CHAPTER IV

PLANNING AND SOCIOLOGY OF THE HOUSE

In this chapter it is proposed to discuss only those aspects of planning and sociology of the house which are of a general nature and are applicable to whole classes of dwellings. The identifying of classes has already to some extent been done, namely when the three main regional sub-divisions were defined as Saurashtra, North Gujarat and South Gujarat, and we shall be discussing each of these in turn. But there are other classes of buildings which are independent of such regional distinctions and are instead derived from specific cultural influences of a different kind. Such are, for example, the Muslim house, the Maratha house and the Haveli temple. Another large category is formed by the tribal house of which there are many varieties, and these will be examined both within their own context as well as in relationship to the more dominant communities. Finally, there is the royal residence which has its own cultural distinctiveness.

The two themes of planning and sociology have been here taken together because it is felt that the one cannot be understood without the other. The plan of a house must reflect the life-style and this is in turn made up of various components of which the two main are: family life and community life. Community life is reflected in the settlement pattern of groups of
dwellings. It is our observation that so far as Gujarat is concerned, it is the over-all settlement pattern which is the more important factor in domestic architecture and has taken precedence over individual family needs. It is the settlement pattern which has governed the over-all form of the dwelling and its main outlines, and the individual family needs have been fitted into the larger pattern. Because of this, it is with the settlement pattern that we begin.

(1) **SETTLEMENT PATTERNS**:

Broadly speaking, we can distinguish four main types of settlement pattern:

(a) Each dwelling forms a self-contained unit with its own front yard, enclosed with a wall having a single gateway. A number of such identical dwellings form rows along a street onto which each of the gateways open. Because of the enclosing wall of each dwelling, each house becomes relatively isolated from its neighbours and forms a semi-independent unit with its own inner privacy. The row as a whole may be inhabited by the community, but the architectural (and social) link between individual families is disturbed. This kind of pattern is typical for the Saurashtra sub-division, and hence may be called the Saurashtra pattern.

(b) Each dwelling is joined to the next with a common party-wall, many such units forming a row, with two similar rows facing each other separated by a long, open space resembling a 'street'. All the dwellings of this group are almost invariably of the same caste or community, and very frequently they are blood relations of each other. The open 'street' before the two rows of houses is not in fact a street but a common yard. There is no enclosing wall either individually for each dwelling or for the group as a whole. The function of 'enclosure' is achieved in the following way. All the rear walls of all the dwellings form a continuous wall all around the group. There are rarely windows in these rear walls and they are also made exceptionally
thick, so that the whole arrangement is like that of a fort whose enclosing wall is simultaneously the rear wall of a house. Such an arrangement of dwellings is called a Khadki and there is but one entrance to it situated at one end of the common yard. A number of Khadkis may all open onto a street, and if this street itself has gateways at both ends, or if it is a cul-de-sac street with a single gateway, then the whole arrangement is called a Pol. In a Pol many different communities may be represented, each living within its own Khadki.

Within each Khadki there are no barriers between individual dwellings, in fact the families are all inter-related, and the social link between families is very strong. All community activities are performed in the common yard and this common space serves to intimately link up all the families. This kind of settlement pattern is typical for North Gujarat and those parts of South Gujarat where migrants from the north have formed groups in strength. The latter areas are very few, mainly in Surat. We shall call this type the Khadki or North Gujarat pattern.

(c) Each dwelling is joined to the next with a common party-wall, many such units forming a row, but two such similar rows have no relationship with each other. Each row stands isolated by itself, it may face a similar row situated at some distance, but the opposite row may well have its rear wall facing the first row. In other words, the actual settlement unit is the single row. The other rows can place themselves in any way they like and it is only fortuitous if they happen to be parallel. In many urban areas they are in fact parallel, but that is not because of any social convenience. The peculiar situation that many rows have their fronts looking towards the rear sides of other rows underscores the absence of any relationship between them. This creates a very strange architectural character in that the rear end of a dwelling, which might be thought to need a special privacy of its own, is in fact directly exposed to the front of the adjoining row. In many cases toilets have been built in these rear ends,
and they now face the fronts of neighbouring houses. However, each dwelling has an entrance both front and back, so that the 'rear-view' character is somewhat mitigated.

