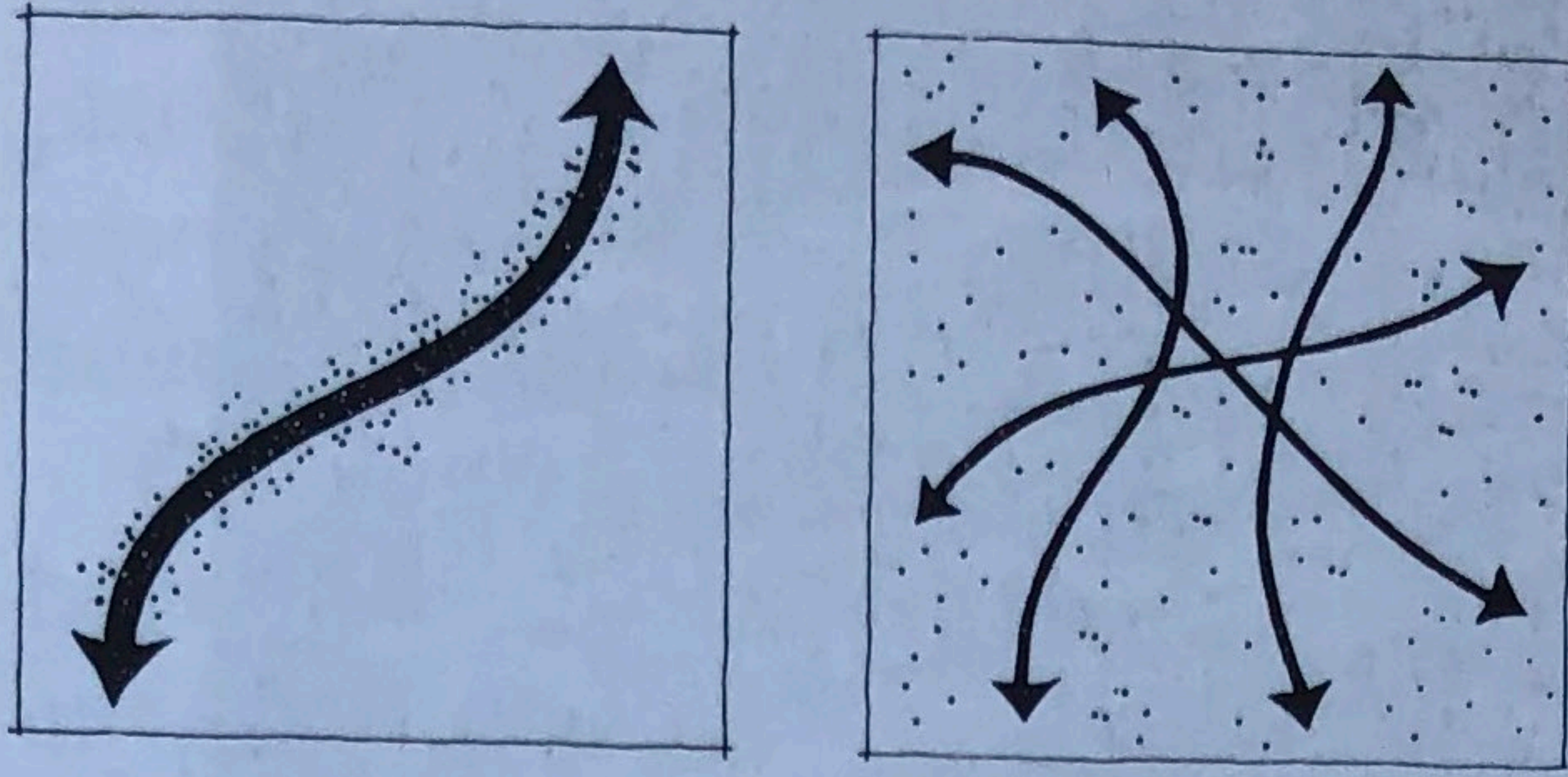


### **3. TO ASSEMBLE OR DISPERSE: City and Site Planning**

**To Assemble or Disperse  
To Integrate or Segregate  
To Invite or Repel  
To Open Up or Close In**



## To Assemble or Disperse



to assemble or  
disperse

If activities and people are assembled, it is possible for individual events, as mentioned, to stimulate one another. Participants in a situation have the opportunity to experience and participate in other events. A self-reinforcing process can begin.

In this and the three following sections attention is drawn to a number of the planning decisions that influence the assembly or dispersal of people and events. This is a general examination of issues that must be considered in order to provide a basis for conscious planning in individual situations, whether the goal is assembling or dispersing. Both aims can, according to circumstances, be equally relevant.

The strong emphasis on the problems of *assembling* in the following, therefore, does not mean that assembling ought to be attempted in all circumstances. On the contrary, in many cases good arguments exist for not doing so; for example, to ensure a more even distribution of city activities over larger sections of the city, or to establish peaceful, quiet spaces as supplements to the more lively ones. The extreme concentrations of high-rise towers, functions, and people, as found in many large cities, exemplify what is in many respects a disadvantageous concentration. Less could certainly do.

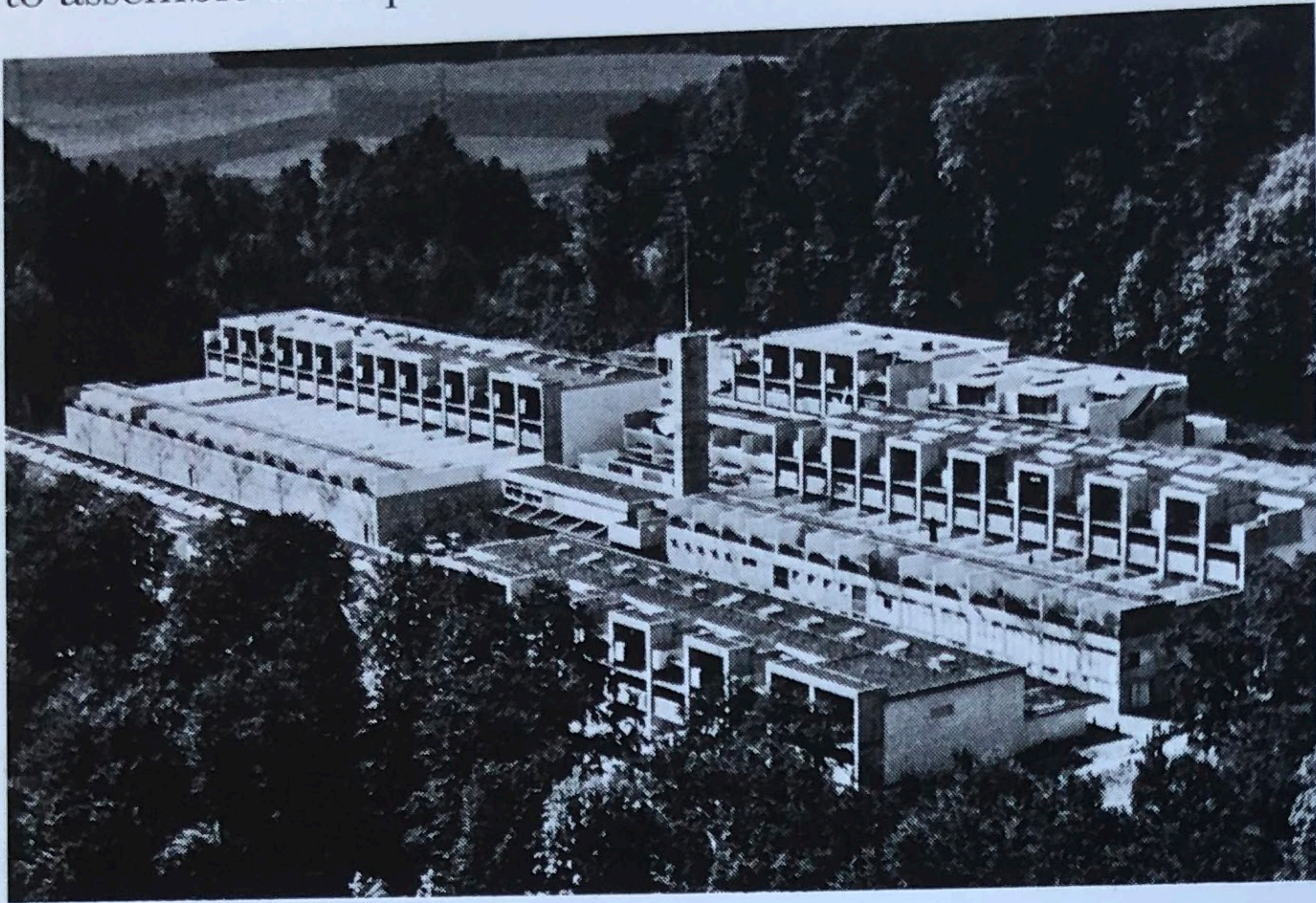
Emphasis is nevertheless placed on the problems of assembling, partly because it is usually far more difficult to assemble events than to disperse them, and partly because developmental trends in society and planning dogma have established a strong general tendency toward the dispersal of people and events in both new and old urban areas.

It is of prime importance to recognize that it is not buildings, but people and events, that need to be assembled. Concepts like floor area/site ratio and building density say nothing conclusive about whether human activities are adequately concentrated.

assembling people  
and events



to assemble or disperse



*If people and events are assembled sensibly, the result will usually be improved conditions for communal activities as well as for privacy. On one side of the dwelling is a street – on the other side there will be room for a veritable forest. (Siedlung Halen, Bern, Switzerland.)*





The design of buildings in relation to relevant human dimensions is crucial – how much can be reached on foot from a given point, and how much it is possible to see and experience. The “dense-low” building project with a great number of houses placed around an intricate path system does not automatically represent a noteworthy concentration of activity, even where building density is high.

Conversely, the village street with its two unbroken rows of houses oriented toward the street represents a clear and consistent assembly of activities. The placement of the buildings and the orientation of the entrances in relation to the pedestrian routes and areas for outdoor stays are the determining factors in this connection.

The fact that the usual radius of action for most people on foot is limited to 400 to 500 meters (1,300 to 1,600 ft.) per excursion [6] and the fact that the possibilities for seeing other people and courses of events are limited to a distance of between 20 and 100 meters (65 and 330 ft.), depending on what is to be seen, in practice place very great demands on the degree of concentration.

If it is to be possible to see other people and events from the home or on a short walk of a little more than a half kilometer (1,600 ft.) and possible to reach the most important services on foot, the activities and functions must necessarily be assembled very carefully. Only a few space-demanding, trivial functions or a slightly excessive distance is needed to turn richness of experience into poverty.

