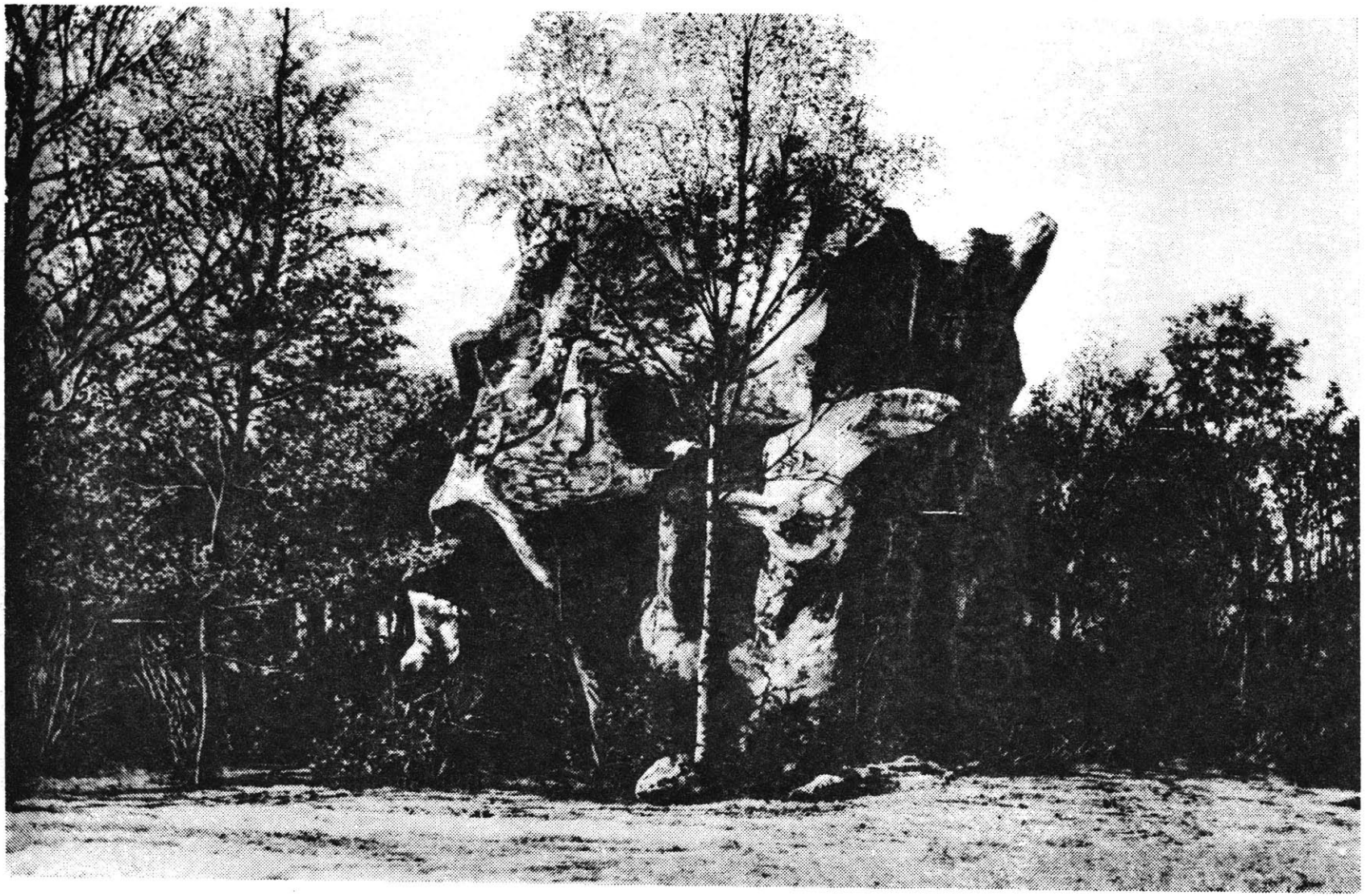
reinforce an implied diagonal path across the agora from an entrance in the northwest corner to the southeast edge. This edge is opened up to resolve the directional forces, as well as to provide outlook and sun for the eastern part of the space. This reading of the situation was helpful in trying to use a shifted geometry along the northern edge of the hotel. It seemed reasonable to try to reinforce an implied diagonal path through the building, which also opens itself to the southeast to provide sunlight and access to the water.

The examples of the entrance to the Ziggurat of Mari (p. 61) and the Minoan cliff dwellings (p. 63) helped to further clarify certain qualities of directional displacements. An interesting feature of both is the way the shifts in direction are normally resolved in space, rather than by filling in the difference with solid material. The filling in method is apparent in certain parts of the examples, and is clearly appropriate in very tight situations. However, in general a spatial resolution of a change in direction has the advantage of defining a place, which could have some unique quality by virtue of its being the intersection of two different organizations within the field.

Mari is not unlike the Campo S. S. Apostoli in that the geometry displacements tend to direct movement around rock-like elements. However, in Venice this device was clearly being used in a context, where one had various options to continue on to other parts of the city. In Mari the spaces articulated by the



Minoan cliff dwellings.



Primitive shelter.

changesin direction are more self-contained places of arrival. Nevertheless, the important point is not simply that different geometries can be used, but that they can and should act reciprocally to define some mutual territory. Otherwise they remain autonomous, relative to each other, as independent objects. The continuity of the field is thus lost.

In the Minoan cliff dwellings there is an interesting displacement in the southeastern corner of the main grouping, which offered a reference for dealing with a rather fat zone, not unlike the region of the hotel where the main lobby is located together with some shops and public distribution. The shift in direction helps to reduce the difficulty of not being able to look out to the plaza from the public distribution, by forcing the dimensions to increase at the point of change.

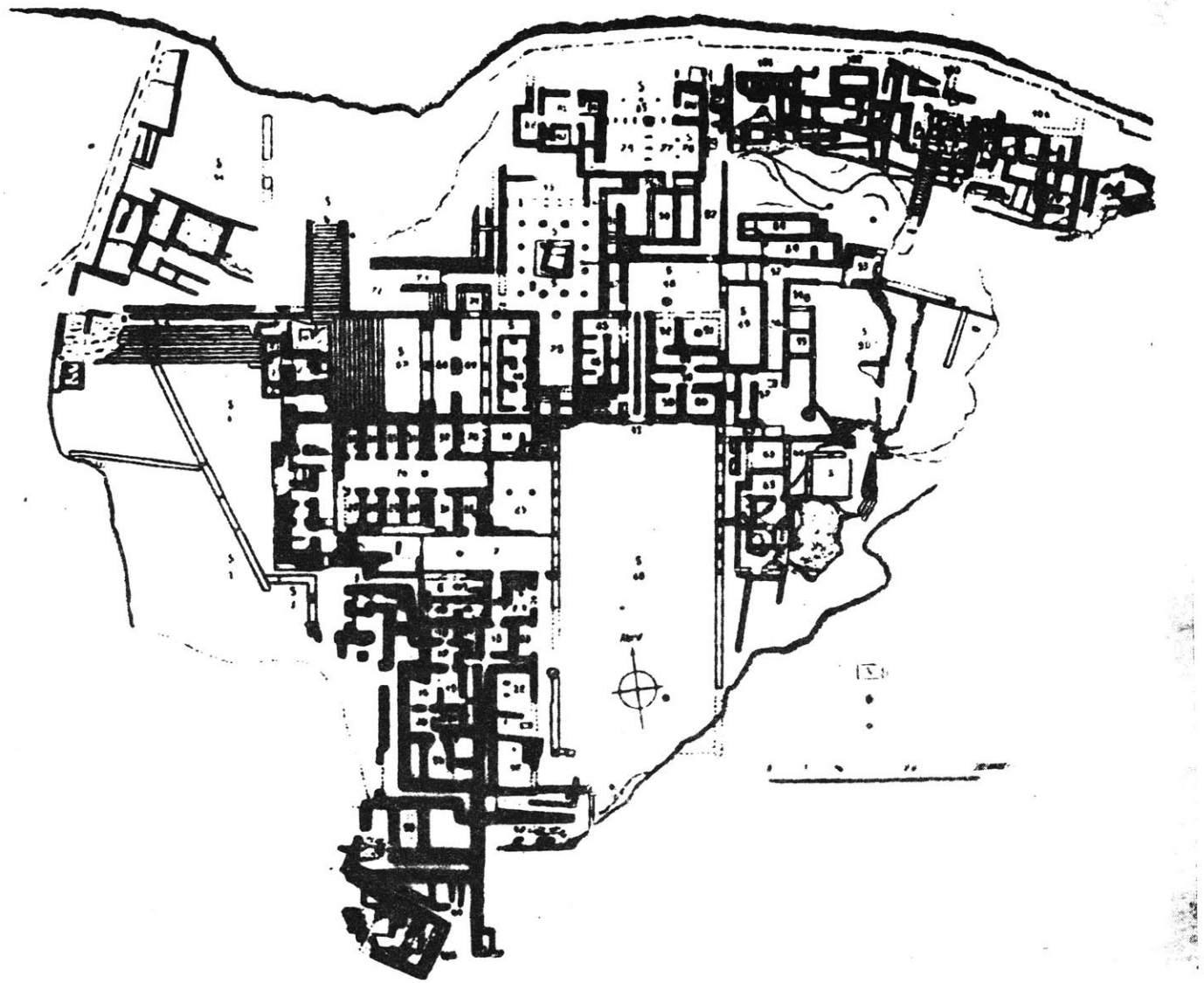
The importance of dealing in a positive way with the edges of a building has already been mentioned. However, it would be worthwhile to identify some additional edge condition references, which helped to guide my design exploration.

The Klee drawing of Porto Ferraio (p. 67) and the Chinese drawing of a mountainous coastline (p. 68) illustrate reciprocal edge conditions, characteristic of the spatial interlocking of land and water. The reciprocal edge is a basic relationship within a field organization because it defines places both inside and outside as spatially interdependent, rather than as objects juxtaposed.

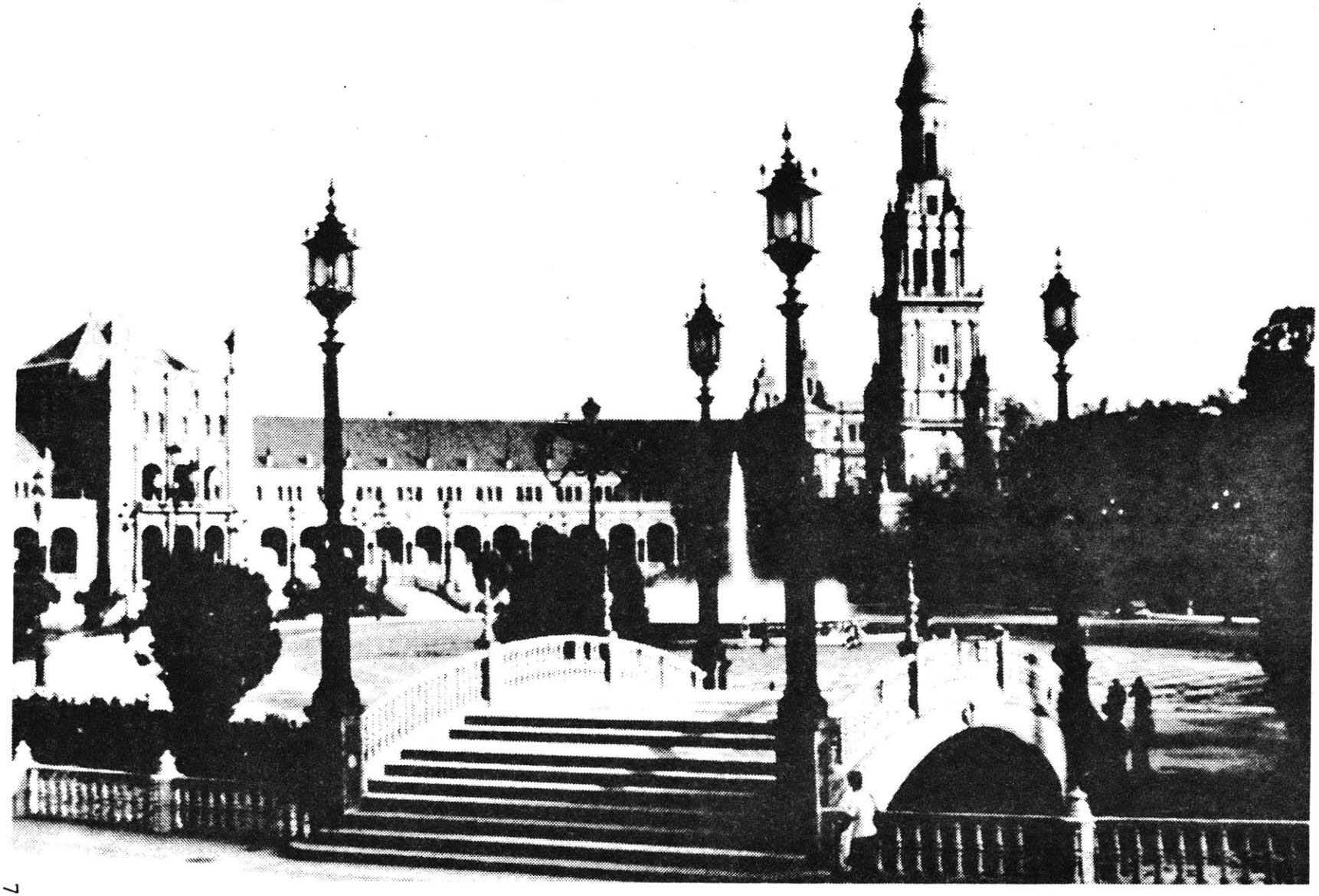
However, a field organization does not preclude the need for certain more figurative, or object-like places, which can mark meaningful differences within a more loosely ordered structure. The presence of this duality can often enrich the coherence of a building by identifying certain places as more sacred or ceremonial in contrast to others which are more casually experienced. A reference for a duality of this kind was the Palace of Phaestos (p. 69) where a reciprocal edge condition is developed as a more formal, or object-like, space, that effectively contrasts with the more additive cellular

Porto Ferraio, Klee.

Mountainous coastline.



Palace of Phaestos.



Plaza Espana, Seville.

