CHAPTER V

FUNCTIONAL AREAS

In quite a large number of cases, the location of a city is usually explained by site conditions, the structure and the morphological growth are guided by topographic control and impact of historical events; but the functional distribution in a city unlike the last two, is the result of a large number of forces including even some social, and economic laws.

The overall acknowledged fact, that the cities are mostly multifunctional raises a problem for the geographer of offering fitting explanations for the distinct areal distribution of these functions in the city. It is observed, that each individual function has occupied or is in the process of occupying a suitable area—measuring in proportion to its importance—that may ensure maximum advantage to the function and secure for it a fairly long life.

Such areas, where a particular set of functions are clustered with their allied features, are known as the 'functional areas' a word suggested by Prof. James. There seems to be no concensus of opinion on this word and arbitrary choices have been expressed by different geographers in

their writings, as a result of which substitutes like 'functional regions' and 'functional zones' have been introduced in geographical literature.

In a city where no compactness of area with singleness of function can be achieved, the use of words like 'functional zones' or 'functional regions' seems to suggest an extravagant attachment to conventional terminology.

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1. Prof. Dickinson has discussed functional areas, under the caption 'Regions within the city' in chapter V of 'city region and regionalism' and uses the word 'functional regions' which he attributes to certain other geographer, and identifies with the natural area of the ecologist. 'City, (regemon and regionalism' p. 144

In his other book 'The western European city' illustrated the structure of some German towns, under the title 'functional zones'. He seems to have ignored the distinction between 'land use map' and the map showing functional areas. His map showing the functional zones of Breslan, shows the zones which do not exclusively belong to the latter category. These are as follows:


This is very confusing. It seems to be a peculiar blending of functional areas like industrial zones on the one hand, and the land-use categories like fully built-up zone on the other. The inner zone and partly or wholly built-up areas do not prove the existence of any function, apart from the fact that main roads and railways do not strictly form functional zones. An uniform scheme seems to be lamentably lacking.

In his study of 'Rangoon' Prof. spate uses functional topography, which corresponds with the functional areas 'Rangoon a study in Urban Geography' Geog. Review, Vol. 32, 1942 p. 69
Region suggests a board areal expanse, and can hardly take into account small enclaves or pockets with an altogether different function from that indicated for the region, in the urban complex. 'Functional zones' is on the other hand repeatedly used in planning literature and also suggested by many geographers, but it is clear that even on the town planning-maps, broad zones existing in sequential order do not appear, and though the word has taken a place in literature, it hardly justified its use geographically. For geographers, who are intimately concerned with areal distribution and differentiation the term 'functional areas' appears suitable.

1. Smailles uses the word 'urban regions' though he does not confine the use of this word only to functional areas, but his word encompasses also the physical form and arrangement of the spaces and buildings.

"When within an urban area, we recognize industrial belts, shopping areas, residential quarters and such like, we are expressing the internal structure of the town in terms of the different uses of urban land. It can also be described in terms of physical form and arrangement of spaces and buildings that compose the urban landscape or townscape as it may be called. Differences in either or both these intimately related aspects of urban morphology, function and form, give a basis for the recognition of 'urban regions'.

Smailles himself discussing the city under the heading 'urban zones' takes notice of the azonal factors which lead/imperfect zoning. " It is evident, therefore, that although there is a tendency to zoning, both of functions and of forms that express these functions as well as the date of urban extension, the zoning must be imperfect. It is not to be expected that towns will show the idealized arrangement of a central core enclosed by successive complete zones". Smailles A. 'Geography of Towns' p. 99.
and much in line with their purpose.

Dickinson has laid particular emphasis on the study of functional areas, for their study incorporates the effects brought about by topographic features and historical developments. The creation of functional areas is an inevitable fact in any city of proportions, the variation is only in the degree of segregation.

Bombay shows some broadly distinguished functional areas. Patches of functional areas are spread all over the city. In case of Bombay, it is not only the social and economic laws which have operated to produce the present design of functional distribution; equally important is the topographic control, which has provided some guidance for the location of functional areas.

The uneven island of Bombay presents variety of earth surfaces in the geographical sense and predicts the suitability of site for some particular purpose, as the site requirements differ from function to function and sometimes even distinctions and grades have been formed in similar functional areas because of topography. The residential, industrial and such other functional areas are equally affected by surface configuration. Better residential...

1. "...much more important is the formation of distinct districts whose functional character depends not only on position in relation to the centre, but also on conditions of topography and of historical developments" Smalies" Geography of Towns" p. 137
areas on ridge, as one can find on Malabar hill along ridge road, and industrial suburbs on the low ground are the common features of many industrial towns, primarily as a result of topographic control. This is commonly found in Bombay and has come to the stage of generalisation.

The location of industries, parks, gardens and open spaces is substantially guided by the physical terrain. The former in quest of cheap land and easy access to lines of communication is pushed to the urban peripheries on the low swampy lands not suitable for other utilities. The lower margins of Bombay city in Sewri, Worli, Wadala and elsewhere are well utilised for industrial purposes.

Other economic and historical factors responsible for the creation of functional areas are many. These will be considered while discussing individual areas. It has been seen that Bombay is a commercial and industrial city and industry and commerce are the dominant functions of the city, in addition to residence which is equally important in all the cities irrespective of their functional character.

The following types of functional areas can be recognized in the city.

