

THE CHANGE IN OPEN AREAS AND SPACES AROUND BUILDINGS AS A RESULT OF RAPID URBANISATION

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NOTES

* 'Kent Toprakları Sorunu', rapor, Mimarlık, n.3, 1970, pgs. 72-74

¹ An example to this sort of change is that which the section around the Kızılay Square has gone through in the lifetime of the author. Atatürk Boulevard at about that area was a tree lined promenade complete with a bicycle path and a pedestrian mall, faced on one side by houses of 3-4 storeys with terraced front gardens, and on the other side by the Kızılay Park which has since disappeared, and the Givern Park also sadly diminished in size and in looks, and depreciated to a degree that depresses passers by.

² Like NYC's Central Park, which was laid out (by F.L.Olmsted) in the 2nd half of the 19th century, and provided with statutes to prohibit any building activity within its premises. Comparison of bird's eye view over the Central Park with that of a reconstructed model exhibiting all the building projects since then proposed on this area, brings out the farfetchedness of this foresight.

³ G. A. EVYAPAN. 'Anatolian Turkish Gardens', METU Journal of the Faculty of Architecture, n. 1, Vol. 1, Spring 1975, pgs. 7-9

Rapid urbanisation has been causing the loss of open areas and spaces within cities, at various levels of use.

The enlargement of cities means the loss of open areas at the city environs; in fact, cities expand at the expense of agricultural land thus resulting in its critical loss in sizable quantities yearly. *

At the level of the city proper too, with denser building activity both in area and volume, open space loss reaches considerable sizes. The change in character of streets and boulevards due to change in traffic volume and type, and to change in building volumes lining those arteries, add to the loss of open urban spaces. Moreover, the loss of character of city parks due to the enlargement of streets or to neglect, while land is hardly ever being allocated to new parks, means further space suffocation at the level of the city proper. ¹

This is an experience gone through by most urbanising countries. It was an advantage that we came to this point of affairs fairly later, which should have meant that some mistakes and mishaps could have been avoided. Land acquired at the right time by public organisations, to be reserved for public open spaces would have been an act of foresight. ² Even now, certain of our smaller towns still have this chance of preparing for the yet coming further urbanisation.

The loss of open space at the level of immediate building surroundings is also fairly critical, both in size and because of the fact that this level of use is the only one that the average city dweller comes into contact with the most, and so is affected from the loss of the most. Particularly since, interaction with the immediate outdoor spaces has been such a natural part of our traditional way of living, the negative consequences of this level of open space loss is being sorely felt.

In our traditional urban settlements, buildings were shaped and sited largely by environmental factors and natural conditions. To begin with, the choice of site for settlements and then the allocation of land for various functions such as living quarters, was done according to orientation to the sun, the view, the breeze; to protection from the wind; to proximity to water sources etc, just as much as to its chances of protection from the enemy. ³

Within those well-favoured land pieces allocated to dwellings, it was common that each unit should be located to receive the maximum benefit from nature's offerings, while trying not to eclipse the same for the neighbouring buildings.

⁴ The first control on building activity was exercised by the "bostancıbaşı", who kept written track of building activity along the Bosphorus with the intention of presenting it to the Sultan when occasion arose. Then in the last century, particularly in order to provide a measure against fire, a set of building codes that defined the distances between buildings "Ebniye Nizamnamesi - 1848", "Tarik ve Ebniye Nizamnamesi - 1864", and "Ebniye Kanunu - 1882" were enacted.

Even in the denser settlements, through a sort of auto-control, equal opportunities for each unit of dwelling was aimed for. This auto-control mechanism worked fairly well, so that building codes defining relationships between adjacent buildings were not deemed necessary until the second half of the last century. ⁴ Even then, the rights allowed by the codes were fully claimed only in the denser city sections; the majority of the city seldom used it to the full.

In residential areas, even in the denser settlements, outside spaces were almost always provided, as gardens or as courtyards. And since those outdoor spaces served one or at the most only a few families, and having been laid out on the ground thus possessing irreplaceable natural qualities, they proved to be quite satisfactory even when of small dimensions. Outdoor spaces that stood beside houses not only brought a general sense of openness and healthy breathing space to the environment, but they also helped buildings to assume suitable orientations. Functions could be distributed to receive the appropriate orientations not only horizontally but also vertically within the buildings which generally housed only one dwelling unit, making this possible. The positive effort to receive favourable natural conditions were exerted not only by buildings of low height; those that had more storeys and were adjacent to others also strove to the same end. Thus it was usual that the upper storeys should twist and turn and abut, just so as to catch a certain view or a certain angle of sun, or a cool summer breeze. ⁵

In short, buildings were shaped and sited in easy accordance with their environment. They enhanced the environment and the environment enhanced them. Not only were buildings shaped and sited by nature's values, but interior spaces were also designed to maximise and include them; thus establishing physical or visual relationship between indoors and outdoors.

All this was shoved aside, when urbanisation became a dire and urgent issue and living patterns underwent a radical change. Land speculation that followed rapid urbanisation caused the urban land values to rise to unprecedented ranges. High land prices meant the shrinkage of building lots into narrow sites called "parcels", which by their sheer size and shape already defined the siting of the building to be erected upon them. It became so that, today the decisive factors in the siting and shaping of a building are, the building coverage on the lot and the total square meters of constructable area allowed by the building codes.

Meanwhile, the pressure of socio-economic and political forces for the offer of more and more dwelling units in the unprepared for urban environments has been causing the building codes to often be changed to increase both building coverage and height.

Consequently, on practically every city block, some building activity is going on, to enlarge or heighten the building. Naturally not all buildings on the same block were changed at the same time, thus making it possible to come across

⁵ For further reference see, G. A. EVYAPAN, Kentleşme Olgusunun Hızlanması Nedeniyle Yapılar Yakın Çevresi Dünyesinde Açık Alan ve Mekanların Değişimi, ODTÜ Mimarlık Fakültesi Basım İşliği, Ankara, 1981 'Kentleşme Olgusunun Hızlandığı Dönem Üçüncü Yapı-Dış Mekan Değerleri İllintisi', pgs. 7-10

comparatively open areas and spaces and even empty lots, which can serve as breathing spaces for the inhabitants of the block and the neighboring ones. Furthermore, the presence of orchards, vineyards or picnic grounds in the city environs have provided for the need for larger open areas, even though city parks outside of a few larger cities are rare, probably because they were never a part of our traditional way of living which valued privacy. However, with the advance of urbanisation, green areas in the city environs too are receding as buildings invade. So that, the city dweller today has not only lost the chance for open spaces in the city center, but also in the city environs. This loss certainly adds to the degree in which the loss of urban open spaces is felt.

Meanwhile, it is undeniable that, particularly in the last couple of decades the further rise in land prices has left practically no open space to talk of, in the center of our larger towns. The buildings that now rise on urban lots seem to have the sole aim of including maximum "building area" and maximum "floor area", totally disregarding any need for sacrifice of allowed square meters to provide for amenities that can greatly enhance urban living.

The increase in floor area, in other words the heightening of the buildings, has brought new design principles that have almost become formulae, in place of the natural and environmental factors that were once of decisive value in the siting and shaping of buildings. Amongst such formulae may be mentioned the facts of: similar volumes coming on top of each other so that similar spans should coincide; wet areas likewise coming on top of each other so that piping may avoid unnecessary horizontal branching; light wells of allowed minimum dimensions serving as many volumes as possible; all free sides being used to house as many rentable units as possible; the vertical circulation core being located centrally to serve those units with minimum loss of area for horizontal circulation etc., all religiously obeyed in the planning of multi storeyed buildings.

Today, the multi storeyed building is not only no longer designed with natural and environmental factors at work, moreover, since its flats are individually owned, it is designed also without regard to users' demands. Thus the design of dwellings for the anonymous users are being done through the application of the above mentioned set of formulae: firstly dimensioning is predetermined by the building codes applicable in the area; secondly the interior planning is predetermined by the cited rules, thus making it into a practically mechanical process.

The similarity of the planning of buildings on the other hand, is attempted to be disguised by the different façades given to each. Thus along the same street, practically each building reflects a meaningless search for a difference in expression, even though they share vast similarities of interior planning.⁶ This fact stems from the disrespectful independence of each building on each parcel and furthers the confusion urban environment present; and adds to the lack of a calm uniformity and dignity that could have contributed to the formation of a reposeful urban environment.

⁶ This variety of expression mostly of repercussions of western styles was exaggeratedly sought after, particularly in the period when the change in the socio-economic structure after 1960, began to affect rebuilding activity throughout the country.

S. URAL, 'Türkiyenin Sosyal Ekonomisi ve Mimarlık', *Mimarlık*, n.1-2, 1974, pg.48

7 For the change in building codes applicable in the city block surveyed see, G.A. EVYAPAN, Op. Cit., pgs. 33-36

While buildings of differently jazzy façade expressions are being haphazardly put together to bring chaos to urban environments, their increasing volumes bring havoc by wiping away usable open spaces. For it is a fact that, while codes define building volumes, they simultaneously define the immediate outdoor spaces as well, which fact seems often to be neglected. ⁷

The strips of parcel left in between the enlarging and heightening buildings are now of dimensions that leave them no chance of gaining the attribute of "space", and of carrying out a significant outdoors function. And since buildings are now being demolished far before they complete their true life span to claim their full quota of allowed square meters, it is often observed that several buildings on the same block go through the process of change simultaneously. This means the loss of open space in a given urban section to a considerable degree within a short time span.