These rows are invariably inhabited by families of the same community, and in most cases they are blood relations. This kind of pattern is typical for South Gujarat and is found extensively in the community known as Koli, so that we shall call it the Koli or South Gujarat pattern.

(d) Each dwelling stands completely isolated by itself within its own small agricultural field, yet a number of such scattered dwellings form a collective village. They all belong to members of an extended family having a common ancestor and their sense of belonging together is strong, but this is not expressed in the settlement pattern. We shall later see the reasons for this. This kind of pattern is typical for the Bhils and will therefore be called the Bhil pattern. (The Dangs pattern is a more regular variant of the Bhil).

The above four varieties of settlement pattern have deliberately been discussed together so as to show the strong contrasts between each of them, and they are shown diagramatically in Fig.5. They could have been discussed in depth individually, but then the insight gained would have been of details and not of the total situation. By thus juxtaposing them, one begins to realize that there must be strong social reasons for the contrasting patterns of settlement, and it is to these that we now turn.

The first point to be clarified, however, is whether the patterns described above are urban or rural. It has been our observation that so far as the first three patterns are concerned, they are equally found in both urban and rural areas. This may appear at first glance to be a surprising phenomenon, but it is so. And the reason is quite clear. The areas seen today as urban were once upon a time rural. It is the village which has, through
development and prosperity, transformed itself into a town. This process can be seen in operation even today, and must certainly have existed in the past. The settlement pattern existing in the village, with all its local irregularities and idiosyncrasies, remained as a constant factor during the process of urbanization. The road system, the row-houses, the Khadkis, all of these existed in miniature in the village and the only changes which occurred during urbanization were that the dwellings became multi-storeyed while occupying the same sites and same locations. The individual house-plan remained virtually the same in a large number of cases, and we shall later see that there were some significant changes here also but only in selected towns. It is important to note that what was most crucial in the town was the site and the road system. Once this had become fixed during the time when the town was still a village, it was very difficult to change. The individual house-plot could be enlarged only by buying up neighbouring plots, i.e. by multiplying existing units, it could not expand in any way it linked. In the great majority of cases the plots remained the same and that was precisely the reason why the dwelling had to expand vertically. Since the original house-plot and house-plan were intimately related to each other, and since most houses occupied the whole of their plots, no great change could be made in the individual house except to grow upwards. In short, the urban pattern continued to reflect the rural pattern both in the over-all situation as well as in the individual house-plan. The village house became the town house through external circumstances and not through any process of radical internal change. The process was slow, stretching over generations, and only small changes at a time could be effected. All these factors made the town into merely a glorified village; the change was quantitative, not qualitative.

One important reason why the town could not be very different from the village was the following. The average village in Gujarat grew up as a fairly dense conglomeration of
dwellings from the very beginning. The sociological term for such a village is 'nucleated.' The initial denseness of the pattern left very little open space in between for later growth or change. The original pattern was inflexible. The denseness of settlement could be maintained without social friction because the majority of settlers in any one village were generally of one caste if not of one blood. The outsiders who were permitted to settle, for example the service class such as the barber or carpenter, did so on the outer fringes, and they in turn formed closed groups. This rigidity of configuration persisted through all the subsequent periods of development and growth; all the additional dwellings also followed the same original kind of pattern, so that when such a settlement grew into a town, it retained all the architectural characteristics of the village.

