CHAPTER V

MORPHOLOGY OF GREATER ADEN

Dickinson defines morphology as the plan and building of any habitat viewed and interpreted in terms of its origin, growth and function\(^1\). This approach requires that the building and structure should be mapped and interpreted in their areal arrangement and also in relation to social groups.

According to Murphy, morphological studies deal with development of form and pattern of cities and other urban areas, through time with respect of evolution\(^2\). Morphology of an urban area may be expressed in terms of functional differentiations and physical form and disposition of its component building\(^3\).

Plan of the city:

In order to understand the form and structure of Aden, it would be worthwhile to examine its development plan, as

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2. Murphy, R.E., *The American City on Urban Geography*, New York, 1966, p.4
the plan of the city reflects the structural and conceptual basis. The plan would further help in analysing the function of the city through its different historical phases of development and the various forms of building and layout pattern. During the period when the British were in need of quick settlement, buildings and streets assumed a linear pattern. They built their houses before any development of the plan of the city was made effective. The conflict between the military and the civil authorities delayed the plan of the city. Moreover the lack of land in the peninsula of Aden was one of the main reasons which gave Aden the touch of coastal morphology resulting into a scattered pattern of settlement. Thus the polynucleus growth resulted in separate settlements based purely on needs rather than any plan.

Most of the plans of the city were however planned by military officers. As defence of the city was the most important condition, the plan of the city came from defence personnel. The first attempt for the plan of the city was by U.J.Wester who was with the army during the occupation of Aden. He suggested that Front Bay should be adopted for the development of cantonment, followed by civil lines in Tawela valley and Aidarus valley. The land towards the main pass was allotted for the main market. This plan was not approved by the Government.

of Bombay because the cantonment had occupied valuable ground which was suitable for trade. The Bombay Government sent another engineer to plan the fortification of Aden and also the layout of the city.

Captain R. Foster, who was deputed by the Bombay Government was Superintendent of roads and tanks for Khonkan in India. Apart from his plan of fortification, he tried for compromise between civil and military authorities providing a commercial centre in the plan of the city. His plan was to keep the whole garrison in 400 yards in the middle of Front Bay and built houses close to each other. No provision was made for barracks in the plan because of the hot climate. The area towards the valley was meant for the city and additional space was provided for the city towards the Front Bay. The Bombay Government approved his defence plan but his plan of keeping the cantonment in Front Bay was not accepted. Another plan for Crater was given by Courtis J.A. emphasising that the defence of the cantonment should have precedence over the city.

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5. Foreign Political A., 1839 Consultation, 11 September, No. 24, N.A.I., New Delhi
6. Foreign Political Secret., 1843, Consultation 22 February, Nos. 6-24, N.A.I., New Delhi
He suggested that three towers should be built to defend the cantonment from civil population. They might oversee each one of the three principal valleys, into which entire Crater was subdivided and in this manner the three towers would have full control over the entire city. He proposed that the houses in different directions should be arranged along streets at right angles to the main road. The idea behind this arrangement, according to Courtis was that all the inhabitants coming towards the cantonment shall be under complete supervision. He further planned that Aidarus valley should be given to the local people, while as the land towards the Khosaf and the main pass be kept for temporary houses made of mat and reed. The land between the market which was located in the central position and street was kept for camels coming from the interior.

The cantonment plan of Courtis was different from that of the former planners. He suggested that the garrison should be shifted towards the Khosaf valley and he argued that civil lines should be separate from cantonment, as the availability of water will cut off the garrison in case there is any hostility from inhabitants.  

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7. Ibid., Foreign Political Secret, 1843.
Another committee headed by Captain E. Hallen proposed that the whole Front Bay should be kept reserved for European garrisons, while Khosaf Valley and the area towards the main pass be reserved for sepoys. The cantonment would occupy half of the area and the remaining area would be kept for the city.

By this time there was no sanction for the proposal of the plan of the city. The people and the merchants went on building their houses, shops and firms. Besides, they were told that houses would not be demolished even if the military required the land. Rents of houses were made nominal but was not paid till 1855. However in 1860 it was almost doubled.