Thus, the loss of open space at the level of the immediate building surroundings which level of loss affects the daily life of the average urban dweller the most, is forever reaching up to a critical level. For the last couple of decades, the progression towards this level of urban open space loss has probably shaped life patterns to fit into new building volumes and dwelling units, and to get further away from outdoor living habits.

While formerly this increasing lack of open space was practically considered a just price to be paid for urbanisation and accepted as synonym for contemporariness, gradually a reaction seems to be built up against the new living conditions entailed by this lack, fast becoming crucial. Moreover, besides being a physiological need, the amenities offered by open spaces have been a way of life for the Turks for millenia. So it is no wonder that, though it may have appeared so for a while, urban dwellers have not in reality managed to fit into the straight-jacket of a life pattern proposed and imposed by inept urbanisation.

Planners of the urban environment should without delay be put to the task of, if not completely solving this dilemma, at least discovering its true nature so as to be dealing with it realistically and constructively in a manner that can in time actually produce solid positive results in bettering urban dwellers' lives.

METHOD OF SURVEY

In order to discover the nature of change in open spaces surrounding buildings, it should be interesting to follow the change that has actually been gone through at an actual urban site. To choose the site from a section of the city whose sub-structure has hardly been altered and where use is changing from housing to commercial, would make such observation even more interesting by bringing out the problems further.

Such a site was found at Yenisehir a newly laid-out section of Ankara, which eliminates certain complex factors a traditional site would have entailed. The city block surveyed is within a section first planned in 1924 ⁸, then

8 'Ankarada İnşası mukarrer Yeni mahalle için muktazi yerler ile bataklık ve merzağı arazinin Şehremanetince istimlakı hakkında Kanun', Law No. 583, Date of enactment: 24.3.1925, published by Resmi Gazete at: 24.3.1925. No 90

⁹ For Prof. Hermann Jansen's explanation of this master plan see, H. JANSEN, Ankara İmar Planı, Alaaddin Kural Basımevi, 1937

¹⁰ 'Ankara Şehri İmar Müdüriyeti Teşkilat ve Vezâifine Dair Kanun', Law No. 1351, Date of enactment: 24.5.1928, published by Resmi Gazete at: 30.5.1928, No. 902

¹¹ Documents were obtained from the files of the Ankara Belediyesi İmar Müdürlüğü archives.

incorporated into the 1928 Jansen master plan for Ankara. ⁹ Building activity immediately followed the first scheme of layout, so that by 1927 when İmar Müdürlüğü was enacted, there were already a couple of houses in existence (Fig. 1). For the purposes of this study, 1927 is accepted as the year building activity commenced since it is after then that archives provide documentation. ¹⁰

The documents about all attempts at construction on each of the 39 parcels of the area under study have been gone through and the actual construction work that found application, picked out by following the written documents in the file of each one of the parcels. It can safely be estimated that the construction acts that were decided as actually followed through, are nearly 100% right. ¹¹

During this coverage, it was observed that the fifty year span showed sub periods in terms of concentration and density of building activity. It appeared that the decade of the '30 s represented the period of completion of construction on the majority of the building lots; and resulted in a modest urban growth. The '40 s and the '50 s were when buildings were added to, both vertically raising the number of floors and horizontally increasing the coverage on the lot. It also appears that the building activity of those two decades brought the block to utilise to the full its substructural capacity, while still managing to function as a livable environment. After this saturation point was reached, the drastic change of buildings in the following two decades to our day, both sizewise and usewise, has brought problems of grave importance to this city block; and has caused the loss of its integrity as an urban environment.

The ending years of each of these three distinct phases in the block's history, are accepted as a time section when this urban environment is studied in detail to bring out its level of constructedness and its way of providing services to its inhabitants; in other words, its manner of functioning as an urban quarter ¹²

Thus, the actual state of building in the years 1939, 1959, 1977 were documented. Plans, sections of the city block, and street elevations surrounding it, were drawn up in a comparative manner at 1/1000 scale.

The plans of the ground floors, upper floors and roofs have given the extent of building coverage; the comparisons of the three situations for each level of plan reveal a considerable expansion of building extent upon the block (Figs. 2-4). Also comes out the fact that, service areas that the expanding buildings lacked in the interior were compensated with an ever increasing number of makeshift sheds cropping up on the lots. The third phase that started with the lots cleared of such sheds, saw their reappearance presently, as the lack of provision for such areas came up. The lateral and longitudinal sections through the city block also reveal an interesting change that reflects the increase of building height and the deepening of the excavated earth volume, with the increase in the number of basement floors (Figs. 5,6).

The elevations of the surrounding streets likewise reveal interesting comparison through the three time sections in terms of both building height and the quality of building façade (Figs. 7-12).

¹² For detailed reference see, G. A. EYÜP, Op.Cit., tables through pgs. 37-43

The three types of open space in the block: the backyard, the side space between adjacent buildings, and the space between building—street—building, that have been through the most critical change as observed from the survey, were studied in further detail at 1/200 scale.¹³

¹³ For further detailed reference see, G. A. EVYAPAN, *Op. Cit.*, tables through pgs. 45-72; figures through pgs. 118(A)- 144

¹⁴ The aerial photographs were provided through the courtesy of Harita Genel Müdürlüğü.

To better bring out the volumetric qualities of the environment, models of the city block at each of the time sections were built. A comparison of the models with the aerial photographs of the actual situations around the years above mentioned¹⁴, shows a striking correspondence which proves the validity of the data on which the models were based (Figs. 13-18). Also, garden and other open space layouts visible in the photographs, when combined with the three dimensional information derived from the models, reveal valuable data on the life styles and environmental preferences of the respective times.

SUMMARY OF INFORMATION DERIVED

The information that is gathered from these studies can be summarised thus:

— The dense building activity brought about by rapid urbanisation has caused the loss of open areas and spaces in an irreversible manner. Considering the fact that the city block surveyed was chosen from a city section which reflects an average change and not a special extreme situation, the degree of the loss of urban quality can be surmised as being critical.

— What adds to this situation to raise it to the level of being a crisis is the fact that while this change in the urban environment has been taking place, servicing has practically remained constant. In other words, services, roads, sidewalks, amenities have either remained the same, or have changed in an inconsequential degree; in the case of amenities, it has certainly gone backwards. As a matter of fact, even the order of parcels, and the manner of building upon them such as separate buildings or row buildings, have come to this day unchanged, unheeding the enormous rises in building coverage and height since then allowed by the changing building codes (Fig. 19-20).

— This increase in building area and floor area has so loaded the urban environments that servicing has come short of providing for the accelerating demands. For instance, in the city block surveyed, it has been found that until the '60 s the servicing more or less sufficed; but after that, particularly because the type of use went over from housing towards almost exclusively commercial, it failed.

— Amongst the servicing of the urban environment that has been negatively influenced and altered is open areas and spaces around the buildings, which is the subject of this survey.

Apart from experts who have been following with dismay the diminishing open areas and spaces, it may be that the average town dweller is only just realising the repercussions that this alteration in his environment is bringing to his way of

life. But the comparatively slow change that may have disguised the after effects, is giving way to faster and faster changes so that an urban block may be almost entirely rebuilt in a couple of years. For instance, in the block surveyed, half the buildings were demolished and rebuilt since the study started. And it is no great prophesy to say that the few earlier buildings left amongst the other half, will soon be demolished to get their full quota of allowed square meters. As a matter of fact, even the already changed buildings which were just before the last change in the building code, and so are a storey short of allowed floor area, will no doubt be brought up to date in a little while. Moreover it is a fact that by comparing with the neighboring blocks, it is assumed by lot owners that it may not be too long before the codes will allow two more storeys. This assumption seems to cause the making of the building foundations of a strength that may take the two extra floors; in the meanwhile, no one seems to care if the block will take the extra loading with its capacity already over loaded to a degree that hinders its proper functioning.

— The changing of buildings though at closely spaced time intervals or even at the same time, done independently on separate parcels and through different agents, fail to attempt at unity both in terms of open space creation and definition, and of exterior expression. What follows is an anarchy of buildings haphazardly put together with nothing but maximum profit as the objective. And of course, as long as rebuildable parcels remain in the block, the construction process brings further inconveniences.

The author has come to the conclusion that, a city block and even beyond the block a larger section that includes building rows face to face on a street should go through the rebuilding process at the same time to at least eliminate a large part of the numerous tedious consequences of individual rebuilding cited above. This may be accomplished by limiting rebuilding activity to certain time intervals such as every five years etc.; and by obligating the architects or builders to confer in an effort for unity of the built environment, without hindering the right of ownership.

Such an experiment was made in the Fall Semester of the Academic year 1981—1982, in the third year architectural design studio at METU School of Architecture, on ten parcels bound to be rebuilt upon, in the city block surveyed. The floor area allowed by the codes was stuck to, while a unified urban environment that included usable open spaces such as plaza, square, park, or terrace or courtyard was sought for.

It became obvious that a designer sensitive to the needs of a contemporary urban environment can, even under the present demand for floor area, rebuild to embody the potential for a better way of urban living.

To create this potential will have to be the work of designers who believe in the value of amenities and foremost amongst them the open space, in an urban environment; and in their enhancement of the urban dweller's life. Such designers will have to scan a city at close scales, up to that of sections of only a few urban blocks, to work out a new set of codes perhaps peculiar to each one of such sections; and refute the all inclusive codes that ill-fit and whose origins are hardly known or valid any more.