There must have been important exceptions to the above in the case of founded towns, such as Ahmedabad or Baroda. Here certain administrative and aristocratic areas must have been set apart and these must have had a quite different settlement pattern. Our field observation shows that while this is certainly true for a small part of the founded town, the major part of it appears to have been given over to settlers to settle in any way they liked, and they automatically repeated the pattern with which they were already familiar, namely the village pattern. This can be strikingly seen in Ahmedabad where the extensive system of Khadkis and Pols repeats a pattern already seen in every surrounding village. The urban pattern of most of Ahmedabad is simply a magnified version of a rural pattern. A visit to a small village like Sunav (Kheda district) will show miniature Khadkis planned in exactly the same way as the huge Pols of Ahmedabad. It is not that the villagers are seeking to imitate the town, it is the town which is growing on the foundations of a village mentality. This aspect is discussed later at length.

In South Gujarat the urban pattern shows a remarkably striking similarity to the row-house pattern of the village. Towns such as Valsad or Billimora have straight roads (whereas
Ahmedabad is full of crooked lanes) precisely because the row-house is itself straight and lends itself to a regular road system. The distance between house-rows is also much greater than in North Gujarat towns, because the original wide spacing between unrelated house-rows had already set the pattern. Further, the rear toilets of one row continue to face the frontage of the next. One peculiarity must be mentioned.

We saw earlier that the distance between two house-rows was generally large. Now, when a road was run through this wide space between two rows subsequent to urbanization, a great deal of vacant land remained between the road and each row. This was promptly occupied, giving to each house owner a very deep plot of land with a very narrow frontage (corresponding to the original house-width). This narrow plot was not there from the beginning, because in the original condition the vacant land between rows was a kind of no-man's land without any particular function except to keep two groups of families some distance apart. It was encroached upon and became a private plot only after urbanization. These deep plots are characteristic of South Gujarat, and in some cases the ratio of width to depth is as high as 1:9. It produces a completely different kind of architecture from North Gujarat or Saurashtra. But within its own context, the South Gujarat house-plan repeats the village house, and the urban pattern repeats that of the village. In principle there is no change.

Turning now to the sociological aspects of the matter, the question which arises is: What is the reason for the differences in the settlement pattern. In seeking an answer we have deliberately avoided all speculative theorizing and concentrated on observable facts, and based upon these the answer seems to be as follows. It could be observed that one important functional difference related to the manner of keeping cattle.

In the Saurashtra sub-division, field survey showed that the dwelling with single front yard enclosed with a surrounding enclosure was the typical pattern of the nomadic herdsman. Here cattle-keeping was a major activity because the poor soil
conditions and aridity of climate made agriculture very precarious in the past. Cattle-keeping on a large scale was possible because the soil, though poor for agriculture, was ideal for pasture. Large herds could be maintained and these belonged to individual families who needed an enclosed yard for stabling at night. Cattle could be kept out in the open yard the whole year round because of the dry climate. In this way, space for a herd coupled with a dwelling for a single family became the minimum residential unit. In primitive conditions the dwelling was a temporary one made of brushwood and thatch, while the enclosure was of thorns. The famous cattle-breeding Rabaris of Saurashtra still have such an arrangement.) The striking similarity of this primitive arrangement to the far more sophisticated houses of the well-to-do shows that was the origin of this pattern. The richer families, even if farmers, would continue to keep larger herds to supplement their agricultural income, and hence continue to retain the large yard in front of their dwellings along with the enclosing wall and the large gateway. A number of such residential units, each with its own cattle-yard and gateway, would form a row. But, as already indicated, the fact that there was a row of houses did not set up a close-knit group because the enclosing wall set up a barrier between each neighbour. (The communal space was not the street joining up all the units, but the yard of a leading member of the community. Adjoining yards did not have to be of families of the same caste because each yard functioned as a closed-off private space. The basic origin of this pattern, where units are not closely linked to each other, goes back to the manner of keeping cattle.)

