In the previous three Chapters, i.e. VII, VIII and IX, the socio-economic status, behaviour and life style and housing characteristics of suburban population have been analysed to understand the difference between the residents of core villages and housing societies of different maujas. It has been found that all the core villages have traditional socio-economic status, behaviour and life style and housing characteristics but housing societies in most of the maujas have modern socio-economic status and housing characteristics but traditional behaviour and life style of residents. It is interesting to note that people of all core villages are not traditional in the same manner and also the people of housing societies are not modern in the same rate. So, to find out a residential pattern and a typology on space, the 'Socio-Demographic Model' has been formulated using the above mentioned three major factors. The model is represented by a three-dimensional rectangular parallelepiped graph. Three axes of this graph have been represented by socio-economic status (X-axis), behaviour and life style of residents (Y-axis) and their housing characteristics (Z-axis). These three factors are very much interrelated. As for example, socio-economic status which has variables like level of occupation, education, monthly income, family background etc. controls the behaviour and life style, like possession and use of various goods, reading and recreation habit, the style in raising children, their attitude and belief, etc. Both socio-economic status and behaviour and life style control housing characteristics i.e. housing structure, size, facilities, value of the house and internal density, etc. This model measures the level of 'Modernity' of the suburban residents in their socio-economic status, behaviour and life style and housing characteristics. The term 'Modern' used in this study means freedom of thought, an enlightened framework of mind and technological sophistication, whereas the term 'Traditional' means the belief in age-old
traditional institutions, a state of mind less conducive to change, and resistance to accept scientific way of life. In this model, all residential structures, i.e. of core villages, of housing societies and of other types of houses, have been combined in a mauja. The mauja has been considered as a single unit to find out the difference between various maujas regarding socio-economic status, behaviour and life style and housing characteristics so that a suburban typology of household and housing can be evolved.

In the following sections, spatial distribution of three factors have been described briefly.

1. Factor-I: Socio-economic Status

The study area displays a mixed pattern of socio-economic type of community (Figure No.10.52). The southern portion of the study area has modern socio-economic status and northern part has traditional status, while the central part is a transitional area having both modern and traditional status giving rise to a mixed pattern.

Vejalpur and Jodhpur situated in the southern part of the study area are the extension of the developed areas of the city. Vejalpur, situated in the extreme south, is one of the earliest developed mauja of the study area. It is also the most developed mauja regarding accessibility, connectivity and amenities. This is the only mauja where a large number of Muslim population of higher socio-economic background had migrated from the core city in housing societies of this mauja. That has made the mauja cosmopolitan in nature. Though the socio-economic status of the residents of the core village is quite traditional, the modern socio-economic status of a large population of housing societies has made the overall score high in 'Modernity Index' in this mauja as a whole.

Jodhpur is the most cosmopolitan mauja of the study area. The original residents of the core village, i.e. Patels of this
FACTOR I: SOCIO-ECONOMIC STATUS

NAME OF MAUJAS
1. VEJALPUR
2. JODHPUR
3. VASTRAPUR
4. MEMNAGAR
5. GHATLODIYA
6. THALTEJ
7. CHANDLODIYA
8. RANIP

INDEX
MODERN
TRADITIONAL

FIG. No. 10-52.
SOURCE: FIELD SURVEY.
mauja, have high socio-economic status than the residents of other core villages. That attracted the people of modern socio-economic status to settle in housing societies of this mauja.

Vastrapur has a number of institutions. So, a large portion of its residents, both of core village and housing societies, has modern occupational status as they work in these institutions. Higher level of occupation of residents and presence of large number of immigrants have increased the socio-economic status of this mauja.

Ghatodiya, situated in the north-west also has modern socio-economic status, but the score in 'Modernity Index' is lower than that of Jodhpur. Though till the later half of 1970's Ghatodiya did not have good amenities and facilities, this mauja has grown very fast recently due to the improvement in accessibility and infrastructural facilities. So, this mauja has been developed as a cosmopolitan area with residents of relatively high socio-economic status in its housing societies.

Ranip and Chandodiya situated in the extreme north and north-west and Thaltej in the extreme west, have residents with traditional socio-economic status. In Ranip, the industrial landuse, along with poor accessibility and long distance from the city-centre, has made this mauja less attractive to the people of higher socio-economic status. In Chandodiya and Thaltej, poor connectivity and distance from the city-centre have discouraged the concentration of the people of higher socio-economic status in these maujas. But the concentration of population of traditional residents in Memnagar is an unexpected phenomenon, as Memnagar is the extension of a posh locality of the city. The socio-economic status is the combination of many variables, so it can be said that residents of Memnagar have high score in some variables like monthly income, level of occupation etc. but they have low score in other variables, like type of family, food habit etc. So they have relatively low score in 'Modernity Index' in general in socio-economic status.
So the concentration of residents with high socio-economic status mainly depends on factors like its nearness to the city-centre, high connectivity, availability of amenities and the caste of original residents of core villages.