HIZLI KENTLEŞME SONUCU BINA ÇEVRESİNDEKİ MEKANLAR İLE AÇIK ALANLARIN DEĞİŞİMİ

ÖZET

Hızlı ve hazırlıksız kentleşme sonucu kent çeperleri, kent içi, ve yapıların yakın çevresi düzeylerinde açık alan ve açık mekanlar büyük ölçüde yitirilmektedir. Kentlilerin günlük yaşantısını en çok etkiliyor olması nedeniyle, yapılar yakın çevresi düzeyinde açık alan ve mekan kaybı üzerinde vurguyla durulması gereği bu araştırmayı başlatmıştır.

Ankara'da ortalama değişim geçiren bir kent çevresi seçilerek, yapı yoğunlaşması evrimi ve yapı kübajlarındaki değişimin yakın çevre dış mekanlarında oluşturduğu olumsuz sonuçlar yirmişer yıllık zaman kesitlerinde izlenmiştir.

Sonuç olarak, bu ölçekte çalışmanın tüm kente yaygınlaştırılarak, imar yönetmeliklerinin kaynağı ya belirsiz ya da kaynak nedeni ortadan kalkmış kurallarına uymak yerine, kendi özel koşullarına göre değerlendirilen kent çevreleri oluşturmanın bütünsel bir yaklaşımla aynı yapılaşma yoğunluğunu daha tutarlı dış mekanlar sağlayarak da gerçekleştirilebileceğine dikkat çekilmiştir.

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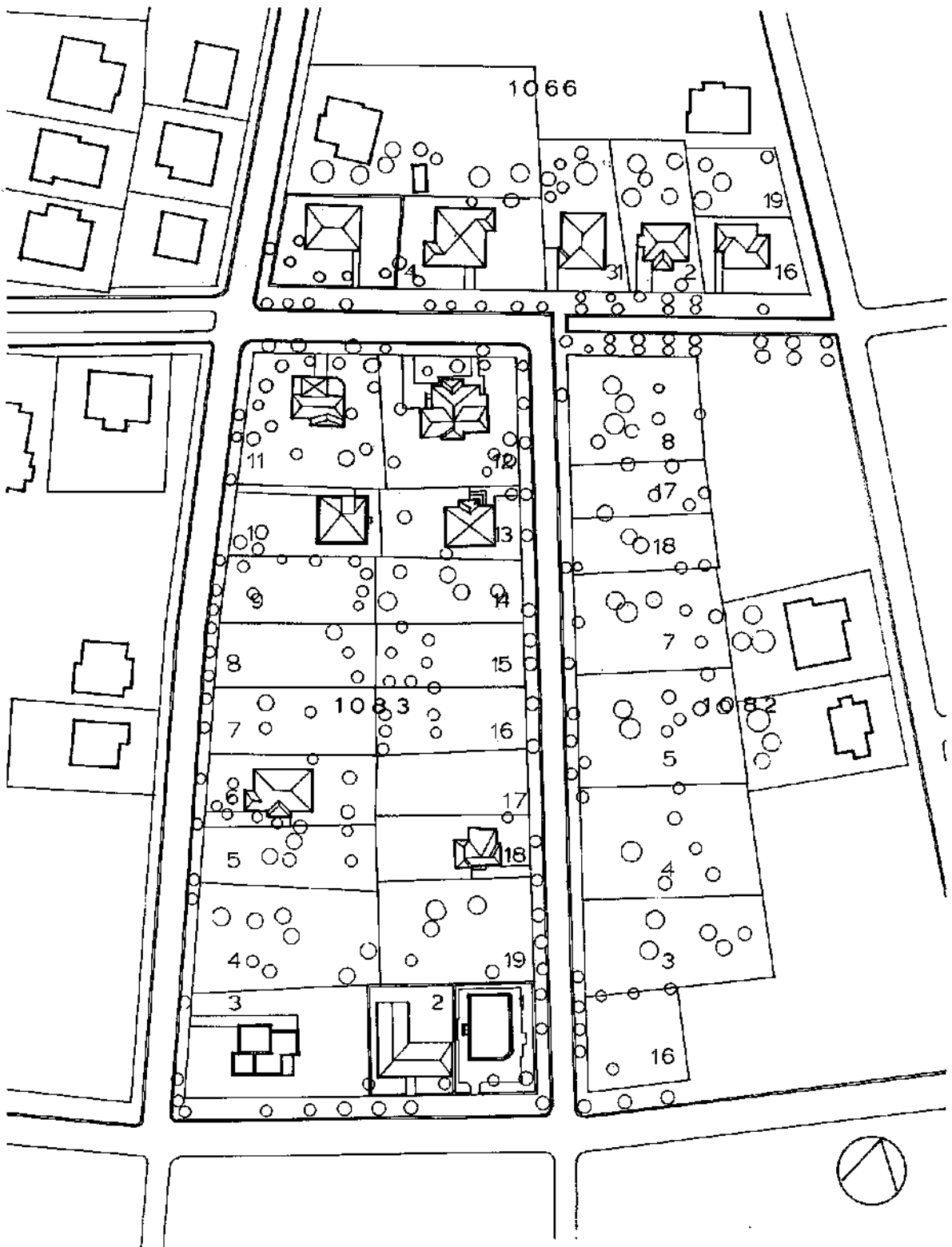


Fig. 1 The City Block in Case Study in 1984.

10 m 1/1000

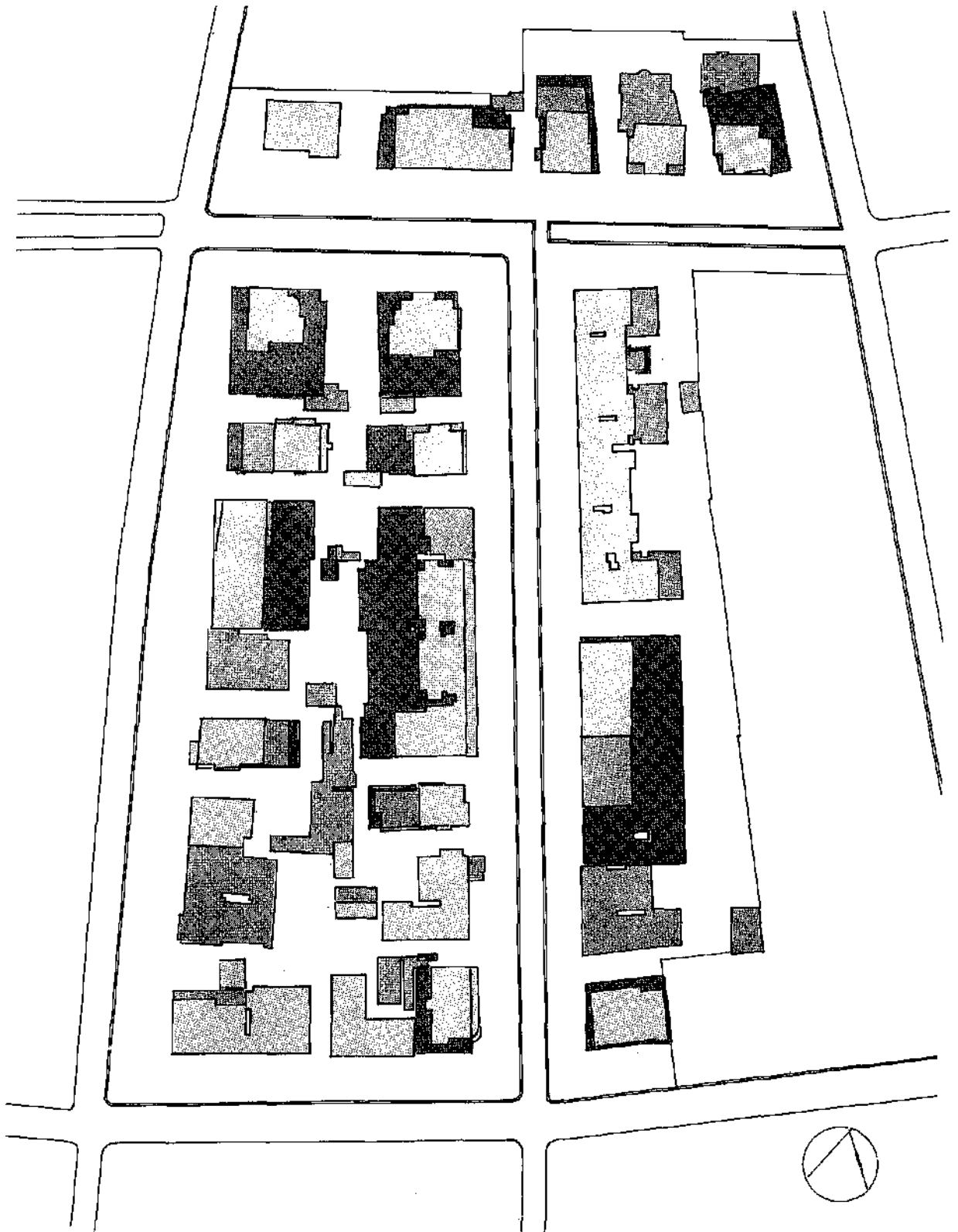


Fig.2 The City Block In Case Study
Comparison of Ground Floor Areas in
1939, 1959, 1977.