In the North Gujarat sub-division, cattle-keeping was not the main occupation because the soil was fertile and supported agriculture. The only cattle kept were those required for agriculture, i.e. for haulage and ploughing, and for supply of milk for personal consumption. The draught cattle were few and were kept, not near the dwelling, but out in the fields. This point needs some elaboration. The fields of a farming community
are spread out around the village for quite a distance and it is a burden to every day transport all the agricultural equipment from the personal dwelling to the scene of operations. What the farmer does instead is to leave all the equipment, along with the draught animals, on the fields even at night. Temporary shelters are erected for the latter during rains. The male members of the family themselves begin to stay out at night in the fields in order to watch over their possessions and to start work early each morning. In this way the whole life-style of the farmer becomes an out-door one where he visits his dwelling only for short periods. The only cattle kept near his dwelling are the milch cattle, and these will not be more than one or two per family. The situation is thus completely different from that of the herdsman.

The fact that only a few milch cattle have to maintained near the dwelling obviates the need for a large personal yard. The cattle are stabled in temporary shelters in front of each dwelling, and a row of dwellings will have a row of such temporary shelters in front with no intervening walls. In this way the open space in front of the row remains open and common and accessible to the whole row. Two opposite rows can share the same common space, and this becomes a community space. The intimacy and social intercourse via the common open space is intense and it becomes obvious that for this to succeed only those of either the same caste or blood relations must occupy such a common space. Added to this comes the aspect of security. In the Saurashtra pattern the security of each dwelling was guaranteed by its own individual enclosure. Here the common space had to have a common enclosure, and this could best be assured by simply controlling the entry and exit points of the common space. In other words, the rows of houses themselves provided the enclosure along two sides and all that had to be done was close off one end with an additional wall and the other with a gateway. This would then produce our Khedki.
But the matter is not really that simple. The main question is: Why the need for security? It is obvious that the residents feel the need for security and feel it intensely. On the other hand, we have farming communities such as that of South Gujarat who seem to feel no need. The average Koli village has no enclosing wall of any kind whatsoever. Barring Surat, the towns of South Gujarat are not fortified. Even the individual house has no enclosing wall or enclosed yard. Saurashtra and North Gujarat are full of fortified villages and towns. The Saurashtraian house has an enclosing wall, while the Khadki is itself a kind of fort whose single entrance is kept locked at night. It is quite obvious that here we have a different situation to South Gujarat. There are a number of possible explanations.

One could be that Saurashtra and North Gujarat were more given over to marauding bands. For Saurashtra there are many reports of Kathis who habitually plundered villages. North Gujarat had turbulent Kolis and Bhils who exploited every local unrest to plunder settlements. As a matter of fact it was the latter which were persuaded to rise up and support the Gaekwad in his capture of Baroda in 1734. Bands of armed men were always available for such banditry and it was a period of constant unrest and insecurity. It is therefore very likely that it was this general atmosphere of unrest which produced the need for settlements which could be closed off against intrusion.

But there is quite a different kind of security which must here be considered. In the case of the herdsman, it is the menfolk who must take the cattle every day for grazing, leaving the women, children and aged alone at home. In the case of the farmer we saw that the men spent a great part of their lives in the fields, staying there even at night. Again the dependents would be alone at home. Could it not be that it was the need to protect these dependents during the prolonged absence of the menfolk which prompted the great precautions taken for security of the settlement? In other words, it was a sense of insecurity
produced by the nature of the occupation and the manner of its execution. The protection of women in particular may not have been so much from a threat to their lives as to their virtue. The communities North Gujarat do not permit a great freedom to their womenfolk and while there is, of course, no system of purdah, there is always a restraint against mixing with strangers or even other castes. This, then, may have been one additional kind of insecurity which had to be faced.