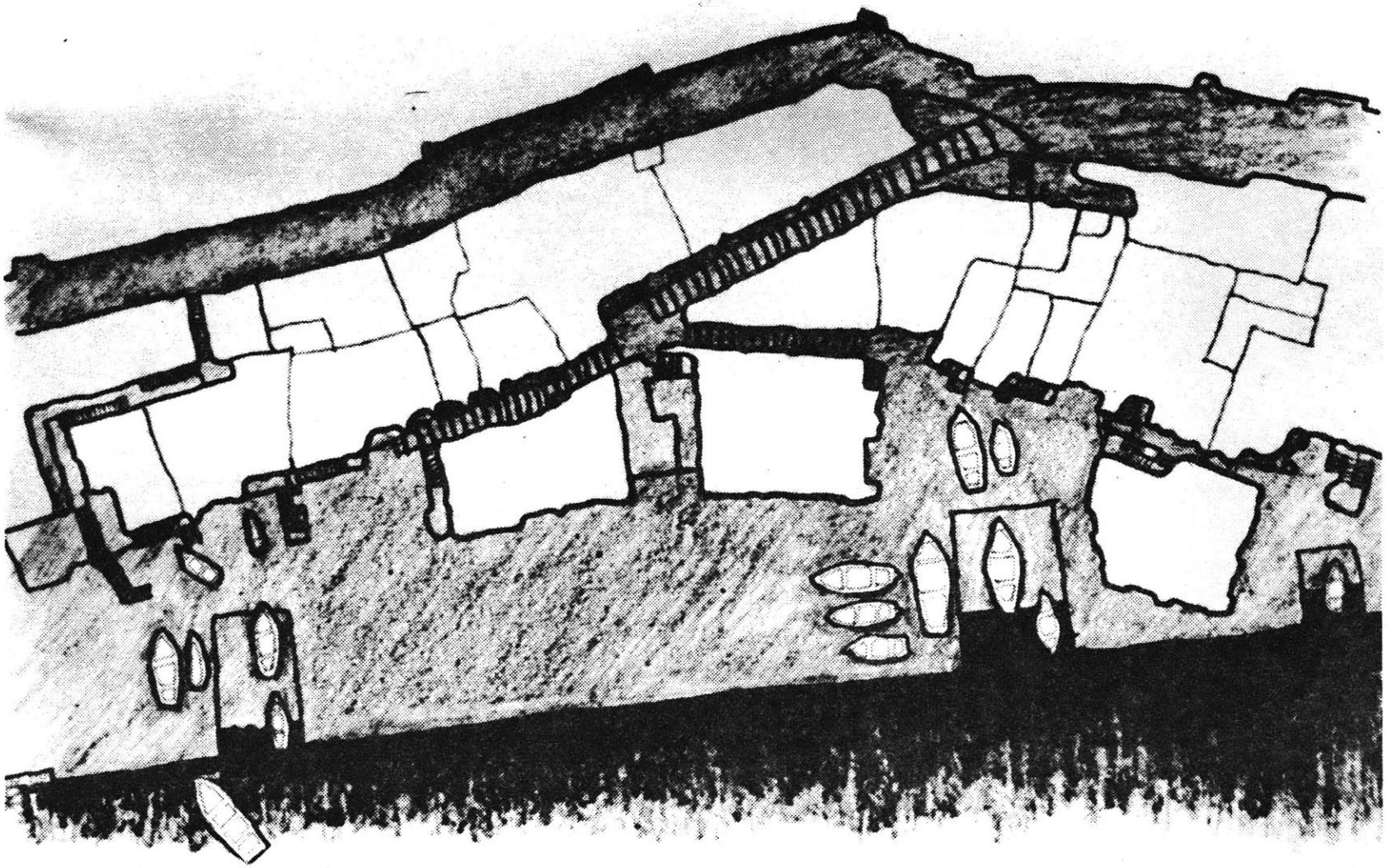
organization around it. Phaestos served as a particular reference for developing the principal entry to the main hotel lobby on the western edge of the site.

A similar situation existed with regard to the open plaza, marked by the auditorium on the north edge. A reference for this situation was the Plaza d'Espana in Seville (p. 70), where a semi-circular geometry is used to articulate a public plaza, which opens out onto a park. In the hotel the semi-circle is only partly revealed. But the intention was to make a more figurative type of reciprocal edge than is characteristic of the rest of the building, in order to reinforce a continuity between the hotel and Waterfront Park.

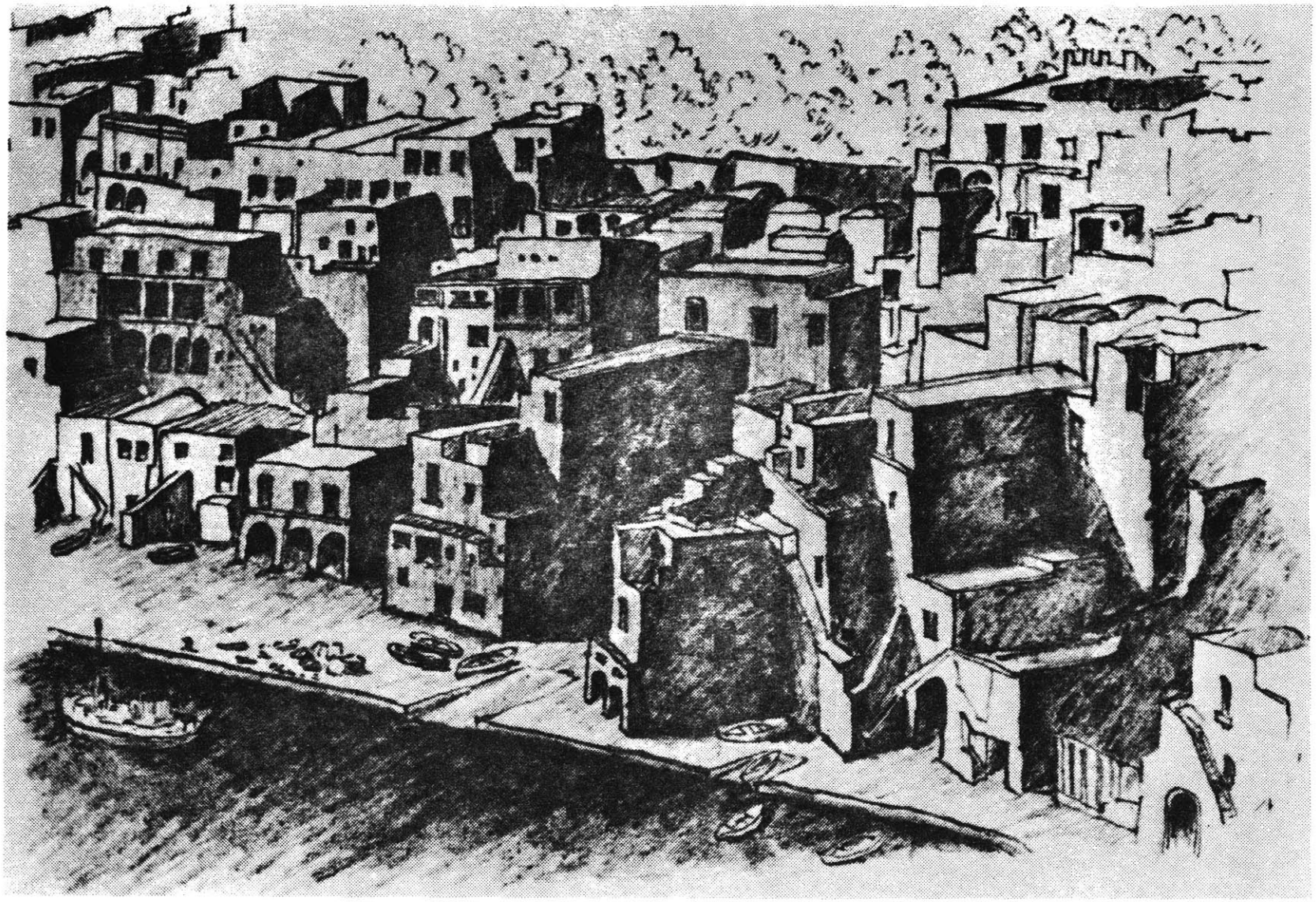
The Chinese drawing of a waterfall going through rocks (p. 72) was an analogue for a looser organization of a reciprocal edge. It is not unlike the waterfront of Procida (p. 73), where rock-like projections make outdoor use spaces along the principal distribution. The projecting buildings mark a direction of access to interior zones, as well as to stairs going to upper levels of public movement. The waterfront edge, as a whole, can be read as a series of variations between continuous surfaces and deep spaces. A similar kind of varied edge reading is produced by Ricardo Bofill's renovation of a cement factory (p.74). However, in this instance the severely self-containing definition of the cylindrical silos generates an unresolved ambiguity between access and barrier.

In addition to developing a variable reciprocal edge in

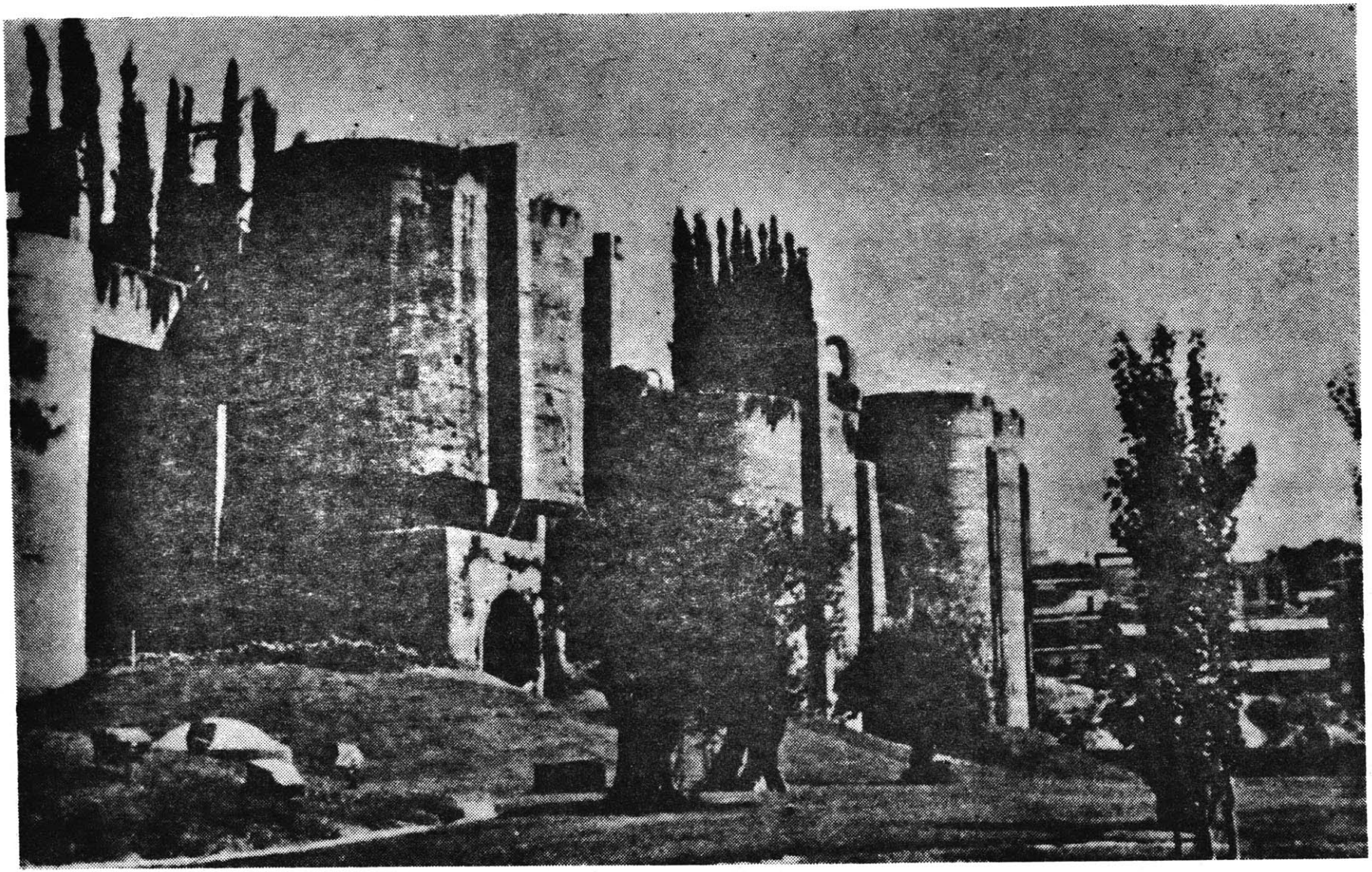
Water fall and rocks.



Procida waterfront.



Procida waterfront.

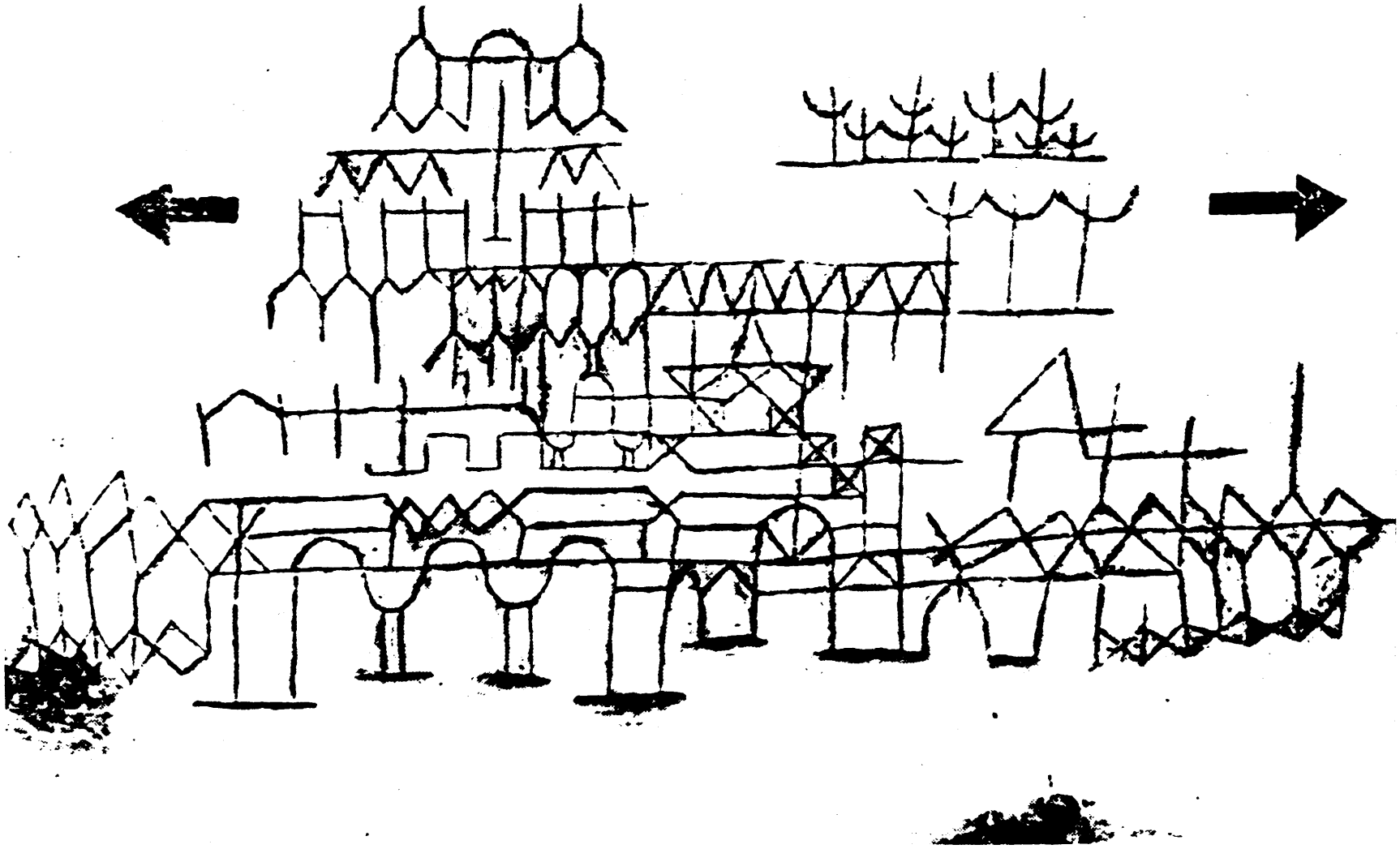


Studio of Ricardo Bofill.