10 m

1/1000

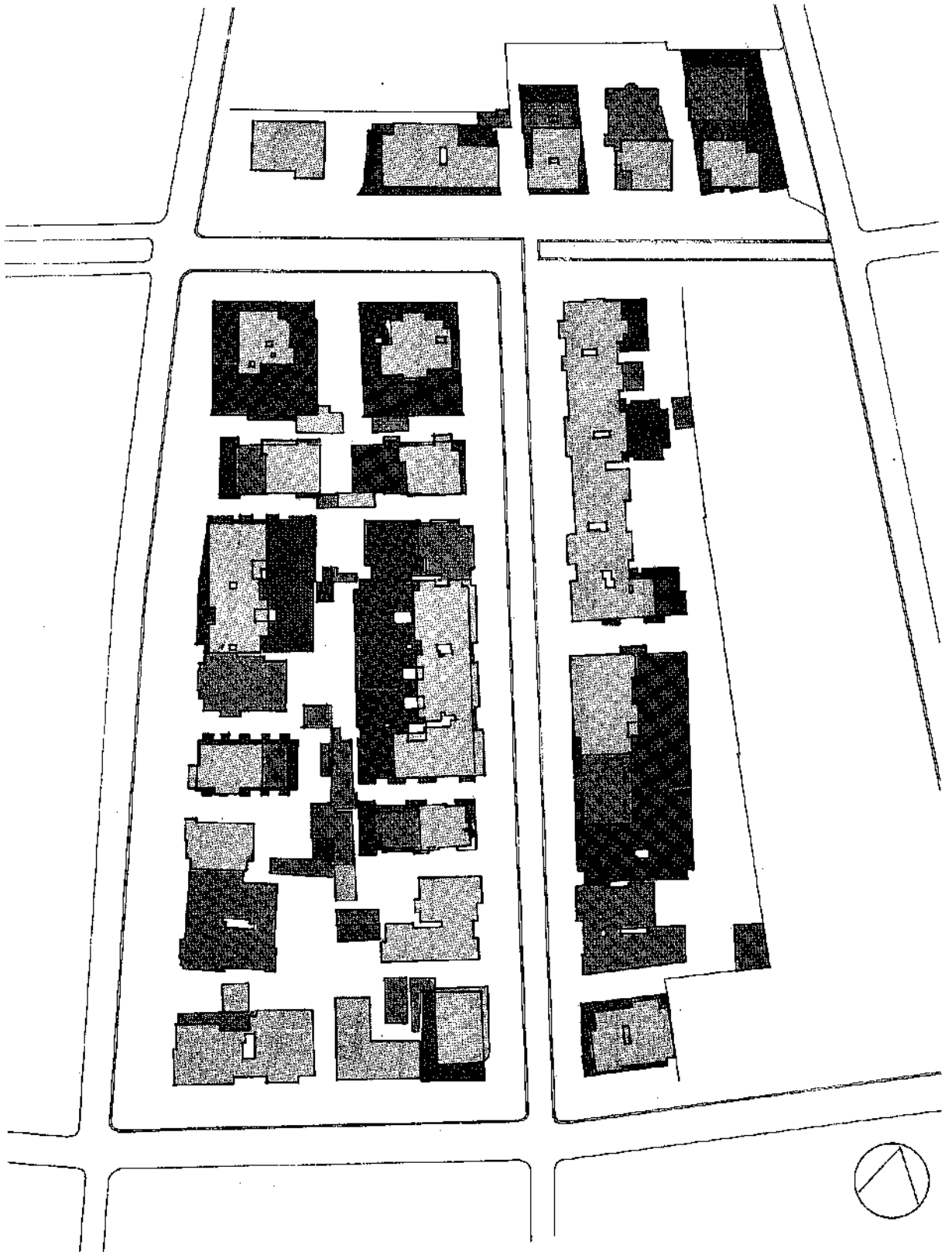


Fig. 3 The City Block in Case Study
Comparison of Upper Floor Areas in
1889, 1959, 1977.

10 m

1 / 1000

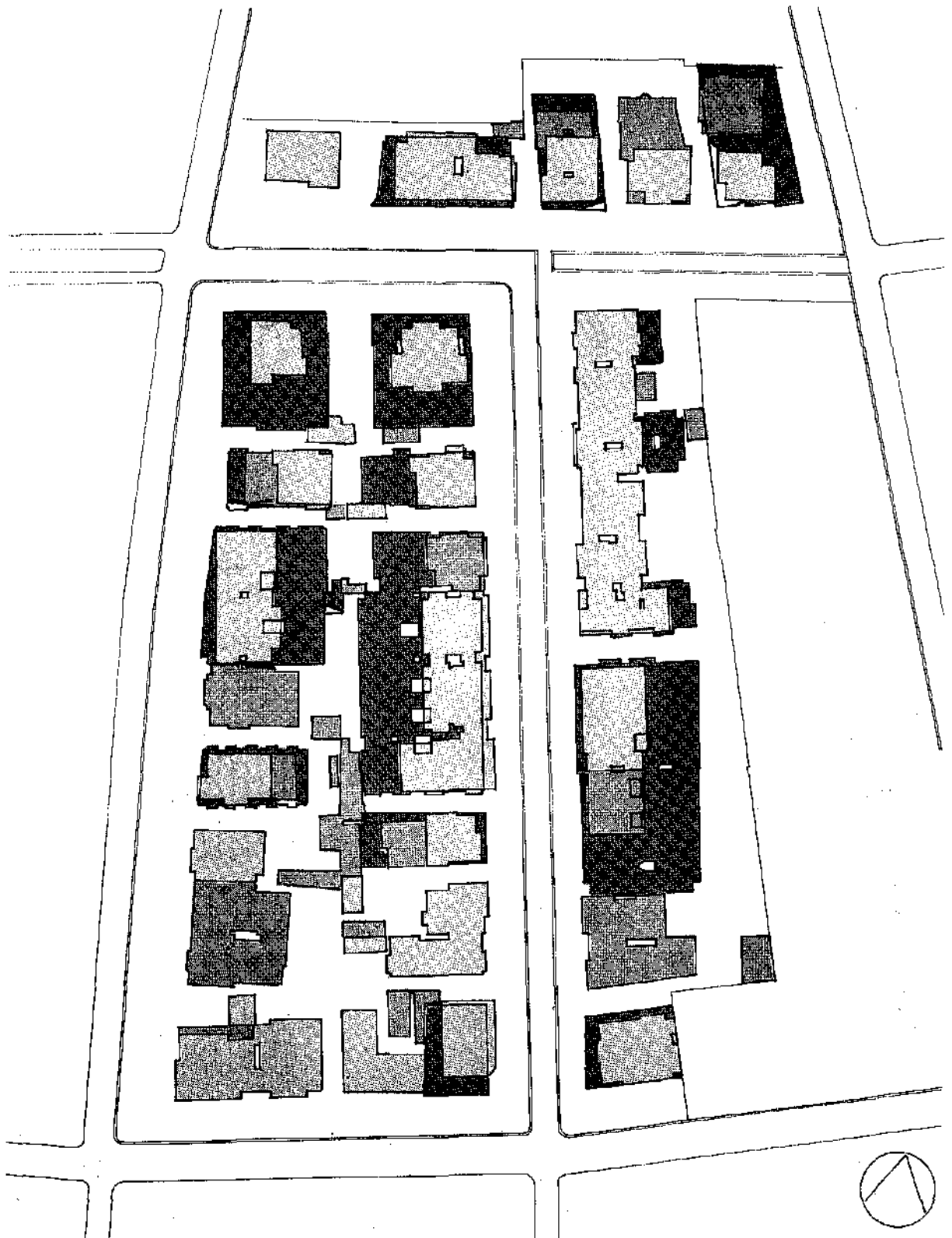
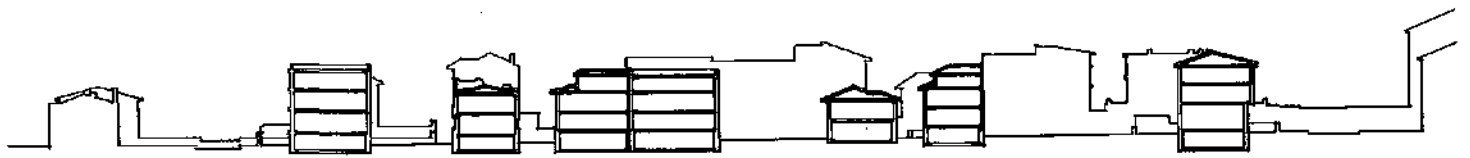


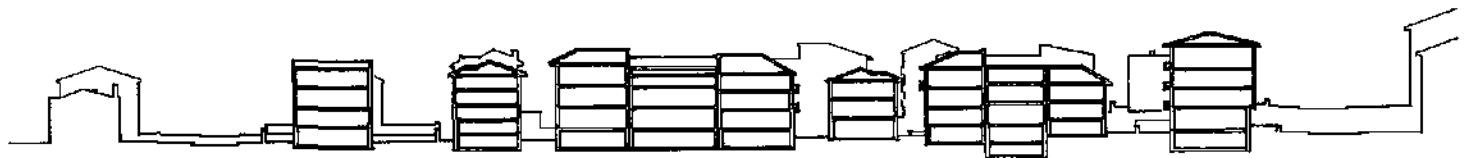
Fig. 4 The City Block in Case Study
Comparison of Built Areas in 1939,
1959, 1977.

