

A SUBURBAN SHOPPING

CENTRE

AT KAREN AREA IN

**UNIVERSITY OF NAIROBI
LIBRARY**

NAIROBI KENYA

An M.Arch. Thesis Project

By

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July, 1975

DECLARATION

This Thesis is my original work and has not been presented for a degree in any other University.

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This Thesis is submitted as part of the University Examination for the Degree of Master of Architecture.



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PREFACE

As a matter of fact, erection of a shopping facility which only attracts a few shoppers is wasteful. It involves a drain on the finances of the developer and the local authority alike, and usually on the few retailers who may set up in the development as well. A mistake of this nature can last for a long time, since building materials are durable and may cause blight in the locality such as to induce indirect waste of resources. To avoid such mistakes, psychology of merchandising has previously been receiving more and more attention and, consequently, it is now understood that the buying public can be reached most effectively when its convenience, social and aesthetic sense have been given respective due consideration. My prime objective, then is to embark on a full practical awareness of this fact with regard to suburban shopping centre, both as a commercial and community centre. My approach to the problem will be twofold.

1. Subject Appreciation

By tracing back the history of retailing and by comprehensively looking at the planning and design concepts of shopping centres at large, I shall then be well-equipped with the requisite theoretical knowledge which will enlighten me in proceeding on to analyse the practical cases of existing shopping establishments both locally and abroad.

2. Case Studies

By exploring and acquainting myself with the technical, social, and economic problems of the existing shopping centres, I shall then be in a better position to embark on a feasibility study leading to the design of my particular project - the suburban shopping centre.

It is important to note that my emphasis on shopping centres abroad is quite evident. While I have not altogether forgotten the shopping centres at home, it is my personal feeling that it is imperative to study remote cases (abroad) as our standards of life, technology, and economy are - to some extent - many decades behind those of the so-called developed countries (e.g. America, Britain), and as such we have the advantage of being able to see the mistakes made in various fields and the possibility of rectifying them in the early stages.

I am not implying that we in the developing countries should adopt solutions originating from the developed countries; rather, we should modify the good solutions to suit our social economic, and even, climatic conditions so that we get the fullest advantage of foreign technology.

Finally, I wish to acknowledge the much assistance and co-operation I have received - from individuals and organization - without which this report would not take its present shape. While space does not allow me to list the names of all individuals who helped me, the following demand special mention and a vote of thanks:

Nairobi City Council, in allowing me to use materials and information from its Town Planning Department;

Triad Architects, in supplying me with information and drawings pertaining to the Adam's Arcade Shopping Centre;

Prof. H. Wood and Mr. E. Remtulla of the Department of Architecture, in giving me their kindest assistance and supervision as my personal tutors;

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Finally, but not the least, my heartfelt gratitude go to my darling wife, Rose, who repeatedly and without complaints did all the typing work.

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SECTION 1

1.0 HISTORICAL DEVELOPMENT

HISTORICAL DEVELOPMENT

Shopping and shopping centres - as we understand the terms today - are not entirely a new phenomenon. A brief glance into the history of retailing might, therefore, be enlightening and stimulating in evaluating the present conditions of shopping and shopping centres and in looking ahead.

Ancient Times

The history of retailing might begin with the 'barter trade' of the prehistoric times when a man used to exchange, say, the deer he had slain for a necklace of shells. The 'barter trade', through several centuries eventually developed into the travelling fairs with the emergence of the 'middle man' (the merchant) who carried the work produced by others from place to place in slow-moving camel caravans and established trade routes and trading posts all over the whole of the biblical world. These fairs in addition to being commercial function were also occasions of social expeditions and excitement.

Middle Ages

In the medieval times travelling fairs were a most important feature not only of economic but of social life. The fairs and markets were gay places and they provided the local populace not only with the chance of buying or selling a wife but also with the thrills and excitements of cock-fighting, bull-fighting, and like. When the fair and the market eventually developed into the Guild System - where the business was carried out in public houses such as the inn - the social facet of retailing was still evident. The business houses tended to congregate at the focal points of the town such as the local bridge or site adjoining a monastery or a church and at such points we see the first development of the first 'shopping centres'.

1.3 The Baroque Times

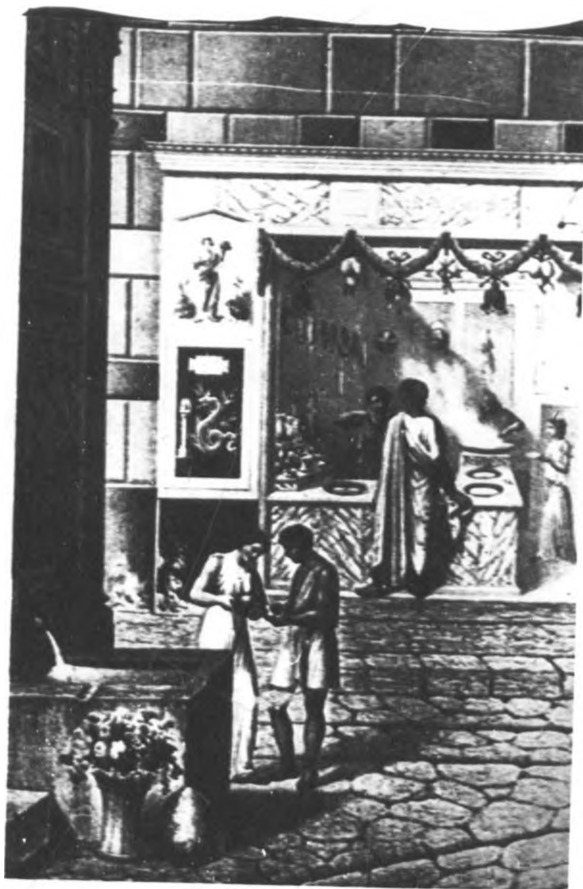
With the gaiety, the affluence and fashion of the baroque period the character of shops and shopping changed substantially. The older open-air shops began slowly to assume the character of present-day shops with their glass windows for display purposes and their expensively finished interiors. The importance of fairs and markets - which by then had tended to specialize in provisions - was reduced. Hence, some reduction in social facet of shopping.

4 The Industrial Revolution And the Present Time

With emergence of a fully industrialized society and the great expansion of working class demand many varieties of retail outlets began to develop rapidly in order to meet this mass demand. Since expansion of shopping facilities had taken place around the existing shopping cores, condition at these centres drastically changed as a result of introduction of the motorcar. The roads and streets which previously had been busy, bustling centres of interest now became heavy traffic arteries carrying hundreds of cars, buses, and lorries every hour. Arteries which were lined with the older shopping centres lost their interest as meeting places and centres where once a happy atmosphere had prevailed now became death traps. These centres, which superficially good from an economic point of view, were socially bad. They were uncomfortable, noisy, dirty, and dangerous places in which to carry out the necessary but interesting and at times, exciting, task of purchasing the necessities of life - and occasionally, the little luxuries. These are the very conditions prevalent in our present - day downtown and, to some extent, suburban commercial centres !

A ROMAN GROCERY STORE

Dried fruits, vegetables and poultry are displayed hanging over the store's entrance. In the interior the grocer's wife prepares some delicacies. (From a wall painting found among the ruins of Pompeii. Reconstruction.)



Reconstruction of a Roman grocery store interior.



GERMAN 14th CENTURY STORE

An open-faced front. Selling was done over the counter to the customer in the street.

DRUMMING UP BUSINESS

Medieval retailer using a drum for promoting business. This expression is used even today. Woodcut 1475



Bettmann Archive

Bettmann Archive



A MEDIEVAL MARKET

Silverware, cloth and hats are displayed on stalls. The entire store is open to the buyers' gaze (open-faced) with the added advantage of being able to handle the goods.

**ALAIS ROYAL
17th CENTURY**

An interior view of an arcade showing various "shops" catering to both men and women.



Metropolitan Museum

**SOLICITING BUSINESS
NEW YORK 1880**

Competitive merchants trying to drag customers into their stores. This was until recently a common practice in some sections of New York.



(Bettmann Archive)



Metropolitan Museum

GROCERY STORE 19th CENTURY

Dealers in teas, coffees and spices. Columns in center of store have not been utilized

Metropolitan Museum



STORE FRONT 1900

Typical front of this period with cast iron columns, pilasters and bulkheads. In downtown New York hundreds of fronts similar to this still exist.

2.0 THE SHOPPING CENTRE CONCEPT

2.0 THE SHOPPING CENTRE: CONCEPT

Our reasons for embarking on a shopping foray are often more devious than mere need to purchase goods. Therefore, before the concept of suburban shopping centre is understood one has to grasp what actually shopping is and what is involved in it, what ideally and practically, a shopping centre is and should be.

2.1 Commercial Context

From commercial and economic point of view, shopping is defined as "looking at, pricing or buying merchandise displayed for sale". This definition, fundamentally, makes all the difference between a shopping centre and buying centre. The former is a place where one goes to seek, to look at, compare, price and buy while the latter is essentially, a place where one buys food-stuffs, laundry items and other standard things used every day (convenience goods).

2.2 Social Context

Looked at in other terms shopping is a social as well as a recreational function. During shopping trips, people meet, converse, and make friends. They promenade up and down shopping parades window shopping and browsing; they relax in garden courts, view exhibits and patronize restaurants and other 'rendezvous' on sundays and holidays, and in evenings. This means that an ideal shopping centre is a place which provides physical living requirements for a community and simultaneously fulfils cultural, social and recreational needs, and thus makes a significant contribution to better living.

2.3 Design Context (Townscape)

Shopping centre can be a pleasant experience in terms of logic, convenience, and visual delight not only by having retail stores grouped into smoothly functioning centre that performs as a profitable mechanism for sales; but also by having appealing design quality in these stores and the spaces between and around them, their parking areas, and the relationship between the centre to the highway and community. In brief the shopping environment - which constitutes the most important role of a shopping centre architect, should be visually interesting and exciting, should provide adventure in the way it addresses itself to the visitor, and should be a living place all the time - day and night.

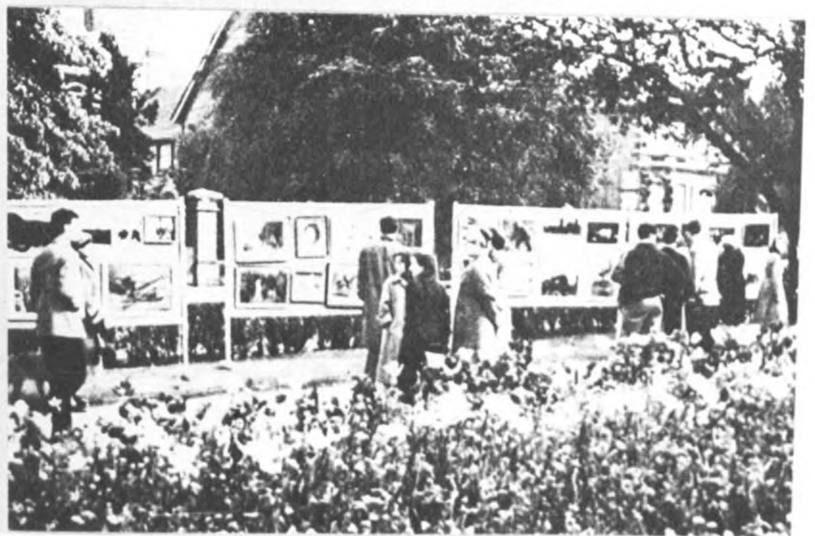


Above and below, a shopping centre as a social meeting place.





Above and below, a shopping centre as a place where one can learn.





A shopping centre mall
used as a centre for
fashion shows.



A well-attended annual ball held at the main mall of
a shopping centre.

Townscape



NETTED PANORAMA *The effect of screening is to relate, and thus create, detail out of the general. The every-day dull scene ceases to be utilitarian. It becomes a piece of scenery that you are attending to.*

eye as agoraphobe



ENCLOSURE *Enclosure is one of the most fundamental aspects of Civic Design. Quite apart from the character of enclosure, whether it be formal or intimate, medieval or modern, there is the sense of internal pressure, which we have emphasized by quoting its morbid aspects.*

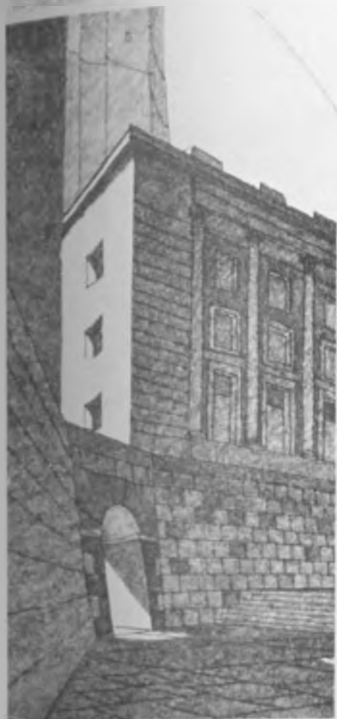


As though to underline the point the artist has carefully placed ships in the apices between columns. This is the effect that netting produces, but a photograph is usually too instantaneous to capture it.



EXPOSURE *The converse of pressure is release. The gasp of relief is much enhanced when the activities externalized are those previously associated with the world of the interior. With luck you score twice, once by the sense of release, and then again when force of habit associates sky with ceiling, river with window-box, and the Houses of Parliament with mantelpiece ornaments (see also Exterior Decorator).*

Townscape



VISTA BY IMPLICATION

The promise which may or may not be fulfilled but which changes the character of a place by the hint of vastness (as a dash of spray on a pathed emphasizes the coziness of a ship's smoking-room)

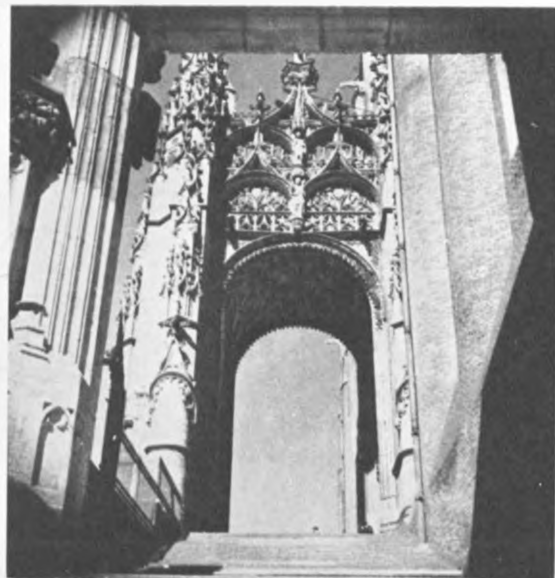


CLOSED VISTA Eventually all vistas close. Some, with tired elegance, select a distant allurement. This one is swallowed up in the cathedral entrance, so that we feel it doesn't close, but is transcended into a city. A highly romantic custom exploited with great effect by Baroque as well as Gothic builders.

eye as netter



SKY AND PANORAMA Sky and panorama need no comment except that they are the typical material that can be drawn into our environment as air is drawn into the cells of the lungs



NETTED SKY Space is usually remote, and beyond the chimney tops. There are those times when, walking up a road, one is convinced that the sea is beyond the crest. Here that sense of the immediacy of infinity is caught and perpetuated in architecture as it comes down the stairs.

Townscape

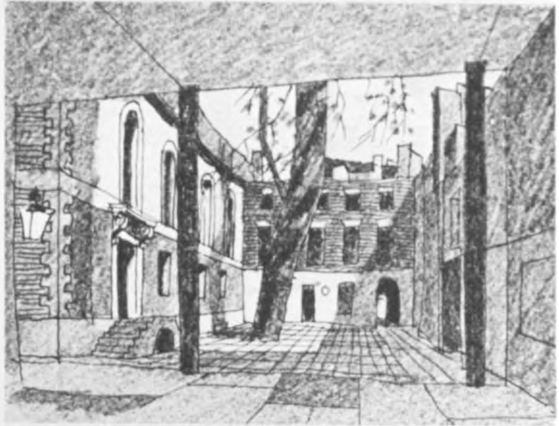


NETTED PANORAMA The effect of screening is to relate, and thus create, detail out of the general. The everyday dull scene ceases to be utilitarian. It becomes a piece of scenery that you are attending to.



As though to underline the point the artist has carefully placed skyscrapers in the spaces between columns. This is the effect that netting produces, but a photograph is usually too instantaneous to capture it.

eye as agoraphobe



ENCLOSURE Enclosure is one of the most fundamental aspects of Civic Design. Quite apart from the character of enclosure, whether it be formal or intimate, medieval or modern, there is the sense of internal pressure, which we have emphasized by quoting its morbid aspects.



EXPOSURE The converse of pressure is release. The gasp of relief is much enhanced when the activities externalized are those previously associated with the world of the interior. With luck you score twice, once by the sense of release, and then again when force of habit associates sky with ceiling, river with window-box, and the House of Parliament with mantelpiece ornaments (see also Exterior Decorator).

Townscape

FLUCTUATION In a sense all urban progression is fluctuation between pressures, between enclosure and release. It is this conception of the environment (other considerations of articulation, texture, etc. are secondary) which supplies the designer with his basis



eye as movie-camera



FREE DEVELOPMENT As a novelist creates drama by the juxtaposition of characters, a with b, b with c, c with a, so in this example movement brings an everchanging juxtaposition of masts, towers and turrets which appear and disappear only to reappear in a quite different context.

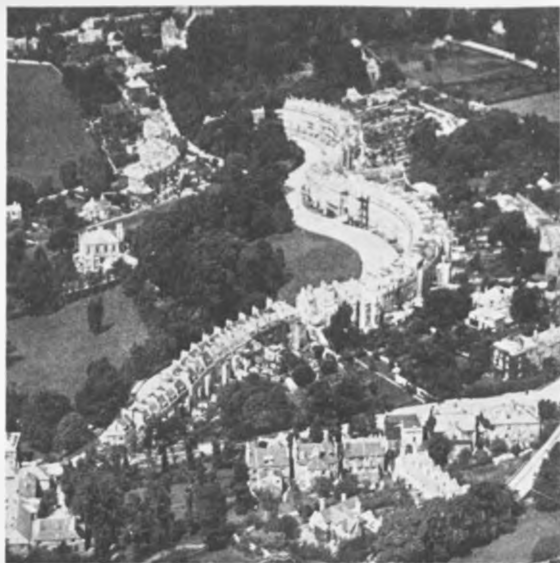
Townscape

eye as articulator

INCIDENT *The street, whether it be curved or straight, is not a means to an end but an end. That is to say, one should not feel like a pint of water in a pipe. Incidents such as towers, pediments, recesses and colour can all be exploited to articulate.*



FLOWING LINES *Superficially the opposite of articulation, the effect of flowing lines is to weld the whole scene together so that it becomes an incident, a unit in the wider scene.*



UNDULATION *A single column in a room, by relating the various objects in the room to itself articulates space. It is in front of some, behind others, and exposes their exact positions. Undulation has a particularly strong grip of spaces due to its variation from an unseen axis.*



PROJECTION AND RECESSION *Similar in effect is the more homely effect of projection and recession. The eye does not slide off the street but is intrigued by the surface. It gives scale and humanity.*

Townscape

eye as exterior decorator



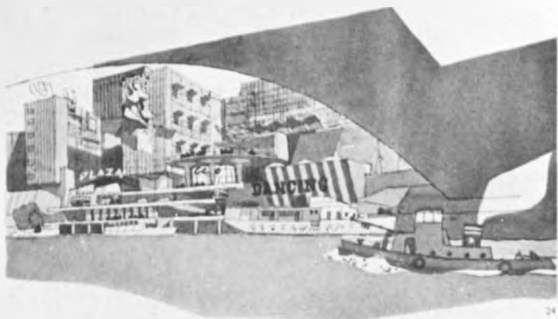
TREES In this quiet street the tree grows with great self-assurance. It is placed in its setting with much the same regard that one would employ in arranging a fern in one's living-room.



ARCHITECTURAL ELEMENTS The human process is observed in this scene where various objects are brought together to produce a unique ensemble—pediment, tree, staircase and wall.



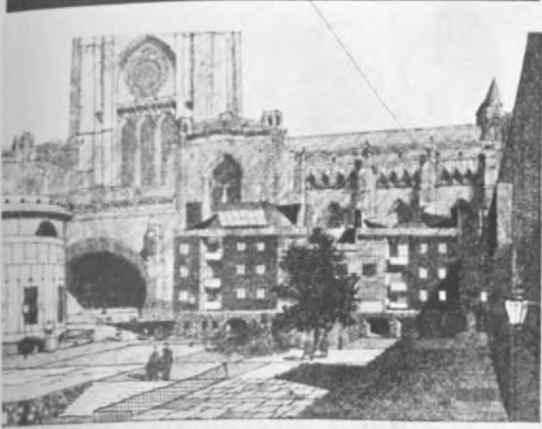
PATTERN MAKER One could easily imagine this same scene as it might have been; a high level could above, a waste of concrete below, a public convenience and dreariness. But here the floor is interesting, the change of level has been utilized, and the whole scene becomes colourful.



ORNAMENT OF FUNCTION The decoration of this scene is supplied by flags, colours and objects. Boats and buses, for instance, are not only seen as means of transport, but as moving colours and shapes. The buses which appear and disappear high over the river are, as it were, exhibition pieces.

Townscape

eye as matchmaker



SCALE Home ground for the architect. Scale is one of the regulators in the business of juxtaposition. A town consists of a multitude of elements. What to do with them? (a) Iron out all differences.

(b) Anarchy.

(c) Differentiation with a common purpose. Proper regard to scale (including purposeful misuse of it) helps to give each element the chance to be itself, provides the common element which allows the greatest differentiation.



FOLLS Complementary personalities enrich each other by means of contrast. The depth to which study of landscape has sunk is demonstrated by the fact that this obvious thought is quite new to many visual planners and even now they don't act on it.



INTRICACY Usually most keenly felt by its absence, intricacy is the elusive quality proper to a rich diversity of function (multiple use). Not to be confused with hotch-potch, it calls for an elaboration of style which still eludes the modern movement.



MULTIPLE USE Zoning on paper is a colourful occupation, but in three dimensions it invites monotony. In practice the town overlaps and the greatest of all zoning principles should be the principle of Multiple Use. It is the principle of differentiation applied to function and produces variety and vitality instead of the uniformity of segregation.

Townscape



STREET FURNITURE Four objects surprised whilst sunning themselves behind St. Benets. The photograph shows the bad effect of crowding together pieces of street furniture, which in themselves are good.



SIGNIFICANT OBJECTS The town is full of objects, trees, steeples, lamp posts, pillar boxes, postboxes. On the large scale they become means of articulation; on the small scale they provide richness and possibly strangeness (as the two eyes follow you all the way down the street).



GEOMETRY Sitting on a veranda at the sea, I was able to observe the curve of the horizon by sighting it along the veranda rail. I could see the rise in the centre. This simple but astonishing sight evokes the same emotion as the perception of geometry in the environment. Planes, lines and curves which have the same infallibility.

eye as painter



FLOORSCAPE The space between buildings is just as important in the total view as the buildings. Floors have functions to perform as well as walls, but the problem is not wholly one of convenience. If it is worth while studying the scale and texture of a wall, then it is important on floors. The type of floor can affect the scale of buildings, it can isolate a building, or make it part of a scene.

Townscape



TRAFFIC AND ROAD SURFACES The use of different types of road surface is called for from both a functional and an aesthetic point of view. Lettering on roads, the demarcation of pedestrian crossings, and so on, suggest that there is room for a Highway Code in which colours and textures indicate function



WALLSCAPE Under this heading can be listed all the range of colour, texture, creases and weathering (most and often of London). As with all these points, once the attention is directed to the subject it starts to become by day spent concentrating simply on walls as things or buildings establishes it as a personality.



ILLUSION From the days of the Parthenon designers have employed illusion to gain effects or to avert undesirable effects. This stretch of water in the Luxembourg Gardens is made to appear sloping by the design of the surrounding walls, a surprising and charming example of exuberance.



PUBLICITY By the use of advertising material the building has been transformed into a vivid and colourful incident. Naturally one does not recommend this as a general practice (like so many other effects it has to be employed with discrimination). But in the shopping street which is alive with bustle and barter, this effect is desirable.

Townscape

eye as traffic cop



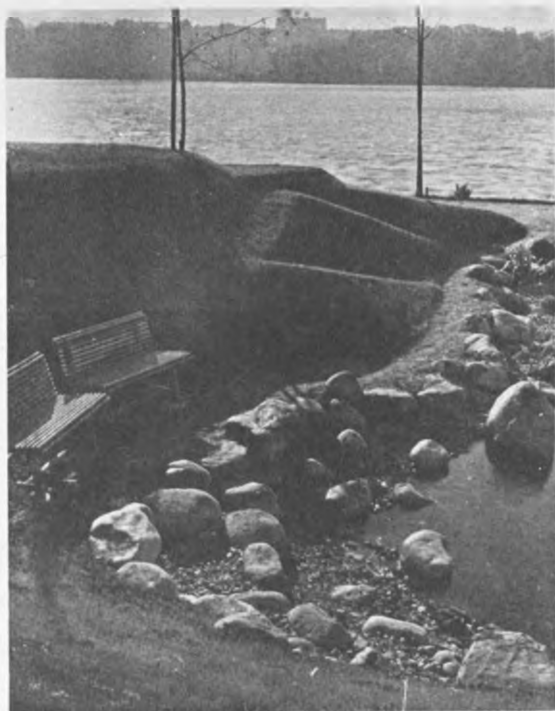
CAR PARKING Although busy-ness, the coming and going of people, is natural and proper in a town, the wholesale blanketing of streets and views by cars is not desirable. The proper place is the car park. But let us cut ourselves of the criminal folly of pretending that car parks and city squares are synonymous.



PEDESTRIAN WAY A fragment of city wall, cut-walk, alleyway, a rough track over a waste patch, sudden flight from traffic, view of backyards, steps, ramps and tunnels. All the intimacy and drama of the city are fair game for the pedestrian. The pedestrian network is to the street (traffic) plan as, in music, variation is to theme. Variety should be its first law, continuity its second.



HAZARDS To control cattle the squire builds a ha ha so that his view is not disturbed by a fence. In the same way, urban hazards can be arranged for the pedestrian (who is both cow and squire). Our drawing shows the conventional railing and three variations—water, planting and change of level. The photograph shows how a given path is enforced by hazards.



Townscape

eye as poet

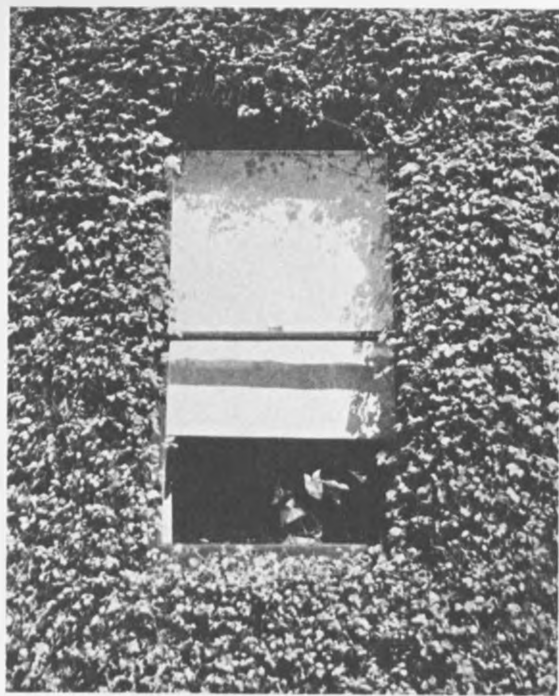
THE METAPHOR *It should be made clear that, throughout this series, we do not advocate the actual object shown, but the idea which it illustrates, which is still valid for modern design. Under the heading of eye as poet we list effects which are not primarily visual but connective.*



The classical columns of the gasholder and the castellated addition to the house (included for its clarity, not for its architectural merit) are examples of the role of association in design.



INDIVIDUALITY *The postman in his off time, the civil servant in his garden, often have building ambitions. The results, intensely personal, demonstrate the gap between it and the architecture of responsibility.*



NOSTALGIA *Far removed from whimsy this window suggests sinister motives and the power of hypnosis. The wind blows carelessly and the ivy undulates. Inside, the plant grows and decays in silent stillness.*

3.0 NEW SHOPPING CENTRE: PLANNING AND DESIGN

NEW SHOPPING CENTRE : PLANNING AND DESIGN

Market Analysis

Before a new shopping centre is planned and designed its trading area must, if possible, be delimited by carrying out a market research pertaining to the proposed centre. The objective of the market research is to provide factual answers to the following five questions.

- .1.1. How large is the trading area?
- .1.2. How many families live in this trading area as now determined?
- .1.3. What is the income of these families?
- .1.4. How much do these families spend in retail stores?
- .1.5. How much of this retail spending will be done at the new centre?

This careful pre-planning is neither the work of planners nor of the Architects. It is the work of - or more accurately the work is done on behalf of the private entrepreneur by - economic consultants. Nevertheless, it is important that planners and designers appreciate the importance of this economic analysis and its impact on success or failure of a new shopping centre.

Shopping Centre Site

The most important factors to consider when judging a shopping centre site are accessibility to shoppers with required buying power, topography, cost and zoning.

.2.1. Accessibility

.2.1.1. Distance - as far as pedestrian shoppers are concerned, accessibility of a shopping centre depends, primarily on distance. Therefore, the centre should be as near as possible to the residential areas of pedestrian customers and the centre development should be integrated with the major pedestrian routes.

.2.1.2. Little Congestion - on the other hand, accessibility of a shopping centre with regard to carshoppers depends on much more than distance. A suburban shopping centre by wide highways with little congestion may be more accessible than a congested downtown even though the latter may be very much closer.

.2.1.3. Highway Capacity - too, has much influence on accessibility of a shopping centre. Important features affecting capacity are: the number and width of lanes, the number of heavy trucks, length and steepness of grades, sight distance, distance for overtaking, traffic signals, parked cars and buses. Any congestion which may face car shoppers will reduce accessibility of the shopping centre.

.2.1.4. Visibility - of shopping from the passing motorist and pedestrian is of paramount importance. Billboards, road signs should give plenty of advance notice along the highways leading to the centre and should be carefully arranged to draw the utmost attention to provide the greatest advertising value from the roadside position. Signs must be large enough to be read from distance.

.2.1.5. Public Transport - accessibility of a shopping centre also depends on efficient and regular public transport facilities, such as buses and 'matatus'. These must be both town and country buses and the bus terminal should be as near as possible to (or integrated with) the shopping complex.

.2.2 Topography

Far more important to consider when judging topography are the sub-surface soil conditions. These may make development unreasonably expensive if special deep foundations are necessary or if considerable rock blasting is required.

.2.3 Cost and Zoning

The site must be located in an area of low land values where ample vacant land is available for centre's development and future extension if need be.

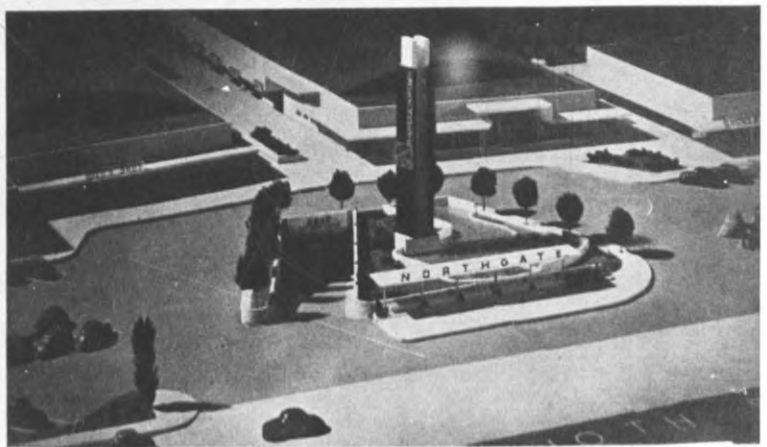


... shopping centre signs - all with a vertical emphasis.

Various shopping centre signs all with a vertical emphasis.



STAIR TOWER AS SIGN FOR CENTER. RIVER OAKS, HOUSTON, TEXAS



PILLAR AND BILLBOARD AT FREIGHT TUNNEL EXIT. NORTHGATE, SEATTLE

3. Composition of a Shopping Centre

.3.1 Retail Stores

One of the most important requirements of any shopping centre is to establish the right balance of a variety of stores so as to give comparative shopping. By carefully selecting various prospective tenants controlling their floorspace and skilfully positioning them within the centre, the designer can create a centre which generates the maximum bustle and interest for shoppers, and simultaneously yields the highest economic returns to the retailers. The list below illustrates the common retail facilities in a typical suburban shopping centre.

.3.1.1. Major Magnets - Department store, supermarkets, market hall.

.3.1.2. Shops selling convenience goods - superette, baker, delicatessen, chemist, newsagent/tobacconist, fishmonger, off-licence, variety store, dairy goods, speciality foods, confectionery, butcher, poultry, ironmongery/hardware, stationary/cards, green-grocer/fruiterer, health foods, grocer/provisions, Do-it-yourself.

.3.1.3. Shops selling durable/Comparison goods - perfume/cosmetics, trousers shop, books, cameras, car accessories, electrical appliances, lamps and shades, women's wear, furniture, linen/lace, sewing machines, shoes, sportswear, florist, TV/radios, hobbies/stamps/coins, religious goods, art supplies and frames, pets/animal foods, women's fashions/dresses, fashion accessories, Millinery/hats, souvenirs, bathroom requisites, lingerie/foundations, bazaar stores, baby wear/Children clothes, carpets, china/glass and pottery, gas appliances, men's wear, jewellery, records/music, fabrics/materials, beds/beddings, toys, wall paper/paints, leather-goods/luggage, cycles/accessories, gifts, boutique, furrier, separates/hosiery (women), wooden goods, camping/sports goods, antiques, discount stores.

.3.1.4. Service shops/stores - cafe'/snack bar, fish and chips, men's hair dressing, women's hair dressing, launderette, photographic studio, shoes repair, TVrental, opticians, art-gallery, restaurant.

.3.1.5. Kiosks - confectionery/tobacco, magazines/papers, shoe repairs/keycutting, fruit, gifts/souvenir, snack bar,

.3.2 Ancillary Facilities

The overall success of a shopping centre can well be influenced by uses which are very much ancillary, or subservient, to shopping itself. These might include Offices, hotels, entertainment and recreational facilities, social - and community - oriented buildings such as welfare clinics and libraries and cultural activities as well as service trades. However, in all cases, there must be a realistic demand for the ancillary accommodation being considered.

The following are the basic reasons why shopping centres might include these ancillary developments:

- .3.2.1. - To ensure that a centre functions properly in practical terms and caters for the wider needs of shoppers.
- .3.2.2. - To increase the focal-point value of the centre.
- .3.2.3. - To establish the centre as a local meeting point, either during the daytime, or in the evening, or both.
- .3.2.4. - To improve the overall architectural appearance of the centre.