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1. 'Broken hilly ground holds out definite attraction for residential development, but is far less satisfactory for industry, comparatively flat low lying land along alluvial valley floor and even reclaimed fore-shore is often very suitable for factories especially as it is favoured in respect of rail and water transport' p. 99 ibid.
1. Residential area
2. Industrial areas
3. Business areas
4. Retail and neighbourhood shopping centres
5. Recreative open spaces
6. Public buildings
7. Areas covered by transport routes
9. Patches of educational bodies

**Residential areas**:-

In Bombay as in any other city, the residential areas do not occur in set patterns. There are only a few exclusively residential areas in the city. With every wave of urban expansion have appeared patches of residential areas, consequent upon the industrial and commercial progress of the city. One thing is obvious, i.e. the residential areas seem to cover alternative belts from south to north, interspersed by the areas devoted to some function other than residence.

On the map (in the jacket on the last page) appears a fairly compact residential area reminiscent of old Bombay in the extreme south of the city, covering entire Colaba and part of Fort area.

This residential area, is the product of its location in the vicinity of Fort, which in the 16th century, was representative of the city. While with the growth of the city
the Fort became the C. B. D. of Bombay, of fort became residential. Colaba initially was a separate island connected with the main island of Bombay by a causeway, and was exclusively a residential area. Later the southern part of Colaba was given under military occupation, but the residential character of Colaba proper has continued right up to the present day. The western half of this residential area is newly reclaimed, and is not densely peopled and completely built-up, but it has been reserved for residential purposes and can be called a potential residential area.

With the development of trade and commerce, the area immediately north of Colaba started gathering momentum to claim the status of commercial core of the city. The rising commercial activity brought upon the city a larger pressure of population, which started settling north of the commercial core, to have the advantage of latter's vicinity. This formed a second belt of residential - though not exclusively residential area north of the commercial core of the city.

The second phase in the life of the city was one of industrial advancement, which gave rise to an industrial zone north of the preceding or second residential area. The central line dividing this zone in two parts passes along Fergusson road in the west of western railway and along Kalachowki road on the east. The development of this industrial area had certain repercussions in the growth of the city.
Rapid increase in population necessitated more of residential accommodation, as a result of which appeared the clumsy chawls of industrial neighbourhood and a residential area to the north of the industrial area.

The residential area north of the industrial area lies beyond the lines joining Sewri railway station on the east and Worli village to the west, and extends right on to Matunga and Mahim. The northernmost part of this area is comparatively recent in origin and is ascribed to the post-war industrial progress and increase in population in the city.

In addition to the small patches here and there the residential areas in the city are spread in five broad groups.

1. Extreme south of Bombay, South of 'Fort,' including Colaba.

2. North of 'Fort,' which is business cum residential area, and includes Girgaum, Khetwadi, Kumbharwada Dhobitalao and Phanaswadi on the west and Nagpada, Khaaratatalao and Dongri on the east with Kamathipura the typical slum area in the centre, including part of Kumbharwada and Khetwadi, which form secondary business districts. This area commands more than 50% of the city's population.

3. The residential area north of the industrial core of
the city, quite extensive in its outline, is not fully built up. It occupies the level land in the vicinity of mills and workshops taking in its hold many secondary business and neighbourhood shopping areas. This includes Worli, Lower Parel, North part of Sewari, Naigaon, Prabhadevi and Dadar.

4. The northern most part of this city, which is more a residential area than anything else. It is still in the shaping and new buildings are coming every year. This includes Mahim and Sion. Quite a large portion of this area along the eastern margin is covered with salt-pans, below the high-tide-water-line. Mahim on the west is the old residential area, where residential quarters had come into being around the nucleus of the Fort, even during the Hindu period.

5. An area of the residence for aristocracy, lies on the extreme west on Malbar hill overlooking the whole city. This is a specially built up area, where bungalows and single family flats predominate. A similar residential area exists on Paddar Road and Alta Mount road. These two areas are the highest parts on the island — more hygienic and fine environs, with higher land — value — where only the upper class people can afford to live. These two areas are different from the remaining residential areas
in many respects, and particularly so in the status of the occupants.

These residential areas, grouped broadly, can be further considered in the light of their age, intensiveness of land use and economic grade.

The age of the buildings in the different areas decreases in the order of development. The residential area in Colaba is one of the oldest built-up area of the city, inhabited and built up immediately after the immigration of Europeans, though the native population inhabited in the indigenous houses was already settled in Girgaum, north of the fort. Today, the old buildings of indigenous types have disappeared from Girgaum and their remnants may be seen in some pockets. Colaba, however, yet claim to possess some of the oldest buildings, constructed in 16th century. One may say Colaba was the administrative suburb of Bombay, when the city had not developed industry and commerce. This explains, the presence of old buildings in part of Colaba, though new buildings with modern architectural pattern are fast appearing on the reclaimed grounds.

Equally old or a little younger in age to Colaba

1. One can observe some houses of priests and others who thrive on the charity of visitors to walkeshwar temple, which are very old. Outmoded in style these houses belong to Hindu period. This area, however, does not cover more than an acre of land and so is not very significant.
buildings are the residential houses in Khetwadi, Dhobitalao and Kumbharwada. The buildings in the vicinity of Textile mills in the industrial belt of the city, though comparatively younger, apparently appear to be much worn out and old. This has happened due to inadequate investment in the construction of these buildings, which have very early succumbed to age and are even dilapidated.

The age pattern of the buildings in different residential areas is determined by their position in the chronological order showing the development of the city. Since the growth of the city gradually proceeded from South to North—with few exceptions where new area has been used for residential purposes or where renovation has taken place—the buildings are younger in age as one moves from south to north. This is not applicable to the main business district, where a large number of buildings for commercial and administrative purposes have appeared within the last fifty years.

