CHAPTER TWO

POPULATION CHARACTERISTICS

The study of the characteristics of population in an urban area, namely, distribution, density, literacy, sex ratio, working population, occupational structure, and the proportion of scheduled castes, derives its significance from the interaction of the quality or level of living of the urban population with the nature and level of urban amenities. This affects the patterns of landuse, morphology, and the functional character of towns.

The quality or standard of living is determined by the culture of the people and the balance between the actual availability and the demand for urban amenities. The culture of the people influences the size and the character of population, which in turn generates the demand for the urban land. The demand for different amounts of land, its availability and actual utilisation results in distinctive patterns of landuse in towns.

In addition, the amount of land put to different uses display temporal variations according to the dominant cultural controls, and thus, change with changing cultures. Consequently, different historical segments of the same city exhibit distinctive morphological and functional attributes related to the sequence of cultural successions.

Lastly, the attributes of urban population also reflect the functional character of the city. The functioning of the city is revealed by the occupational structure of its population. The workers in a city's population serve the population of the city
and of the surrounding hinterland, thus, performing non-basic and basic functions.

SOURCES OF DATA

The most comprehensive data for discussing the population characteristics of any part of the country are stored in the numerous publications of the Census of India and the District Gazetteers published during the colonial period. Data used in the present chapter were collected from the following published records of these sources:


METHODOLOGY

Two types of problems are encountered in the representation of population data (23), procedural, and cartographic. The former relates to the selection of the unit in which data are plotted, and the latter, to the choice of a
suitable technique. To avoid the proverbial tendency of averaging black and white into grey, data for blocks, the smallest enumeration unit in a town, were used. To facilitate handling, the data were converted into percentages. For cartographic representation of this data, the choropleth method was the logical choice due to its suitability for the representation of ratios. This method has been used in the preparation of maps showing patterns of spatial distribution of all the characteristics of population except its distribution. This has been shown with the help of dots. To make the map more realistic negative areas were ignored in the placing of dots (24). The number of categories and their intervals were determined with the help of frequency graphs, and the median and mean values.

DISTRIBUTION OF POPULATION

Rohtak, with a population of 1,24,755 persons, emerged in 1971 as one of the two cities (25) of Haryana, the other being Ambala Cantonment.

The distribution of population in Rohtak reveals the following physically separated areas of concentration (Fig.6):

1. The Walled City;
2. The Camp Area which was established with the objective of temporarily settling the displaced persons who had migrated from West Pakistan after the Partition of the country in 1947; and
3. The main area of commercial concentration located between Railway Road and Rohtak-Jhajjar Road and to the south of the Walled City.
ROHTAK

DISTRIBUTION OF POPULATION
1971

ONE DOT REPRESENTS 25 PERSONS
The Walled City spreads over 0.176 square mile and contains 29393 persons. It accounts for 23.56 per cent of the population and 3.1 per cent of the area of Rohtak, and has a population concentration index (26) of 7.4

Within the Walled City concentration is highest in two areas: in the centre and in its northwestern part (Fig.6). The former has a population of 3254 persons and an area of 0.020 square mile forming respectively 2.6 per cent of the population and 0.35 per cent of the area of the city. The latter area has a population of 3493 persons and an area of 0.10 square mile forming respectively 2.8 per cent of the population and 0.17 per cent of the area of the city. Together, these two concentrations account for 5.4 per cent of the population and 0.52 per cent of the area of Rohtak.

Within the Walled City, the northwestern concentration accounts for 11.8 per cent of the population and 5.6 per cent of its area. The concentration in its central part accounts for 11.0 per cent of the population and 11.3 per cent of its area. Together, these concentrations have 22.8 per cent of the population and 16.9 per cent of the area of the Walled City.

Thus, with reference to both the entire city and the Walled City, the population concentration in the northwestern and central parts of the Walled City is indeed very high.

The high concentration of population in the Walled City is related to the following factors:

1) its early occupance;
11) the tendency among the workers to continue living in the ancestral, inherited residences located near the place of work, a tendency which is particularly strong among the workers engaged in trade and commerce, the dominant occupation in the Walled City; and

iii) dispersal of a small volume of population to the extra-mural areas at a later stage in the evolution of the city.

The Camp Area spreads over 0.094 square mile and has a population of 13143 persons, forming 1.6 per cent of the area and 10.5 per cent of the population of the city. Its population concentration index is 6.2.

The Camp Area was established immediately after the Partition of the country in 1947 to serve as a refugee transit camp. Subsequently, it became a permanent residential area and now houses mostly the low-income group people comprising of a small proportion of scheduled castes, and menial workers, peons, and showkidars (watchmen).

The third concentration of population is located in the main commercial centre extending between the Railway Road and the Rohtak-Jhajjar Road. It has a population of 3499 persons spread over an area of 0.026 square mile. This is 2.3 per cent of the total population and 0.45 per cent of the area of the city. The population concentration index of this area is 6.0.

An analysis of the location quotients of population of the annullexes (27) (Table 1) reveals high values in annule numbers 1, 2, 4, 6 and 8. These high values indicate the location
of the areas of population concentration in them and suggest the multi-modal character of population distribution. The decrease in the values of location quotient with increasing distance from the centre conforms to a great extent the well known distance-decay model.