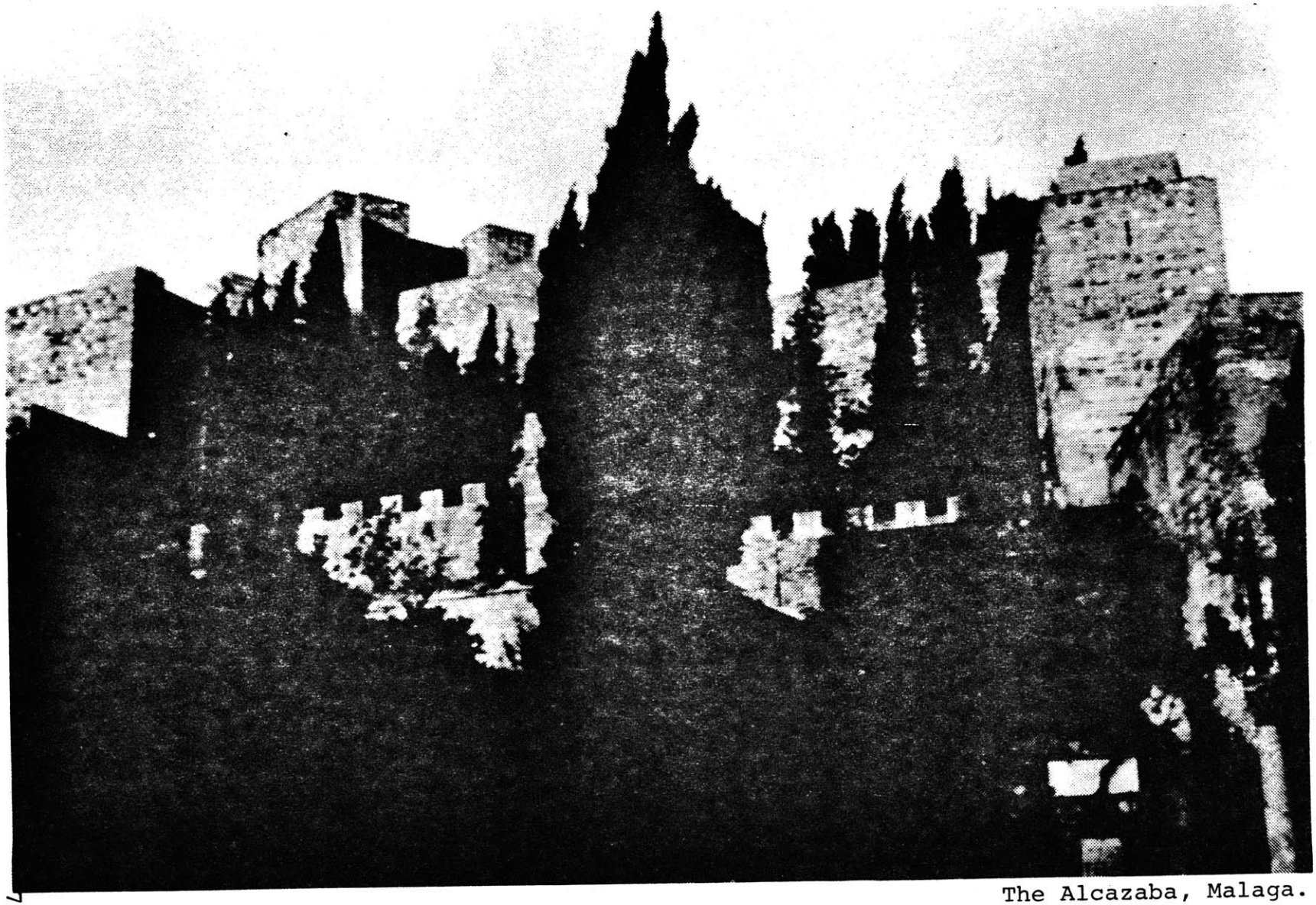
the plan organization, I attempted to make the section of the hotel also define outside space. This was generally done by terracing the building down to the south, both for purposes of sun light, as well as to articulate certain outdoor use spaces. These were related to an upper reference level containing the collective entertainment facilities.

Klee's sketch, En Passant Devant Le Palais (p. 77), provides an interesting glimpse of a reciprocal edge in section. It illustrates the notion of reestablishing ground-like associations in upper regions of a building by the suggestions of large terrace-like extensions, planted with trees. Providing for upper level terraces, as extensions of semi-public use zones, seemed appropriate for the hotel, since it was desireable to maximize the ground level, as much as possible, for the rentable commercial spaces. The Alcazaba of Malaga (p. 78) and the factory renovation by Bofill (p. 79) served as additional references for this notion of developing upper level terraces as virtual ground.

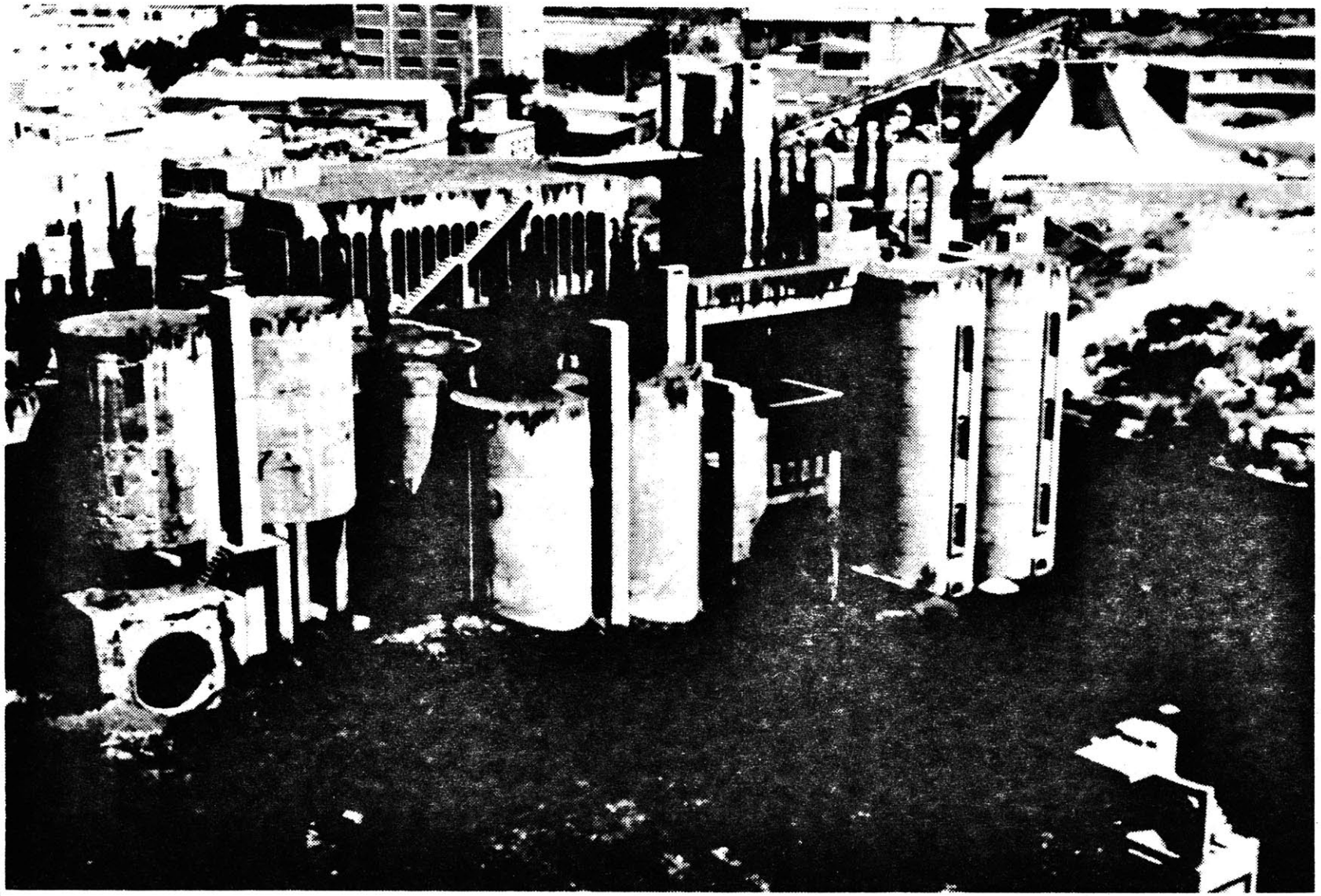
The section of the Opera in Paris (p. 81) illustrates how an association with ground surface can be continued up into interior regions of a building, where the intention is to reinforce the public nature of certain upper zones. It seemed an appropriate reference for dealing with the access from the ground level of the main lobby up to the balcony level of the auditorium and on up to the principal dining room.



En Passant Devant Le Palais, Klee.



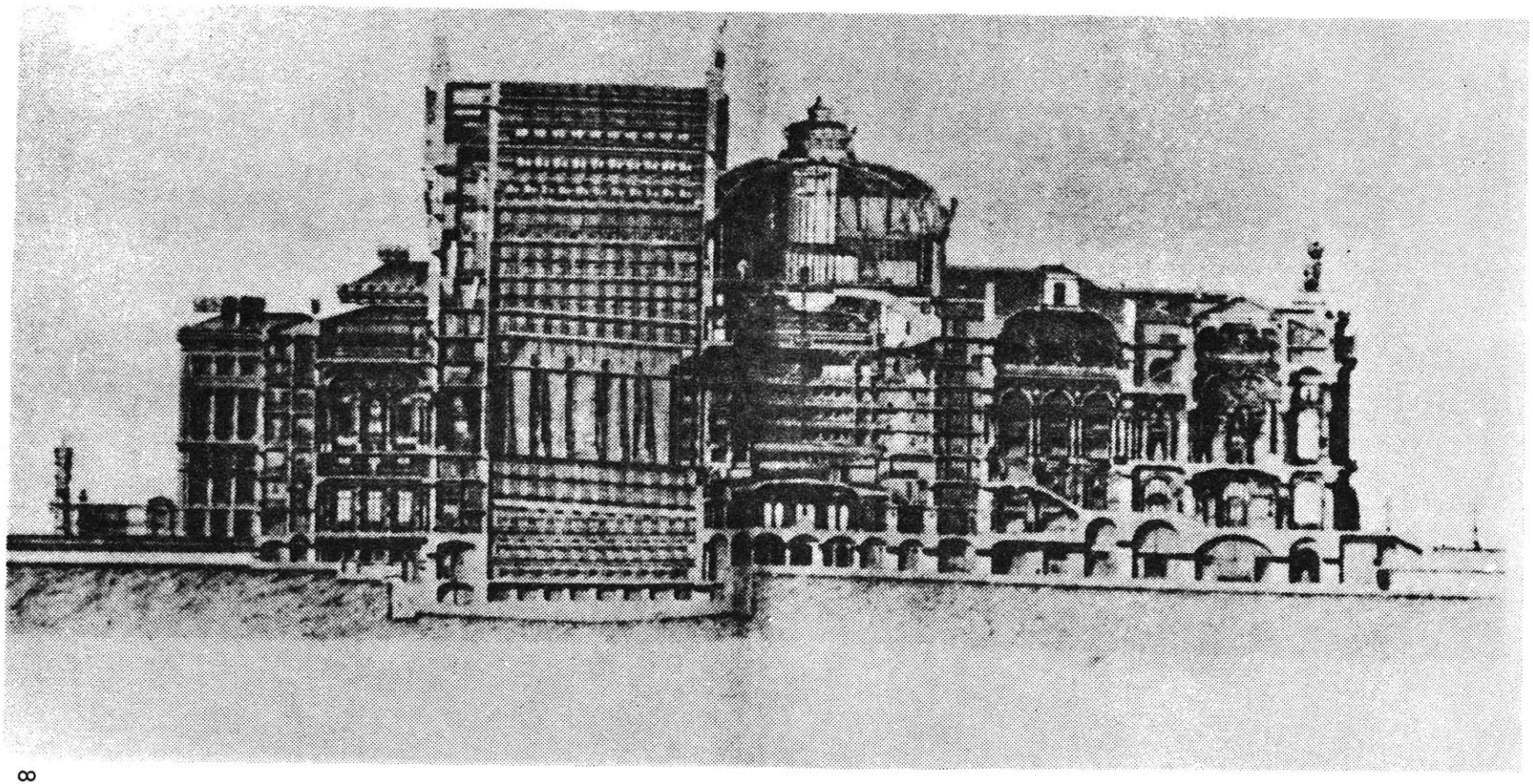
The Alcazaba, Malaga.



79

Studio of Ricardo Bofill.

Another interesting aspect of the opera is the extent to which it is really an addition of several different buildings, rather than one continuous whole. This condition was desirable for certain parts of the hotel, which were intended to be discontinuous. The upper region of the short-term guests' private rooms and dining is connected to the region of the long-term residents' apartments only at the collective reference level. At other levels they are in effect like separate buildings.



