

The Port-Capital City of Colombo: A Geographical Interpretation

COLOMBO is well known as the port-capital city of Ceylon. It has a very favourable external location astride the commercial sea routes of the Indian ocean. Its internal position, although eccentric, is focal, the result of an historical process, that of integrating the port with its productive hinterland by road and railway development, reminiscent of colonial enterprises, especially the British (after 1833). No less significant is the fact that Colombo, although not quite along the great circle routes of global air circulation, however, is linked with the international air transportation pattern through agreement with British Overseas Airways Corporation, Trans World Airlines, Qantas and Air Ceylon. Even in the Moscow-Jakarta air service, Colombo is an indispensable transit station.

The Site (Plate 1)

The present site (defined by the municipal boundaries) occupies about 8,957 acres. It is elongated in shape extending about 9 miles north-south and has a maximum width about 3 miles east-west. Its historic kernel has been the Fort area. From its core, it has spread out encompassing Pettah, Mutwal, Maradana and Colpetty. During British times, the first municipal boundaries of 1865 extended eastwards excluding the swampy lands of Kelani Ganga flood plain up to the Baseline Road. Bambalapitiya was the southern boundary. About 1910, Wellawatta area was added. By 1919, areas east of the Baseline Road as far as the river-canal-ela system were included. In 1951, Kirillapone area projected south eastwards as the 31st ward. The proposed extension of the site in 1959 considered the addition of Mahawatte area,¹ west of the Mahawatta Ela and Dambagoda area. (Fig. 1)

A part of the surface is either about sea level or little below it. Quite contrary to the idea of a flat landscape, there are heights more than 60 feet in Ellic House (Mutwal) and Maligakanda. Most of its surface is almost flat between 10-30 feet in elevation; some areas undulating between 31-40

1. *Ceylon Sessional Paper*, III—1957.

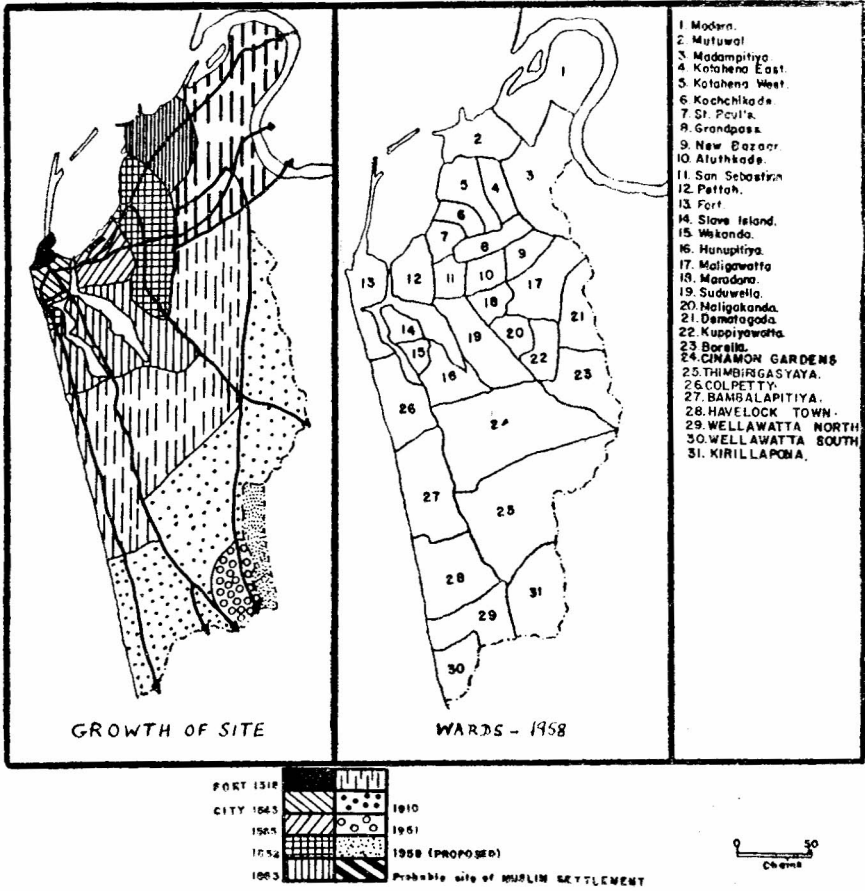


FIG. I



AN AERIAL VIEW OF COLOMBO CITY

Scale 1:40,000

THE PORT-CAPITAL CITY OF COLOMBO

feet, and few areas hilly like, above 50 feet. (Fig. 2). The surface may be divided into the following:²

- (1) the most built-up surface between 10-30 feet (about 5,400 acres)
- (2) the undulating and hilly tracts 31-50 feet and above (about 471 acres)
- (3) the low lying areas, below sea level to 4 feet (about 1,000 acres), 5 to 9 feet (about 1,875 acres).
- (4) the Beira lake (about 211 acres).

The built-up surfaces appear to have two advantages. Most of the area is above flood level, and secondly a good part is not subject to sea spray during the south west monsoon season. Besides, some of these lands have a firm laterite and lateritic base. Even in those areas with accumulated alluvial deposits, these are thick enough and characterize a 'terra firma'. The undulating and hilly tracts break the monotony of an otherwise flat landscape. These surfaces enhance the aesthetic beauty. The heights accommodate the city's water reservoirs and the natural gradients facilitate the gravity flow scheme of water distribution. The low lying areas, those of Kelani Ganga flood plain, are subject to seasonal flooding thus rendering them uninhabitable. The Beira lake whose original extent was more than double its present surface is a relict, revealing the geological past associated with subsidence. Apart from its commercial role as an industrial annexe to the port, it is of recreational value. Perhaps, it also influences the micro-climatology of the built-up areas around it.

The Kelani Ganga skirts only the northern margin of the city, the Beira lake so centrally situated in the townscape, and the connected canal system constitute the surface drainage. Due to the meanderings of the river and the regime it is subject to, floods are seasonal phenomena.³ Silting of some of the canals prevent quick run off aggravating the problem of flood water disposal.

Impact of the Elements of Climate

The humid heat (temperatures above 79°F and humidity above 68 per cent) so characteristic of Colombo's weather is typical of the tropical maritime type. The daily convectional rhythm especially felt and observable in the months of April and October with afternoon thunderstorms

2. See B. L. Panditaratna, "Functional Zones Colombo City" *University of Ceylon Review*, Vol. XIX, No. 2, 1961, pp. 138-165.

3. See, J. S. Cotton, *Control of the Kelani Ganga*. California, 1948. Also "Report of the Kelani Ganga flood protection scheme." *Department of Irrigation*. Colombo, 1948. (unpublished).