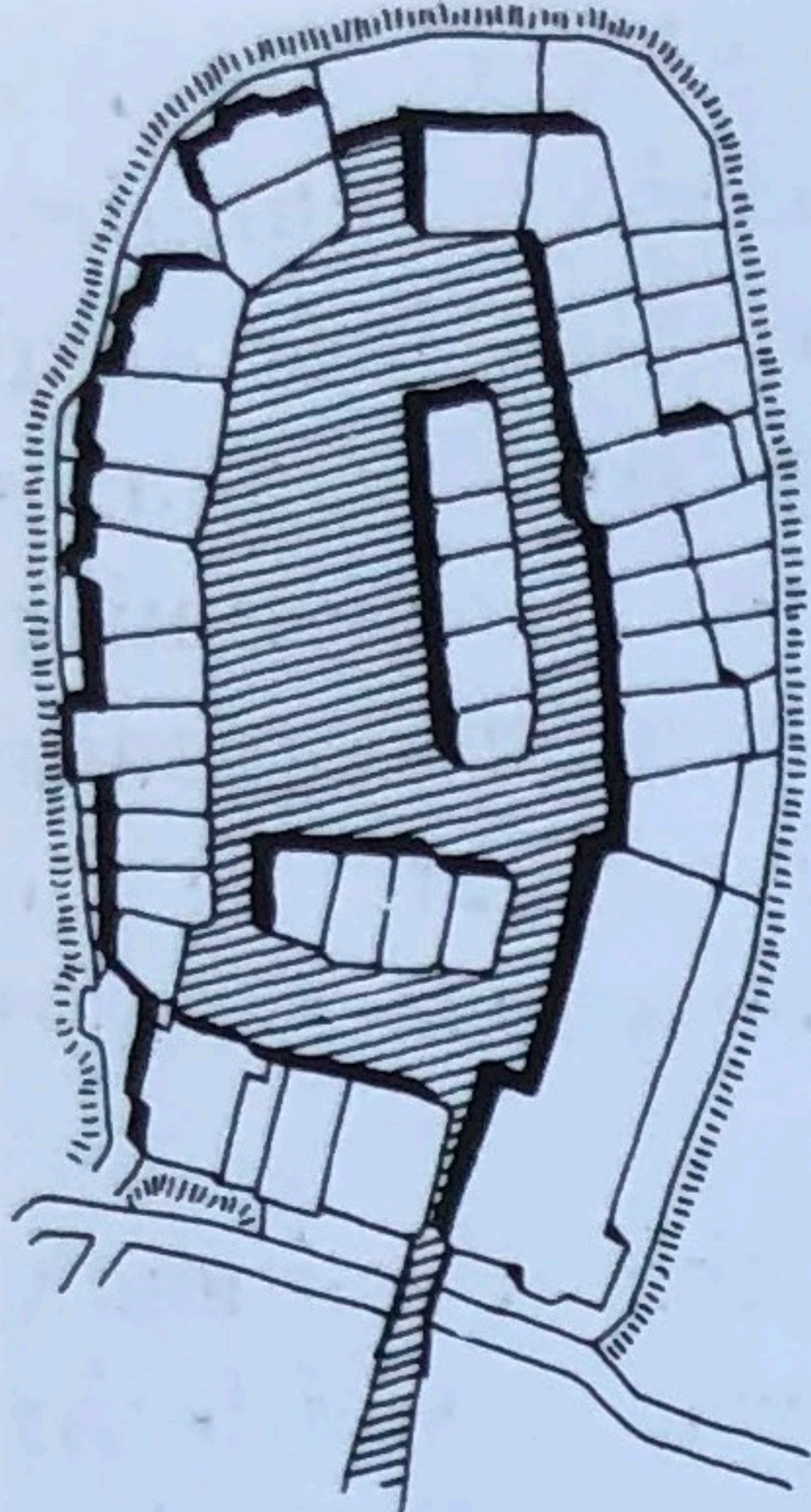
It is, quite simply, of utmost necessity to be very careful with every single foot of facade or pedestrian route.

The problems involved in assembling or dispersing people and activities must be examined in a broad planning context. Decisions at the large scale, in city and regional planning; at the medium scale, in site planning; and at the small scale are inseparably linked. If the prerequisites for reasonably well-functioning and well-used public spaces are not created through decisions at the primary planning level, a basis seldom exists for working at the small scale. This interrelationship is important because in all cases the small scale – the immediate environment – is where the individual person meets and evaluates decisions made at all planning levels. The battle for high quality in cities and building projects must be won at the very small scale, but preparations for successful work at this level must be made on all planning levels.

the large, the  
medium, and the  
small scale

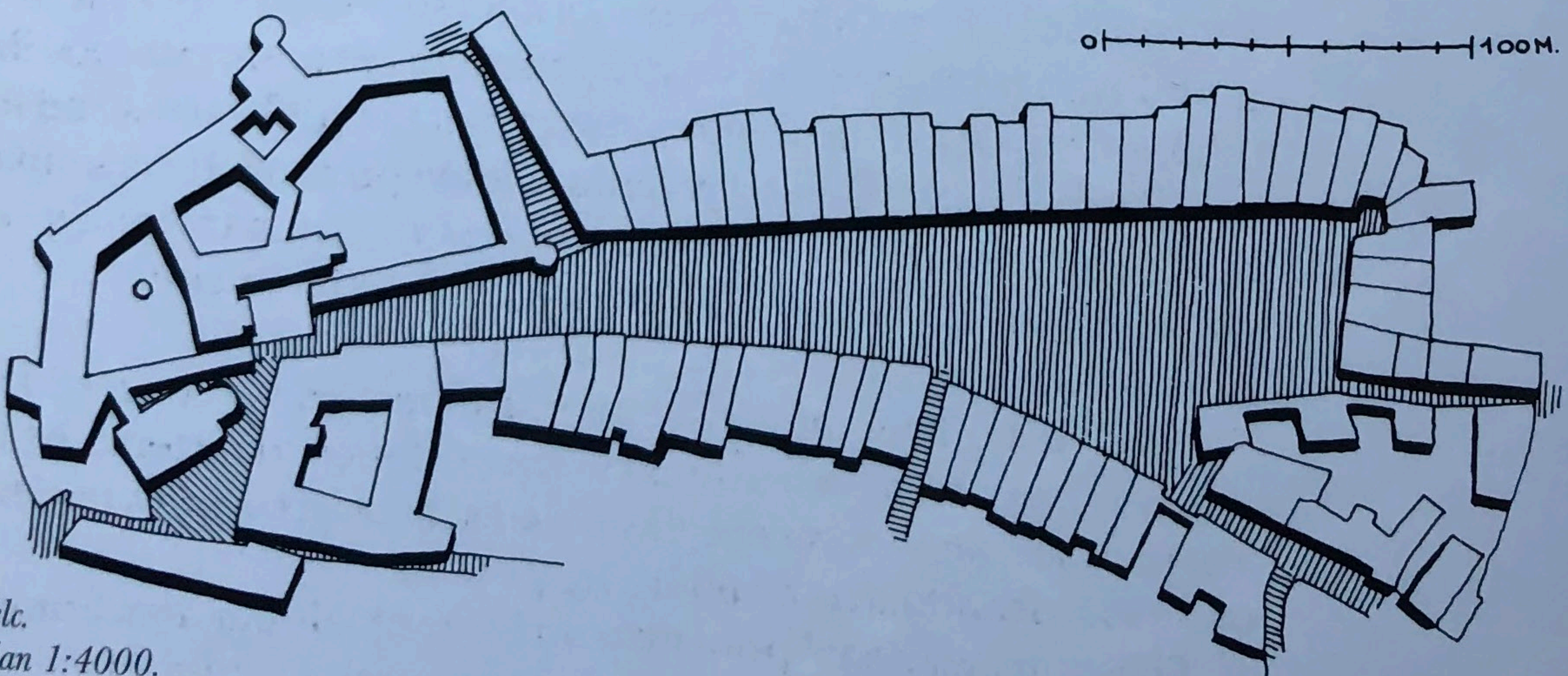
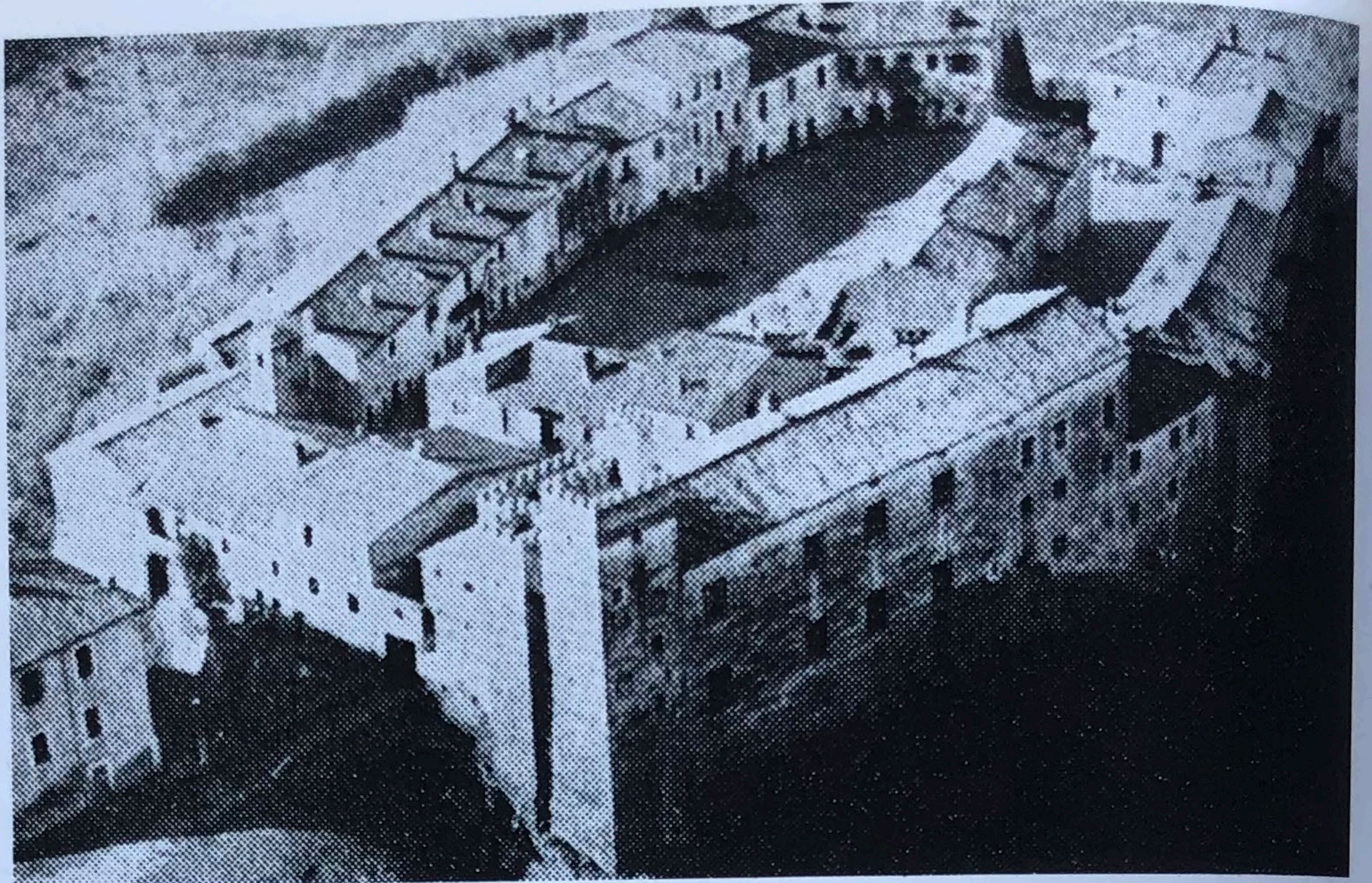


the town that is a square



50 M.

*San Vittorino Romano.  
Plan 1:4000.*



100 M.

*Telc.  
Plan 1:4000.*



to assemble or  
disperse – at the  
large scale

At the large scale – in city planning – there is an effective dispersal of people and events when residences, public services, industries, and trade functions are placed separately on large individual tracts of land in a functionally segregated city structure that is dependent on the automobile as the means of transportation between units. Dispersal of events and people is a phenomenon common to nearly all suburban areas worldwide, and in the sprawling city of Los Angeles it attains its most consistent and disturbing form.

In contrast to this is the city structure that consistently assembles events and people in a clear pattern, in which the public spaces are the most important elements in the city plan, and where all other functions are effectively located alongside and facing the streets. Such city structures can be found in nearly all old cities, and are, in most recent years, again gaining a foothold in new projects in European cities. The most recent Swedish new town, Skarpnäck [46], south of Stockholm (see page 90), is one among several examples of this most interesting development, where streets and squares have again become the major elements around which all other functions are located.

to assemble or  
disperse – at the  
medium scale

At the medium scale – in site planning – people and activities are dispersed when buildings are placed at great distances from one another, with entrance areas and residences oriented away from each other. The pattern is common in traditional single-family housing areas and functionalistic detached apartment blocks. In both of these cases a maximum of sidewalk and path connections occur, with overdimensioned open areas and a consequent thinning out of outdoor activities.

