Chapter VII
SETTLEMENTS

Area under Settlements

On an average 52,805 acres or 3.6% of the total area is under settlements, roads, railways and graveyards in the district. Out of this 49,784 acres are under settlements and roads and 3,021 acres are under graveyards*. This area has shown a rapid increase in the recent years. The average for the years 1931-36 was only 45,912 acres in all** so that there is an increase by 15% since then. This rise is due to the development of settlements and roads. No additional railway has been constructed since then, while the area under graveyards has shown very little change.

Nature of Settlements

The census of 1951 records 2,481 populated settlements in the district. In addition, it shows about 570 uninhabited villages. 57.3% of the rural population lives in the medium sized villages with 500 to 2,000 persons each, while 32.4% persons live in smaller villages with population under 500; moreover 9.0% people live in villages having 2,000 to 5,000 persons each and 1.3% in larger villages with population over 5,000.

Trend of Settlements

The table below gives the trend of inhabited settlements since 1881-

* Based on Sadar Ganungo's Milan Ahaaras for the years 1953-56
/ Ibid.
Table No. 30
Trend of inhabited settlements

<table>
<thead>
<tr>
<th>Population</th>
<th>1881</th>
<th>1901</th>
<th>% Variation 1881-1901</th>
<th>Variation since 1881</th>
<th>% Variation since 1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1,000</td>
<td>2,301</td>
<td>2,311</td>
<td>0.04%</td>
<td>2,217</td>
<td>-4.07%</td>
</tr>
<tr>
<td>1,000 to 5,000</td>
<td>132</td>
<td>144</td>
<td>-9.09%</td>
<td>246</td>
<td>+70.83%</td>
</tr>
<tr>
<td>5,000 to 10,000</td>
<td>8</td>
<td>5</td>
<td>-27.50%</td>
<td>12</td>
<td>+160.00%</td>
</tr>
<tr>
<td>More than 10,000</td>
<td>5</td>
<td>5</td>
<td>nil</td>
<td>5</td>
<td>nil</td>
</tr>
<tr>
<td>Total Settlements</td>
<td>2,446</td>
<td>2,465</td>
<td>+0.77%</td>
<td>2,481</td>
<td>+0.65%</td>
</tr>
</tbody>
</table>

The above figures show that there is a steady increase in the total number of settlements since 1881. But, the number of small villages with less than 1,000 persons has decreased since 1901 by 4.07% while the number of larger villages and smaller townships has increased very much. Thus the number of settlements with 1,000 to 5,000 persons has shown an increase by 70.83% and that of the settlements with 5,000 to 10,000 persons by 160%. Although the number of settlements with more than 10,000 persons has remained unchanged since 1881, yet, all these settlements are not the same as formerly. More recently Hasanpur has shown a rapid increase in its population whereas Solah Sarai or Sarai Tarin which formerly constituted a separate administrative unit, having 10,623 persons in the year 1901, has been merged into the municipality of Sambhal.

Between the years 1881 and 1901 the number of settlements with 5,000 to 10,000 persons had decreased by 37.5%. It owed to the fact that the population of the following settlements had declined:

1. *Mughalpur-Ashwagur* (Tahsil Moradabad), which had 5,334 persons in 1872 declining to 4,784 in 1901 and

*Fisher, R. H., (p. Cit. p. 78); *Stevill, B. H. (p. Cit. p. 66); Census 1951
to 4,417 in 1901. This large village with an area of 3,840 acres has been badly affected by the scour of the Ramganga in whose Khadar 1,475 acres or nearly 31% of its area has been lying.

2. Karauli (Tahsil Bilari), which had 5,197 persons in 1872 declined to 4,722 in 1901. It is situated on the Kacha road from Sambhal to Chandausi and was an important road-stead formerly, but the opening of the Chandausi-Aligarh railway line resulted in the decline of this trade-route and hence of Karauli. The census of 1951, however, recorded 5,607 persons, here.

3. Dhanaur, a market town in the north of tahsil Hasanpur, had a population of 5,382 in 1865, but in 1901 there were only 4,019 persons. Among other causes which might have led to its decline, the plague seems to be the most important.

Generally, the settlements are growing bigger owing partly to the natural increase of population and partly to the geographical factors which are favourable to the growth of larger settlements since the development of the means of communication and transport and of the progress of trade and industries in them.

That the area under settlements and roads has shown a large increase since the beginning of this century,

♦ Ibid. p.248
** Ibid. p.212]
Factors Affecting the Selection of Sites

(a) Sites in the Uplands:

Over the uplands often there is not much in the way of site selection; one place is as good as another. But in this area, subject to almost constant political disturbances in the past, defence seems to have played a part in the nucleation of the settlements. The site and the development of a larger village or town appears to have been guided by factors like a fort or tank, where soil is fertile, sufficient supply of water seems to have been a chief factor determining location of settlements. Generally, however, other factors, such as nodality, religious, mythological or historical conditions etc., have also played their part (cf. Figs. 8 & 15).