<table>
<thead>
<tr>
<th>Annule No.</th>
<th>Population</th>
<th>% in total</th>
<th>Area in sq.miles</th>
<th>% in total</th>
<th>Location quotient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1573</td>
<td>1.2</td>
<td>0.01</td>
<td>0.19</td>
<td>6.3</td>
</tr>
<tr>
<td>2</td>
<td>5584</td>
<td>4.4</td>
<td>0.15</td>
<td>0.80</td>
<td>5.5</td>
</tr>
<tr>
<td>3</td>
<td>5693</td>
<td>4.5</td>
<td>0.20</td>
<td>3.14</td>
<td>1.4</td>
</tr>
<tr>
<td>4</td>
<td>7934</td>
<td>6.3</td>
<td>0.14</td>
<td>2.39</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>13259</td>
<td>10.6</td>
<td>0.33</td>
<td>5.83</td>
<td>1.8</td>
</tr>
<tr>
<td>6</td>
<td>23521</td>
<td>18.8</td>
<td>0.50</td>
<td>8.83</td>
<td>2.1</td>
</tr>
<tr>
<td>7</td>
<td>21461</td>
<td>17.2</td>
<td>0.41</td>
<td>25.21</td>
<td>0.6</td>
</tr>
<tr>
<td>8</td>
<td>19529</td>
<td>15.6</td>
<td>0.81</td>
<td>14.03</td>
<td>1.1</td>
</tr>
<tr>
<td>9</td>
<td>17725</td>
<td>14.2</td>
<td>1.30</td>
<td>23.03</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>8452</td>
<td>6.7</td>
<td>1.01</td>
<td>16.50</td>
<td>0.4</td>
</tr>
<tr>
<td>11</td>
<td>5041</td>
<td>4.0</td>
<td>0.81</td>
<td>14.58</td>
<td>0.2</td>
</tr>
</tbody>
</table>

DENSITY OF POPULATION

Density of population, is, second to distribution, the most important attribute of population. It generates processes which greatly affect the morphological and functional attributes of an urban place. It creates demands
for urban amenities and non-basic services expressed in related structures and which, in turn, shape the pattern of landuse. Finally, it has strong associations with the quality of living in different parts of an urban place.

Generalities

The average density of population (28) in Rohtak is 20792 persons per square mile (32 persons per acre) (29). This figure increases to 30432 persons per square mile (47 ppa) if only the built-up area of the city is considered. Contrary to the current visualisation of an enormous agglomerate mass of densely packed houses covering the entire municipal area, a typical Indian city does have large vacant lands resulting in a relatively lower average density (30).

In Rohtak the pockets of higher density are separated from each other by intervening sparsely populated tracts (Fig.7). At some distance from the centre of the city the density suddenly drops down deeper than is expected on the basis of a distance-decay relationship. As a result, the craters revealed in the density profiles (31) are located between the two high density summits at a distance from the city centre (Fig.8). This suggests a weak relationship between density and distance (32). The density values instead of declining regularly with increasing distance from the city centre rise again near the periphery of the city. This stands out in sharp contrast to the density patterns of Occidental
cities where the crater is generally located at the city centre and the density declines steadily due to the suburban-ward movement of population. In Oriental cities such movements are of small magnitude and of recent origin.

Generally, the older settled areas and the localities of main commercial concentration have high density. In contrast, the Civil Lines (33) have a small resident population who live in large bungalows having extensive compounds.

In the Walled City the high population concentration is associated with: (i) the assured quantum of physical, moral, and economic protection alluring the settlers; and (ii) as in many Oriental cities, the high degree of spatial association between economy and society, that is, of the places of work and residence, specially among the traders living along with their families has resulted in high concentration of population.

In the Civil Lines the lower density is associated with: (i) the spacious layout of residential houses and other structures with extensive vacant compounds or yards; and (ii) the disjunct location of the area from the indigenous city. The former developed in response to the colonial way of living, the latter due to the notions of pollution associated with the native area. These factors do not operate at present, but the layout of the area, a persistent morphological attribute of the town-plan, coupled with high land-values, high rents, and somewhat distant location from the main markets, prevents a
concentration of population in this area.

Spatial Pattern

Five types of density areas have been identified (Fig. 7). For the purposes of discussion here, the highest two and the lowest two have been combined to form areas of high and low density respectively.

1. Areas of High Density (more than 150 ppa)

Except for a few narrow belts almost the entire Walled City is characterised by high density (Fig. 7). Within the Walled City, the central parts are more densely populated and also have a very high concentration index of houses (more than 4.0).

Crowding in the Walled City was initiated by early occupancy and was sustained by residential inertia and continued attraction to protected sites and proximity to the families of the same communities.

The Camp Area is comprised of the former refugee transit camp established in 1947. The population in the camp declined in later years when some of the persons out-migrated to occupy other sites allotted to them in the city or in search of better economic opportunities. The remaining population grew large due to the influx of the low-income group families from the surrounding area. Thus, it emerged as a permanent low income
group, high density residential area. Today, the Camp Area has a population of approximately 13,000 persons. Similar to Camp Area in density is the Jhang Colony located opposite the former (Fig. 7), and inhabited by people originally hailing from Jhang District in West Pakistan.

Located to the southeast of the Walled City and extending along the Railway Road and the Rohtak-Jhajjar Road (Fig. 6) the main commercial area in the city displays high density. The shifting of commercial activity from the Walled City after 1947 and its subsequent concentration here induced a considerable population movement. It also attracted traders, practising and potential, from outside the city. These occupational groups moved into the city generally with their families. Most of the people residing in this area have high incomes, moderate sized families (5 to 7 persons) and single-family dwellings.

2. Areas of Moderate Density (80 to 120 ppa)

There are two major types of areas of moderate density: (i) the evolved areas, and (ii) the planned areas. The former are located immediately outside the Walled City and have received the spill-over from its saturated parts and also some new settlers from outside the city.

The planned areas of moderate density are located in the extreme south of the city and near the Camp Area and have emerged in the Post-Independence Period. These areas were initially
planned by the government as low income-group, single-family dwellings. The size of the houses was deliberately kept small to check population density. However, the allurement of some extra income prompted many of the inhabitants to rent out parts of their houses. This has cut at the roots of the planning objectives. Now, these areas have a large number of persons per house (more than 7). This explains why the density of population is higher than expected even though the density of houses is not proportionately high (Figs. 7 and 9).

3. Areas of Low Density (less than 80 ppa)

These are generally located farthest from the oldest parts of the city (Fig. 7) and can be divided into two typological groups: (i) mainly non-residential; and (ii) areas handicapped by disadvantages of site.

The former is located between the Walled City and the Camp Area. It is comprised of the former Civil Lines and its associated structures, the tahsil office, District and Session's Courts, and the Municipal Office building.

Two areas of low density suffer from the disadvantages of the site. The area to the south and west of the Walled City is affected so greatly by annual flooding that even the low income-group people shun it although the land values are low.