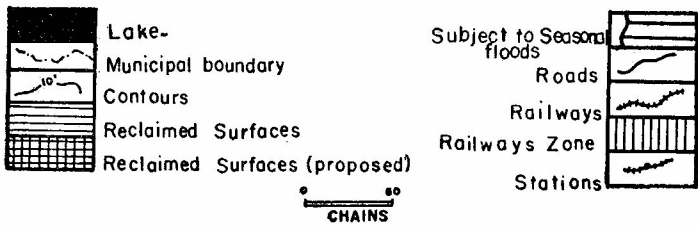
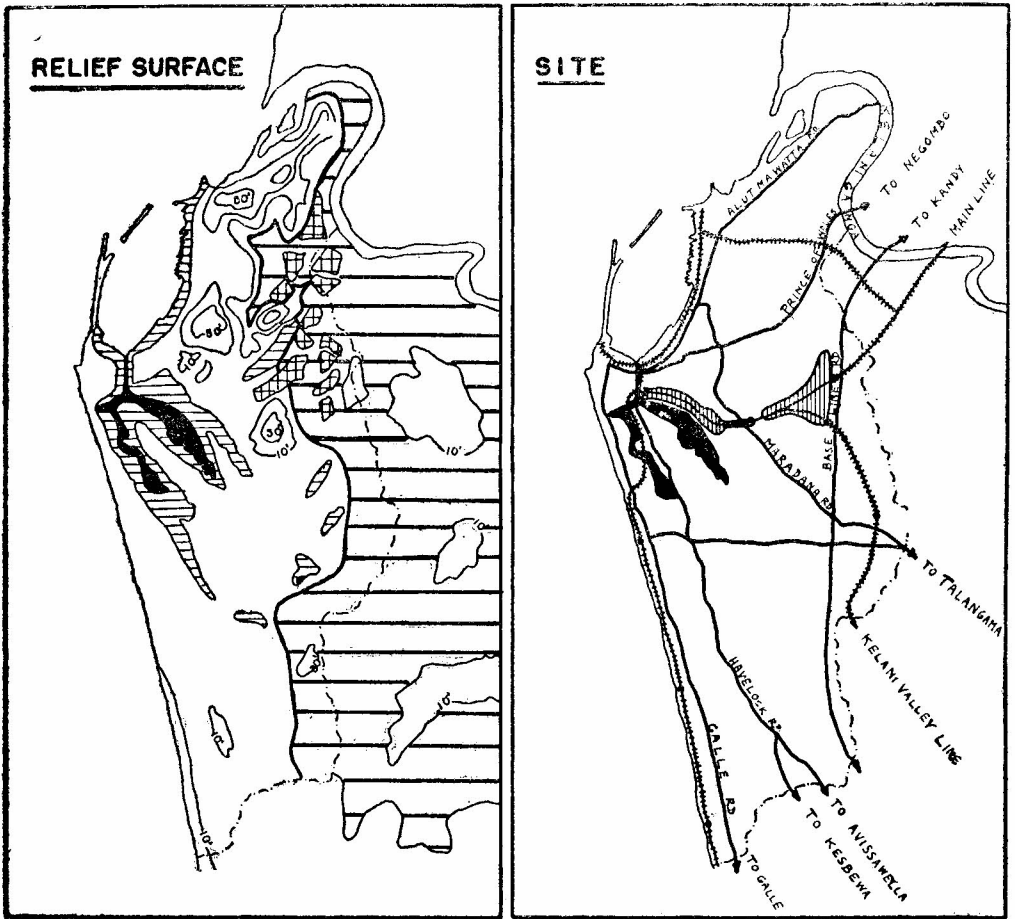


FIG. 2

THE PORT-CAPITAL CITY OF COLOMBO

and showers (when the monsoons are slack or retreating) is dominated by the monsoonal phenomena (south west, from May to July) which give variety in respect of rainfall incidence, distribution and effects. The total annual rainfall recorded at different stations within the city varies from 94 to 79 inches. There are two wet periods corresponding to the south west monsoons, receiving about 35-40 inches or 42-45 per cent of the total rainfall, and 20-25 per cent during the north east monsoon period. On the average, there are 174-190 wet days; May and June having more than 20 days for each month respectively.⁴ (Fig. 3).

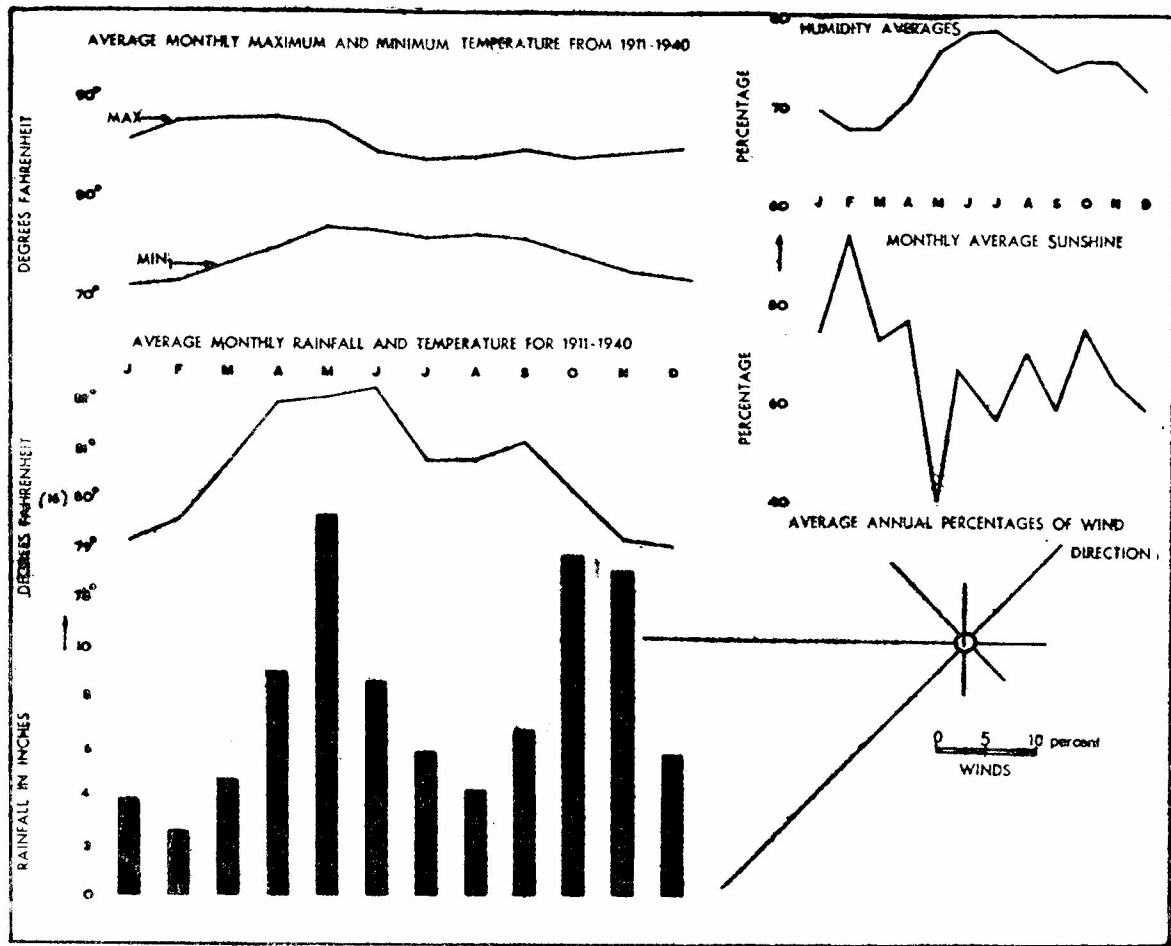
Rainfall both in its periodic occurrence and intensity of fall has an essential bearing on the economy of the city. The port of Colombo is chiefly an exporting outlet of agricultural produce and importing centre of foodstuffs. Rain is a hazard for these cargoes interfering adversely with the loading, unloading, storing, clearing and distributing activities. Methods of cargo handling, the very phasing and timing of such operations are conditioned mostly by rain, both the time of occurrence and intensity. In fact, monsoon rains in May-June account for the loss of many man hours, delay in port operations of loading or unloading. These delays cause congestion in the port of unloaded cargo liners or liners awaiting to be loaded, which inevitably lead to either demurrage, or ships skipping the port to its disadvantage.

Monsoon gales above 35 miles per hour accompanied with heavy rainfall and poor visibility are a hindrance to sailing especially the marine craft engaged in fishing. Wind force and direction influence the pilotage of ships into or out of the harbour. Even the pattern of berthing ships seems to alternate with changes in drifts, wind and spray. In general, the wind and spray during the southwest monsoon season, by accelerating corrosion processes tend to depress land values along the immediate sea front. Tropical downpours sometimes cause flooding in certain areas creating traffic problems. Seasonal heavy rains in Colombo and the Kelani catchment cause floods in the city and attendant social distress, intensified further by outbreaks of epidemics endangering the general health of the city. Heavy showers sometimes reduce visibility checking the flow of traffic and bringing circulation of vehicles to a standstill. The wet road being a good reflector of light causes many a problem to the motorist.