(b) Adhek Sites:

But, along the banks of the streams of the district numerous villages are located on sites which have slightly different characters. These adhek or bluff villages are sited usually overlooking the streams below and thus they command both the khadar and the upland hara (Figs. 38, 39, 43 & 52). Their plan is also compact with various paths converging at their outskirts. In the absence of much wide space, however, these villages are usually smaller in size than those on the uplands. But, even many larger villages, e.g.,

Mu ghalpur - Aghwanpur, Mukarrabpur Mustehkam, and Surjan Nagar Mustehkam overlooking the Ramganga river have similar situations. This is also true of towns like Kanth, on the western bank of the Ramganga, and Hasanpur overlooking the Ganga khadar, even Moradabad town is located on a raised site on the high western bank of the Ramganga, where formerly, the river was crossed by a bridge of boats and the freedom loving Katehrias could easily escape eastward in time of any emergency (cf. Figs. 3 & 58). However, it requires constant watchfulness to save such settlements since sometimes the streams in floods may undercut and erode their sites (cf. Baulat Bagh which has lost a former site to the floods of the Ramganga (Fig. 11).

(c) **Sites in the Khadars:**

The village sites in the khadar areas are located on the less frequently flooded areas or where floods have not frequented for many years past. But nobody is sure of the future and, sometimes, the flourishing settlements are wiped away by the occasional high-level floods (cf. Birpur Baryar, Fig. 11).

(d) **Sites in the Bhurlands:**

As regards the villages in the bhurlands, they are sited on firm ground either in the depressions betwixt the bhur-ridges, where water-supply is better assured, or on the higher ground, where the defence has been the main consideration and the village has grown around a fortress. The nearby chhota must have been the source of water-supply in early days (Fig. 34).
In the uplands of Thakurdwara, suitable sites are provided by the pieces of flat ground found at certain well-drained places only. The undulating character of the uplands does not provide many good sites. The jhadda depressions increase their scarcity. Bluffs above the streams or water-partings between them, are usually selected for village sites (cf. Ramnawala Fig. 56).

**Accessibility as a factor in selection of sites**

In very general terms the village nucleus is located at the most convenient point from where the surrounding land can be easily cultivated. The site itself is related very closely to an adequate facility of water-supply and an easy access from the neighbouring villages and towns. The early farmers relied mostly on walking or driving their animals or taking their produce by pack animals. Moreover, the villages were more or less self-sufficient and the towns depended on them for their food. There grew a class of roving traders who would move with their pack animals from village to village collecting the surplus agricultural produce and exchanging with it certain articles needed by the village-folk. These roving traders, having established their utility, arranged their collecting centres in such a way that a day in the week was fixed for each market, which was arranged temporarily in the open fields or banjar areas. Thus, they had a seven-day routine in a small area. This tradition still prevails in the district even in such large towns as Moradabad which has two market days, namely, Wednesday in one part and
Saturday in another part of the city. Under such conditions the focal points for marketing purposes could not be chosen at more than 4 to 5 miles away from each other.

But, with the development of roads and the possibility of the use of wheeled vehicles, i.e., with the greater degree of accessibility the markets, which were less conveniently situated decayed and a few, by circumstances of a better position, grew at the expense of others. The latter also attracted artisans who could manufacture the needs of the country-folk, thus leading to the growth of commercial-cum-manufacturing towns. The landlords and the money-lenders found themselves quite conveniently established in such places, for there they could benefit by contact with both the farmers and the businessmen or manufacturers. The administrative centres having the further advantage of security measures afforded the best sites for such places. But, this is not universally true as we can see in the case of Chandausi, which is included in the tahsil of Bilari, with a much smaller town at its head-quarters.

As already noted, with the advent of railways certain places have changed their lot. Gajraula affords a conspicuous example. It was originally a small and deteriorating village. It has benefitted greatly and is steadily growing in importance as a market place. Numerous roads have centred here from various sides. It has attracted much of the trade of Hasanpur, Amroha and Dhanaura, some of the largest grain dealers of these places having moved to Gajraula in order to escape the unfavour-
able local taxes. Its population has, therefore, increased from 922 in 1901 to 1,828 in 1951. Its recent development is seen along the roads and railway lines. From here we change train for Bijnor, Delhi or Moradabad.

Village Plans:

The village plans are very simple. Usually, there is a narrow street which runs through the whole length of the village and connects it with the main road leading to the thana tahsil and district headquarters or to some commercial places (Fig. 59). Smaller and narrower streets from various parts of the village connect this central lane. They are all intricate and winding passages. At a few places, where they meet the main street, there are situated the wells, which supply water for drinking and bathing to the villagers. At one or two of such crossings there is some wide space around the wells and underneath some tree an idol may be kept for prayers after the bath, if the village belongs to the Hindus. Such chowks are used for ceremonial purposes. At one or two corners of the main street there may be one or two shopkeepers, may be banias or brahmins, who usually carry on the village trade. They sell a few articles of common need, purchased from the nearby town, in exchange for some produce of the land, the margin of profit being enormous. Usually, there is a brahmin family commanding a few villages in the neighbourhood for the purpose of ceremonials. This family enjoys the respect and special favour from the villagers and it may have its house in the main chowk of the village (Fig. 59).
XXIV. A pond near village Ramnawala

XXV. An overfilled pond after the rains
The low-caste including the rei, chamar and the bhangi also have a place in the village for they serve the cultivating castes in many ways. But, they have small houses, which are located in inferior places in the village mostly somewhere at its corners. The streets correcting their houses, as a rule, open outward away from the main street of the village. The agricultural labourers and baghbans, too, have their houses in inferior quarters. The main blocks in the village are inhabited by the chief land-owning castes, whose way of life determines the cultural character of the village.