Some of these areas, which have been recently built-up have buildings young in age. This has happened in Sion, Wadala, Dadar, Matunga, Mahim and also beyond the Mahim causeway in Greater-Bombay. The vacant and reclaimed land near Marine drive has also now been covered by good residential buildings. Likewise, the hilly Malabar area is gradually being filled up with residential structures. Similar new buildings are also coming up along Worli-sea-face.
It seems the areas on the outer-boundaries, which have lately attracted the notice of the people, are gradually being filled up with residential buildings, in addition to the areas which could not be built up until lately due to high land values. The flats along Marine Drive, Jamshedji Tata Road, newly reclaimed land in Colaba, and Malabar hill came up very lately primarily because of high land value.

Leaving aside the exceptions, based on many other considerations, the age of buildings in an area is roughly proportionate to the radial distance from the core of the city. This is not the case only with Bombay "in most cities, the average age of dwellings decreases with greater distance from the heart of the city except for certain irregularities maintained elsewhere". Though it is observed by many sociologists that "growth of the city obviously accounts in large measure for the concentric age-pattern of dwellings; yet it is not always in concentric form, because of topographic control. The age gradually decreases from

1. J. A. Quinin 'The Urban Sociology' p. 92
2. When the city is small, homes tend to cluster close to the dominant business centre for convenience. As the population increases and requires more homes, some few will be built among the existing dwellings, but a larger number will be located on the vacant land toward the outskirts. As the city continues to grow, the greater proportion of new buildings continues to be erected on the less intensively utilized land of outer zones. Until a second cycle of residential building leads to wrecking of old residences near the heart of the city and their replacement by new buildings. The normal concentric pattern of urban expansion makes

continued on next page.
the nucleus to the outskirts.

Not only the distance from the central core, but height of an area has been an equally important indication of the relative age of the town. The buildings on Malabar hill are positively younger than the buildings on the level surface over the island. Irregularities not fitting in this generalisation are observed on a number of places in the city. The residential areas in Mahim, Dharavi and Wadala are much younger in their building developments than Bandra and Ghatkopar, though the latter are lying at greater distances from the city core. This was not because of the high land values in Dharavi and Wadala, but because of their unsuitability due to bad environs and marshy nature of the ground. Any area remains unbuilt when the land is either unsuitable or it is too suitable for residential purposes. Availability of better land does not allow the development of the former type and the high cost of land comes in the way of the development of second type of land.

Similar irregularity will be very shortly observed, when the slum area of Kamathipura is renovated; In that case the buildings will be much younger than the buildings in the residential area to the north, which otherwise were younger in age than the buildings at Kamathipura. The

( Note continued from last page... )

for an age distribution in which progressively older Buildings occupy more central area. Ibid.
irregularity in the age pattern is either due to the persistence of older houses in recently developed areas and newer additions and replacements in older areas. But such irregularities are few in number as compared with the total number of dwellings in the zone they occur.

In Bombay the residential areas in Kalbadevi, Girgaum Sandhurst road, Khetwadi and Naigaon etc. are occupied by large number of families. Buildings under individual to tenantship are seldom observed. In addition other causes like congestion, inadequate open space and loss of privacy, in such locality which exercise a repelling effect, the high rent of buildings is also a condition with which families desiring to live separately can not cope with, and those willing to share the building with other families can collectively outbid those desiring to stay singly. The rich family always prefers to own a flat and stay somewhere outside the city, where from a regular visit is possible in private automobile. The residential areas in the vicinity of harbour in Bori bunder, Mandvi, Umarkhadi and Mazagaon, are also studded with multifamily buildings. Nearness to railways and factories also produces similar effects by attracting low-income-groups of families who live in groups. This is the case in Prabhadevi, Worli and Parel.

Residential buildings in Girgaum, Bhuleswar, Kumbharwada have been long vacated by rich people, as they progressively
become dilapidated. And these buildings are in turn occupied by low-income people.

The residential areas can be well distinguished on the basis of the economic status of the occupants. The area occupied by rich people include Malabar, Cumballa hill, Marine drive, J. Tata road, Mt. St. Mary ridge in Bandra, Worli sea face, and the area just south of the C. B. D. of Bombay. From the map it can be observed that well-drained sites with higher elevation, airy and commanding extensive views have been usually claimed by high class residences, which not only avoid less favourable terrain for building, but also undesirable neighbourhood such as those of factories, railway lines marshalling yards, port areas and such other neighbourhoods which cause nuisance.

The economic standard of the people varies from low to high area and the upper and lower parts of the town area of socially upper and lower classes as well. This seems to be true for practically all towns and Bombay is not an exception. Secondly the older the buildings, the poorer are the people. This is because, the internal arrangement in the building, the light, ventilation, condition of cleanliness and repair are some aspects of building characteristics which are much more up-to-date and hygienic in modern buildings than in the old ones, and therefore such buildings have obviously attracted

1. Smailes A. "Geography of Towns" p. 90
the well-to-do people. The poor normally have taken the compromising attitude and are settled in the areas with the old buildings.

The areas inhabited by rich people in the city are immune from noise, dirt, smell or such other nuisances that normally prevail in an industrial city. On the contrary closeness to shop or factories seems to stimulate the provision of low grade housing for the labourers employed locally. This is exactly the case with the central residential area of Parel, Prabhadevi, Dadar, Sewri and Naigaon.

The northern part of the city near Mahim and Dharavi is populated with people, who are not rich but belong to middle class. These are mostly office-workers, and form a sizeable portion of the commuters moving to the urban core in the morning. Close to the fringes of the island are unreclaimed land, where some small industries appear, though higher and well-drained areas are occupied by people who can own buildings but cannot pay the high cost of plot in some exceptionally good area. This is quite in correspondence with similar other features in many other towns. Prof. Spate has observed similar phenomenon in the study of Rangoon.