Colombo's muggy weather is physiologically uncomfortable. Since Colombo is the administrative capital, the main centre of employment, the

4. G. T. Thambyahpillay, "Secular Fluctuations in the Rainfall Climate of Colombo." *University of Ceylon Review*. Vol. XVI, Nos. 3 & 4, 1958, pp. 93-106.

Fig. 3



THE PORT-CAPITAL CITY OF COLOMBO

offices should necessarily be provided with adequate ventilation and free air movement. Multi-storey blocks constructed in order to economise space should then have to adopt artificial methods, either air conditioning, air pumping or the use of fans to provide an office environment conducive for work. The physiological discomforts associated with heat and perspiration may be minimised by wearing a loose dress permitting maximum ventilation between clothing and skin.⁵ Cotton garments that are porous and permeable are preferred.

Colombo's weather promotes fungus growth and accumulation creating problems in the preservation, storing and decay of materials. Adoption of various methods of preservation, storage and checking decay shows the extent to which man has been able to overcome certain weather-connected tropical problems by advances in science and technology.

Internal Reorganisation

The internal reorganisation and territorial expansion of Colombo were associated with (a) harbour and port development, (b) reclamation and flood control measures, (c) road expansion and the building spread.

The harbour and port

'Kolamba' was one of the six original Muslim port-trading settlements.⁶ The trade attracted a concourse of merchants and the port was both rich and populous. About 1334 A.C., it was "one of the finest and largest cities of the island of Serendib, the residence of Wazir, Lord of the Sea."⁷ During the Portuguese and Dutch periods (1505-1795 A.C.) Colombo continued to be one of the ports for the export of cinnamon, carrying entrepot trade and distributing activities and the venue of industrial enterprises. In the coastwise trade, Colombo provided the other ports mainly with goods imported from foreign ports. In this respect, it was gradually establishing itself as the chief centre for the distribution of foreign commodities. During a phase of the British period (1795-1860), Colombo changed considerably because of economic progress in its hinterland. Functionally, by 1833, it became the capital city for the entire island. Administrative centralization since then had a tremendous impact on the trend of urbanization and city growth. The impact of economic progress was seen in the increasing commercialisation of the townscape. However,

5. D. H. K. Lee has examined some of these problems. See chapter 5 in *Climate and Economic Development in the Tropics*. New York, 1957.

6. G. C. Mendis, *Early History of Ceylon*. Calcutta, 1948, p. 68.

7. Ibn Batuta, *Travel in Asia and Africa*. Translated by H. A. R. Gibb, London, 1936. pp. 234-260.

UNIVERSITY OF CEYLON REVIEW

Colombo Fort until 1869, retained its defensive forms (circumvallated fortress). Hinterland development, the result of the opening up of plantations and transport, also made the city the hub of island's routes—roads and railways, the essential links for the smooth functioning of an export-import economy. Arterial roads, the Galle Road, the Hanwella and Ratnapura Roads, the Kandy Road, the Negombo Road, coupled with railway routes such as the Kandy line, the Northern line (Jaffna and Mannar), the Southern line (Matara), the Chilaw line and Kelani Valley line, together with the Dutch-river canal system linked to the Beira lake made Colombo the plexus of the transport system.

Hinterland development and the trade resulted in the agitation for the construction of a harbour at Colombo. The proposals for 'an outer harbour' by the construction of breakwaters projecting to the sea were approved by the Legislative Council in 1871 and the work completed in 1884.⁸ The protection afforded by the breakwaters attracted vessels and suggested that Colombo would ultimately become the most important coaling port in the Indian ocean. The need for complete protection was felt, so the construction of North East, North West and Island breakwaters. These were completed by 1900, and provided an enclosed area about 640 acre making Colombo one of the finest artificial harbours in the world. The graving dock concentrated in the port the important industry of ship repair and fitting, as Colombo was the only port between Malta and Hong Kong, Malta and Australia with such facilities. Warehouses, quays, coal jetties and depots, facilities for coal, oil and water bunkers increased its efficiency and raised its international status to that of the third port in British Empire and seventh in the whole world, about 1912.⁹

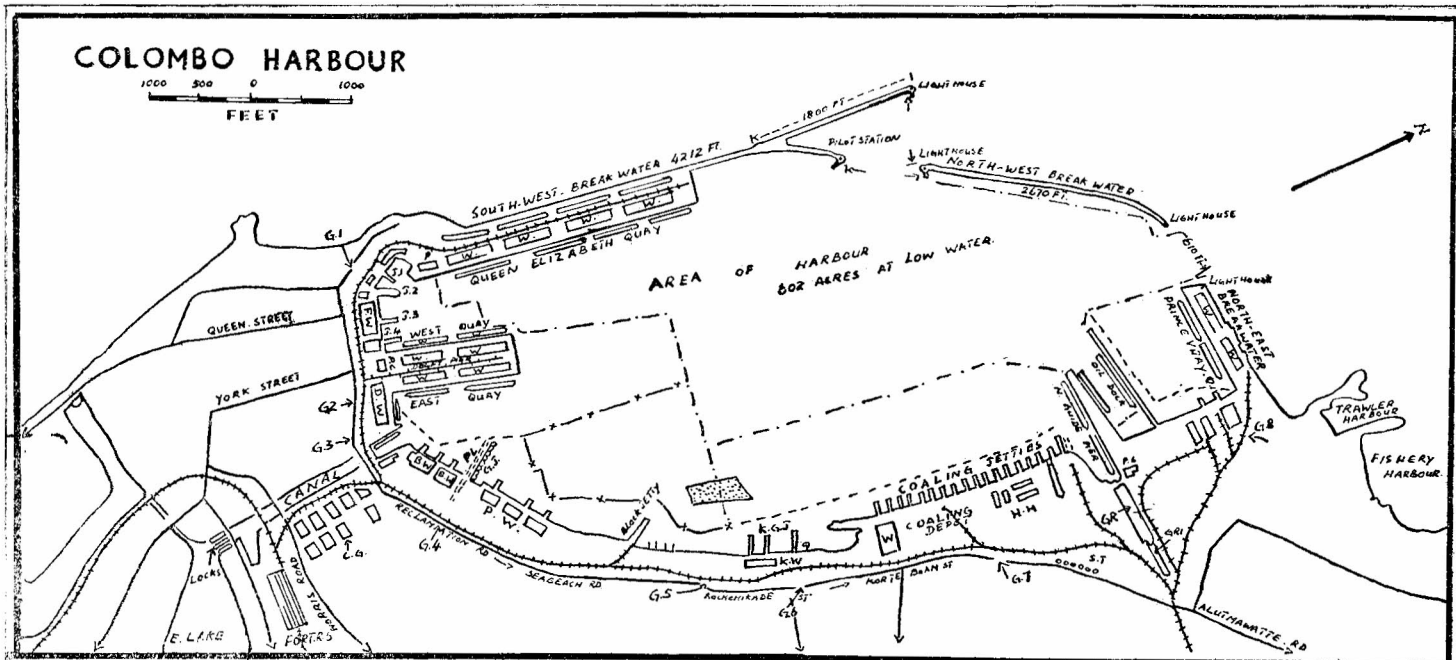
Two world wars have proved the strategic value of Colombo, as one of the operating bases so vital to the defence of the Indian ocean and Commonwealth of the eastern hemisphere, and for the policing of the sea routes from Europe to the Far East and Australia.¹⁰ After War II, there was the need for harbour and port development, to modernise it to provide deep

8. A. B. Prouse, 'The history of Colombo Harbour from its inception to 1924'. *Transactions, Engineering Association of Ceylon*, 1931.

Also see, B. L. Panditaratna, "The Harbour and Port of Colombo: A Geographical Appraisal of its Historical and Functional Aspects." *The Ceylon Journal of Historical and Social Studies*. Vol. 3, No. 2, 1960, pp. 120-143.

9. In the address given by Governor Sir Henry McCallum when setting the commemoration stone, Colombo Harbour—May, 1912.

10. W. C. B. Tunstall, *The Commonwealth and Regional Defence*. Commonwealth Papers, No. VI, University of London, 1959, p. 54.