In other words the Government of Bombay approved the committee plan which was headed by Captain E. Hallen and they asked General Sir Henry Herdence (who was the incoming Governor General of India) to look into the defence of Aden carefully. He prohibited building of houses in Khosaf Valley and along the main pass and suggested that no houses should be built out side the main pass towards Maalla and Tawahi without the permission of Bombay Government. However, until 1853 the decision was not taken about the cantonment and about the

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city plan of Aden. But the city continued to grow without any plan towards the valley of Aidarus and Tawela which was separated from the cantonment by the parade ground in the east and temporary houses towards Khosaf Valley. The settlement was meant for military purposes. Military importance of Aden got precedence over its commercial development.  

In the absence of a city plan the civil lines were established in the valleys; and the Front Bay and Khosaf Valley were kept for military area. Streets were made at right angles to the main road and the market was at some distance from the residential areas. The roads Aban and Tawel run parallel to each other and they are joined by streets at right angles. It will thus be seen that the city plan was made by military authorities who were interested in keeping more land for garrisons and small area for civil lines. The initial Crater settlement lacked coherence and proper shape because of the dominance of the military authorities over the civil administration. Other parts of the city presents a different look. Sheikh Othman is having grid pattern look with dominance of major roads cutting at right angles. These roads divide the city into four blocks.

Kaur, Z.H., Op., Cit., p.36
Al-Mansora consists of blocks of closed type. These blocks also have small spaces on the sides which give them check-board shape. In case of Sheikh Othman there are clusters of houses around it without any plan while Little Aden presents in some parts a closed shape and in other areas it is open. In Little Aden the plan of the Khissa village is of particular interest. Some of the houses are built of mat and stones while others are partially built of cement, bricks. In between the rows of houses there is enough space for easy access. On the other hand Darsaad district, which was only three kms. from Sheikh Othman and half km. from the boundary of the Colony of Aden was without any plan.

MORPHOLOGICAL STRUCTURE OF THE CITY:

It will thus be seen that the conflict between the military and the civil authorities affected the growth and morphological structure of the city in several ways.

In addition historical processes and the effect of the terrain resulted in several nuclei round which the settlements clustered and prevented the development of a compact city and settlement. Aden peninsula has rock-and-spur type of topography. This type of topography did not favour compact settlements.
The port occupied another part of Aden Peninsula. Such settlement towns which were known as districts were small in size and had small population. In the peninsula the largest area was Crater with 54 thousand inhabitants, while Tawahi had 16 thousand inhabitants and Maalla had 40 thousand inhabitants in 1973. The urban morphology of Greater Aden is of polynucleated type where settlements in all districts differ in their layout. Planned type of settlement is found in the main district. According to Dickinson\textsuperscript{10}, the two districts of the built up area (open settlement) and (closed settlement) had two types of buildings. Greater Aden is characterised by both types of buildings. The closed system was established in the 19th century and dominated Crater, Tawahi, Maalla and Sheikh Othman. While the open system was present in the cantonment area, and in newly developing areas which emerged after 1950. Besides these areas, this type of settlement was found in some parts of the city after independence. In the cantonment area there were some patterns of habitat such as barracks and hilltop houses, which resulted from the use of spurs which had net works of roads play grounds and ample open spaces.

Crater:

Crater was formerly known as Aden before occupation and today Crater is the main district of Greater Aden. It performs administrative as well as commercial functions. The Central Business District (CBD) of Greater Aden is located in this district which is the seat of municipality, office of ministries of labours, local affairs, industry, commerce, finance and others.

Built up area of Crater is 96.2 hectares\(^{11}\), which is equal to 41.46 per cent of the total area of Crater which is 332 hectares. Most of the area consists of hills and projecting rocks. The overall layout of Crater resembles the grid-iron pattern, however it is different in its blocks and sections. There is emphasis on rectangular type of streets and blocks which are dominant in the civil lines. In the cantonment area the pattern is of single houses, bungalows or barracks arranged in a line with space around the bungalows or around the barracks.

Crater has been divided into different sections or blocks (fig. 48) which are named alphabetically according to

\(^{11}\) Development Scheme of Greater Aden, vol.1., part 1.
1973 census. These sections are named as A.B.C.D.E., Khosaf Valley, Front Bay and Maashiq.

These blocks are crossed by five roads running in different directions. Each block is crossed by different streets. The streets are parallel and they extend up to the northern part which is crossed by Aidarus Road. These roads are named in section 'E' as Bank Street, Laban Street, Sukena Street, Zobida Street, Marib Street and Grave Street. Cross roads parallel to Aidarus Roads are named as Haithain Road, Bedium Road, Almuksor Road and Al Nadi Road. Towards the end of the Al Nadi road in the south the street is not regular in shape. The first part of the street is known as Al-Salam Road and the second part as Laljee Road. The location of this part is affected by the grave yard and hills in the south and cantonment in the east where the roads are not regular. Along the Aidarus Road in this block there is the ministry of Finance, Treasury and National Bank of Yemen. In the east part there is Al Shaab Hospital and Immigration Department. Apart from the above functions the block is residential in function.