1. 'The outer suburbs are interspersed with better residential areas on the ridge and industrial suburbs on the low ground' Spate O. H. K. and Trueblood 'Rangoon; a study in urban geography' Geographical Review, New York Vol. 32 1942 p. 70.
The rental value of the buildings in different residential area is an index of nature of buildings and the economic status of its occupants. In Bombay it is seen that the rentals tend to be higher on ridges and hills than on flatter ground. The rentals on the other hand go lower in certain localities, where rail road tracks, and yards, elevated railways and industrial developments make the neighbourhood of the main lines of transport less attractive. The buildings in such localities are occupied by the people who can not afford to spend more time and money in getting to their places of work, and prefer to stay close to lines of communication in the residential buildings of low rents. Of course, even in the same residential area of almost uniform and similar building characteristics, all the families complete in seeking out the most esteemed or accessible or pleasant residences possible within that portion of their incomes which they are willing to devote to shelter.

These are the broad groupings of residential buildings considered above, but one can seldom claim a distinct watertight sub grouping of different grades of houses. One finds often, an intermixture of different grades of buildings in

the same area. Cheap, single family shacks; beautiful well kept
mansion; large and high rent apartments; and crowded low grade
tenements all seem to exist very amicably in the same locality.
such cases, however, are rare.

The business and the commercial core/other areas

The city of Bombay, though not unifunctional is
primarily industrial and commercial in its functional character.
And as in any other city there are marked concentrations of
business, commercial and shopping areas. Shopping is widely
dispersed, in different localities, with marked concentration
in some areas.

The C. B. D. of Bombay

The central business and commercial district located in
the Fort area of the city is the focus of commercial, social
and civil life and of transportation. It is the down-town
with its department stores, smart shops, office-buildings,
clubs, banks, hotels, theatres, and museum. In addition to the
business institutions the area also accommodate a fairly good
number of public buildings, Government offices and social insti-
tutions.

This Central business district does not command a median
location in the city of Bombay, and the outline of the city
limits, can hardly justify the location of the central business
district, centred over the south eastern part of the city. (Fig 53)
This non-median location of the core, is not explained by the
economy of costs, but by the historical development and the
ACROSS SECTION OF BOMBAY C.B.D. (FORT)

KEY
A. MUSEUM
B. ROYAL INSTITUTE OF SCIENCE
C. JEMHARIR ART GALLERY
D. ELPHINSTONE COLLEGE
E. OLD SECRETARIAT
F. OPTICIAN
G. SASSOON LIBRARY
H. RHYTHM HOUSE
I. ROLEX WATCH CO.
J. OFFICES AND WHOLESALERS
K. OFFICE & SHOPS
L. OFFICES & SHOPS
M. OFFICE & SHOPS
N. UNIVERSITY OF BAY
O. HOTEL & OFFICES
P. INSURANCE COS. & ELECTRICAL WHOLESALERS
Q. LIFE INSURANCE CO.
R. CHEMIST & DRUGGISTS
S. SHOPS & OFFICES
T. INSURANCE & AIR TRANSPORT OFFICES
U. NATIONAL GRINDLAYS BANK LTD.
V. BANK & GOVT OFFICES
W. SHOPS & OFFICES
X. BANKS & OFFICES
Y. HIGI CORT
Z. HIGHT CORT & CENTRAL BANK OF INDIA
AA. WEST END WATCH CO.
AB. SHOPS AND OFFICES
AC. STORES AND OFFICES
AD. GOVT. OFFICES
AE. CENTRAL TELEGRAPH OFFICE
AF. SHOP AND OFFICES
AG. STORES (SECOND FLOOR - RESIDENTIAL)
AH. INSURANCE FIRMS
AI. CHARTERED BANK
AJ. SIDDHARTHA COLLEGE OF LAW
AK. BANK & OFFICES
AL. PARSI TEMPLE
AM. BANK & OFFICES
AN. PARSI TEMPLE
AO. STORES, RESTAURANTS & OFFICES
AP. STORES & TRAVEL AGENCY
AQ. BANK
AR. SHOPS & OFFICES
AS. STORES & OFFICES
AT. PARSI TEMPLE

MAHATMA GANDHI ROAD
RAMPART ROW
MUSEUM A
MAHATMA GANDHI ROAD

(CUSTOM HOUSE ROAD)

MAYO ROAD

(453)

(NOT TO THE SCALE)

(Fig. 53)
evolution of functional landscape of the city. This business core is recognized by the name (Fort) after a fort erected originally by Portuguese and later remodelled and renovated by the Britishers, who later pulled it down in the last quarter of the 19th century, to give a better lay out for the urban development. The derivation of the present name is not an uncommon aspect of nomenclature, and is an example of the universal practice of naming the down town after some important monument though the shape of and position of the area also provide suitable names.

Before the phase of industrialisation had appeared in the life of the city, the Fort was the centre for administrative and business activities, and with the rising tempo of commercial activities, due to the development of the port-facilities and increasing volume of international trade, the core became privileged in the sphere of business and commerce. The progress of industries in the expanding economy of the city, did not affect the business centre of the Fort which was well established in its place and remained unaffected, mainly, because the core as usual had emerged 'in consequence of specialization upon non-industrial and non-residential

1. (a)'The core becomes especially distinctive and is recognized by the use of a special name. Although this may derive in the first place from the description of its position, as for example the loop of Chicago, or the triangle of Saapolo, its connotation becomes increasingly identified with functional distinctiveness' Smiles A.C. "Geography of Towns" p. 91.

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functions, such as commerce, administration and other central services.

Not incorrectly, it can be inferred that the central business core is a product of the momentum, which the area received in the early stages of city-development, irrespective of its location. The core in Bombay appears to have flourished under the shadow of administrative function of the city, and derived adequate support from the commercial activities centred at the port, which is close to this area.