Finally, there is one other quite distinct possibility. The maximum sense of insecurity is always felt by a migrant group which has entered into and settled upon the territory of an alien community. The theory about the Gurjars being a migrant group has already been mentioned. Regarding one of the major farming communities of North Gujarat, the Patidars or Patels, D.F. Pocock has written that all their villages were founded villages, i.e. that they came as settlers from elsewhere (1). Traditionally Gujarat was said to be the home of Kolis and Bhils, and the large percentage of these communities within the region seems to bear this out. And yet, much of the best agricultural land is in the hands of other non-tribal communities, so that the theory of migrants having settled in the region is extremely probable. It fits in with the prevalence of the great sense of insecurity and the very unusual precautions taken to enclose settlements. If one were to judge by the architecture alone, one would be justified in assuming these settlers to be migrants. Quoted below are a few references to this sense of insecurity.

Walter Hamilton, in his "Description of Hindostan" (1820), "They (meaning Kanbhis or farmers) hold portions of Government land, and are called Patels ..." (2), and then, "For the sake of security, the great body of the natives of Gujarat do not live in single sequestered houses, but in assemblages of them ..." (3).

D.F. Pocock on the Patidars, "Descendents of a common ancestor have built together in such a manner that the backs of their houses constitute a wall around the whole which is entered by a gateway ... In the past they were closed at night, thus creating a small fortress within the village. The whole village
thus appears as a collection of such fortresses ... "(4).

Further on he writes, "In a few remaining Khadaki ... there still remain the little lodges on the right just inside the gates. There the head of the Khadaki used to sit and see who came and went, and there he could be visited by strangers who, without invitation, would not have been allowed to wander in the Khadaki lanes, especially when the men might be in the fields and the women alone at home ... "(5).

The above descriptions clearly show a community which lives withdrawn into itself and the condition fits in very well with that of migrants. If this is so true for the Patidars, may it not serve to explain the earlier settlement patterns as well? We shall now see how the social pattern of a non-migratory, indigenous population is quite different from the above, namely in South Gujarat.

The largest farming community in South Gujarat is that of the Kolis. They have extensive villages where they form a majority of the population, and they are indigenous to the region. It is not known whether they are related to the Kolis of North Gujarat, but that is very likely. The South Gujarat region has a very heavy rainfall, much more so than the North, and because of this it is not possible to maintain cattle out-doors and in the open. Even temporary sheds will not do. The cattle are therefore kept inside the house. Because of this no external yard is required and no additional security measures so far as the cattle are concerned. The dwelling itself is both residence and cattle pound. By a curious coincidence the womenfolk too, amongst the Kolis, are not restricted in their social intercourse, so that for them also no particular privacy or enclosure is required. Both these factors combine to produce a settlement pattern where each dwelling can, theoretically, be placed anywhere and need bear no relationship to any others. A glance at a Koli village bears this out. Many dwellings are
scattered about haphazardly. The tightly-knit pattern of North Gujarat is completely absent. Completely absent is also any sense of insecurity. The village is open to all sides, there are innumerable points of entry and exit, there is nothing like a communal space, there are no gates to the settlement.

The row-houses described earlier arise because of certain social customs which will be detailed later on, here it is sufficient to say that they always belong to relatives who have set up a new unit adjacent to the old one. The row arises by gradual accretion and is not pre-planned. Many rows are of up to ten dwellings, most are less, and there are in addition many individual dwellings which may in due course expand into rows. It will thus be seen that the Koli village is strikingly different from those described above. Each individual family retains its freedom to settle in any way and any place it likes. Each family forms an independent, autonomous unit, but its boundary is the dwelling itself. All the open land around houses is a no-man's land which remains unstructured and unutilized. The only 'pattern' which emerges, and that too by chance, is the row. The row is not pre-ordained, there is no essential social aspect which it reflects, rather it is a matter of convenience. In this sense it is quite different to the Khadki, and the question arises as to why this should be so. Why should the Kolis feel no sense of insecurity?