2. Factor-II : Behaviour and Life Style

There is a contrast in the spatial distribution of the socio-economic status and behaviour and life style of residents. The modern behaviour and life style which has been indicated by the residents' possession and use of modern goods, expectation of higher education for children, reading and recreation habits etc. have been present only in two maujas in the extreme south, i.e. Jodhpur and Vejalpur. These two maujas in the extreme south, also have residents with modern socio-economic status. But, in other two maujas, i.e. Vastrapur and Ghatlodiya, where residents are having modern socio-economic status have traditional behaviour and life style. This contrast in spatial distribution is due to the fact that there has been a change in suburbanisation but behaviour and life style of residents have not changed in a same manner.

In four other maujas, i.e. Ranip, Chandlodiya, Thaltej and Memnagar, residents have traditional behaviour and life style and similarly they have low socio-economic status of residents. So there has not been any contrast between two factors (Figure No. 10.53).

3. Factor-III : Housing Characteristics

The housing characteristics more or less follow the same pattern as socio-economic status except in Vastrapur and Memnagar (Figure No.10.54). In Vastrapur, most of the people live in the core village, so, they have traditional housing characteristics, i.e. without various facilities (like separate bathroom, toilet, kitchen), small built-up area, low selling value of houses and high internal density. But as most of them are engaged in higher level of occupation, they have modern socio-economic status. On
FACTOR III: HOUSING CHARACTERISTICS

NAME OF MAUJAS
1. VEJALPUR
2. JODHPUR
3. VASTRAPUR
4. MEMNAGAR
5. GHATLODIYA
6. THALTEJ
7. CHANDLODIYA
8. RANIP

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FIG. No. 10'54.

SOURCE: FIELD SURVEY.
the other hand, residents of Memnagar have modern housing characteristics, as people living in this mauja have high income, but other variables, i.e. type of family, food habits etc. of the socio-economic status are traditional which has resulted in an overall traditional socio-economic status of the residents.

4. Residential Typology

A combination of these three major factors has been used to evolve residential pattern on space and to classify the pattern into traditional, mixed and modern (Figure No.10.55) in terms of socio-economic status, behaviour and life style and housing characteristics of residents. Ranip, Chandlodiya and Thaltej are termed as 'traditional' maujas, where all three factors are traditional. In other cases, like Vejalpur and Jodhpur, all factors are modern as those have been named as 'modern' suburbs. But the maujas like Vastrapur, Memnagar and Chatlodiya, where factors are combination of both modern and traditional, are termed as 'mixed' suburbs. The pattern of the study area depicts a slope of distribution where modern suburbs are in the extreme south and traditional suburbs are in extreme north and west, while in the centre, the mixed suburb is situated. So, the general slope of the pattern is from the south to the north - from modern to traditional suburbs.

The 'Socio-Demographic Model' has been formulated from these three factors depicting that there is a large difference between maujas in behaviour and life style of residents than other two factors, i.e. socio-economic status and housing characteristics (Figure No.10.56). It indicates that people take longer time to change their life style but external factors like housing structures or income, education, can be changed faster. This model implies that behaviour and life style of people do not change as fast as that of socio-economic status or housing characteristics. This model also helps us analyse various processes that are responsible for the growth of the suburbs. Modern suburbs (Vejalpur and Jodhpur) have the highest percentage of
NOTE: THREE DIMENSIONAL PARALLELEPIPEDS INDICATE THE DISTANCES OF THREE AXES FROM 100 M.E. ONE M.I.S INDICATES THE INDIVIDUAL HOUSE AND THE STUDY AREA HAVE SAME POINTS SO THIS MODEL DOES NOT CONSIDER TOTAL MODERNITY INDEX SCORE OF AN AXIS OR A WALKER BUT ITS DEVIATION TOWARDS MODERNITY OR TRADITIONALITY FROM THE TOTAL STUDY AREA.
RESIDENTIAL PATTERN OF THE SUBURB - SOCIO-DEMOGRAPHIC MODEL

NAME OF MAUJAS
1. VEJAIPUR
2. JODHPUR
3. VAST RAP UR
4. MEMNAGAR
5. GHATLODIYA
6. THAITEJ
7. CHANDLODIYA
8. RANIP

INDEX

MODERN
MIXED
TRADITIONAL

FIG. Nc. 10-56. SOURCE: FIELD SURVEY.
agricultural and residential area (Table No.10.22). The modern suburbs also have the highest growth rate of population (Table No.10.22). But it is interesting to note that the modern suburbs have lowest residential density. So, the living conditions of the residents of the modern suburb is better than mixed and traditional suburbs. The mixed suburbs have highest net density but are less crowded (net density: persons per square kilometre of residential area) than traditional suburbs, because in mixed suburbs, vertical extension of new houses is common. Crowded living condition is seen in the traditional suburbs with internal density of houses (i.e. more number of persons per room).