Conversely, people and activities can be assembled by placing the individual buildings and functions so that the system of public spaces is as compact as possible and so that the distances for pedestrian traffic and sensory experiences are as short as possible. This principle can be found in nearly all pre-1930 areas and in a growing number of more recent building projects. In its simplest and most well-arranged form it can be found also in small towns where all the buildings are assembled around a square.

the town that is a  
square

San Vittorino Romano, just east of Rome, and the town of Telc in Czechoslovakia are early examples of this building form. Modern parallels include recent cluster housing projects and a number of recent Scandinavian cohousing projects.

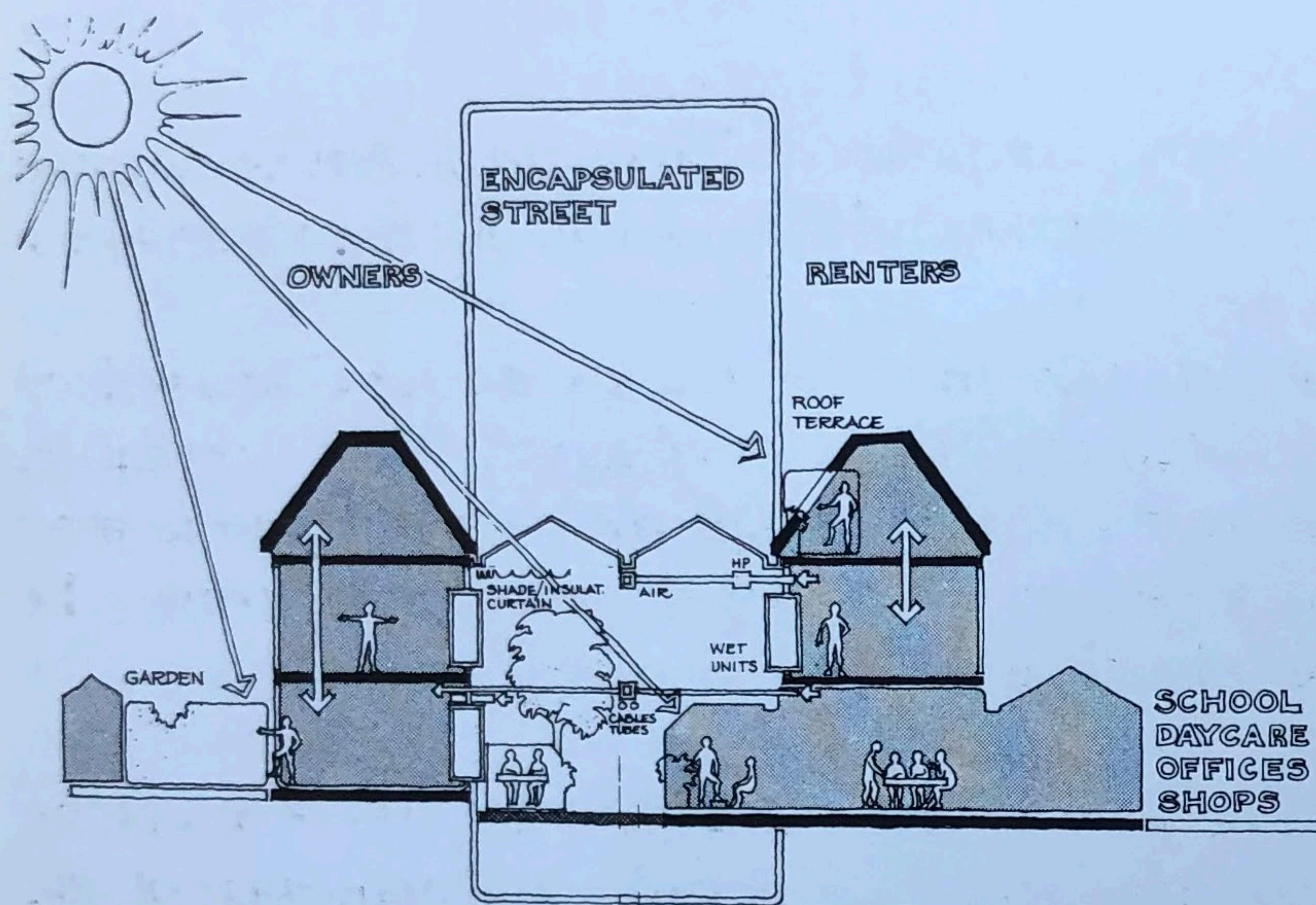
This organizational principle can be traced throughout history, from traditional tribal camps to contemporary campsites.



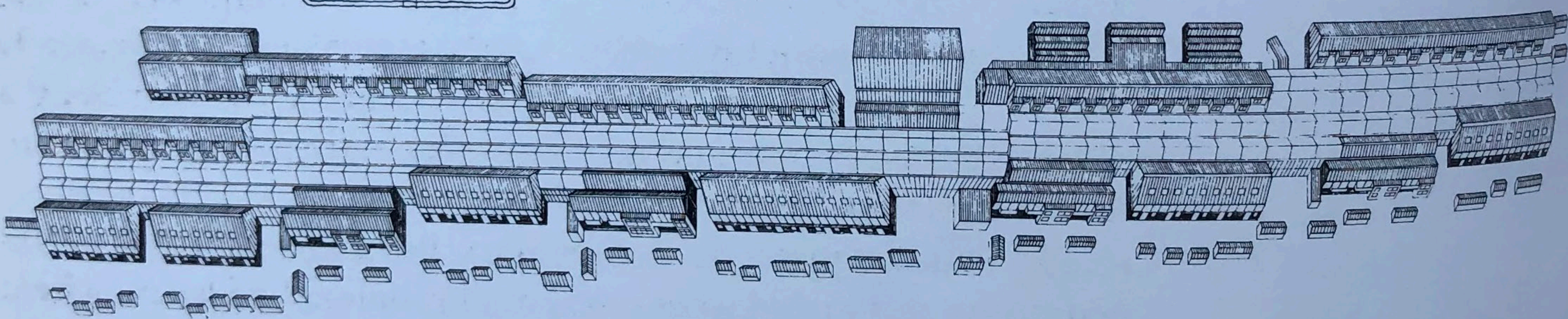
the town that is a street



*The town that is a street  
(Arnis, northern Germany.)*

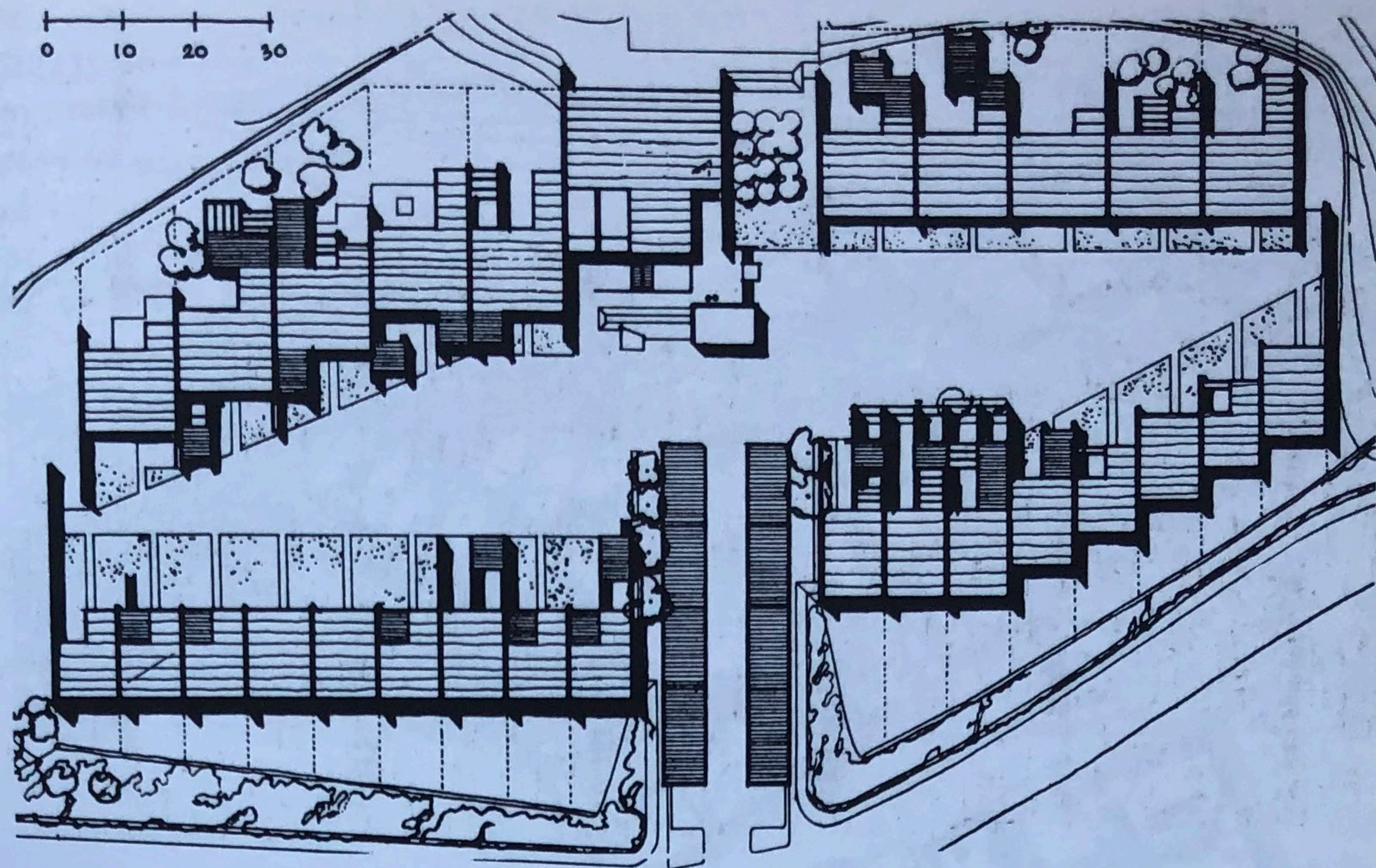


*The town that is a street. All units placed along a glass covered street.  
(Gårdsåkra, Eslöv, Sweden. 1980-82. Architect Peter Broberg.)*





The emphasis on communal living is reflected in the housing layout. Co-op housing Sættedammen, north of Copenhagen (1970). [48]. Plan 1:2000. (Architects T. Bjerg and P. Dyreborg)



The buildings, entrances, tents, and so on are assembled around a public space and turn toward one another like friends around a table.