JETTIES
 J.1 - KINGS JETTY.
 J.2 - PRINCE OF WALES.
 J.3 - SYDNEY.
 J.4 - MELBOURNE.
 R.G.P. - ROCHNIKADE GRAIN JETTIES.
 G.R. - GRAVING DOCK.
 G.S. - GUIDE JETTY.
 G.R.I. - INNER DOCK.
 P.S. - PATENT SLIP.

THE GATES.
 G.1 - CUSTOMS MAIN GATE.
 G.2 - LEYDON BASTION GATE.
 G.3 - DELFT GATE.
 G.4 - BAGHDAD GATE.
 G.5 - ROCHNIKADE GATE.
 G.6 - ST. ANTHONYS GATE.
 G.7 - TANQUE SALGADO GATE.
 G.8 - NORTH-EAST GATE.

WARE HOUSES.
 FW - FORT WAREHOUSES.
 DW - DELFT WAREHOUSES.
 BR. - BAGHDAD WAREHOUSES.
 PN - PETTIAH WAREHOUSES.
 RW - ROCHNIKADE WAREHOUSES.
 CG - CHALMERS GRANARIES.
 HH - HAMILTON HANGERS.
 ST - COCONUT OIL STORAGE.
 W - NEW WAREHOUSES.

HARBOUR AREAS.
 AREA TO BE DREDGED TO 36 FEET
 IS SHOWN EDGED - - - - -
 AREA TO BE DREDGED TO 33 FEET
 IS SHOWN EDGED - - - - -
 AREA TO BE DREDGED TO 30 FEET
 IS SHOWN EDGED - - - - -
 AREA FOR SAILING VESSELS
 RAILWAY
 ROAD

FIG. 4
 143

water berths, to equip it more fully due to the changes in size of ships and technological improvements so as to increase the port's efficiency. The new deep water berths constructed, such as North Pier, Delft Quay and Queen Elizabeth Quay, storeyed-warehouses, new terminal, customs block and other offices (Fig. 4) have given a new look to the port premises.

The port premises is a distinct morphological area. For functional efficiency, there is a general demarcation of the western area for imports and eastern area for exports. The passenger jetty has been shifted to Queen Elizabeth Quay. The discharge of foodstuffs, general cargo and the South Indian trade are carried out in the Delft Quay. Rice is stored in Chalmers Granaries. The new warehouses on Queen Elizabeth Quay are for general cargo, the Kochchikade warehouses for grain, those along the harbour canal for timber and metals. Five export warehouses are to the east of the canal. Railway coal and phosphate cargoes are handled at the coaling jetties and stored in the depots. Perishable cargoes are handled in the transshipment warehouses.

Colombo as a port of call is primarily interested in ships and the numbers which frequent it. After World War II, the number of ships calling at the port has been on the increase, about 3,000—3,250 per year, consequently the average tonnage has been about 13 million. The port's cargo tonnages also increased, handling more than 5 million per year.

Merchant ships, mostly British, about 40-50 per cent, and between 400-500 feet in length were the commonest callers. Besides, there were regular scheduled liners, cargo boats, tankers, and even sailing vessels and coasters.

The port's oil bunkering has improved. About 1,500 ships call for oil bunker, amounting to a total about 500,000 tons per year. About 3,000 ships call for water and the water intake was about 850,000 tons per year. Transshipment and reshipment traffic was carried out mostly with the Indian, Arabian, Pakistani and South-east Asian ports.

Colombo is an important passenger transit port by virtue of its midway position between European and Australian or Far-eastern ports. On the average, about 400,000 passengers pass through it every year.

Thus the functional geography of the port is interdependent on that of the city; the port-city on the islandwide hinterland.

THE PORT-CAPITAL CITY OF COLOMBO

Reclamation and flood control

Most of the built-up surfaces are reclaimed either from the Beira lake or from the sea or marshy and low lying areas. The surface reclaimed from the Beira lake is about 200 acres (Fig. 2). The Lotus pond which once separated the Fort from the Pettah, Tanque Salgado (Lunupokuna) are reclaimed. The marshes of Colpetty are filled. New reclaimed and filled up surfaces are widespread in the east and southeast. The harbour foreshore areas, (harbour side of Reclamation Road from Pettah to Mutwal) are reclaimed from the sea. The swamps and marshes have been transformed either by the natural process of silting or reclaimed as polders. The existing swamps and marshes mostly in Madampitiya, Bloemendhal, Grandpass, Maligawatta and Kuppiawatta occupy about an eighth of the total surface. Future city growth and expansion are necessarily tied up with reclamation, filling and effective flood control measures.

Road expansion and building spread

The road pattern was the skeletal framework, the most permanent feature of the townscape in relation to which building development has been articulated. The initial layout of the Fort and Pettah (Portuguese and Dutch periods) had a clearly defined rectangular system, suited to their original military purpose. This pattern extended fanwise from Kayman's Gate. The old town was connected with the outer areas by the Hanwella, Maradana, Cotta Roads. The arterial network; (Galle Road, Negombo Road, Kandy Road, Low level Hanwella Road) and alternative route to the core;—the Alutmawatta Road from the north, and Parsons-Thurstan High Level Road from the south, Baseline-Maradana Roads from the east form the basic pattern. On this basic pattern, lateral roads, (Turret, Bul-ler's, Pamankade Roads, Ward, Hill Streets) rectangular forms made by parallel roads, (Horton, Barnes, Rosmead), a few crescentic forms (Maitland, Guilford), squares (Torrington), and the oval around the race course merged in the outer zones (Plate I). The railway pattern does not show a close relationship with the building pattern. However, the east-west extending zone occupied by the Fort railway station, Maradana Junction, Dematagoda, Kuppiawatta stations, workshops, sidings and yards divides Colombo into two parts, another noticeable feature in the morphology.¹¹

Modern building development which followed the road system started at the core (after the demolition of fort structures, 1870 onwards) and spread towards the integuments, characterizing the trends of internal reorgani-

11. B. L. Panditaratna, "Colombo Townscape: Some Aspects of its Morphology." *University of Ceylon Review*. Vol. XIX, No. 1, 1961, pp. 45-60.