Having decided what ancillary uses to include, these must then be integrated into the design so as to realize maximum advantage for the centre as a whole as well as realizing the full potential for the particular building to house each ancillary use. Basically, ancillary facilities fall into three groupings. First, there are ancillary uses which play a part in the structure of the centre, e.g. a multi-storey car park at one end of a shopping mall and a bus terminus at the other end. These will provide a strong axis, on which to front retail display space. Strategic planning of elements in this particular category is extremely important and can determine the success, or otherwise, of a shopping centre.



Ancillary facilities such as the petrol filling station (above) and some residential accommodation (below) are a necessary provision in a shopping centre.



Second, there are subsidiary uses which are a necessary part of the working of the shopping centre e.g. service area, local authority's management offices, etc.

Thirdly, there are principal ancillary facilities which do not necessarily move any direct relationship with shopping and which are suitably located on the fringe of the site, or at a different level, such as entertainment centres, sports centres, health centres, libraries, offices and flats.

The integration of all these ancillary facilities, especially in the first and third category, should be such a that they do not interfere with the shops themselves.

.3.3 Amenities

The shopping environment must have a pleasant atmosphere in terms of convenience and visual delight. This can be achieved by providing convenience amenities such as telephone booths, rubbish boxes, water drinking points, public toilets, children play areas, and sitting benches; and visually by imaginative use of landscaping materials, sculptural objects and graphic art. Thus by careful use of plants, shrubs and trees, goods service areas and refuse storage yards can be effectively screened and disguised, and similarly, the approach roads and surface car parks can be softened in appearance and their monotony broken up.

3.4 Location of buildings within a centre

Store locations are worked out along their shopping concourses so as to group related shops by trade classifications, to spot powerful traffic generators such as department stores in key positions, to encourage comparison shopping and maintain an even flow of traffic throughout the entire centre.

3.4.1. Department Stores - They are large space users and will create their own importance. They need comparatively cheap rental space on between two and five levels and are best positioned at the end or middle of principal mall. Expert opinion currently recommends locations throughout the centre and in the main square.

3.4.2. Supermarkets - Adjacent to, and preferably on the same level as the car park so that trolleys can be wheeled direct to cars.

3.4.3. Food Shops - They require reasonable display frontage. They are grouped round the supermarket or market hall but not in prime locations nor in the highest rental positions.

3.4.4. Service Store - Need only limited frontage and display space. They are generally positioned in less attractive retail locations where rents are lower and sizes of shops smaller. They can also be located in a strip adjoining an entrance.

3.4.5. Speciality Shops - Need good display frontage and prominent locations. Sometimes they can be positioned to advantage in surprise locations such as in the household/furniture section so as to brighten up an otherwise dull stretch of the mall.

3.4.6. Furniture and Household goods Shops - Furniture shops need the maximum amount of wall space against which they can set a variety of display and room settings. They can be grouped together in one location or split into two or more groups. They will require inexpensive space at the rear of a small entrance unit fronting on to pedestrian mall.

3.4.7. Fashion and Clothing Stores - They rely on large pedestrian flows passing them and therefore good display frontages are vital. They are grouped together and require prime positions, preferably in the centre of the main mall and away from the food stores.

.3.4.8. **Ancillary Facilities** - Generally located on upper floors of a shopping centre. Restaurants, however can benefit from any position with a view. Public houses can be located in the basement.

.3.4.9. **Other Secondary Activities** -

Kiosks - in the malls and along pedestrian routes

Cafes' - in the malls and along pedestrian routes

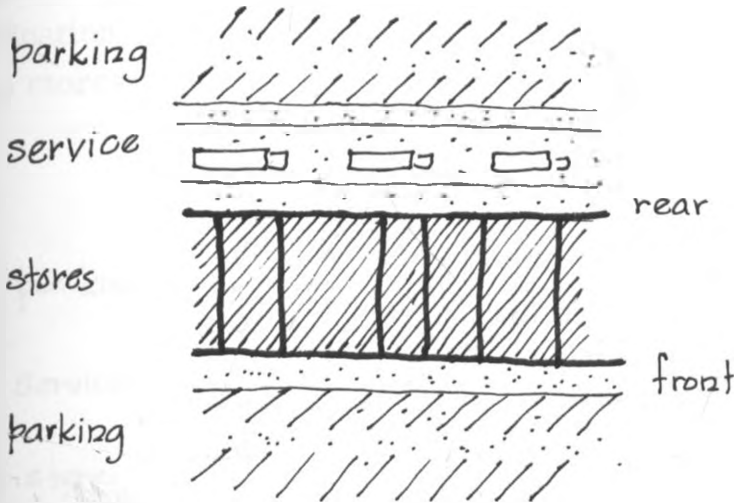
Vending Machines - on blank walls

Telephones - in the mall

Petrol Stations - on the exit route outside the centre.

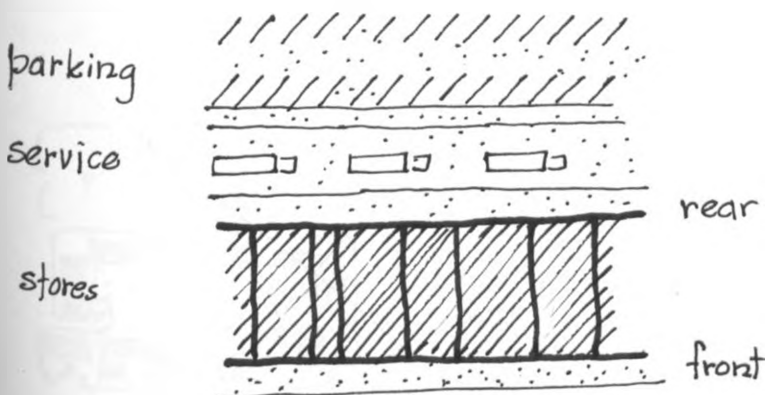
4.2 Split Parking

Similar to above but has an additional limited amount of parking at the rear of the side of the store block. The area in front of the stores is useful for quick in-and-out shopping and that at the rear for longer visits and for overflow parking in peak shopping hours.



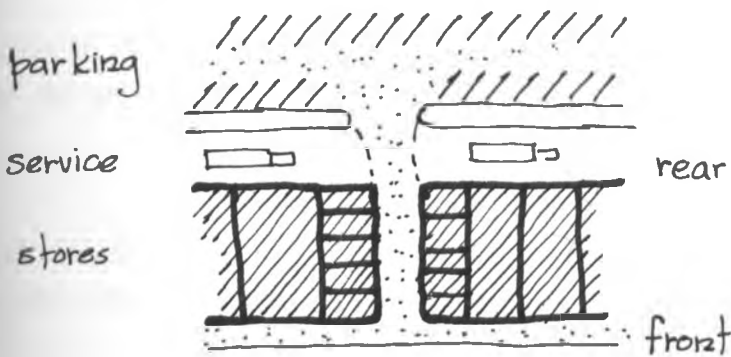
4.3 Rear Parking

Most often used when the shopping centre is fitted into an already established shopping street, or when the stores turn their backs to the highway and face inwards to a pedestrian mall. Coming from the rear parking, the customer will usually try to enter the stores by a back door which is also a service entrance. This arrangement does not encourage window-shopping unless stores have two major entrances.



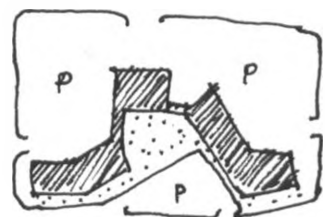
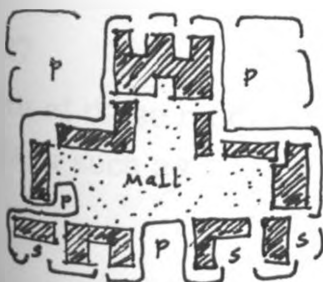
4.4 Rear Parking with Arcades

Cut through the store block at frequent intervals, does overcome many of the objections raised by shoppers and freight sharing the rear entrance. Moreover, the funnelling of traffic through these arcades makes them extremely valuable for the display and sale of impulse goods. The rear parking with arcades is most suitable for leisurely shopping (e.g. women's fashion goods). It is often used in combination with interior pedestrian malls, where the rear entrances of the stores face the highway.



4.5 Distance between Parking and Stores

Can be substantially reduced, and also be made less apparent, by interlocking parking pockets with the stores. Arcades join these parking areas directly to the heart of the interior shopping court. Another version is where parking and stores are interlocked for a combination of convenience and display value.



Car Parking

An essential condition for a successful shopping centre is that, there should be ample parking for everybody - car shoppers, visitors, and the workers - within a very short distance from the stores.

.5.1 Methods for calculating car parking space

There are two methods for calculating or estimating the necessary parking bays for a shopping centre:

.5.1.1 Unit Sales Method - this relates the number of parking stalls to sales volume. Thus,

No. of parking spaces = $\frac{\text{Annual gross sales}}{\text{Annual sales per parking stall}}$

Annual sales per parking stall.

The annual gross sales per parking stall may vary from \$15,000 to \$60,000 according to American standards.

.5.1.2 Area Ratio Method - this is the ratio of the gross area of parking space to the gross floor area of the stores.

Thus,

$R = \frac{\text{Gross parking area}}{\text{Gross store area}}$

, where R = Ratio and may vary from 2:1 to 3:1 or above.

After getting the gross parking area, the total number of parking stalls can be obtained by using the factor 27 m² per parking bay.

Thus,

$\frac{\text{Gross parking area}}{27} = R \times \frac{\text{Gross store area}}{27} = \text{No. of parking stalls.}$

27

27

In both of these methods, allowance must be given for peak hours and days such as after work or on weekends.

5.2 Parking Methods

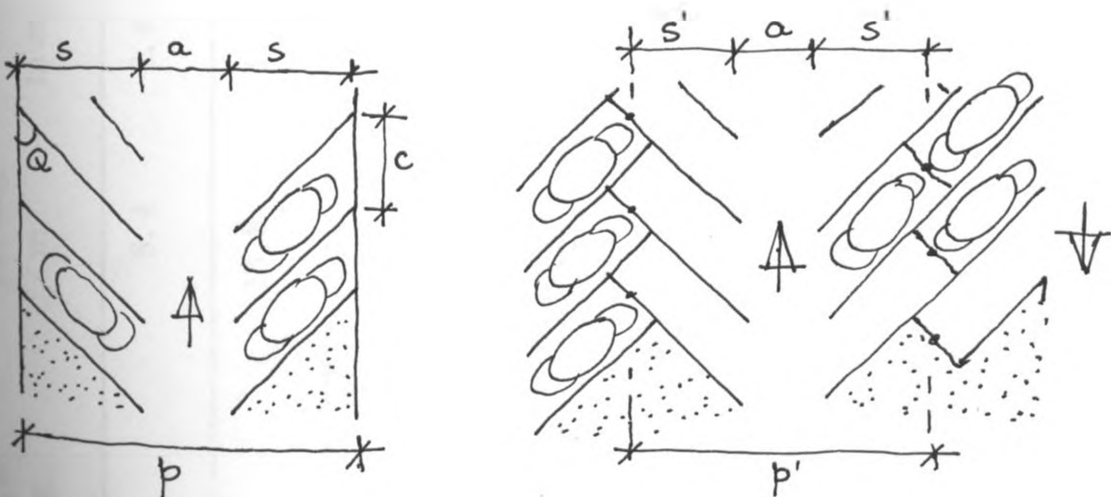
Basically, there are three ways of providing car parking spaces: on ground floor level (cheapest), or in the basement, or by means of a multi-storey block either above the centre or free standing. Basement and first - floor parking are more expensive than ground - floor parking. In all cases, the likely pedestrian flows from the car park to various areas of the centre must be considered.

5.3 Parking Standard demensions

Varying the angle of car parking as the diagrams and the table below show, will vary,

- 5.3.1. The length of curb per car,
- 5.3.2. The width of the parking unit,
- 5.3.3. The area per car,
- 5.3.4. Circulation within the parking area.

Deciding on the best parking angle depends mainly upon the size and shape of the parking area. It may sometimes be advisable to use different parking angles in the same parking lot, in order to use the available space to the greatest advantage. Another method of space saving, as shown by the last three columns of the table below, is by the use of overlapping and interlocking patterns of parking.



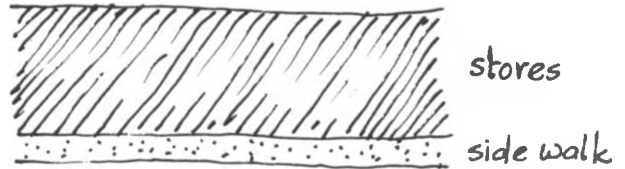
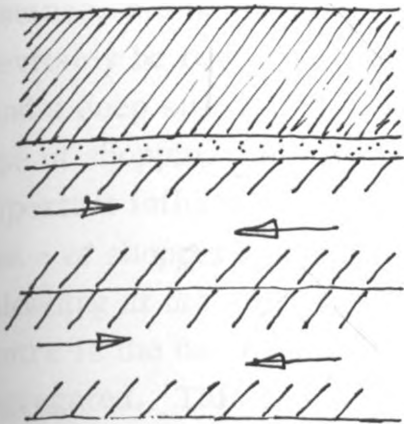
Q	P	S	a	C	A	P	S	A
Parking angle deg.	Width of parking m	Depth of stall in m	Width of aisle in m	Curb length per car in m	Area per car in m ²	Width of parking in m	Depth of stall in m	Area per car m ²
0	8.4	2.4	3.6	6.9	28.8	8.4	2.4	28.8
30	13.8	5.1	3.6	5.4	37.35	11.4	3.9	28.8
35	14.4	5.4	3.6	4.74	27.0	12.3	4.35	29.25
40	14.7	5.55	3.6	4.2	30.87	12.6	4.5	26.55
45	15	5.7	3.6	3.84	28.8	12.9	4.65	24.75
50	15.3	5.85	3.6	3.54	27.18	13.5	4.95	23.94
55	15.9	6.0	3.9	3.33	26.46	14.4	5.25	23.94
60	16.5	6.0	4.5	3.09	25.38	15.0	5.25	23.22

Q Parking angle deg.	P Width of parking m	S Depth of stall in m	a Width of aisle in m	C Curb length per car in m	A Area per car in m ²	P Width of parking in m	S Depth of stall in m	A Area per car m ²
65	17.1	6.0	5.1	2.97	25.38	15.9	5.4	23.58
70	17.7	6.0	5.7	2.88	25.38	16.5	5.55	24.21
75	18.3	6.0	6.3	2.79	25.47	17.1	5.7	24.66
80	18.9	5.85	7.2	2.76	26.10	18.6	5.7	25.65
85	19.2	5.7	7.8	2.73	26.19	18.9	5.55	25.74
90	19.2	5.4	8.4	2.7	25.92	19.2	5.4	25.92

.5.4 Layout of Parking area

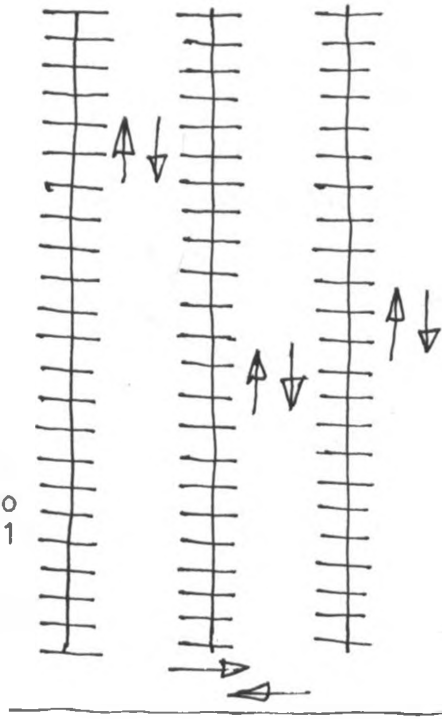
Three important considerations will influence decisions on the layout of parking areas:

- .5.4.1. circulation of pedestrians between cars and stores;
- .5.4.2. circulation of cars in and out of the parking area and looking for a place to park;
- .5.4.3. Space saving.
- .5.4.4. There should be as few obstacles as possible to the movement of motorists on foot back and forth between stores and their parked cars. Therefore, the parking aisle should be set at right angles to the stores, parallel to the main flow of shoppers using the centre. If the aisles are set parallel to the stores, shoppers have to squeeze between cars and make a blind crossing at each aisle. Such a layout is justified only in shallow parking areas not more than two aisles in depth, where the aisles double as access roads.
- .5.4.5. Wide aisles - economically only with 90 degrees parking - are preferable when the pedestrians and automobiles share the same roadways, pedestrians are thus given a better chance to see and to be seen. In case of parking aisles at right angles to the stores, there will have to be at least a two-lane road running along the front of the stores. This roadway is also useful for unloading and picking up passengers.
- .5.4.6. A roadway at the stores end of the aisle is essential - Exit to public street, or to another access road at the far end of the aisles is desirable but not essential. It will prevent department store's shoppers and others returning to congest the access road in front.



45 SHALLOW

Number of cars per
 1000sq.ft. (90m²) of
 store area 3.1
 sq.ft. per car ...396
 area ratio (parking to
 store)1.2:1



90 deep

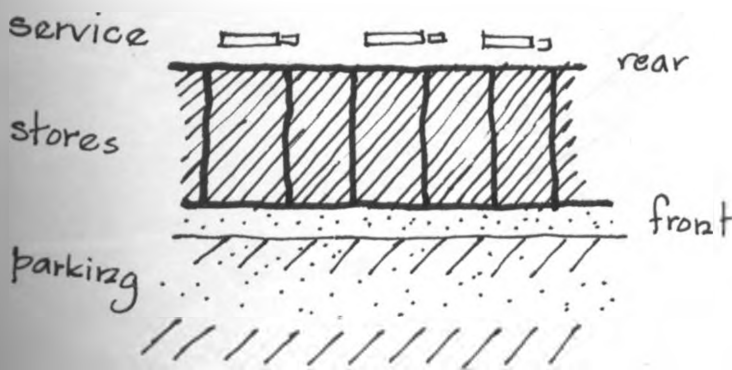
Number of cars per 1000 sq.ft. (90m²)
 of store area 9.4
 sq.ft. per car 339
 (including feeder roads as shown
 above). area ratio (parking:stores)
 3.18:1

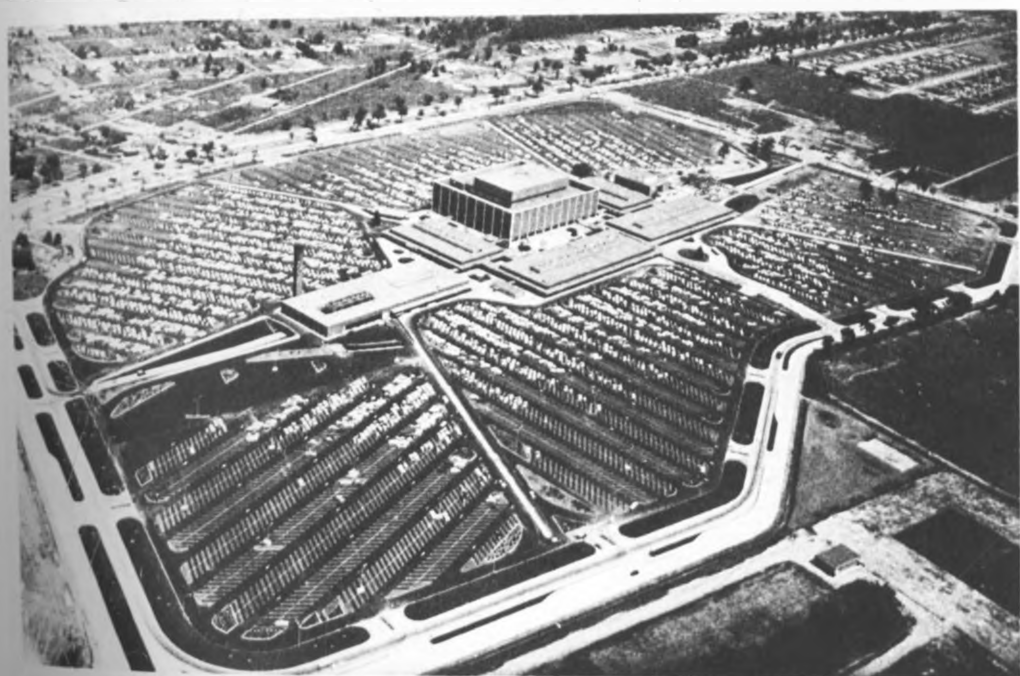
3.4. Evolution of a Site Plan

More often than not, it is the site which makes the site plan. The shape of the lot, its size, its topography and the length of its highway frontage will almost immediately narrow the choice of site plan. For instance, a long shallow strip of land along the highway will almost inevitably be best suited to a long strip of stores, while, on the other hand a deep site with small frontage will immediately suggest some type of shopping court or pedestrian mall scheme. However, the most important influence on the site plan of any shopping centre is circulation - of shoppers in cars, shoppers on foot, and freight loading and unloading at the stores. The golden principle is: an ideal shopping centre is the one which has all the three elements of circulation segregated. This can be achieved best by having the service area either at the basement or on the first floor. This accomplished, pedestrians can then be segregated from cars by designing a mall scheme.

.4.1 Front Parking

Keeps customers in front, the service traffic in the rear, thus separating these two circulations. This type of parking is especially well suited to the fast in-and-out shoppers.





Three plans illustrating ample peripheral parking and ring road in a car-orientated shopping centre.

Servicing

.6.1 Freight Handling

Many shopping centres fail to some extent in their handling of freight traffic. In some, the loading and unloading provided are not in themselves efficient. In others, freight traffic is not adequately segregated from customer traffic. In the first case, greater efficiency depends upon improvement in the design of service courts and loading docks. In the second case, a more involved design work is necessary.

There are three methods by which stores can be serviced:

.6.1.1 at ground floor;

.6.1.2 at first-floor level - most suitable on a sloping site where it is simple to put a service road at first floor level. In this case, it is a sound idea to have storage area at mezzanine floor;

.6.1.3 From basement - this is the most expensive but the most efficient particularly when a centre has two-front stores, with the official front on one side but an equally important and heavily used front on the opposite side.

.6.1.4 Dimensions for Freight docks:

Length of tractor in m	Width of opening in m	Apron space required in m	Recommended over-head clearance -
10.5	3.0	13.8	4.2m minimum road width - 3.6m
	3.6	12.9	More needed on turns
	4.2	11.7	Most common height for docks is 1.10 - 1.25m.
12	3.0	14.4	But light trucks have a lower bed level.
	3.0	13.2	
	4.2	12.6	
13.5	3.0	17.1	
	3.6	14.7	
	4.2	14.4	

6.2 Garbage Collection

In a shopping centre, like freight handling will be of primary concern to the supermarket, of secondary importance to all other tenants except the restaurant. Closed storage space for garbage is essential so that garbage is kept out of site and will not be blown around. The process of loading it on to the truck which will take away should not be, if possible unsightly and dirty.



Service courts, a simple and economical method of servicing shopping centres.





Service tunnel, though expensive, is the most efficient way of servicing shopping centres, and in particular, centres with two-front stores.



Store Building - Design Criteria

.7.1. General

Stores in a shopping centre are for merchandising. They must be conceived, designed, and arranged to sell goods; and if they fail in this requirement they have no reason to exist.

.7.1.1 - For every type of retail enterprise, there is a unique, approximate solution in building design, interior arrangement, and interior design. However, every store or store building basically consists in a sales area where goods are displayed and sold, a service area for handling incoming and outgoing merchandise, and a store-front used to advertise the business within.

.7.1.2 - These three elements must be planned to suit the sales and operating methods of the retailer, the buying habits of his customers, and the shopping environment in which the shop is placed.

.7.2. The Shop-front

Comprising the fascia, the sign, the display window, the lobby and the whole approach to the front - is the top salesman a store possesses. Therefore, it must be attractive and eye-catching; it must identify the shop and in keeping with the character of the merchandise offered therein; it must derive its character from a frank expression of these factors and not ape or adopt the design of some other shop. The shop-front must be designed mainly as a stage for displaying merchandise. It should have that attraction that will entice customers into the store and it must not only make a favourable impression on the average passer-by in order to attract her to the window, but must invite close and detailed inspection of goods and displays, and thus create a desire to enter.

.7.2.1 - From display view-point, a good design will provide for the maximum possible degree of change in display policy and style. In this case, the designer must ensure that all decisions taken architecturally are such as will not hinder the efficient operation of the display department or those concerned with the daily tasks of merchandise presentation.

.7.3 The Interior of the Store

Having passed through the outer attractions of the shop, the customer arrives inside and is soon, we hope, enticed to purchase for whether she comes merely to look around or with a defined objective, she is to be tempted to buy.

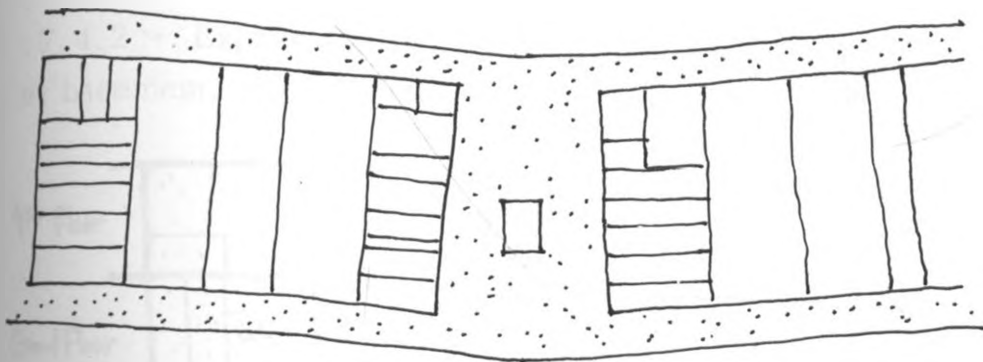
.7.3.1. - The whole layout of the interior must conspire to attract her to the merchandise, allow her to examine it, draw her to buy and, finally, to create pleasure in her mind in order to bring her back again.

.7.3.2. - Because it is the purchase of the extra impulse items, which can make all the difference between good and bad turnover, she will find all the articles she would love to have, placed where her eyes can hardly fail to see them, as she passes on her way to the goods she needs. This is the basic rule behind the planning of any shop, however, large or small. Impulse goods in the foreground, demand items to the rear, convenience merchandise between: selling space forward, customer facilities variable, but with a long approach, and staff and stock rooms well out of the way.

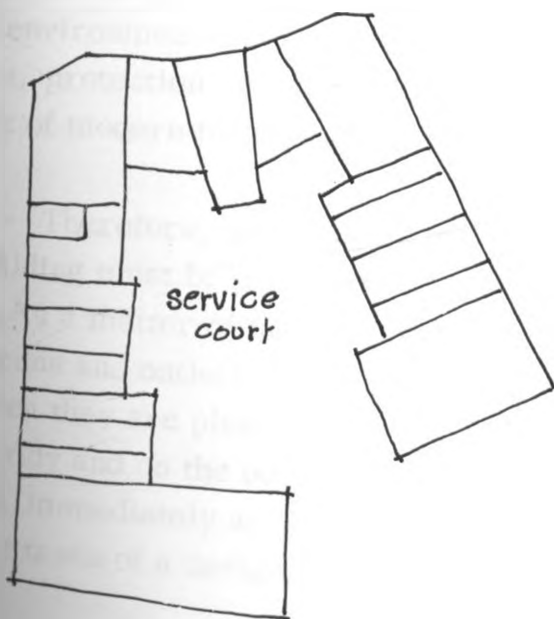
.7.3.3. - Despite the absolute nature of the basic rule, there is however, a considerable diversity in layout among the various types of shops as illustrated hereafter in the section dealing with the details of design criteria of various retail stores.

.7.4 Variety in Store Sizes

.7.4.1. - The elements which influence the size of store buildings are the people and fixtures. Consequently, different types of stores have different sizes and their respective sizes must be derived accordingly. In any case, store depth and flexibility of construction to allow future changes and expansion are factors of vital importance and can be achieved by modular frame construction or by alternate load-bearing and non-load-bearing wall construction.

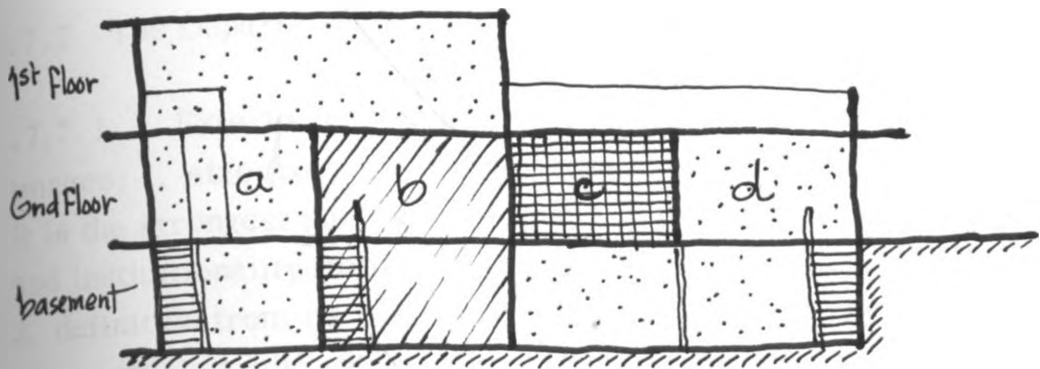


Variety of size and shape in small stores at end of two-front store block.



Variety in store depth. Each store projects as far as the tenant desires into a central service court.

7.4.2 - Expansion can also be achieved by overlapping floor spaces at basement, ground-floor, first-floor, etc., as illustrated below.



7.5 Environment Control and Services

7.5.1 - Services are the arteries of an individual store structure. They animate the building complex and enable to fulfil its intended functions, both economically and efficiently. They, in essence provide environmental control (lighting, sanitation) internal transportation, protection and other functions and amenities' which are resultant of modern technological advancement.

7.5.2 - Therefore, services as an important part of a 'living' store building must be provided for right from the earliest stages of design. As a matter of fact, the actual task of co-ordinating all the service runs and outlets throughout the store building, so that in the public area they are pleasing and unobstrusive, in the service area neat and tidy and on the odd occasions, when the maintenance is required, immediately accessible, is one of the biggest and most important tasks of a designer.

7.5.3 - Economically, services can be pretty expensive if serious thought is not put at design stage. Alternative forms of many services exist; some are essential, some merely desirable. The relative merits and peculiar characteristics of each service have therefore to be considered and the problem is not as simple as it might seem to be at the first sight. In any case, it is necessary in any assessments of costs, to ensure that basic facts add hypothetical assumptions are carefully and expertly analysed and clearly presented for decision.

7.6 Material and Construction

Uncomplicated design and single, strong, and dominant materials are essential.

7.7 The Department Store (design criteria)

7.7.1 - Exterior Character - The exterior should project several images; 1, size (because the department store should say, visually, it is the strongest purveyor of goods in the centre); 2, permanence and institutionality (to instill a sense of trust and dependability); 3, definition from its neighbours (restrained if nearby buildings are flashy etc.); 4, the nature of merchandise and customer (where one finds ideas, stimulation, taste); 5, store character (high fashion, graceful fine in scale - institutional, solid, no nonsense); 6, regional or community character.

7.7.2. Interior Character - when we come to the interior, treatment we emphasize - by every device - the projection of the total store image. That character or image is a composite of store's merchandise its way of doing business, its customer, its position in relation to all other merchants handling like merchandise. Inside the store the projection of this image is accomplished through display. Fixtures are the basis of display, and their location, type, and design establishes character and enables the store to operate within its own peculiar method of merchandising. Decorated background also gives the customer a positive impression.

Graphics can establish character directly and at little cost. Upper wall areas, valances, counter or rack ends, all provide surfaces for such treatments. Colour is one of the most consciously registered indications of style, and can be introduced in graphic variations. Stained wood in colour, synthetics, fabrics, paint, plaster, mirror - all can serve to introduce both colour and textural change of pace.

Ceiling heights are of course determined by the size of the visible space; the larger the space the higher the ceiling. Attempts to create a sense of height by varying ceiling levels may be imperative in modernization work but in new buildings it is inadvisable. When ceilings are dropped flexibility suffers. Lighting is indispensable tool of modern merchandising. Without up-to-date lighting and air conditioning, there could be no peripheral plan. Fluorescent lighting alone tends to flatter out merchandise and render it in monotonous sameness. Therefore, use fluorescent to provide an overall light level, and then add the expensive, heat producing but irreplaceable - incandescent light for visual kicks.

Electric stairways (though expensive) handle vertical traffic best and their treatment is an important design consideration. They should be handled as a major decorative and dramatic feature. This can be accomplished by means of architectural excitement, colour, expensive materials, lighting, etc. The result should have a look of permanence, not intrasigence.



China and glassware department



China department



Lamp department



Women's sportswear section



Women's shoe department

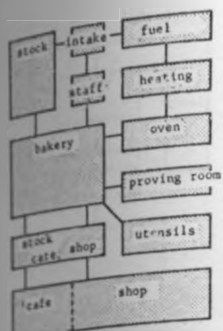


Tearoom on the upper floor

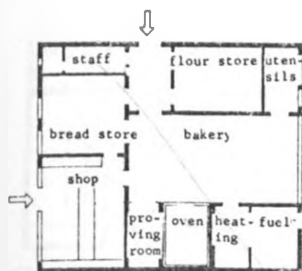
Various departments of a department store.

7.8 The Small Shop (design criteria).

Many principles of branch department store design described above apply to small shop assignments. Since space is limited and so is merchandise, space allocation is simplified. In small shop design it is important to follow the rule of using the exterior to make the impact of store character on the customer; and to make the interior give the best possible impression of the capacity of that shop to contain, display, and sell merchandise. This calls for a shift in approach from exterior to interior. In the branch store, this is done within the store in handling individual department where the impact is made at the entrance to a shop or department not through a window. Thus in designing the small shop exterior, adapt the merchandise display to the outside; adapt the interior plan and design to merchandising needs.



1 Circulation for a bakery. Shop wall ventilated, if possible with steam extractor

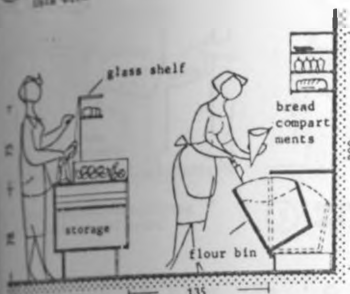


2 Plan of a small bakery. Bread store with good connection to bakery, shop and dispatch.

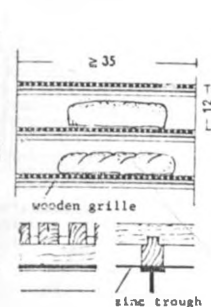
BREAD AND CAKE SHOPS

About 20 years ago, small bakeries produced approx 85% of household requirements of bread, pastries, etc, factory bakeries the remaining 15%. In UK these percentages are now more or less transposed.