Building projects oriented around a square are characterized by having a limited number of inhabitants. If the population becomes too large, there is not enough room for everyone around the square – if the square is to retain dimensions that permit the visual assembly of activities.

the town that is a street

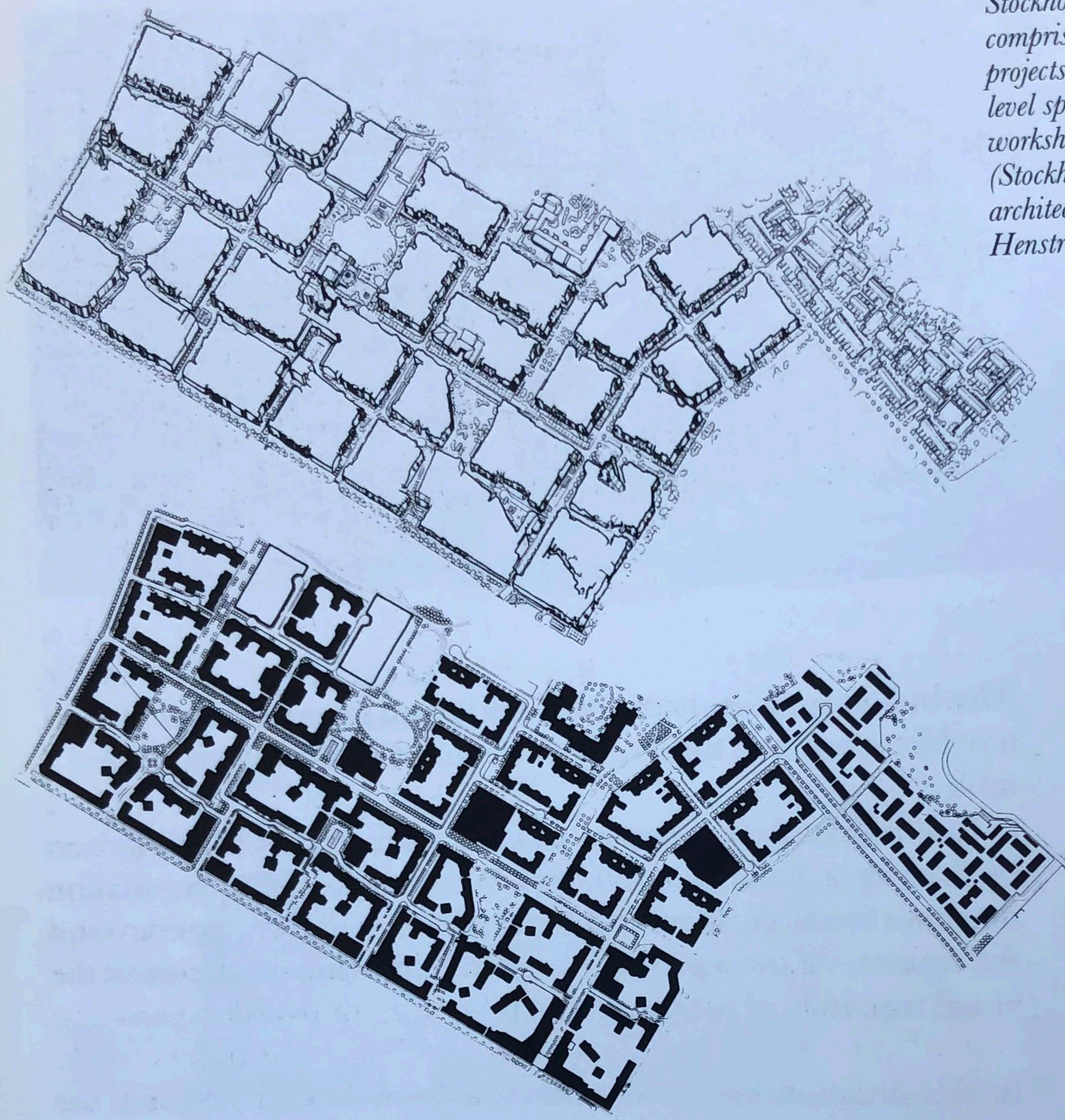
In this situation the street lined with low buildings becomes the natural organizational form as a logical consequence of the limitations of human movement and a frontally and horizontally oriented sensory system. When activities are assembled along a street, the individual is able, merely by taking a short walk, to establish what is going on in the area.

This building principle is found in its simplest form in towns built up around a single street. Traditional villages, which developed along a main street, have been mentioned already. A recent example of a town built according to this principle is Gårdsåkra in Eslov, Sweden, designed by the architect Peter Broberg [13]. In Gårdsåkra all the residences, the entrances, the school, the public buildings, and the integrated workshops and offices are assembled along a street. The principle of creating a linear structure has made it possible in this case for the street to be roofed with glass to assure climate protection year-round. The concise, street-oriented site structure has also been used in recent Scandinavian housing areas, where the “town” becomes a street with houses along it.



cities with streets and squares: Skarpnäck, Stockholm

*Skarpnäck, a new town south of Stockholm, Sweden (built 1982-88), comprises private and public housing projects for 10,000 inhabitants. Street-level spaces are allocated to offices, workshops, and communal facilities. (Stockholm City Planning Office, architects Leif Blomquist and Eva Henström)*



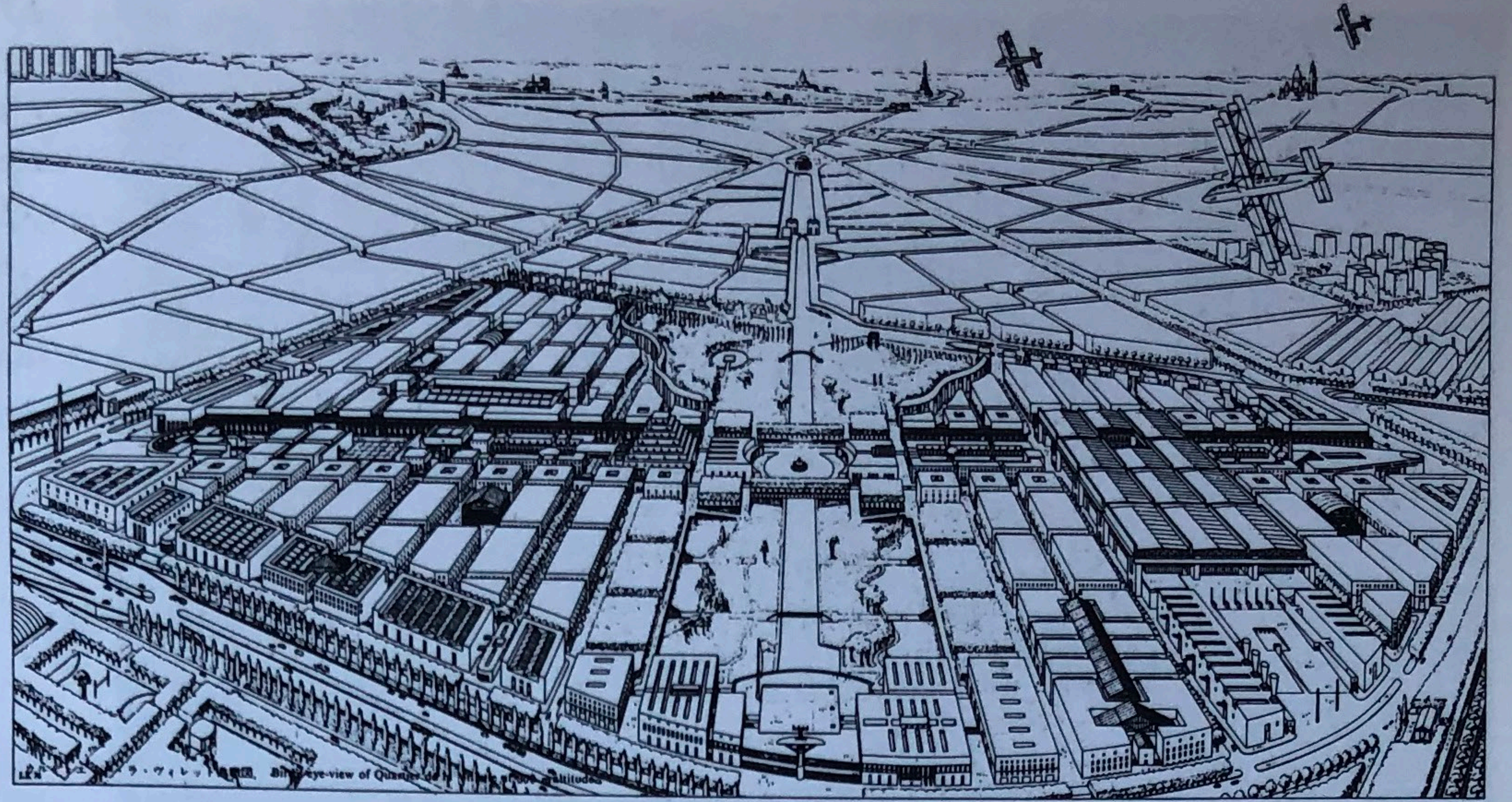
*Left: Conceptual diagram and town plan 1:12,500.  
Below: Skarpnäck main street.*





*A definite trend away from loose suburbs and toward tight urban patterns of cities with streets and squares is clearly distinguishable in contemporary European planning policies.*

*(Competition project for La Villette, Paris, 1976. Architect Leon Krier [30].)*



cities with streets and squares

Large building projects need more streets and squares with a more differentiated structure that includes main streets, side streets, and primary and secondary squares, such as are found in old cities.

The principle is occasionally found in suburban areas and functionalistic building projects. Generally, however, it is in such a diluted and spread-out fashion that the "streets" have become roads and the "squares" have become huge, open, nondescript areas devoid of people. In this way the individual activities have been dispersed in time and space because of overdimensioning and an unnecessary doubling and spreading of the access roads. It is not the lack of pedestrian traffic and residents that has prevented the establishment of more intimate and better-used public spaces, but rather the decision to have many dispersed roads and paths instead of a more concentrated street network such as that found in the old cities.

In the entire history of human settlement, streets and squares have been the basic elements around which all cities were organized. History has proved the virtues of these elements to such a degree that, for most people, streets and squares constitute the very essence of the phenomenon "city." This simple relationship and the logical use of streets and squares – streets based on the linear pattern of human movement and squares based on the eye's ability to survey an area – have in recent years again been taken up. Leon Krier's projects and theoretical studies [29, 30, 31], Rob Krier's new city areas in Berlin [34], Almere New Town in Holland, and Scandinavian new towns such as Skatudden in Helsinki and Skarpnäck New Town near Stockholm [46] point to an interesting renaissance of the proven principles of cities built around streets and squares.



to assemble or disperse – spatially



*In general, the size of spaces in old cities correlates well with the human sensory apparatus and the number of people who use the spaces.*

*In more recently built communities, an equally careful handling of the spatial dimensions is indeed rare. Nevertheless, a number of exceptions from this general rule can be found.*

*Top left: Marken, Holland.*



*Left: The average width of streets in Venice is 3 meters (9 feet). This width permits a pedestrian flow of 30-45 persons per minute.*

*Below: Suburban street 24 meters (72 feet) wide in Toronto, Ontario. The space creates a seemingly unbridgeable void between the houses.*