The area located north of the Walled City suffers from a geomorphic disadvantage. It is comprised dominantly of parts
Density of Houses (1971)

Data by Blocks

Source: District Census Handbook, Rohtak.
of the central range of hillocks that intersects the region. Consequently, the house sites are found scattered. Also, the large size of the blocks gives a false appearance of low density.

GROWTH OF POPULATION (1881 - 1971)

The first complete and regular census of the town was taken in 1881 when its population was 15,699 persons, of which 15,160 were enumerated in the indigenous town and the rest in the Civil Lines (34).

In 1971 Rohtak had a population of 124,755 persons and was declared a city. It had experienced an increase of 109,056 persons (growth of 694.6 per cent) in its population since 1881.

During 1881-1971 the population of the city experienced continuous increase but the amount varied from one decade to another (Table 2, Fig.10). The growth was related to the varying amounts of natural increase and of migration. The latter was induced by epidemics in the surrounding rural region and the economic opportunities provided in the city.

During 1891-1971 the trends of the natural increase of the city and the district were erratic. The birth rates varied considerably while the death rate continuously declined after 1921.
Rohitak
GROWTH OF POPULATION
(1881-1971)
TABLE 8
Bohtak: Growth of Population (1881-1971)

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Population</th>
<th>Increase over the preceding censal year</th>
<th>Percentage Decadal variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881</td>
<td>15,699</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1891</td>
<td>16,702</td>
<td>+ 1,003</td>
<td>+ 6.3</td>
</tr>
<tr>
<td>1901</td>
<td>20,323</td>
<td>+ 3,621</td>
<td>+ 21.6</td>
</tr>
<tr>
<td>1911</td>
<td>20,361</td>
<td>+ 38</td>
<td>+ 0.18</td>
</tr>
<tr>
<td>1921</td>
<td>25,240</td>
<td>+ 4,879</td>
<td>+ 23.9</td>
</tr>
<tr>
<td>1931</td>
<td>35,235</td>
<td>+ 9,995</td>
<td>+ 39.5</td>
</tr>
<tr>
<td>1941</td>
<td>45,148</td>
<td>+12,913</td>
<td>+ 36.6</td>
</tr>
<tr>
<td>1951</td>
<td>71,902</td>
<td>+23,574</td>
<td>+ 49.3</td>
</tr>
<tr>
<td>1961</td>
<td>88,193</td>
<td>+16,291</td>
<td>+ 22.6</td>
</tr>
<tr>
<td>1971</td>
<td>124,755</td>
<td>+36,562</td>
<td>+ 41.4</td>
</tr>
</tbody>
</table>


During 1901-1911 the urban population of Haryana state and Rohtak District declined by 21.66 per cent and 46.00 per cent respectively. During the same decade the city population experienced its smallest increase (Table 2).
TABLE 3
Rohtak: Natural Increase and Migration (1881-1971)

<table>
<thead>
<tr>
<th>Census Decade</th>
<th>Birth Rate1 (a)</th>
<th>Death Rate2 (b)</th>
<th>Rate of Natural Increase (c) = (a-b)</th>
<th>Actual Increase (d)</th>
<th>Net Migration Rate (e) = (d-c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881-1891</td>
<td>N.A.</td>
<td>N.A.</td>
<td>-</td>
<td>6.3</td>
<td>-</td>
</tr>
<tr>
<td>1891-1901</td>
<td>42.5</td>
<td>36.0</td>
<td>6.5</td>
<td>21.6</td>
<td>+ 15.1</td>
</tr>
<tr>
<td>1901-1911</td>
<td>45.7</td>
<td>36.0</td>
<td>9.7</td>
<td>0.18</td>
<td>- 9.5</td>
</tr>
<tr>
<td>1911-1921</td>
<td>15.8</td>
<td>41.3</td>
<td>10.5</td>
<td>23.9</td>
<td>+ 13.4</td>
</tr>
<tr>
<td>1921-1931</td>
<td>42.4</td>
<td>33.0</td>
<td>9.4</td>
<td>39.5</td>
<td>+ 30.1</td>
</tr>
<tr>
<td>1931-1941</td>
<td>52.1</td>
<td>29.9</td>
<td>22.2</td>
<td>36.6</td>
<td>+ 14.5</td>
</tr>
<tr>
<td>1941-1951</td>
<td>40.8</td>
<td>24.1</td>
<td>16.7</td>
<td>49.3</td>
<td>+ 32.6</td>
</tr>
<tr>
<td>1951-1961</td>
<td>46.3</td>
<td>15.5</td>
<td>30.8</td>
<td>22.6</td>
<td>- 8.2</td>
</tr>
<tr>
<td>1961-1971</td>
<td>36.3</td>
<td>9.8</td>
<td>26.5</td>
<td>41.4</td>
<td>+ 14.9</td>
</tr>
</tbody>
</table>

1 The number of births per 1000 persons
2 The number of deaths per 1000 persons


During 1891-1971 outmigration was experienced in the urban population of the district as well as the city in the census decades of 1901-11 and 1951-61. In both these decades
the rate of increase in the urban population of the district as well as the city was lower than the preceding decade.

<table>
<thead>
<tr>
<th>Census Decade</th>
<th>Actual Increase</th>
<th>Natural Increase</th>
<th>Net In (+)/Out (-) Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891-1901</td>
<td>3,621</td>
<td>1,086</td>
<td>+ 2,535</td>
</tr>
<tr>
<td>1901-1911</td>
<td>1,971</td>
<td>73</td>
<td>- 1,933</td>
</tr>
<tr>
<td>1911-1921</td>
<td>2,135</td>
<td>4,879</td>
<td>+ 2,741</td>
</tr>
<tr>
<td>1921-1931</td>
<td>2,235</td>
<td>9,995</td>
<td>+ 7,760</td>
</tr>
<tr>
<td>1931-1941</td>
<td>7,991</td>
<td>12,913</td>
<td>+ 4,922</td>
</tr>
<tr>
<td>1941-1951</td>
<td>8,017</td>
<td>23,574</td>
<td>+ 15,737</td>
</tr>
<tr>
<td>1951-1961</td>
<td>22,195</td>
<td>16,291</td>
<td>- 5,904</td>
</tr>
<tr>
<td>1961-1971</td>
<td>24,407</td>
<td>36,562</td>
<td>+ 12,155</td>
</tr>
<tr>
<td>Total (1891-1971)</td>
<td>108,063</td>
<td>70,040</td>
<td>38,013</td>
</tr>
</tbody>
</table>

Source: Computed from Table 2. and 3.