In the norht western part of Aidarus road the block "A" (fig.49) consists of 8 streets parallel to Esplanade Road running from the north west to south east connecting Saila Road to Aidarus.
The streets are named as King Solaman Street, Benin Street, Sheikh Abdullah Street and Zafran Road, in Block "A" while Al-Mutanabi street, Al Murrai street, Aettaqaddum street and Assiddiq street are located in "C" block. "C" block towards the periphery has different shapes. This is due to linear pattern of settlements along the Aidarus Road. These blocks and streets were parallel to the cantonment in the eastern part of the city. Their direction is towards main roads.

The second part of Crater consists of section (B) (fig.50) which is the main market of Crater and Greater Aden and can be called as the central business district. This block consists of streets running from south west and north east to meet the Tawela Road in main market where lies the C.B.D. Aban Road is also located in the north east of this block. This market is very old and constitutes the core of the city. It has Cloth market, Grain market, Auction market, Union market, Bohra market, Hadadin market, (Tin) Khaitin (Tailor) market and Jinah Road. In these markets there are also two lanes named Attarin lane and Kharrazin passage which cross the above markets at right angles. In addition there are some residential areas also. Streets between the blocks run parallel to Tawel Road in the main market which is crossed by three main roads and another small passage in the
north west direction. These streets are named as Al Rashid, Akbar, Al Amin, Macca, Al-Mutasim, Misr, Al Iraq, Luqman and Sawahili Street. The other roads which cross the former streets at right angle are known as Takreti Road and Pakistan Road. (fig.54)

The third block contains a street named Imam Ali. These last two blocks are accommodated in Tawela and the settlement here also is not in regular shape. The middle area was occupied by Dohbi Bara, Musafer Khana, and a fairly old school. The growth pattern of settlements is linear in shape.

Khosaf Section:

This block lies within two main roads Queen Arwa in the east and Gandhia in the west. This area was a part of the cantonment till the Second World War, when military was shifted from this area and led to the development of civil lines. Morphological structure of this block is different from the remaining blocks. Its buildings are new and multistoreyed. Towards the south along the Gandhia Road houses are in rows. The jail building was shifted to Al-Mansora. After independence the open space of jail building was utilised by multistoreyed buildings. The ministry of labour is housed in this block. In the western part of this area there stands a temple while rest of the area is residential. The eastern part of the district is the 'Front Bay'. This block was occupied by
British, which continued until the Second World War. The barrack area which was in Front Bay now consists of school and cultural services and is largely occupied by multi-storeyed houses. Towards the west of this block the land which was meant for parade was converted into stadium named Hubaishi. This is the only stadium in Greater Aden, small area is utilized as park while the remaining area has the main post office and Aden municipality. (fig. 52).

Towards the south gate the road leads to Maashiq where some houses of single storeyed are located. Today this area is meant for Government Guest Houses. Low land in the Hoalkat Bay accommodates a swimming pool and a cinema hall. While the remaining area is open. Along the Queen Arwa new multistoreyed buildings have been built to meet the requirements of growing population and also for military purposes.

In the C.B.D. most of the shops occupy the ground floor while the first floor is occupied by residential function. Northeast and northwest of the C.B.D. is occupied by cinema halls. Two hotels named Al-Jazeera and Ihsan guest house are found in the North western part of the commercial area C.B.D. The growth of the residential area and
administrative services are also located in the old cantonment area. Towards the periphery of Crater, especially in the northeast and northwest of police camp, towards Tawela valley, there are huts without electricity, sewage and water facilities.

Maalla:

This district is located between Crater and Tawahi districts (fig.52). Its total area is about 842 acres. Built up area consists of 55.4 per cent of the total area. The district has been under the control of the military authorities for a long time. It therefore was kept vacant and was not utilized. The eastern part of the district constituted old Maalla which contained settlements from the middle of the last century. It was located near the local craft harbour along the Maalla Wharf Road which was known as Decca of Maalla. The area was meant for stores and wharf for sheep and goats. It was also used as entrepot. The second part was meant for migrants to Aden who came from Somali land in search of work and traded in sheep and other animals. Towards the east of Somali Road lies the Police Lines. Masoni Lodge is located in the eastern part of the Mohammadan grave yard. The development of the area
started after the First World War. Single storeyed houses began to be built. After the Second World War the development of the harbour which was included into the district started. The reclamation started in order to arrange the facilities required for wharf, sheds, stores, quarters and buildings for staff and harbour.