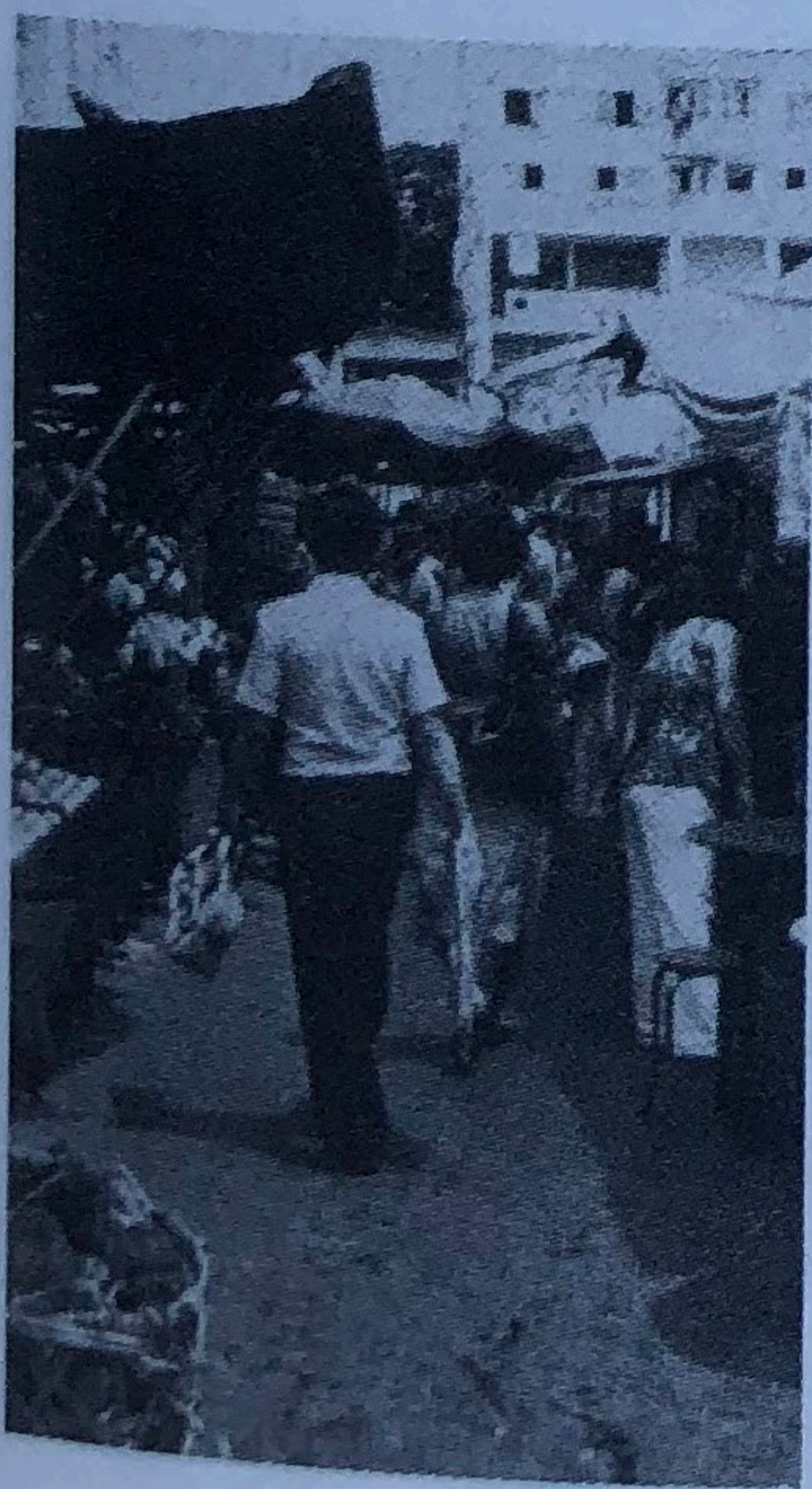




to assemble or  
disperse – at the small  
scale

to assemble or  
disperse – spatially

*Street market, Singapore.  
Throughout the world the  
distance between market  
stalls is from 2 to 3 meters  
(6 to 9 feet).*



At the small scale – in the design of the outdoor spaces and adjacent facades – it is necessary to work with detailed and careful planning of the elements that generate and support life between buildings. Individual functions and activities should be evaluated on a case-by-case basis and allotted street frontage in accordance with their value as attractions and their importance for the functioning of the outdoor space. Based on the individual person's limited radius of action and modest sensory range, the design of each foot of street or facade and each square foot of space is of utmost importance.

At the small scale dispersing activities spatially can be achieved by overdimensioning areas for few people and few activities. Twenty-, thirty-, and forty-meter-wide (65-, 100-, and 135-ft.) pedestrian streets, or squares with a length and width ranging from forty or fifty to sixty meters (135 or 170 to 205 ft.), in residential building projects of modest size, are examples of this. Not only is there a long distance between people from one side to the other in such spaces, but the possibility for those walking through of experiencing simultaneously what is going on at both sides is more or less lost.

Conversely, an attempt can be made to assemble events by dimensioning both streets and squares realistically in relation to the range of the senses and the number of people that can be expected to use the spaces.

The usual distance between stalls in the marketplace and in department stores is 2 to 3 meters (6 to 9 ft.), a size that permits pedestrian traffic, trade on both sides, and a clear view of the merchandise on both sides. In Venice the average street width is a good 3 meters (9 ft.), a dimension that provides room for a pedestrian traffic flow of forty to fifty pedestrians per minute.

That the intensity of experience also is increased with reduced size often will be an additional incentive to careful dimensioning of spaces. It is nearly always more interesting to be in small spaces, where both the whole and the details can be seen – one has the best of both worlds.

Venice and other places with very narrow streets should not necessarily be used as direct models for new streets, but they serve to underline the fact that so many spaces in our modern cities are grossly oversized. It is as if planners and architects have a strong tendency, whenever in doubt, to throw in some extra space, just in case, reflecting the general uncertainty concerning the proper handling of small dimensions and small spaces. *Whenever in doubt, leave some space out.*



small spaces in large ones

In northern European countries, the climate presents difficult problems with regard to dimensioning outdoor spaces. Small spaces with tall buildings also mean dark and sunless spaces. In southern Europe, it is reasonable and comfortable to have shade and subdued light, but in the north, both light and sun are highly valued qualities. The wish for light and sun, plus a modest-sized space in which people can congregate, can, however, be combined. The terracing of buildings is one possibility; another is building up small spaces within the large ones. Street spaces with rows of trees demonstrate the value of the principle of small spaces within large ones. Comparably, front yards in front of rowhouses assure both wide, sun-filled spaces and a reasonably narrow, intimate street.

*A small space in a large one.*



*Above: Rows of trees introduce an intimate scale in the open landscape.  
Right: In the wide street space of the Rambla in Barcelona trees and pavilions create an attractive pedestrian space*



to assemble or  
disperse – along the  
facade

*valuable  
yuh.4+*

to assemble or  
disperse along the  
facade – in city streets

The design of facades or adjacent areas also provides possibilities for influencing the concentration of activities and the intensity of experience for those who pass by on the sidewalk. The concentration of activities depends on active and closely spaced exchange zones between street and facade and on short distances between entrances and other functions, which contribute to activating the public environment.

Big buildings with long facades, few entrances, and few visitors mean an effective dispersal of events. The principle, in contrast, should be narrow units and many doors.

If activities are to be assembled rather than dispersed in city streets, only the entrances to large buildings, businesses, banks, and offices naturally belong on the facade fronting the public area.

Street life is drastically reduced when small, active units are superseded by large units. In many places it is possible to see how life in the streets has dwindled drastically as gas stations, car dealerships, and parking lots have created holes and voids in the city fabric, or when passive units such as offices and banks move in.

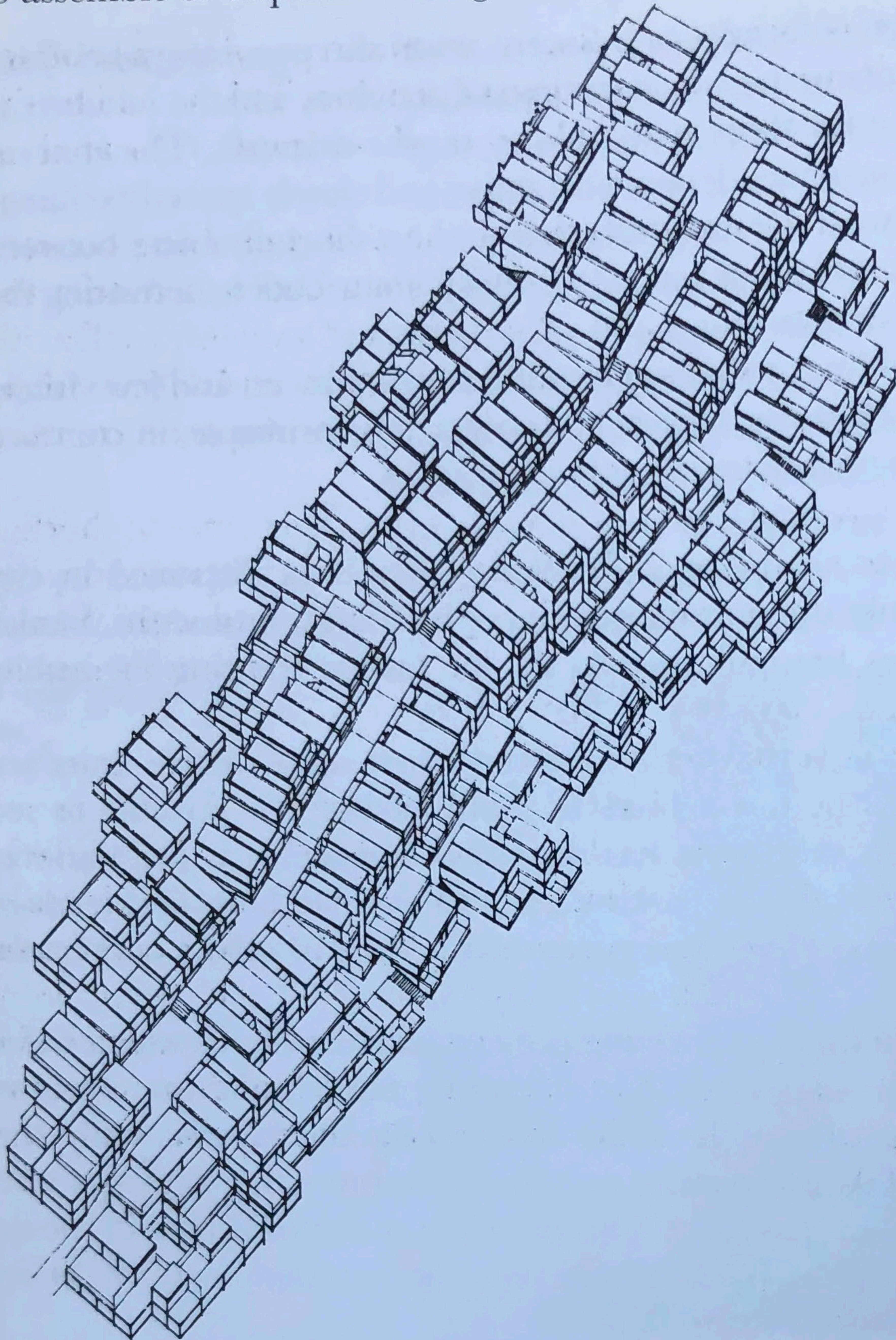
In contrast, examples exist of careful planning in which holes and voids are not accepted, where large units are situated behind or above the small units along the facade. Only the entrances to all functions and the most interesting activities take up space in the facade. This principle is demonstrated in movie theaters, for example, where only the entrance with the ticket



*Narrow units and many  
doors are important  
principles for concentrating  
events.  
(Java Island, Amsterdam,  
the Netherlands.)*



to assemble or disperse – along the facade



*When buildings are narrow, the street length is shortened, the walking distances are reduced, and street life is enhanced.  
(Competition project for the extension of Rørås, Norway.)*

*Narrow street frontages mean short distances between entrances – and entrances are where the majority of events nearly always take place.*





booth and advertising are placed on the street, while the auditorium itself is well hidden somewhere behind. This should be the standard solution when banks and offices must be located on city streets.

To counteract the problem of the dull and dying facades, many Danish cities have passed building codes to restrict the establishment of banks and offices at street level. Other Danish cities very successfully have allowed banks and offices to be established on city streets, but only as long as the street frontage is not in excess of five meters (15 ft.).

Not surprisingly, the practice of giving each unit the shortest possible street facade is found in all new suburban shopping malls. Knowing that pedestrians generally do not wish to walk very far, shopping mall designers logically use narrow frontages, so that there is room for as many shops as possible in the shortest possible street distance.

Using the principle of narrow, deep lots along with the careful use of frontage space avoids the problems of "holes" and "left-over-areas" wherever buildings face sidewalks and pedestrian routes. This is also true in residential areas. Good examples of such site plans are found in many traditional rowhouse projects and in a number of building projects, such as Siedlung Halen in Bern, Switzerland (see illustration on page 84) and more recent residential areas on Java, Borneo, and Sporenburg Islands in the Harbor of Amsterdam.



*In city streets, the length of frontages should be carefully dimensioned. A rhythm frequently found in shopping streets in all parts of the world is 15-25 units per 100 meters. (Street from the old town in Stockholm, Sweden.)*



to assemble on one level – or disperse over several levels



*City center in Coventry, England. Pedestrians tend to use the ground level only.*



*In streets with low buildings, everything is visible as far as the eye can reach. In high-rise building areas, only the ground-floor level is within the field of vision.*



to assemble on one level – or disperse over several levels

In addition to the already mentioned options for dispersing or assembling events, the possibility of assembling or dispersing on one or more levels also exists.

The problem is very simple. Activities that take place on the same level can be experienced within the range limitation of the senses, that is, within a radius of from 20 to 100 meters (65 to 330 ft.), depending on what is to be seen, and in this situation it is easy to move about among activities. If something happens on a level that is only a short distance up, possibilities for experiences are greatly reduced. Crawling up a tree always has been a good way of hiding.