During the decade 1891-1991, the population increased by 1,003 persons (6.3 per cent) from 15,699 to 16,702 persons. The proportion of town population in the urban population of the district increased marginally from 17.6 per cent to 18.6 per cent. The increase was small in the other towns of the district as well, except Bahadurgarh, which suffered a decrease (Table 5). In Rohtak, the increase was due almost entirely to natural
<table>
<thead>
<tr>
<th>Year</th>
<th>Rehtak District</th>
<th>Rehtak</th>
<th>Gohana</th>
<th>Mahan</th>
<th>Beri</th>
<th>Behadurgarh</th>
<th>Jhajjar</th>
<th>Sonapet</th>
<th>Censur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881</td>
<td>88,799</td>
<td>15,699</td>
<td>7,444</td>
<td>-</td>
<td>9,693</td>
<td>6,674</td>
<td>11,650</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 89,693</td>
<td>+ 1,003</td>
<td>+ 246</td>
<td>+ 130</td>
<td>- 971</td>
<td>+ 231</td>
<td>11,881</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1901</td>
<td>92,424</td>
<td>20,322</td>
<td>6,117</td>
<td>-</td>
<td>9,723</td>
<td>5,974</td>
<td>12,227</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 43,205</td>
<td>+ 337</td>
<td>- 679</td>
<td>- 102</td>
<td>- 129</td>
<td>+ 326</td>
<td>1,610</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1911</td>
<td>49,204</td>
<td>20,361</td>
<td>5,438</td>
<td>-</td>
<td>7,798</td>
<td>4,990</td>
<td>10,617</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 26,003</td>
<td>+ 4,079</td>
<td>- 331</td>
<td>- 323</td>
<td>+ 965</td>
<td>+ 183</td>
<td>12,981</td>
<td>10,800</td>
<td>12,981</td>
</tr>
<tr>
<td>1921</td>
<td>75,357</td>
<td>25,240</td>
<td>5,107</td>
<td>7,820</td>
<td>7,475</td>
<td>5,955</td>
<td>12,659</td>
<td>12,981</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 16,124</td>
<td>+ 9,995</td>
<td>- 62</td>
<td>+ 7,289</td>
<td>+ 402</td>
<td>+ 1,008</td>
<td>1,432</td>
<td>2,069</td>
<td>-</td>
</tr>
<tr>
<td>1931</td>
<td>91,481</td>
<td>35,235</td>
<td>5,045</td>
<td>9,079</td>
<td>7,827</td>
<td>6,963</td>
<td>12,332</td>
<td>15,050</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 24,603</td>
<td>+ 12,913</td>
<td>+ 7,773</td>
<td>+ 2,066</td>
<td>+ 1,008</td>
<td>+ 1,934</td>
<td>1,887</td>
<td>2,731</td>
<td>-</td>
</tr>
<tr>
<td>1941</td>
<td>116,084</td>
<td>49,148</td>
<td>6,818</td>
<td>11,145</td>
<td>9,785</td>
<td>8,906</td>
<td>13,519</td>
<td>17,781</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 35,975</td>
<td>+ 23,754</td>
<td>+ 1,976</td>
<td>- 2,609</td>
<td>+ 1,976</td>
<td>+ 2,964</td>
<td>3,405</td>
<td>12,408</td>
<td>-</td>
</tr>
<tr>
<td>1951</td>
<td>152,059</td>
<td>71,902</td>
<td>8,796</td>
<td>8,536</td>
<td>9,952</td>
<td>11,770</td>
<td>10,514</td>
<td>30,189</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 42,448</td>
<td>+ 16,281</td>
<td>+ 2,280</td>
<td>+ 764</td>
<td>+ 888</td>
<td>+ 3,612</td>
<td>3,780</td>
<td>15,693</td>
<td>-</td>
</tr>
<tr>
<td>1961</td>
<td>194,507</td>
<td>88,193</td>
<td>11,076</td>
<td>9,900</td>
<td>10,840</td>
<td>14,982</td>
<td>14,304</td>
<td>45,882</td>
<td>-</td>
</tr>
<tr>
<td>Variation</td>
<td>+ 55,403</td>
<td>+ 36,252</td>
<td>+ 5,678</td>
<td>+ 1,241</td>
<td>+ 1,496</td>
<td>+ 10,630</td>
<td>4,713</td>
<td>16,511</td>
<td>-</td>
</tr>
<tr>
<td>1971</td>
<td>279,937</td>
<td>124,755</td>
<td>16,754</td>
<td>10,541</td>
<td>12,336</td>
<td>25,812</td>
<td>18,247</td>
<td>62,393</td>
<td>8,999</td>
</tr>
</tbody>
</table>

increase. There was only a small migration to the predominantly agricultural town.

The population of Rohtak increased by 21.6 per cent during the following decade while the urban population of the district increased by only 3.0 per cent. The population of other urban places in the district remained more or less stagnant (Table 5). Immigration and natural increase contributed about 70 per cent and 30 per cent respectively to the growth. The outbreak of epidemic malaria in the district in 1892 (35) forced the villagers to move into the town where better and abundant medical facilities were available. Also, traders came and settled in the town to take the advantage of new regional linkages created by the construction of the railway lines from Rohtak to Delhi and Bhatinda in 1896.

During the next decade the urban population of the state as well as of the district declined by 21.6 per cent and 46.0 per cent respectively. All the towns in the district experienced a decrease in their population except Rohtak whose population experienced a marginal increase of 38 persons (Table 5). The district suffered from the epidemics of malaria and plague in 1905 (36), the incidence of which was most severe in the towns with high population concentration (37).

During the decade 1911-21 the urban population of the state and the district increased by 7.0 per cent and 52.1 per cent respectively. The city population increased by 23.9 per
The large increase in the urban population of the district was due to the emergence of two new towns, Meham and Sonipat. This also resulted in a decline in the proportion of population of Rohtak in the urban population of the district from 41.3 per cent in 1911 to 33.4 per cent in 1921.