The business district of Bombay, popularly called the Fort, is not entirely commercial in its structural outlines and nature of activities. A large number of cultural and administrative institutions have also thronged there. The university of Bombay, the Royal institute of Science, the Tata institute of fundamental research, the K. E. Museum, and Jehangir Art Gallery; and the high court and the secretariat are some of the buildings which do put some discount on the commercial nature of this area (Fig. 53). But though it is true, that no further non-commercial appendage is planned, the fact remains that the central business district is not an area solely devoted to business and commercial purposes and it allows with it administrative and cultural functions as well.

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(b) In India particularly, the Fort, The Tower and the Chowk, (a central cross-road) are common. To quote only, a few: instances, the Fort of Bombay, 'Tower' of Baroda 'Esplanade' of Calcutta, 'Chowk' of Banaras, 'Lal Darwaja' of Ahmedabad - all represent the down town, named after some monuments of the past.

1. Ibid. p. 93
A very remarkable fact observed in the commercial core is the secondary segregation of educational, administrative and residential buildings in a small area. The business area here does not show what Dickinson calls 'The 100 % locations'. The clustering of co-functional establishments in the central business district is obvious in case of Bombay. The main business concerns occupy the road and street frontages and commercial establishments with multistoreyed buildings overlook the cross-roads and main avenues. The educational institutions are clustered on one side, and the residential buildings face the alleys in the rear of the exposed sights.

Multistoreyed buildings and some of them with the latest type of architecture are the conspicuous structural features of the Fort. The Royal Assurance and Mercantile Bank buildings are fine pieces of architecture in this part, besides the Reserve Bank of India's magnificent building. The area enjoys the most convenient accessibility from all parts of the city by Bus and railways. It is close to the railway terminus, tempting the commuters from distant places, and there is always a fleet of municipal buses operating. This results in an unusually heavy rush of traffic, specially in the morning and evening. This creates congestion on the roads, which in the

1. 'In regard to the segregation of functions in different sectors of the urban area, the most outstanding feature, common to every city is the law that its business and services concentrate in its centre" the 100 % locations" from all parts of the urban area" Dickinson " City region and regionalism" p. 96."
view of many sociologists is more an indication of life rather than an evil of planning.

The shops in the Fort area, cover almost all varieties, including wholesale and retail shops and the shops dealing in all types of convenient and luxury goods. Though the off-median location does not justify, yet a large number of wholesale concerns are found in the Fort area. In case of wholesale traders who supply stores in all parts of the city and perhaps in the hinterland, location near the metropolitan median proves desirable, but Fort does not occupy the desired position, still provides unique advantage of vicinity to the harbour area, to the wholesale dealers, causing unfailing attractions to them. Ready availability of imported consignment is a factor heavily weighing with the wholesale dealers. Provision of storage facilities is another consideration, which does exercise its weight in the locational calculus of wholesale-trade area. This demands the availability of cheap land, which is not a feasible

1. "If the town-town gets choked with traffic, the phenomenon may be less an illness than the exuberance of a well functioning organism. The proximity to each other of financial office, retail and entertainment functions is usually an asset inspite of the fact, that concentration of successful brings congestion. The very fact of congestion is proof that the town-town is alive. But at a certain point an equilibrium develops in which the inconveniences of driving and parking are a sufficient deterrent to reduce the proportion of people willing to drive. Congestion is thus a rationing or allocative instrument, albeit, a not very efficient one which helps to balance the benefits of down-town-concentration against the cost".

Martin Meyerson and Barbara Terret 'Metropolis lost and Metropolis regained' 'Annals of the American Academy of political and Social sciences' Vol 314 Nov 1957 p. 2
proposition in the Fort, and the chances of wholesale-business apparently seem to be reduced in the Fort-area, though in reality it is not so. Firstly the nature of commodities in case of certain business is such that they do not require extensive space for storage e.g. watches, jewellery, paper etc. In case of other commodities having more of bulk like cloth, furniture, iron, and steels goods etc., only the model goods are kept in the show-case as samples, but the actual supply is made from the godown located elsewhere. Only the bargain is settled here, on the basis of the samples available in the shop, the supply is made, afterwards from the godown and the goods are delivered at the required destination.

Internal differentiation in the business distinct is also developed. Shops of similar nature lie close together. It is a common feature that shops occupying the road frontage, do not vary from one to other in respect of the nature of the commodities in which they deal. One finds a number of shops continuously dealing in one commodity for some years, and then giving place to other. In one section of the road frontage one will find jewellery, another watches, then radios, or gramophones, general stores, cloth and books and so on. This allows the customers to compare prices and quality.

The reason normally advanced for the close association of a number of shops dealing in similar commodity is in a large degree the unstandardized nature of the goods. "The diamond
merchants, the art-dealers, the high-style-clothing shop, all offer products which are unstandardized in character and require face to face communication. The buyer of all these products will wish to see them and engage in comparative shopping, before making a purchase. The seller, on the other hand, whose product can not be shopped at minimum cost to the buyer will be handicapped in the market, and his handicap will increase in proportion as the product is unstandardized.

This is the area with maximum day-time population, as it is full of the commuters coming from within or beyond the municipal limit. A multitude of people is observed in the morning, coming out of and going to the termini of both Central and Western Railways. The day here is humming with activities and crowded of people appears moving in one direction or the other, but in the night it is practically deserted, except for the care-takers and watch-men, who pass their nights in the shadow of those-buildings, claiming the ownership of the buildings for half of their life. In about all big cities, this is feature of the core. John K. Wright has given an inspiring account of New-York, where an identical aspect is observed.


2. "The core of Manhattan is like a gigantic respiratory system that morning and evening inhales and exhales an immense breath of people. The financial quarters are deserted late at night and on Sundays and holidays. Core is one of the most sparsely populated part of Manhattan."