The problem is less pronounced when something occurs on a lower level – one can often have a fine overview from the higher position – but participation and interaction are still physically and psychologically difficult. The effect with regard to use of the elevated public spaces is clearly seen in William H. Whyte's studies from New York City [51]. "Sight lines are important. If people do not see a space, they will not use it." And with regard to sunken spaces, he writes, "Unless there is a compelling reason, an open space should never be sunk. With two or three notable exceptions, sunken plazas are dead spaces."

*Dispersal over several levels.*

*(Street scene, Los Angeles.)*

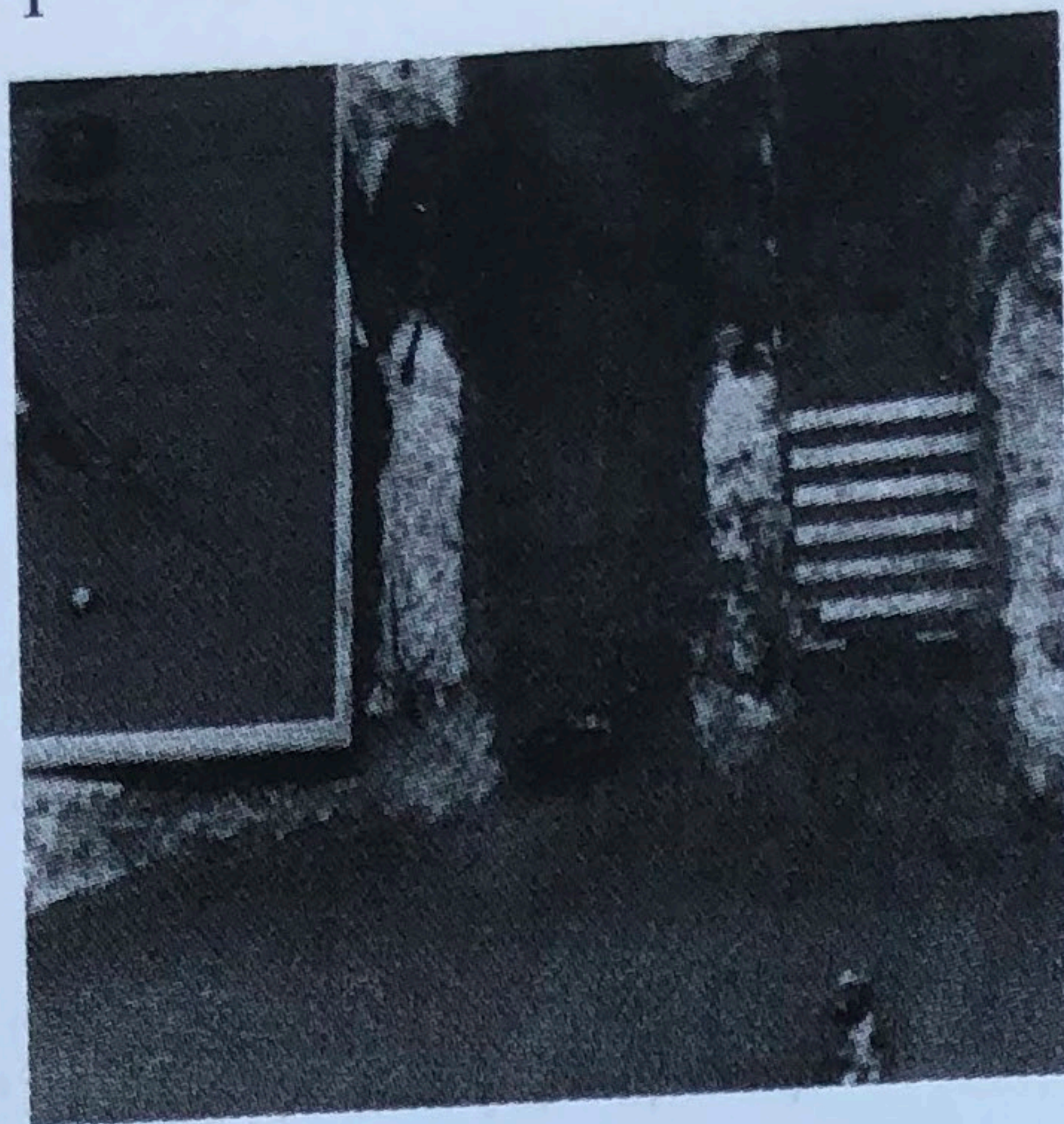




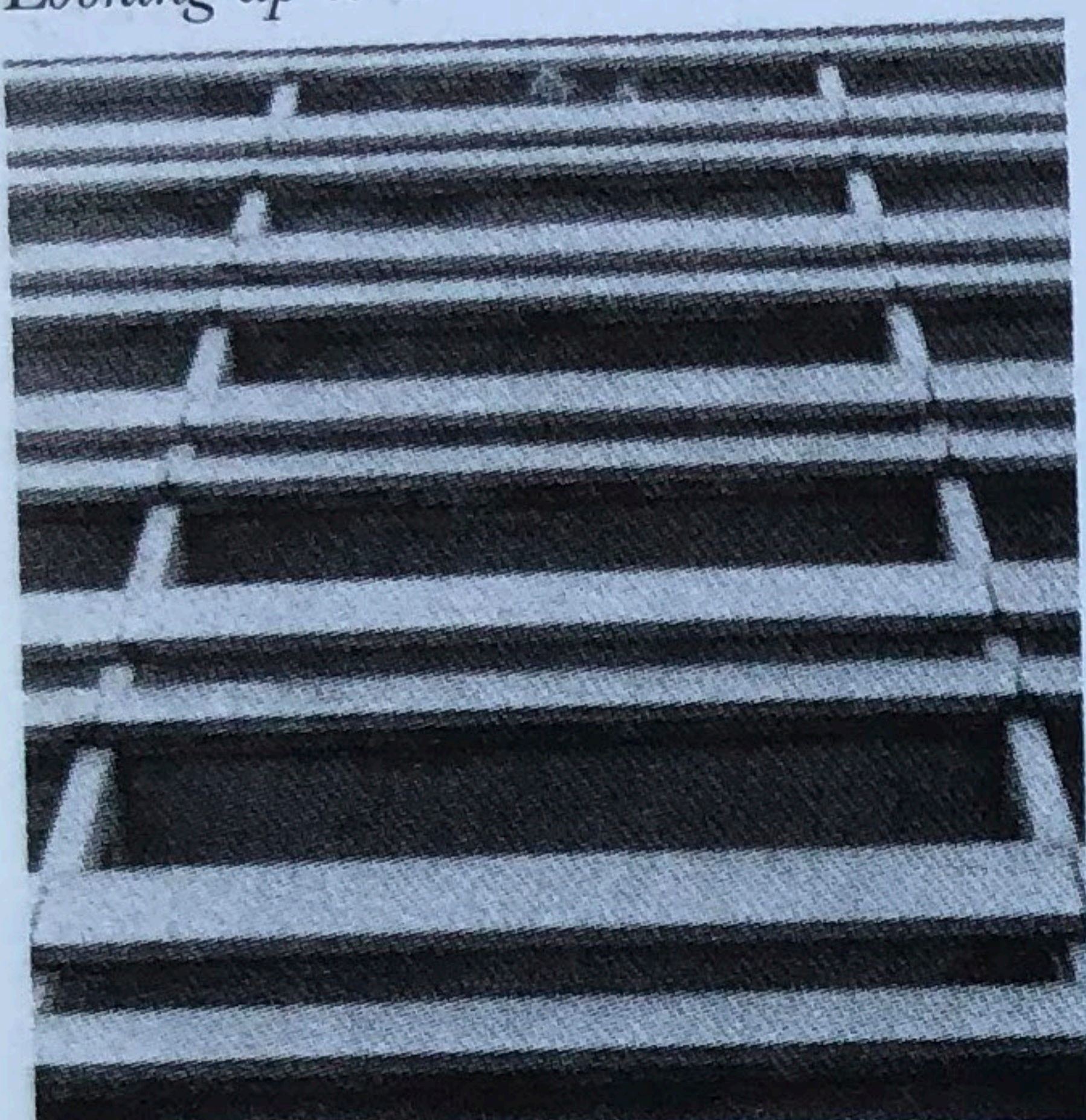
to assemble on one level – or disperse over several levels