Freshly baked goods require good air circulation. Shop temp and humidity should be adjustable. Walls and ceiling porous, no sealing film or cladding; condensation on shop windows to be avoided, → p. 216.



3 Bakery counter with screen. Bread compartments, → (b), vary with loaf size.

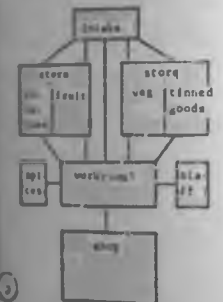


4 Shelf arrangement. Bread on slatted shelves (air circulation) with tins below to catch flour.

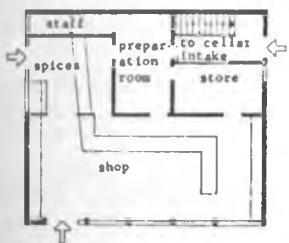
FRUIT AND VEGETABLE SHOPS

Fresh vegetables should be stored cool but not refrigerated. Store potatoes in dark rooms, carrots and root vegetables in sand, fruit in dark rooms at temp 1-5°C (33-41°F) and 85-95% humidity. Deep freezers for deep frozen supplies. Walls tiled or washable.

Sale often from delivery containers (baskets, crates, boxes, etc) Dirt traps below storage racks. Fruit and vegetable shops usefully combined with flower shops.



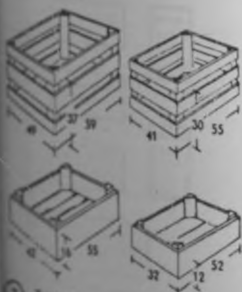
5 Circulation for greengrocery. Small stock as most goods delivered daily.



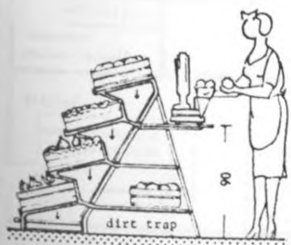
6 Plan of fruit and vegetable shop. Room with machines for cutting and preparing vegetables.

DAIRY PRODUCE SHOPS

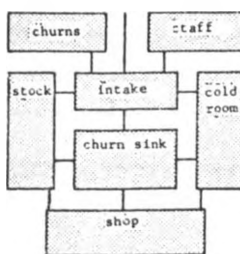
As milk is most perishable sales commodity, there are special regulations in some countries: shop must be on ground floor with ≥ 12 m² (130 ft²) floor area; walls with washable surfaces (tiles) or paint ≥ 1.5 m (5 ft) high; access from outside, with ancillary room for washing utensils, and hot and cold water supply in shop.



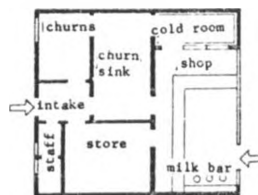
7 Typical boxes for fruit and vegetables



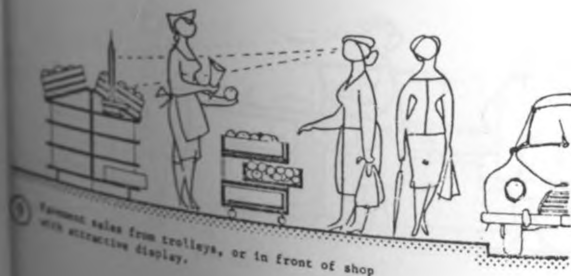
8 Counter with stands for boxes and wire baskets, drip pan and dirt trap.



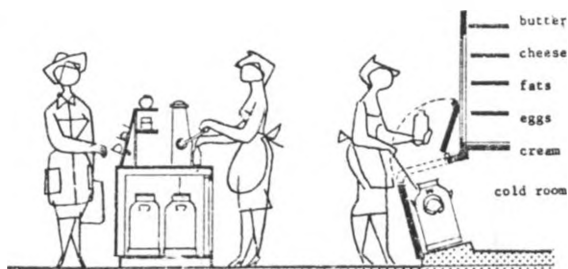
10 Layout of dairy shop



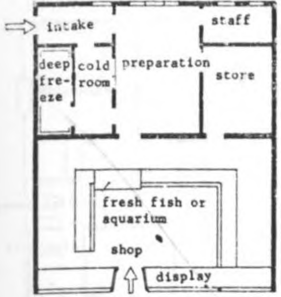
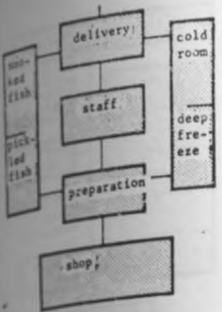
11 Plan of dairy shop with milk bar



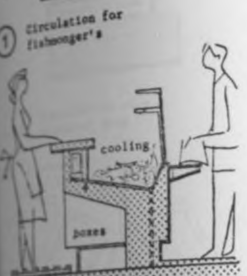
9 Pavement sales from trolleys, or in front of shop with attractive display.



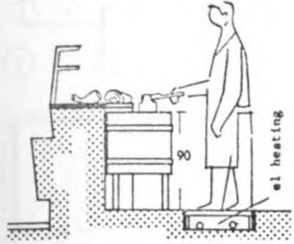
12 Refrigerated showcases and counters with glass fronts. Heating must not interfere with refrigeration. If desired, underfloor heating in sales room



2 Sea food speciality shop without allied sales



3 Fish counter with cooling compartment and drain

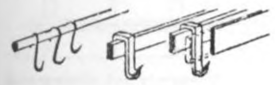


5 Butcher's counter with chopping block

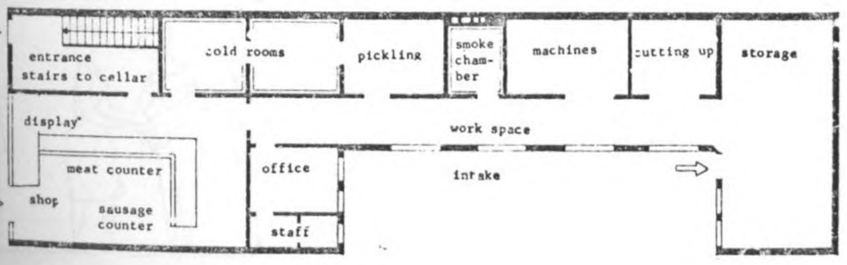
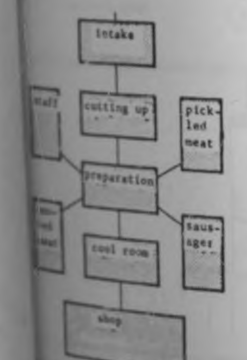


6 Counter with marble or tile facing

4 Circulation for poultry and game shops



7 Hooks and rails for hanging meat



9 Large butcher's shop

5 Circulation for butcher's shop, also (3)

FISHMONGERS

Fish, require cool storage, often marble, for display, cold room for overnight storage and deep freeze cabinets in shop for deep frozen products. Smoked fish must be stored quite dry in contrast to fresh fish.

Shop must be well equipped with ventilation devices. Walls and floor washable.

Arrangements for receiving large deliveries.

If desired, aquarium for eye appeal (rare in UK but usual on Continent and in hot climates).

BUTCHERS

Work procedure: 1. delivery, 2. cutting up, 3. manufacturing, 4. refrigeration, 5. selling, → (5).

Preferably on one level, if possible with rail and wheel carriages as pig halves and beef quarters heavy, 75-100 kg (165-220 lb). Manufacture and cold rooms 1.5 to 2 times size of shop.

Walls: tiles, mosaic, etc, washable.

Table tops: marble, glass, ceramic.

GAME AND POULTRY

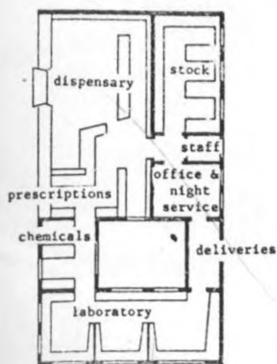
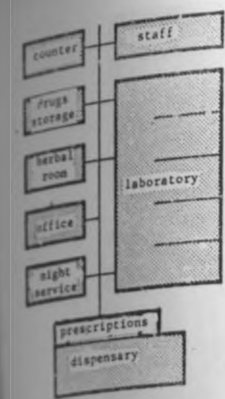
Often together with fish. Similar requirements. Workroom with plucking machine and game scraper.

As poultry absorbs smells it must be stored separately from fish in shop and cold room. Table tops and walls washable: marble, tiles, mosaic, plastic.

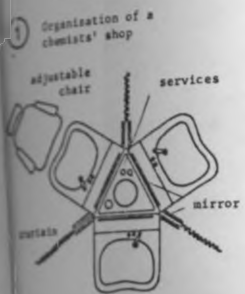
Spacious refrigerated compartments or showcases.



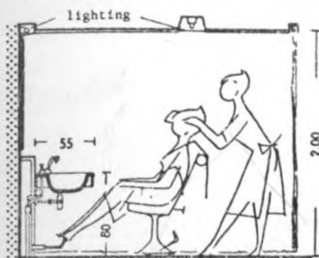
150 wide service passage



2 Plan of chemist's shop with laboratory



3 Space-saving arrangement round service core in hairdresser's (patent: Prlegon, Regensburg)



4 Standard cubicle, subdivided by curtain, for beauty parlours and hairdressers

CHEMIST

Minimum requirements for accommodation and fitments are usually laid down in special chemists' manuals. Dispensary (with regulation type double-locked cupboards for poisons and narcotics) subdivided according to activities, prescription counter and customers' section of shop provided with seats for waiting.

Dispensary is of paramount importance and should permit undisturbed work with good view over drug shelves, etc. Ancillary rooms and workrooms \geq twice size of dispensary. Medical supply basement must not be connected with other basement rooms, and spirits, ether, phosphorus, etc, must be kept in secure recesses or in cellars with steel doors.

Dispensary to be divided according to work; must be well ventilated with fire-resistant ceilings, acid-resistant table tops and floor coverings and washable wall surfaces.

Night dispensary may serve as an office in daytime, or alternatively a night counter may be provided in a recess with an illuminated sign and night bell.

FABRICS AND MATERIALS

Often sold in conjunction with ready-to-wear clothes, lingerie, fashion accessories, woven goods, haberdashery, etc. Merchandise required to be attractively arranged, with fluorescent lighting to show true colours.

Shelves should not be higher than 2.20 m (7 ft 3 in) so that they may be reached without steps; optimum height 0.50-1.50 m (1 ft 8 in-5 ft). Surfaces should be smooth so that material slides easily and does not catch. Counters for standing customers 850-950 mm (2 ft 9 in-3 ft) high, for seated customers 650-700 mm (1 ft 10 in-2 ft 4 in); counter width 700-850 mm (2 ft 4 in-2 ft 9 in).

For ready-to-wear clothes departments provide changing cubicles 1.10 x 1.15 m (3 ft 7 in x 3 ft 9 in) and fitting rooms 1.50 x 2.00 m (5 ft x 6 ft 6 in), \rightarrow p. 224.



Organization of a tailor's shop

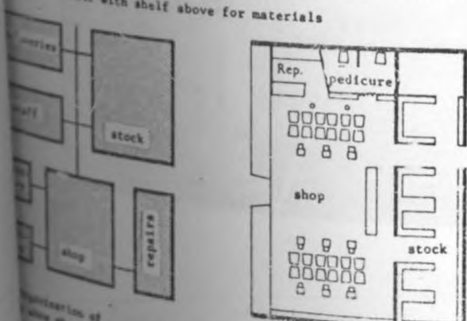
6 Arrangements for storage of cloths
a) Shelf same width as length of bale
b) Oblique staggered system (for shop)
c) Paired shelves, each of bale width



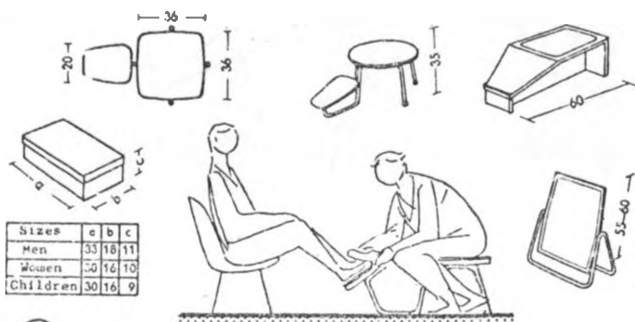
SHOE SHOPS

Small salon requires space for 500-800 pairs of shoes, medium size shop 8 000-10 000 pairs. Shoe polish, stockings, socks, etc, will also be available. Allow 1 footrest/2 seats, 1 stool/2 footrests for sales assistants. Carpeting is desirable, and low-level and wall mirrors should be provided. More convenient if stock and sales are on same floor.

Display counter with shelf above for materials



9 Shoe shop with pedicure



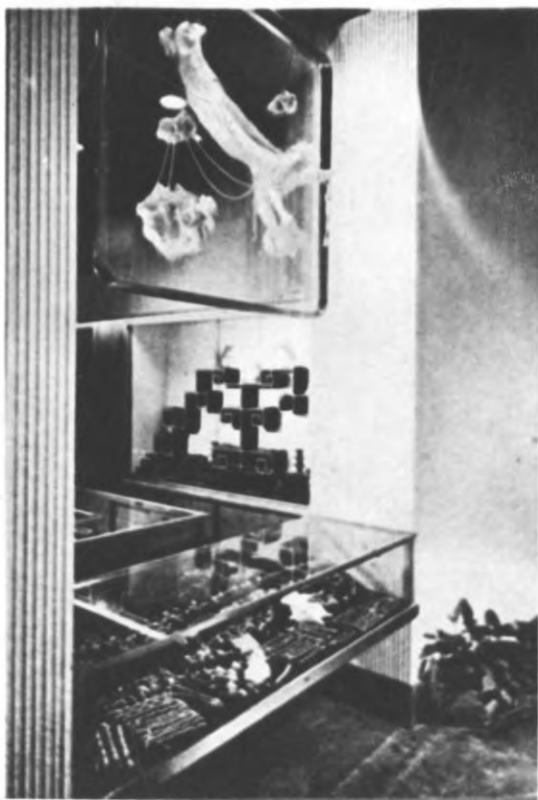
Sizes	e	b	c
Men	33	18	11
Women	30	16	10
Children	30	16	9

10 Combined foot-rest and assistant's seat



Interiors of a mens' clothes shop.

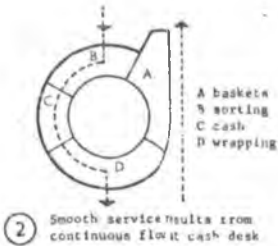
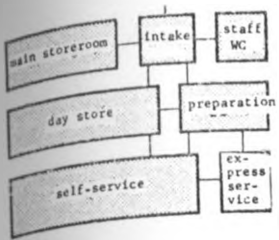
Internal arrangements of a jeweller's shop.



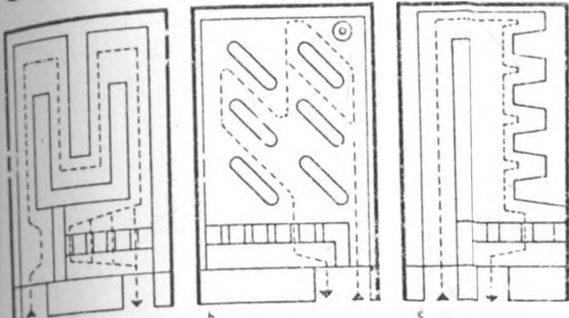
Handwritten text, possibly a signature or note, located at the bottom of the page.

7.9 Supermarkets and Market Halls.

Self-Service



1 Circulation for self-service shops



3 Circulation routes. Entrance and exit separate in a and c, together in b.

Self-Service stores mostly for food shops. Staff mainly for advice, assistance, checking out, possibly for quick service for meat and dairy foods. 5-8 assistants/60-80 m² (650-850 ft²) of self-service shop area.

Shop area larger than in ordinary shops because height cannot be fully utilised and 50-66% of area is for circulation. All goods prepackaged and clearly displayed.

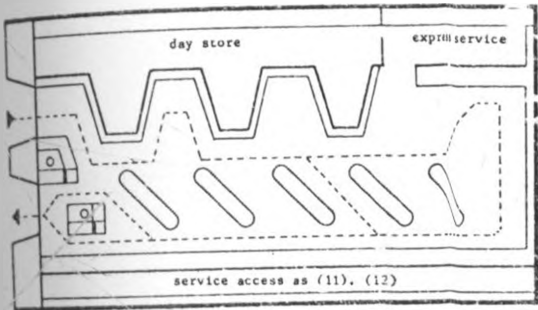
Circulation routes, → (1); width of gangway 1.30-1.60 m (4 ft 3 in-5 ft 3 in); entrance via basket stands or trolleys; exit via cash desks and wrapping counter.

Replenishing: after shop hours; or from special service gangway, → (2).

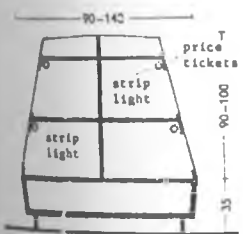
Freestanding fitments 1.30-1.40 m high (4 ft 3 in-4 ft 7 in) to allow easy invigilation; wall shelves up to reaching height (top shelf 1.65 m (5 ft 6 in), bottom shelf 300 mm (1 ft) above floor level). Sales gondolas, → (5), very suitable. Cash desks with good view of shop (varying in different layouts) with counter top for purchases, cash register, wrapping space with paper bags, etc, and space for parking basket or trolley, → (8).

For each 100 m² (120 yd²) shop area: 50-100 baskets and 10 trolleys

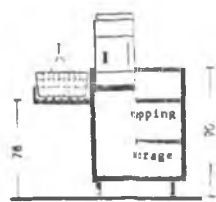
For each 200 m² (240 yd²) shop area: 150-200 baskets and 30 trolleys



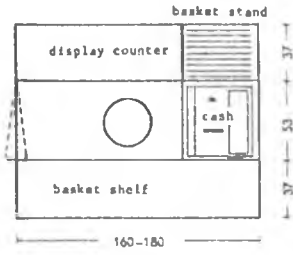
4 Shop layout easily recognised by customer and easily invigilated by staff. Customer need not make unnecessary detours as in (3).



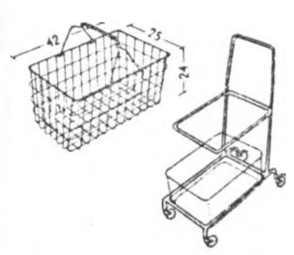
5 Sales gondola with stacking compartments and concealed lighting



6 Section through small cash desk



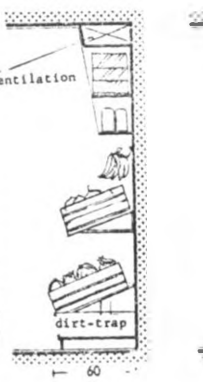
7 Plan of cash desk with minimum dimensions



8 Stackable baskets and trolleys



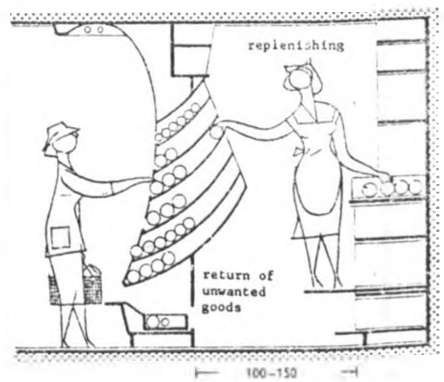
9 Wall shelves for bottles



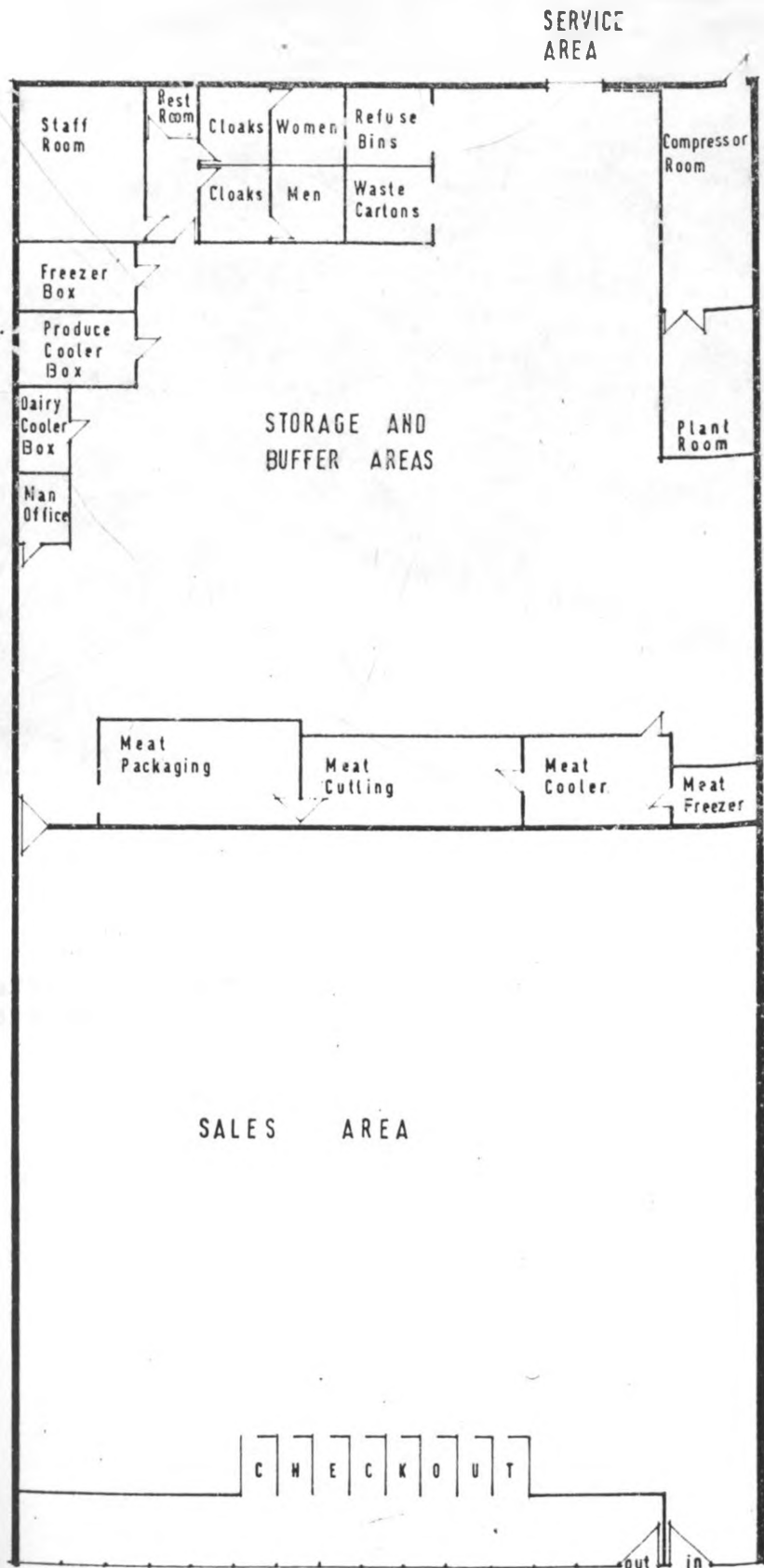
10 Wall shelves for fruit, vegetables and unpacked goods



11 Shop wall with service passage at back for replenishing goods. Empty drawers are replaced.



12 Trough-type stand with service passage at back. Customer places unwanted goods on bottom shelf.



Scale

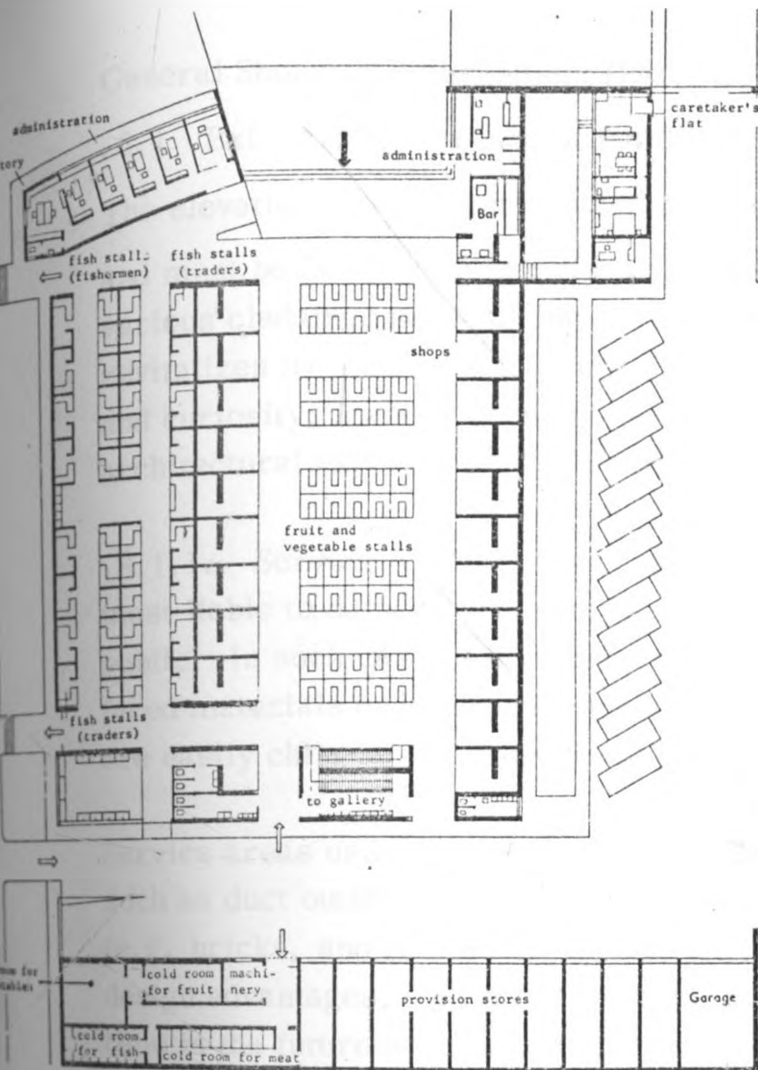


layout of ground floor of supermarket.

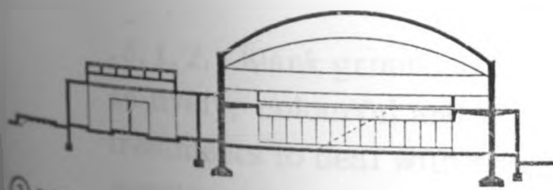


The supermarket adopts self service/self selection display where all merchandise is displayed to the customer.

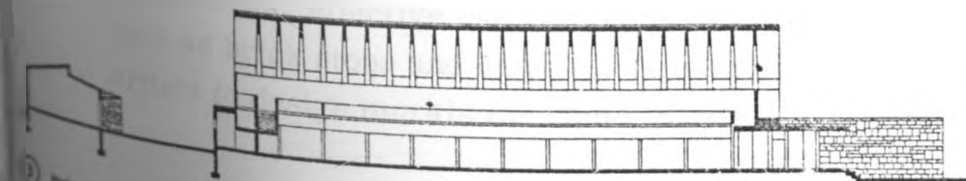
MARKET HALLS



1 Market hall at Biccione, Italy, built in 1954 (sc. 1:600)
Arch.: Vignali & Scagliarini



2 Market hall at Biccione, cross section (sc. 1:600)
Arch.: Vignali & Scagliarini



3 Market hall at Biccione, longitudinal section (sc. 1:600)
Arch.: Vignali & Scagliarini

For practical, economic and hygienic reasons, food which used to be sold on open market stalls is nowadays more often sold in market halls.

Wholesale markets are for wholesale and sale to shops and small traders. They are best situated on periphery of towns with rail sidings, road access and (where applicable) canals that skirt the town without crossing it. Specialised market halls for certain goods (e.g. meat, fish, game, fruit, vegetables, flowers, dairy products) are similarly situated.

Small market halls are located in centre of towns as merchandise is sold retail direct to consumer.

The design divides hall into stalls, sales area, stock rooms, cold rooms, refrigerated rooms, and rooms for administration etc.

Stall is basic design unit: open situations grouped on island sites, open stalls with back and side walls for sale of fruit, vegetables, flowers, etc., closed stalls (similar to shops) for milk, meat and groceries.

Circulation areas. In large halls, one-way streets 4.50-10.00 m (15-33 ft) wide for lorries and vans or 3.50-4.00 m (11 ft 6 in-13 ft) for trucks and hand carts should lead to all stalls. Small halls may be restricted to pedestrians only, with possibly one street for deliveries.

The smaller the circulation area, the greater the sales space and therefore the profit.

Ancillary rooms: administration, technical staff, offices for wholesalers and importers, etc., sanitary inspectors, laboratory, sick room, and public lavatories; possibly restaurant, bank, post office, etc.

In basement (easily reached by stall holders via stairs, lifts, ramps and chutes) are store rooms, cold rooms, and refrigerated rooms, together with heating, garages, bicycle stands, workshops, switch gear etc.

A single-storey arrangement is best, with large yard and covered space for hand carts and cars.

Good ventilation and lighting is essential: window area 25-40% of floor area, room temperature $\geq 4^{\circ}\text{C}$ (39°F) $\leq 20^{\circ}\text{C}$ (68°F). The floor should be rough, waterproof, tough, durable and easy to clean. As hall (stalls and gangways) is hosed down, hydrants and drains must be provided. Refuse disposal and protection against vermin need consideration. Wide-span construction without columns makes it possible to vary layout extensively.

General Shopping Environment (External)

.8.1 External Appearance of Buildings.

The elevational treatment of a building in a shopping centre is important and must be interesting and visually appealing to the shopper. The various claddings serve to integrate a building with its environment, revitalizes its surrounds, identify its function, create communal attitudes and curiosity, identify development company's image and give architectural expression to the building.

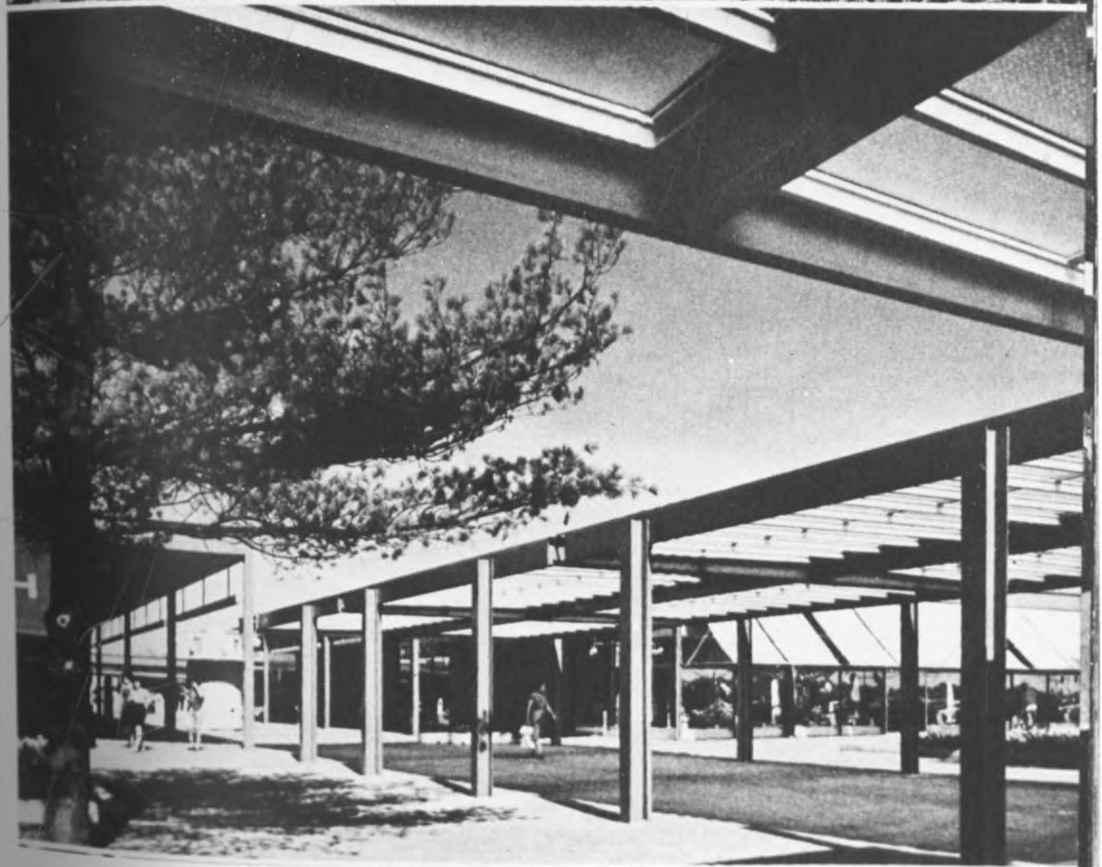
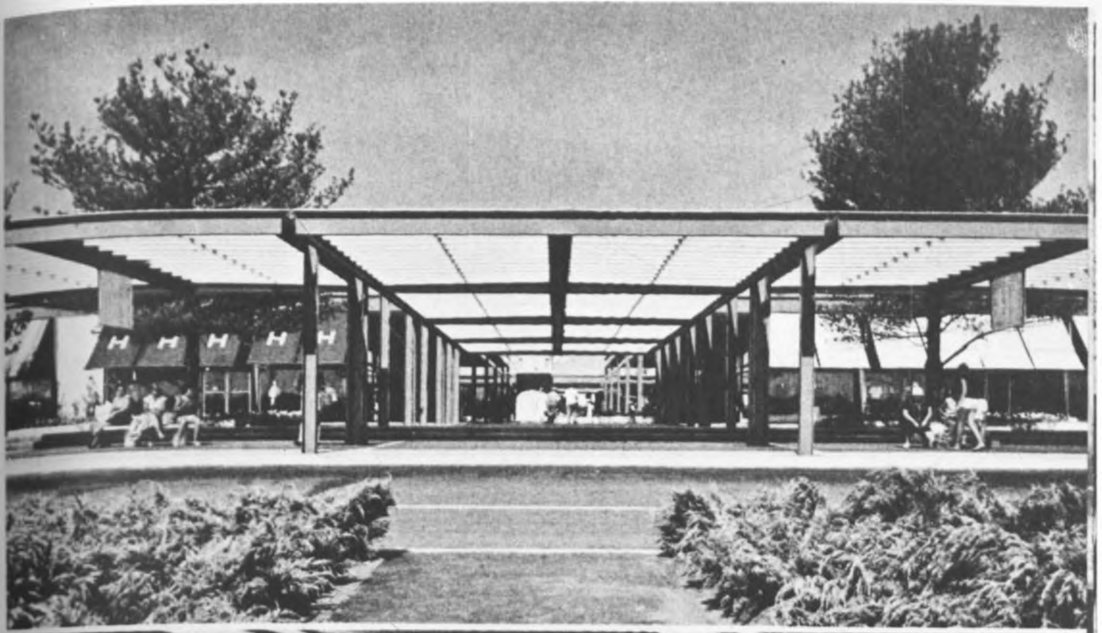
.8.1.1. Service Areas - These areas are subject to heavy use, are most liable to damage and have least psychological influence in the public. In such cases brickwork, stone or concrete is ideal. Fair faced materials and rendered surfaces should not be used because they are easily chipped and deteriorate quickly.