Just outside the actually inhabited site there is, on the outskirts of the village some grove or orchard. Near it may be sited the cane crushing implements which are, sometimes, commonly used by the villagers. There is a barjar adjacent to the basti. It is used for maintaining cattle-dung or straw-stacks or as a resting ground for the livestock or as a place for threshing and winnowing the grain stalks. If the village belongs to the Muslims there must be a graveyard adjacent to the barjar.

A small or big pond is also a normal feature on the outskirts of an upland village (Plates XXIV, XXV). This pool of water is used for bathing the animals and for washing clothes by the low-caste.

Such is the normal plan of a village on the uplands. Now tube-wells have been provided for irrigation. However, the original sites must have been located around moto wells for they alone could assure a sufficient and permanent supply of water.
One mere feature about the plan of the larger village sites in the bangar uplands may, however, be noted here. As a rule, every large village has a small counter-part for it, situated at a distance of hardly a few hundred yards. It is named after the main village but, with the addition of words like Mundia, Muafi, etc., such names as Alirazapur Muafi and Sharpur Muafi (Tah.Bilari) remind us of the fact that certain estates of the loyal landlords were revenue-free holdings. These small sized satellitic sites have usually been inhabited by the tenants and agricultural labours who are, in some cases, from the lower castes.

The central uplands are closely packed with village sites; one village is hardly at a distance of a mile or so from another. It is due to the fact that there the soils are mostly fertile which can support high density of population. The sites of the villages are usually near the centre of the lands commanded by them (cf,Figs.34,35,42,49,52,54). In the absence of the farmstead type of settlements, which belong to the countries having large farms, conditions of peace, general security and the advancement of the means of communication and transport, here, the villages are so closely spaced that one may call on a loud voice to the farmers of the next village. During the disturbed political conditions and the consequent banditry prevailing in the area until a century ago, this pattern of settlement might have been helpful in sending a note of caution by a beat of drum to the nearby villagers.
The settlements in this area are mainly compact, however, many of them are not single sites. Thus, the census of 1951 records in all 3,929 hamlets or 1,466 hamlets per settlement in the district. Out of the sample villages, Rannawala has three hamlets (Fig. 56) and Katana (Fig. 47) has two hamlets. The rest have only one hamlet each, while Bhawanpur khadar is uninhabited. The larger number of hamlets in the case of Rannawala owes to the rehabilitation of refugees in batches, which came one after the other in different years and that of Katana to the reclamation of khadar for cultivation. Daullah Bagh Bustehkam which forms a part of Miradabad municipality and Hauz Kadesra (Fig. 45) which is a part of Samthal municipality have distinct pattern of settlement. The Baghban cultivators of Daullah live in scattered houses, each composed of a few huts, which are located amidst their fields (Fig. 46). This type of settlement is not found in any sample village. Its peculiarity is due to the highly intensive market gardening carried on by these cultivators. This type of cultivation requires the presence of the cultivators on their fields always. It also needs a constant watchfulness against the trespassers.

** Houses**

The census of 1951 records 235,064 occupied houses in the district. Divided among the rural and urban areas, these work out as 185,974 in the villages and 49,090

* Any distinctive cluster or agglomeration of houses has been treated as a hamlet vide Distt. Census Handbook, Op. it. xi.

** A house is any human dwelling having a separate main entrance vide ibid.
in the towns, giving an average of 6.8 persons per house in the former and 8.1 persons per house in the latter. The average gross density of houses per acre is 2.20 in the urban areas and 0.13 in the rural areas. In addition to the four larger towns only the Moradabad Railway Settlement Notified Area, Kundarkhi Town Area and Thakurdwara Town Area have a density of more than 5 houses per acre. The remaining small towns, including Hasanpur, have generally less than 1 house per acre. Only Kanth Town Area has a slightly higher density. A lesser density of houses naturally reflects upon the character of the towns. In fact, most of the small towns in the district including Hasanpur retain most of their old rural characteristics with some commerce or small-scale industries added to the agricultural functions. Particularly noteworthy in this respect are Sirsi Town Area (density of houses 0.24 per acre), Naugawan Sadat Town Area (density of houses 0.44 per acre) and Dhanaura (density of houses 0.51 per acre). They are mostly collectors of the agricultural produce of their neighbourhoods so far as their urban functions are concerned, otherwise they have wide fields and groves cultivated by their inhabitants. In Sirsi, the cultivators of land, cultivating labourers, non-cultivating owners of land and their dependents amounted to 52.7% of the total population in 1951; in Naugawan Sadat they amounted to 33.2% and in Dhanaura their ratio was 22.9%. The table below gives the density of the houses in the sample villages:-