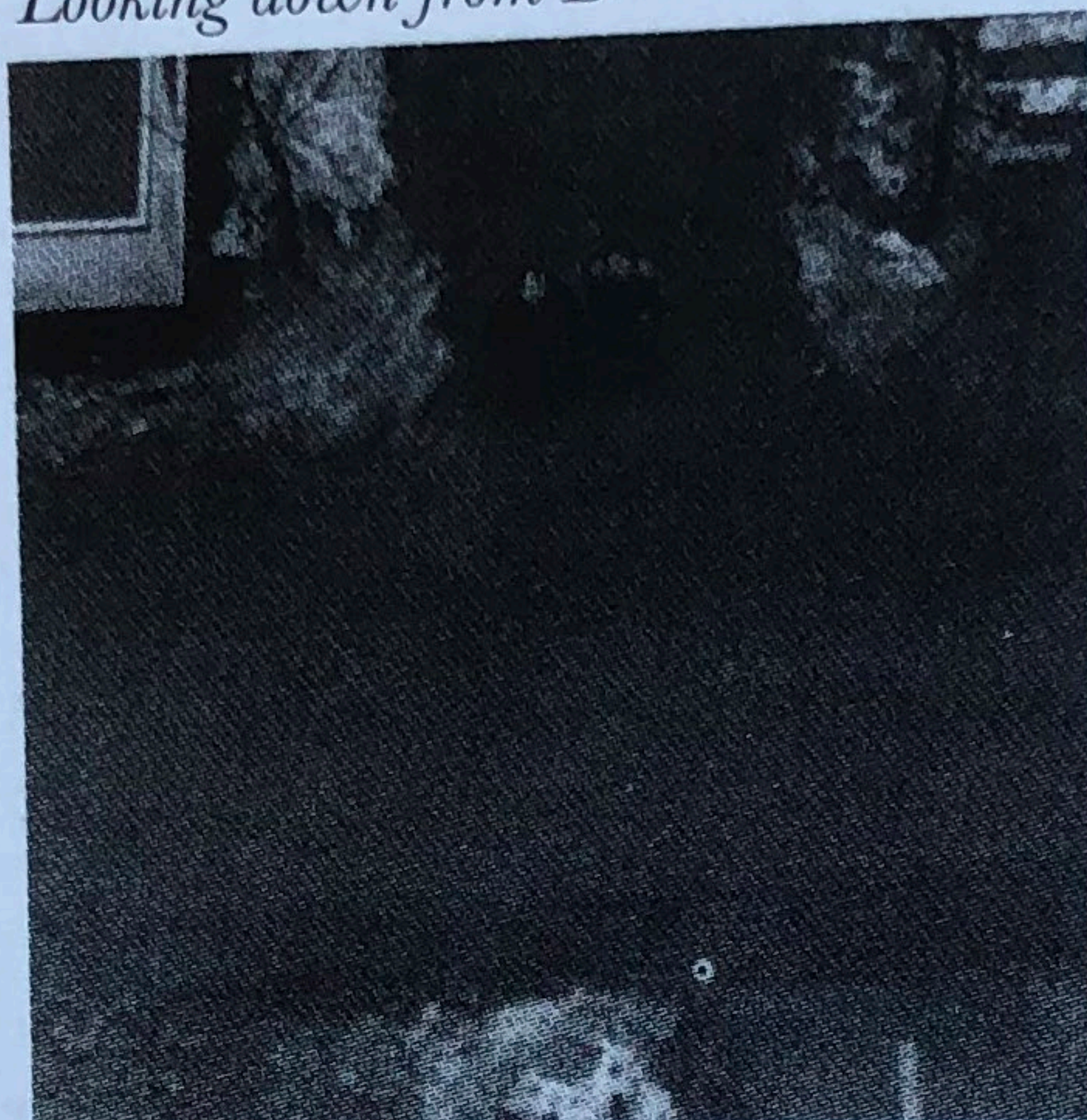
Looking up to D



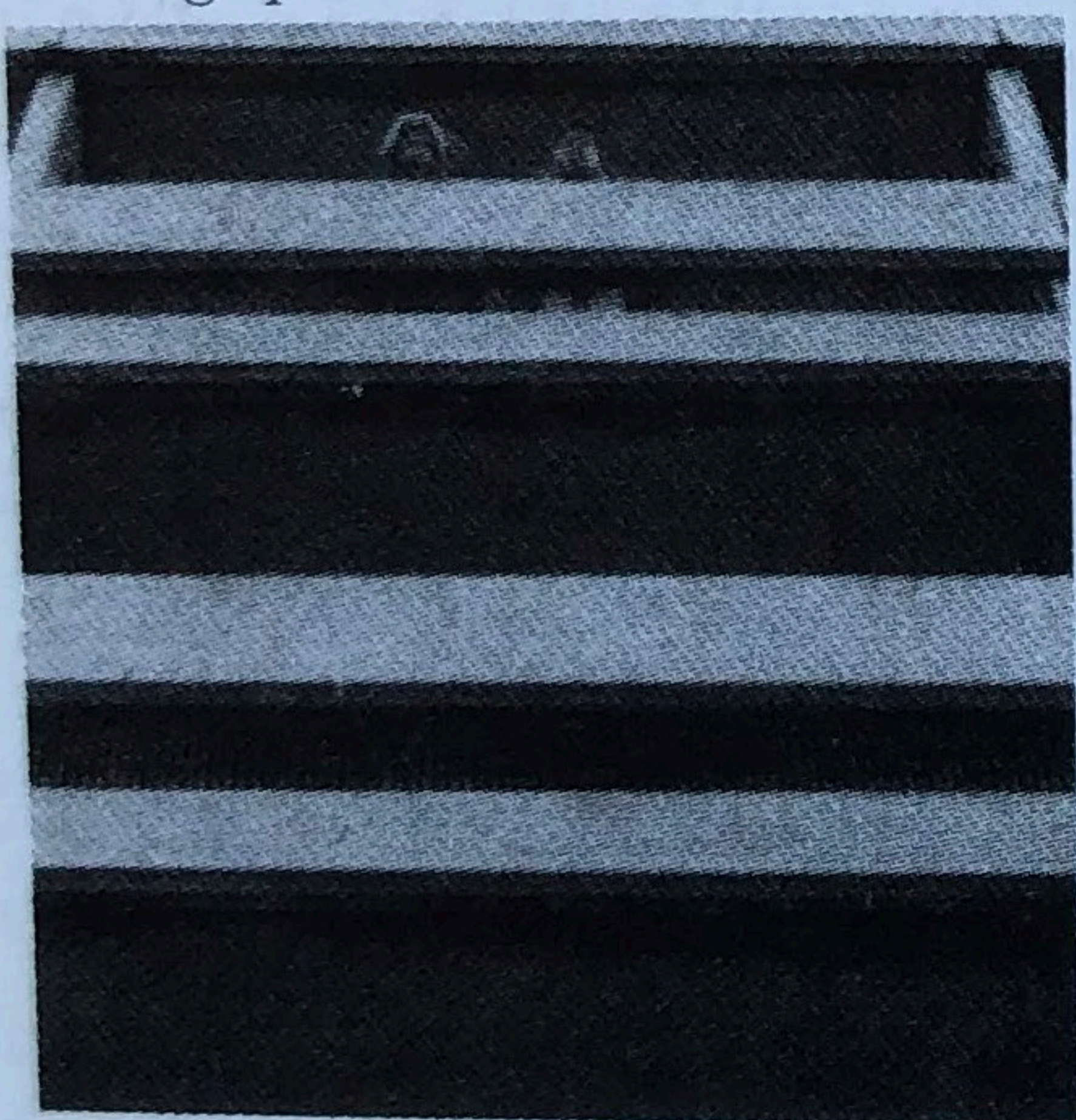
Looking down from D



Looking up to C



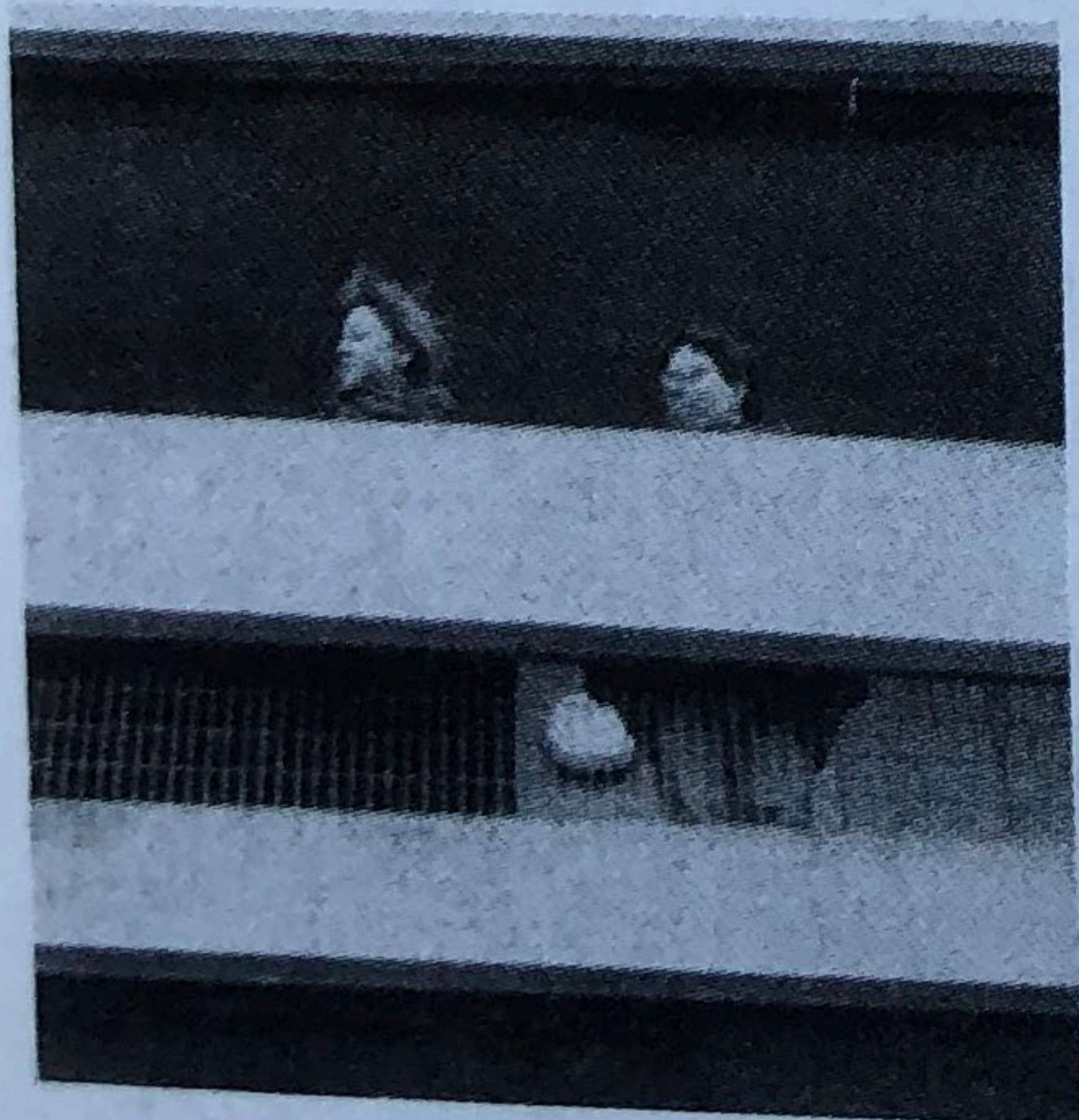
Looking down from C



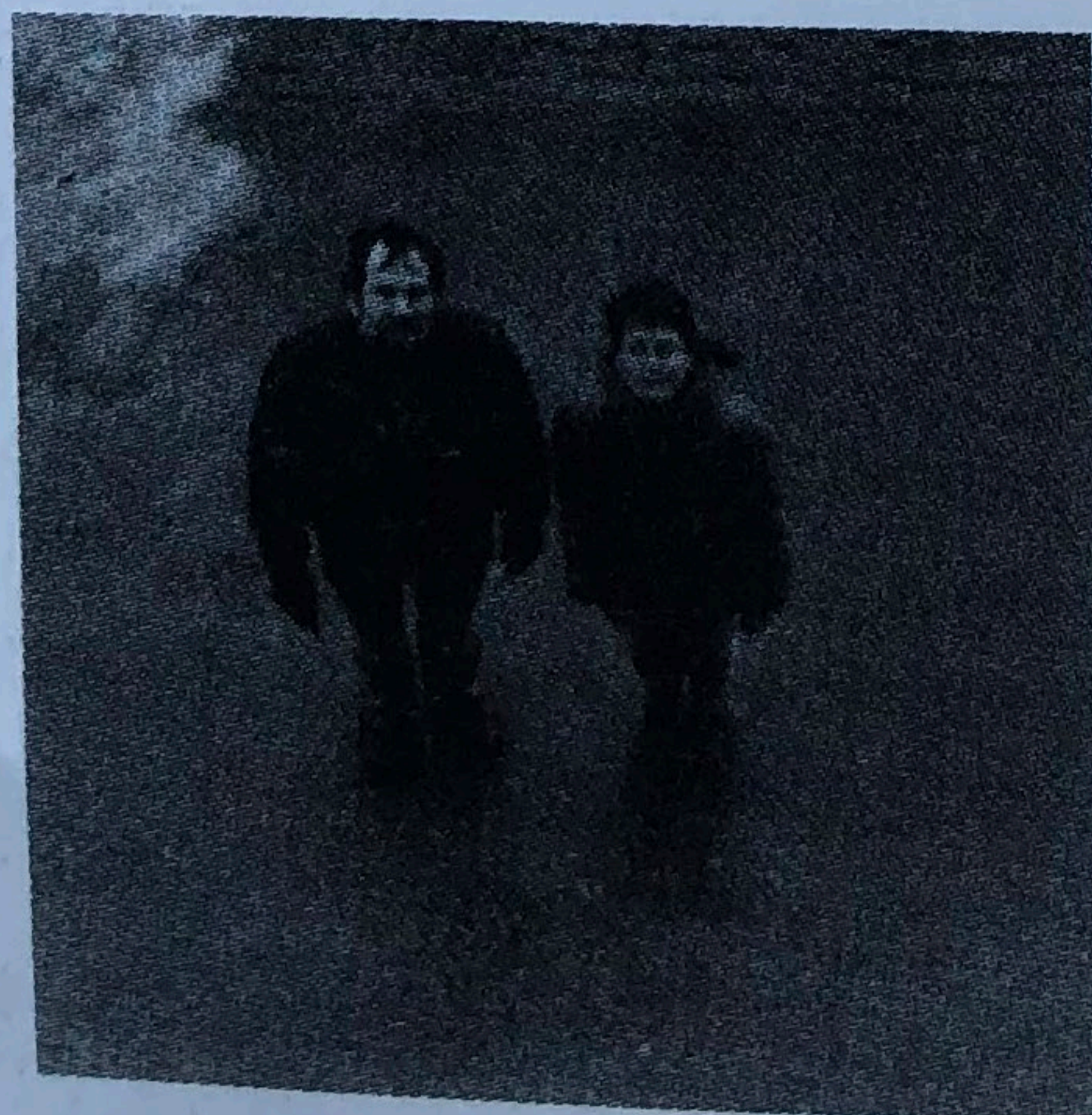
Looking up to B



Looking down from B

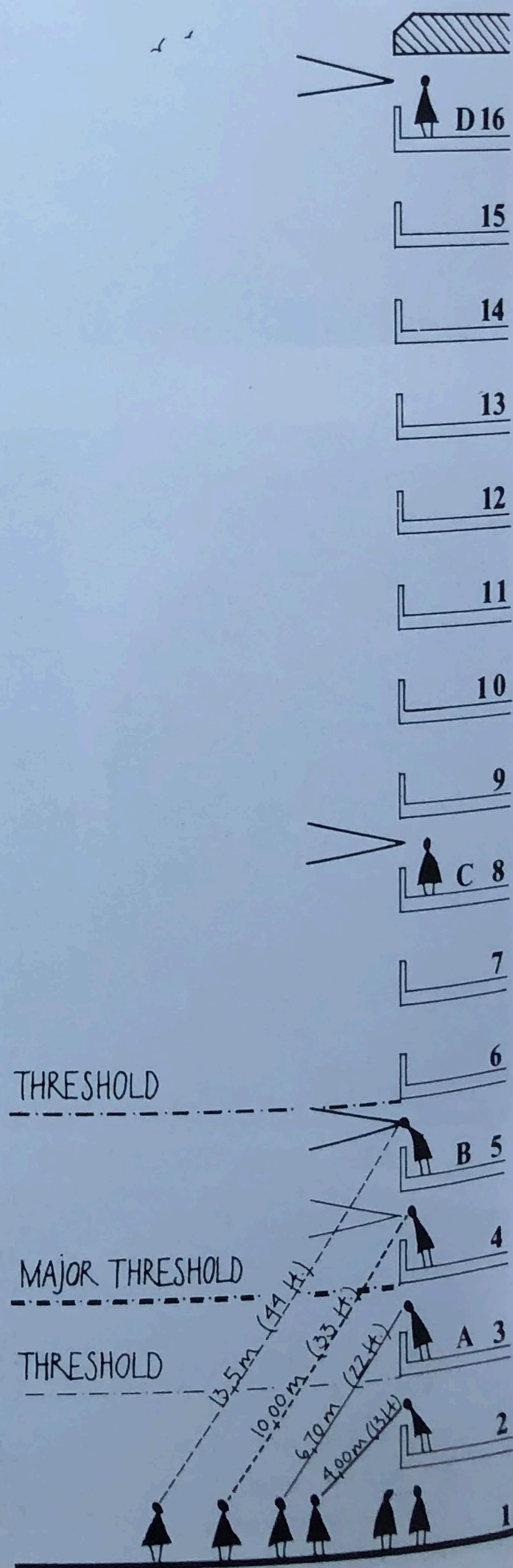


Looking up to A



Looking down from A

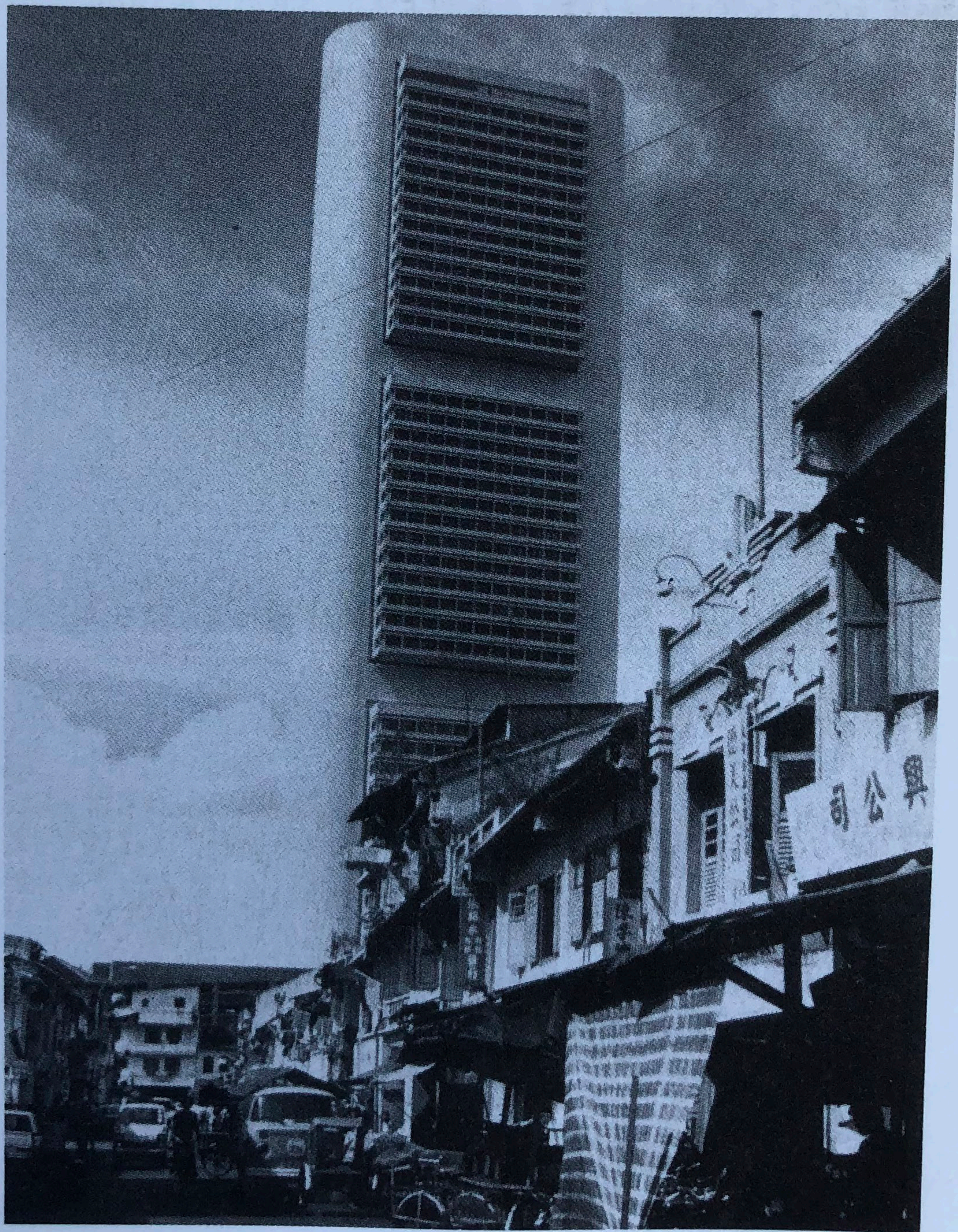
Meaningful contact with ground level events is possible only from the first few floors in a multistory building. Between the third and fourth floors, a marked decrease in the ability to have contact with the ground level can be observed. Another threshold exists between the fifth and sixth floors. Anything and anyone above the fifth floor is definitely out of touch with ground level events.





In principle, therefore, it is a bad idea to attempt to assemble activities by placing them above one another on different levels. Lookout points can be placed high up, but not activities that one wishes to assemble. If this is attempted regardless, the result is often disappointing because functions located 50 to 100 meters (170 to 330 ft.) from one another along a street interrelate more readily than functions placed just 3 meters (10 ft.) over or 3 meters (10 ft.) under one another.

These experiences can be transferred meaningfully to the discussion of low versus tall buildings. Low buildings along a street are in harmony with the way in which people move about and the way in which the senses function, as opposed to tall buildings, which are not.