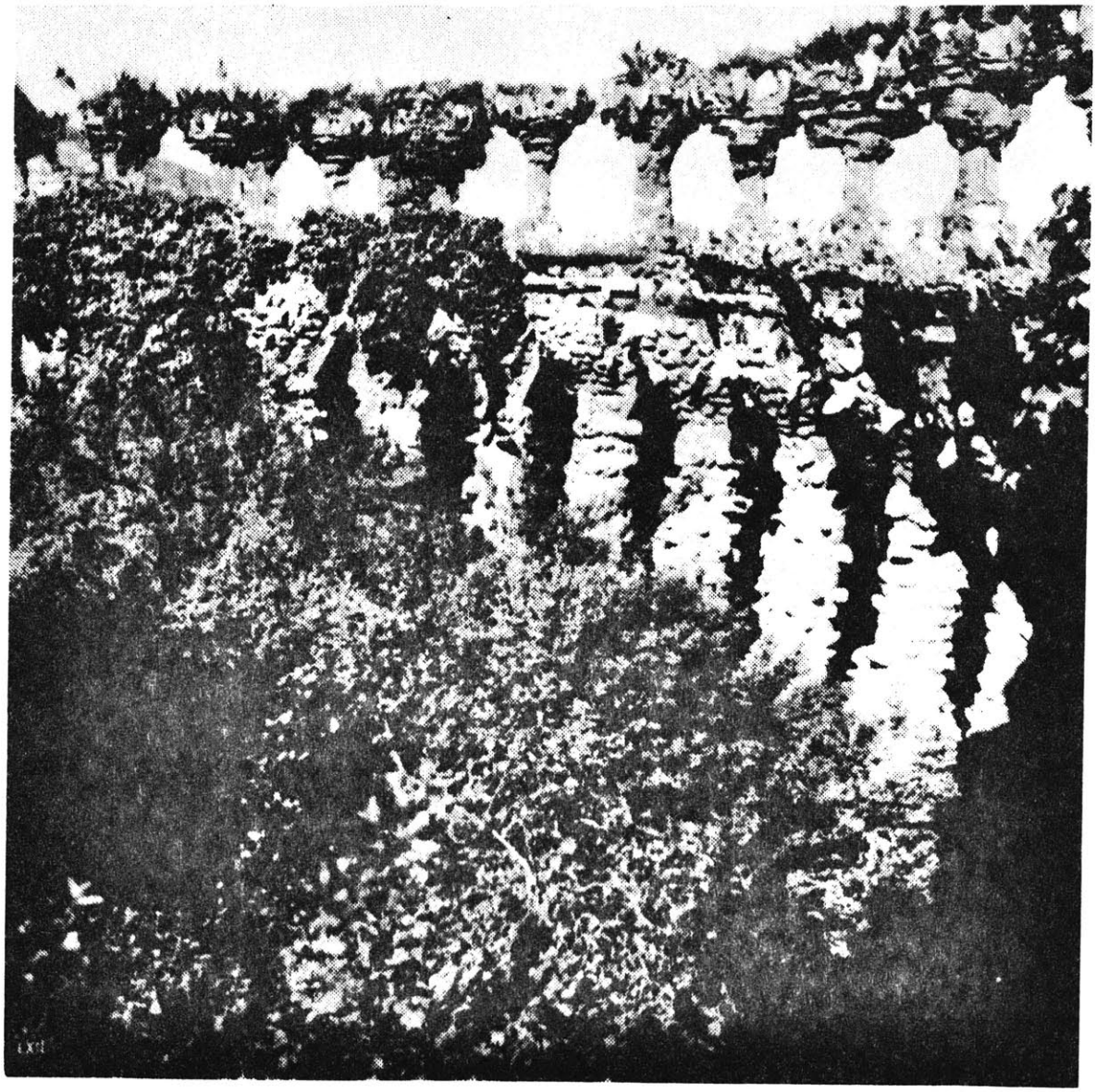
The Opera of Paris.

The purpose of this section is to outline some of the criteria used for selecting references that would help to establish a range of useful building methods for the hotel. A fundamental assumption was that a building cannot achieve a satisfactory level of associative richness, if only a single exclusive building method is employed throughout. One does not normally associate with a place purely in terms of its configuration. Materials and methods of building always play a significant role in determining the nature of one's perception of a place.

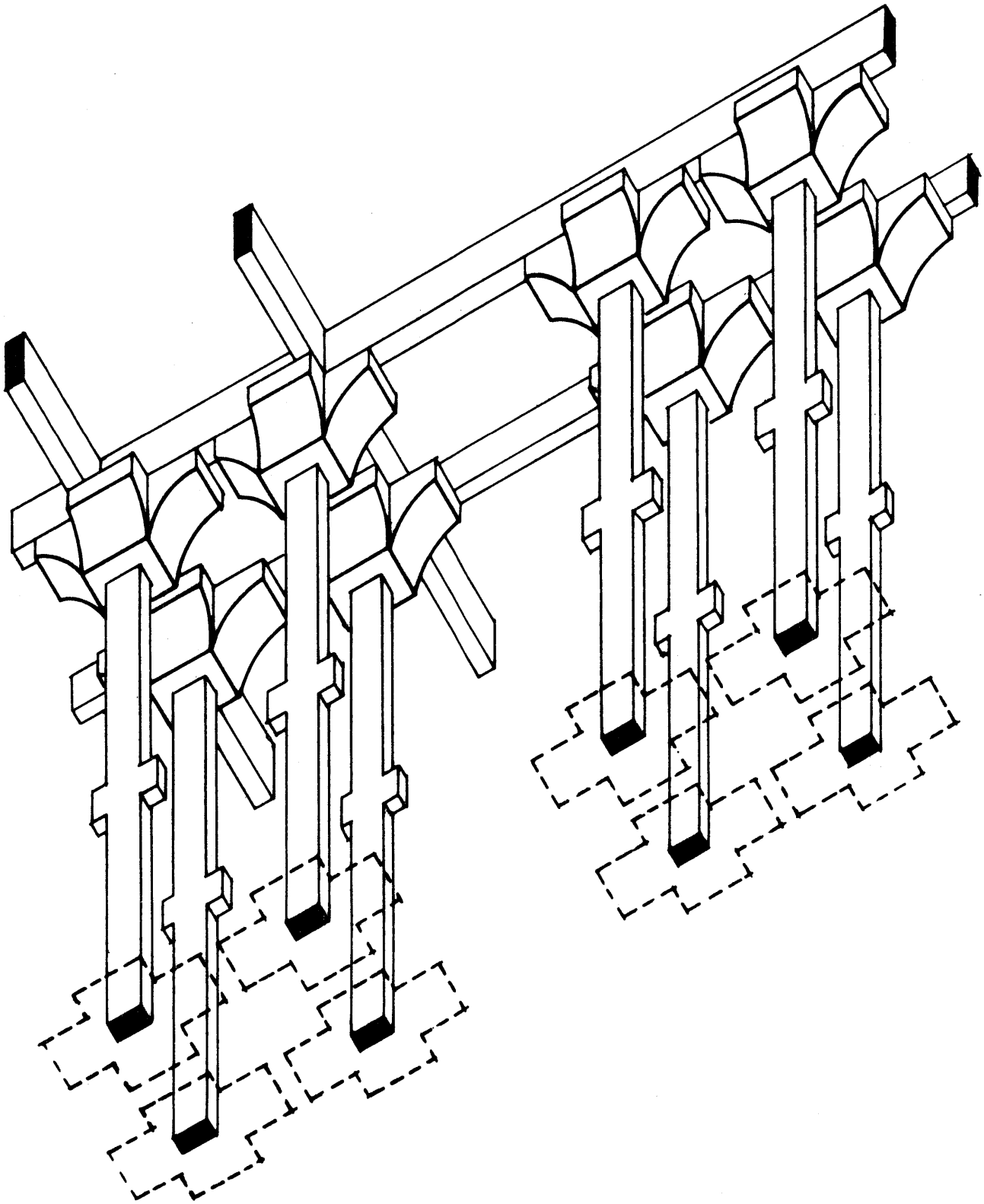
A comprehensive investigation of all the building methods, which might have been appropriate for a hotel on Long Wharf was beyond the scope of my thesis. My intention here is to identify only a few generic types in order to illustrate how they can reinforce the issues, already discussed.

A general concern in developing a building as a continuous fabric is that the edge conditions be articulated to define a spatial zone. This notion is also applicable to the design of the actual building skin or envelope, which does not have to be always a strictly planar separation between inside and outside. One normally appreciates very much being able to

Juvarra.



Park Guell.

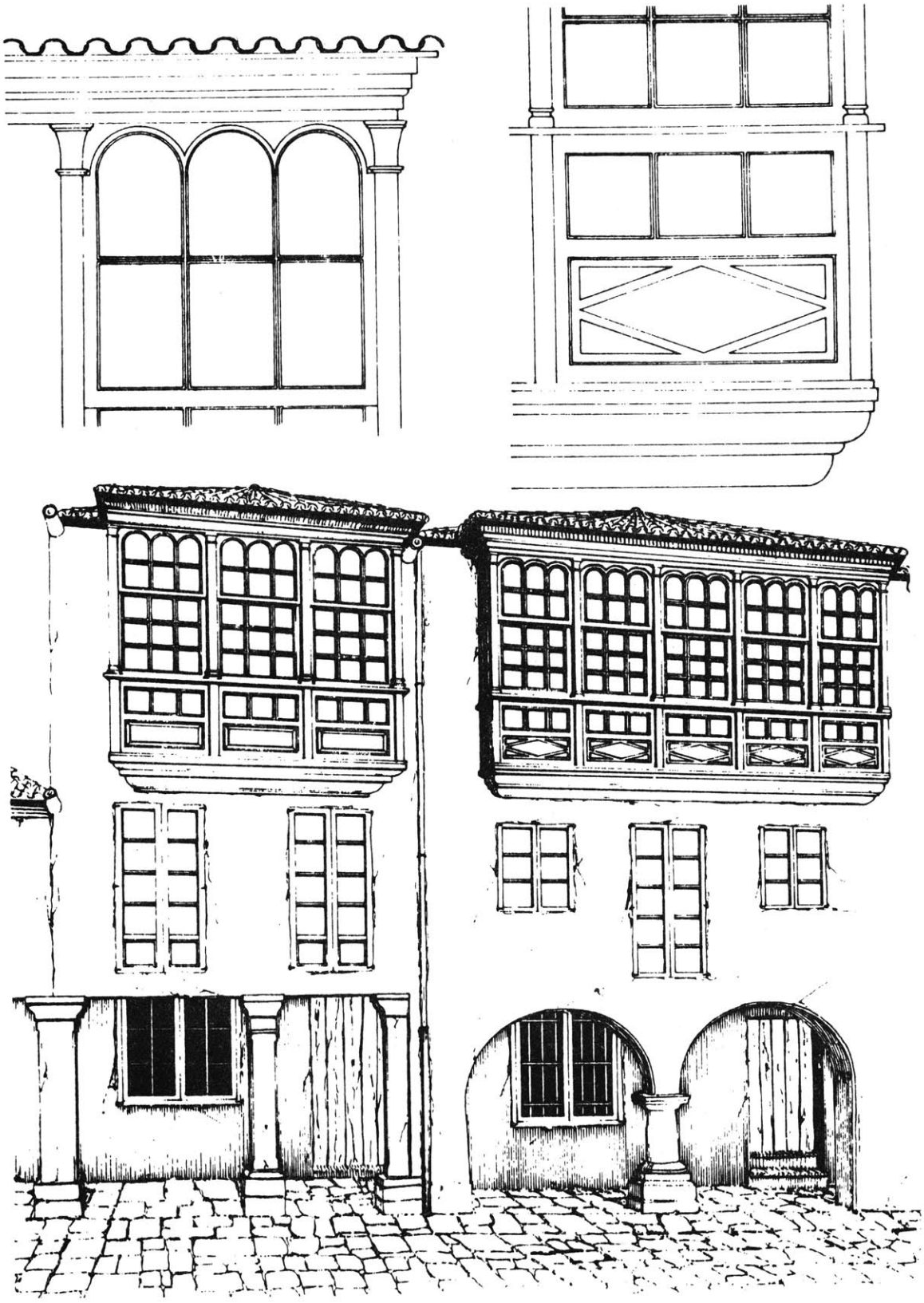


Clustered column and beam system.

pass through some partially sheltered place, as, for example, an arcade, at the edge of a building before having to completely enter or exit. Similarly it is reasonable to have some way of stepping outside, as with a balcony or bay window, while still being inside the zone of a building. These are positive options which a building can offer in addition to that of being either completely inside or completely outside. One has a greater sensation of a continuity of ongoing territory when these additional choices are made available.

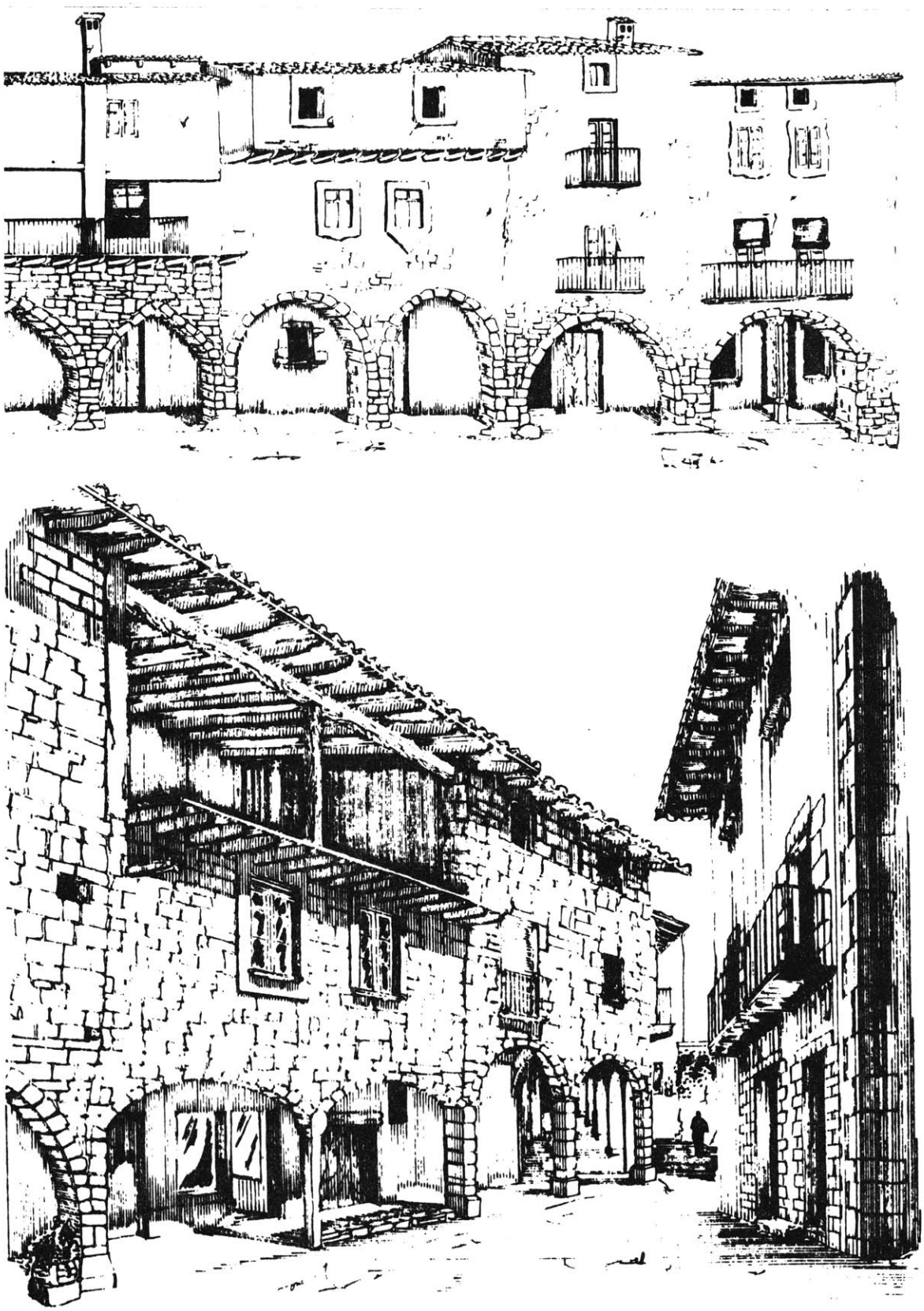
One way in which I thought a response to this issue could be made was to use a primary building system which inherently defined an actual edge zone, that could be interpreted in a variety of ways. A drawing by Juvarra (p. 83) served as an initial reference for developing a column, which by virtue of being a cluster of four columns with projecting capitals, defined a zone of habitable space both inside and outside of itself.