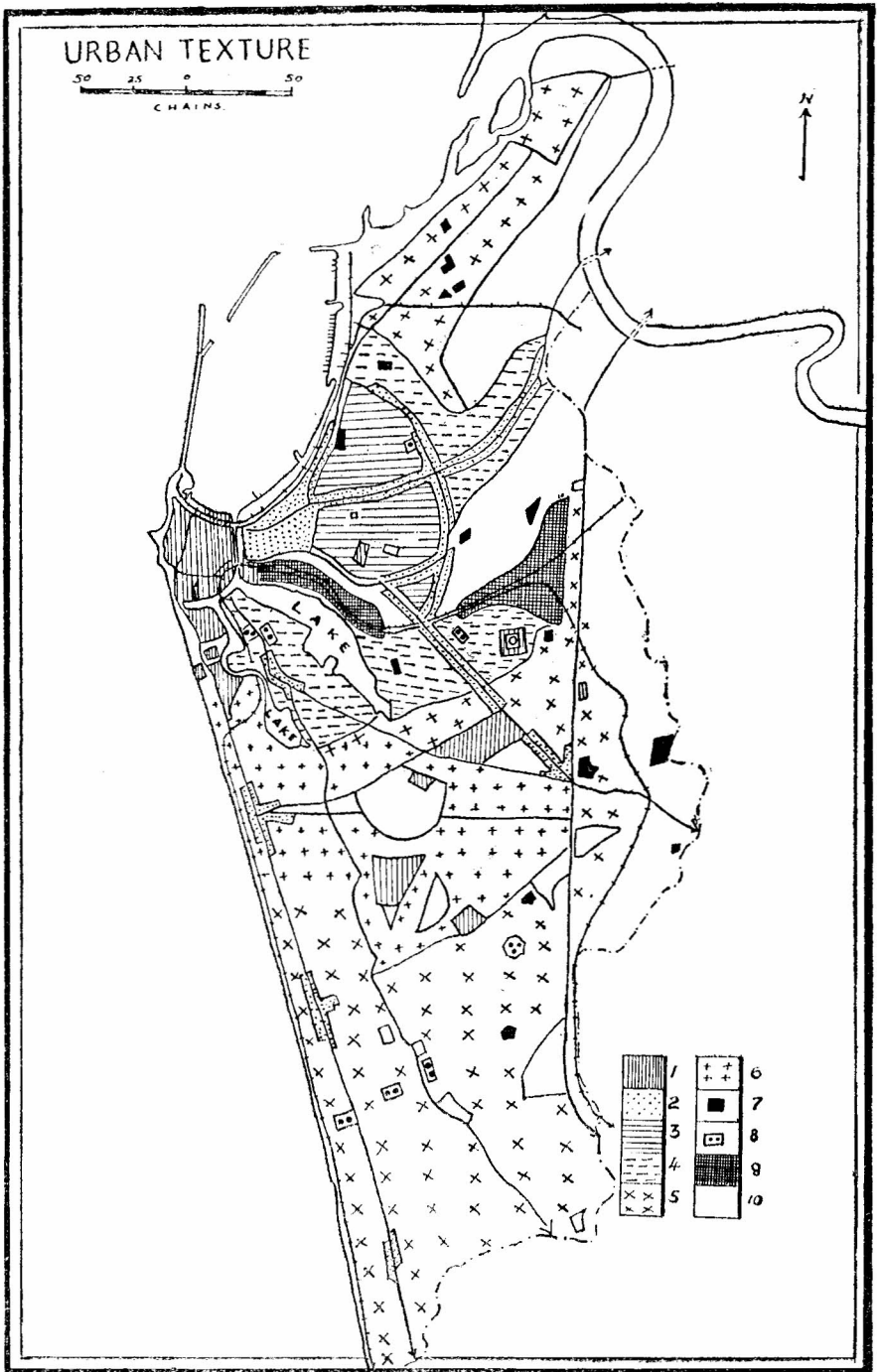


FIG. 5

1. Predominantly multi-storey (Commercial and Public Buildings)
2. Predominantly one-storey (Commercial and Mixed)
3. Terraced one-storey or no-storey tenements, cooly lines and contiguous houses
4. Terraced compact contiguous houses with shop fronts
5. Compact cottages isolated from each other
6. Spacious bungalows and one-storey houses
7. Government and Municipal Housing Schemes
8. Residential multi-storey flats
9. Railway zone and yard
10. Open spaces.

THE PORT-CAPITAL CITY OF COLOMBO

sation and territorial expansion. Block buildings, usually multi-storey flanked the Fort road grid; predominantly one-storey blocks in the Pettah; contiguous blocks, mostly one-floor with new-multi-floor intrusions in the inner zone and a variety of residential patterns with different spatial associations (Cinnamon Gardens contrasted with Maradana or Slave Island) in the outer zone. Institutional buildings, those of the Town Hall, the General Hospital, the University of Ceylon, several colleges, churches, dominate the low skyline of the outer zone. (Fig. 5). Residences have spread along the circulatory systems to the suburbs, and some of these areas feature as dormitory towns around Colombo.

The fabric of the Fort area has been renewed with new multi-storeyed blocks towering much above the old (the Ceylon Insurance Block, Central Bank Blocks). Old forms in the Pettah are demolished giving place to modern two or three-storey structures. Due to functional devolution, new administrative areas with multi-storey blocks have appeared in the outer zone along Kirula-Narahenpita Roads. The core is essentially multi-functional; Pettah, known mainly for the wholesale and retail business; the small subcores at junction centres Colpetty, Bambalapitiya, etc. mainly for retail business; the inner zone for mixed functions in contiguous blocks interspersed with residential units, whose monotonous appearance is broken up by institutional buildings mainly governmental, educational and religious edifices. The outer zone is predominantly residential; in a marginal tract towards the north, east and south east, certain dangerous and offensive trades are restricted; surrounded by a predominantly residential suburbia.

Another constituent in the morphology of the city is the open spaces. Most of these public open spaces (parks, playgrounds, unbuilt crown land and marsh) are unevenly distributed. Northern Colombo is rather poorly served. Central Colombo is well served by the Galle Face Green, Victoria Park and lake, Southern Colombo is comparatively poorly served. However, if the semi-public open spaces owned by the educational institutions, clubs and associations, the race course, golf links, and privately or crown, owned unbuilt open spaces are taken together, the city as a whole has a fair share of these channels for free air movement and circulation.

Some Cultural Elements

The nomenclature of the city now known as Colombo (Kolamba) sets us in doubt whether it is foreign in derivation, perhaps after Christopher Columbus. Columbus, however, did not accept any exploratory assign-

ment under the Portuguese towards the East. An explanation that its name was after Kola-amba tree, (*Mangifera indica*) a tall leafy tree serving as a navigational aid to sailing vessels may also be set aside when the etymological explanation is considered—that Kol-amba (opposite to Diyamba) means a shallow bay with port functions.¹² This meaning fits well the setting of the original site, so that it may be more logical to accept this Sinhala rendering which shows a distinct geographical flavour.

Colombo city passed through several stages, changes, reorganization and expansion as a Portuguese fortress and “Royal city”, Dutch fort-capital of the maritime provinces, British capital city for the entire island, and today the port-capital of independent Lanka. Its changing morphology from a trading settlement to fortress, then to port and capital city is certainly a fascinating study for the historical geographer.¹³ The Muslim port settlement with bangasalas (retained in name as Bankshall Street) signifying a commercial role, had changed to the Portuguese insulated Fort, surrounded by ramparts, bastions, watch towers and moat, where the Portuguese churches dominated the skyline. In Dutch Colombo, several Portuguese buildings were transformed to Kantoor; in the residential areas, mansions after Dutch style were constructed; further in several institutional buildings and the canal system, the Dutch left their impress easily recognisable even today. In British times, the urban-economic base was broadened, and these changes had an impact on society. The operation of the pull forces dragged the people from the countryside to the town and Colombo’s urban population increased. Till 1930, migration contributed in large measure to the increase of population. The emerging new community was more stratified on a class basis than caste. The city accommodated a class of labourers, also referred to as coolies, a large class of white collar workers (clerical servants) and an urban elite restricted to business executives, high governmental officers and the landed proprietors. The Sinhalese migration to Colombo was a continuous stream, especially from the southern districts. Jaffna Tamil migration and settlement were mostly after 1920 and their area of settlement was mainly Wellawatta. The Indian Tamils brought by the British for constructional projects and work in the port settled down near the port and Pettah. The growth of this community in the town partly explains the poor quality housing and dilapidated conditions in this district.

12. In *Sidath Sangara*, p. 16, Kolamba is explained as a ferry, port or haven. J. de Lancrolle explains ‘Kolamba as opposed to Diamba, a name applying not merely to the area of shallow waters within a ferry, but also to the ferry or port itself.’

13. A valuable collection of historical maps is found in R. L. Brohier, *Lands, Maps and Surveys*. Vols. I & II. Colombo, 1951.

THE PORT-CAPITAL CITY OF COLOMBO

When the medical and sanitary services were well organized, the death rates of infants, mothers, adults and old groups were depressed, while the birth rates continued to be high.¹⁴ After 1930, Colombo city's population growth was more due to natural increase than immigration.

The city has a population about 511,740 in 1963 giving an average density of 57 persons per acre. The old settled areas, the wards encircling Fort and Pettah, although small in size (under 100 acres) contain more than 10,000 people in each. The largest wards in the outer zone are more than 400 acres each, but the average density is below 30 per acre. (*Table 1*) The pattern of population distribution is heaviest in the wards of St. Paul's, San Sebastian, Kochchikade and Aluthkade; followed by a heavy zone in Kotahena West, Grandpass, New Bazaar, Maligakanda, Wckanda and Slave Island. The pattern tends to deconcentrate and decrease towards the north, east and south of the wards mentioned above. The very high population pressure on the land (more than 200 per acre in St. Paul's, Aluthkade and Kochchikade) has resulted in slum conditions and sub-standard housing spread over nearly one-seventh of the total area of the city.¹⁵ Out of a total number about 62,446 households, about 77 per cent were small, having less than 3 rooms in each unit. But, the accommodation density exceeded 8 persons per household. In the crowded areas, the accommodation density per room exceeded 7 persons. A recent survey indicated that about 200,000 or two-fifths of the total population were accommodated in substandard dwellings or slums.