10m

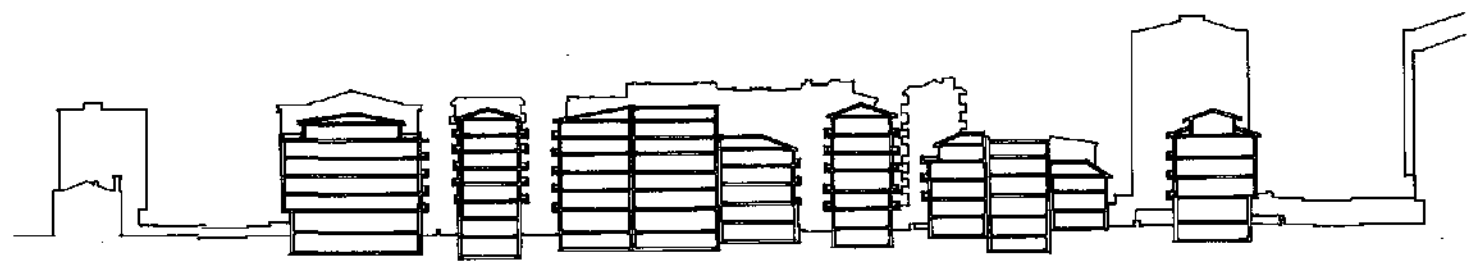
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1939



1959



1977

Fig. 5 The City, Block in Case Study
Longitudinal Section Through Karanfil
Sokak.

10m 1 / 1000

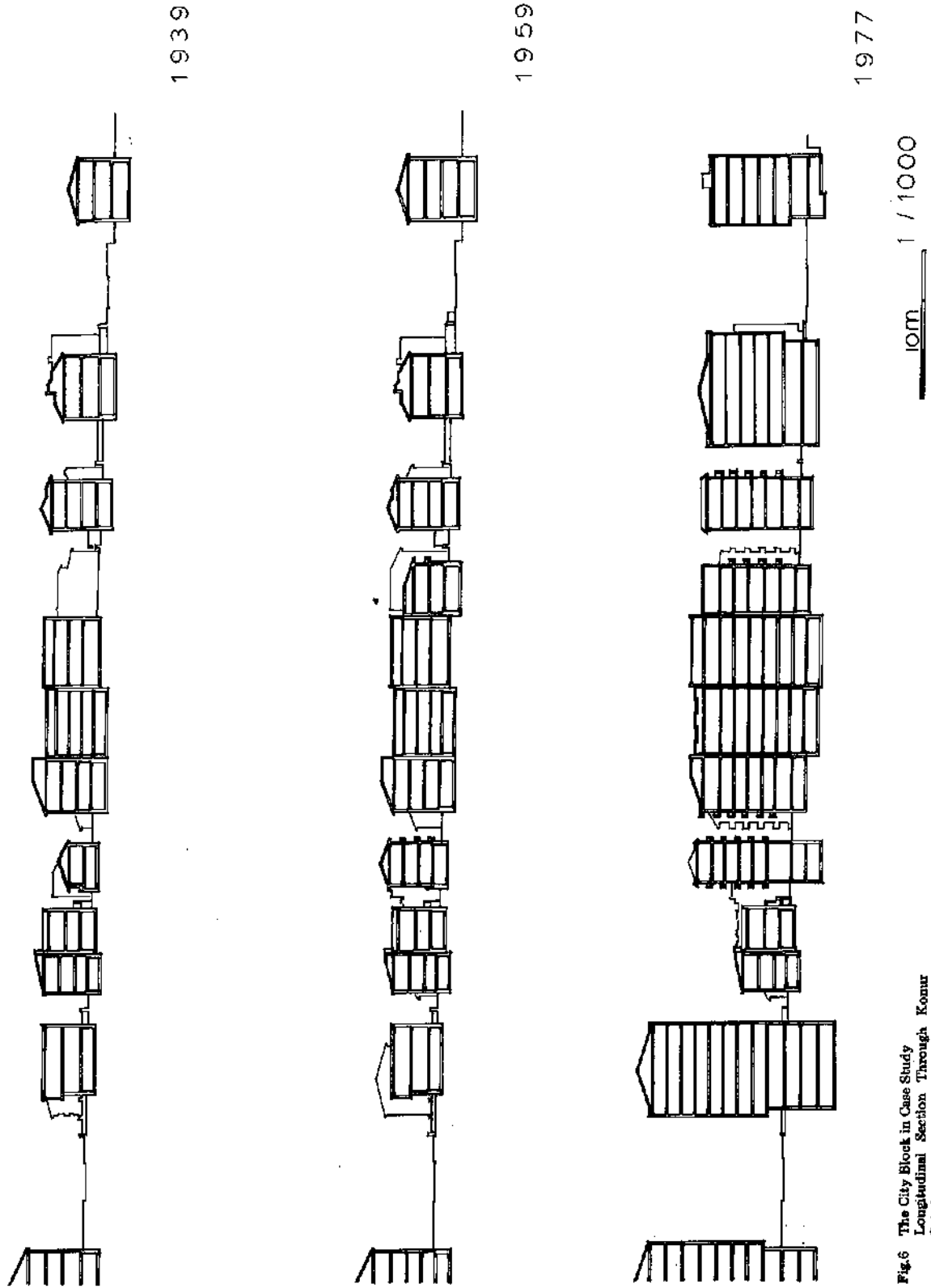
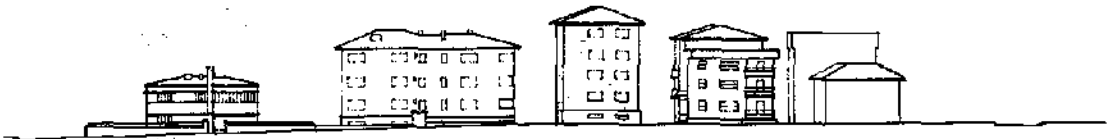


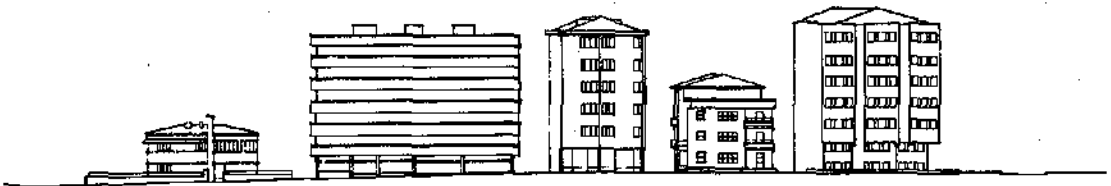
Fig.6 The City Block in Case Study
Longitudinal Section Through Konur
Sobak.



1939



1959



1977

Fig. 7 The City Block in Case Study
Yüksek Sokak, Elevation (Block no:
1066)

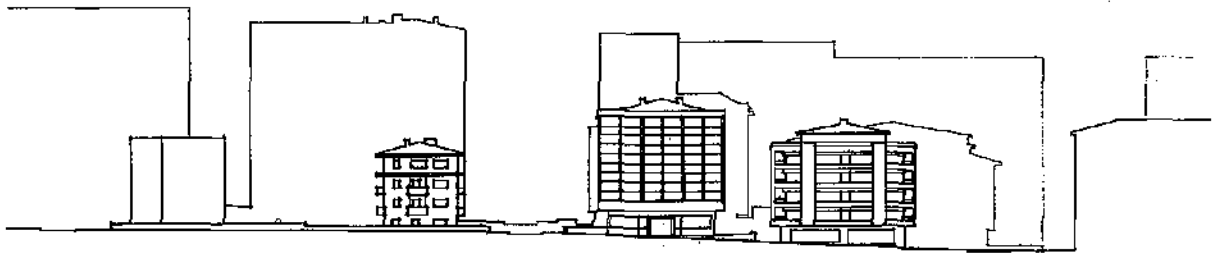
10m 1 / 1000



1939



1959



1977

Fig. 8 The City Block in Case Study
Yüksel Sokak Elevation (Block no:
1082, 1083)