<table>
<thead>
<tr>
<th>Sample village</th>
<th>Settlement area in acres</th>
<th>No. of houses</th>
<th>No. of households</th>
<th>Density per acre</th>
<th>Density per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lakhdypur</td>
<td>11.32*</td>
<td>41</td>
<td>86</td>
<td>3.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Khabri Ganda</td>
<td>3.57**</td>
<td>31</td>
<td>29</td>
<td>8.4</td>
<td>16.2</td>
</tr>
<tr>
<td>Pazldefar</td>
<td>3.28</td>
<td>19</td>
<td>29</td>
<td>5.6</td>
<td>8.5</td>
</tr>
<tr>
<td>Baglia Kathair</td>
<td>4.25</td>
<td>60</td>
<td>129</td>
<td>14.1</td>
<td>30.4</td>
</tr>
<tr>
<td>Femli</td>
<td>2.24</td>
<td>28</td>
<td>42</td>
<td>12.5</td>
<td>18.8</td>
</tr>
<tr>
<td>Nizam Bagla</td>
<td>2.27*</td>
<td>22</td>
<td>22</td>
<td>9.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Khalipor Kalan</td>
<td>7.55</td>
<td>74</td>
<td>102</td>
<td>9.8</td>
<td>13.5</td>
</tr>
<tr>
<td>Khidmatpur</td>
<td>3.39</td>
<td>1</td>
<td>1</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Latifpur</td>
<td>8.72</td>
<td>62</td>
<td>119</td>
<td>7.1</td>
<td>12.6</td>
</tr>
<tr>
<td>Chaki Ahera</td>
<td>5.49</td>
<td>6</td>
<td>6</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Bagarhpur Chhobiya</td>
<td>1.69</td>
<td>25</td>
<td>25</td>
<td>14.2</td>
<td>14.2</td>
</tr>
<tr>
<td>Katana Old &amp; New</td>
<td>7.62</td>
<td>51</td>
<td>53</td>
<td>6.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Hirpur Baryar</td>
<td>24.73</td>
<td>320</td>
<td>343</td>
<td>12.9</td>
<td>13.9</td>
</tr>
<tr>
<td>Macchhayya</td>
<td>14.99</td>
<td>119</td>
<td>145</td>
<td>8.0</td>
<td>9.7</td>
</tr>
<tr>
<td>Hammadwala</td>
<td>4.44</td>
<td>33</td>
<td>36</td>
<td>7.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Tikhuti</td>
<td>3.41</td>
<td>32</td>
<td>45</td>
<td>9.4</td>
<td>12.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.86</strong></td>
<td><strong>924</strong></td>
<td><strong>1241</strong></td>
<td><strong>8.5</strong></td>
<td><strong>11.4</strong></td>
</tr>
</tbody>
</table>

These figures show that if we take the actual settlement area into account, the average density of houses in these sample villages comes to 8.5 per acre. It varies from 14.2 in Bagarhpur Chhobiya and 14.1 in Baglia Kathair to 0.3 in Khidmatpur. The density of households varies much more; from 0.4 per acre in Baglia Kathair to 0.3 in Khidmatpur. Hence, the settlement pattern varies considerably from village to village.

In October-November 1956, the writer conducted a door to door census survey in a few of these sample villages. The results of this survey are summarized in the table below:

* Settlement area based on village lekhas' kilan khasra for the year 1952-54
** Settlement area based on village lekhas' kilan khasra for the year 1954-55. For all other villages, settlement areas are based on village lekhas' kilan khasra for the year 1955-56. Population data based on Distt. Census Handbook, C.C.I.
Table 32
Total Accommodation Including that for stores and Animals in selected sample villages (1955)

<table>
<thead>
<tr>
<th>Sample Village</th>
<th>Settlement area (acres)</th>
<th>Households</th>
<th>Kothas*</th>
<th>Huts**</th>
<th>Total rooms</th>
<th>Rooms per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahadurpur</td>
<td>13.85</td>
<td>121</td>
<td>161</td>
<td>153</td>
<td>314</td>
<td>2.6</td>
</tr>
<tr>
<td>Khaliqpurkalan</td>
<td>7.55</td>
<td>108</td>
<td>124</td>
<td>219</td>
<td>343</td>
<td>3.2</td>
</tr>
<tr>
<td>Chaki Khera</td>
<td>5.49</td>
<td>11</td>
<td>14</td>
<td>41</td>
<td>55</td>
<td>5.0</td>
</tr>
<tr>
<td>Hammawala</td>
<td>4.44</td>
<td>78</td>
<td>-</td>
<td>72</td>
<td>791</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>31.33</td>
<td>318</td>
<td>299</td>
<td>492</td>
<td>791</td>
<td>2.5</td>
</tr>
</tbody>
</table>

These figures show that actually the people are living in a great congestion. The average total accommodation including that for stores and animals in the villages amounts to 2.5 rooms per average household containing 4.91 persons and 2.7 livestock. In Hammawala, there is only one room per household having 4.56 persons and 2.7 livestock. In Chaki Khera there are 5 rooms per household having 5.27 persons and 7.4 livestock. The table below gives the relevant data with regard to the population and livestock in these villages:

Table 33
Density of population and households in selected sample villages (1955)

<table>
<thead>
<tr>
<th>Sample Village</th>
<th>Population</th>
<th>Live stock</th>
<th>Average House hold strength</th>
<th>Persons Per Acre</th>
<th>Live stock Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahadurpur</td>
<td>576</td>
<td>245</td>
<td>4.76</td>
<td>2.0</td>
<td>41.6</td>
</tr>
<tr>
<td>Khaliqpurkalan</td>
<td>573</td>
<td>325</td>
<td>5.1</td>
<td>3.0</td>
<td>75.9</td>
</tr>
<tr>
<td>Chaki Khera</td>
<td>58</td>
<td>61</td>
<td>5.27</td>
<td>7.4</td>
<td>10.6</td>
</tr>
<tr>
<td>Hammawala</td>
<td>359</td>
<td>209</td>
<td>4.56</td>
<td>2.7</td>
<td>80.2</td>
</tr>
<tr>
<td>Total</td>
<td>1553</td>
<td>850</td>
<td>4.91</td>
<td>2.7</td>
<td>49.9</td>
</tr>
</tbody>
</table>