The city's population is multi-communal.¹⁶ The Sinhalese are the majority group, comprising about 47 per cent, followed by Ceylon Moors, 13.5 per cent; Ceylon Tamils, 12.6 per cent; Indian Tamils, 12.5 per cent; Indian Moors 4.5 per cent. The other communities, Burghers, Eurasians, Europeans and Malays together account for nearly 10 per cent. An interesting feature is communal segmentalization, resembling 'the birds of a feather flocking together'. Jaffna Tamils, for instance, form a distinct group in Wellawatte, Indian Tamils in St. Paul's and Pettah, Ceylon Moors in Slave Island and several clusters of Colombo Chettys, Malays and Cochin Tamils in Chetty Street, Malay town and Kochchikade respectively.

14. After 1931, the birth rate rose to 46.2 per 1000 persons, but the death rate was 30 per 1000 persons. Between 1946-1953, the birth rate fell to 30.7 per 1000 persons, but the death rate fell sharply to 10.3 per 1000 persons. The infantile mortality rate was also reduced to 78 per 1000 births.

For details, see B. L. Panditaratna, "Colombo City: Its Population Growth and Increase, 1824-1953." *The Ceylon Geographer*. Vol. 14, 1960, pp. 1-16.

15. The distribution of slum areas as shown in a survey conducted in 1941 more or less correspond to the slum areas of the present townscape. In fact, these are now more numerous and widespread.

16. I personally prefer the term "community" instead of "race" as the former is more appropriate to refer to these various (communal rather than racial) groups.

UNIVERSITY OF CEYLON REVIEW

TABLE I

AREA, POPULATION AND DENSITY OF COLOMBO CITY ACCORDING TO WARDS, 1963.

<i>Wards</i>	<i>Area in Acres</i>	<i>Population</i>	<i>Density per Acre</i>
1. MATAKKULIYA	375.0	11,411	30.4
2. MODARA	162.5	11,146	68.6
3. MAHAWATTA	230.0	12,993	56.5
4. ALUTHMAWATHA	150.0	12,266	81.8
5. LUNUPOKUNA	107.5	10,246	95.3
6. BLOEMENDHAL	270.0	13,132	48.6
7. KOTAHENA EAST	67.5	8,535	126.5
8. KOTAHENA WEST	75.0	11,655	155.4
9. KOCHCHIKADE NORTH	72.5	12,254	169.2
10. GINTHUPITIYA (St. Paul's)	47.5	11,227	236.4
11. MASANGASWEEDIYA	60.0	10,025	170.6
12. NEW BAZAAR	122.5	9,740	79.5
13. GRAND PASS NORTH	112.5	10,501	93.4
14. GRAND PASS SOUTH	130.0	12,647	97.3
15. MALIGAWATTA WEST	135.0	7,450	55.2
16. ALUTHKADE EAST	60.0	12,267	204.5
17. ALUTHKADE WEST	37.5	8,433	222.8
18. KEHELWATTA	72.5	8,503	117.1
19. KOCHCHIKADE SOUTH	50.0	11,153	223.1
20. FORT	412.5	17,831	43.3
21. KOMPANNAWEEDIYA	167.5	11,533	65.1
22. WEKANDA	145.0	8,947	61.9
23. HUNUPITIYA	192.5	8,817	46.1
24. SUDUWELLA	295.0	9,719	32.9
25. PANCHIKAWATTA	55.0	10,224	185.9
26. MARADANA	52.5	9,316	179.2
27. MALIGAKANDA	42.5	9,203	216.5
28. MALIGAWATTA EAST	145.0	11,150	76.9
29. DEMATAGODA	160.0	11,223	70.2
30. WANATHAMULLA	125.0	10,592	84.7
31. KUPPIYAWATTA EAST	110.0	9,442	85.8
32. KUPPIYAWATTA WEST	112.5	8,176	72.7
33. BORELLA NORTH	245.0	11,175	45.6
34. NARAHENPITA	480.0	10,060	21.0
35. BORELLA SOUTH	140.0	10,837	77.4
36. CINNAMON GARDENS	835.0	15,230	18.3
37. KOLLUPITIYA	205.0	12,140	59.2
38. BAMBALAPITIYA	235.0	11,258	47.9
39. MILAGIRIYA	245.0	11,711	47.8
40. THUMBIRIGASYAYA	442.5	13,005	30.1
41. KIRULA	432.5	11,908	27.8
42. HAVELOCK TOWN	265.0	10,678	40.3
43. WELLAWATTA NORTH	262.5	11,994	45.5
44. KIRILLAPONE	367.5	10,044	27.9
45. PAMANKADA EAST	195.0	10,389	53.3
46. PAMANKADA WEST	152.5	9,633	63.2
47. WELLAWATTA SOUTH	162.5	9,917	61.1
COLOMBO CITY	8,957.5	511,740	57.2

Sources :—Computed from data obtained from the Colombo Municipality.

THE PORT-CAPITAL CITY OF COLOMBO

Four major religions (Buddhism, Christianity, Islam and Hinduism) their religious edifices, patterns of worship and festivities lend some cultural diversity. The more prominent Buddhist temples of Vajirarama, Kuppiawatte, Maligakanda, Asokarama and Isipathanarama (to mention a few) show the widespread distribution of the Buddhist population more than 40 per cent, and the overall importance of Buddhism in the city. Vesak usually celebrated in the city with pomp and dignity, illuminations, decorations and pandals attracts large numbers. Owing to historic associations with Christian powers, the city has a high concentration of Christians about 22 per cent, the Roman Catholic group being predominant. Several churches with European architectural features, the dome of St. Lucia's, the spires of All Saints' and St. Mary's and the imposing Wolfendhal Church dominate the low Colombo skyline. Islam is even older than Christianity in the city. The towering minarets of the mosques are a clear indication of the predominance of the Muslim community in the vicinity. Similarly, Hindu kovils and temples indicate Tamil pockets. Viharas, temples, churches, mosques, minarets, kovils and edifices characterizing oriental and occidental architecture, sculpture, paintings, or a combination of both, add variety to the form and aesthetic aspects.

The sex composition of the population indicates a preponderance of males, a ratio of 154 males to 100 females. This is a common social phenomenon in most Asiatic cities, caused by the migration of the working classes into the city. Men who are employed find it cheaper and more convenient to leave their families in the village, while they live in crowded rooms close to their places of work. On the basis of age structure, there is an excess of females over males in the lower age group, (under 14 years); but in the adult group (15 to 49 years) the excess of males over females is remarkable; in the old group, (over 50 years) the ratio is even. A high literacy rate about 80 per cent is indicative of the availability of educational facilities, opportunities for social contacts and employment prospects. The city's work-force is predominantly male, some 86.3 per cent, and only 13.7 per cent female. Majority of the total population about 66 per cent are dependent on the 34 per cent gainfully employed. (*Table 2*)

• *Aspects of Functional Geography*

The port and capital city functions encompass the whole island. The export—import functions channelled through the port are fundamental to both the economy of the city and the island. The export of agricultural produce (tea, rubber, coconut products, cinnamon, citronella, arcanuts,

UNIVERSITY OF CEYLON REVIEW

etc.) has created several commercial and industrial firms engaged in the processing, mixing, grading, packing of the produce for export. Similarly, imports of foodstuffs explain a set of activities associated with treating, fumigating, handling, sacking, bottling, storing, warehousing and distribution. Several port industries, marine engineering, repair, bunkering, stevedoring, food chandling and several service industries are tied up with the export—import functions. Specialized services, those of shipping, insurance, banking and cargo handling link the port in respect of both national and external economies.