One could use the clustered column, in relation to the skin of the building, in three general ways; (1) exposed as a kind of external balcony or terrace, (2) engaged within the outside surface, or (3) built onto with three-dimensional screens, i.e., bay windows, balconies, etc. At the ground level it could be used to define a colonade, as well as entrances to shops, etc. In addition, the column, by virtue of the capitals, provided the option of supporting beams in two directions. It also offered a discrete zone within the building

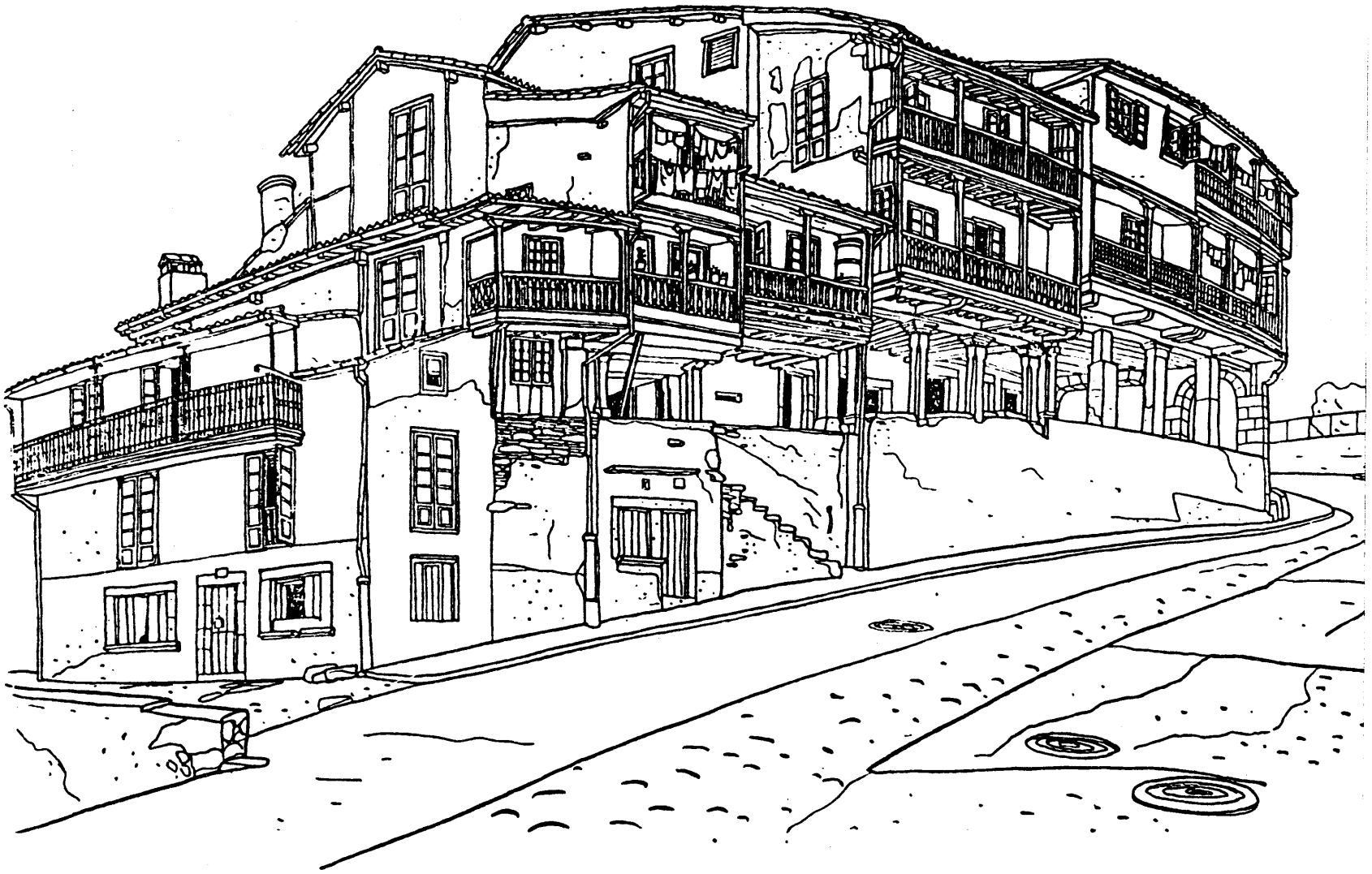


Pontevedra.

Liverpool dock buildings.



Gerona.



Espinaredo.

for running the necessary mechanical equipment. Since each of the four columns in the cluster would be structurally independent they could be deployed as pairs or singly where needed. Conversely, in situations where it was not desireable to continue the clustered column through the entire section of a certain part of the building, the capitals could be consolidated. This could be done by pouring a slab between them to form a load bearing floor, upon which walls could be built where needed. Finally the clustered column offered the possibility of being used as a roofscape element in a manner analogous to the columns used by Gaudi in the Park Guell (p. 84), which mark places to sit and look out over the water.

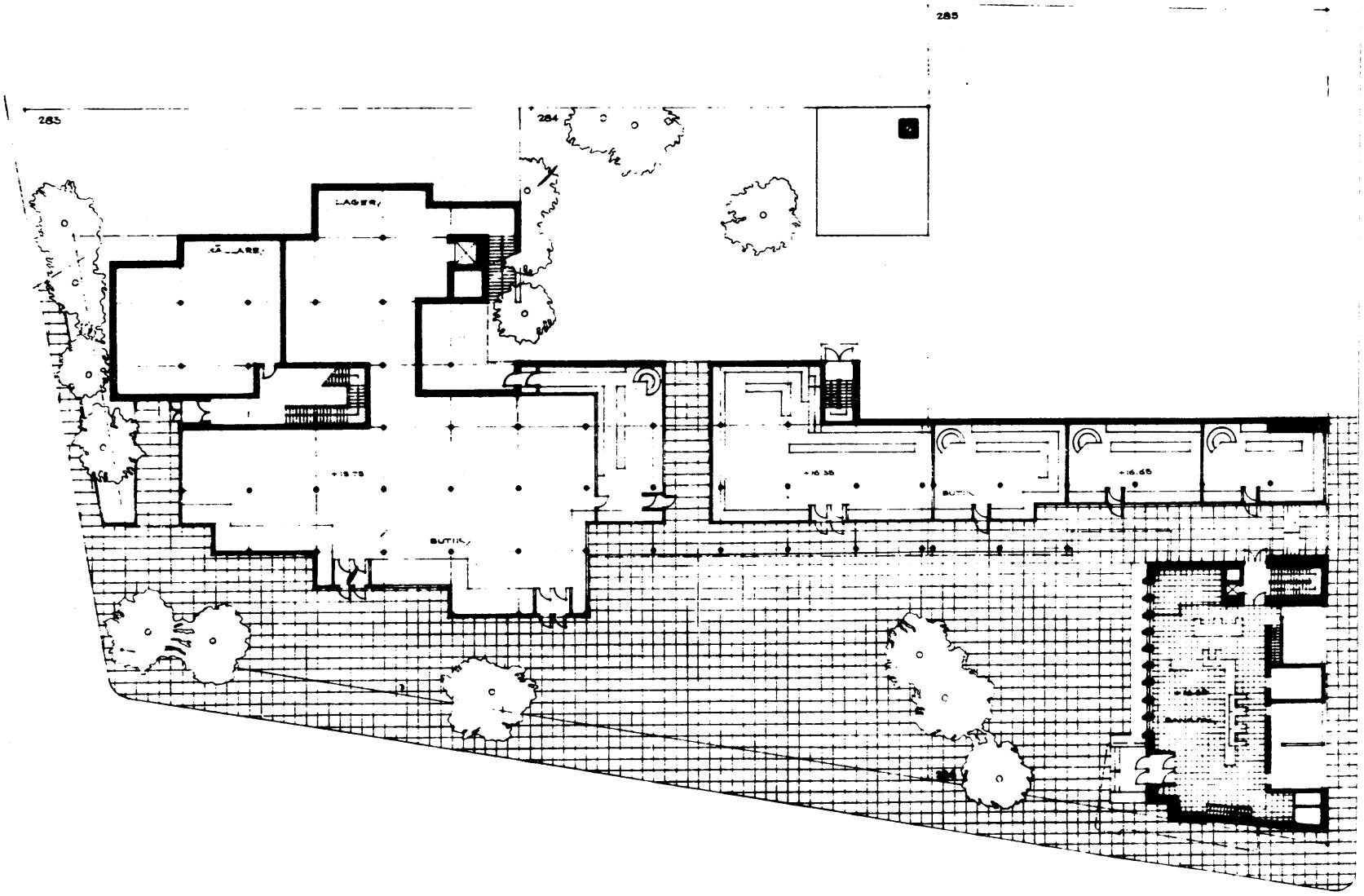
While the clustered column and beam system was used as the primary building method, there had to be additional secondary systems to produce habitable places. These secondary systems included arches, walls, light weight screens, bay windows, balconies, etc. The particular references which served as examples of these systems were:

--arcades, colonades (elevations)

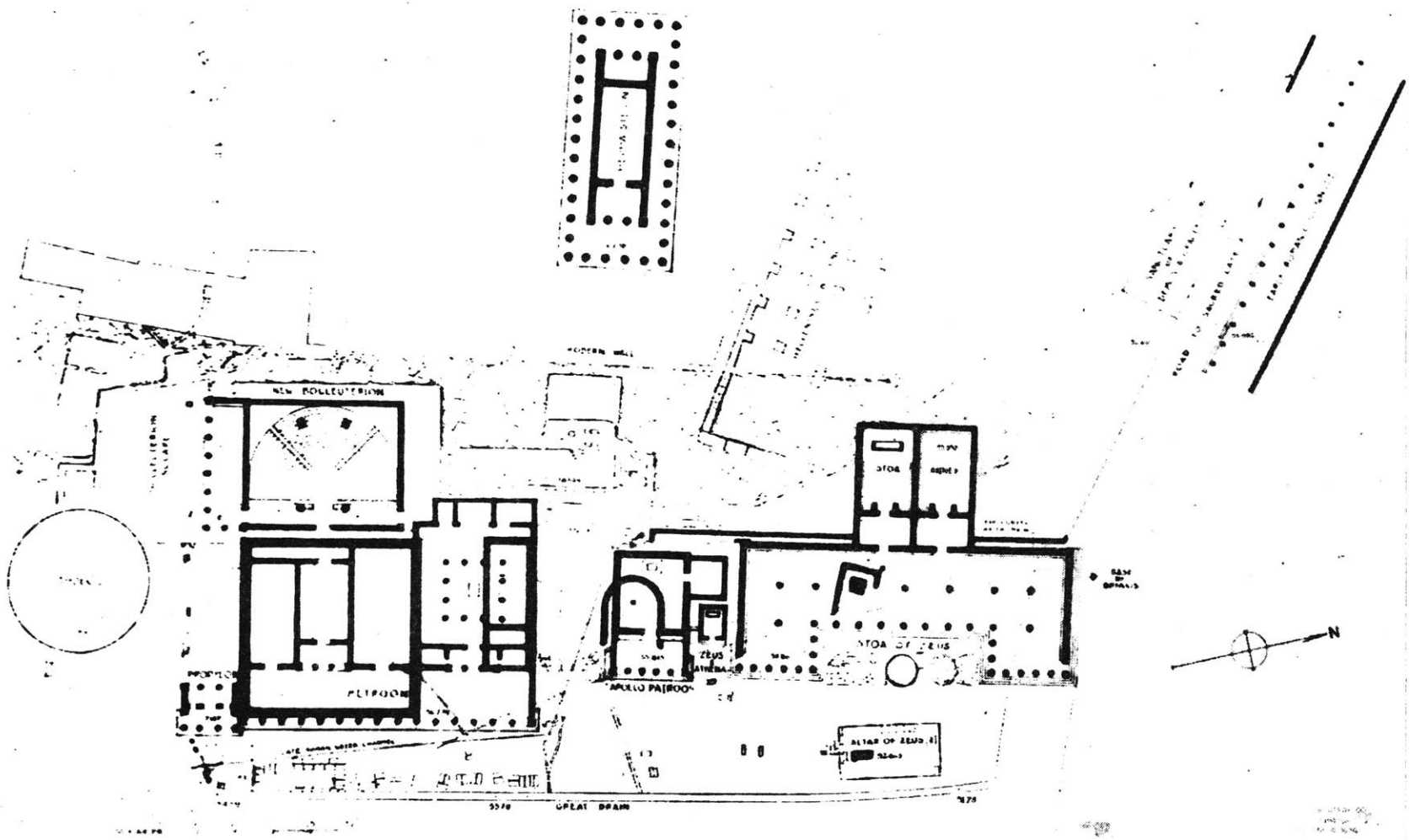
Ponteverdra	p. 87
Liverpool Dock Buildings	p. 88
Gerona	p. 89
Espinaredo	p. 90

--relationships between walls, columns, and screens (plan)

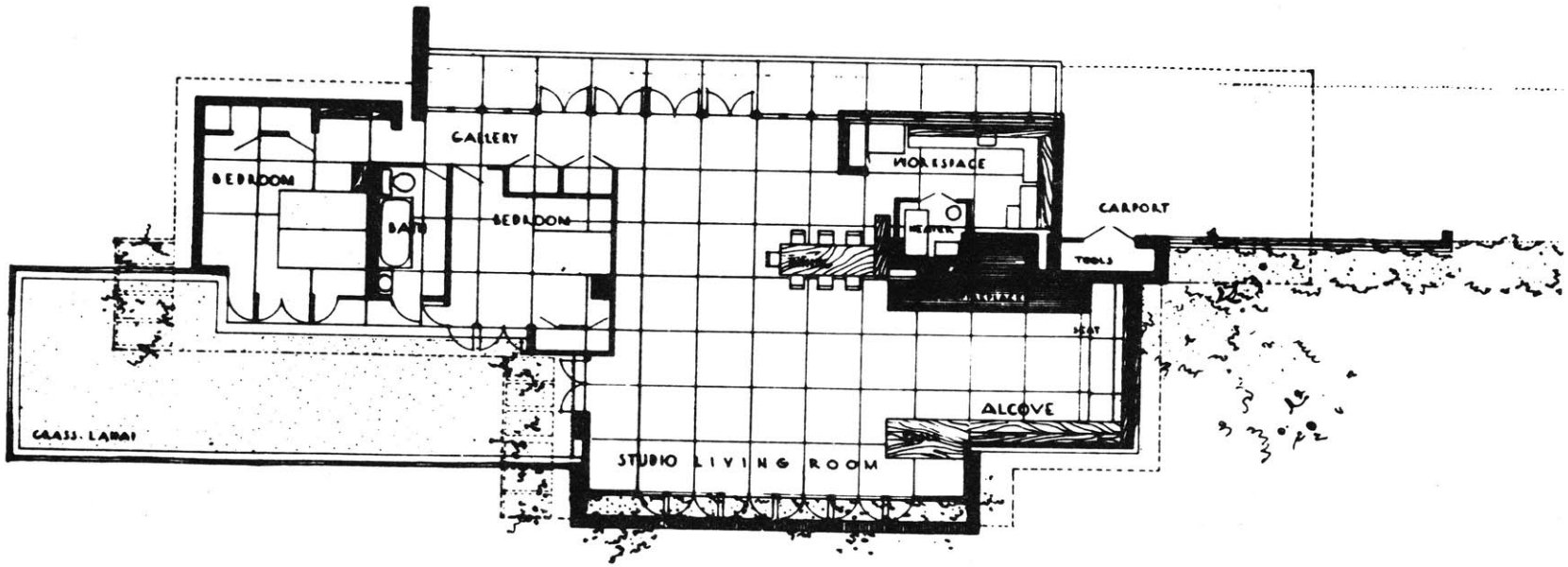
Ekenas Savings Bank	p. 92
Agora of Athens	p. 93
Goetch-Winkler house	p. 94



Ekenas Savings Bank.