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In addition to the central business core, there are a large number of shopping areas of secondary importance all over the city. In general business and shops in built-up-areas consist of solid linear developments along streets, with frequently the entire frontage given over to shops. This being the case, that along all the streets and roads there are shops, there seems little possibility of well defined business area, still there are some chief shopping areas either in the form of markets or in the form of neighbourhood shopping centres.

The chief areas in the S.E. part of the city include Market, part of Kalbadevi, Mandvi, and Princess Street. The Crawford market popularly called the 'Market' deals in fruits, eggs, vegetables and supplies many other perishable goods. Kalbadevi is the centre of wholesale cloth trade. Markets like 'Mangaldas', 'Laxmidas', Muljetha and Swadeshi are known for their cloth trade not only in the city, but all over India.

Crawford market also deals in leather and plastic goods, medicines, paints, hardware and many other goods. The area has the double advantage of being in the vicinity of Victoria Terminus, and near the harbour. A very prominent shopping street here is Princess Street, where many wholesale dealers have their offices located. Here is the commercial clearing house for the textile trade, conducted in the markets of Kalbadevi.

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This because as Prof. Jefferson has pointed out, censuses concern themselves with society asleep, though society asleep is not society any more than a cemetery is a social Community.


The 'Triangle of Opera-house' with its three sides formed by Sandhurst road, Charni road, and the Chaupati Sea-face, has its medium-size shopping area. Shopping development in this area is the result of large number of recreation facilities concentrated here. The pleasure grounds here in the form of 'movies of Operas' exercise a very strong pull of attraction, inviting evening crowd, which in turn has encouraged shopping. It is also a nodal point of city, transport and buses for all parts of the city are available. This easy accessibility has added another advantage for shopping-development.

An elongated area on the western end of the Grant road is obviously intended for neighbourhood shopping following the chief arterial road. This serves the residential area around. Some of the most congested residential areas are situated in its neighbourhood. Kamathipura, Khetwadi, Tardeo and even Mahalaxmi recognize the cross-road of Lemington and Grant road, as their main shopping area. The western extension of this shopping area along Grant road, culminating in Tardeo, meets the daily needs of Gowalia tank area, the latter being thickly peopled with the Maharastrian population.

The shopping here is not of wholesale type. Supply of minor domestic items, cloth, shoes, stationery, and such other things of daily necessity, can be made from here; Besides, a number of catering establishments common in any part of the city. High class foreign goods, like watches, radio sets,
special quality of cloth, and the like can not be obtained here, nor can be had any expert legal and commercial advice. Contact with banks, insurance firms and travel agencies is equally difficult. For all such things one is to rush to the 'Fort'.

In the centre of the residential area north of Market and Kalbadevi appears a small shopping area, occupying part of Kharatalao and Kumbharwada. This lies between the 2 slum areas of Khetwadi and Kamathipura to the north and the thickly peopled area of Girgaum and Phanas wadi to the south. In the same belt to the east, close to the Princess dock is a wholesale area in Umarkhadi, noted for its trade of grains and spices.

The 'T' shaped shopping area with Byculla railway station as its centre lies in the centre of the island of Bombay. The Byculla-market here is an important vegetable market in the city. In the middle of industrial area, a little to the north is Jacob-circle, popularly known as 'Sat-rasta'. This is a major shopping centre for areas both industrial and residential.

Along Superibagh road, the main arterial road of the city, is a ribbon-like shopping area, near Parel railway station. This serves Parel, Naigaon and the industrial and residential areas of Worli. This is followed by another important shopping centre which is more compact and centred around Dadar Tram Terminus. A larger variety of goods is available here, with the exception of some few items in which case approach to a
stockist is necessary. Specialised services are also available here in large measure, for which local clientele is adequate.

King circle and Matunga are typical neighbourhood shopping areas, where the nature of commodities is determined by the requirements of the people near by. One can observe the difference between the arrangement and nature of goods available in the shops at Matunga and Girgaum. The former is mostly inhabited by South Indians, while the latter by Maharastrians.

New shopping areas have appeared in the northern part of the island in response to the residential extensions, like Vadala and Mahim. Small shopping centres start developing with a milkshop, a barber's saloon, a cafeteria, a Laundry shop, a provision store, and so on, until both sides of the streets are fully occupied by such establishments.

In addition to those marked shopping areas, there are simple neighbourhood shops, which sell small items of daily household consumption, and are widely spread over the whole city in accordance with the distribution of population.

The chief shopping streets coincide with the chief pedestrian thoroughfare. As a result shops are usually facing all the roads, and streets. Thickly populated areas together with adequate and efficient transport facilities in many cases permit the existence of shopping areas.

In view of the large area of the city some more shopping areas are likely to be developed in a planned way. According
present proposals 'Bombay Central' and Dadar are considered to be the most suitable areas for this purpose. These two areas will avoid good deal of inconvenience faced by the people in the northern part of the island, who rush to Fort for any important material not available locally.

In addition to the shopping areas mentioned above there are 32 municipal and similar number of private markets in the city. These markets, unfortunately are not distributed in a planned way, and there are no well defined service areas for them. This drawback has been recognised also by the municipal authorities.

The first market came into existence in the year 1865, when control over markets stalls and slaughter houses was vested in the municipality. Hardly any markets existed prior to this and those that served the purpose were small, thoroughly unsatisfactory constructed sheds. The present markets are located in different parts of the city irrespective of their being business area or otherwise.

From the distribution map of markets (Fig. 52) it appears that there has been no rational distribution of markets, probably due to the absence of any planning organisation in the early days. The maximum concentration of markets appears in Market, Dhobitalao, Phanaswadi, Mandavi, and Umarkhadi. It seems the name of election ward "Market", is due to large concentration of markets here.