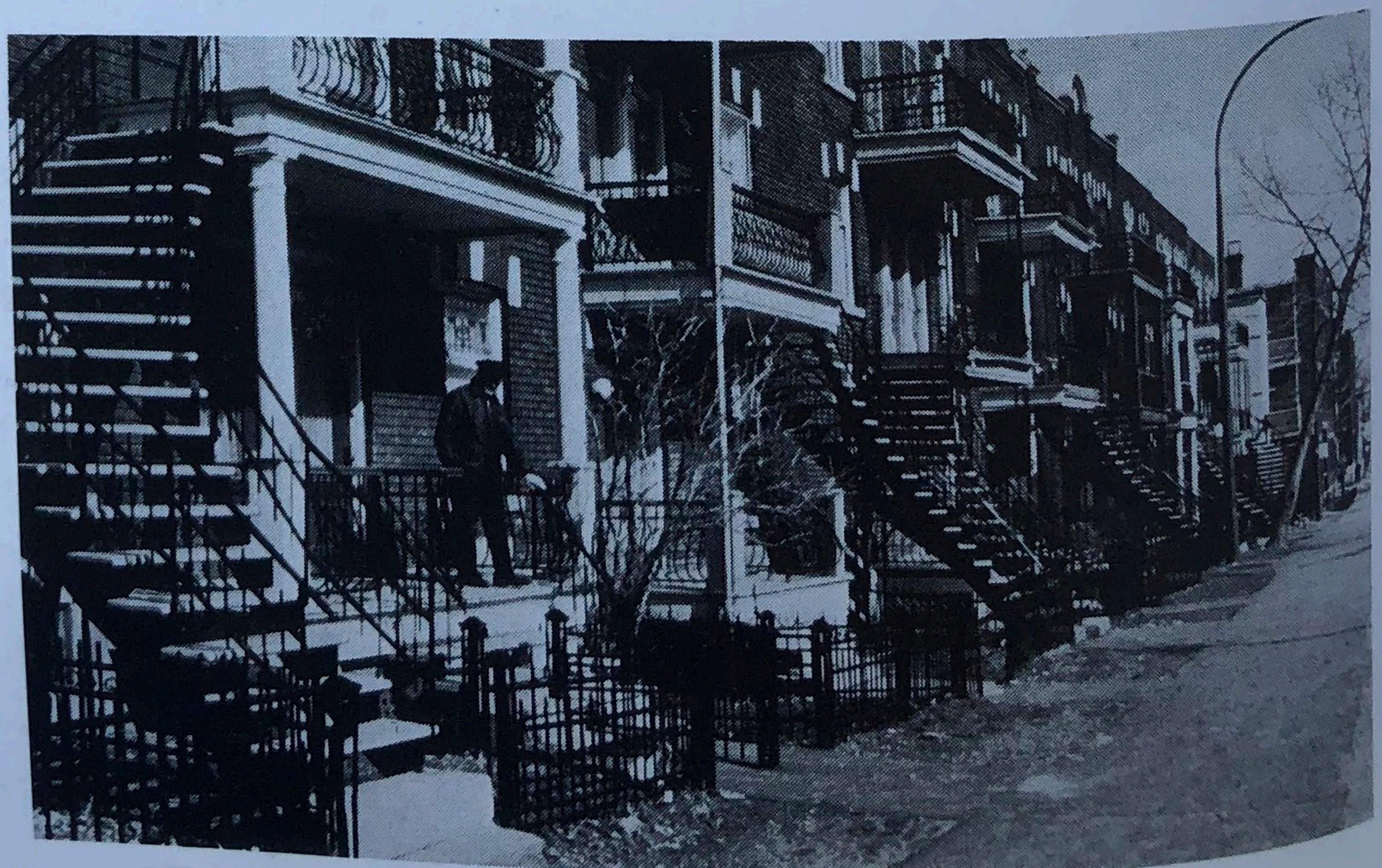
*Low buildings along a street are in harmony with the way in which people move about and the way the senses function. Tall buildings are not. (Street scene, Singapore).*



to assemble on one level or disperse over several levels – “underground cities” and “skywalks”

The undesirable dispersal of people and events that takes place when there are many parallel paths instead of a compact street system has already been discussed. A comparable form of undesirable dispersal is found when comprehensive underground pedestrian networks or various forms of “skywalks” are established, and access routes are layered above one another. Skywalks, found in city centers as well as in residential areas, are, as a rule, a questionable idea in both situations.

If an assembling of events and people is desired, a better solution is found in, for example, the three-story residential areas in Montreal in Canada. All activities and residents are led by balconies and stairs down to one level. In addition, a living, inspiring street facade is created, as well as good opportunities for outdoor stays directly in front of the individual homes.



*Skywalks and balcony access disperse people and events, while access stairs bring the inhabitants together, in the streets.*

*Above: Housing scheme, Edinburgh, Scotland.*

*Below: Residential area, Montreal, Quebec.*