Service areas usually have to accommodate complicated materials such as duct outlets. This means that small-scale cladding units (e.g. bricks, and flexible materials such as concrete), have distinct design advantages. Service areas are also likely to need altering at some time in the future so it is sensible to consider this at the design stage. For instance, with adequate perimeter security, anything but the lightest partition walling in a framed structure is unnecessary. Furthermore provision can be made for possible future openings by using insitu lintels and knock-out-panels.

.8.1.2. Blank ground-floor elevations - These should be treated in as lively, colourful and vital a way as possible. The range of possible treatments to deal with external blank walls is wide so suffice it to mention a few. Glazed, and possibly illuminated advertisements, murals composed of ceramic tiles, mosaics and reinforced plastic panels and sophisticated application of exposed - aggregate panels. In small areas, effective use can be made of simpler, traditional materials such as brick stone and marble. It is fairly common to commission artists to design murals for some panels.

.8.1.3. First Floor Elevations - Where the first floor is taken up by storage and service elements, the elevation is usually blank or semi-enclosed. Where hidden from a shopper by an overhang, these elevations have only slightly less impact than those on the ground level. However, where visible, they can be treated to emphasize vertical and to achieve a modular design relationship to the frontage or the retail units where these are present on the ground floor. High level signs, and advertisements can also help. In addition glazing can often be used to create fenestration patterns, and external service elements such as duct outlets and grilles can all be integrated into a sympathetic design.

.8.1.4. Canopies and Projections - weather protection to shop frontages on the exterior of the centre has many obvious advantages, the main one being that it attracts pedestrians nearer to the shops. Also, it acts as an excellent advertising marquee, it illuminates the pavement and it shields the goods on display from sunlight. From a design point of view these projections should be designed as an integral part of the architecture. The overhang can be co-ordinated with the requirements of signs lighting and general appearance.



Canopies, overhangs, and covered walkways should be provided for weather protection.....



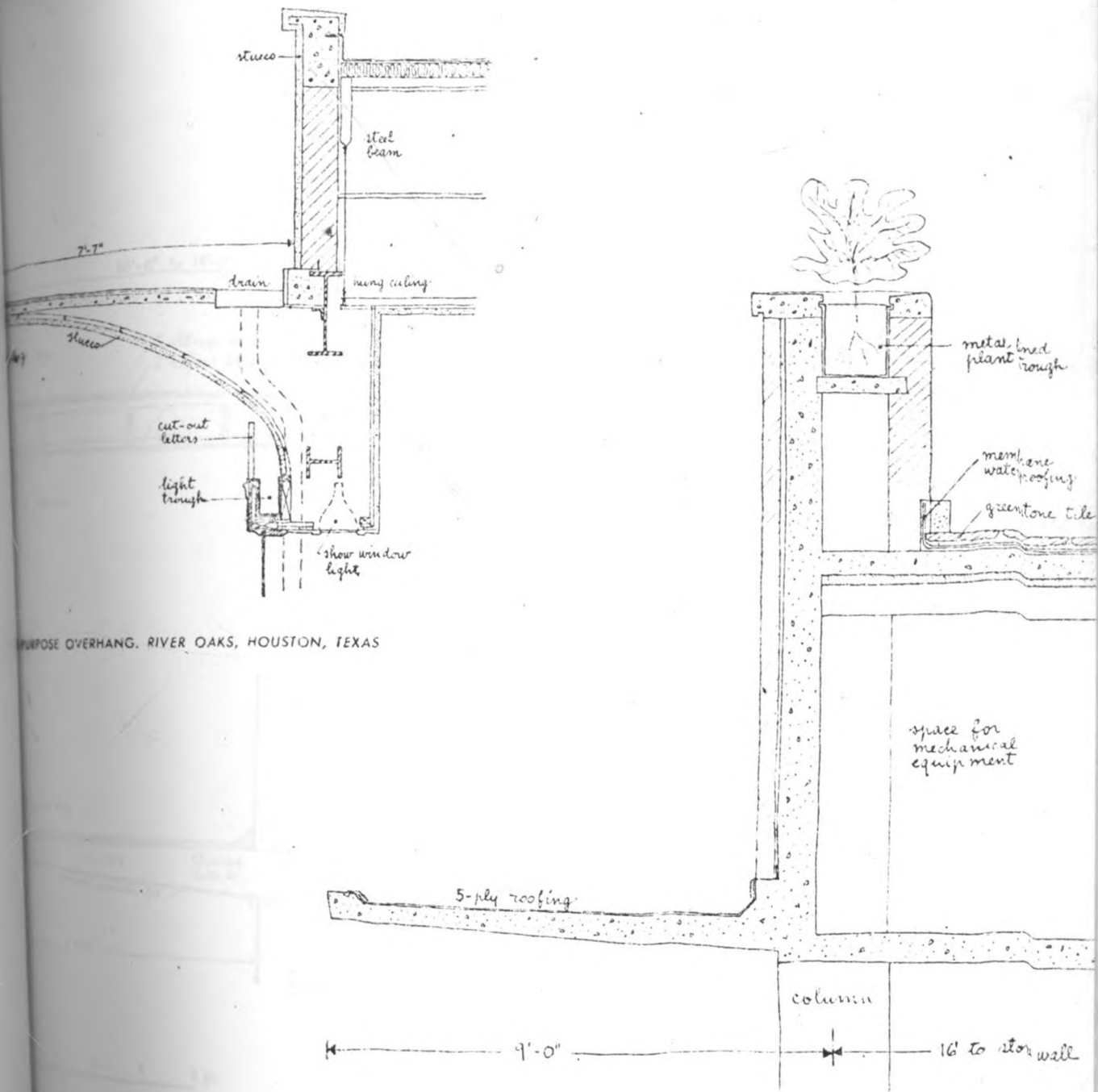
..... they are also provided to tie together a series of buildings into one harmonious design.





..... they are also provided to tie together a series of buildings into one harmonious design.



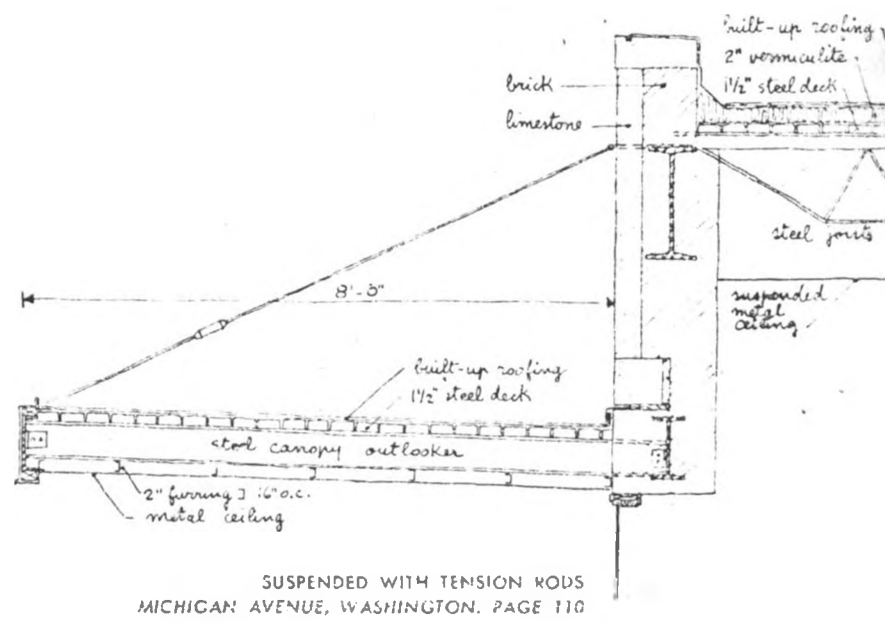
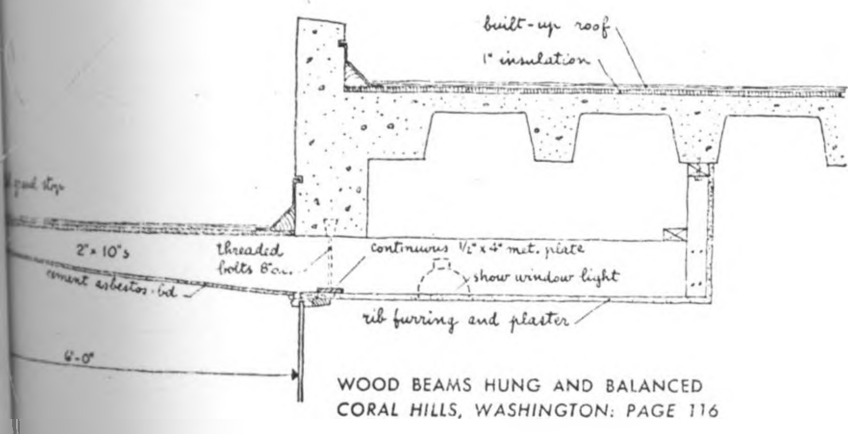
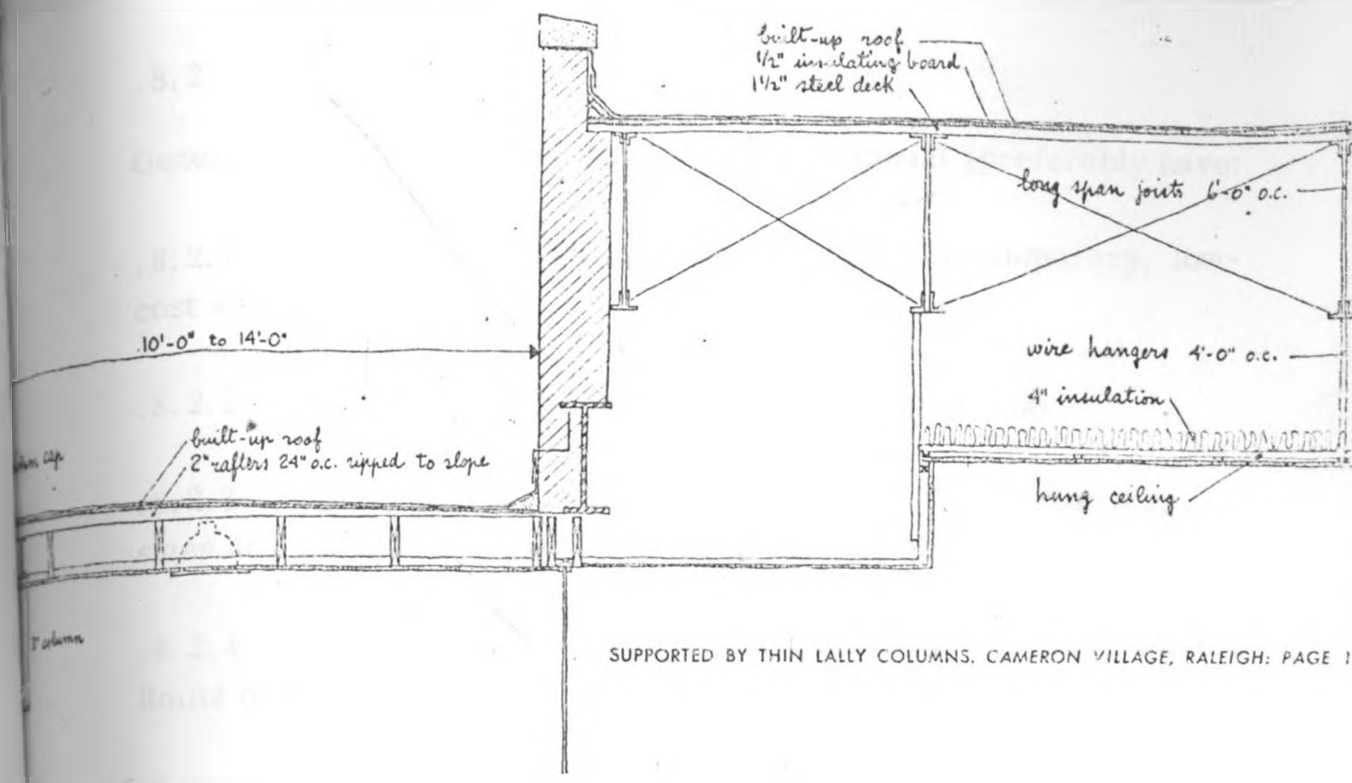


DELICATE REINFORCED CONCRETE. BULLOCK SPASADENA: PAGE 164

A CONTINUOUS OVERHANG along the store fronts has now become practically standard in any new shopping center. Gathered on these two pages are construction details of five different types. That at River Oaks (top left) is among the most ingenious for the way in which the lighting, the store sign, the awning, and the sheltering roof are all coordi-

nated. The detail shown is from the west side of the store group, where awnings are fitted to guard against the hot afternoon sun (cf. picture, page 112).

Structure and appearance in an overhang are obviously interdependent. A cantilevered overhang is usually more expensive than one supported on columns. Cantilevering may be in reinforced con-



ALL DRAWINGS
PAGE: 3/8" = 1'-0"

(center) or in wood (right). The latter is most ingeniously placed at the midpoint where 2 x 10s meet the concrete roof structure. This is of prime importance. Where a wider than usual span is demanded, it may be supported by thin lally columns (top right), or by tension rods (right).

.8.2 Signs

Generally, a well-designed shopping centre should preferably have:

.8.2.1. - Permanent, high-cost signs rather than temporary, low-cost signs.

.8.2.2 - Simple, large - scale symbols and lettering.

.8.2.3 - In - depth signs such as three-dimensional lettering, signs at right angles to, as well as parallel to, the mall.

.8.2.4 - The maximum variety of fascia depth, within reasonable limits of scale.

.8.2.5 - The maximum possible number of illuminated signs.

THE PRINCIPLES ARE NOT NEW



SIGNS FOR PEDESTRIANS AND MOTORISTS EL RANCHO, SANTA ANITA.



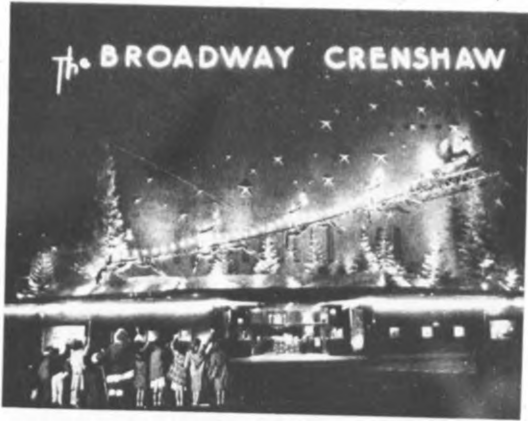
SIGNS FOR PEDESTRIANS LINDA VISTA

ALL KINDS OF SIGNS, BUT CONFINED TO A STRIP
GREEN PARKS TOWNSHIP, ILLINOIS.

A wide variety of signs, within reasonable limits of scale, is important in a shopping centre.



DEPARTMENT MARKET LAKE SHORE DRIVE SHREVEPORT



STORE FACADE BILLBOARD BROADWAY CRENSHAW, LOS ANGELES



HEATER BROADMOOR, SHREVEPORT



WHOLE STORE AS LIGHTED DISPLAY RIDGEWAY STAMFORD

Signs for day and night are vital to a shopping centre.

.8.3 Landscaping

Imaginative use of landscaping materials can do much to improve the external appearance of a shopping centre. Goods service areas and refuse storage yards can be effectively screened and disguised by careful use of plants, shrubs and trees. The approach roads and car parks can also be softened in appearance and their monotony broken up.

.8.3.1. Paving - This needs to blend in with the whole project in terms of texture, pattern, scale, colour, etc. The following are materials used for paving: gravel, loose cobbles, macadam/asphalt, in-situ concrete, brick tiles, concrete tiles, natural stone.

.8.3.2 Edging - Materials used for edging should be compatible with the materials to be contained. They are used for such purposes as preventing flexible paving from spreading, denoting changes in levels, making maintenance of grassed edges easier, and providing physical and psychological hazards to direct people away from certain areas.

.8.3.3 Changes of level - Materials used for steps, ramps and slopes should be compatible with the general paving of the surroundings. Guide lines for the steps are the same as for stairs. Ramps should not exceed a slope of 1 in 12. Stepped ramps should be arranged to provide three spaces to each tread and the risers should be clearly visible. Sloping surfaces not intended to be walked on should have a minimum slope of 1 in 3.

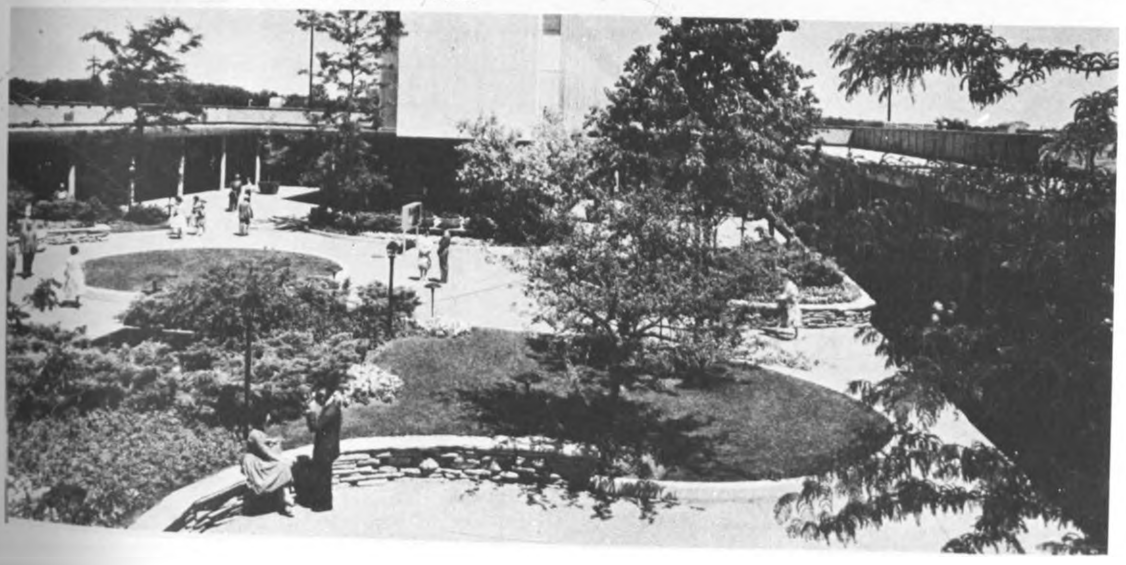
.8.3.4 Living materials - For instance, plants, trees, shrubs, grass. Environmental conditions for using these landscaping materials are: drainage irrigation, freedom from draught, room to grow, daylighting, feeding. By having the proper environment, certain animals and birds (e.g. pigeons) can be introduced into the shopping centre and these, too, can make life in a shopping centre quite interesting.



Attractively landscaped pedestrian precinct provides visual delight and comfort to the visitor of a shopping centre.



Two views of the attractively landscaped central mall



LANDSCAPING
FOR PEDESTRIANS AND CARS ALSO



FUNCTIONAL SHAPE IN PARKING AREA MILLIRON S. LOS ANGELES



R. ALTMAN & CO., MANHASSET, N. Y. HOPKINS & ASSOC., ARCHS.



PLANTING AND LIGHTING COMBINED BULLOCK S PASADENA P

.8.4 Art

The shopping precinct can have a festive and interesting environment by the introduction of extensive art work: murals, graphics, sculptural objects, colour, and imaginative use of water pools and fountains.

.8.5 Mall Facilities

These include sitting-out areas with seats, meeting arenas, prominent play areas for children with playing objects and forms, free-standing kiosks and vending machines, dust-bins, telephone booths. These can form important and interesting features when they are provided and well - integrated into the shopping precinct.

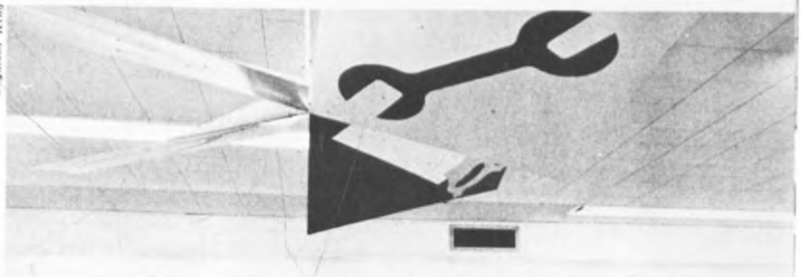
carr's



Graphic art used
for merchandising.



Seymour Ring

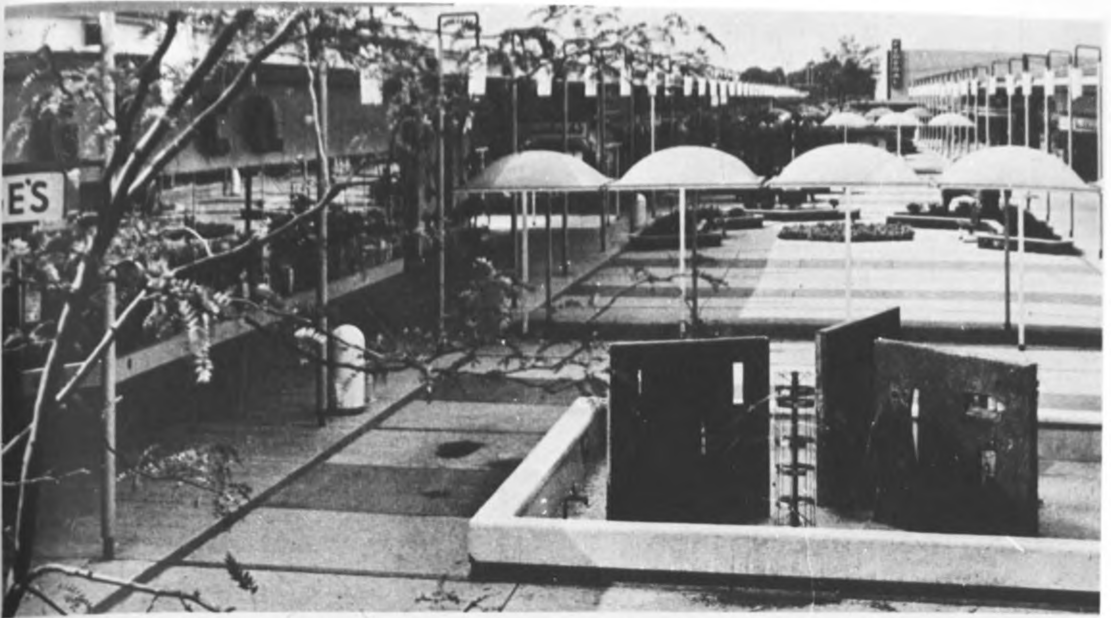


Joseph W. Maltizer



Joseph W. Maltizer





Main mall looking west toward Federal store. Fountain by Richard Jennings



Concrete and ceramic Laughing Horse, by Rosemary Zwick



Main entrance mall next to parking



42 ft. mall at Montgomery Ward store



Whirling Dervishes by Nathan Kaz in mall location

Sculptural art offers excitement and interest to a shopping centre.



Water used
imaginatively as
a delightful
feature.

4.0 SUMMARY

SUMMARY

A precinctual shopping centre with shopping courts, arcades, squares and precincts free of moving and parked vehicles is an ideal shopping environment.

The shopping centre should have a provision of car parks on a scale sufficient to accommodate the anticipated peak load of short-term parkers. These car parks must be close to the main shopping precinct, preferably in large areas immediately at the rear of the shops, and should have good intercommunication to ensure flexibility in operation. This intercommunication could readily be achieved by a loop road around the shopping area, or by bridges over the shopping precincts, or subway under the precincts.

The shopping centre should be a properly organized system for loading and unloading of goods to the shops. In part, a system of delivery tunnel might well be a reasonable proposition, but in the main one would expect servicing of the shops to be carried out at ground level. This must be done at the rear of the building.

The shopping centre must have an efficient public transport system bringing people to the centre, and then using the loop road around the shopping centre to discharge their passengers in properly designed bus bays at the entrance points to the shopping precincts.

Considering the actual shopping precincts, the shopping centre must be planned and designed to satisfy three main requirements.

.5.1

The shops should provide variety and competition, and there should be as many as possible within a short walking distance. The buildings should be designed to accommodate different types of shops some having narrow frontages, some having greater depths, some having basement sales, and some having sales space on upper floors. Where conditions permit, the shopping precinct might well be designed to give shops on two different levels, so that a greater concentration of shops can be provided in a given area.

.5.2

Shoppers should be protected from the weather. In some parts of the area, the space between the shops might be completely covered in, but in most parts one would expect, the protection to be provided by canopies projecting from the buildings, or by forming arcades under or through the buildings. In order to complete this protection from the weather, canopies would have to be provided at intervals across the precinct so that shoppers could cross in comfort from one side to the other.

.5.3

The third requirement is creation of an atmosphere of interest and intimacy and activity. This can be done by designing the precincts as squares, or as short courts in a longer shopping mall. The provision of canopies for weather protection can help in achieving this object. The malls would not all be of the same width but might vary from intimate sections of say six metres in width to large paved squares incorporating features of interest such as a children's merry-go-round, a coffee band, or some selling kiosks. Interest would be further aroused by the patterns and textures of pavings, by the provision of sculpture and other objects of interest, the provision of well-designed items of street furniture such as telephone kiosks, post boxes, display stands, and by proper use of signs and advertisements so that they contribute to the interest of the shopping area rather than detract from it. Seats would also be a necessary provision in all these precinct ways, and in many parts some items of paving and possibly some water features would also be desirable.

The shopping centre described above will be reasonably efficient and will be a pleasant and exciting place, in which to purchase the ever expanding range of goods which modern progress in all its forms places within our reach. The shopping centre will once again be a place in which one would wish to meet one's friends simply for the pleasure of being in the centre (compare with p Middle Ages 'shopping centre').

SECTION 11

5.0 CASE STUDIES

5.1 New Ash Green village centre

At New Ash Green, Kent for Span Kent Ltd by Eric Lyon (Cunningham & Partners, Eric Lyons and Ivor Cunningham, partners-in-charge, Warner Baxter, job architect)



Architect's account

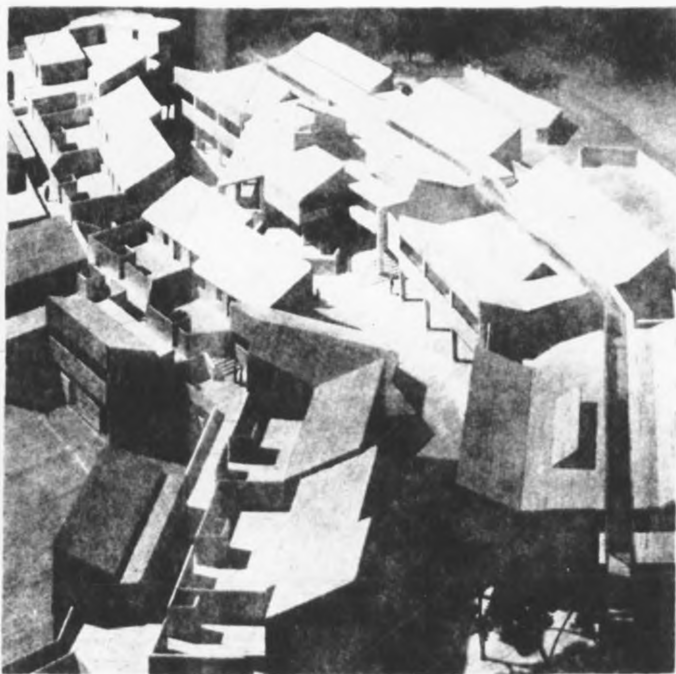
by Eric Lyons

New Ash Green village was planned for 5000 to 6000 people, but it was a concern that the centre might in fact serve a much larger population. We thought that the place could become a kind of 'out-of-town' shopping centre because there is very little shopping for miles around. So we set out to achieve a wide range of good quality shops.

I wanted the centre to be something other than the usual commercial 'theme' and above all, I wanted it to be a part of the housing texture. My ideal day-to-day shopping environment was where the shops reflect the growth of a place and are convenient to use, not in special commercial buildings.

Fortunately, I didn't go to any of those great firms of valuers with their commercial 'experts', otherwise we would have finished up looking like—well, you name your own new shopping horror, they're all more or less the same. Not that one should blame the valuers entirely; they really are a product of our wonderful Planning Machine and they go together to create our palaces of commercial culture. I can't remember the name of that new town with its great multi-level, all purpose, totalitarian commercial temple to which the inhabitants trudge from their subsidised, minimum-standard houses.

We designed seven or eight different master plans for the



2b

village and each one embodied a different solution for the shopping centre. We wanted to keep building costs down so that shop rentals might be set at a reasonable level to encourage the right kind of retailers, so we sought to solve the fundamental service problem without recourse to underground access or any extravagant engineering. Finally, we placed the centre off the existing road that bisects the village site A, so that outsiders in cars or buses could see the place and park their vehicles easily, and we established the basic plan, consisting of a pedestrian lane running from east to west, with a vehicle arrival 'square' at each end, and car parks to the south C.

The centre was designed to be built in phases and what has been built is about two-thirds of the whole. It was intended to build a pub at the western end related to the North Square and at the other end was the community centre which was to be the most marvellous place with a multitude of uses

1 Strategic footpath system is planned to connect all neighbourhoods to village centre by direct routes.

2 Model of complete centre except for village hall planned to dominate South Square in stage 2: a plan view with present two pedestrian access points indicated; b northward view up shopping street with stage 2 in foreground.



3

4

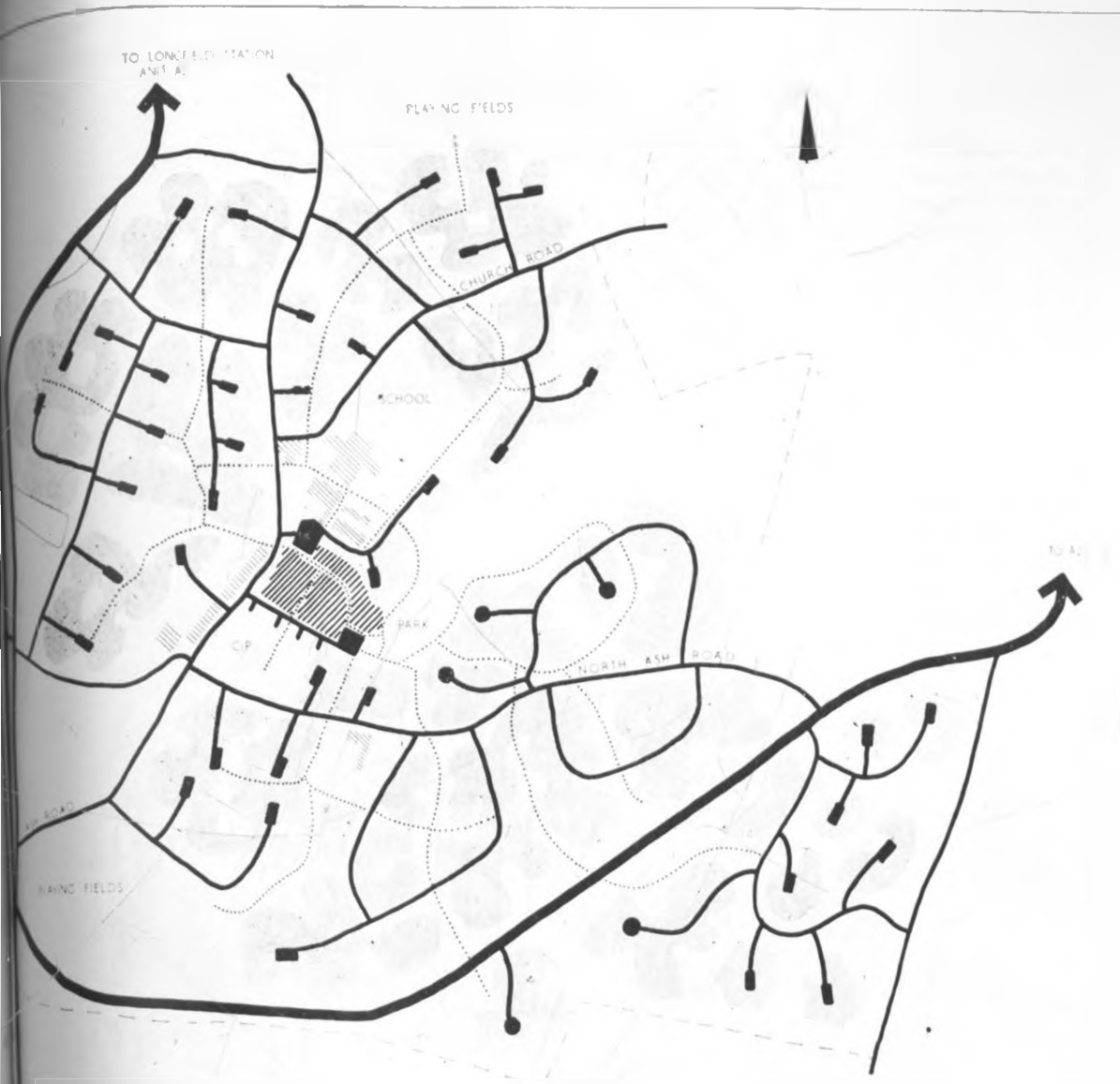
*Men and pedestrians
at southern entry to
center with its setting-down
area. (Photos 3 to 10 form a
sequence of approach to the
center from this direction.)*



AGW 468G

WYE 1586G

KKR 688J

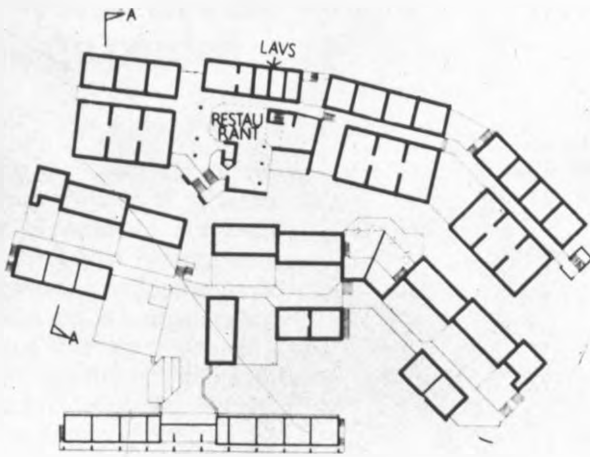


- Housing neighbourhood
- Peripheral roads
- Internal roads
- Strategic footpaths
- Village boundary
- Village centre
- Other social and commercial buildings

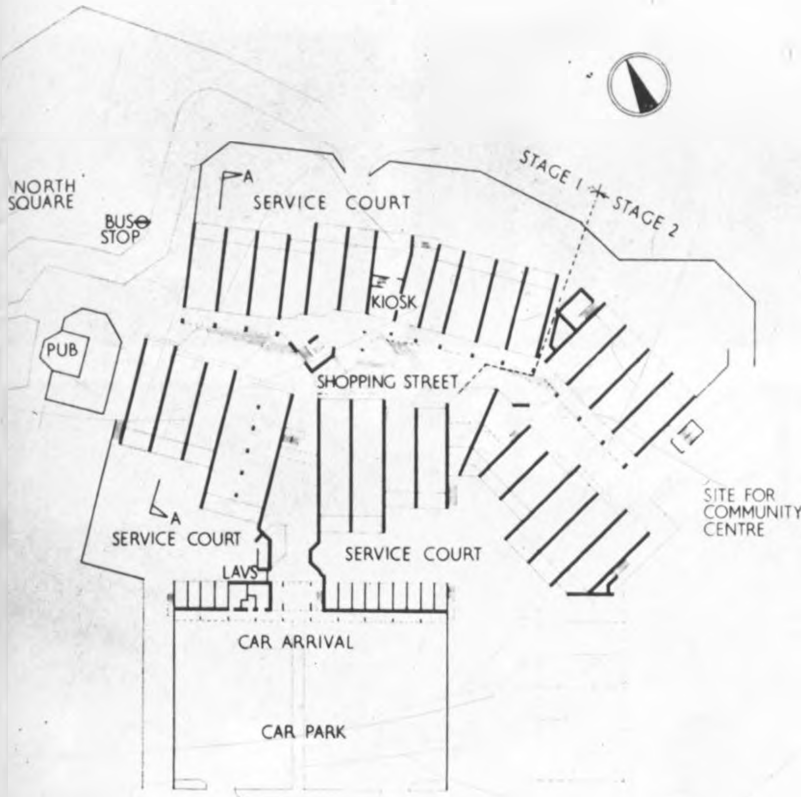
A Eric Lyons' master plan for New Ash Green (1: 10 000). This has subsequently been slightly amended by Barton Willmore & Partners (AJ 8.12.71 p1264), but the general concept remains intact.

and night, and terraces with views across the
 that it would have been a real social focus.
 plans, we were struggling with the same
 make the shopping centre an extension of
 to avoid the trap of isolating the shopping
 zone which would have to be crossed by
 final master plan A established the principle
 of continuous building environment from
 leading directly into the shopping lane
 pedestrian routes 1 are short cuts, while
 more circuitous routes to the central car
 and setting-down position near the car parks
 covered waiting space and links into the
 shopping lane. Related to this space are the
 which form the entrance block from the

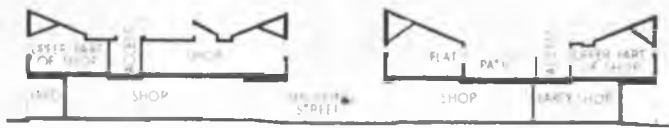
of its length. The arcade also provides access to the lower cafe terrace and to the first floor restaurant and the viewing tower and upper shopping lane B. These upper shops can be used individually as minor shops or offices, or can be connected to the lower shops.
 There is no arcade on the southern side and there is residential accommodation over the shops with access from the rear walkways at first floor level D, E. The paving of the Row is designed to provide a series of easy ramps (for the convenience of prams and wheel-chairs) which supplement the stepped level changes.
 Retailers were allowed to choose designers and shopfitters from a selected panel.
 The centre contains about 52 000 sq ft (4800 m²) of commercial and 4800 sq ft (450 m²) of residential floor area. Building began in October 1967 and was effectively completed in May 1969 under negotiated contract with Building Span Ltd for approximately £300 000.