From 1956 the growth started in the city as a whole and Maalla got its shape when multistoreyed houses were set up. The increase of population led to the increase of harbour activities as well as extension of the harbour and the military base. After the independence of People's Democratic Republic of Yemen, industrial zones were established in the area near the Port of Aden. It was particularly at the back of the harbour, where there were vacant plots. The industrial growth was relatively rapid.

Towards the south, the residential houses are in rows. Along the contour line of 40 m. there are multistoreyed houses which were built in 1957 in order to accomodate the harbour workers. The oil tanks in the western part affected the layout of buildings and streets of the district. Between the multistoreyed buildings and oil tanks lies the road named Ibn al Rumi Road. Towards the south along the contour line of 70 to 73 m. the demarcated area is covered by huts. Here the houses are of ordinary shape without electricity and other facilities.
The city has also expanded along the north eastern road in the district. This road connects the district with Khormaksar.

The C.B.D. of this district is dispersed. The streets named Madram and Assaiedi are the main commercial streets and are parallel to each other. On Madram Road there are Air Line Offices which occupy the ground floor. Fish market, vegetable and meat market are located in the middle of Maalla towards the east of the football ground. Another area for wholesale trade is located in the Dacca of Maalla where many stores exist.

The harbour area is divided into different sectors which performs different functions. Another area meant for repairing of ships lie to the north west of the port where it is known as Draft Basin. This became part of the public sector in 1969 because of the nationalisation of all harbour and port activities.

Tawahi:

Tawahi is the third component part of Greater Aden (fig. 54). This district consists of shopping area, market Bander Jadeed, Bangsar, Fateh and Demarcated area. This
district has a dispersed type of development. The topographical features of the area, the paucity of land, the extension of harbour are the important factors which led to the scattered plan of the district. The military establishment is separated from the civil lines and lie in the west part of the area. It was the shifting of the harbour to the Back Bay that laid the foundation of this settlement and its economic life is closely related to the harbour.

Morphological structure of Tawahi is also related to the harbour and the topography of the area has taken a crescent shape. The crescent shape is mainly due to the specific location between two spurs. The first part of Tawahi developed in the crescent area. In the western part, there is a shopping centre and the important roads Bohra and Hobishi. Along the main Tawahi street maritime agents built their offices, shops and houses. In the western sector of Tawahi the ground floor performs generally commercial function and the upper floor performs the residential function. The buildings in the western part of the Tawahi town have been replaced by multistoreyed houses. The paucity of land in this area induced the Port Trust to move towards the sea in order to increase the built up area of the town and to house new commercial building complexes and also residential portions.
In the last century the area of Hujef was meant for wharf and the ground behind the wharf for coal. But with the advance technology there occurred a functional change. The coal ground was replaced by oil tanks and pipes directed to the ships with this change the growth and the importance of district increased. New hotels sprang up and new buildings came up in vacant areas. The importance of the western area further increased as the eastern part was suitable for building. The streets in the town are generally parallel and cross one another almost at right angles. Development of the central commercial area in the west extends towards the main road. The main streets are Bohra Market, Jabarti, Al Maqдум, Kuwar, Al Jama and Saad. In the southern part of the settlement are the Al Nahda Road, Hamza Road, and Khatan Road. The south western part of this district still functions as cantonment. In north west and north east's Sapper Bay new harbour and cold storage for fish are under construction to replace the old wharfs. Reshifting and renovations took place to accommodate the Ministry of Planning and Statistical Division and recreation area in Post Office Bay.

Across the hills in the west the area has been reserved for military purposes. There is also a parade ground between the spurs of Jabal Shamsan and the Sapper Bay in the south of the cantonment. This area still functions as a cantonment and forms the administrative centre. The harbour lies in the
north-west and north-east, which is occupied by low land between the peninsula and the north lowland zone.