TABLE 2
OCCUPATIONAL STRUCTURE IN COLOMBO CITY 1963

<i>Occupation Categories</i>	<i>Total numbers</i>	<i>Percentage to the total</i>	<i>Total number of Men</i>	<i>Men percentage</i>	<i>Total number of Women</i>	<i>Women percentage</i>
1. Services	69,282	33.6	55,386	80.1	13,896	19.9
2. Managerial, Administrative, Clerical	34,892	17.1	32,433	92.6	2,459	7.4
3. Crafts and Production processes	33,920	16.6	31,033	91.2	2,887	8.8
4. Sales and related types	31,290	15.1	28,812	96.7	2,438	3.3
5. Transport	13,760	7.0	13,285	94.0	475	6.0
6. Profession and Technical	11,440	5.8	8,064	66.6	3,376	33.4
7. Miscellaneous	4,563	2.0	3,583	78.6	980	21.4
8. Fishing and farming	3,440	1.6	3,110	94.6	330	5.4
9. Unspecified	2,450	1.1	1,496	60.0	754	40.0
10. Quaiting	46	—	26	—	20	—
TOTAL	204,843	100	177,228	86.3	27,615	53.7

Sources : Sampling Survey for 1963 based on Survey of Occupations in 1953 with necessary adjustments.

THE PORT-CAPITAL CITY OF COLOMBO

Wholesaling of imported goods (foodstuffs, textiles, machinery and luxury goods) has been either by the government sponsored agencies (Food Department, Cooperative Wholesale Establishment) or private firms. Wholesaling and retailing functions account for certain interesting morphological features. Fort, with multi-storey blocks, has become the centre of department stores; Pettah, predominantly one-storey, the chief retail business area exemplifying a mosaic of shop sizes and types. The hardware goods area is localized along the Skinner's Road—Panchikawatta Road segment, while the Darley Road—Union Place areas teem with general engineering and motor car firms. The secondary retail centres are at Borella, Bambalapitiya, Wellawatta Junctions, where the market square is surrounded by retail units and satellite stores. Along other thoroughfares, retail units are intermixed with institutional and residential functions. Colombo's functional dominance as the chief distributing centre of imported goods is yet unchallenged. Perhaps, devolution of port functions to Galle and Trincomalee may effect certain functional changes when these two ports are developed and facilities made available for business and commerce.

The growth of many industries processing agricultural raw materials, marine engineering and repair, boat building is port orientated. Colombo imports machinery and equipment and has become also the venue of assembly business, repair and maintenance and in fact, the industrial workshop for the entire island. Being a densely populated city, many market-orientated light consumer industries have evolved. The recent Government policy of restricting imports, imposing prohibitive tariffs, giving aid and extending its patronage has reactivated and stimulated a rapid industrial growth especially in the city. In addition, the facilitative group of industries, those of electricity, gas, water, internal transport and telecommunication services broadbase the industrial structure of the city. Colombo's superior internal accessibility, its external focality, availability of power, (electricity) and other essentials (gas, water), concentration of institutional services (banking, insurance, marketing etc.), availability of labour supply, capital and market, (city, commuting areas, and even the whole island) existing growth momentum, and specially personal choice and preference of sites within the city, all explain why Colombo was in the past and will continue to be the industrial hub of Ceylon.¹⁸

18. B. L. Panditaratna, "The Trend of Industrialisation in Colombo City: the Capital of Ceylon" *Pakistan Geographical Review*, Vol. 20, No. 2, July, 1965. pp. 143-155.

UNIVERSITY OF CEYLON REVIEW

As the capital city, it is the chief administrative centre. The Parliament, Senate, Queen's House, symbols of sovereign power are located here. All the head offices of governmental departments are centralized here. About 40 per cent of these offices are localized in the Fort, some at McCallum Road, Torrington Square and Barnes Place. A measure towards deconcentration of governmental offices in the Fort has been carried out in shifting some departments to Narahenpita. In legal, fiscal, financial, monetary and police affairs Colombo's dominance is unique. In education, health, civic affairs, recreational and cultural pursuits, Colombo occupies the apex, if a hierarchy based on such criteria is to be set up. Ceylonese look forward to Colombo to procure the best and those not available elsewhere. As a service centre with a wide range of goods, possessing a superior capacity to cater to heterogeneous and complex consumer demands, its influences are extensive indeed and felt throughout the island.

The port-city functional impact on its region is best seen in the commuting pattern involving some 200—230,000 people daily.¹⁹ Commuting by bicycle, bus and railway are the three important modes. While the bicycle circuit extends to about 5 to 7 miles, the bus and railway serve a region about 20 to 24 miles around the city. Internal zones with high passenger mobility are served with double-decker buses with a constant and quick frequency, as for instance in Fort—Mount Lavinia, Pettah—Maharagama, and Pettah—Jaala areas. Express bus and railway services are indicative of commuting numbers from these respective localities.

Trends in Planning

The fact that one-eighth of the surface is subject to periodic inundation and that the reclamation of these areas is tied up with the Kelani flood control measures deserves primary consideration. Studies on Kelani Ganga and flood control are legion, but implementation of schemes has not been forthcoming. Perhaps, a flood evokes comment about the necessity to implement such schemes, but as the flood subsides, so the enthusiasm and the interests of the civic authorities. Proposals for reclamation²⁰ together with flood control should have precedence and merit the collective study of the Central Government, Colombo Municipality and the surrounding local units.

19. B. L. Panditaratna, "Urban Field of Colombo". *The Ceylon Geographer*, Vol. 16, 1962, pp. 26-36.

20. *Ceylon Sessional Paper*, XXI—1957.

THE PORT-CAPITAL CITY OF COLOMBO

Internal reorganisation and territorial extension are related phenomena. Colombo is an old city. There are certain areas around the port which are congested, slum-like and show features of obsolescence and decay. These areas have to be renewed or reconstructed to make them look pleasant and hygienically suitable. In recent times, slums of a different type, the improvised shed type have sprung up like mushrooms along the water bodies, recreational spaces, thoroughfares and crown land endangering the health of the city. Radical methods to eradicate this blight may be condemned on humanitarian grounds. But, planning and sympathy are different matters. Slum clearance is one of the biggest problems from a town planning point of view.

Population growth and increase and competing urban land uses are responsible for spiralling up land values within the city resulting in either vertical building or horizontal expansion. In the Fort, where the land values range between 4—6 million rupees per acre, multi-storey blocks of even ten or more storeys characterizing a new skyline seem to be inevitable. Even in the Pettah, where the values are between 1—4 million rupees per acre, two and three story blocks peer out high above the low accordant roof surfaces. In the intermediate mixed zone, multi-storey residential flats have replaced some of the decadent and obsolete no-storey blocks. Multi-storey flats may be one of the ways to relieve the acute shortage of housing in these areas. But, high floor residences are not quite practicable or hygienically feasible where overcrowding is common. Besides, high rent owing to high land values and cost of building would bar the low income groups from renting them. The high income groups on the other hand may not only dislike this residential district, but also may not prefer high floor compact residential apartments when spacious bungalows with gardens, lawns and even tennis courts can be rented or leased in the outer and suburban areas.

Residences have spread along the circulatory systems accompanied with urban utilities and amenities and growth of civic institutions especially in the south and east, in such areas as Moratuwa, Nugegoda, Rajagiriya, Nawala extending as far as Maharagama and Homagama, and to a limited extent in the direction of Peliyagoda, Kelaniya, Wattala and Mabile.²¹ These new residential areas show a planned layout in blocks of 20—40 perches along the major thoroughfares or the newly opened approach roads.

21. B. L. Panditaratna, "A Critical Review of Plans for the Development of Colombo City and Some Trends in Planning," *The Ceylon Journal of Historical and Social Studies*. Vol. 6, No. 2, 1963. pp. 111-123.