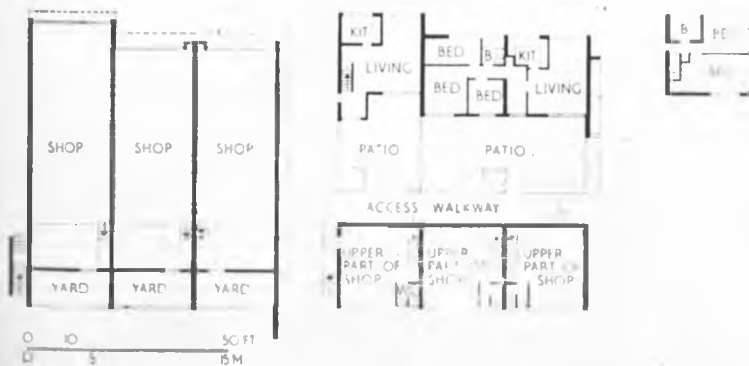
B General plan of village centre at first floor level. Enclosures shown diagrammatically are either upper level shops or residential (see section AA); workshop-studios line arcaded block fronting car arrivals.



C General plan at ground level. Only stage 1 (excluding pub) has so far been built. Shop units generally have standard bay width but vary in depth.



D Section AA through shopping street.



E Plans of first three south-western bays of shopping street: maisonette, flat and more retail space above main ground level shops.



New Ash Green village centre

...people' rapidly became the battle cry of the
 ...journalists in their recent frenzy of architect
 ...the poor quality of much of our built
 ...on the architectural profession which, they
 ...disregard the needs and requirements of
 ...who use the buildings it designs. Looking around
 ...'undeveloped' town centres, it is easy to sympathise
 ...view and to understand the scepticism with which
 ...the street views modern buildings. Fortunately,
 ...buildings are as bad as the examples cited by the
 ...boom.

5 Car park carefully screened by planting.

6 Covered setting-down point with arcade formed below gallery access to row of studio workshops.



6



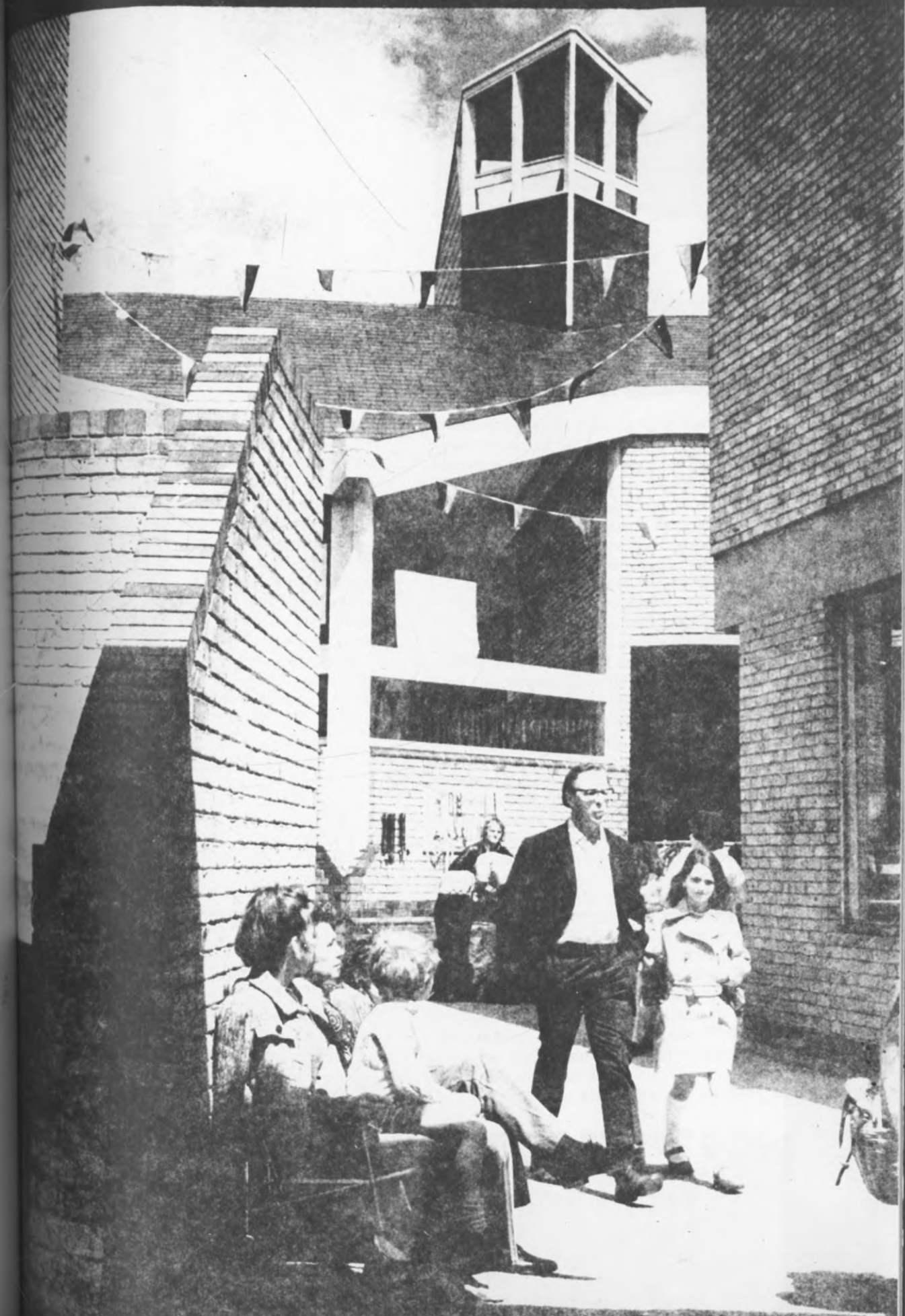
7 Canopied southern access, looking back towards car park; stair and gallery to studio-workshops.

...the architect who is both critical of the im-
 ...of much of our new building, and intensely
 ...the living environments he creates for the
 ...his buildings, having evolved in his 'Span'
 ...alternative form of suburban living. One great
 ...these developments is their delightful communal
 ...the care taken to design in sympathy with the
 ...of the site. Span, too, was an exception
 ...in that it allowed Lyons the freedom to
 ...skills unhampered by a narrow insistence on
 ...investment return. Perhaps the cleverest



9 Southern link leading to
ere of The Row. Garden
op on left appears to do
atching trade.







10 Junction of two arms of T is marked by main enclosed stair to upper level and restaurant topped by viewing tower. Open stair on left leads to living accommodation above southern side of The Row.

11 Alternative approach is from North Square; bus stop just visible on left. (Photos 11 to 17 from a sequence ending in the same place as 10)

12 Footpath approach beside North Square.



aspect of the whole Span package was the community involvement stimulated by a leasehold covenant which requires the formation of residents' societies to manage each estate.

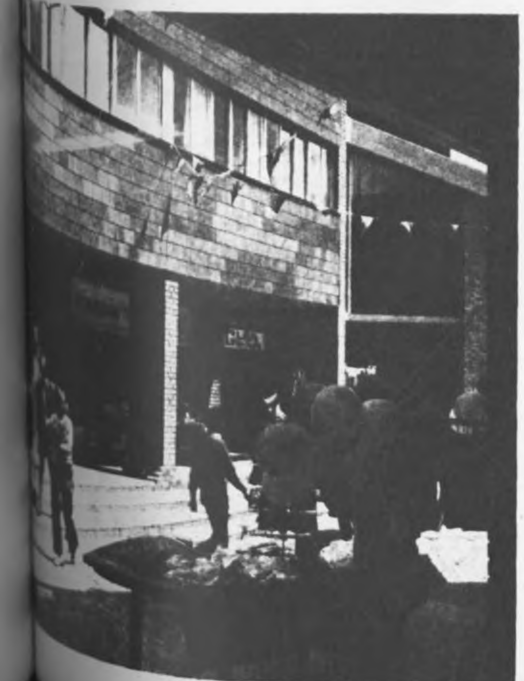
This fortunate partnership of sympathetic developer and gifted architect produced some of the finest middle market private housing development in the country. Its prototype estates were all built in established suburban areas on mature sites, and although they are delightful places, they are still just very good housing estates living off the services and amenities of their established local centres.

New Ash Green was a step forward in Span's operations, the application of its environmental formula on a village scale, creating a community of 6000 people set in 400 acres of the Kent countryside. Here there was no established local centre capable of serving a new village; a new one had to be designed and built as an integral part of the scheme to provide the growing community with shops and social focus. Lyons' original design included a community hall, a public house, a total of 52 shops of various sizes and a restaurant, with a primary school, library, health centre, offices and old people's flats on adjacent sites. The centre, as so far built, is the first phase of Lyons' design, representing about two-thirds of the total scheme and serving a village community of about half its projected size.

The general form of the village is of neighbourhoods of 100 to 150 houses, each with access to adjacent green spaces planned around the centre. Each housing neighbourhood is linked by footpaths 1 taking the short route across landscaped greens to the centre whose plan is an articulated T-shaped pedestrian street with perimeter shops and service areas. The centre is designed as an enclosed urban space in contrast to its landscaped setting. A small arrival square is planned off Ash Road with a bus lay-by and waiting space and short term parking area for about 30 cars 11.

The main mall runs across the site contours, falling easterly





13

from the Ash Road square and was intended to terminate in a second square beside the proposed village hall. A larger car park area for approximately 600 cars was planned and built to the south of the centre for longer term parking, with a loop road serving a convenient undercover pick up and alighting point from which car-borne shoppers gain direct access to the short leg of the mall 4. Barton Willmore & Partners, the architects acting for Bovis New Homes Ltd at New Ash Green, have amended this parking system, relocating about half of the car spaces next to the north court and releasing much of the original car park site for building 29. The rest of the first phase centre development is as the original Lyons's design.

At the outset, Span felt it did not need the planning advice of a commercial letting agent; this shows in the freedom of the architecture, which is surer and lighter than the average suburban or town centre shopping development. The absence of a definitive brief allowed the architects to develop their own ideas for a village social centre. The virgin nature of the site, free from the rigid rectilinear geometry of urban site boundaries, enabled the architects to create a pedestrian space which flows freely and dynamically through casually arranged rows of shops 14 to 18.

A unifying discipline is maintained by using a similar constructional approach to that adopted for the housing, with loadbearing cross walls at 6 m centres. Different shop sizes are obtained by varying unit depths. The shops are grouped into small blocks of three or four units to reduce their apparent bulk and maintain the domestic texture and appearance of the surrounding housing, preserving a pleasant two- and three-storey human scale throughout. These blocks are arranged to form a variety of spaces along The Row, presenting the pedestrian with an intriguing and changing vista. This deliberate widening and narrowing of the street influences the pedestrian flow, creating contrasting areas of congestion and roominess which allows opportunities for social contact and promotes a sense of bustling life within the centre.

The north side of the shopping street is composed of medium sized ground floor shops with a first floor gallery of smaller units, some of which were planned to operate either as individual units or upper areas to the ground floor shops as required by individual retailers. The facades of the ground floor units are set back to form a protective colonnade running the entire length of The Row. The southern boundary is formed from larger units with the same cross wall construction but much greater unit depths. These shops have first floor storage at the rear and living accommodation in flats and a maisonette over the street frontage.

All the ground floor shops are serviced from rear access service yards with unloading bays opening into ground floor storage areas planned at the rear of each unit. The smaller first floor units suffer badly from not having a service lift from the delivery yard and goods have to be manhandled upstairs by

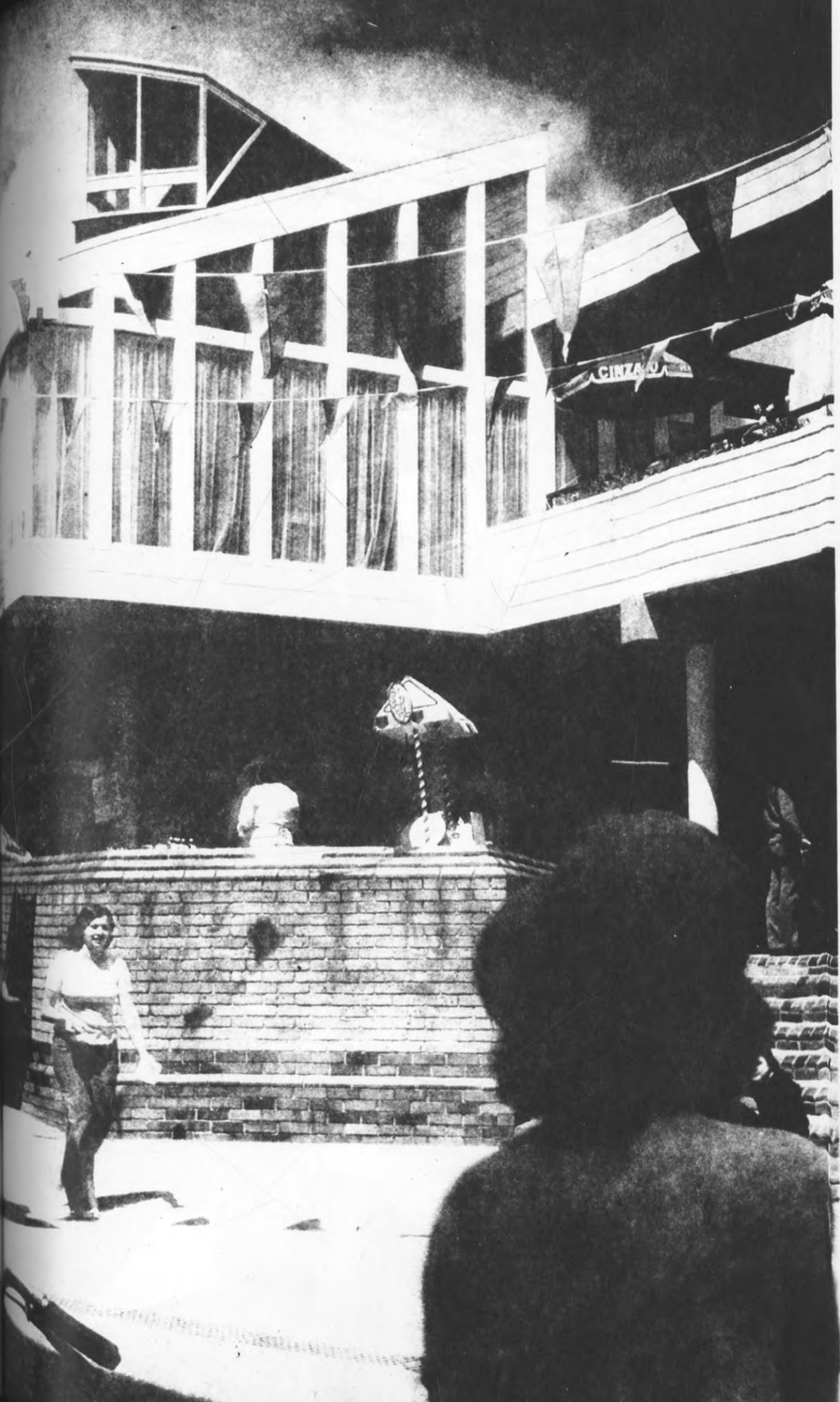
17 Restaurant at first floor makes consciously formal centrepiece to informal composition of centre. Bunting and outside stalls are

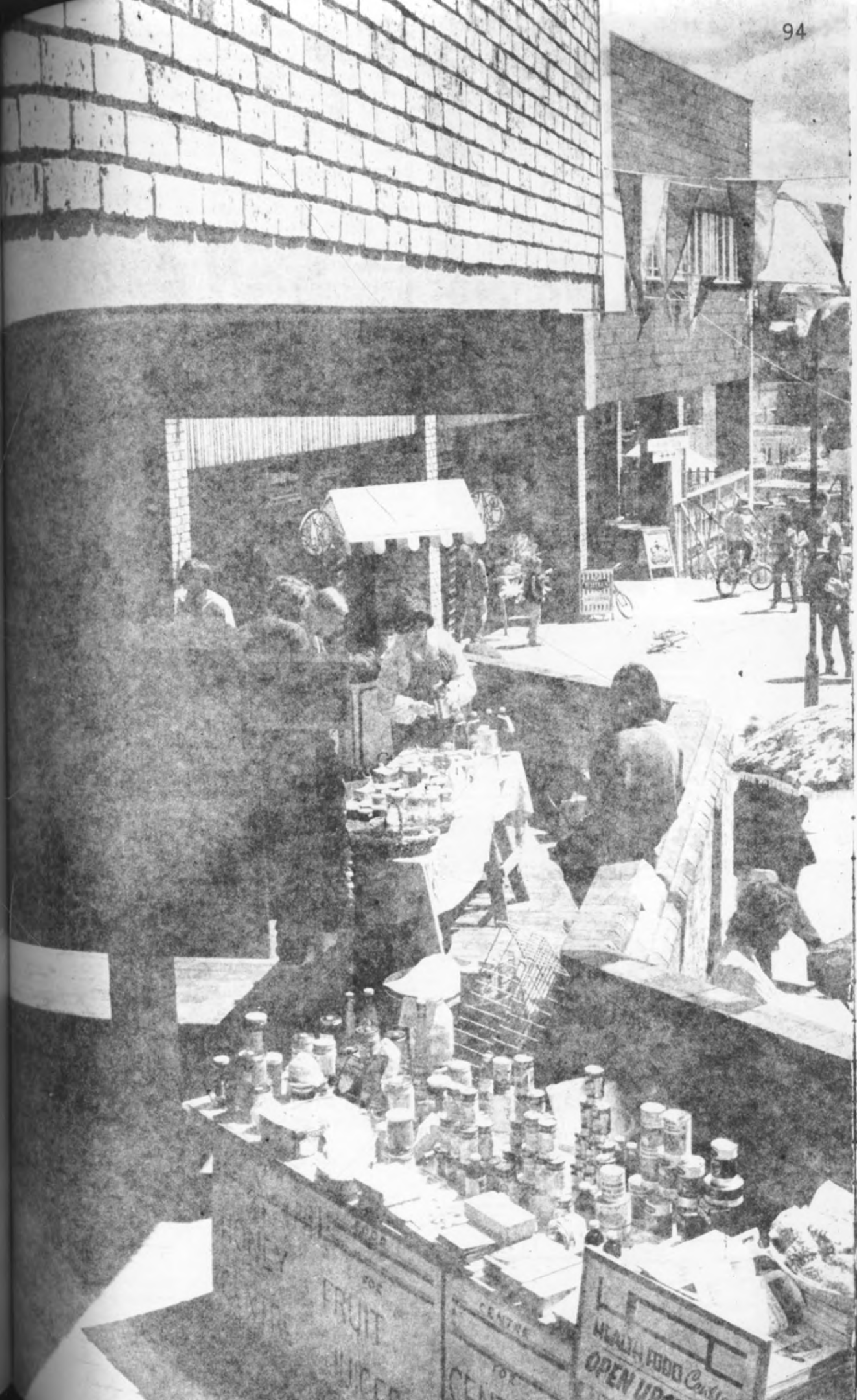
13 Detail of bay terminating upper shopping gallery (see also 26, from inside).

14 Entrance to The Row from north-west beneath arcade.

15, 16 Progressing eastward towards projecting main stair enclosure.

not permanent feature—most photographs reproduced here were taken on last month's Village Day 1973.



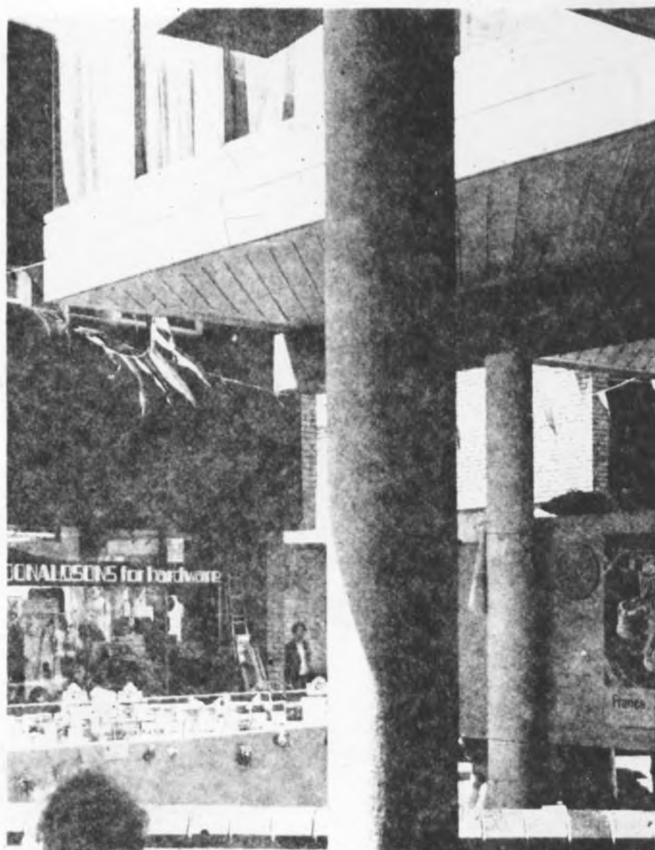


untitled retailers.* These gallery shops are the last successful aspect of the first phase scheme as built, having only a public access stair in the centre 25 and long, dead leg corridors with no through circulation 26 to 28. The original design was to have a second, two-storey public staircase as an interesting incident along the gallery length and pedestrian access at each end of a through walk which would have encouraged greater use of this level.

The present ground level appears to work well as a village centre for convenience shopping, although several of the local residents commented that they visited the large centres of Gravesend, Bromley or Croydon as a mid-week break, and that their groceries at the large national supermarkets. In the *Argus*, the New Ash Green residents' news sheet, several replies to a recent invitation for comments on and suggestions for improving the shopping service.

There is an active Village Centre Association of shop tenants which manages the centre and organises joint promotional schemes, actively involving the shopping street in community work. At present their publicity subcommittee is organising an art exhibition for Kentish artists and promoting a women's art competition to be displayed in The Row.

The architectural design and detailing of the centre and buildings match the materials and intimate domestic scale of surrounding housing. The exposed flanks of the shop fronts and face pilasters are of the same soft stock brick which is used for the Lyons's designed housing neighbourhood. The infill spandrels and roofs are black asbestos



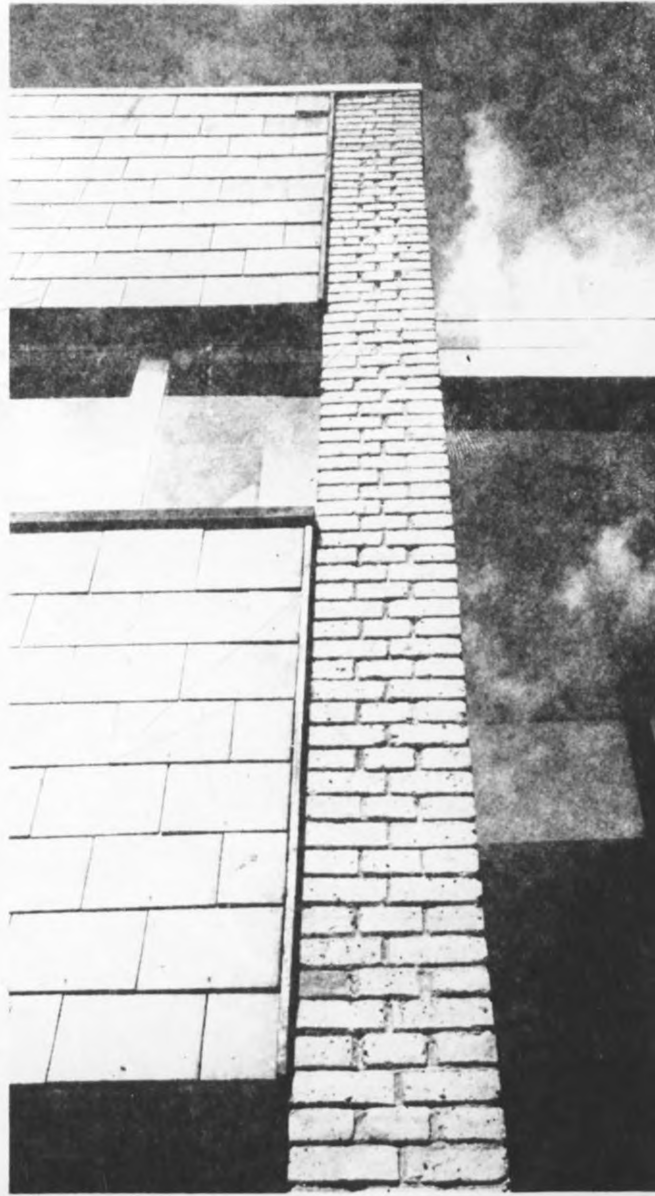
20



19

a constructional form which is also used for some of the prototype housing 21. Brown brindled engineering bricks are used extensively as paviers under the north colonnade and upstand plinths and copings throughout the centre 23. Changes in level across the site are accomplished with brick ramps 24, and ramps allowing easy pram and wheelchair access to the ground floor units. The general floorscape is made up of in situ brushed aggregate paving laid between separating kerbs of engineering bricks. The car park areas are screened and planted 5, and brushed aggregate vehicle parking bays are marked out with granite setts. The centre's good impression is marred by the raw unfinished and weathered appearance of the service yards 30, the boarded-up hoardings which mark the limit of the first stage, and the general disarray of the surrounding building sites and copings on all sides 31, 32

The Row is more than just a shopping parade; it is the

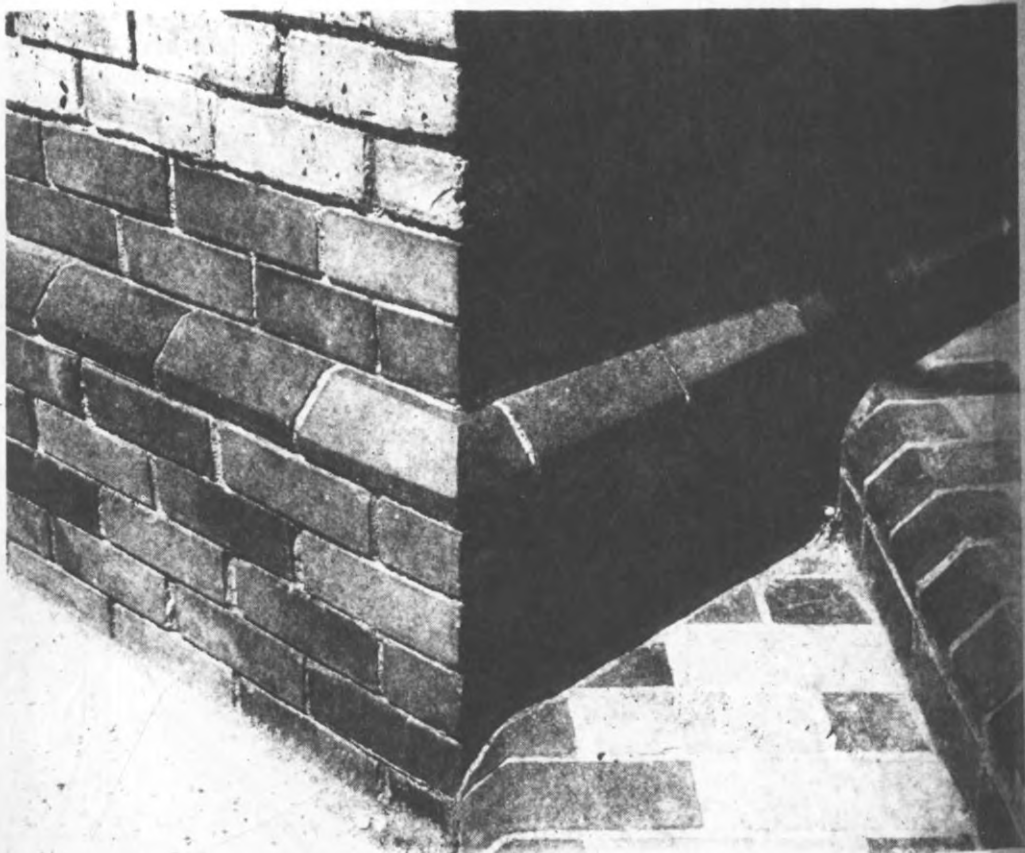


21

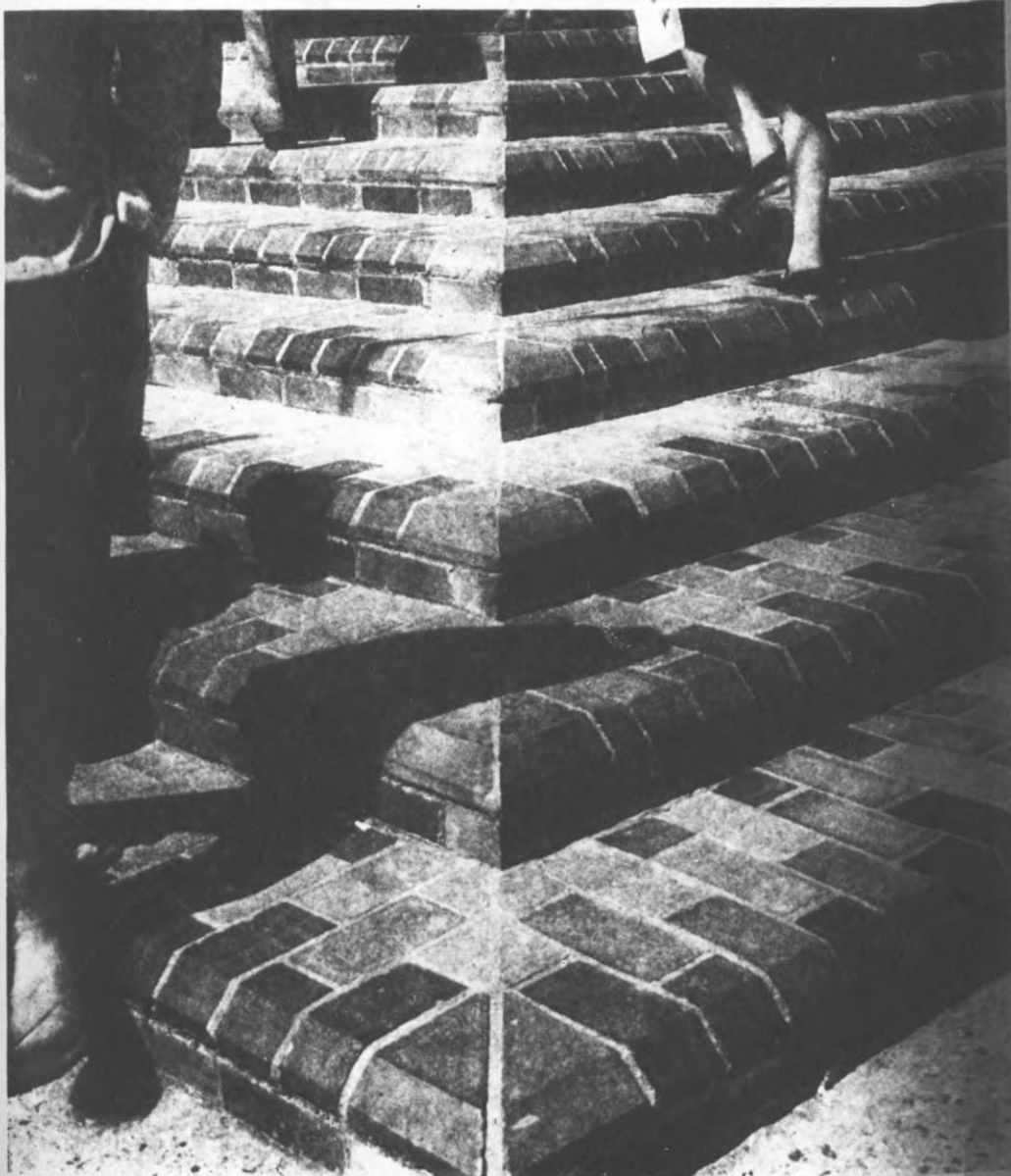
19 Tiers of open terraces and 20, view from beneath restaurant.