Khormaksar:

This district forms part of the northern foot hills of Jabal Hadied, which is a part of the peninsula of Aden. It is one of the cantonments, which gives a new shape to the physical structure of the city. Until 1960 Khormaksar was used entirely as a cantonment. After 1960, the civil population was permitted to build their houses in the southern area (October quarter) and after independence there was an influx of population which occupied the vacant houses in the area. This population came from different parts of the city as well as from the countryside. Thus cantonment fell into two parts: (i) Tariq camp towards south west and (ii) south west part of the airport. The layout and arrangement of this district is an open system, except the barracks and the buildings which are single, double and multistoreyed(fig.5). According to the 1973 census Khormaksar is divided into following divisions. White Town, Labour Island, Gamal Quarter, Al Rashid, Al Saada, Al Salam, Al Nasar and quarters for embassies. In the east lies a Teachers Training Institute and a public hospital known as Gamhoria hospital which has been converted into medical college. The airport along with
GREATER ADEN PART OF KHORMAKSAR
MORPHOLOGICAL STRUCTURE
1983

AL SALAM
QUARTER

LEGEND
RESIDENTIAL
COMMERCIAL
OFFICES
EDUCATIONAL
HEALTH
VILLA

Based on topographical sheet 1963
The public buildings and industrial establishments occupy large areas in the district and multi-storeyed houses lie in the vicinity of the military petrol pump and near the beach. Some of the public buildings are occupied by the Ministries of Construction, Agriculture, Health, and other institutions. Industrial establishments such as the plastic factory, soap factory, agro implements, and spare parts factory are present here. The commercial areas are limited to two departmental stores and some restaurants and cafes.

With the growth of the population and immigration, new houses have been added with open systems. The prefabricated and multi-storeyed houses which were constructed recently were meant for foreigners. Their flats are located near the beach and are about 300 in number. The landscape of the city has thus changed recently in its functional character.

Sheikh Othman:

In the district of Sheikh Othman, there are clusters of houses around the main settlement, which consists of four blocks A.B.C.D. (fig. 56).
Section D:

Section D consists of ten lanes running from south west to north east and these lanes are crossed by roads at right angles. The commercial centre is located towards the western part of Section "D" and eastern part of Section "B". Most of the shops face the main street. Sheikh Ohtman is divided into two parts by Connaught Road. This is the main commercial centre of the area, where vegetables, fish, meat and articles of daily need can be purchased. There is another market underneath Al-Noor mosque, which deals in clothes, watches and shoes. The remaining block is used for residential purpose. The north eastern part of this block contains hospital, school and football ground. In the eastern part of the area there are small villages consisting of huts and small houses with narrow lanes without sewage. Stagnant pools of water is common and the area suffers from drainage problem and the narrow lanes make the entrance into the area very difficult. The south eastern part of the area however, contains much better houses with small gardens.

Section B:

This section consists of 18 lanes and three main streets. The streets run from north west to south east and cross the lanes at right angles. The shops, restaurants and cafes along
the main road constitute the main shopping centre of this block, but at the same time the block also performs residential function. In the south east of B block there was a cattle shed and this part of the shed is almost in ruins. If the shed is removed just as the bus stand has been removed there will be more land available for constructing multi-storeyed buildings. In the south west there is a school, while in the north west, there is Salafi Road across the Connaught Road at right angles.

Section A :

Section "A" consists of seven streets running south to north west parallel to Salafi Road. The streets No.8, 9, 10 and the Connaught Road meet the Salafi Road at right angles. Morphological structure of this block consists of lanes, single storeyed buildings made of mud and stone meant for residential purpose. In the eastern part there is however a small area, which accommodates a school, post office and bus stand along the Connaught Road.

Section C :

Section "C" consists of seven streets parallel to Salafi Road and street No. 8 and 9 which meet the Salafi Road at right angle. The eastern section is used for residential purpose.
between the street No.8 and Darsaad Road. Some area has been developed for commercial functions including petrol pump. Towards the north east of this block area there are schools and small markets for sheep and forage. In the northern part, public utility services in the form of mental and maternity hospitals are under construction. Along the Darsaad Road, the area from the very beginning has been occupied by shops of wholesale and retail shops of foodgrains, articles of daily use while in the eastern part of this area the land is utilized for charcoal and firewood ground as well as for some settlements which have no drainage facilities. The north west of Sheikh Othman area is known as Qahra consists of houses made of cement stone. These houses are also facing drainage problems. This district is largely characterised by residential function.