1. 'No detailed study has been given to the location of markets, nor an analysis made of the advantageousness or otherwise of their present locations and their effect on traffic" 'Greater Bombay, Master plan' p. 39
The assessment department of the municipal corporation has considered all types of small and big markets and their distribution appears as follows:

<table>
<thead>
<tr>
<th>Wards</th>
<th>No. of Markets</th>
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<tbody>
<tr>
<td>A</td>
<td>4</td>
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<td>B</td>
<td>3</td>
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<tr>
<td>C</td>
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<td>D</td>
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<td>E</td>
<td>11</td>
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<td>F</td>
<td>8</td>
</tr>
<tr>
<td>G</td>
<td>15</td>
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</tbody>
</table>

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The concentration of markets in 'C' ward, coinciding with the area immediately north of Carnac Road is due to residential-cum-commercial nature of this part. Some parts of the city are practically without any organised markets. West of Western railway, with the sole exception of Chaupati, there is no market, indication of inadequate planning. Likewise in Mazagaon there is no good market. More markets will be needed in the northern part of the city in future.

**Industrial areas**

Like the central business district, the city also has an industrial core. This is in the form of a belt running from west to east in the centre of the island (Fig.). This entire industrial area can be broadly split into 2 divisions, represented by the industrial areas lying to the west and the
the east of the railway-line, passing though the centre of the city. The western industrial area, however, lies west of Delisle road.

In the area enclosed by Delisle road on the east and Love grove and Annie Beasant road on the west, are concentrated a large number of textile mills. The area between Fergusson road and Globe mill road is almost exclusively industrial. Even in Lower Parel and Prabhadevi, north of Globe-mill road, appear an unusually large number of mills.

South of Fergusson road also there is a rectangle of industrial area fringed on the east by the railway line.

The eastern wing of this industrial area lies east of Delisle road and the central railway line, extending from Sewri to Parel and south upto the Victoria gardens. The entire industrial area is packed with large scale establishments mainly Textiles, both spinning and weaving. At many places it has been emphasised that the industrial area as it appears to-day in the city seems to have no planning consideration in its location. An explanation of this incorrect location of industries lies in the history of the industrial development of the city. In pre-planning age of 19th and beginning of 20th century, the location of these industries in the then suburbs of the city was quite justified. The mistake can be ascribed to the lack of fore-sight, on the part of the municipal corporation, which could not visualise the present explosion of the city, that has brought the mill area in the heart of the city.
MAIN TEXTILE MILLS IN BOMBAY-CITY
In addition to this pretty old industrial area, which is mostly covered with textile manufacturing mills, there are other small areas in the city, where some supplementary industries exist. A very fine example exists in Kumbharwada, where quite a large number of small workshops are facing the road. This is a small industrial enclave undertaking the work of repairs, turning, fitting, drilling, and also the manufacture of small parts of some simple machinery.

In northern part of Mazagaon bordering Sewri, is the centre of grain business. The place resembles the business area of an old Indian city, marked by unhygienic lay out and poor sanitation. Between Kamathipura and Golpitha is yet another small pocket, packed with tin-shaded hutments, occupied by small service industries like welding, nickelling and some casting works. Turning repair of motor parts and printing machinery, and manufacture of rotary oil machines form important features of this area.

The heavy industries always seek the peripheral areas and a large number of them have moved outside the island and located themselves in greater-Bombay. Even in Bombay, heavy industries are always found north of Byculla and Mazagaon. The southern half of the city is free of any large scale or heavy industry.
Leaving aside the textile manufacturing mills, a large number of saw-mills, boxes and packing cases factories, leather tanneries and leather finishing, Plastics, fine chemicals and Pharmaceuticals, bricks, tiles, and manufacturing of glass products are located in the northern part of the island.

At present the trend of movement is to the suburbs specially in case of large-scale and heavy industries. The industrial area mentioned earlier is the result of inertia of capital, but for which the industries would have certainly taken a move for peripheries. The industrial area in greater Bombay is a parallel ribbon to the central railway. Specially heavy industries are concentrated here. The location of industries along side the railways in the suburbs is an advantageous factor in cost-economy of the manufactured articles. Apart from the heavy industries like automobiles, bicycles, textile-machinery manufacturing works, Petroleum refinery, large number of brick-filns and tile-works are covering an adequate area.

The considerations which have encouraged the growth of heavy and large-scale industries in the suburb are many.

1. Heavy industries are large in size, the time factor that is the factor of immediate accessibility to the market is unimportant. They demand a large ground areas, they frequently have nuisance features, such as noise, odours, pollution, and fire-hazards; they have a serious problem of waste disposal; they require a large plant layout; They require large quantities of fuel and water; Their products as well as raw materials are bulky, so that they require extensive and contiguous railway or water transport (continued on next page.....)
Legal restrictions imposed by the authorities do not allow them to be established anywhere in the middle of the residential area. Besides, cheap land without losing accessibility to lines of communications are the chief desiderata in the location of heavy industries within a city. These conditions are found in general on the urban periphery and on low swampy lands not suitable for other utilities.

Public-Buildings

Hardly any fixed area can be spotted in Bombay for Public buildings, but the neighbourhood of central business district is privileged to have a large number of public buildings. The secretariat, the High Court, the Sales Tax and Income Tax office, the Council house, the Director of Industries office, the Supdt. city survey and land records in old custom house, are mainly accommodated in the Government buildings. A substantial portion of public offices is also working in hired buildings. The Ballard estate near Alexandra dock is the venue of many public buildings. One of the characteristic features of the Ballard estate is the speciousness in planning. All the public buildings like Bombay Port Trust building,

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facilities. All these conditions make the siting of such plants unsuitable for central districts and more suited to the fringes of the urban area. Such industries are meat-packing, petroleum storage, smelting, automobile, manufacture and assembly, timber and flour mills, power plants and gas work" Dickinson op.cit. p.125.