During this decade natural increase and migration contributed almost an equal amount (2,138 and 2,741 persons respectively) to the increase in the city population (Table 4). The outbreak of smallpox in 1912, plague in 1915, malaria in 1917, and influenza in 1918 (38) in the rural areas forced the villagers to migrate to the city.

The increase in the city's population (39.5 per cent) during the next decade (1921-31) was more than the increase in the urban population of the district (21.3 per cent) and of the state (17.3 per cent).

During this decade the increase in the population of the city was more due to immigration (7,760 persons) than due to natural increase (2,235 persons). The increase was partly due to the relocation of the municipal boundary as a result of which the Civil Lines were brought within its limits and the colonial residents (the officers of the district administration and their families) were included in the population of Rohtak.

During the decade 1931-1941 the city population increased by 12,913 persons (30.6 per cent). This increase was more than the increase in the urban population of the
district (26.8 per cent) and that of the state (25.0 per cent). The increase in the population of the city was more due to natural increase (7,991 persons) than immigration (4,922 persons). Also, the migration to the city during this decade was almost half of the amount of immigration during the previous decade (Table 4). The large natural increase was due to the high birth rate and low death rates, the latter related to the absence of any natural calamity during this decade.

During the subsequent decade the city population increased by 49.3 per cent. The increase was the highest since 1881-91 and more than the increase in the urban population of the district (30.9 per cent) and of the state (37.1 per cent). In the increase of the city population natural increase contributed less (8,017 persons) than the migration (15,737 persons, Table 4).

The high increase in the population of Rohtak, as of all the towns in the state (Table 5), was partly due to the overcompensation effected by the arrival of a large number of displaced persons originating in West Pakistan in the wake of the Partition of the country in 1947. In Rohtak the Muslim population in 1941 was 25,129 (39) persons forming 52.1 per cent of the total. In 1951 the number of displaced persons in the city was 38,666 persons.

For the second time, since 1881, there was outmigration from the city during 1951-61. Although there was
an increase of population, it was less than half of that of the previous decade (22.6 per cent and 49.3 per cent respectively). The rate of increase was less than that of the urban population of the district (27.9 per cent) and of the state (35.0 per cent), and of all the towns in the district.

During this decade the people moved out from the city to towns which had developed into industrial centres, such as, Sonapar which experienced a large increase of population (51.9 per cent). Also, due to the extensive flooding of the city in August 1960, a large number of its inhabitants emigrated temporarily. They had not returned to the city till early 1961 when the Census was conducted and were, therefore, not recorded in the population of the city.

In the Census of 1971 Rohtak was declared a city having a population of 1,24,755. During 1961-1971 the population had increased by 41.4 per cent. This was almost equal to the rate of increase in the urban population of the district (43.9 per cent) and more than that of the state (35.5 per cent). The increase in the population of Rohtak accounted for 42.8 per cent of the increase in the urban population of the district.

The increase in the population of the city was more due to natural increase (24,407 persons) than migration (12,155 persons, Table 4).
SEX RATIO

The study of the sex ratio (number of females per thousand of males) in urban areas is important because it influences the size of the labour force and the division of labour and the provision of a diverse range of urban amenities.

The sex ratio in urban places is closely related to their functional character. The dominantly agricultural towns generally have high sex ratio (Table 6). In contrast, the industrial centres display a low sex ratio. The dominantly 'service' towns have moderate sex ratio associated with family migration to such towns.

The intra-city variations of sex ratio in Rohtak are associated with: (i) the location of residential female institutions; (ii) the nature of dominant occupation in an area; and (iii) the age of the mohallas. In general, the older areas in the city have high sex ratio.

The number of females per 1000 of males in the city is 863. This is slightly higher than the state average of 852 and almost equal to the district average of 865 for urban population.

Spatial Pattern

The spatial variations of sex ratio in the city reveal five types of areas (Fig.11). These are:

1. Areas of Very High Sex Ratio (More than 1150 females per 1000 of males).
### TABLE 6

**Sex Ratio in the Urban Places of Rohtak District, 1971**

<table>
<thead>
<tr>
<th>Name of the Urban Place</th>
<th>Sex Ratio</th>
<th>Dominant Economic Activity&lt;sup&gt;1,5&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beri</td>
<td>971</td>
<td>Cultivators (46.9%) Agricultural Labourers (11.5%)</td>
</tr>
<tr>
<td>Mehrau</td>
<td>919</td>
<td>Trade and Commerce (24.5%) Other Services&lt;sup&gt;*&lt;/sup&gt; (21.1%) Cultivators (25.0%)</td>
</tr>
<tr>
<td>Jhajjar</td>
<td>889</td>
<td>Other Services (24.8%) Cultivators (30.3%) Trade and Commerce (24.7%)</td>
</tr>
<tr>
<td>Gohana</td>
<td>877</td>
<td>Trade and Commerce (34.1%) Other Services (24.3%)</td>
</tr>
<tr>
<td>Rohtak</td>
<td>863</td>
<td>Other Services (37.8%) Trade and Commerce (29.4%)</td>
</tr>
<tr>
<td>Sonepat</td>
<td>848</td>
<td>Manufacturing (28.7%) Other Services (26.8%) Trade and Commerce (24.5%)</td>
</tr>
<tr>
<td>Bahadurgarh</td>
<td>823</td>
<td>Other Services (31.1%) Manufacturing (27.0%)</td>
</tr>
</tbody>
</table>

Average sex ratio for urban population of the District 865
Average sex ratio for urban population of the State 862

<sup>1</sup> The categories are those used by the Census of India for the industrial classification of settlements.

<sup>*</sup> The figures in bracket indicate proportion of workers into the total workers.

<sup>**</sup>This category refers largely to persons engaged in tertiary services.