There is no data available in this regard, and we are left to speculate. The three elements of insecurity which we identified earlier were: general state of insecurity in the countryside due to plundering bands; need to protect the women; need to protect the migrant group from an alien environment. The keeping of the cattle at night would also come under the head of general insecurity. It would be very interesting if we could establish which of these three elements was the dominant one in the mind of the people themselves for that information would give an indication of the origins of the groups concerned. It seems to us that what was most valuable to both the herdsman and the
agriculturist was the cattle. Jewellery, money, goods, all of these were not so essential to his economic existence as cattle. And if insecurity was felt, it must have been in respect of cattle, so that it is this which probably was the generator of those security measures mentioned earlier. This hypothesis would fit in very well with the position of cattle as mentioned in classical literature, namely as the main source of wealth, and it would also fit in with the theory of migrant groups having come to Gujarat from the north. The enclosed yard and enclosed Khadki would then be nothing more than devices to protect cattle. The fact that they also protected women would be a secondary consideration. The theory of migrant groups would also explain the general state of insecurity. For if these groups had come and occupied territory originally belonging to others, then these latter people would continue to feel the deprivation and would seek every opportunity for plunder. The tension created by the clash of opposing groups of settlers, one indigenous, the other migrant, would sufficiently explain the constant unrest and general insecurity in the region.

All these considerations would be absent in South Gujarat where, until fairly late times, there is little record of any migrations, and that too on a small scale. The indigenous population, threatened by no one and in secure possession of their territory and goods, would not feel a pressing need for security. The maintenance of cattle indoors would be motivated, not by the fear of plunder, but by reason of the climate. Their womenfolk too would not have to be protected for they were not among aliens. Thus, the dichotomy between North Gujarat on one hand and South Gujarat on the other would be fully explained, and we would also have an adequate explanation for the differing settlement patterns. This conclusion is, incidentally, fully supported by Bhil practice. There again we find scattered dwellings without any kind of defensive arrangements. In other words, the moment we come upon an indigenous population (such as the Bhil is), we find a scattered settlement pattern. It may be added that the Bhils have no tradition of keeping cattle because
they were originally food-gatherers and hunters. Their women too have few social restrictions. It seems to us that there can be no doubt that the excessive security consciousness found in parts of Gujarat is a direct reflection of social tension engendered by a mixing of groups alien to each other. And this is in turn reflected in the architecture. In Saurashtra and North Gujarat it is not merely the town or city which has a fortified character, but every village and street has it, and that is unusual.

A small objection which may be raised to the above explanation must here be noted. It may be claimed that the condition of general unrest and insecurity mentioned was the result, not of the clash between migrant and indigenous population, but between indigenous population and Muslim rule. But this hypothesis is patently inaccurate. A city like Ahmedabad was directly under Muslim rule and no amount of Khedkis or Pols would have saved its population from the Muslim rulers if they had wanted to plunder their own citizens. The plunder which the people feared was not from their own established rulers, but from marauding bands which exploited political unrest.

We may close this section with a quotation on Towns and Villages from the Census of India of 1911 as it is a good comparative statement, "There are various types of villages. Sometimes, as in Kathiawad, people reside in walled and fortified villages, a reminiscence of the troublesome period which preceded British supremacy. Elsewhere, as in the Baroda and Kadi Districts, the fortifications disappear, but the houses are closely packed together within streets ... Elsewhere, again, as in the greater part of the Navsari District, the houses, while still collected on a common site, are well separated, and most of them stand in their own ground. In the Rani Mahals of Songadh and Vyara, there is no regular village site at all (meaning the Bhils), and each cultivator makes his dwelling place where it suits him best..." (6).
Having in the above made a comparative analysis of settlement patterns in general, we must now turn to details of the individual dwellings, and in this we shall proceed according to different categories. We begin with that of North Gujarat because that is the principal area of our study for reasons already mentioned, but these may be re-capitulated. North Gujarat was in the past the nucleus for the cultural pattern which gradually spread to the rest of the region and formed the model for the population as a whole. The North Gujarat pattern was also the most complex, the most structured, and the most highly developed of all, and which at the same time formed the heartland, so to speak, of the wooden tradition. It is here that we find the finest and most extensive woodwork and which again constituted the model which others sought to emulate. The remarks on customs, folklore, sociology of the house, which apply to North Gujarat are typical for a major part of Gujarat as a whole, so that a description of this in depth will obviates the need for lengthy descriptions of the sub-groups. The analysis for North Gujarat is made in two parts, one for the typical rural environment, the other for the typical urban.