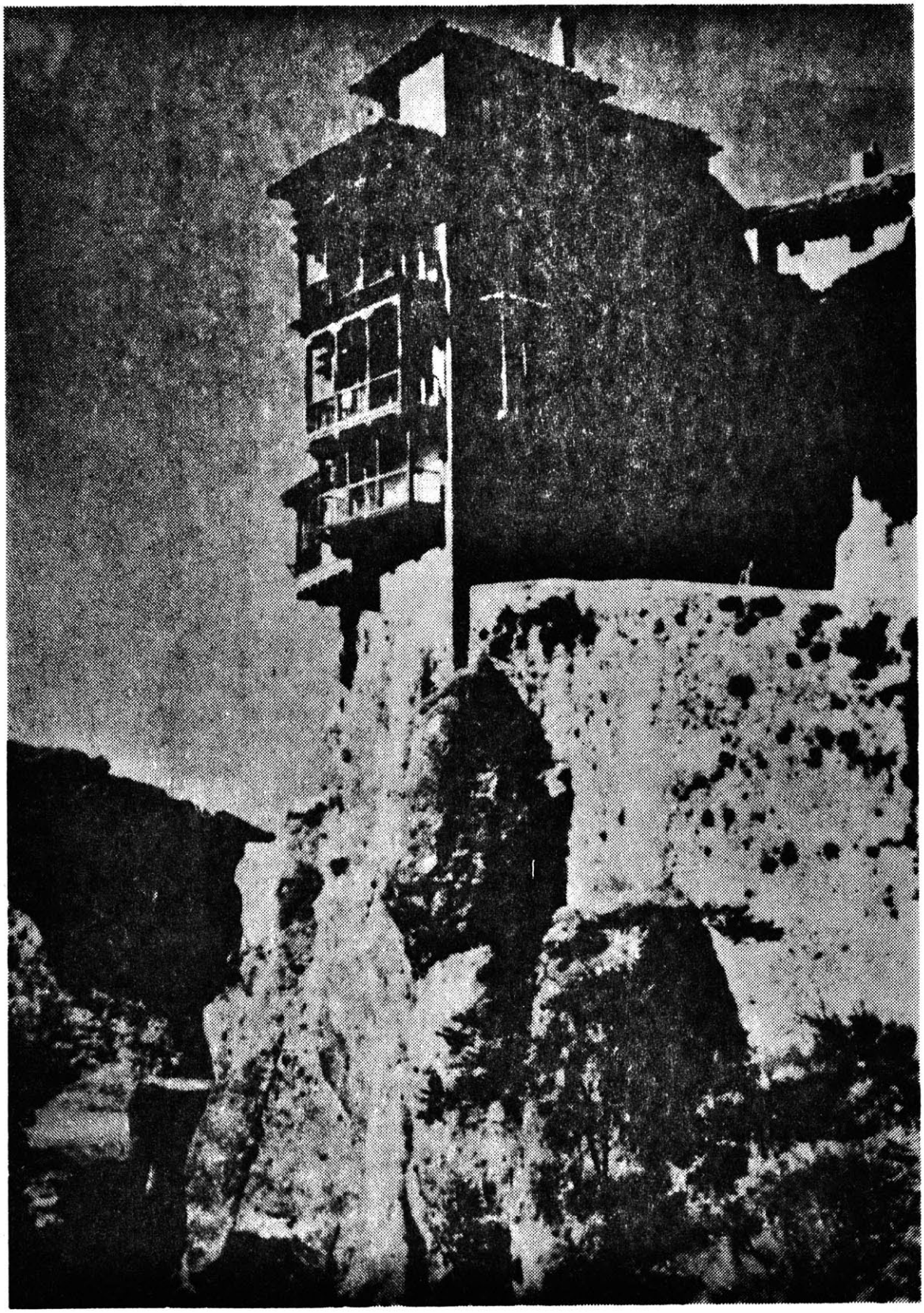
Agora of Athens.



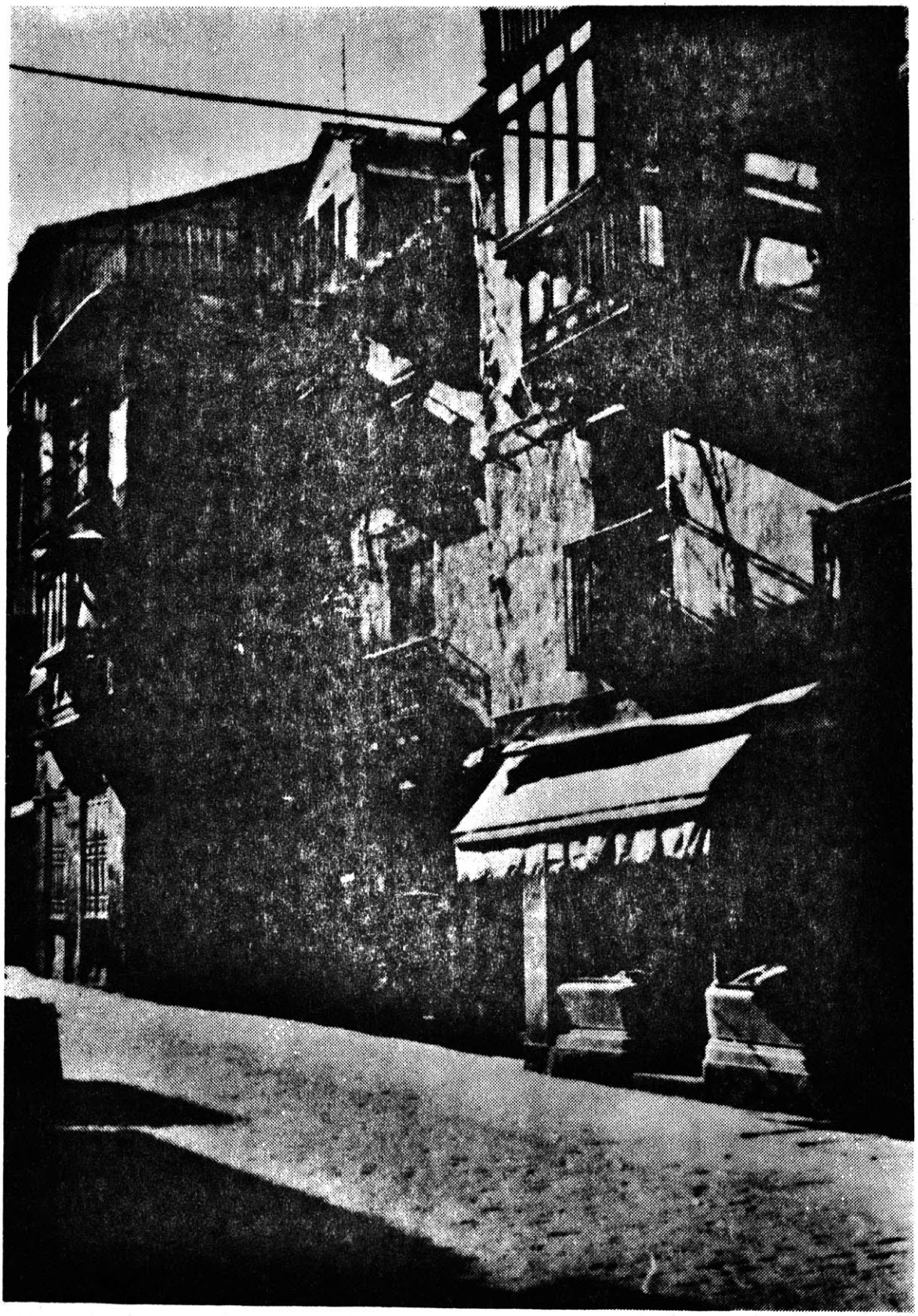
Goetch-Winker house.

--relationships between walls, columns, and screens (elevation)

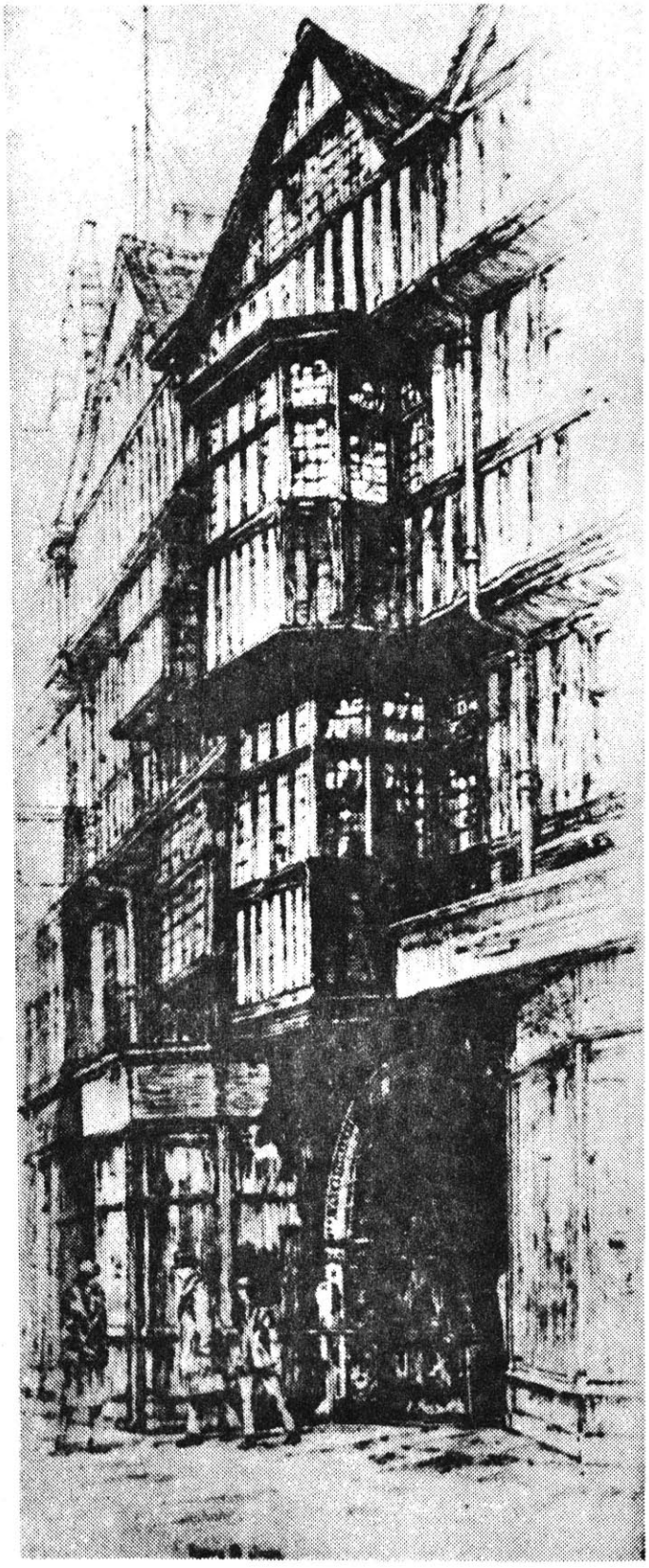
House at Atami.