**Source:** Computed from District Census Handbook Parts X A and X B, Rohtak District (1971), Census of India, Delhi Controller of Publications.
2. **Areas of High Sex Ratio (950 to 1150 females per 1000 of males).**

3. **Areas of Moderate Sex Ratio (750 to 950 females per 1000 of males).**

4. **Areas of Low Sex Ratio (550 to 750 females per 1000 of males).**

5. **Areas of Very Low Sex Ratio (less than 550 females per 1000 of males).**

For purpose of discussion here the first two and the last two types have been combined to form areas of high and low sex ratio respectively.

1. **Areas of High Sex Ratio (More than 950).**

The areas of high population concentration also have high sex ratio. The relationship is exemplified best in the Walled City, the Camp Area, and the area of commercial concentration.

In the eastern part of the city, the hostels for girl students of Rohtak University, the Government College for Women, and the Mahila Ashram have swelled the number of females.

The high sex ratio within the Walled City and in the areas to its west and north is associated with a high concentration of displaced persons in the former and that of scheduled caste population in the latter. Among both these groups the sex ratios are high.

2. **Areas of Moderate Sex Ratio (750 to 950).**

The areas of moderate sex ratio separate the areas of high and low sex ratio and thus form a zone of transition.
The dominant occupation in the areas of moderate sex ratio is "Other Services".

3. Areas of Low Sex Ratio (less than 750)

These areas are most extensive in the extreme southern and eastern parts of the city (Fig. 11). In the labour colonies of the sugar and spinning mills, and in the grain market, all located in the southern part of the city, the labourers are almost entirely male.

In the eastern part also the low sex ratio is associated with low income-group, male-dominated colonies.

In both these areas a majority of residents, under economic pressure, have left their families in their rural homes. Lack of employment opportunities for women coupled with a shortage of housing accommodation act as additional discouragements.

LITERACY

The literates (40) in the city number 69,866 and form 56.2 per cent of its population. This is higher than the urban literacy of the state (51.1 per cent) and of the district (52.2 per cent). The city is the premier educational centre in the state and has 23 Primary Schools, 16 High/Higher Secondary Schools, 10 Colleges (41), and a University. There are two Industrial Training Institutes, one each for boys and girls. The city has the only medical college of the state.

The status of the city as the district headquarters
since 1824, and the continuous municipal administration since 1867 have helped the growth of educational institutions both in number and order.

The spatial patterns of literacy in the city are closely associated with: (i) the areal spread of educational institutions, especially the primary schools which generate grass-root level literacy; (ii) the nature of the dominant occupation in an area. For example, workers engaged in tertiary activities have higher literacy as compared to those engaged in construction and manufacturing; and (iii) the concentration of scheduled caste population or displaced persons in an area. In general the former have a low and the latter a high proportion of literates.

In general, literacy declines with increasing distance from the older areas which have central locations and high values of literacy. The older areas in Indian cities contain major concentrations of population. They are, generally, also the main areas of commercial activity which requires some literacy among its workers.

With increasing distance from the central/older areas the proportion of scheduled caste population increases and there is a general absence of even the lowest level educational institutions. Both the factors lower the literacy level.

Spatial Pattern

Three types of areas have been identified on the basis
of spatial patterns of literacy (Fig. 12):

1. Areas of High Literacy (More than 60 per cent literates).
2. Areas of Moderate Literacy (46 per cent to 60 per cent literates).
3. Areas of Low Literacy (less than 46 per cent literates).

In the discussion the proportions of male and female literates (Figs 13 and 14) have also been included.

1. Areas of High Literacy (More than 60)
   
The main areas of high literacy are: (i) the Walled City; (ii) the main commercial area to the south of the Walled City; (iii) the area along Delhi Road east of the Walled City; and (iv) the eastern part of Rohtak containing the Model Town, the Jat College, and the University Enclave.

   In the Walled City and the main commercial area to its south the dominant occupation is "Trade and Commerce". Also these areas have a high concentration of displaced persons among whom literacy is generally high. In this area the proportion of male and female literates is also high (Figs. 13 and 14).

   The area along Delhi Road contains the former Civil Lines and the adjoining high class residential sections. The dominant occupation in this part of the city is "Other Services". The area is dominantly inhabited by the social elite of the city. It has high male literacy (Fig. 13) and moderate female literacy (Fig. 14).
Rohtak
Literacy (1971)
Data by Blocks

Fig. 12

Literate Persons as % Per Cent
90 75 60 45 30 15

56 City Average

Source: District Census Handbook, Rohtak.
The highest values of literacy occur in the eastern part of the city. The dominant occupation in this part of the city is "Other Services". This area contains Rohtak University, Jat Heroes' Memorial College and Chhotu Ram College of Education. These are residential educational institutions having high male and female literacy (Figs. 13 and 14).

2. Areas of Moderate Literacy (45 to 60)

These areas form a transition area between the zones of low and high literacy (Fig.12). Many of them emerged in the Post-Independence Period and are not densely populated. The dominant occupations are "Other Services" and "Trade and Commerce". These are generally inhabited by low income-group families. In these areas the total, male, and female literacy levels are moderate (Figs. 12, 13 and 14).

3. Areas of Low Literacy (less than 45)

In the northern, western, southeastern, and southern peripheries of the built-up area, inhabited by scheduled caste families, literacy is low (Fig.12). These areas have few schools. Most of the workers are engaged in cultivation and manufacturing.

**SCHEDULED CASTE POPULATION**

The scheduled castes form about 10 per cent of the city population (compared to the state urban average of 11.1 per cent and the district urban average of 11.2 per cent) and live in only
106 blocks (61 per cent of the total number of blocks). Their concentration in certain areas reflects the operation of the cultural notions of the preservation of ritual purity, the proximity to the place of work and the unattractiveness of the site induced by physical attributes. They are not attracted to the unattractive sites, their poverty pushes them to low value land.

The highest concentration of scheduled caste population occurs in the north and west of the Walled City. Although this area suffers from physical handicaps, the convenience of living in the proximity of the thickly populated Walled City, which generates large employment for the scheduled castes, discourages the abandonment of the site.