* Kotha means a room having walls and a flat roof built of mud or bricks.
** Huts have mud walls but thatched roofs.
PLAN OF HUTS (WITH GRAIN STORES) OF KUMHARS IN KHALIQPUR KALAN

LANE
ENTRY
AMAR SINGH
A 2
C 2
MURARI
A 2
C 3
HULASI
A 2
C 2
MURARI
A 4
C 3
SIBBAN
SIBBAN'S KITCHEN
HULASI
HULASI
HULASI'S ANIMALS
ANIMAL STALL

INDEX
A  ADULTS
C  CHILDREN
MOTHI GRAIN STORE

FEET
SURVEYED BY AUTHOR 1938
ANIMAL-SHED
KHUMANI
A 2
C 1

FIG. 60
Factors influencing house types

Most of the houses in the rural areas are kacha mud built and thatched. 62.2% structures are actually huts and 37.8% are mostly mud built flat roofed kothas. The rich among the peasants have kothas for their living while the poor have huts, as a rule. The difference in house structure is mainly due to economic conditions since in the same village we find both the thatched and flat roofed huts side by side. Fig. 60 shows the plan of the huts of some poor peasants (kumhars by caste) at Khaliqpur Kalan. Each household has a single room for its living as well as its grain stores. Plate XXVI shows the structure of these huts. Of course, as we go towards the north-east the higher amount of precipitation demands the easy flow provided by the slanting roofs of thatched huts (plate XXIV). But, the wealthier peasants there, too, have flat-roofed kothas. In the drier western parts, where thatching grass is easily available from the adhek tract and the Ganga khadar, normally thatched huts are found. In Katehr uplands, however, the better economic condition of the people is reflected in the higher proportion of kothas (Bahadurpur 51.3%) many of which are wholly or partly pucks, too (Plates XX & XXV). The poverty of the Udla tract, on the other hand, is reflected in the predominance of huts (Khaliqpur Kalan 63.9%).

The occupational character of the people also has a great influence on the nature of the houses and plan of the settlement. The agricultural communities, generally, require
XXVI. Poor peasants' huts & a narrow lane in Khaliqpur Kalan

XXVII. A trader-money lender's house

XXVIII. Horn-comb artisans working in front of their house
wider and open-spaced, single storeyed houses so that they may accommodate not only themselves but also their animals and their produce. The houses of the small trader-cum-money-lenders are, on the other hand, generally more compact and double storeyed (Plate XXVII). They care more for security than for open-space. The houses of the artisans are, usually, small owing to their low economic position. But, they require some open space at the doors to carry on their small-scale or cottage industries and crafts (Plate XXVIII).

Contrast in the space requirements of the Urban and the Rural Settlements.

Of course, there is a great contrast in the space requirements of an urban and a rural settlement. It is apparent from the plan of the houses and streets both (cf. Plates XXVI & XXIX). The streets are wider in the larger settlements than in the smaller ones owing to the greater traffic in the former. Houses are, generally, more compact and have more storeys in the larger towns than in the smaller ones owing to higher costs of land. In their closely built up streets, houses are made, generally, more high to get fresher air and sun-light available only above the roofs. The projected fronts of the upper floors in the town-houses is a conspicuous feature showing the quest for space which is limited, there, in many ways. Since local self-governments have begun to check up the house plans, conditions have become somewhat different in the larger towns like Moradabad where a minimum of open-space in every new house has been made compulsory by law.

The open-spaced bungalows are an exception and not the norm (Fig. 58). They tax the land highly where it is already
limited. Owing to them the towns expand abnormally in space and annihilate the gaubhan or kachhiana areas lying on their outskirts.

It is, of course, obvious that the land-owner will sell his land when he gets the price equal to the agricultural return of many years unless he is under some stress. It is ill-luck that the laws favour the development of urban requirements at his cost by permitting the acquisition of his land at nominal prices.

As yet, however, only a few larger towns like Moradabad and Chandausi have expanded much beyond their early limits owing to the expansion of their commerce and industries during the past fifty years or so.

Urban Settlements.

(a) Moradabad:

Moradabad town has grown around the Chaupala Fort, originally belonging to the Katehrias but later on rebuilt by Rustam Khan Dakhni*. But, its abnormal growth in the later years owes to the protection provided by the cantonment established here by the British Rulers. Its linear arrangement on the bluff of the Ramganga valley is made conspicuous by its one and a half mile long main bazar running almost parallel to the river (Fig. 58). Formerly, it was a walled town, memories of which are still alive in the names given to certain of its approaches, e.g., the Amroha Gate, the Sambhali Gate and the Katra Sarai, now a grain market but, formerly, an inn.

The functions of the old part of the town are mainly those of a commercial centre serving the surrounding agricultural area. Weekly markets of roving rural traders are still held in some places within it, e.g., the 'Budh Ka Bazar' or the Wednesday market-place. Recently, some industrial functions have been added to the town. Industry is mostly of the artisan type. The few modern factories and workshops (including the defunct cotton mill lying on the wrong side of the town at some distance from the railway station) do not have any imposing influence on its landscape. Well-to-do merchants and businessmen still live in quarters built over their shops and offices. A large proportion of the day to day consumer needs is still met by artisans living or working in tiny shops at street corners or in the bazars, all of one trade living in one or two adjoining streets. Differentiation by class and wealth is not so marked as in the industrial towns. In the older and more indigenous parts of the town 'opulence and indigence often live cheek by jowl'.