Al-Mansora:

In Aden colony since 1959 there has been an acute housing problem. At that time there were about 7000 huts which were occupied by about 40 thousand people. There was a plan for constructing houses in Maalla behind the Masoni lodge, where some 1000 flats having six storeys were to be constructed. An other area known as Al-Mansora covering about 160 acres and lying between Caltex and Sheikh Othman was suggested to be developed as a township of 400 houses.
of three types.

2. Terraced Single Storey.
3. Terraced Double Storey.

By 1960 the land was given to people to build their houses under the above plan and with the building of houses, the growth of Al-Mansora continued after independence and soon it became congested. The layout of this district has a grid-iron pattern and the streets in the blocks are also in the same shape. However, most of the blocks are square-shaped except the one in the south where the shape is rather distorted. The district consists of two main roads and two streets parallel to the main roads. The main road running in the east west direction separate the residential blocks from the industrial block.

There are eleven streets which cross these blocks from south to north. This has led to the formation of a firm grid with the former four roads (fig.57). In the eastern block the houses are mostly multi-storeyed, while the block performs residential function a small area is kept as a market for meat, vegetables, petrol pump and mosque. Wholesale market for Qat* functions twice in a week i.e. on thursday, friday

* Qat (Catha Edulis)
and also on holidays. The area suffers from congestion of buildings and poor drainage. Towards the northern part of the residential area there is a Central Jail, Textile Factory, a grave yard with a mosque, Department of Visual Aids and multi-storeyed buildings for military officers.

Darsaad:

Darsaad is the eighth district of the Greater Aden. Darsaad started its growth as a customs house from 1881 on the boundary of Aden when the British purchased Sheikh-Othman from Sultan of Lahej with the result of Sultan transferred the customs house from Sheikh Othman to their area.

Qat (Catha Edulis) is a green leaf. People usually chew this green leaf on Thursday and Friday and during official holidays. Use of Qat in remaining days is prohibited. During British period lot of money was spent in order to import the Qat from Ethiopia and North Yemen.

Now-a-days Qat is produced locally. It was estimated that Municipality of Aden earned 1.3 million Dollars from Qat during 1982. There are at present 523 places in the city where Qat is being sold.
From that time Darsaad was located in the border area of the main building of the area. Its population was unknown till 1973 when it became part of Greater Aden. There was a slow growth of houses till 1950 after which there was a rapid economic development as the rents were much lower compared to the rents prevailing in Aden colony. Still upto 1956, there was a slow growth of population. Later the growth of the population became rapid as the British did not allow Qat to enter the colony with the result selling and chewing of Qat was dominant in Darsaad. Consequently large number of houses increased in Darsaad. The Sultan of Lahej sold the land to the people without any proper plan and houses were built without any planning (fig.58).

However small number of houses were built towards the west. These houses were built of bricks and cement. Nowadays this area is having a good position as compared to the eastern portion, which constitutes without sewage and water supply system.

According to 1973 census, Darsaad district consisted of Darsaad town with the villages of Al-Memdara, Al-Mahariq, Al-Basaten, Masabien and Al Imed with population of 16326, 8210, 170, 183 and 413 respectively. The total population of this district reached 26308 which is 10.9 per cent of the population of Greater Aden. This district is characterised by following morphological features.
It will thus be seen that there is an absence of proper layout of quarters, except some of the houses in the western part. Most of the houses are made of wood, tin, bricks and also of mud and cement. Most of the houses are without drainage. The roads are narrow between the houses and without any civic facilities. These clusters of houses are very unhealthy and crowded. Table XXV shows the amenities of houses in Darsaad district.

Table XXV : The Conditions of Amenities in Darsaad (1975)

<table>
<thead>
<tr>
<th>Total Number of Houses</th>
<th>Without Electricity Number of Houses</th>
<th>Without water supply system Number of houses</th>
<th>Without Sewerage Number of houses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Electricity Percent of the total of houses</td>
<td>Without water supply system Per Cent of the total of houses</td>
<td>Without Sewerage Per cent of the total of houses</td>
</tr>
<tr>
<td></td>
<td>533</td>
<td>479</td>
<td>89.8</td>
</tr>
</tbody>
</table>

Source : Based upon socio-economic survey in Aden, Ministry of Local Affairs, Aden., 1975

Al-Shaab :

This district is well-planned having single storeyed houses. Most of the houses are surrounded by trees. The district was the capital of South Arabian Federation where houses for ministers were established in the western part. Today it is an administrative suburb of Greater Aden. The area is occupied by Ministry of Education, External Affairs, and Head quarters of the University of Aden occupied the premises of Ministry of Interior.
Layout of this town is very simple and consists of the main road running from north west to south east, which divided the built up area into two parts. (fig. 99) Houses in the eastern part are small and clustered in rows with double storeys, while the houses in the western part are of Villa and Bangalow types. In the north west, built up area consists of prefabricated houses. The houses were built for experts who were working in the electric power station during the construction period. Apart from the above town there are villages known as Hiswa, Mehram and Abo Harba. In the north western part of the district outside the Greater Aden boundary is Bir Ahmad which consists of a cluster of houses.