10m 1/1000

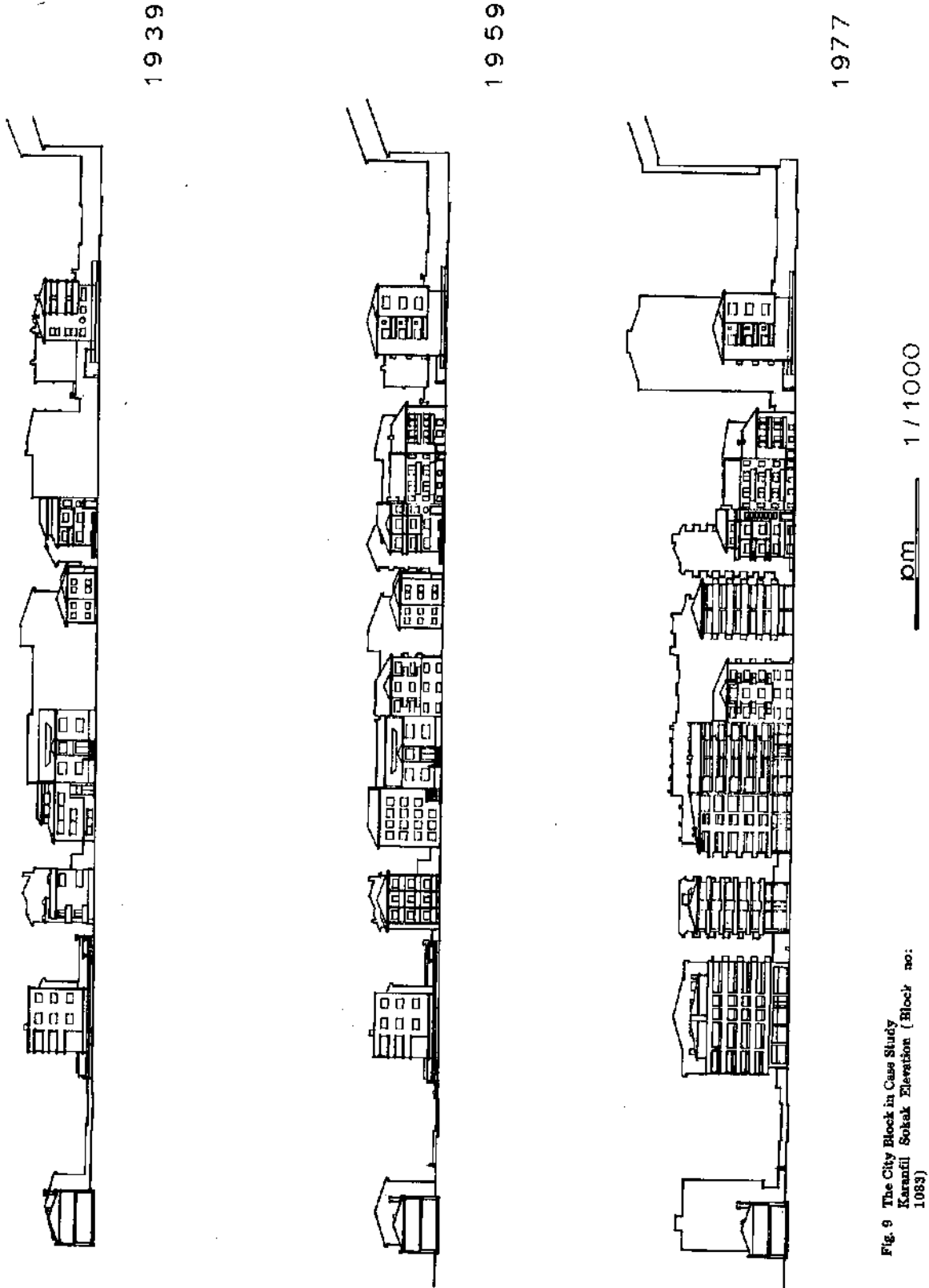
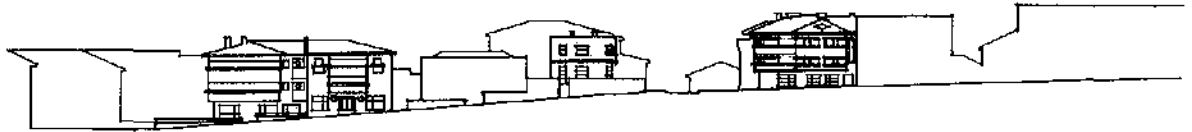


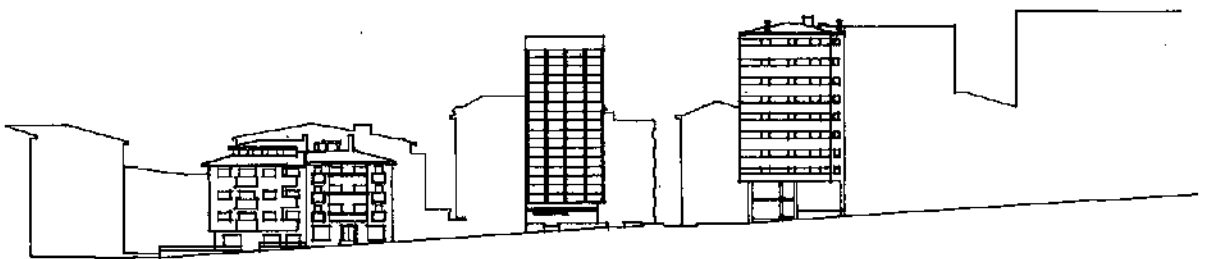
Fig. 9 The City Block in Case Study
Karanfil Sokak Elevation (Block no:
1083)



1939



1959



1977

Fig.10 The City Block in Case Study
Meşrutiyet Caddesi Elevation (Block
no: 1083, 1082)

10m 1/1000

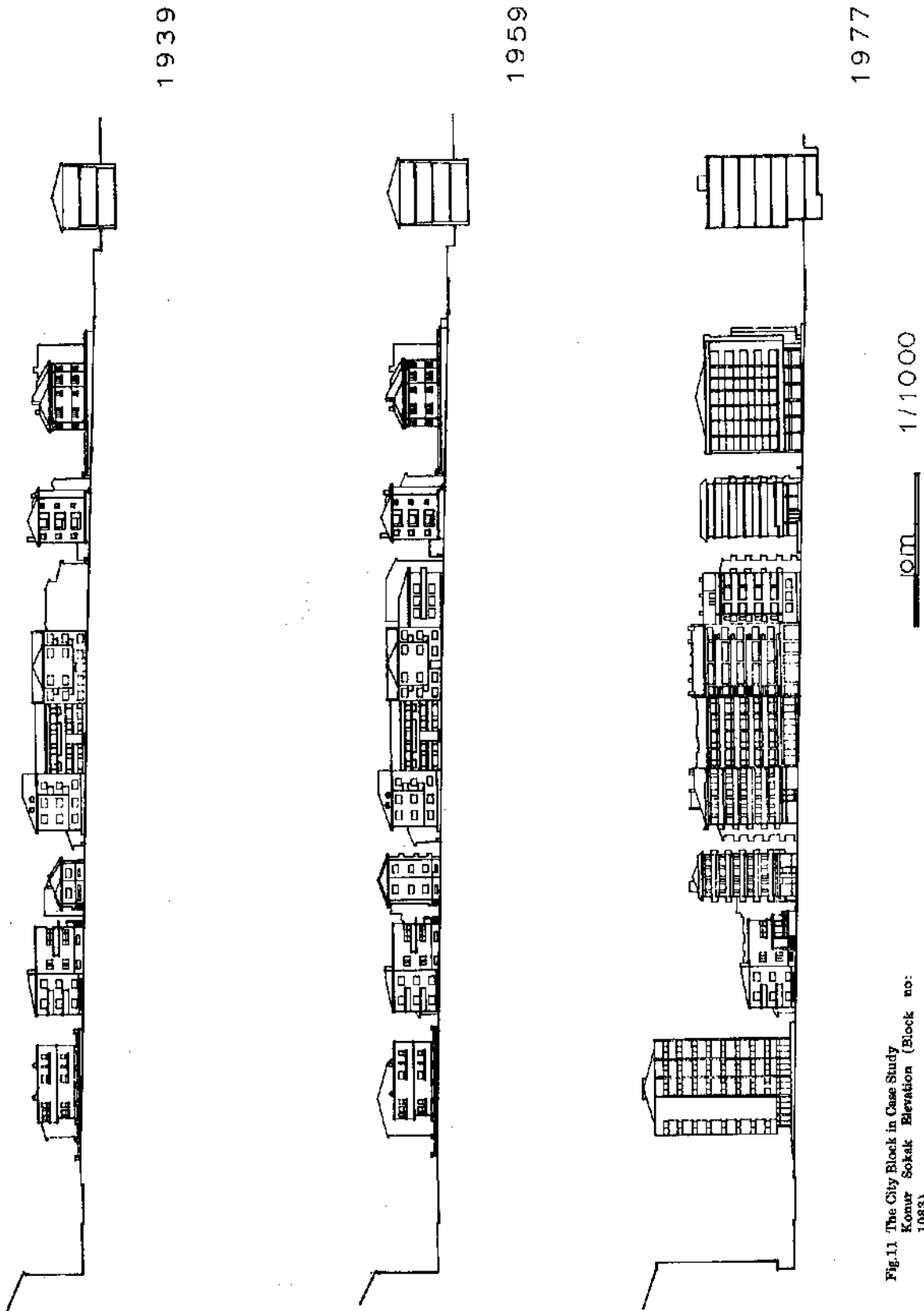


Fig.11 The City Block in Case Study
Komar Sokak Elevation (Block no:
1083)