But, in the Civil Lines and similar areas there are very few poor people other than the domestic servants. The so-called 'Civil Lines' area contains the residences and offices of the local bureaucracy and those of the more flourishing lawyers, medical practitioners and aristocrats. At the other extreme there are homogeneous quarters of the railway workers. The British rulers, as it were, fused the communal separatism with their own emphasis on class so that
like other larger towns in India, this divisional headquarters of the old E.I.Railway (now Northern Railway) consists of two entirely distinct areas viz., the old town, 'a squalid but picturesque confusion, and the monotonously planned official areas of European-style bungalows in large gardens along straight or arcuate lines of broad roads, aloof and boring in a high degree, and absolutely dead in the heat of the day'. The Railway Settlement Area and the Cantonment, the latter now replaced by the Police Training Centre, have a mathematically rectilinear plan (Fig. 58). It is so different from that of the Ganj Bazar which was the Indian enclave serving the needs of the troops; the presence of the prostitutes over its upper floors still reminds one of the old days. The architecture of the Railway Settlement Area and the Cantonment is European, with an interesting climatically induced variation, e.g., the absence of chimneys and the presence of a carriage porch, essential in the rains.

The most striking monument of the Muslim Rule seen in the town is the Jumma Masjid overlooking the river Ramganga. Behind it lie the twisting streets of the old town. A single main bazar connects the Jumma Masjid area with the Ganj Bazar.

Many of the official buildings, banks, clubs, hotels, cinemas, schools and colleges, etc., have grown between the city and the Railway Settlement Area. The old town, the Railway Settlement Area and the educational and administrative areas present quite different aspects from one another.
(b) Amroha

Amroha is said to have been founded by a ruler of Hastinapur, Amar Jodh, some 3,000 years ago. It was rebuilt by Amba, the sister of Prithvi Raj Chauhan. It was a walled town, the wall being demolished in later years. At the time of the invasion of Timur in 1396 A.D. many of the great Muslim families of Delhi came to take refuge here so that it became mainly a Muslim town, its residents having large jagirs of land in the surrounding countryside. The bhur ridge surrounding it must have provided it an advantage in defence during those times, while its situation in the depression below the bhur assured it an abundant supply of water collected in ponds which are numerous even today. It is a highly compact and nucleated town indicating the influence of the feeling of insecurity and the consequent desire to have a defensible town plan in the medieval times. The abundance of mangoes (Am) and Rohu (a fish) or Rahao (a wood) in its neighbourhood are said to have given it the name.

(c) Sambhal

Sambhal's foundation goes back into the pre-historic times and its importance through the ages has been due to its religious and mythological background. Raja Jagat Singh, the founder of the town, is said to have established 68 'tiraths' or sacred shrines and 19 bathing places, all of which are still recognised and visited, annually, by thousands of pilgrims on the occasion of the Pheri fair in the month of Kartik. During the Muslim period it was also a provincial headquarters.

Having remained the religious, commercial as well as provincial headquarters for thousands of years, Sambhal has assured a pattern of its own, with a large number of sarais or inns surrounding it and a number of bazars and markets located in its different parts. Previously, it had as many as 52 sarais to accommodate the numerous visitors to it. Sarai Tarin is still famous for its cattle market. Though in most cases the sarais have long disappeared they still give their names to some of the quarters of the town and sixteen of them are still recognized. The changes in the lot of the town have time and again rendered it 'a place of ruins', which are still preserved among the numerous scattered mounds and hillocks within its municipal limits. Since the removal of old debris means extra costs the new buildings are, as a rule, not constructed where the old ones have been demolished but at other flatter and more suitable sites so that building costs may be lesser.

Its central and oldest portion is the lofty Kot, a name denoting a great fort. It is crowned by a grand mosque, which is said to occupy the site of an ancient Hari Mandir. This is, however, the highest among the numerous scattered mounds, each of which marks the site of some ancient settlement, forming part of this town.

Sambhal is situated on the Kothar overlooking the Kot nadi where it could be sure of an abundant water supply. The numerous rainy season mullahs coming down the bhur ridges

* This account is based on ibid. pp.255-260.
and collecting in ponds around it also afford sufficient local water supply, while the underground water table is within 10-12 feet deep. The town was well defended against any intruder. At the spot, about four miles eastward from Sambhal, stands the fort of Firozpur built, probably, as an outpost for the defence of the town. The fort of Jondhan Mohammadpur, a village nine miles from the town on the road to Delhi was also meant for the same purpose.

(d) Chandausi

Chandausi lies on the southern Katehr upland. It is of comparatively recent origin and did not attain any size till Bareilly became of importance. A market then sprang up on the Bareilly-Sambhal-Delhi Route. Its foundation, by one Ibrahim Khan, having taken place, according to tradition, in 1757. The surrounding Katehr being famous for wheat, Chandausi soon began to handle a great part of wheat grown there and in the course of time became the chief grain market in Rohilkhand*. It bears an essentially commercial appearance, the main roads being lined with shops and business houses, with large paraos or halting places for carts in many places. Originally, it was surrounded by a mud wall with light gateways, but the wall has disappeared. Roads have since been metalled and meet at the centre of the town. In the days of the Rohillas, it had become a rich and flourishing market and has remained so uptill now.