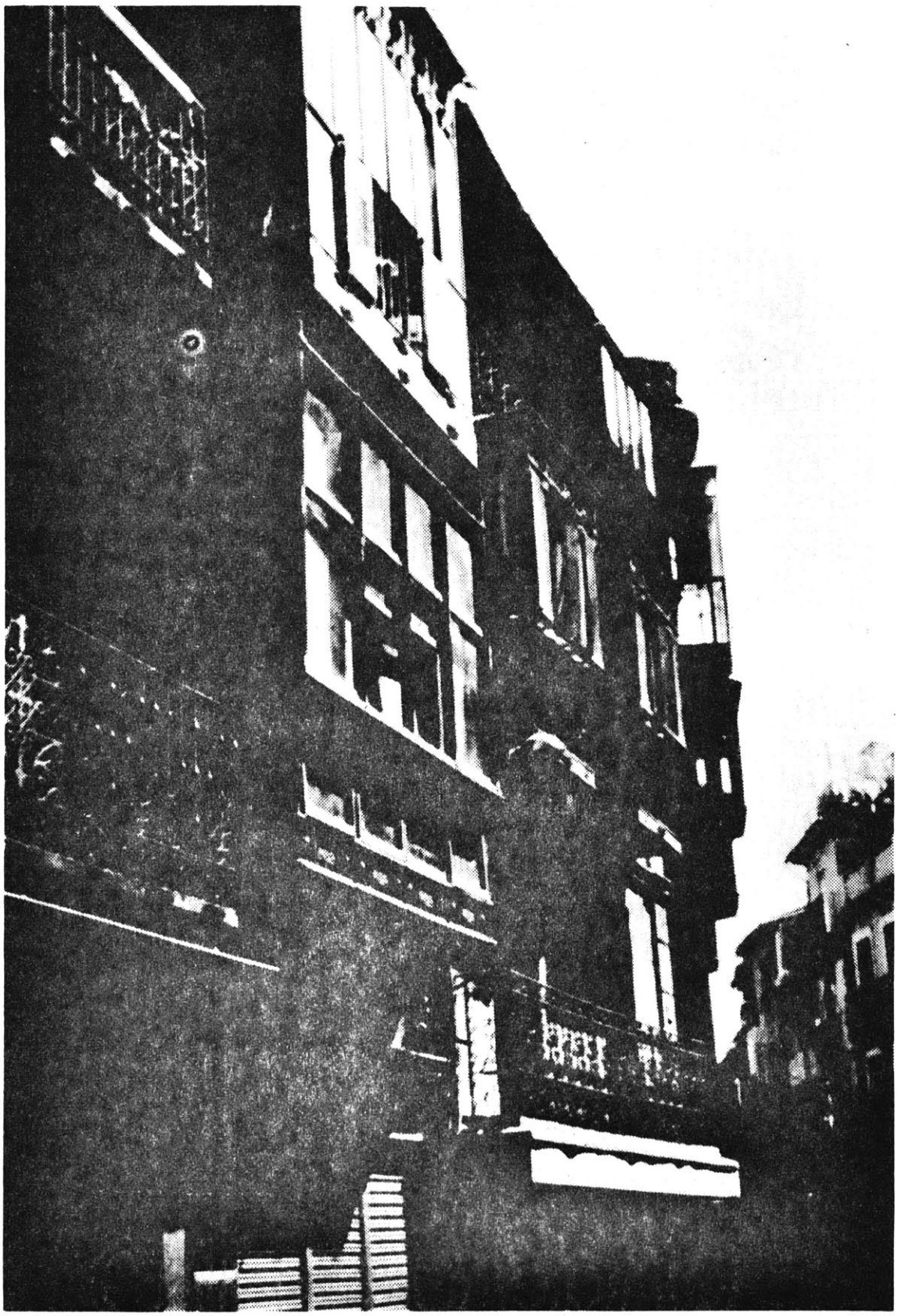
Cuenca.



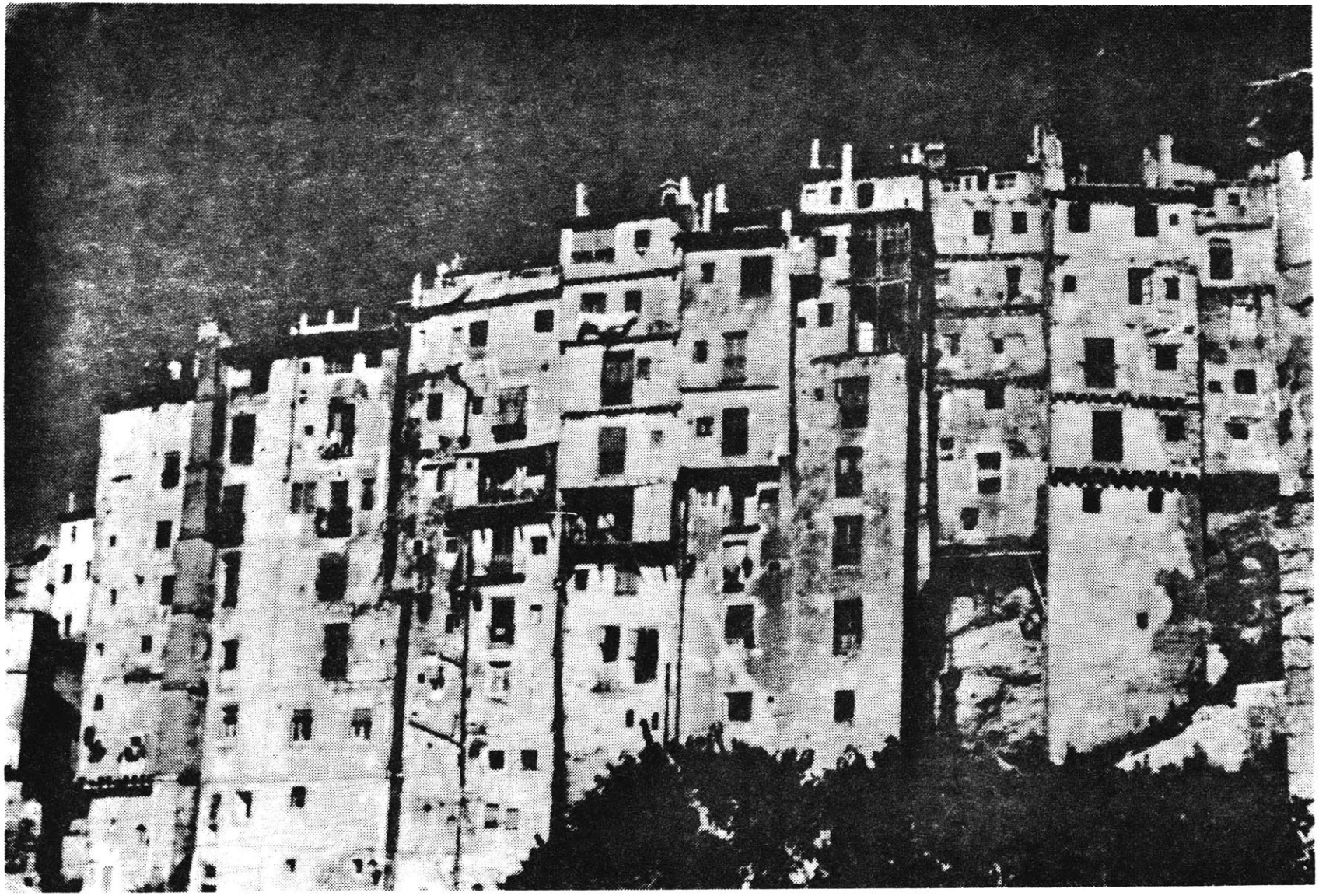
Toledo.



Drawing by S. R. Jones.

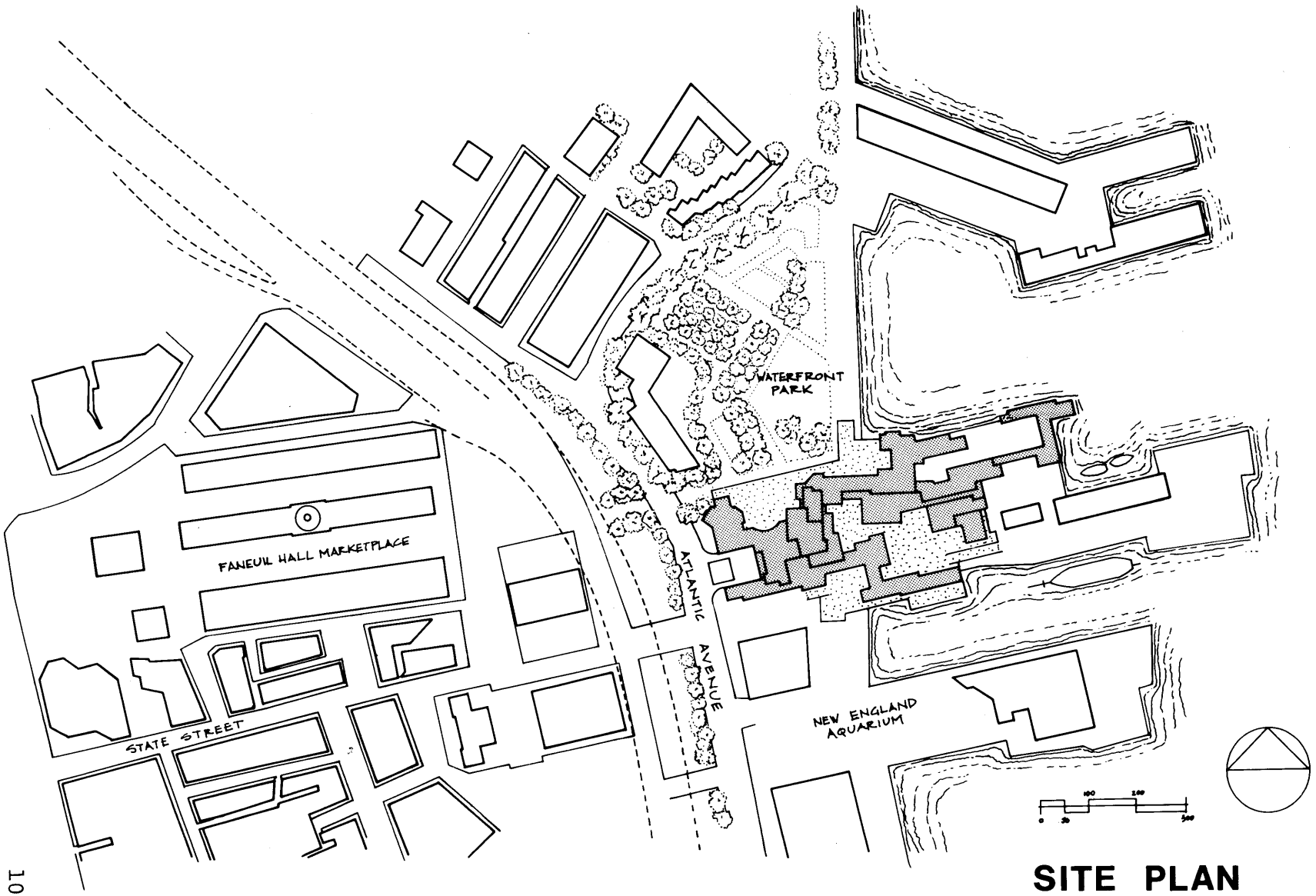


Toledo.

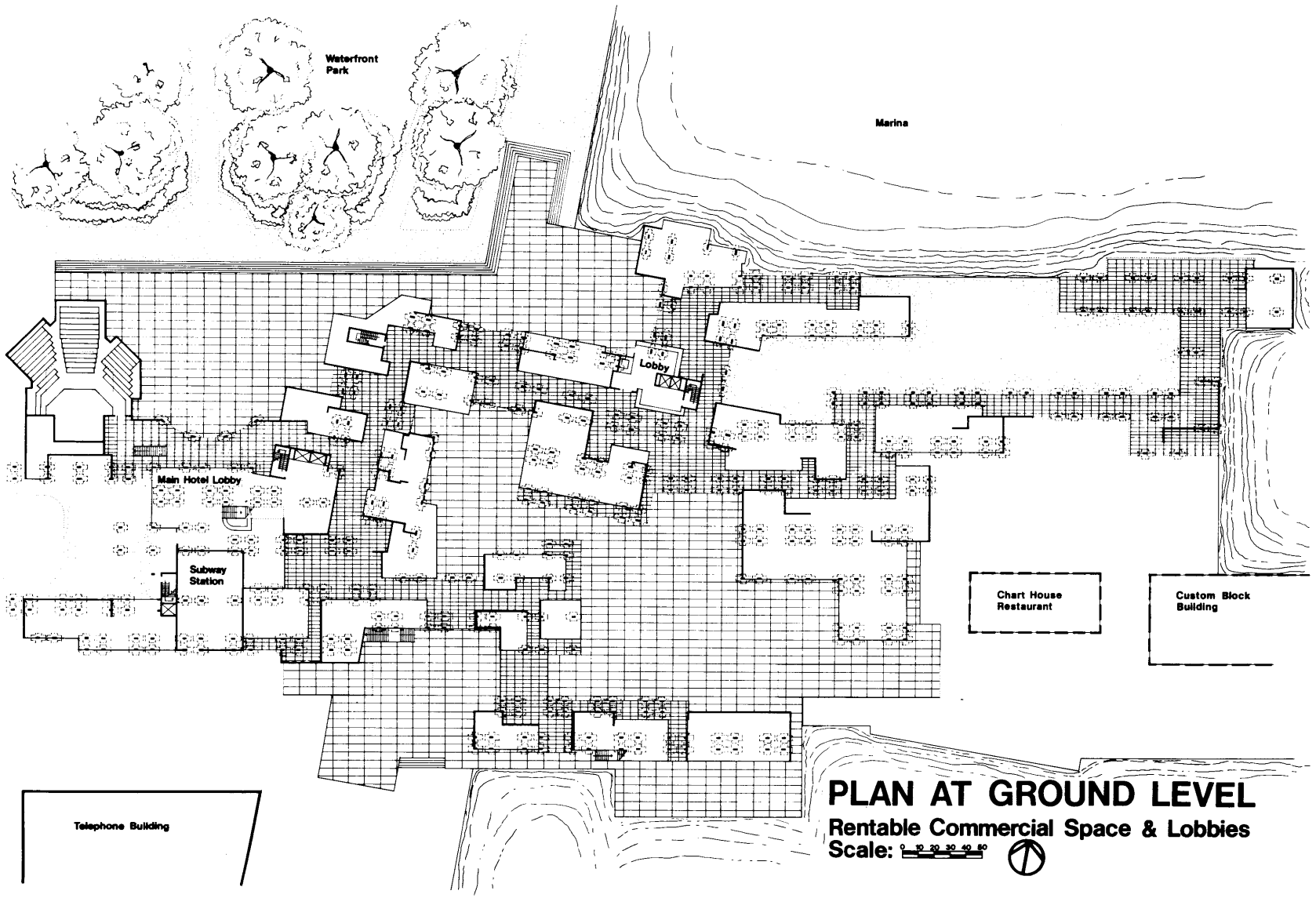


Cuenca.