UNIVERSITY OF CEYLON REVIEW

Colombo city has outgrown its municipal boundaries. New industrial sites, one at Ratmalana to the south and another at Jaela to the north, workshops, factories, stores and governmental offices are located in the Colombo region. Planning of Colombo city should necessarily consider a larger region (termed differently as 'Greater Colombo', 'Colombo Region' or 'Colombo Conurbation').

The Abercrombie-Weerasinghe planning proposals²² for Colombo were conceived and rendered in this regional context. These constitute the main directional trends for the development of Colombo and Region duly amended by the Central Planning Commission. The essentials were two fold. First, zoning to stabilize the existing character of the district and provide incentives towards further improvement by the security it would offer to property owners. By regional zoning into urban, semi-urban, satellite town and rural areas, (Fig. 6) the use of land in each zone may be regulated. For instance, straggling growth taking place in the semi-urban zones and in the neighbourhood of the new towns and haphazard building development may be prevented. In the rural zone, the amenities of the countryside need to be preserved. In the urban zones, restrictive measures are urgent to eliminate nonconforming uses.

Second, decentralization of institutional, industrial and residential functions to the satellite towns (Ragama, Ratmalana and Homagama). This trend in turn would reactivate the urbanization of the Region and the growth of other satellite towns.

The garden city idea, (proposed by Geddes) however, is not altogether forgotten or neglected in planning the city. Since block buildings are localized in the Fort and Pettah only, open spaces such as parks, playgrounds, lake, race course, golf links, unbuilt crown land and marshy lands are preserved in the intermediate and outer zones, the residential districts of the outer zone have retained their front and rear gardens, and even in the suburbs, residences (mostly cottages with 3—5 living rooms in individual plots) show an orderly layout with ample gardens, Colombo city is in every sense a garden city.

The harbour and port areas are likely to change to keep abreast with developments in technology and catering to the needs of modern

22. P. Abercrombie and O. Weerasinghe, *The Colombo Regional Plan*. Colombo, 1947.

Also see, "An Outline Planning Scheme for the Regional Development Area of Colombo." Department of Town and Country Planning, Colombo, 1957. (unpublished).

THE PORT-CAPITAL CITY OF COLOMBO

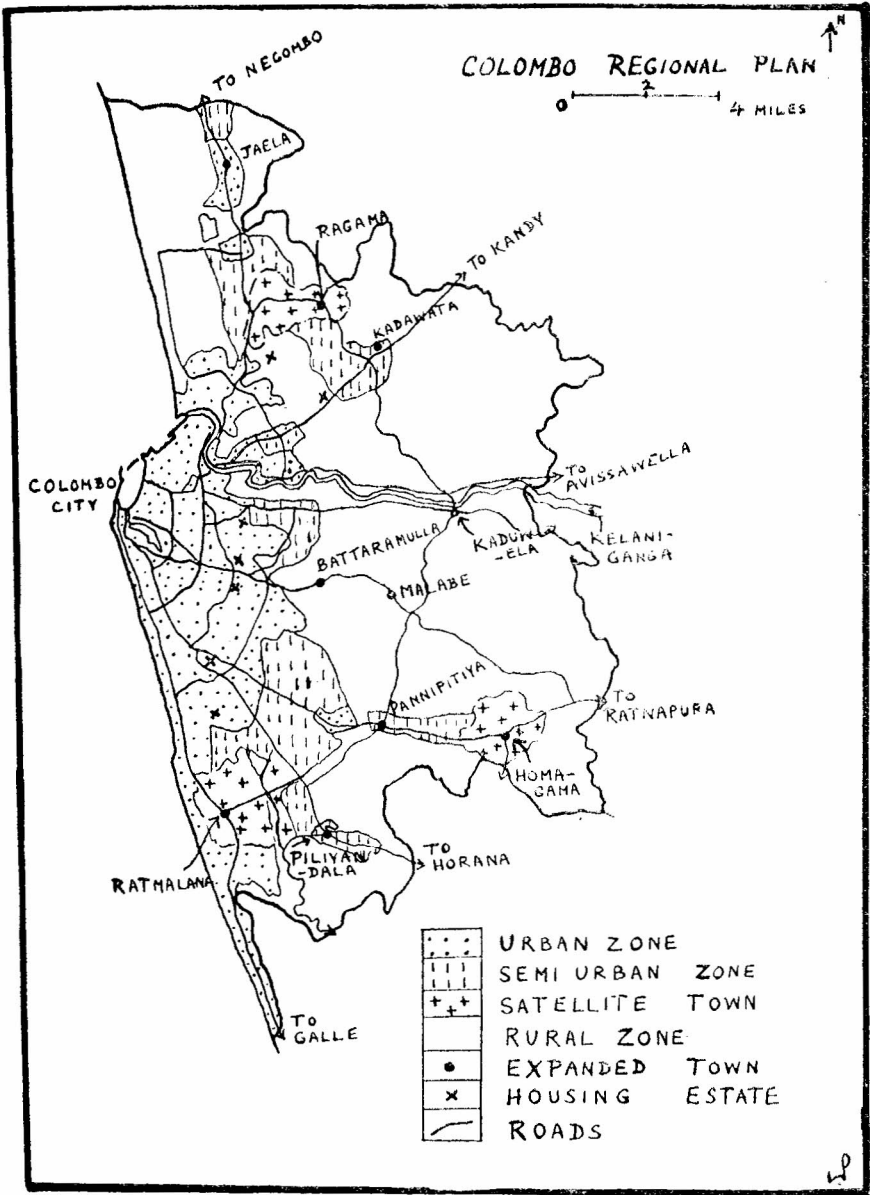


FIG 6

shipping. These plans, although independently executed by the Colombo Port Commission, should be correlated and co-ordinated with those plans for city development executed by the Colombo Municipality and the Department of Town and Country Planning. Port improvements are bound to set chain reactions and repercussions in functional and spatial growth of the city. City planning should necessarily accommodate these measures so conducive to the port's functional efficiency and are mutually beneficial.

The port-capital city functions, although so diverse and varied, are linked up effectively maintaining islandwide relationships. The fluctuations of port-city growth reveal fairly well the condition and state of the economy of Ceylon.

Conclusion

The future growth of the city depends on (a) reclamation, (b) vertical building and (c) horizontal spread towards the suburban townships.

The marginal surfaces below 4 feet, and some areas between 5-9 feet which are subject to floods, could be reclaimed, and utilized. But these operations should be carried out in conjunction with those of flood control and surface drainage.

Competition for space is acute at the core because of its functional centralization, access and availability. Vertical building here is the only possible way to provide for space. Colombo's skyline is relatively low and monotonous when compared with the other South-east Asian port-cities. Multi-storey buildings should replace the low four or five-storey blocks in the Fort. Broader access roads and parking for vehicles should accompany vertical building. The trend of vertical building along the major arteries (for instance, Galle Road) should be encouraged.

In the less built-up areas of Madampitiya, Mattakkuliya, Kirillapone, and Kirula, the absence of a sewerage scheme is an obstacle to the building spread. The development plan should give priority for the provisioning of water service and sewerage to these unsewered areas of the city, in order to effect an even distribution of population and building densities.

THE PORT-CAPITAL CITY OF COLOMBO

The city's population is increasing about 10,000 for every year. Natural increase is the main factor. The increases, however, are mostly among the working, and the low-middle, class. The problem of accommodation congestion is thus intensified. There is only one solution: a policy of family planning and restriction. But, even in an urban setting, it would take some time to implement such a programme to yield results. Immigration of the upper-middle class group is numerically small, but of the rural rustic large. Their influx inflates the accommodation density and the occupancy rates of the already congested slums.

The population increase, consequent congestion and acute shortage of housing should be resolved within a broader regional setting: the city region. Further, the problems of industrial location, administrative devolution, dormitory suburbs, satellite towns, new roads and transport, all should fall within the scope of an integrated developmental plan for the Colombo Region. But, the city region (Colombo Region) is divided up into local administrative areas. There is very little cooperation or coordination between these various local councils. A Colombo Regional Authority is thus very necessary to implement the proposals of a regional plan and ensure coordinated growth and development of the Colombo Region.

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