But, the imposition of toll and terminal taxes on

grain, in 1915, and their gradual increase since then, the competition from traders operating at smaller stations nearby where no such taxes were levied, the increase in the cultivation of sugarcane with the corresponding decrease in area under wheat, the opening of a new branch line from Bilari to Sambhal which resulted in the growth of Sambhal market at the expense of Chandausi and the breaking of the financial position of many of the leading traders of Chandausi, who lost heavily by dealing in speculation or 'satta', had some evil effects on the prosperity of the town. Later on the opening of the steam power station, which generates electricity for a great part of the Ganga and Ramganga hydro-electric grid system, however, proved beneficial since it has helped in the development of industries such as cotton ginning, oil-seed pressing and light engineering, here.

Trend of land use by the larger urban settlements:

The originally walled towns of the district, could hardly afford to be extravagant in the use of land. Moreover, in the disturbed times of the medieval period, people were concerned more with their security in an emergency than with open space, light and air. The peripheral extension of the new type houses and bungalows is of a very recent origin, since the people have become sure of security. The nucleated development of settlements has caused the least wastage of land in town plans and building construction. The lanes or streets are narrow and congested. There are few parking places inside the walls of the towns. Almost every inch of space has

been saved for residential or business purposes. The houses in these towns are usually double-storeyed and have small court-yards. For example, the municipality of Moradabad had a total area of 2,295 acres in 1951, when there lived 154,018 persons in 16,937 houses giving a gross density of about 67 persons and 7.38 houses per acre or roughly 43,000 persons and 4,723 houses to the square mile. In every 1,000 houses 1,739 households were living. The actual heart of the city, in fact, contains almost double that number of people and houses per square mile. The average number of persons per house in the town is 9.1*. The average land space per house in the town is 655 square yards. This space includes the roads, streets, open spaces and even cultivated fields within the municipal limits.

The commercial and administrative aspects of a town had their demands on its land in the olden times also. We have noted above the existence of large parao or halting places for carts in many places at Chandausi and of numerous inns at Sambhal. The growing industries have added to these demands, e.g., the sugar mills at Amroha. The modern amenities of civil life such as schools, hospitals, clubs, cinema halls, parks, play-grounds, wider roads and open-spaced bungalow like residences have their own demands on land around them. In the predominantly Muslim towns, such as Moradabad and Amroha, however, the extensive grave-yards, Idgahs, Imambaras and Mosques, etc., also take up a fair proportion of the land.

In Axroha for example, there are altogether 109 mosques, 46 imambaras, a large idgah and numerous grave-yards. Christian settlement, too, has a similar demand on land for their cemeteries and church-yards. The Hindus have their temples, bathing places and the cremating ghats.

That all the four bigger towns are situated on the central banger uplands reflects the influence of physiography on such settlements. The wanga khadar does not support any town. Means of communication are very poor, there, and particularly in the rains it becomes impassable excepting where the roads and railways cross it. The trans-Ranganga tract and Ranganga khadars together support but a single small town of Thakurware and that, too, has a precarious condition owing mainly to its damp and malarious climate. 78.5% of the total urban population of the district lives in the four larger towns, described above, 3.7% more lives in Hasanpur town, while the remaining 17.8% lives in townships having less than 1,000 persons each.

Hasanpur

The only flourishing towns outside the central banger areas are found in the bhurlands where Hasanpur and a few more small towns are found though the urban element is not much in them. Hasanpur is typical of the larger settlements in the bhurlands. The town is built on a high ground close to the bhur cliff overlooking the Gange valley. It was originally planned as a fortress of defence. The Rathan masters of the town held an extensive estate nearby. But, more recently the
place has acquired some importance as a centre of trade. It is acting as an important collecting and distributing centre for the agricultural produce of a wide area in its neighbourhood and connects the Ganga khadar on the one hand and the thurland on the other. In consequence, its population has gradually increased from 8,691 in 1891 to 14,777 in 1951.

It is a fairly compact and well-drained site. The place has greatly benefited by the metalling of the road connecting it with the Gajraula railway station, nine miles to the north. Minor un-metalled roads connect it with Sambhal, Amroha, Tigri, Bilkather, Mehara, Neora, Nuth, etc. The principal manufacture of the town is coarse cotton cloth, especially doanti, while a little industry is also connected with the twining of the thatching grass obtained in its vicinity.

Bachhraon & Shanasura

In the north of tahsil Hasanpur there are two townships of Bachhraon and Shanasura. Bachhraon is an old town and it was the headquarters of a parganah in former days. It lies nearly five miles to the north of Gajraula, E.G., about a mile to the west of the metalled road and railway line running towards Kanpur. Numerous kacha roads converge here from all sides. Markets are held weekly. Its chief inhabitants have always been big Muslim landlords or estate holders who cared nothing for commerce or industry. They planted some fine mango groves and orchards around it. In 1891, its population
was only 6,782. In 1951 it had increased to 9,139.

Phanaur is situated about two miles to the north of Bachraon on the metalled road and railway mentioned above. It has grown as a business centre complementary to Bachraon. Hascha roads connect it with Amroha, Hapur, Bijnor and Hapur. It is an important centre of grain and sugar trade, though it has been somewhat affected by the rise of Gajraula. Several wealthy traders live here and the town is compactly built with a neat and paved bazar. It has three market places standing in line with the metalled road passing down the centre of the town. It is not an old town and is said to owe its origin to one Habib ul Amam who founded it in 1763. It had only 4,019 persons in 1901. The number rose to 5,437 in 1951.