THE CHANGE IN OPEN AREAS AND SPACES AROUND BUILDINGS
AS A RESULT OF RAPID URBANISATION

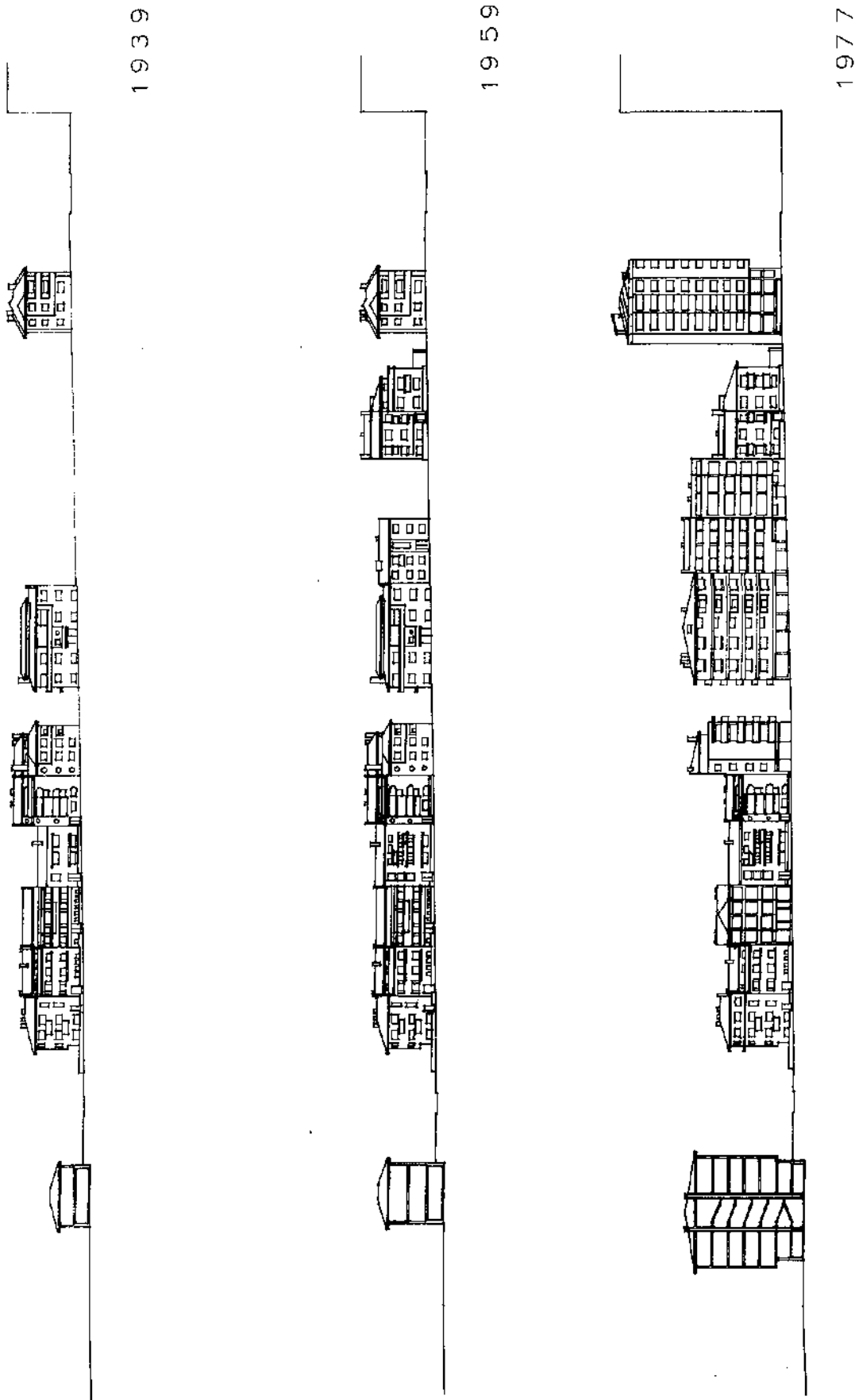


Fig.12 The City Block in Case Study
Konur Sokak Elevation (Block no:
1082)



Fig.13 The City Block in Case Study
Shadows Cast at 13 hrs., Aug.-Sep.,
1939.



Fig.14 The City Block in Case Study
Aerial Photo circa 1939.

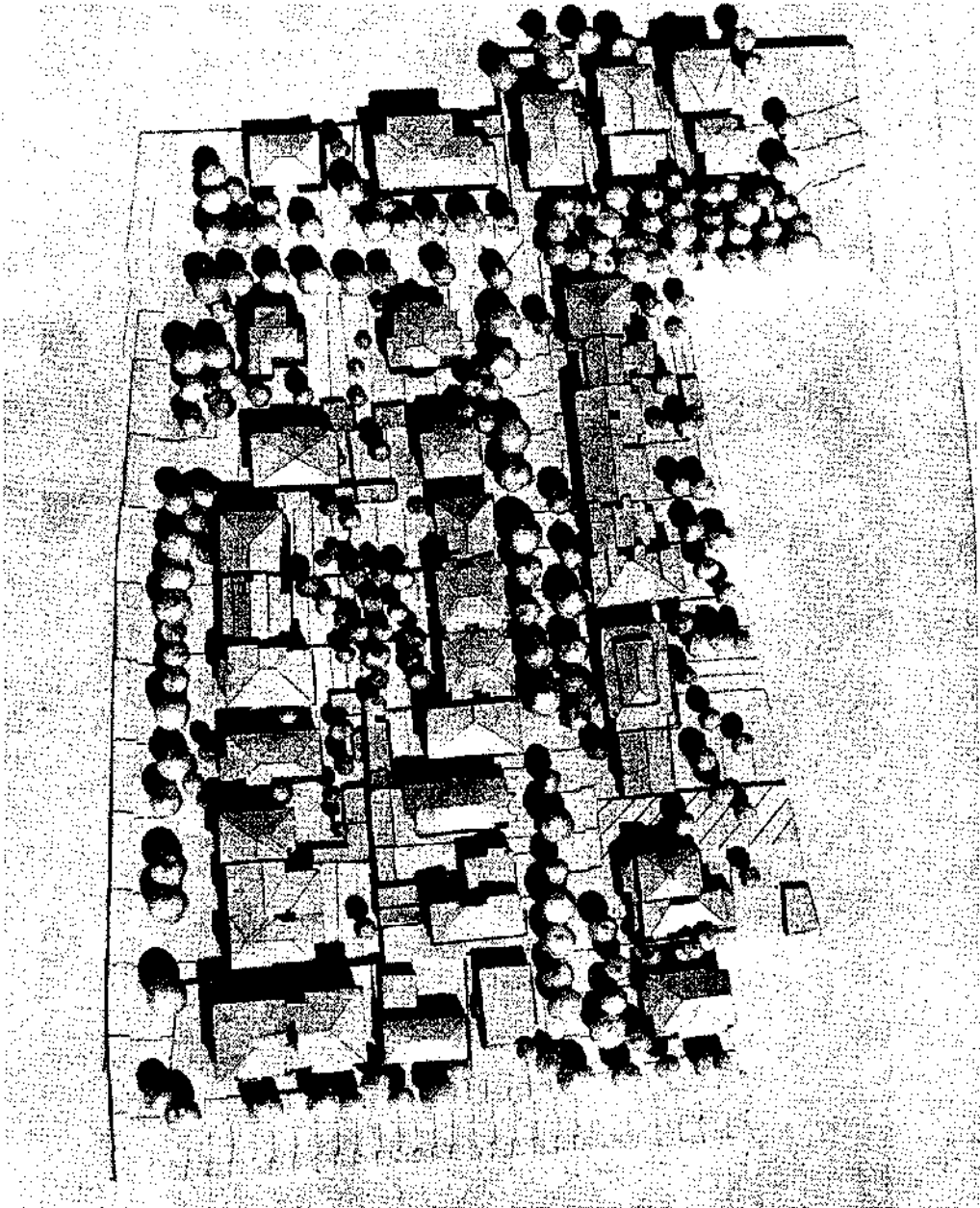


Fig.15 The City Block in Case Study
Shadows Cast at 13 hrs. Aug.—Sep.,
1959.



Fig.16 The City Block in Case Study
Aerial Photo Circa 1959.