MORPHOLOGICAL REGIONS OF GREATER ADEN:

From the morphological point of view the city has a unique structure resulting from its unique location. The nine components of Greater Aden are separated from one another by topographical features such as spurs, water bodies, salt pans and sand dunes interlinked by various roads. Each of these components has its own layout of settlement, streets, commercial, social and economic sectors. The morphological structure can be explained under three sections:
(i) Inner Zone

(ii) Intermediate zone

(iii) Outer Zone (fig. 60)

(i) Inner zone:

This zone covers the old part of the city including Crater, Maalla and Tawahi. This is the ancient part of the city of Aden. The inner zone has all the facilities and it is located in the vicinity of the port. Most of the Ministries, Institutions and Residency are located in this region. On commercial, financial and industrial bases it could be further divided as follows:

(i) The Core
(ii) The zone surrounding the Core
(iii) Inner middle west zone including Maalla
(iv) Inner west zone including Tawahi and Steamer Point.

(i) The Core:

The core is the heart of the city and lies along the Tawel Road and Zafran Road. From here, roads radiate in all directions. It can be called as the commercial hub of Aden as businessmen throng here not only from the various parts of the city but also from the surrounding countries like North Yemen, India and Somalia. Owing
to commercial activity small shops and double storeyed buildings have emerged. In the east part of the core are the financial institutions, Municipality and Post Office. (fig.61).

(ii) Zone surrounding the Core:

This part includes the residential area and some public buildings. Within the residential area, old offices and stores have been transferred to public buildings and some of the area was left for cantonment establishment since the occupation of the city.

(iii) Inner Middle West Zone:

This area includes Maalla which for a long time was kept vacant for military purposes. But towards the end of the last century it was meant for local craft, harbour and some residential areas developed around it and subsequently a metalled road was built in the area which served the purpose of a thorough fare. The harbour authority reclaimed the land to accommodate the harbour sheds, stores and buildings. Multi-storeyed houses sprang up along the main road.

Along the main street ground floor was kept for commercial purposes, while other floors were kept
for residential purposes. On both sides of the streets big stores for cloth, grocery and Air Line offices are located. In addition whole-sale complex is situated in Maalla Decca. This zone includes the Ministry of Commerce which is under construction, Ministry of Housing and Ministry of Justice. The electric power station and corporation are also located in this zone. Towards the south of the harbour there are industrial establishments.

(iv) Inner western zone:

This zone includes Tawahi and Steamer Point. This part is located in the western part of Aden peninsula. The harbour and Business Centre have been established in the eastern part of this zone.

II Intermediate Zone:

This zone consists of the whole of Khromaksar settlement. It is situated towards the north near the foot hills of Aden peninsula and extends upto the Khormaksar bridge, where the salt fields start. All the roads connecting Greater Aden to Aden peninsula pass through this region. Settlement and housing design of this region’s not quite similar to the rest of the city. It has cantonments with large camps prefabricated multi-storeyed houses and Villa type in which some of the diplomats are houses. This part
also contains the wholesale market for vegetable and fruits and public offices.

Teaching institutions like Teachers Training Institute, School for Education of Higher Social Studies, Higher College of Education and Medical College are found here. Dairy Factory Agricultural Equipment Factory and Plastic Factories are located in different parts of this zone. Ministry of Health, Ministry of Agriculture, Ministry of Construction, Traffic Department and new Five Star Hotels have also been established.

III. The Outer Zone:

This zone is spread over several parts in view of its scattered layout. The various parts are: (fig.62).