Textile Commissioner's office, Inspector General of Police Office, Navy recruitment building, are separated by well laid lanes giving the buildings an unique appearance.

The areas distinguished by the presence of public buildings are Ballard pier in the Fort, the terminus of M. K. Gandhi and Mayo roads near Flora fountain and along the Queens road, running parallel, to Western railways. Along Queens road, are mostly the offices of Central Government, some big concerns like Associated Cement, Travel agencies, and foreign consulates. Facing the Victoria Terminus railway station are two gigantic buildings of municipal corporation, built in Gothic and Neo-gothic styles. The two sides of oval and cooperage are fringed by a number of public buildings. The newly constructed 'Sachivalaya' - The secretariat is also in this area near ChowpattI reclamation ground.

It is not accidental that majority of public buildings are concentrated in the neighbourhood of central business district. The public buildings here are located right since the middle of the 19th century, and can not be moved elsewhere. The old custom house, the council house, the Mint, the High Court and General Post office, all are old constructions. The only new buildings of the present century are the 'The Reserve Bank' facing the mint-house and the museum, near the King Edward statue.

Offices and the public buildings do not seek a central position nor do they seem to have been guided by their
vicinity to some well marked functional areas. An obvious feature of the public buildings is their clustering or proximity to each other, in order to outcome the difficulty of their interdependence.

Another point of consideration for the location of public buildings is cheap and easy accessibility, marked with a high degree of accessibility the State-secretariat and the Central Government offices have also attracted large number of other public and private offices. Public buildings have usually avoided congested areas, clientele is not a consideration for them. The Government offices, do not provide for option like shops where the customers have a free choice, and look for a most convenient place.

As suggested earlier, there is nothing like educational area, but for obvious concentration of educational institutions in certain areas. The University of Bombay, the Elphistone College, the Royal Institute of Science are situated close together in a limited area, and form a patch of area occupied by educational bodies (Fig. 53). Another area where there is the congregation of some educational institutions is near Chowpathi, where Wilson College, Bharatiya Vidya Bhavan are close together. Similar area in Matunga is covered contiguously by V. J. T. Institute, Don Bosco-High school, Khalsa College and the University department of Chemical technology. The arts and Science colleges are distributed
all over the city, but they can hardly transform any locality into any thing like a functional area.

**Parks and Maidans.**

These are the open areas devoted to recreational functions of the city. The necessity of parks, maidans and gardens has not simply thrust upon the city in view of the 'beautiful-city' or 'Garden-city' approach of planning, but in addition, parks and maidans form the most suitable avenues for the recreational activities of the citizens.

West of the Fort, and parallel to it runs an open area comprising the Cross maidan, Oval and the Cooperage. These three maidans lie between Queens road on the west and M. K. Gandhi road, and Mayo road on the east (Fig. 34).

These open maidans owe their origin to the sportsmanship of British officials, in the early days of the city's history. What are now places for evening visit and occasional public shows were in those days used as 'Golf ground'. Lying in area which is not quite residential, these maidans at present do not fully justify their existence. It serves more of an aesthetic purpose. The building up of this area will inevitably lead to congestion and will change the character of this part of the city for the worse.

Acres of land are covered on the Malabar hill with gardens

1. Maidan in Marathi means an even open land.
which are natural pleasure grounds for the city people. The five gardens near King circle, Gowalia tank in the neighbourhood of Tardeo, Hanging gardens on the Malabar Hill, Kamgar maidan in Parel and Victoria gardens in Byculla are the chief open maidans of the city. (Fig. 34). Most of these places have been converted into maidans, parks or gardens, because of their unsuitability for other purposes. Sir.P. Shah Mehta garden lies on the top of water storage-tank, unsuitable for building. The Kamgar maidan was first a marshy area, but even after proper reclamation, it could not be claimed for constructional purposes, as it has attained some functional character, providing a suitable open space for the meeting of mill workers and the trade unionists.

Many times the maidans are associated with some historical events and they can not be wiped off from the face of the city. The cross-maidan in the Fort reminds the Martyrdom of some Indian revolutionaries, who were put in cross to terrify the Junta. Gowalia -tank, where 'Quite-India' resolution was passed by the Indian National Congress in 1942, has its own place in the history of our country.

Transport Thoroughfares

Transport does not have a compact area as residential or industrial functions have. It has linear routs on which the vehicles of transport move. The roads, of necessity, traverse all parts of the city and hence they can not be grouped in some specific areas. The configuration of the island
is mainly responsible for the north-south orientation of the chief arterial roads.

To share uniformly the urban traffic the two railways have occupied position on the two sides of the island. They appear to have kept close to the commercial and industrial areas. Their termini lie close to the business district, no doubt, an advantage for the commuters at the expense of convenient planning in future. Bombay is typical example of a city, where the railways penetrate through the centre of urban landscape. Besides the tracks, ample area is covered with marshalling yards, sidings and goods station.

The earlier development of railways through the centre of the city has not been necessarily to its advantage. Construction of a large number of over bridges, and bridge crossing on every station, have introduced complication in the urban plan.

**Harbour area**

The entire eastern sea-front from Alexandra dock to Sewri is the harbour area. This is studied with railway sidings of harbour branch, goods yards, godowns, all associated with the port activities. This area can be demarcated by fixing its western boundary along with the harbour branch of Central railway. This is an area exclusively devoted for port activities, loading and unloading of goods, their storage
in the pre-export and post-import stages. Here are also the petroleum godowns near Sewri, timber and coal storages and the cotton green, the famous cotton trade centre of Bombay.