The requirements of graveyards, cemeteries and cremation grounds whereas the town and village sites comprise about 30,000 acres, the graveyards take up approximately 5,000 acres in the district as a whole*, showing thereby that human beings when dead, require about 16% as much land as when alive. Muslims require more land for this purpose than Hindus so that in the dominantly Muslim areas graveyards are more extensive, whereas the ruling community has been Muslim or Christian, in their administrative centres, more extensive and beautifully decorated graveyards and cemeteries are to be seen. Thus, Santhali, Naradabad and Sartha towns which have 

* Average figures based on Sadar (urban) and thana (rural) for the years 1953-56.
been inhabited by aristocratic muslims, have spacious graveyards and tombs. The railway colony of Moradabad where the christian influence prevailed for more than a century has a large cemetery.

Sambhal tahsil has the largest acreage and the largest proportion of its area under graves. Of the total built up area, it has 12.8% under the graves. Sambhal town having remained as the provincial headquarters for many centuries of the Muslim Rule and many a battle having been fought in its neighbourhood, the extent of graveyards in this tahsil may not be considered as too much.

When we remember at what high esteem the graves of the loved ones are held by the muslim community we can expect this much of the share of the dead in the land where they lived when alive. The Taj Mahal and the numerous tombs in the suburbs of Delhi, Sikandra and other places which are visited by thousands of tourists every year do not leave any necessity for explaining this point any more. Every Muslim overlord would like to build a tomb for himself and another for his beloved, if it could be within his means. Then there are so many 'auliias' or 'pirs' who are worshipped much in their graves. Their faithfuls would also like to build the biggest possible tombs for them.

The distribution of graveyards is, however, significant in more ways than one. Tahsil Sambhal has 12.8%,
Amroha 4.4% and Hasanpur 4.1% of the built-up areas under graves. The wide gap between the percentage of Sambhal and Amroha points to the fact that the higher the aristocracy and the greater the power it wields the larger the area it requires for its graves. Each of these western tahsils has had a large Muslim element since long. But, the quality of aristocracy has varied with distance from the provincial seat. The three eastern tahsils, on the other hand, were dominated by the Katehria Rajputs until the end of the eighteenth century. Their Hindu faith did not require the building of any tombs. The best final ceremonies for them would have consisted of a large fire and the sinking of the ashes into the sacred water of the Ganga, usually the dead bodies are carried to the banks of the Ganga for the final rites. But, later on, when these tahsils were also possessed by the Muhammadans and Christians the graves spread there also. Yet, the difference in the religious composition of their urban elements and their growing distance from Sambhal seem to have kept the percentage of their land under graves at lower levels comparatively. Thus, tahsil Illari has 3.9%, Goradabad 3.6% and Thakurwara 3.5% of the built-up land under the graves. In Goradabad town only 46.6% persons are Muslims or Christian while in Sambhal the ratio is 71.7% and in Amroha 73.7%.

Another important point about the distribution of graveyards needs mention here. The graves of the poor are

generally situated on infertile and rough wastelands. This cultural use of the wastelands like their use as playgrounds and building sites is all right, but the aristocratic and ruling families do not discriminate much between good quality and poor quality soil in the choice of a site for their tombs which can be seen standing amidst fertile dunar soilfields as often as not. In view of the scarcity of good agricultural land, it would, however, be desirable that the graveyards are located only on inferior land. If we approach the progress of a town historically we, sometimes, find that the site of old graveyards marks the previous limits of the town. With the extension of the town, however, the graves have now come within the mohallas, as is the case with Amroha, Moradabad and Sanathal.

The land under roads and railways amounts to about 20000 acres in this district. The railways are about 178 miles in this district. Their width is not restricted to the rails only (cf. Plates XXX and XXXI). Usually it extends to over 60 feet of land since earth has been dug and thrown up to build the tracks, leaving waste belts and pits on either side. If the railway department had cared, it could easily exploit these waste belts to economic advantage. But, as conditions exist, it is a neglected property. A few trees, which are relics of the times, are to be seen here and there, but they too have been stunted owing to the pruning and breaking of twigs by the villagers and the employees of the railway.
XXIX. A spacious square in Chandausi

XXX. Railway Station Machharya

XXXI. A section of Railway Yard at Moradabad
Along the metalled provincial roads, there are comparatively narrow belts on either side and trees have been planted in single or double rows in these belts. Mostly these trees are non-fruit bearing, but in places, desi mangoes and jaman, which require little care after having been rooted deep, have been grown. But, there are wide gaps left for such plantings. The plight of the kacha roads maintained by the District Board is bad. They become long pools of water and mud after the rains. Broken and cug into as they are, they provide channels for the flow of rainwater, which, in turn creates small gullies into the neighbouring fields from where it drops down in a sharp flow, thus accelerating the soil erosion. Where they have been built over clay, clods are baked in the dry hot weather. Hence, transport is very difficult on these roads. Carts change their courses on them from side to side, while to avoid the pools of water or mud and to find a safer passage they have to be driven into the neighbouring fields. Such roads, as a rule, are not planted with any trees on their sides.

The last category is of the traditional paths which are not claimed either by the P.W.D. or by the District Board. These paths are usually narrow and sinuous. They go connecting patches of wasteland lying here and there. In places, they pass through the fallow fields. In case the owner neglects his land for a few years, the field boundaries vanish and only with effort they are determined again.