Residents, with their low income, are forced to live in this traditional suburbs where availability of facilities is also very low (Table No.10.22). This type of suburbs have very few shops, bus services and metalled roads but some of the maujas (i.e. Ranip), due to industrialisation have some other amenities like police station, bank, etc., which are not present in mixed suburbs. So, the traditional suburbs have high score in amenities than the mixed type of suburbs. But private land agents, who have developed suburban areas are not interested in the development of traditional suburbs in terms of shops, approach roads, due to the low land value of this area. So, the traditional suburbs are gradually decaying while modern suburbs with low density and with facilities are flourishing into a good residential area. Most of the people of the suburbs like to live in the modern suburbs. The modern suburbs create a good image within the suburban population. So, the people who cannot afford to live in the modern suburbs but have the desire to live there, feel frustrated. Some of them like to live in mixed suburbs which are closer in quality to modern suburbs. Due to this reason, areas adjacent to modern suburbs have started growing very fast. In those areas people with relatively lower economic status have started living in a crowded manner to compensate with the higher land and rental value. Private house builders also take this as an opportunity and make houses in all available
Table No. 10.22

Distribution of morphological factors in areas of different residential pattern, 1981

A. Landuse (% to total area)

<table>
<thead>
<tr>
<th>Type of Pattern</th>
<th>Non-agricultural area</th>
<th>Residential area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern</td>
<td>46</td>
<td>25</td>
</tr>
<tr>
<td>Mixed</td>
<td>44</td>
<td>20</td>
</tr>
<tr>
<td>Traditional</td>
<td>38</td>
<td>14</td>
</tr>
</tbody>
</table>

B. Demography

<table>
<thead>
<tr>
<th>Type of Pattern</th>
<th>Growth rate 1961-81</th>
<th>Net density persons/sq.km of residential area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern</td>
<td>1,342</td>
<td>14,488</td>
</tr>
<tr>
<td>Mixed</td>
<td>1,151</td>
<td>20,687</td>
</tr>
<tr>
<td>Traditional</td>
<td>495</td>
<td>16,100</td>
</tr>
</tbody>
</table>
Table No. 10.22 (Contd.)

C. Infrastructure

<table>
<thead>
<tr>
<th>Type of Pattern</th>
<th>Persons per bus</th>
<th>Persons per shop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern</td>
<td>166</td>
<td>166</td>
</tr>
<tr>
<td>Mixed</td>
<td>77</td>
<td>132</td>
</tr>
<tr>
<td>Traditional</td>
<td>257</td>
<td>764</td>
</tr>
</tbody>
</table>

areas, in a crowded manner. Most of these housing societies are far from the main road and without any proper approach road. If the construction work of this type of house starts increasing in modern and mixed suburbs, then physical condition of these suburbs will also deteriorate in near future.

The following observations are noticed with the help of this model:

i) The richer section of population is more exposed to the outer world due to their high income - hence they have modern attitude and behaviour in their life style as well as housing structure;

ii) The middle income group tries to be modern externally in their material possession and in housing structure. But due to their traditional type of interactions, beliefs and low level of exposure to new thoughts, this group has remained traditional in behaviour pattern. So, a mixed pattern has evolved with modern housing and traditional attitude of residents. There is always a time lag between the external changes, which are reflected on residents' housing, and in internal changes of human attitude and behaviour;

iii) The traditional group of residents have very little interaction with the modern world in terms of life style, housing condition and in behaviour pattern. People are still in a closed type of system and there is no clash between internal and external factors of life.

The conflict of philosophy of modernity and traditionality is more in the transitional zone than in the modern or traditional pattern of social organisation.

It is also observed in this model that the growth of the study area is very unsystamatic. Though the government has taken up many measures to control the suburban development but most of them have failed at certain level. A number of programmes is needed
to have a systematic suburban growth. The Urban Development Authority must provide equal amenities in all parts of the suburbs. The government must keep a programme of minimum requirement in suburban houses especially in the core villages which may become urban slums in future.

The 'Socio-Demographic Model' proposed in this study can be useful in analysing other Indian cities with some modifications. For a better understanding of the residential pattern and classification of the suburb, it is necessary to study this model at two points of time (at least five years apart). The study in two points of time will be helpful to have a picture in the trend of the pattern. The main drawback of this model is that it is static. It does not deal with constantly changing variables like migration of residents and housing market, i.e. buying and selling of the houses.

The model will certainly contribute towards the studies of pattern of suburbs especially in terms of total typology. A comparison of pattern between socio-economic status of residents, their behaviour and life style and their housing characteristics can bring out a clear picture in such a comprehensive manner that is useful in micro-level planning of suburban areas or any other areas where this model can be applied.