Spatial Pattern

The spatial distribution of the proportion of scheduled caste population in Rohtak reveals the following types of areas (Fig.15):

1. Areas of Extremely High Proportion (More than 64 per cent).
2. Areas of Very High Proportion (32 to 64 per cent).
3. Areas of High Proportion (16 to 32 per cent).
4. Areas of Moderate Proportion (8 to 16 per cent).
5. Areas of Low Proportion (4 to 8 per cent).
6. Areas of Very Low Proportion (2 to 4 per cent).
7. Areas of Extremely Low Proportion (less than 2 per cent).
Proportion of Scheduled Caste Population (1971)

Data by Blocks

Rohtak

Source: District Census Handbook, Rohtak.
However, for the purposes of discussion the first three and the last three types have been combined to form areas of high and low proportions respectively.

1. Areas of High Proportion (More than 16)

The largest extent of these areas is found to the north and west of the Walled City (Fig.15). There are some patches of high values along Delhi Road to the east of the Walled City, and to its south around one of the depressions.

The high concentration of scheduled castes to the north, west, and south of the Walled City is related to the following facts:

i) This area has always been considered unsuitable for the physical expansion of the Walled City due to the physical disadvantages of the site. The scheduled castes, lowest in the social hierarchy, were discouraged to live in the Walled City which provided them with employment. The advantages of living in close proximity to the place of employment resulted in the initial settlement of this area by the scheduled castes and their concentration here through the passage of time.

ii) Many of the areas of high proportion are comprised of mohallas which were inhabited by scheduled castes at the time of their inclusion in the municipal limits of Rohtak. These mohallas even now are inhabited by the scheduled castes.

Singh Pura, Karter Pura, Harijan Basti and Gurcharan Pura to the west; Sunderpur, Deri Basti and Chaman Pura to the
north; and Ravi Das Pura and Ghani Pura to the south of the Walled City provide good examples of this type.

Along Delhi Road the high proportion is associated with the employment and accommodation provided by the large number of administrative offices. The scheduled castes are employed here as sweepers, watchmen, and peons.

2. Areas of Moderate Proportion (8 to 16)

These are generally single block areas and are scattered over the entire city (Fig.15). It is conjectured that these areas were settled by the scheduled castes at a later stage in the evolution of the city. This is suggested by their location near the Railway Station and the Model Town, the two major nodes of later expansions of the city.

3. Areas of Low Proportion (less than 8)

These tracts are located in the Post-Partition Expansion Area. They do not form compact contiguous areas but are scattered in isolated patches (Fig.15). The main spatial association is with the adjacent higher class residential areas where the scheduled castes find employment. The volume of employment generated here is smaller than that in the thickly populated Walled City.

OCCUPATIONAL STRUCTURE

The occupational structure of Rohtak, dominated by "Other Services" and "Trade and Commerce" workers (37.82 and 29.44 per cent of the workers respectively, Table 7) reflects its administrative and commercial importance.
### TABLE 7
Rohtak: Occupational Structure, 1971

<table>
<thead>
<tr>
<th>Industrial Category</th>
<th>Number of Workers</th>
<th>Percentage in Total Workers</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivators</td>
<td>734</td>
<td>2.44</td>
<td>6</td>
</tr>
<tr>
<td>Agricultural Labourers</td>
<td>378</td>
<td>1.25</td>
<td>7</td>
</tr>
<tr>
<td>Livestock Rearing</td>
<td>272</td>
<td>0.90</td>
<td>8</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>17</td>
<td>0.05</td>
<td>9</td>
</tr>
<tr>
<td>Manufacturing Including House-Hold Industry</td>
<td>5035</td>
<td>16.77</td>
<td>3</td>
</tr>
<tr>
<td>Construction</td>
<td>786</td>
<td>2.61</td>
<td>5</td>
</tr>
<tr>
<td>Trade and Commerce</td>
<td>8839</td>
<td>29.44</td>
<td>2</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>2507</td>
<td>8.68</td>
<td>4</td>
</tr>
<tr>
<td>Other Services</td>
<td>11355</td>
<td>37.82</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Workers</strong></td>
<td><strong>30,023</strong></td>
<td><strong>99.96</strong></td>
<td></td>
</tr>
</tbody>
</table>


The spatial pattern of workers engaged in different industrial categories (Figs. 16, 17 and 18) suggests a strong association of the place of work and the residences. This is
Rohtak
Second Ranking Occupations (1971)
Data by Blocks

SOURCE: DISTRICT CENSUS HANDBOOK
evident in: (i) the dominance of "Trade and Commerce" in the Walled City and the main commercial area located to its south; (ii) "Other Services" as the dominant occupation of workers residing in the colonial and Post-Independence areas where the administrative offices, and educational and medical institutions are located (Fig. 16); (iii) the area in the southern part of the city containing the labour colonies of the sugar mill and the spinning mill has workers engaged dominantly in "Manufacturing, Servicing, and Repairs" (Fig. 16); and (iv) the area adjacent to the Railway Station containing the Railway Colony, the Railway Godowns, and numerous transport unions has workers overwhelmingly engaged in "Transport and Storage" (Fig. 16). Thus, there is a close proximity between the places of residence and work throughout the city.

The lack of separation between the place of work and residence is essentially Oriental and persists despite prolonged social and economic impact of the colonial administration.

WORKFORCE STRUCTURE

The 30,023 workers of the city form 24.06 per cent of its population. This is almost equal to the district average (24.4 per cent) and slightly lower than that of the state (26.5 per cent). The male workers comprise 94.1 per cent of the total workforce compared to the district and state averages of 94.1 per cent and 94.7 per cent respectively. The city average for female workers is 5.8 per cent which is equal.
to the district average (5.8 per cent) but higher than the state figure of 5.2 per cent.