Drawings


WATERFRONT PARK
FANEUIL HALL MARKETPLACE
ATLANTIC AVENUE
STATE STREET
NEW ENGLAND AQUARIUM

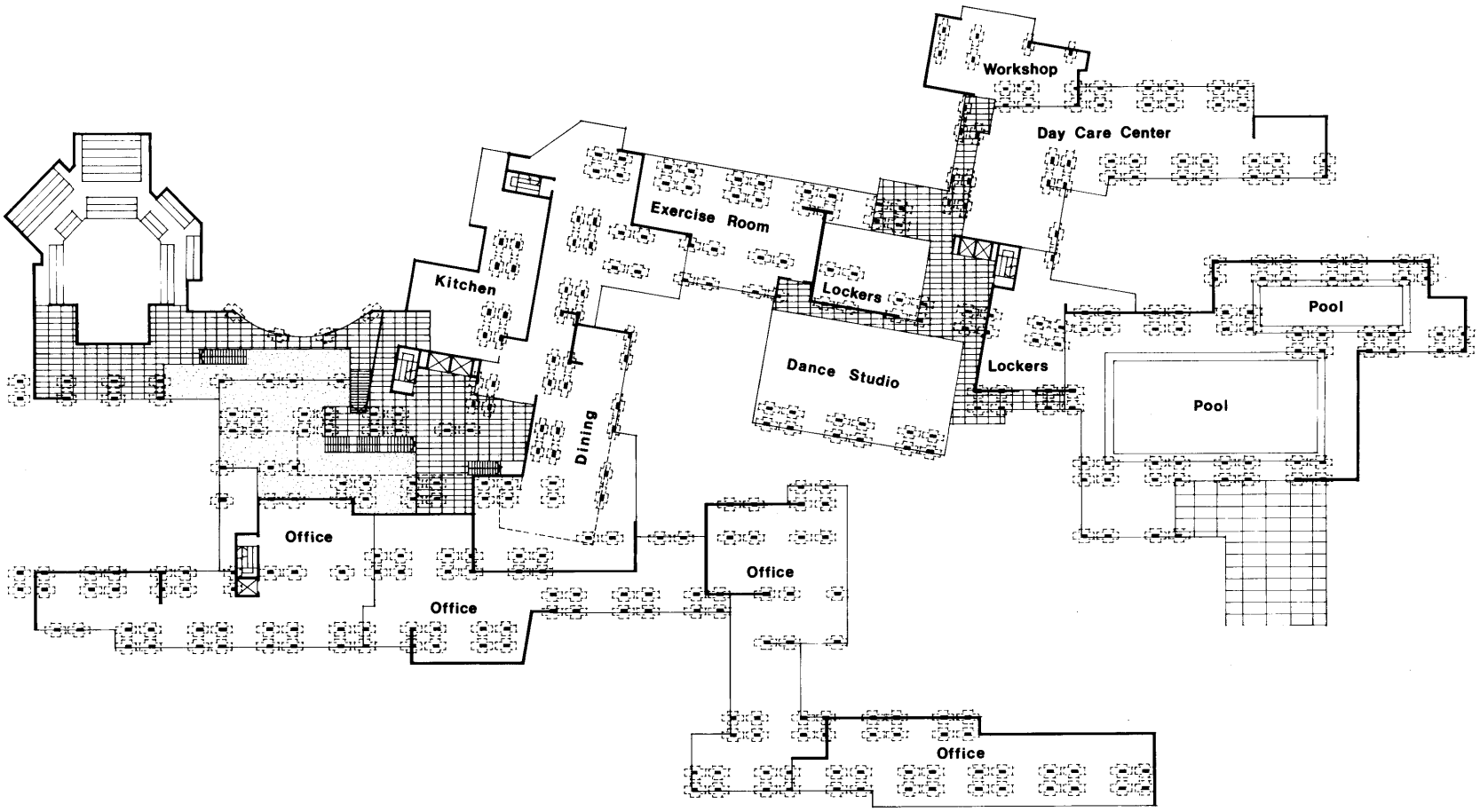
SITE PLAN



PLAN AT GROUND LEVEL

Rentable Commercial Space & Lobbies

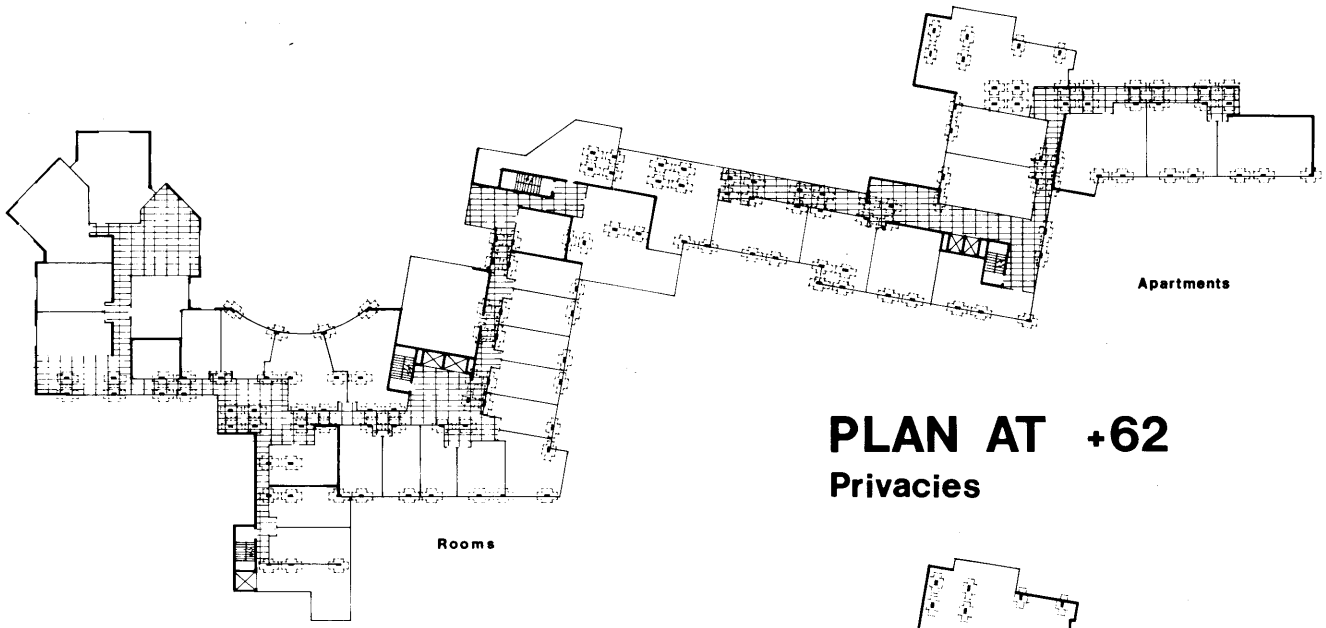
Scale: 0 10 20 30 40 60



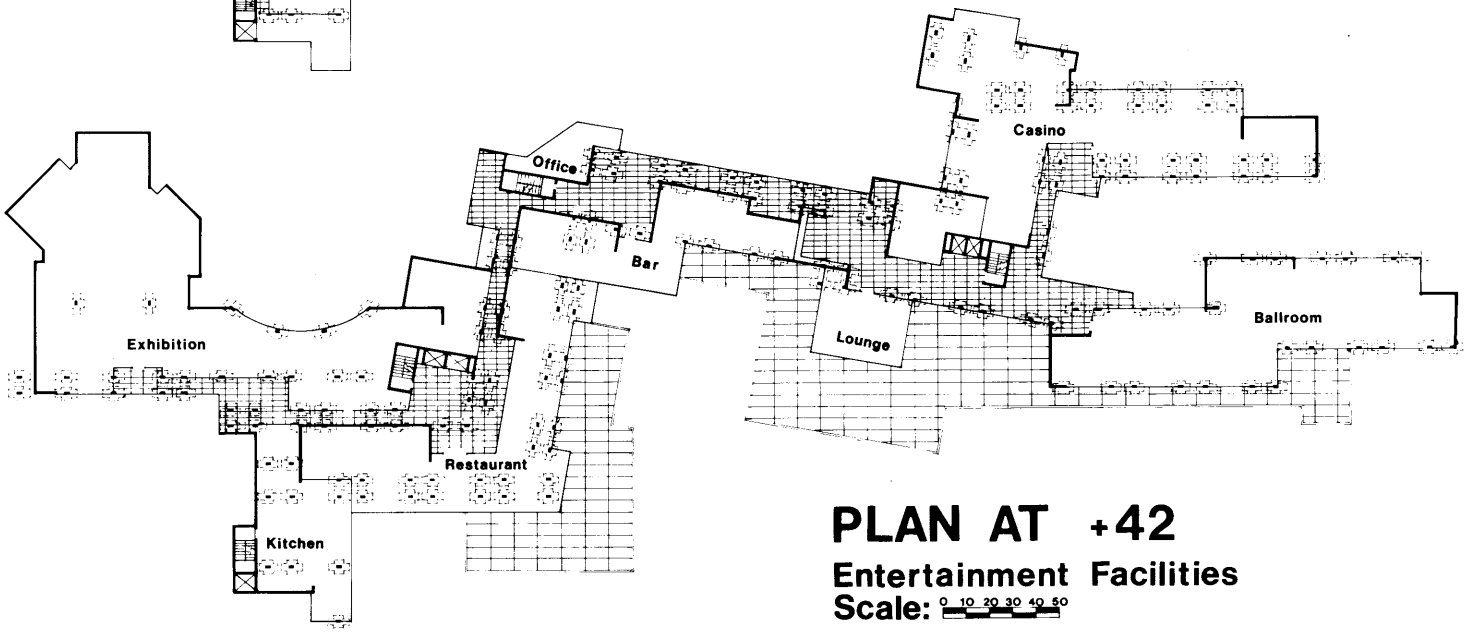
PLAN AT +22

Hotel Dining, Community Facilities & Rentable Office Space

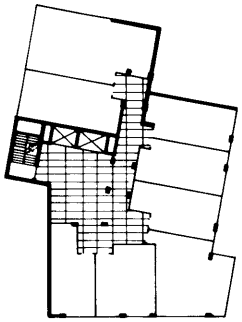
Scale: 0 10 20 30 40 50



PLAN AT +62
Privacies

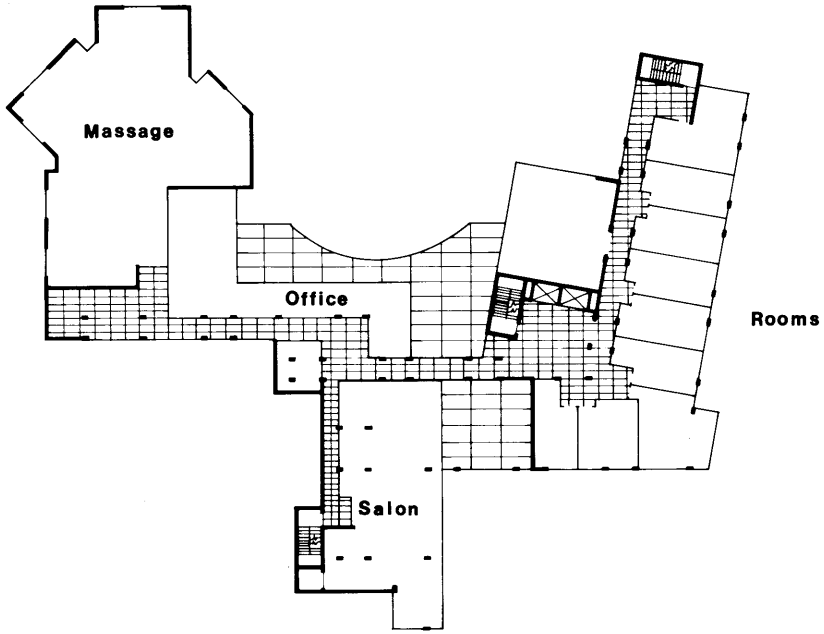


PLAN AT +42
Entertainment Facilities
Scale: 0 10 20 30 40 50



PLAN AT +142

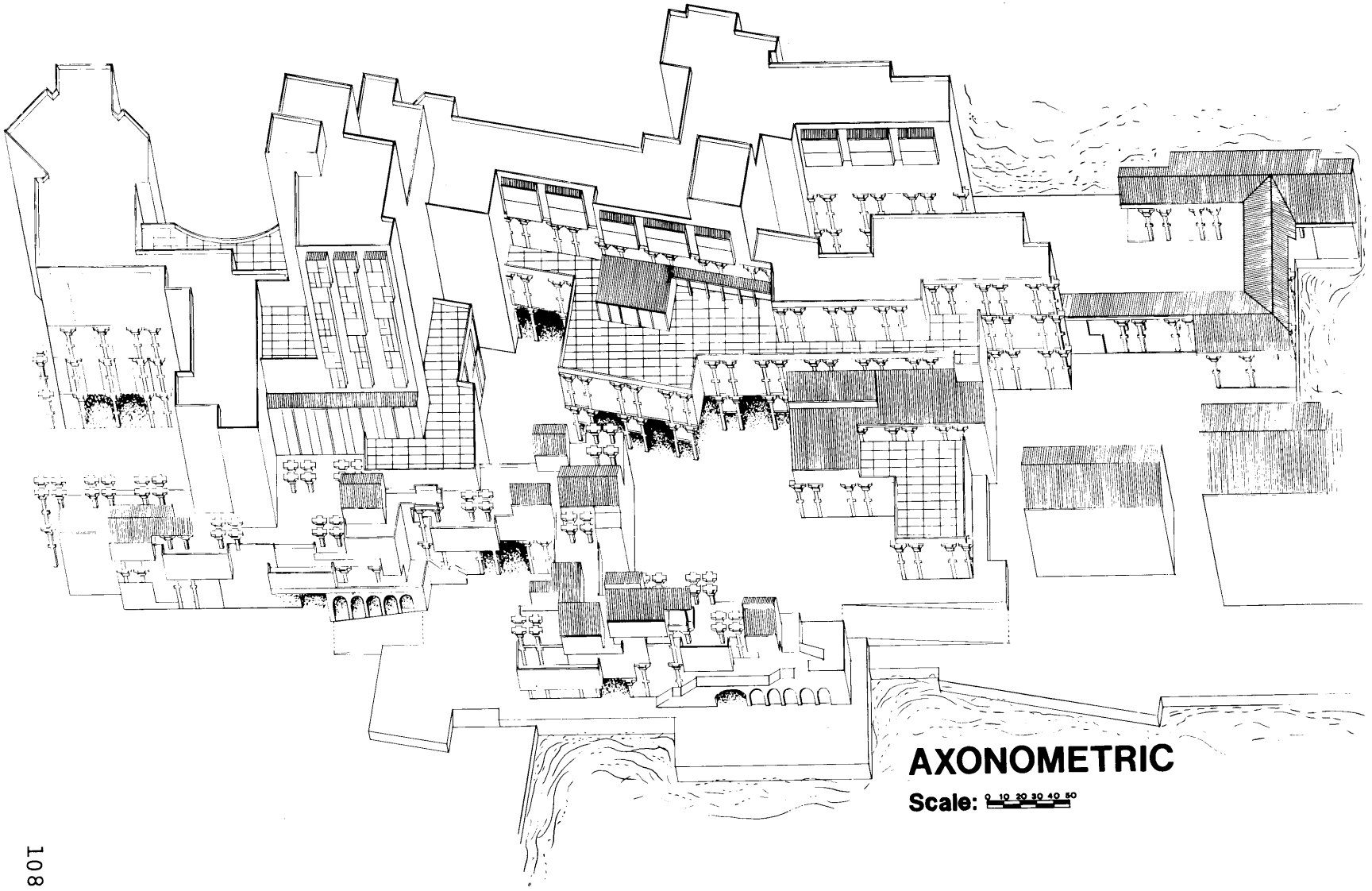
Privacies



PLAN AT +82

Privacies, Massage & Salon

Scale: 0 10 20 30 40 50



AXONOMETRIC

Scale: 0 10 20 30 40 50

Chambord.

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