(i) The Outer Central Zone:

This zone refers to Sheikh Othman district, which was the first area to have developed since 1881. This was purchased by the British from Sultan of Lahej. Most of the houses in this area are single-storeyed with terrace system. There are also double-storeyed and new multi-storeyed houses prefabricated with well developed-kitchen, bathroom, dining hall and dressing room. In the eastern part there are garden houses but now most of these houses are in dilapidated condition.
GREATER ADEN
MORPHOLOGICAL REGIONS
PART OF THE OUTER ZONE
1983

LEGEND
NORTH CENTRAL REGION
CENTRAL REGION
WEST CENTRAL REGION

DARSAAD

SHEIKH OTHMAN

ALMANSORA
1:25000
1.75 50.25 0
1 KILOMERE

H. Shukri

FIG. 62
Towards the east of the outer central zone there lies an old village of Sheikh Al Dawiel which is about 6 m. above sea level. This village is crowded with houses and without any facilities of drainage and water supply.

(ii) North Central Zone:

This zone consists of Drasaad district and is characterised by an unplanned settlement. Housing in the eastern part consists of huts built of wood and tin. However, the western part of the area is not well planned. Most of the buildings in this part are single-storeyed.

(iii) The Outer West Central Zone:

This zone covers the suburb of Al-Mansora which started as a suburb of Sheikh Othman in 1960. Today it is more populated than Sheikh Othman. This zone has been divided into three parts - Eastern part, Western part and Southern part.

(a) Eastern Al-Mansora: This part has been developed recently since 1880 onwards, when the Ministry of Housing and some private houses were started. By the end of 1984 new areas developed as multistoreyed buildings and a special hospital was also constructed. In the north
there are two open cinemas constructed in 1950 and towards the south there is an industrial area and some old houses.

(b) Western Al-Mansora: In the western side of the district of Al-Mansora the houses are different from the rest of the zone. Small houses of single and double storeys are found in this area. Infront of every house especially in the western part people have built small walls with the result that the streets became narrow and there is no scope for further development. However a new area has developed in the north western part of this part.

(c) Southern part: This part is meant only for industrial purposes, but in the eastern side the residents occupied the first floor while rest of the ground is left for industrial purposes.

(iv) The Outer West Zone: This part includes the small town of Al Shab with few houses. According to 1973 census, population of this region was 4965. It was planned as administrative capital for the Federal Government in 1956. Today apart from good residential houses particularly in the west, there are single double and multi-storeyed houses. While in the eastern part the Ministry of Education and small houses are located. The University is towards the north and facing the university there is
GREATER ADEN
WEST AND WESTERN REGIONS
1983

WEST REGION

AL SHAAB

WESTERN REGION

LETTL

ADEN

1:100,000

1 0 1 2 Kms.

H. Shukri

MASTER PLAN GREATER ADEN, 1980

FIG. 63
Ministry of External Affairs in the eastern side. Al Hiswa village consists of huts and new buildings of cement blocks. Towards the south west there are clusters of houses named Mehram. In this region a power station is under construction and there are some prefabricated single houses to accommodate the workers and experts engaged in the construction of thermal power station. (Fig 63)

(v) Western zone: This zone is known as Little Aden and consists of industrial suburb and is surrounded by villages and cantonment. It accommodates the Oil Refinery which is the only large scale industry in the city, where more than 2000 labourers are working. This industry was established by the British in 1954 and was under their control upto 1977 when it came under the control of People's Democratic Republic of Yemen. This zone is divided into three quarters- Gadir Quarter meant for higher officers, Manzala quarter meant for labourers and Sada quarters consisting of houses for labourers, also shops, cinema halls, schools and open grounds.

The pattern of houses in this zone is different from other regions. Most of the houses are single-storeyed with open ground in front of them. There are also small villages which are mostly unplanned and consists of huts and small houses built
of cement and bricks. Water facilities and drainage facilities do not exist. Houses are made of wood, tin and asbestos. The northern part consists of cantonment, which was established in 1960.

The different phases of the development and the changing pattern of the layout of Greater Aden coupled with the grid pattern of roads and streets are the outstanding features of the morphological character of the city. Its morphological structure is unique in the sense that the city has multinuclei. Each nucleus with its skyline types of houses, pattern of roads and streets are not similar to each other. The theories of Burgess and Hoyet with regard to the evolution of cities cannot be applied to Aden. One of the greatest factors which has played its part in the morphological evolution is the dominance of the military. The requirements of space for administration also did not allow the natural progressive growth and evolution of the city. Other factors which have played a significant role in its present morphological evolution have been the British policy of segregation and the particular topographical outline of Aden. Whatsoever planned development one finds in the various nuclei of the city since independence is to fulfil the requirements of people, and is to maintain its special morphological character.