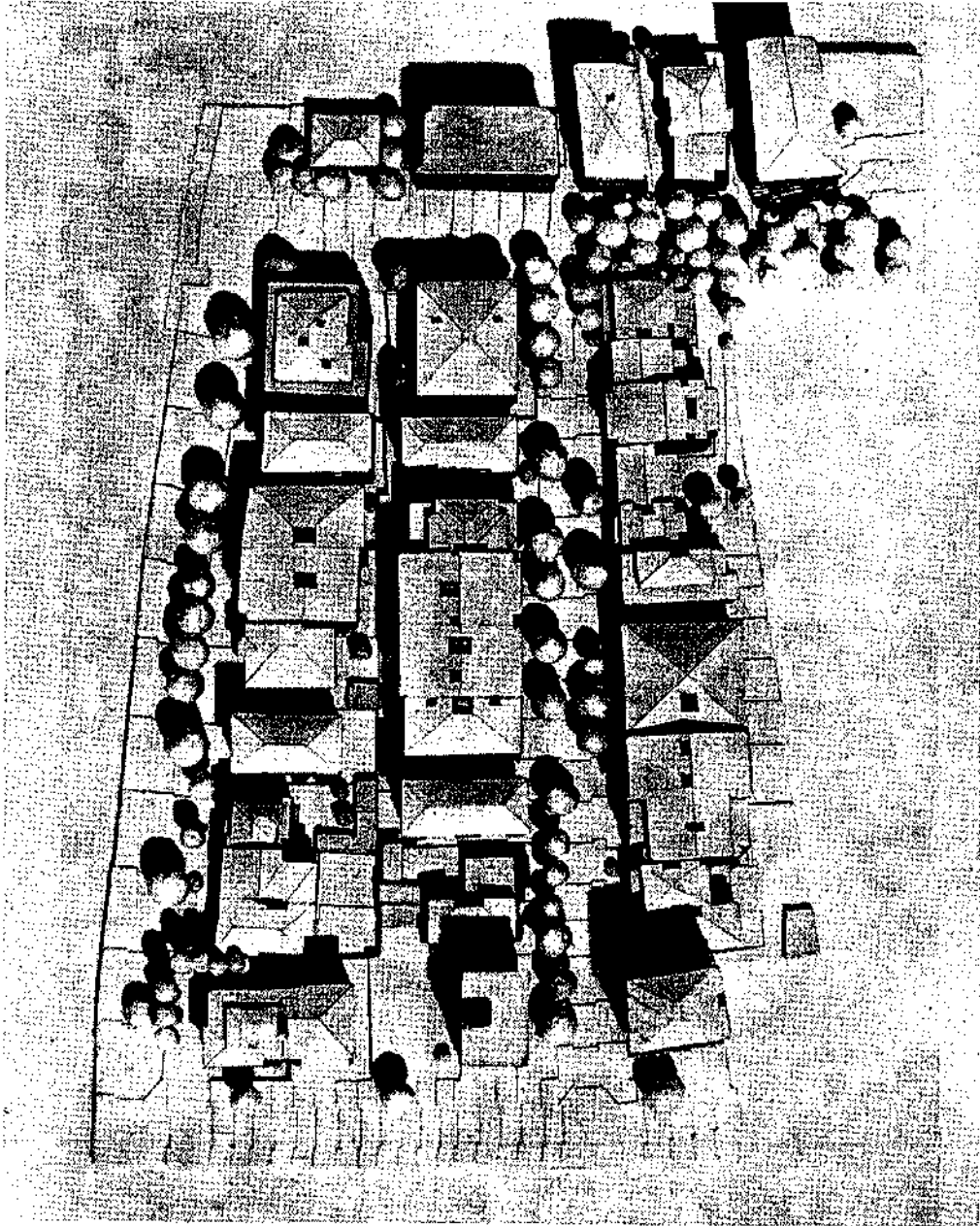


Fig.17 The City Block in Case Study
Shadows Cast at 13 hrs. Aug.-Sep.,
1977.



Fig.18 The City Block in Case Study
Aerial Photo Circa 1977.

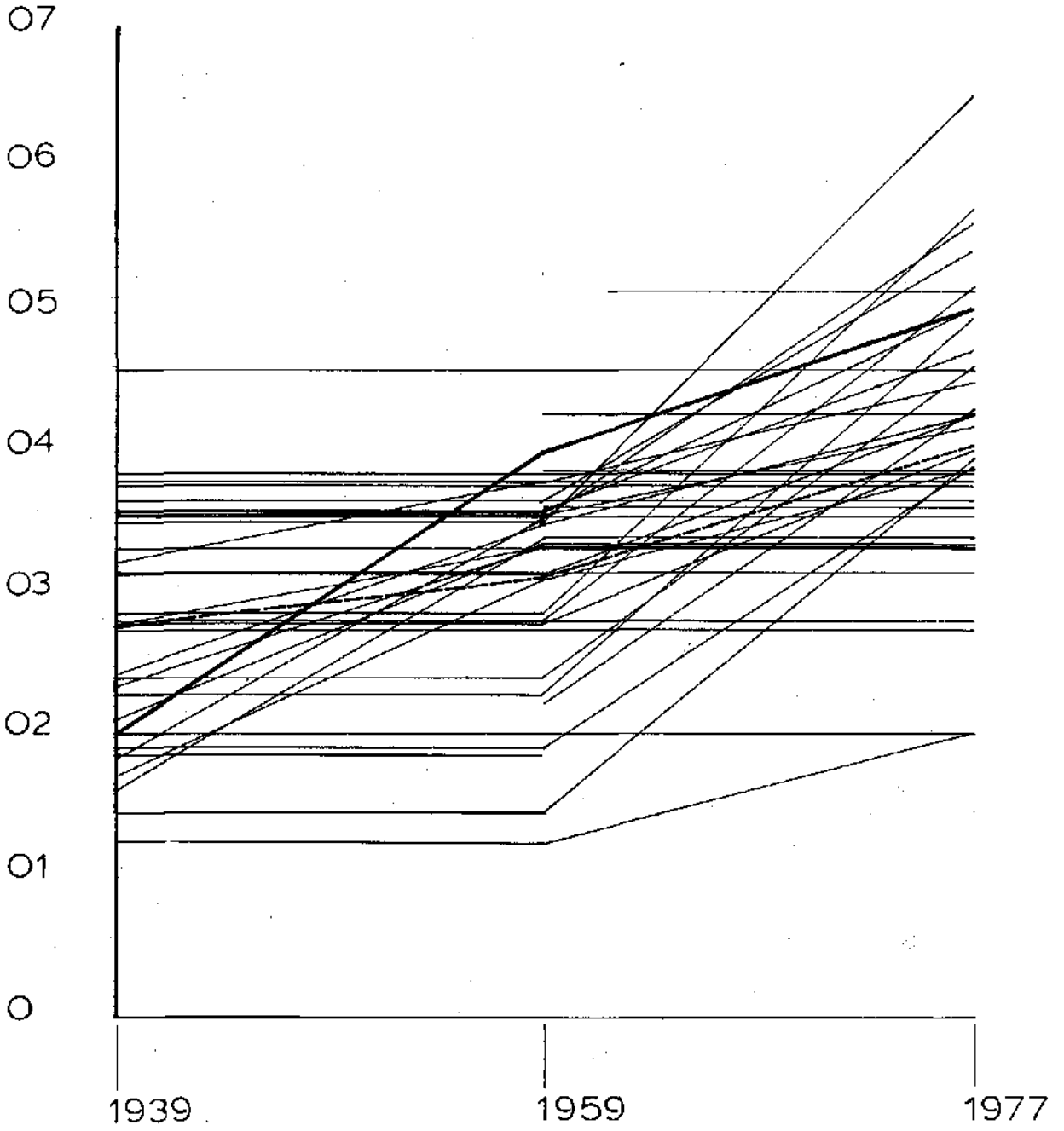


Fig.19 Comparative Floor Area Ratio in 1939, 1959, 1977 in the City Block in Case Study.

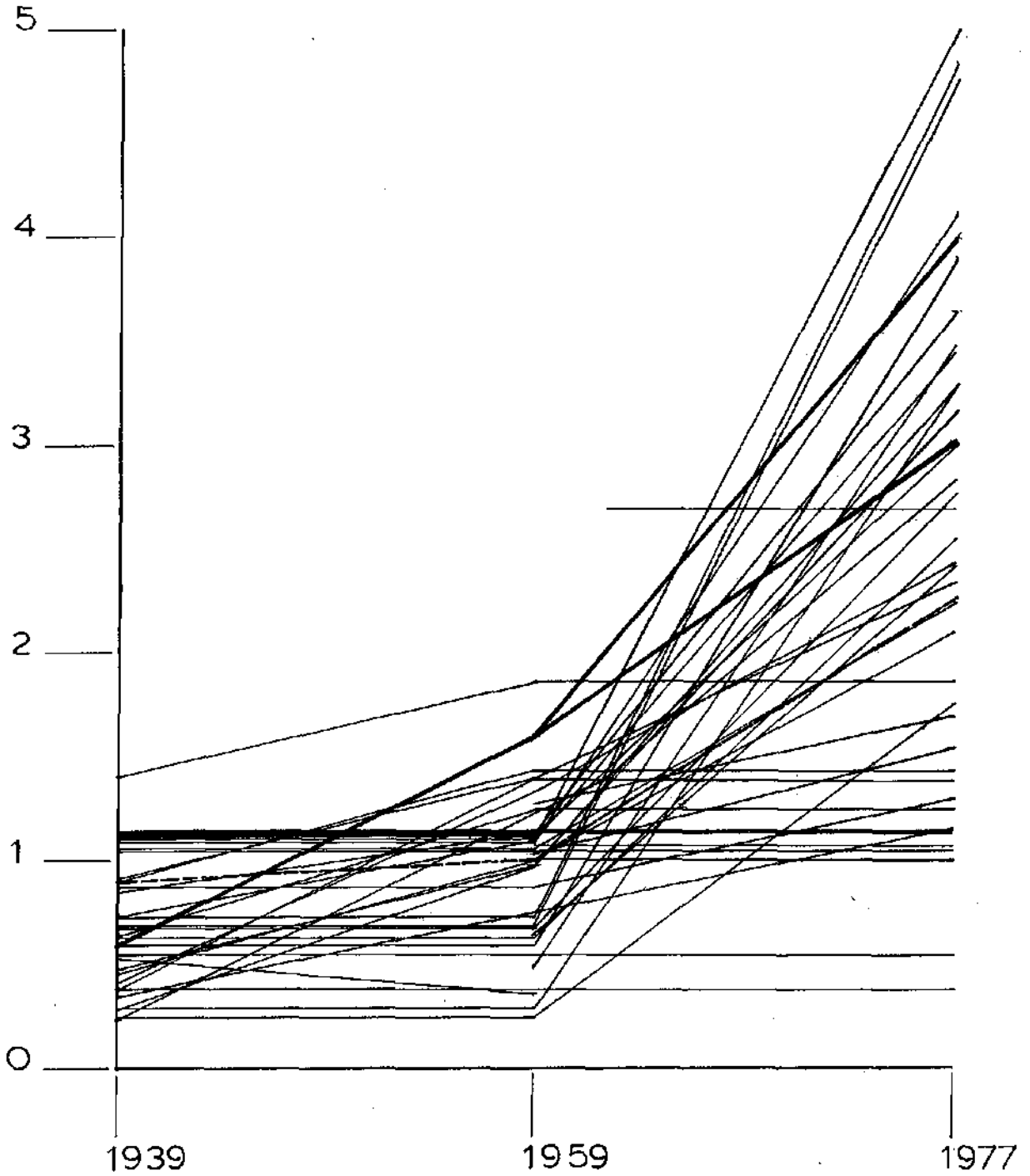


Fig.20 Comparative Building Area Ratio in
1939, 1959, 1977 in the City Block in
Case Study.