21 Vocabulary of materials repeats that of housing elsewhere in village.

...and from projecting
...which
...designed to close.



23



24

Western end of The
 ... back towards
 ... of southern link.
 ... of steps, plinth
 ... concrete

ment which changes New Ash Green from a commuter housing estate into a village community, providing a focus where people meet, chat, browse, or simply sit in the sun and watch the world go by in a friendly, relaxed and thoroughly environment.

From the architectural point of view, Span's withdrawal from New Ash Green is a double tragedy. We have been denied the opportunity of seeing the completed village as Lyons intended it and also lost one of the most enlightened and imaginative property development companies in the country.

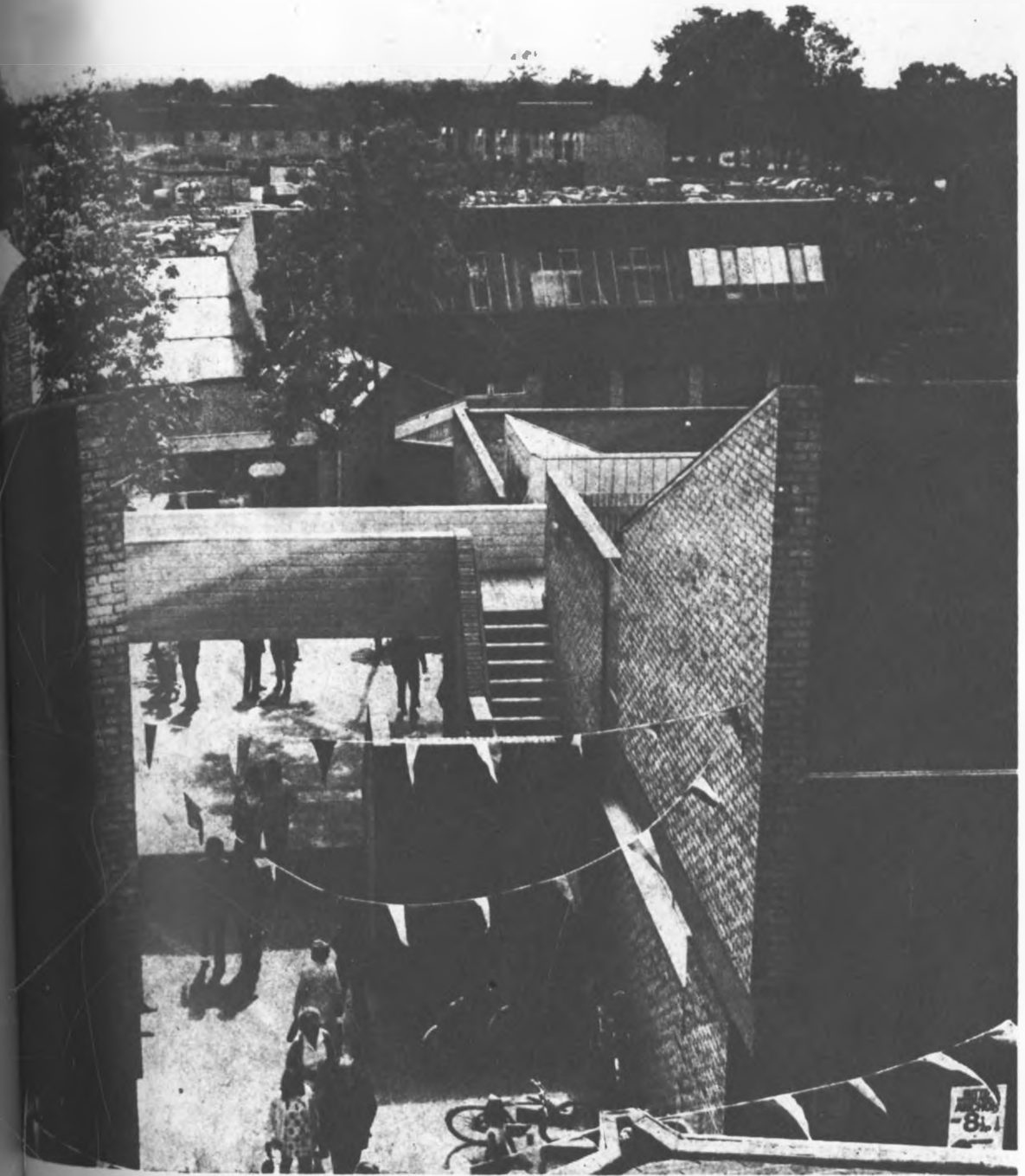


26



28

25 Main stair to upper shopping gallery.
26 Western arm of upper gallery. Though now fully tenanted, this 'dead leg' gave letting problems.
27 Eastern arm; art exhibition provides temporary focus of activity, but 28 reveals importance of completing stage 2 with its second stair to provide continuity of circulation.



30



31

Photographs

All photos by Sam Lambert except 2a and 2b by Henk Snoek.



backwards from
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Middlesex Centre (USA)

.2.1 Shopping Centre Site

The site, on the heavily-travelled Worcester Turnpike about 24 kilometres out of Boston, has a comparatively narrow frontage fronting on to a major highway from Boston to Worcester.

.2.2 Composition of the Centre

There are 45 stores, occupying 45,000 m² which include two department stores and one supermarket. Ancillary facilities include a public theatre.

.2.3 The Site Plan

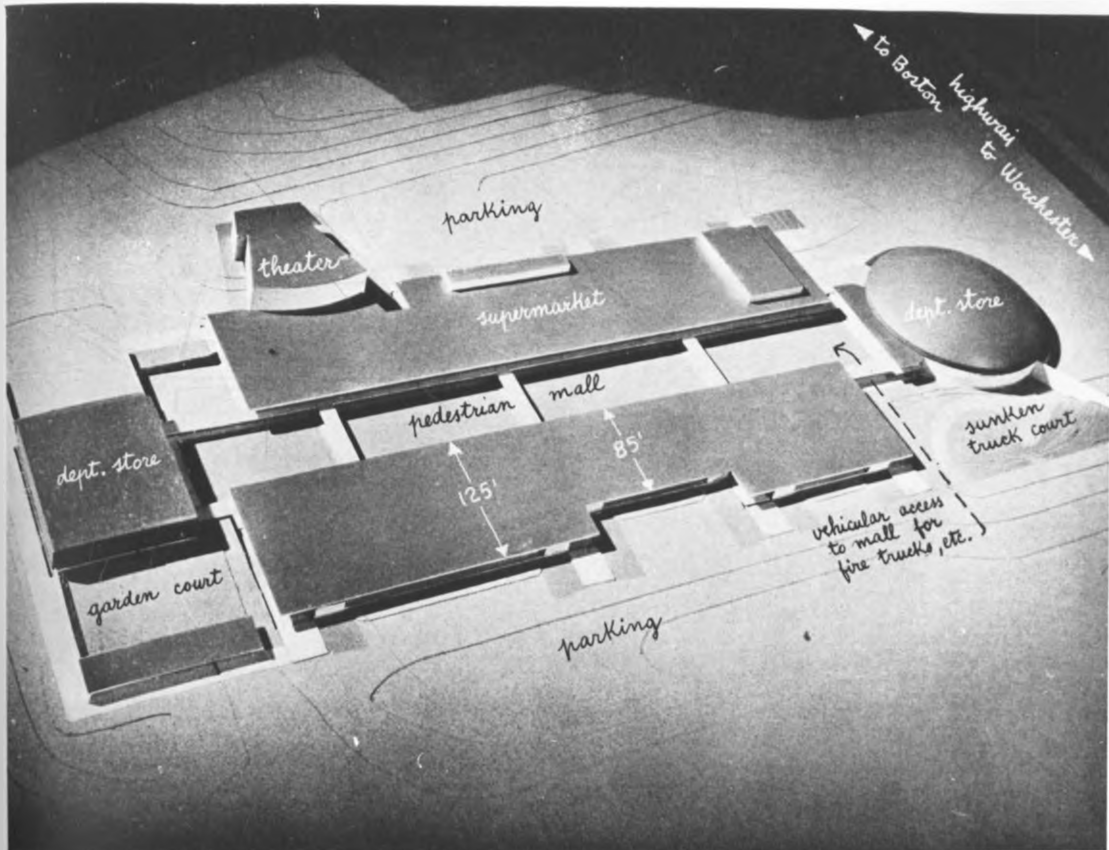
The site plan is a simple, straight, open mall with polar locations of the two department stores. There are ample car parking spaces at the periphery of the shops. Shops are serviced from the rear (car park side) but there are no service courts.

.2.4 The Shopping Environment

The central mall is 2.4 metres below the level of parking areas. Both long store blocks are two-storey high and the shopper coming from her car may go up a ramp 2.4 metres to the stores at mall level. The pedestrian arcades pierce the store blocks at regular intervals. All stores front on to pedestrian mall which is crossed by several covered walkways, protecting shoppers from sun and rain.

.2.5 Construction and Materials

The store buildings are either 37.5 metres or 25.5 metres deep except for a few shallower stores in front of the theatre. Construction is of reinforced concrete frame with infills of concrete blocks.



IN MIDDLESEX CENTER STORES FRONT ON THE CENTRAL PEDESTRIAN MALL, SHELTERED FROM TRAFFIC AND NOISE

AERIAL VIEW

.2.6 Appraisal

The simplicity of the site plan together with the plan location of the two 'magnets' - two department stores - ensure good and straight forward pedestrian circulation throughout the centre.

The drawback of the scheme is that freight handling traffic has not been well segregated from shoppers' cars. It has not been screened either. Shoppers coming from the car parking side might be tempted to share the same entrance with servicing which is added drawback.

The centre offers very few ancillary facilities. If it has to succeed both as a commercial centre as well as a community centre, the centre should provide more ancillary facilities such as offices.

Cherry Hill Shopping Centre (USA)

.3.1 Market Analysis

The centre serves a market of socially and economically mixed community of approximately 400,000 people.

.3.2 Shopping Centre Site

The 81 - acre site is located at the junction of two major roads - the Haddonfield Road and the State Highway Route No. 30 - directly across the Delaware River from Philadelphia and 6 kilometres east of Camden, N.J., (USA) and is accessible from several directions and offers entrance to buildings from seven points.

.3.3 Composition of the Shopping Centre

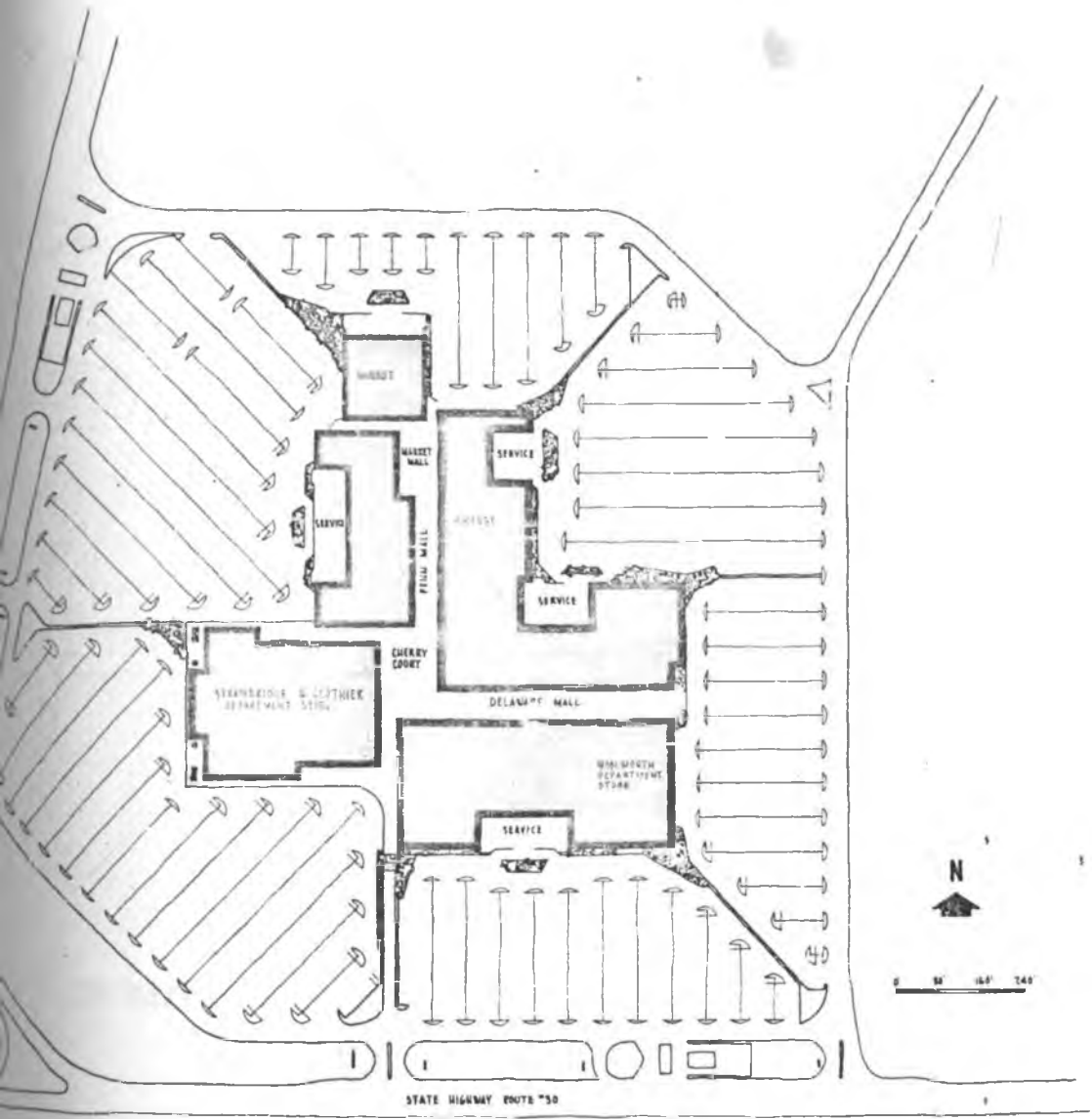
The centre is medium-sized and comprised 75 small shops, two department stores, and a supermarket. Ancillary facilities include the two petrol filling stations located at the entrances from the two main roads.

.3.4 The Site Plan

The centre focuses on a concourse 411 metres long in an L shape which terminates in three courts. At the periphery of the shops is located service courts and a large car parking area accommodating 6291 cars.

.3.5 The Shopping Environment

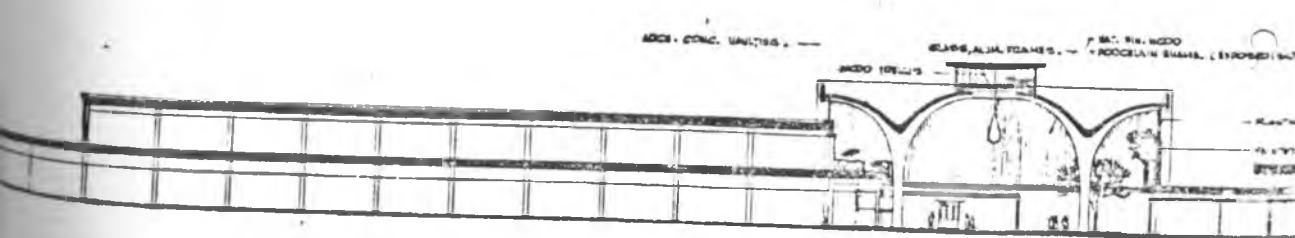
The centre uses enclosed mall concept. The main mall is 33 metres by 52 metres in size and rises through upward sweeping curves to a skylight 13.8 metres above the floor. Daylight also reaches this area from clearstorey windows in the two side walls. In addition to the fountain, the mall includes a Japanese garden complete with arching bridge and running water, and a fanciful wood gazebo where one may sit and relax.



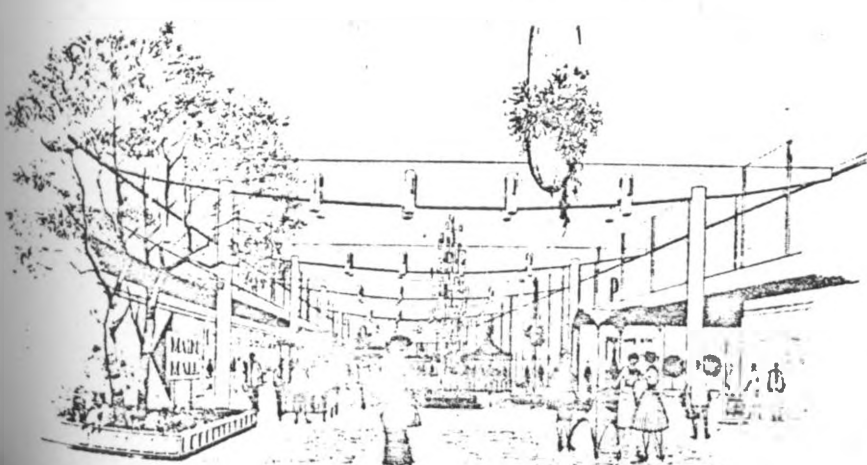
PLAN



INTERIOR VIEW OF THE PRINCIPAL MALL



SECTION



INTERIOR VIEW OF A SECONDARY MALL



PART OF THE MAIN MALL

.3.6 Appraisal

The centre is a rich shopping environment where people are made to feel that they are outdoors and are provided with psychological as well as visual contrast and relief from indoor shops - yet at the same time, they are provided with the comfort of air conditioning, the chance to sit down and rest a while, and the visual enjoyment of landscaping, fountains and sculpture. The solution is best suited to extreme climates (cold or hot). Semi-enclosed malls is an adequate solution in less severe climatic areas such as in the tropics.

Hudson's Suburban Shopping Centre (in Detroit)

.4.1 Site Location

The site is in Gratiot Township, at the intersection of Eight Mile Road and Kelly Road, both 60-metres wide divided highways. The centre is on the way downtown for a large number of suburbanities, and easily accessible to even larger number living to the east and west of the centre's site.

.4.2 Market Analysis

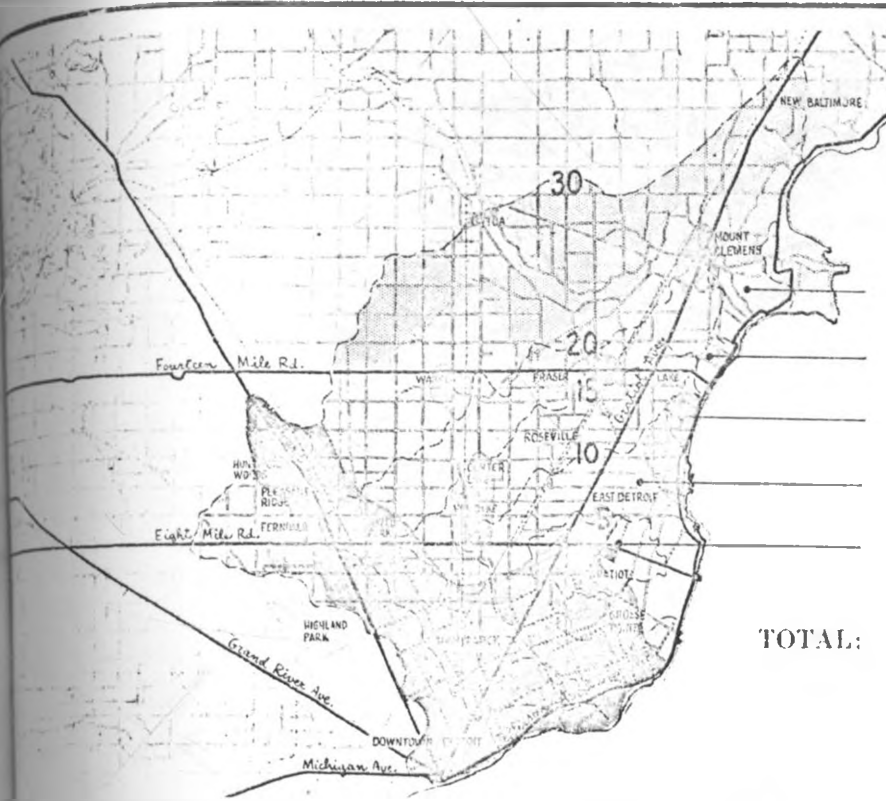
A catchment population of 1,800,000 people comprising lower, middle, and upper income groups make up the total buying power for the centre. Using driving-time; distance isochrons, population figures, and average family's income spent on retail goods of the type available at the centre a sales potential of approximately \$200,000,000 was arrived at. This sales potential was then converted into total sales area for the shopping centre.

.4.3 Composition of the Centre

The centre is composed of over 100 retail stores and three department stores.

.4.4 Site Plan

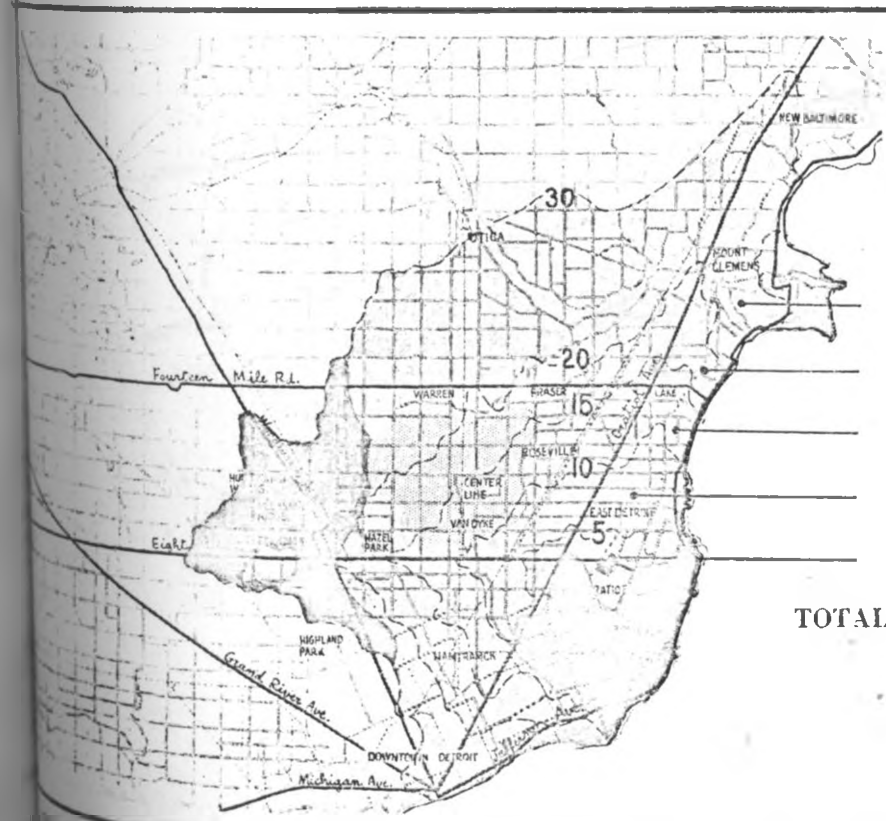
The centre is oval in shape and more than 390 metres long and about 150 metres across. Parking is at the -large central court and at the periphery of the stores. The centre can accommodate over 6,200 cars. There is no pedestrian mall; all stores have parking at the front and the rear. There is also parking space on the roof of the major department store.



30	566,400
20	307,300
15	213,700
10	143,400
5	52,500
TOTAL:	1,283,300

POPULATION

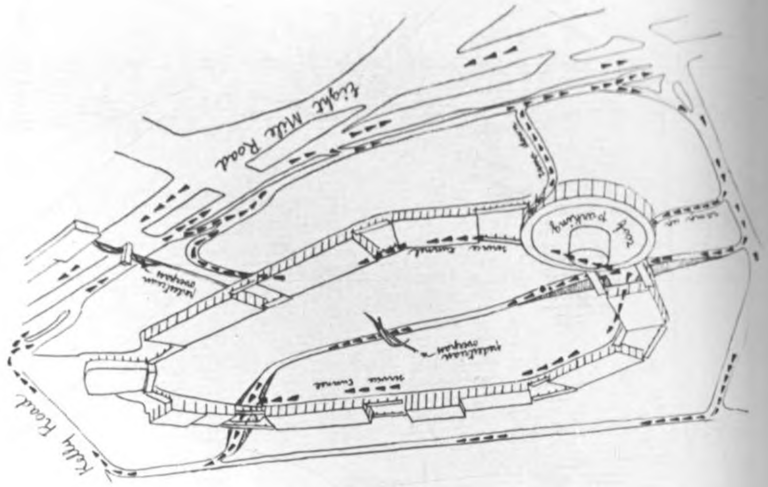
FIGURES SHOW POPULATION IN EACH TIME-DISTANCE BELT. SHADING INDICATES POPULATION DENSITY—THE DARKER THE DENSER



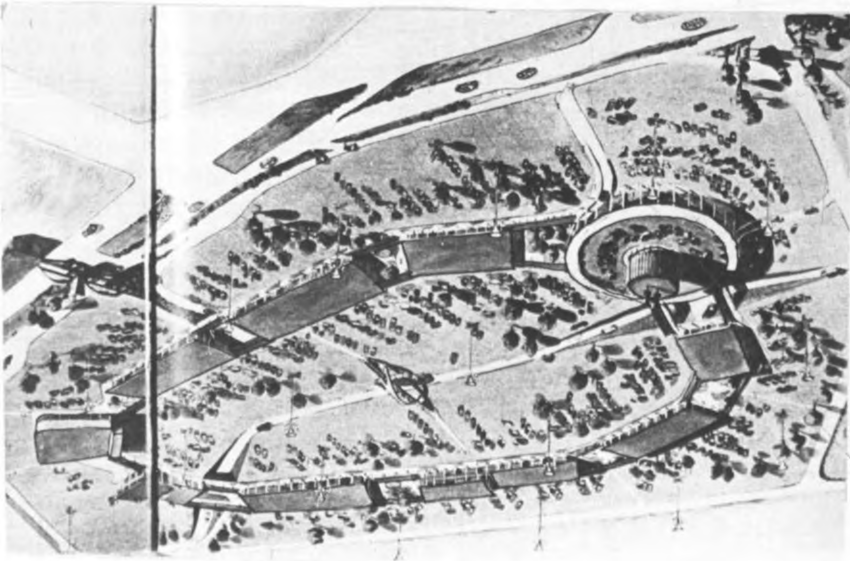
	GROSS SALES	NET SALES
30	346,949,692	26,025,000
20	185,942,400	39,060,000
15	150,547,992	48,175,000
10	104,667,136	56,520,000
5	36,777,440	29,421,600
TOTAL:	824,884,660	199,201,600

RETAIL SALES POTENTIAL

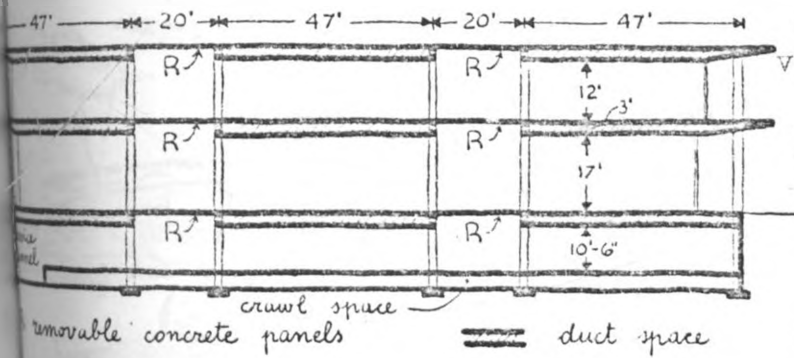
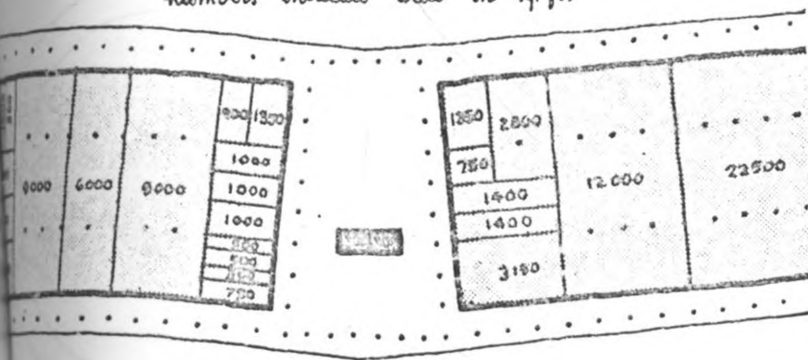
SHOW ANTICIPATED SALES FOR EACH TIME-DISTANCE BELT. SHADING INDICATES INCOME LEVEL — THE DARKER THE HIGHER



A BIRD'S EYE VIEW

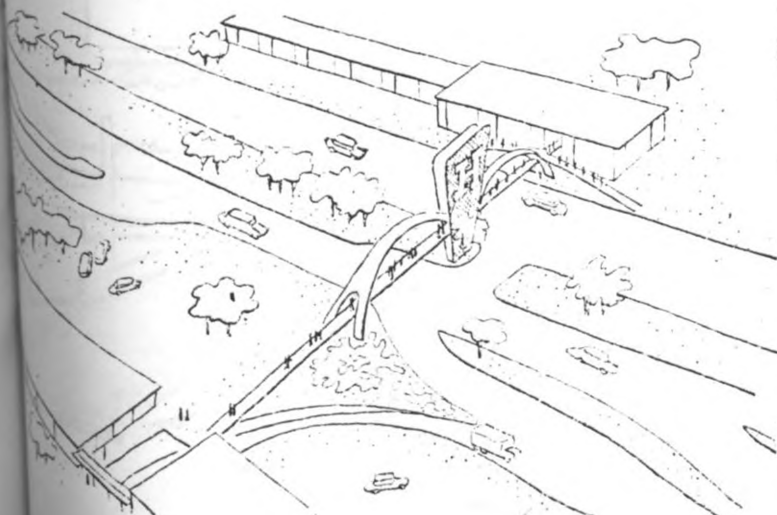


numbers indicate area in sq. ft.

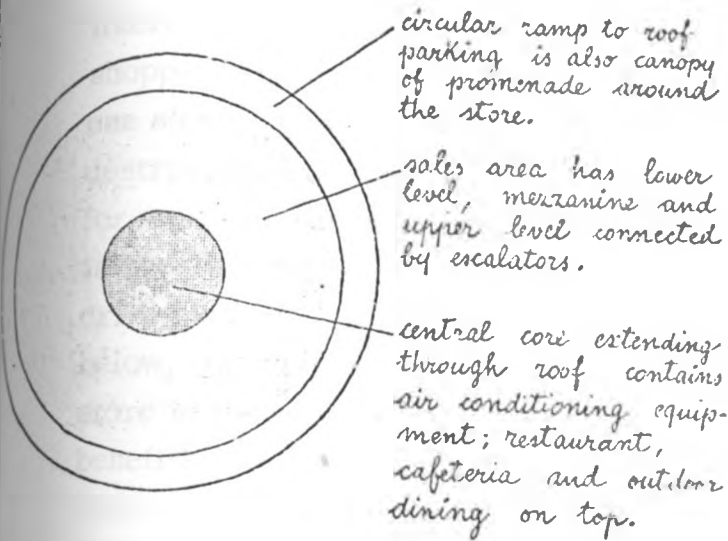


Variety in store size is achieved by short blocks separated by open courts with small pavilions. These standard blocks can be divided up into a wide variety of shapes for there is no back nor front; all freight and service traffic is confined to a tunnel beneath. The small pavilions are valuable on two accounts: they help to give a feeling of bustle and intimacy and accommodate those small speciality shops which can do a big volume of business in a very confined space.

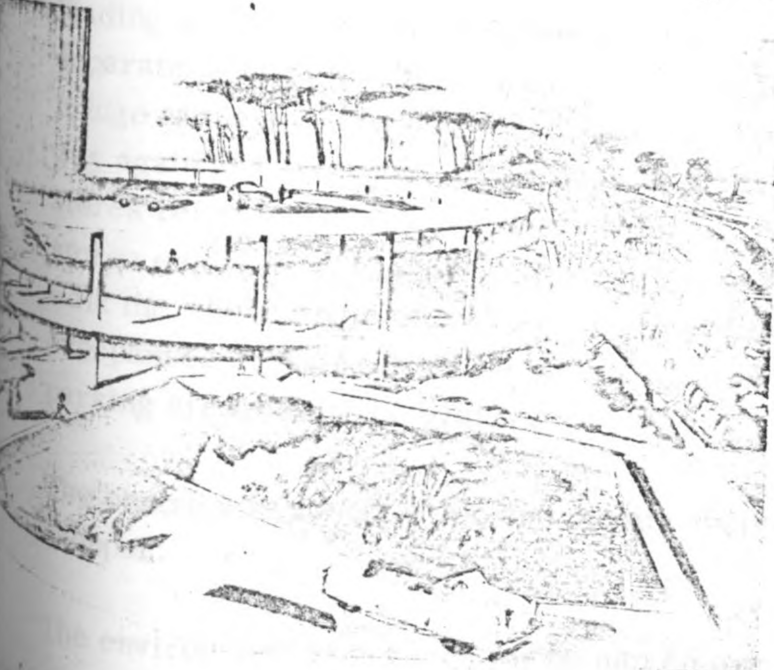
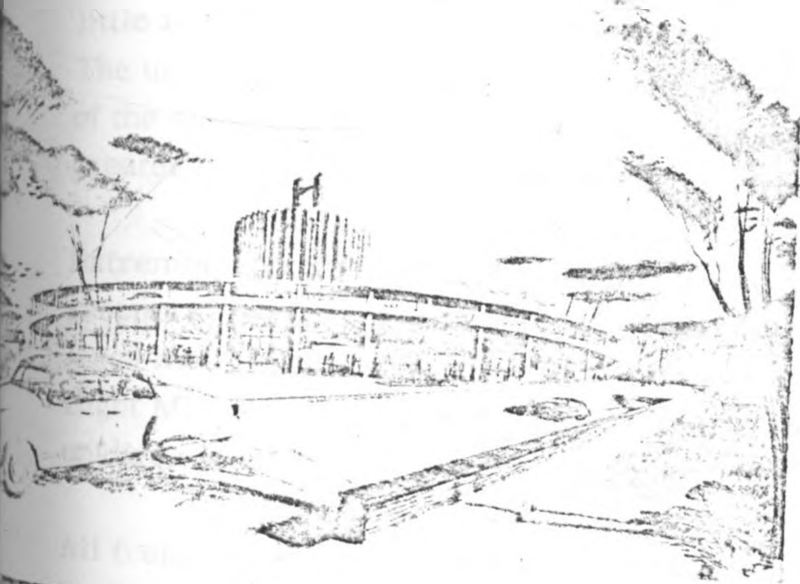
Structural flexibility is achieved by an ingenious standard construction of reinforced concrete of which there will be two 20 ft. bays with removable panels so that vertical connections between floors can be easily installed if a tenant wishes. Ground floor height of 17 ft. gives a space enough for a mezzanine if required. Since servicing is confined to a tunnel which connects with the basement of each store all four sides of each store building may be used as a selling frontage with large display windows.