### TABLE 8

**Rohtak: Workforce Structure, 1971**

<table>
<thead>
<tr>
<th>Industrial Category</th>
<th>Number of Workers</th>
<th>Percentage of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Cultivation</td>
<td>714</td>
<td>20</td>
</tr>
<tr>
<td>Agricultural Labourers</td>
<td>355</td>
<td>23</td>
</tr>
<tr>
<td>Livestock Rearing</td>
<td>271</td>
<td>1</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing Including House Hold Industry</td>
<td>4,942</td>
<td>92</td>
</tr>
<tr>
<td>Construction</td>
<td>783</td>
<td>3</td>
</tr>
<tr>
<td>Trade and Commerce</td>
<td>8,770</td>
<td>69</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>2,598</td>
<td>9</td>
</tr>
<tr>
<td>Other Services</td>
<td>9,820</td>
<td>1,535</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29,269</td>
<td>1,754</td>
</tr>
</tbody>
</table>

**Source:** Computed from District Census Handbook, Part X A and X B, Rohtak District (1971), Census of India, Delhi: Controller of Publications.
The large non-working population is comprised of persons in the age-group of 0 to 14 years and above 60 years (numbering 59,286, and forming 47.5 per cent of total population) (42), and an estimated student community of 30,000 (24.0 per cent of the total population).

The older areas in the city have few workers engaged in "Trade and Commerce".

The high proportion of workers in the new areas is associated mainly with the location of residential colonies for workers, the labour colonies for the sugar and spinning mills in the southern part of the city, the nurses' quarters in the Medical College Campus, and the residential enclaves in Rohtak University and the Police Lines.

The proportion of female workers is generally high in the areas where "Other Services" is the dominant occupation.

Spatial Pattern

The spatial distribution of proportion of workers reveals the following five types of areas (Fig. 19):

1. Areas of Very High Proportion (more than 42 per cent).
2. Areas of High Proportion (30 to 42 per cent).
3. Areas of Moderate Proportion (22 to 30 per cent).
4. Areas of Low Proportion (13 to 22 per cent).
5. Areas of Very Low Proportion (less than 13 per cent).
Rohtak
Relative Strength of Workers
(1971)
Data by Blocks

SOURCE: DISTRICT CENSUS HANDBOOK, ROHTAK
For the purpose of discussion, the first two and the last two have been combined to form areas of high and low proportion of workers respectively.

1. Areas of High Proportion of Workers (More than 30)

The largest extent of these is in the Medical College and Rohtak University in the east and the labour colonies of sugar and spinning mills in the south of the city (Fig. 19). The former area is comprised of a few contiguous blocks. The workers of these blocks form 40.9 per cent of their population. In the latter area 35.8 per cent of the population has been enumerated as workers.

2. Areas of Moderate Proportion (22 to 30)

These have the largest extent in the Pre-Independence Period area in the city (Fig. 19). Their location is associated with residential inertia common to the older parts of Indian cities.

The highest values of 29.8 per cent and 29.3 per cent occur in block numbers 8 and 104 respectively, which have a high proportion of scheduled caste population.

3. Areas of Low Proportion (Less than 22)

These patches are scattered over the entire city. However, they occur with a greater frequency in the older parts, especially the Walled City (Fig. 19).
The population distribution in Rohtak is multi-nodal. The highest concentration of population occurs in the Walled City. The other nodes of population concentration emerged in the Post-Independence Period.

The distribution of population corresponds with that of density. The highest densities occur in the Walled City and the main commercial area to its south. The occurrence of the density crater at a distance from the Walled City suggests a weak relationship between distance and density, which is due to a small suburban-ward movement of population.

The population of the city has increased by 694.6 per cent from 15,699 in 1881 to 194,755 persons in 1971. The contribution of natural increase to the growth of population has always been positive, though the amounts have varied from decade to decade. In general, natural increase was larger after 1921 than in the previous decades. The city population grew also by migration of population. The magnitude of migration was determined by the occurrence of epidemics and the impact of centripetal forces generated by diversified economic activities in the city.

The present population of Rohtak is essentially masculine. Within the city, older areas generally have a high sex ratio. In new areas high sex ratio is due to the location of residential female institutions, educational and social.

SUMMARY

The population distribution in Rohtak is multi-nodal. The highest concentration of population occurs in the Walled City. The other nodes of population concentration emerged in the Post-Independence Period.

The distribution of population corresponds with that of density. The highest densities occur in the Walled City and the main commercial area to its south. The occurrence of the density crater at a distance from the Walled City suggests a weak relationship between distance and density, which is due to a small suburban-ward movement of population.

The population of the city has increased by 694.6 per cent from 15,699 in 1881 to 194,755 persons in 1971. The contribution of natural increase to the growth of population has always been positive, though the amounts have varied from decade to decade. In general, natural increase was larger after 1921 than in the previous decades. The city population grew also by migration of population. The magnitude of migration was determined by the occurrence of epidemics and the impact of centripetal forces generated by diversified economic activities in the city.

The present population of Rohtak is essentially masculine. Within the city, older areas generally have a high sex ratio. In new areas high sex ratio is due to the location of residential female institutions, educational and social.
The status of the city as an administrative and commercial centre is strongly reflected in the occupational structure of its population. "Other Services" employs the largest proportion (37.8 per cent), and "Trade and Commerce" the second largest proportion (29.4 per cent) of the total workers.

The proportion of workers in the population of Rohtak (24.0 per cent) is greatly affected by a large resident student community. In general older residential areas have a large proportion of aged people and a small number of workers. Compared to this the Post-Independence Expansion Areas in the city have a high proportion of workers due to the location of residential areas attached to manufacturing units or educational institutions.

The spatial pattern of the residences of the workers suggests a close association between the place of work and the residence of a worker. This characteristic of an Oriental city has persisted despite the prolonged colonial influence.
The low income-group areas and labour colonies have low sex ratio.

Literacy is high (66.2 per cent) in the city. The early establishment of district and municipal administrations and the dominance of tertiary occupations helped the development of the city as a higher order educational centre. High literacy occurs in the Post-Independence development area which contains many residential educational institutions and in the Walled City. In the former the dominant occupation is "Other Services" and in the latter "Trade and Commerce". Literacy is low in the peripheral areas of the city where there is a lack of educational institutions, dominance of primary and secondary occupations, and concentration of scheduled caste population.

The scheduled castes are concentrated in the north and west of the walled City. This area is not occupied by the higher ranking castes because of its physical handicaps. The concentration of scheduled castes generally occurs near the residential areas of the higher castes where the former are employed. Also, some areas formerly located outside the city limits and inhabited by scheduled castes were included in the Municipal Boundary of Rohtak during different expansions of the municipal area. Today, these appear as areas of concentration of scheduled caste population.