The pedestrian overpass with its flaring concrete arches and its tall central pylon doubles as an impressive signboard bringing the new centre to the notice of the passing motorists.



The circular department store dominates the centre. Its tower contains all service ducts and air-conditioning equipment and also houses a restaurant in the area or section above the roof.



Pedestrian and vehicular traffic is kept separate except where they encroach upon each other in the parking areas. Parking is on ground floor and also on the roof of the department store.

4.5 Appraisal

The tremendous scale of the centre and its spreading plan would seem likely to put many stores beyond walking distance for the average shopper. It must be assumed, then, that shoppers will go by car from one store to another within the centre. This will, of course tend to destroy that cumulative pull which is of vital importance particularly for small merchants. For the same reason, Hudson's roof - parking is questionable on the grounds that it will enable Hudson's customer to drive up a winding ramp to the roof, do all their shopping in the store below, and then drive away without once being exposed to any other store in the centre. If this were so, then the other stores would not be benefiting at all from the traffic generated by this outstanding puller. With such a widely scattered layout of stores the bustling intimacy of pedestrian traffic will have to be carefully encouraged. For this, the little island pavilions between the main store blocks should be of help. The uniform arcade running the length of the oval, on the inside face of the store blocks, could better be abandoned, however, in favour of greater variety in vista, proportion, and ornament.

Extremely careful thought has been given to the traffic pattern both for shoppers' cars and goods trucks. Wide centre islands and deceleration lanes make it simple matter for traffic to turn into the centre from Eight Mile Road. Within the site all traffic flows clockwise in a unidirectional pattern around and through the store group.

All freight traffic is carried in two tunnels which serve basement loading docks in all the principal stores. Freight and passenger traffic separate where the main entrance roadway dips down beneath a pedestrian bridge at the side of Hudson's. One of the tunnels merges with the roadway again at the far side of the oval as it passes through the line of stores beneath another pedestrian bridge. The other tunnel serving the stores emerges on Eight Mile Road. There is a continuous pedestrian walk the whole length of the stores. In addition, there are pedestrian overpasses crossing Eight Mile Road and the road which bisects the huge parking area within the oval.

The centre was designed for automobile shopper rather than for pedestrian shopper.

The environment is not rich for human enjoyment and living.

Adam's Arcade Shopping Centre (Nairobi)

.5.1 Locational Setting

The centre is situated at the heart of the Woodley/Kibera suburbs, approximately six kilometres to the west of the Nairobi City Centre, and along a major road (Ngong Road) linking the Dagoretti and Ngong agricultural areas to the City Centre. The centre was originally planned to cater for a community comprising mainly high income population living in Woodley area and its vicinity. Nevertheless, the centre also serves the low and middle income masses immediately to the west and south of the centre.

.5.2 Composition of the Centre

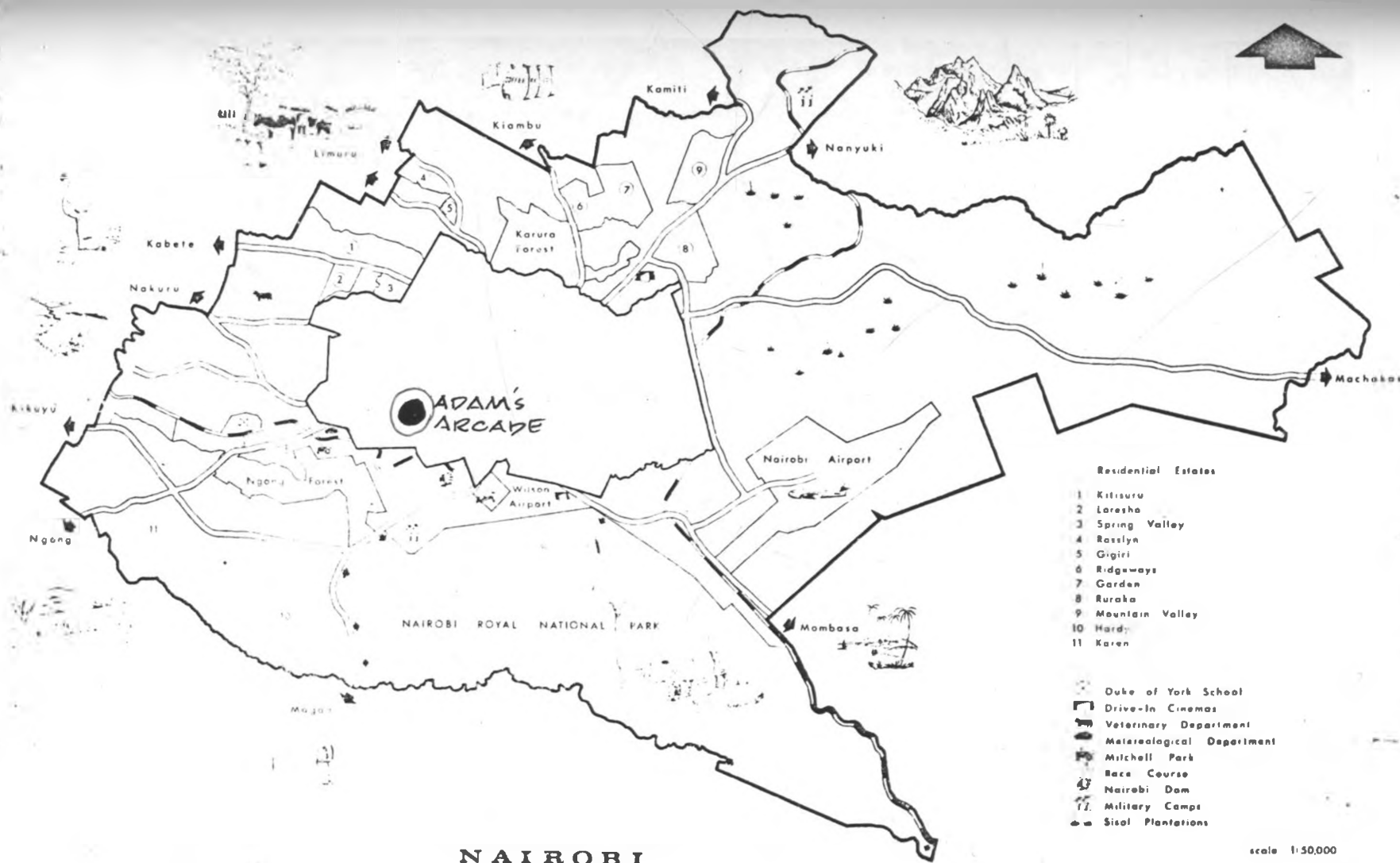
The centre is one of the most modern and up-to-date shopping centres in Nairobi and comprises one major grocery, store and eleven other secondary stores, a cinema, post office, health clinic, bar/restaurant, cafe, three kiosks, and some residential flats. The centre is L-shaped in plan and uses split-level site solution due to the slightly sloping nature of the site. The cinema and the residential flats occupy the third level while all the other facilities occupy first and second levels.

.5.3 General Planning Principles

The arms of the L-shape engulf a large car parking area, a petrol-filling station (at the entrance/exit), and a children play area. The centre has no pedestrian mall. It has its frontage facing the car park while the service system - freight handling, and refuse collection - occupies the rear of the stores. The service road is one-way and has its entrance at the rear of the stores and exit at the front of the stores - i.e. along the car park.

.5.4 Materials and Construction

Structurally, the building complex uses a reinforced concrete frame with infills of concrete blocks and natural stone. Shop canopies are supported by both concrete (first level) and steel (second and third levels) columns. The roof over the cinema is low, double-pitched and built - up of timber decking and covered with bituminous felt while the residential flats have a concrete roof slab.

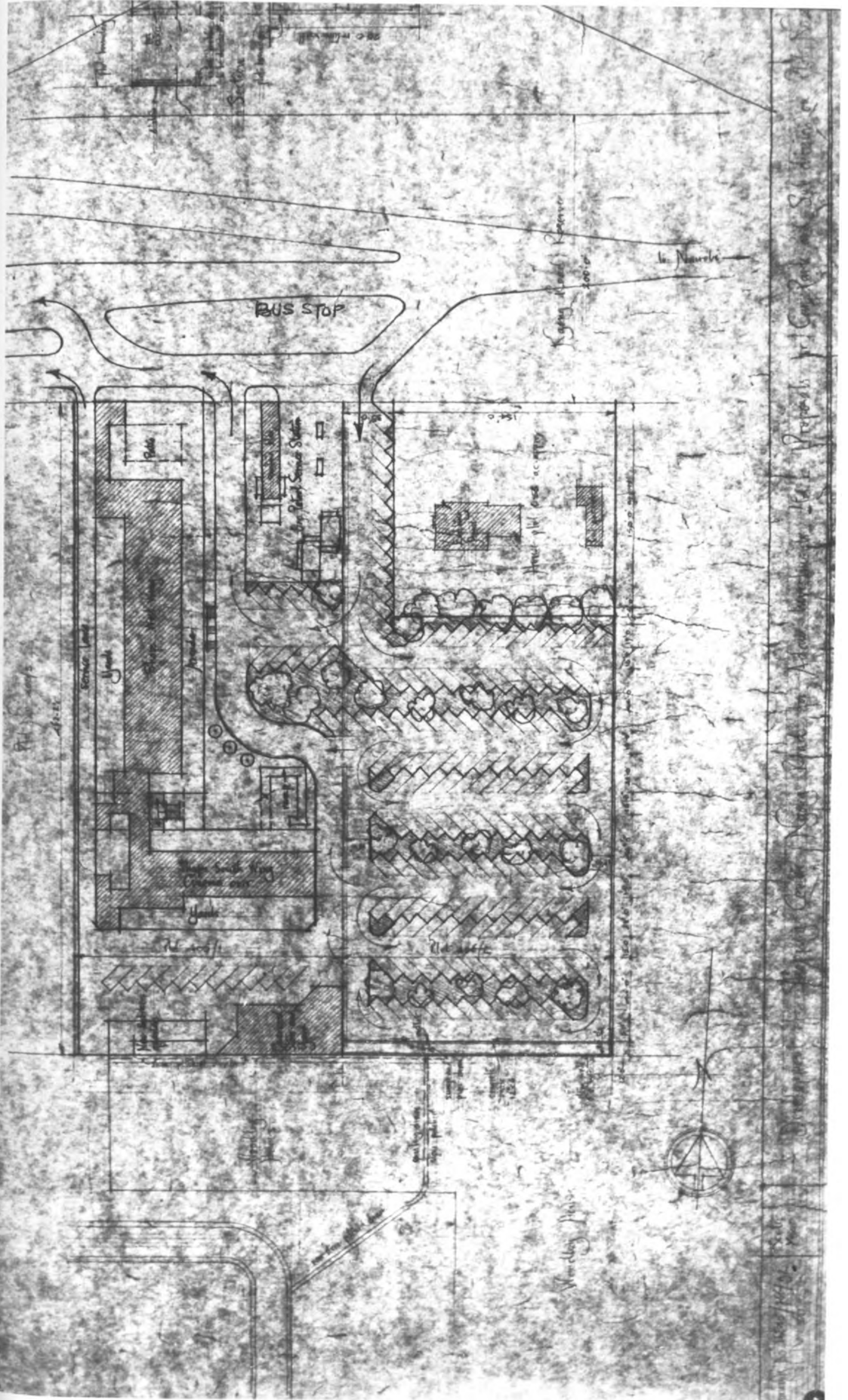


- Residential Estates
- 1 Kitisuru
 - 2 Laresha
 - 3 Spring Valley
 - 4 Besslyn
 - 5 Gigiri
 - 6 Ridgeways
 - 7 Garden
 - 8 Ruraka
 - 9 Mountain Valley
 - 10 Harb
 - 11 Karen
- Duke of York School
 - Drive-In Cinemas
 - Veterinary Department
 - Metereological Department
 - Mitchell Park
 - Race Course
 - Nairobi Dam
 - Military Camps
 - Sisal Plantations

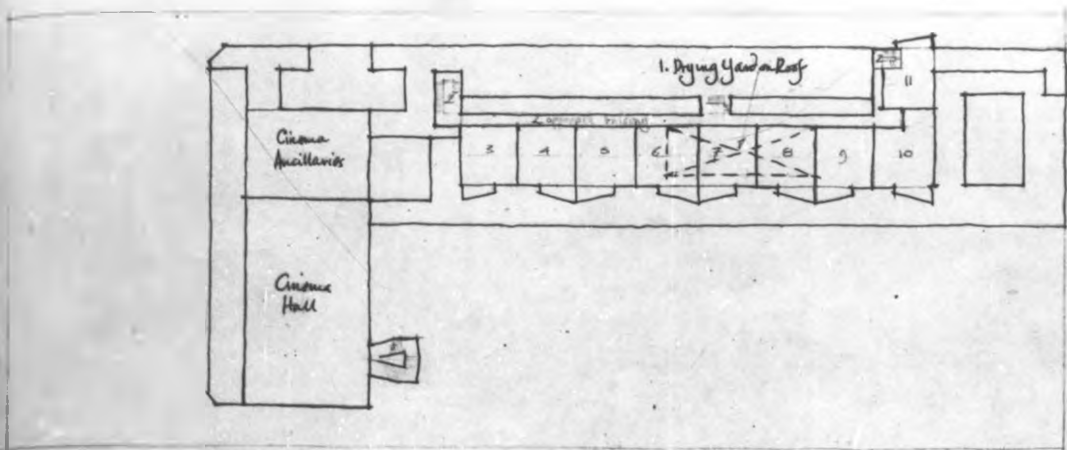
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NAIROBI

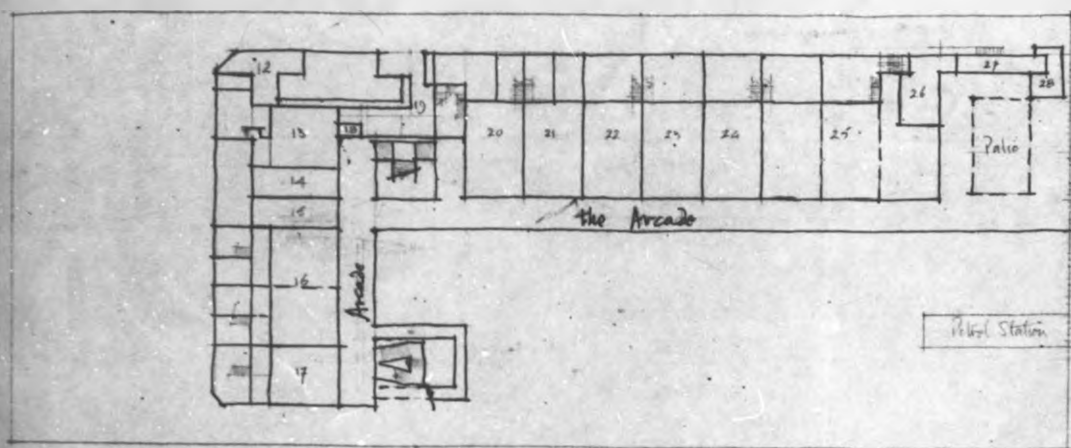
ADAM'S ARCADE - LOCATION PLAN



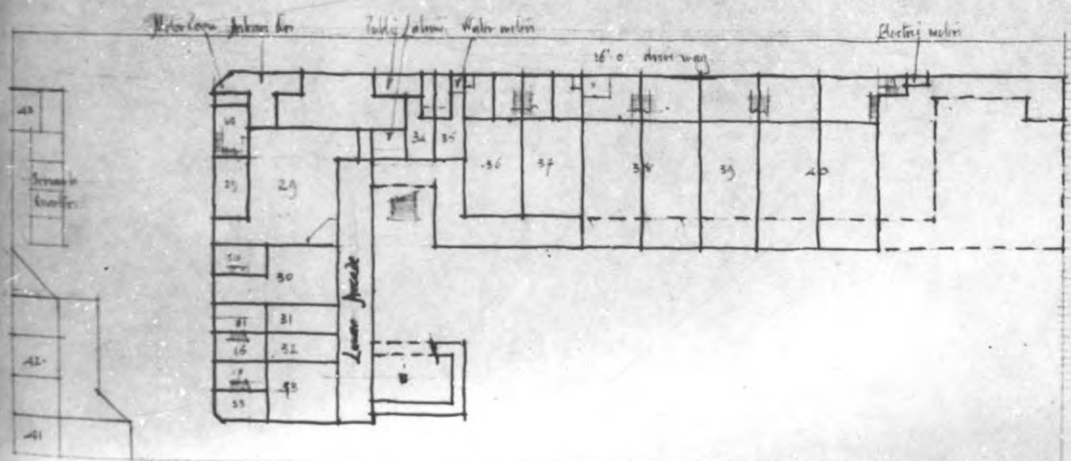
City of New York Department of Education
 Architects: J.C. Ross, S. H. ...
 1919



First Floor Level



Upper Ground Level



Lower Ground Level

FLOOR PLANS



TOP LEFT - The shopping centre seen from nearby road.

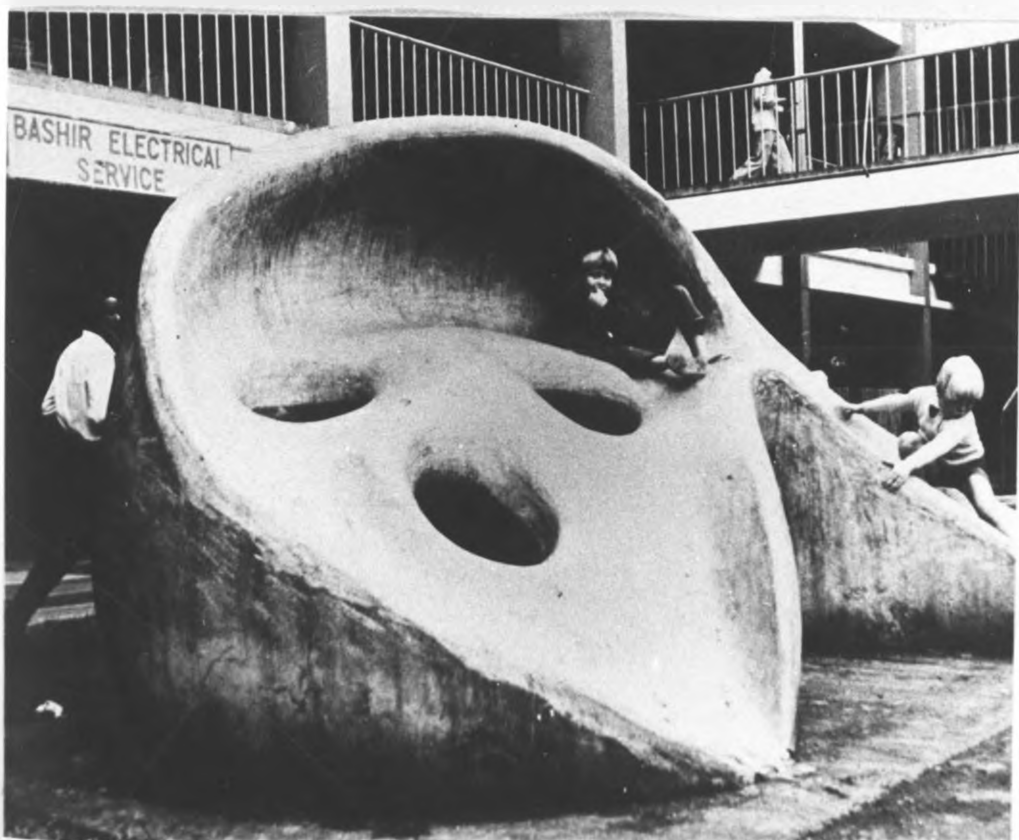
TOP RIGHT - The nearby road and the bus-stop and the centre in the background.

BOTTOM LEFT - The centre with the cinema building seen at the farthest end.

BOTTOM RIGHT - The centre sign as seen from the Petrol Station side.



A close view of the centre from the car park side showing the split level two-level plan, and residential flats above the shop accommodation.



A functional sculpture used as a children play-thing .



Top left and bottom left show the service yards and road.

Bottom Right shows the car park as seen from the ramp to the upper level from the lower level of shopping.



Some of the activities in front the shops include window-shopping (top left), automatic vending machines (top right and bottom left) displays in front of shops (bottom right).

5.5 Appraisal

Good design has made this shopping centre a good shopping environment with ample car-parking space, good shop-front design with controlled store signs and display areas. The arcaded shopping levels give good weather protection to the shoppers. On the other hand, the centre provides amenities and facilities which make it a truly community centre. The cinema and the nearby bowling alley provide entertainment; the restaurant-bar, cafe, childrens' play, and the 'park' (green area) provides recreation. The 'park' is strategically located between the shopping complex and the bus-stop on the main road (Ngong Road). Thus, it partly acts as buffer zone between the heavily trafficked road and the shopping environment, and partly as a meeting place for both shoppers and passengers waiting for buses. One of the main drawbacks of the centre is, originally, when it was designed, lower income classes were not catered for. This has negatively resulted in 'satellite' way-side informal commercial facilities strategically located along the main pedestrian arteries. Since these are not integrated into the original design, they cause blight and hence make the centre architecturally unappealing.

Further, because of lack of adequate provision of a large variety of commercial facilities, loading and storage bays have been converted into garages, workshops or extra retail areas. This makes the centre commercially (and aesthetically) unsuccessful since the shoppers are forced to go elsewhere where a large variety of shops offer comperative shopping.

As far as the visibility and accessibility of the centre is concerned the centre gains advantage of being located in the vicinity of a road round-about and hence visible to the passing motorist who is forced to decelerate as he approaches the roundabout. Nevertheless the centre sign is not prominent enough to catch the attention of a fast motorist. Some times, one has the impression that all there is, is a petrol-filling station because its sign is more prominent.

The main pedestrian route from the centre to the southern residential area is not well-integrated with shopping centre. Adversely, it passes behind the stores and is not well-marked. Further, the pedestrian route from the bus-stop to the southern residential area would successfully have been planned to pass through the centre and not bypass it.

As a community centre, the centre would have been planned in relation to the many playing grounds and other communal facilities in the vicinity. This lack of integration has negatively resulted in the loss of that feeling of life and bustle which the centre would otherwise have created.

Nairobi South 'C' Shopping Centre (Nairobi)

.6.1 Shopping Centre Site

Located at the heart of Nairobi South 'C' Estate - about two kilometres from the City Centre - the centre serves a racially mixed middle income community comprising, primarily, Africans and Asians. The site is fairly flat and has a top layer of black cotton soil.

.6.2 Composition

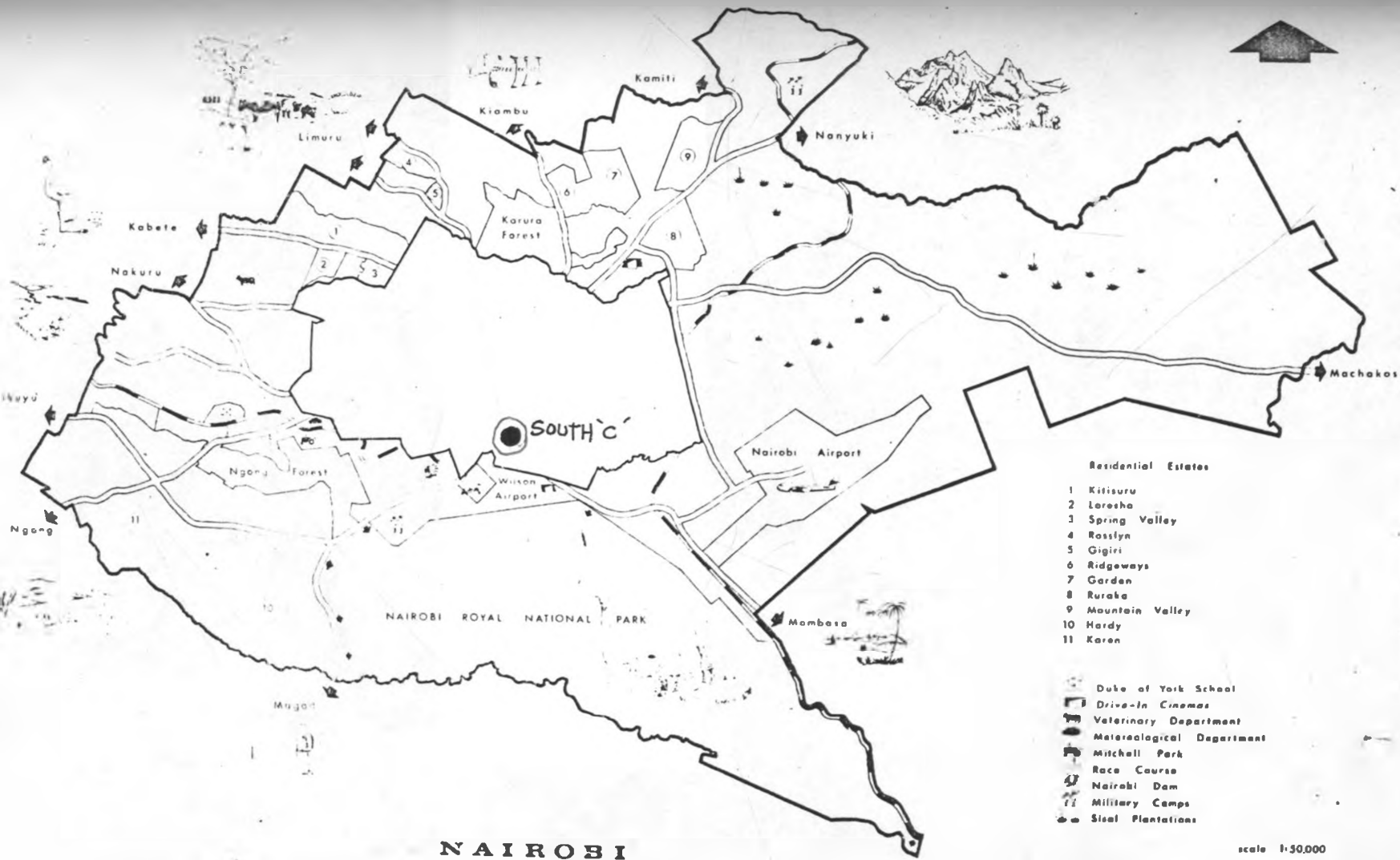
The centre is composed of eighteen shop units (ground and first-floors) mainly grocery stores. First floors were designed as residential flats though some are used as bars and others as selling and storage spaces for shops below. The presence of three bars/restaurants - a common feature in African - oriented trading centres - in such a small centre, is of paramount importance.

.6.3 Site Plan

The site plan is simply two parallel store blocks (two-storey high) with a car park between them. Shop fronts face on to this car park while the service and freight handling traffic is confined at the rear of the stores.

.6.4 Materials and Construction

Reinforced concrete frame is used throughout with infills of concrete blocks. The roof is flat, reinforced concrete slab.



Residential Estates

- 1 Kitisuru
- 2 Lereha
- 3 Spring Valley
- 4 Rosslyn
- 5 Gigiri
- 6 Ridgeways
- 7 Garden
- 8 Ruraba
- 9 Mountain Valley
- 10 Hardy
- 11 Karen

- Duke of York School
- Drive-In Cinemas
- Veterinary Department
- Meteorological Department
- Mitchell Park
- Race Course
- Nairobi Dam
- Military Camps
- Sisal Plantations

NAIROBI

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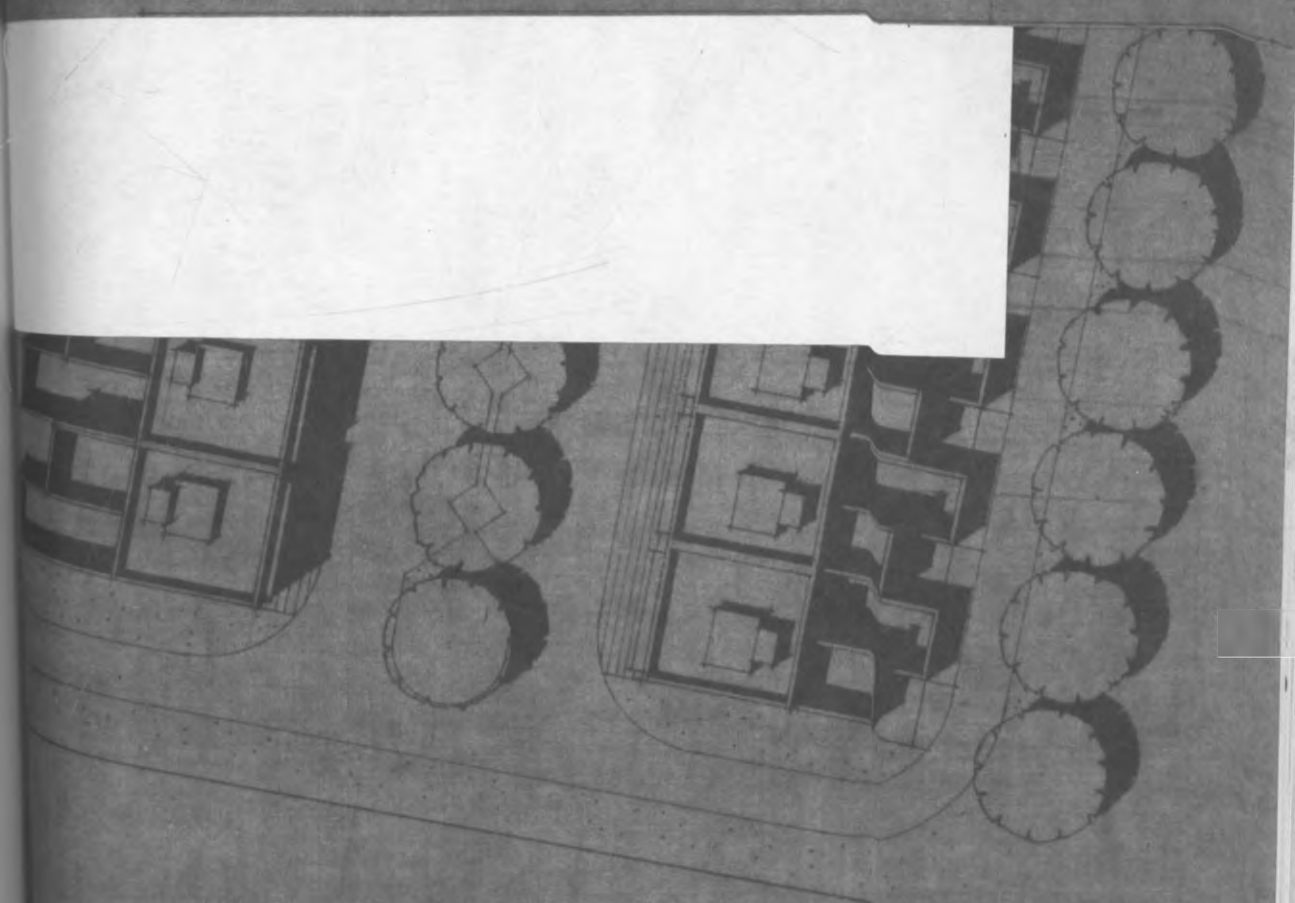
NAIROBI SOUTH C SHOPPING CENTRE- LOCATION PLAN



ELEVATION



ELEVATION



SITE PLAN



Two views of the centre showing car parking in front of the shops.





Service side and a temple seen behind trucks.



Temple at close quarters.



The lane separating the centre from residential area

.6.5 Appraisal

The centre fails seriously in one of the vital requirements of a shopping centre: separation of pedestrians from vehicles. The market area of the centre is much reduced by the fact that it is located at the heart of the estate away from the major transportation routes (Mombasa Road and Aerodrome Road) and hence accessibility poor. The centre also fails in providing good shopping environment conducive to both social and commercial activity - the requisite of a shopping centre. Shopping in this centre is therefore not interesting or exciting.

Furthermore, the centre is too small in scale to offer comparative shopping and therefore is only good for selling convenience goods to the people of the estate. Its nearness to the City Centre also limits the centre to sell durable and comparison goods.

Jogoo Road Shopping Centre (Nairobi)

.7.1 Location

The site is located at the heart of a high density, low/medium income housing in the Eastlands(Nairobi), at the junction of two bus-roads - Jogoo Road and Nyansa Road. Just near and opposite the site starts the expansive Nairobi's Industrial Area. The site is flat and covered with black cotton soil.

.7.2 Existing Facilities

The centre is to be set among a wide variety of existing facilities comprising the following:

Commercial - Market, petrol stations, bank, press;

Cultural - Church, convent, houses and hostels;

Educational - Primary school, secondary schools, library;

Recreational - Playing fields.

Civic - Administration offices, Police station, Court.

.7.3 Proposed Facilities

To complete a balanced community life, a commercial centre is proposed (in fact has been designed and started) which, together with the already existing facilities will function as one integrated harmonious whole. The facilities included are: extension and improvement of the existing market (this will consist of erection of eleven new enclosed market halls), petrol station, supermarket, seven shops (with residential flats over), five bars and restaurants, office block (with some bank halls) cinema, community meeting and dancing halls, motor show rooms, service industry, health centre, and a fire station. Five of the market halls have already been built in the second phase. A bank is already operating (temporarily) in the existing administration building. Parking and service yards will also be provided at the new centre.



Existing Christian Council staff housing



Existing office building currently used as a bank



Provincial Administration buildings



Existing church, missionary houses



Newly constructed market halls for phase one

.7.4 Appraisal

The centre, being the first of its kind in Nairobi, is a positive gesture towards an improved community life. It aims (above all other things) at raising the ordinary shopping centre from a mere buying place to a more complete community living environment catering for a diversified social and economic requirements. The design has endeavoured to separate the pedestrian shoppers from cars and recognises shopping habits of the local population by extending and improving local market facilities and providing a service industry, thus catering for the lower income masses. The design, further, recognises the needs of the higher income population by providing a modern supermarket and some motor show rooms.

Nevertheless, the centre might fail to succeed in that, it provides too few retail stores to offer comparative shopping if it is intended to be a major shopping centre. In this respect it is apt to lose its market to the more complex city centre. Motor sales might not be all that successful since the downtown caters for this type of business better.

The centre, however, might succeed in business, in spite of the above factors, if it excels in design quality. Design quality will aim at making the centre socially and visually interesting. It will also aim at making the centre appealing in terms of convenience and accessibility, e.g. provision of ample car parking spaces, and good easy access roads.

The centre is well located in a variety of social, cultural and recreational facilities and therefore might derive its importance as a community centre from this fact.

The City Centre (Nairobi)

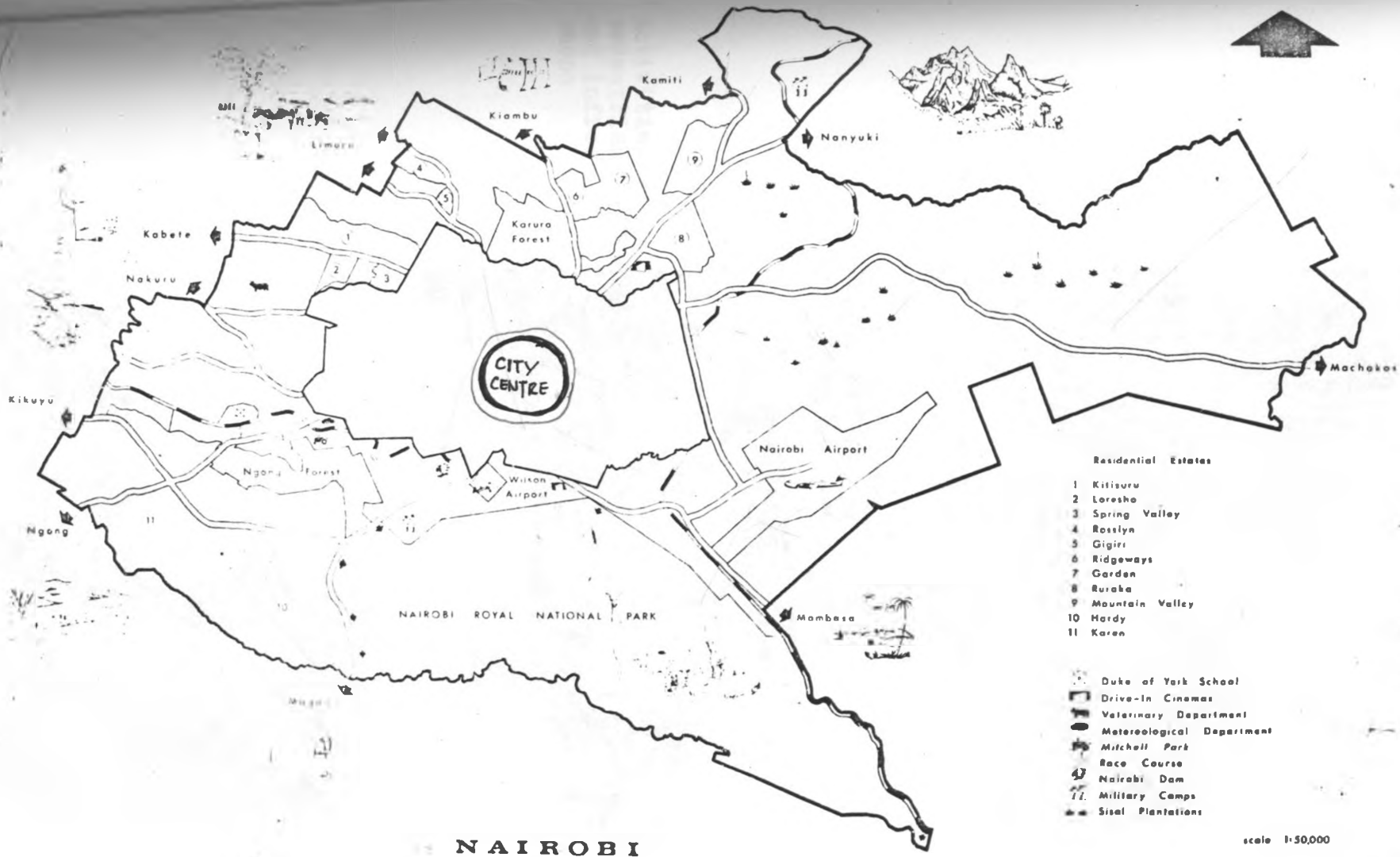
Nairobi's City Centre, like many other down towns, is the major business district of the city and provides a diversity of facilities such as commercial, cultural, recreational and civic facilities.

A peculiar character in central business district of Nairobi, however, is the presence of a wide range of informal retailing - such as 'curio shops' wayside 'cafes' and 'restaurants', mobile 'grocery shops', wayside hair dressing 'saloons' just to name a few - which can be associated with the following socio-economic factors:

- wide range of incomes and differing life styles of the heterogenous population of Nairobi.
- reflection of lack of alternative employment opportunities;
- result of subsistence shamba cultivation on peri-urban-fringe.

It should be noted that each of these retail outlets show a positive and healthy commercial activity of a local character and must therefore, be taken into account and the possible direction of their future development considered when new shopping areas are being planned.

Another peculiar character of Nairobi is that it lacks any pedestrianized street for exclusive use of pedestrian shoppers. In this direction, I suggest that any new shopping centre in Nairobi should be designed primarily for pedestrian shoppers. This would mean precinctual shopping centres with malls and courts well landscaped and provided with interesting features and amenities.



THE CITY CENTRE - LOCATION PLAN



Activities along
pedestrian routes
and in front of
shops



Commercial activities in front of shops.....



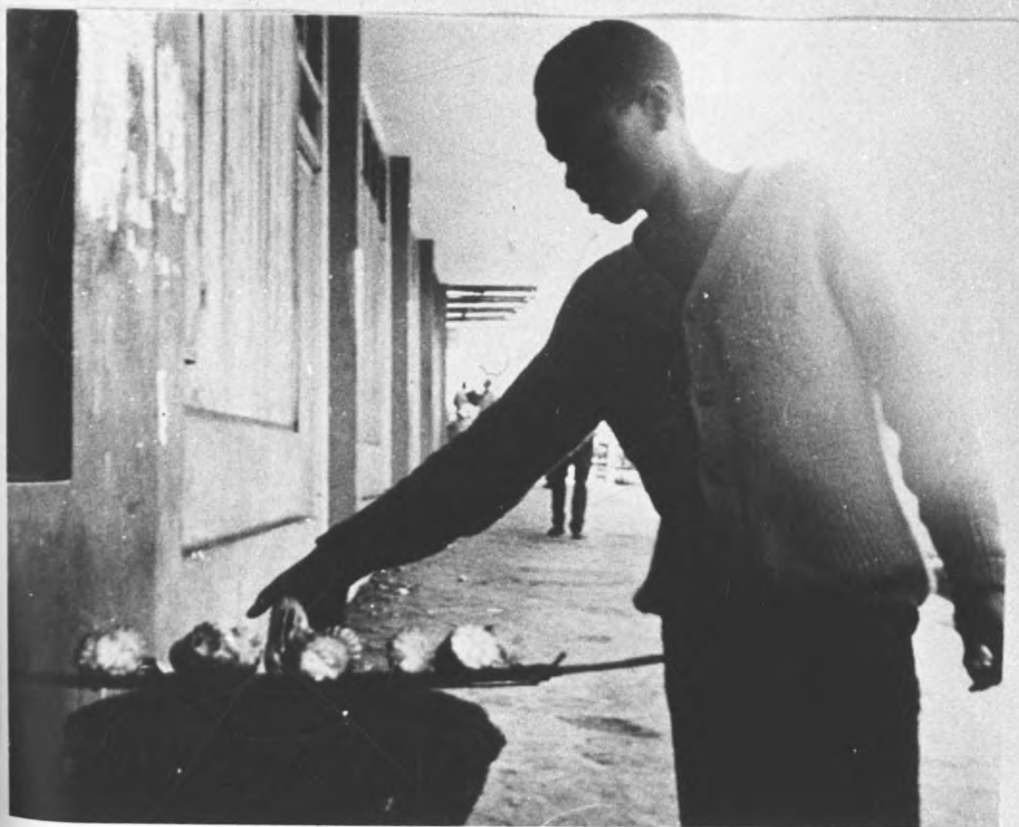
Commercial activities along the pedestrian ways...



.....



Activities along pedestrian routes





Activities behind shops and back streets





CONCLUSION

CONCLUSION

Functions of a shopping Centre

Essentially, shopping has two prime functions - the organisation of goods and the fun or social exercise. It follows then that for a shopping centre to be truly successful, it has to meet these prime needs. Not only must it be an efficiently organized building or a series of buildings for the reception, storage, and sale of goods, but it must provide a pleasant and exciting environment for the shoppers.

User Requirements

Pedestrian's Needs - The shopper wants a feeling of activity in the shopping centre, safety from traffic, protection from weather, as many shops as possible in a short walking distance to give him comparative shopping, and variety and interest within the shopping environment. Shoppers will also need amenities and ancillary facilities.

Motorist's Needs - The car shopper wants in addition, free car parking as near the shop as possible, and wide roads which will enable him to get about the shopping centre without being constantly held up in traffic jams, and without having to proceed by slow jerks because of shoppers walking on and across, the carriageway.

Retailer's Needs - The shoppers wants as much traffic as possible (pedestrian's and motorist's) to pass his shop, a site on the busiest road or junction in the centre, easy servicing of his building, and he wants to let every-one know exactly where he is, and what he sells, from as wide viewing range as possible.

Of the three, the pedestrian shopper is the most important and is the one who should be satisfied the fullest extent possible. This means that where a number of shops are grouped together to form a centre, the layout should be based on the satisfaction of the needs of the pedestrian shopper. In this respect, the precinctual or mall layout caters best for the pedestrian shopper.

It is imperative that the shopping centre must be predominantly for the pedestrian shopper, that the automobiles are simply a convenient way of reaching the centre but are a very great nuisance if allowed to penetrate the centre, and that the servicing of shops is an operation that should be efficiently carried on, but out of sight.

SECTION 111

6.0 FEASIBILITY STUDY



FEASIBILITY STUDY

PROPOSED KAREN SHOPPING CENTRE

Objective

My main objective is to design a major suburban shopping centre at Karen-Langata (Nairobi) for a projected catchment population of approximately 360,000 (by the year 2000). The centre will be a suburban equivalent of the city centre and, therefore, will be expected to function efficiently both as a community centre and a social focus. It will also be expected to be full of activity and intimacy, visually interesting and exciting and will also be flexible enough to accommodate any new retailing changes or merchandising innovations.

The Area

The area is currently, a low-density (2.2 p.p.h.), wooded, area predominantly catering for high income population. Its present population is approximately 13,000. Lack of adequate water supply has been primarily conducive to the existing low density in spite of the good climatic and soil conditions of the area. However, with completion of Mid-Chania Phase II water project in 1980, the total population of this area (inclusive of its immediate surroundings) will eventually grow to some 60,000, 110,000 in 1985, and 360,000 by the turn of the century (2,000).

NUSG Recommendations

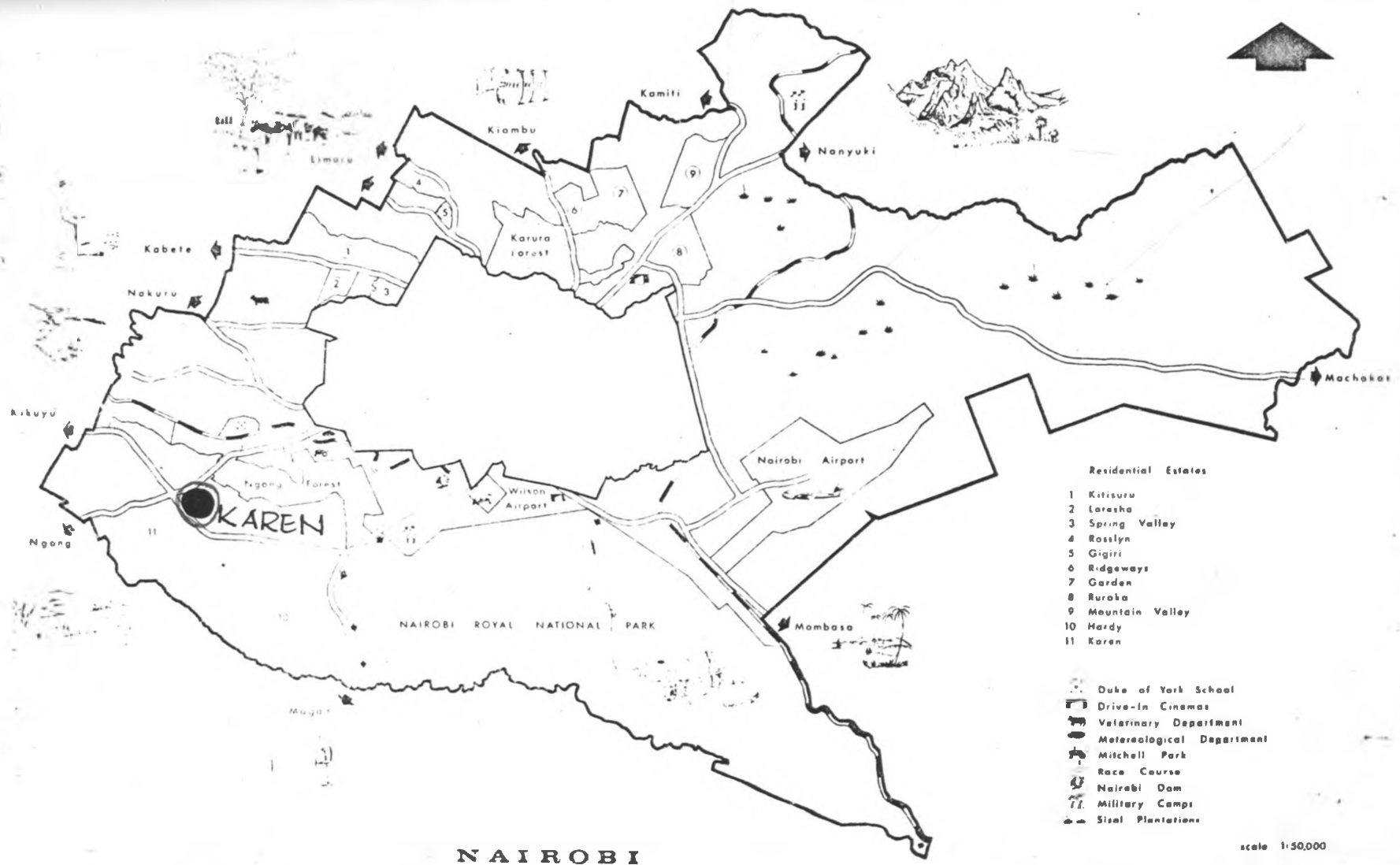
A major industrial area was suggested by the Urban Study and this would be sited in the vicinity of the existing Karen buying centre and close to the proposed high -density housing areas. The area will be tranversed (in the northern part) by the proposed Trans-Africa Highway, and will be connected to the remainder of the city by Langata Road, Ngong Road and Dagoretti Road. Most important (in my case) is the proposal to have a major commercial centre in the area. According to the Urban Study Report, the commercial centre is planned in the vicinity of the proposed industrial area and will strategically be located along the major communication routes through the area. The shopping centre will have a catchment population of 360,000 people and will comprise over 100 retail stores. In addition, a host of social and ancillary facilities as suggested by the table below - would be provided in order that the centre becomes a balanced commercial and community environment.

URBAN FACILITIES RELATED TO POPULATION CATCHMENT.

POPULATION CATCHMENT	FACILITIES
10	Parking area
20	Play area
150	Market Stall
200	Telephone
1,000	Playground, Bar
2,500	Nursery School
5,000	Local shopping centre Playing field Local market Primary school
10,000	Sub Post Office Dispensary Clinic
12-15,000	Secondary School
20,000	Health Centre Social community centre Major market Neighbourhood park
20-30,000	Light Industrial area
50,000	Police station
80,000	Branch Library

URBAN FACILITIES RELATED TO POPULATION CATCHMENT.

<u>POPULATION CATCHMENT</u>	<u>FACILITIES</u>
100,000	Major shopping centre, Fire station, Major sports centre, Swimming pool, Assembly Hall, Restaurant, Cinema.
200,000	Area Administrative Offices
250,000	Bus station, Hotel, Further Education, Secondary Commercial Centre.



- Residential Estates
- 1 Kitisuru
 - 2 Loresha
 - 3 Spring Valley
 - 4 Roslyn
 - 5 Gigiri
 - 6 Ridgeways
 - 7 Garden
 - 8 Ruroka
 - 9 Mountain Valley
 - 10 Hardy
 - 11 Karen
-
- Duke of York School
 - Drive-In Cinemas
 - Veterinary Department
 - Meteorological Department
 - Mitchell Park
 - Race Course
 - Nairobi Dam
 - Military Camps
 - Sisal Plantations

scale 1:50,000

NAIROBI

PROPOSED KAREN SHOPPING CENTRE - LOCATION PLAN

Site Selection

The site selected for the proposed suburban commercial centre is in the vicinity of the intersection of Ngong Road and Langata Road. The site is approximately 15 kilometres from the Nairobi City Centre.

The site was chosen because (i) it is on two major roads and hence accessible from the surrounding districts by these two main roads and other secondary roads feeding them; (ii) the centre is very likely to thrive since there will be industry and high-density housing located just nearby; (iii) a large amount of open space is available in the vicinity - therefore, acquisition cost is relatively low, and maximum flexibility in terms of land planning can be found.

Physical Aspects of the Site

.5.1. Land form and Topography -

The site is predominately flat on the western part, but gently rolling towards the eastern side.

.5.2. Soils

Predominantly black cotton soils with occasional occurrence of murram and red soils here and there.

.5.3. Vegetation

Mainly grass. Some groups of eucalyptus trees and dots of shrub-bushes grow on the eastern side of the material site along the Karen Road.

.5.4. Surface and Sub-surface Water Patterns -

Drainage slightly difficult partly because of the presense of the impervious and water-logged black cotton soils and partly because of the general flatness of the site. Efficient drainage will necessiate removal of the top layer of black cotton soil.

.5.5. Existing Land Use and Activities of the Site.

The tree-less western part of the site is mainly used as a playing field while the eastern area (with trees and shrubs) is mainly used for residential purposes (very sparcely built). The central part (near and along Langata Road) is occupied by a primary school, church, social hall, and a market.

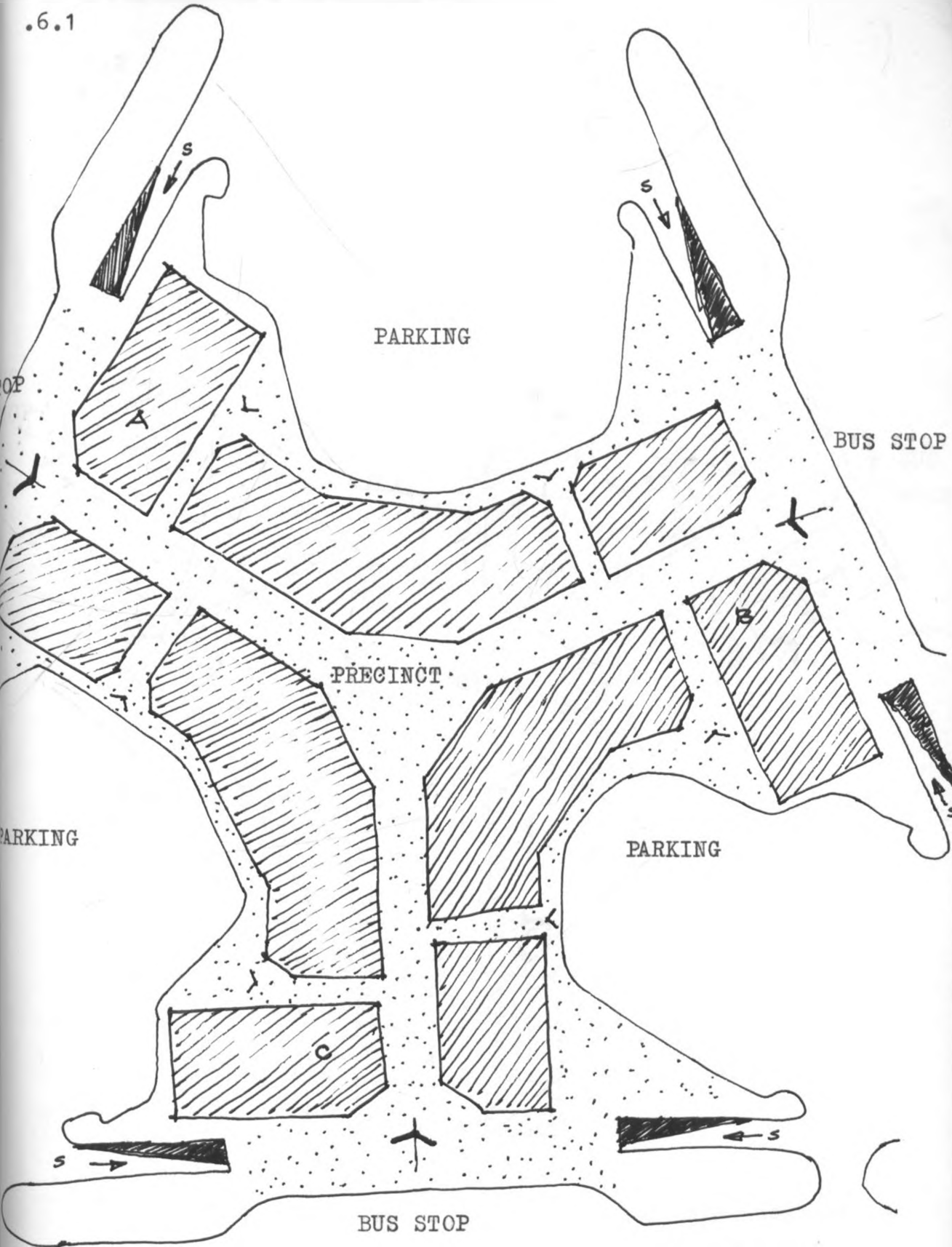
A V.O.K. training post is also located there. Just at the intersection of Ngong Road and Langata Road (but outside the site of proposed centre) are the Karen Shopping centre and a police station. The existing shopping centre is to be replaced by the proposed new centre. Charcoal damping places occur here and there in the actual site and in the surrounding vicinity.

. 5. 6. Proposed Land Uses

The area surrounded by the Ngong Road, Karen Road and Langata Road is to be developed for residential, commercial and social purposes. The area to the north of Ngong Road and South of Langata Road will be developed for low/medium - cost housing while the area to the east of Karen Road will be used for industrial development.

6.6 Alternative Solutions (Plans)

.6.1

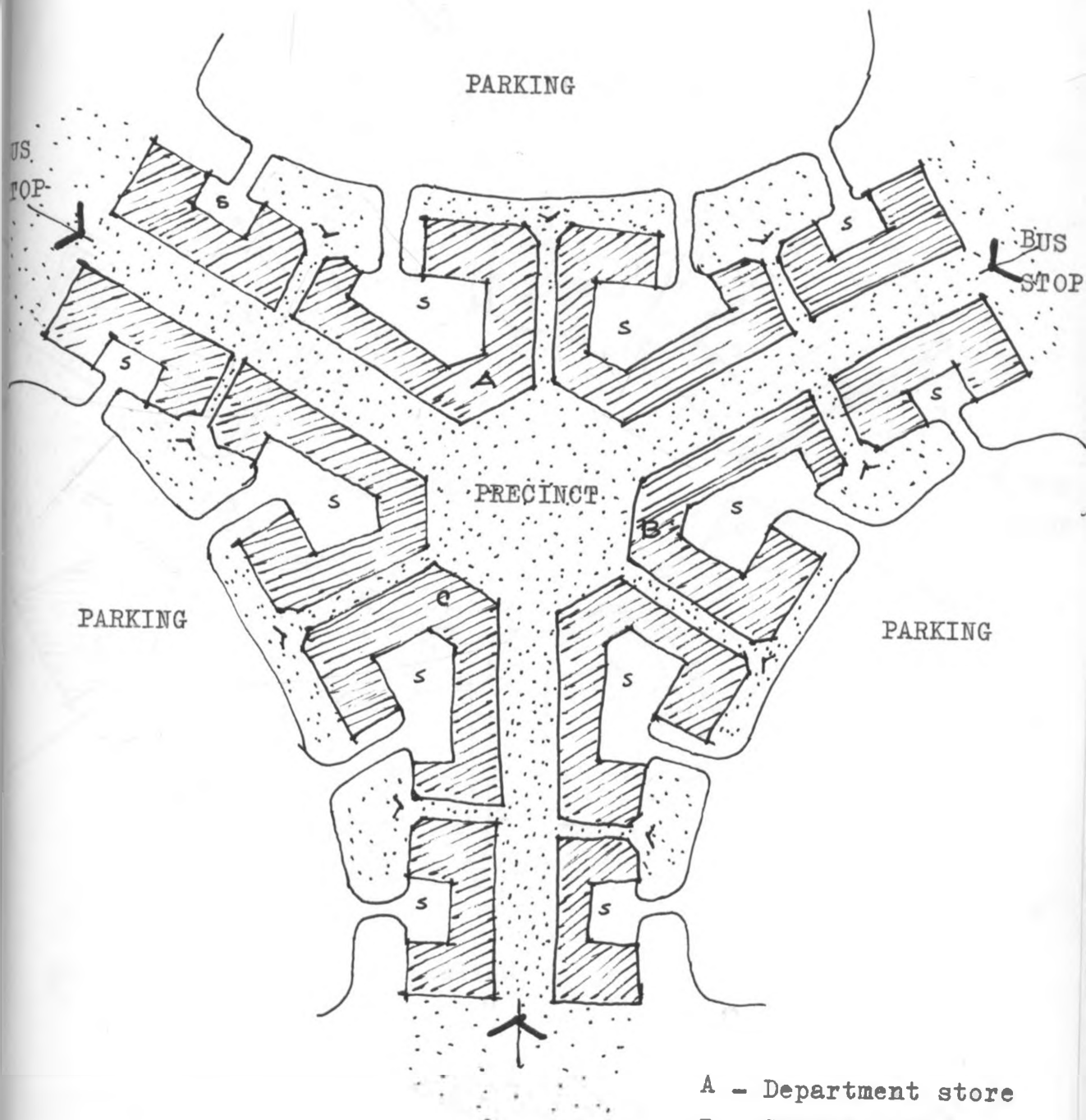


- A - Department store
- B - Supermarket
- C - Market hall
- S - Service tunnel

ALTERNATIVE 1

6.6 Alternative Solutions (Plans)

.6.2



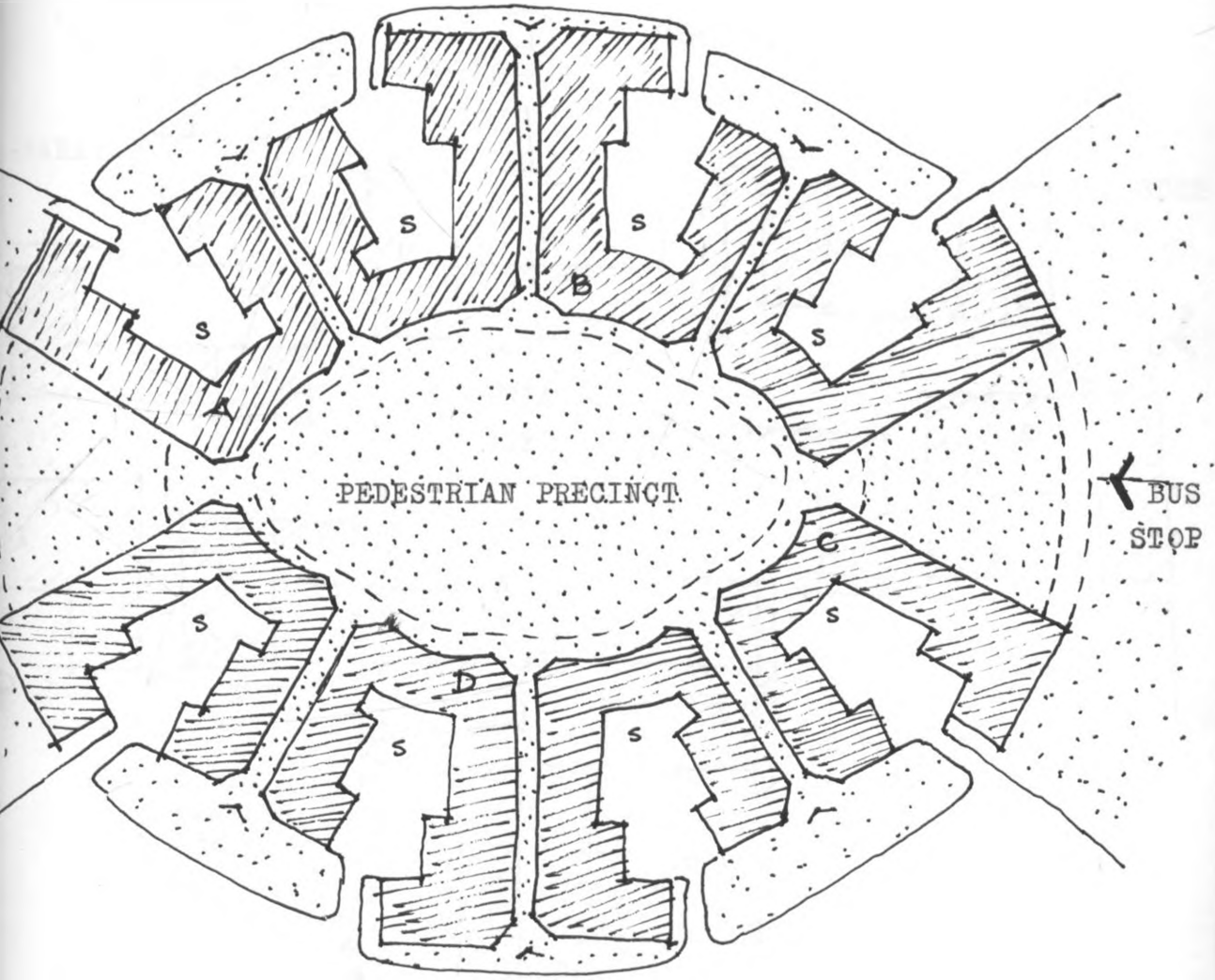
- A - Department store
- B - Supermarket
- C - Market hall
- S - Service court

ALTERNATIVE 1 - VARIATION

6.6 Alternative Solutions (plans)

.6.3

PARKING

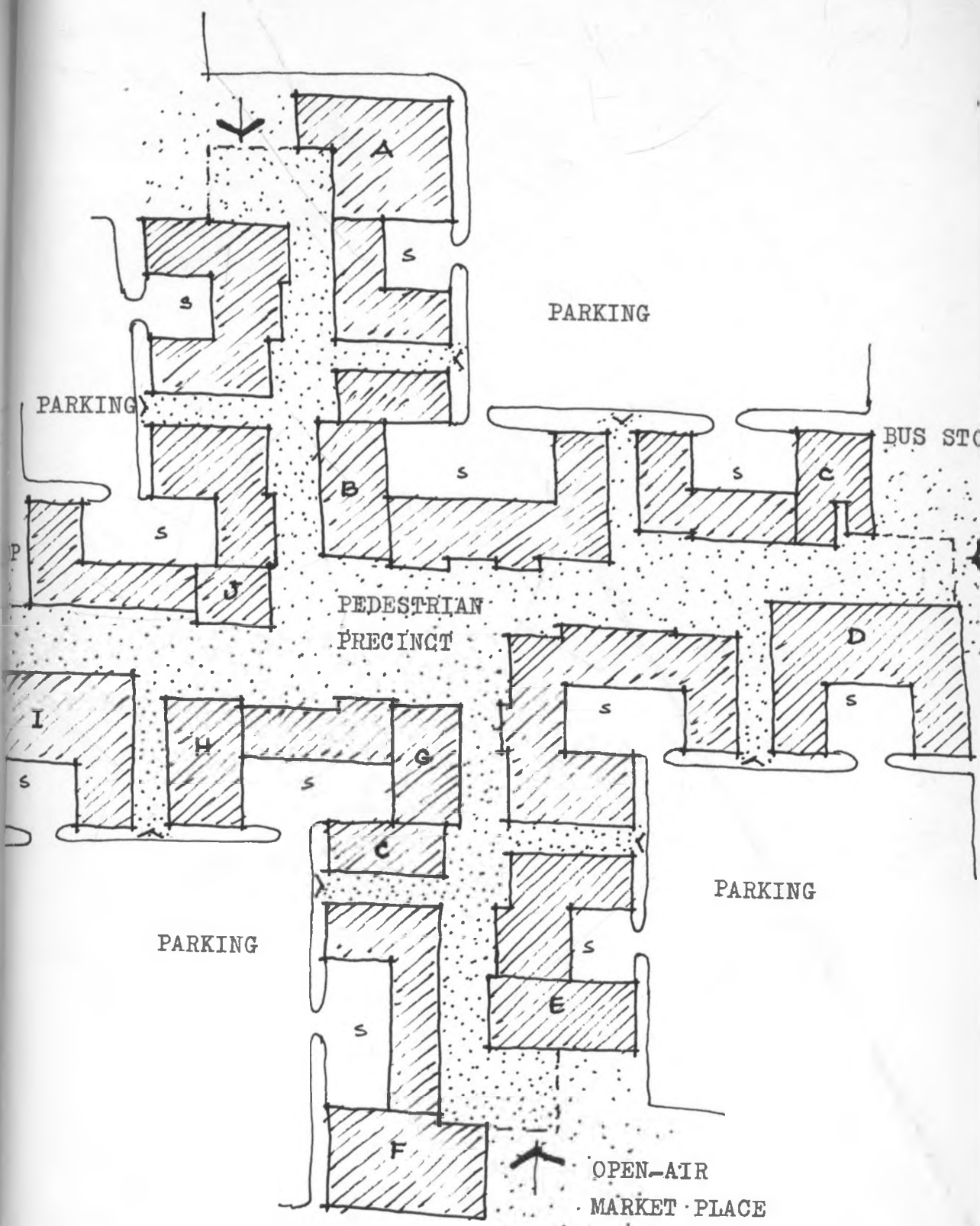


PARKING

- A & C - Department stores
- B - Supermarket
- D - Market hall
- S - Service courts

TERNATIVE 2

ALTERNATIVE 3 - PREFERRED



- F - Wholesale market hall
- G - Junior supermarket
- H - Cinema
- I - Department store
- J - Restaurant
- S - Service courts

- A - Community centre
- B - Junior department store
- C - Post Offices
- D - Supermarket
- E - Enclosed retail market hall

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