(2) **THE NORTH GUJARAT RURAL HOUSE**:

For our purpose we may take a village of Kheda district as a typical representative of this category. The starting point of the village was the Khadki, founded by some common ancestor in the remote past, and in which all the original families settled and set up their dwellings. Two facilities immediately required were the well for drinking water and suitable mud for house building. As already explained (page 61), if the village was on the site of an earlier one, then the old re-cycled mud was ideal for this purpose. If not, then mud was taken from some adjacent low-lying area, and as more and more of the material was extracted, the depression thus created in time became the village pond. In still later times, as the village prospered and brick houses began to replace the mud ones, this same pond would serve for brick-making. This village pond is
called the Bhagol (भागोल). A large and very old settlement such as Nādīd has many such Bhagols surrounding the site. The original Bhagol also served as the entrance to the village because it was here that the cattle and draught animals of visitors could be stabled for the night. In time a small temple might be erected on the banks of the pond as also a platform for sitting about. The original Khadki would open onto this Bhagol.

Those groups of people which formed the service castes to the village, such as the barber, carpenter and blacksmith, and also those who came and worked as day-labourers in the fields, would be permitted to settle next to the Bhagol for that was the threshold of the village and therefore meant for people who were not considered as being fully members of it. They were not permitted to set up dwellings next to the main Khadki, that was reserved for the own caste members. As the village grew, additional Khadkis would be added adjacent to the original one but not according to some pre-conceived plan. Each Khadki would be located according to its own convenience and since the individual house-plots were not all uniform, the resulting pattern might easily be irregular and confused. The only rule followed was that all Khadkis were set up as close as possible to others for the sake of security. It is this lack of a pre-conceived plan which makes the village so full of narrow twisting lanes and the layout so dense.

As a general rule, most subsequent Khadkis were founded by descendents of the common ancestor, and they were named after the senior founding member, while the original Khadki would bear the name of the common ancestor. In this way each Khadki is named after an individual. The members of all the Khadkis are blood relations of each other and this imparts to the village a very homogenous, tightly-knit, intimate character. In some cases fresh members from neighbouring villages were also permitted to settle, but these were almost always from only those villages with which marriage relations had already been
established. By this means the exclusive character of the village was maintained.

The above manner of village settlement will show that the only public or semi-public space in the village was the Bhagol. There was no provision of any open, internal village green or even market-place. There were no institutional buildings in the ordinary village. Even the shop was rare. (7).

The village well, mentioned earlier on, was always constructed outside the Khadki and generally near the Bhagol. The reason for this external location was that if it was made inside the Khadki, then it would gradually get polluted through seepage of waste water percolating into the soil from all the dwellings. The danger of such pollution was well understood, and the authors of the Charotar Sarvasangrah report that both well and pond were situated towards that side of the village where the ground was higher (8) so that village waste water not drain into them.

In general, there was always a shortage of water in the village because perennial rivers are few, the ponds supplied very inferior water and were not reliable, and the making of wells was expensive. Here is a quotation from the 1883 Gazetter for Baroda.

"The water-bearing strata are generally very deep, ranging from 30 to 180 feet, and it is therefore found very expensive to make wells ... But there are other reasons why the cost of building a well is very heavy ... In the first place the earth crumbles ... (and falls to the bottom of the pit) ... so that it is very quickly choked up ... The sides of the well, therefore, as a matter of necessity, require to be strengthened either with stones or brick ... These and other reasons have prevented the inhabitants from digging more wells." (9).
The shortage of water is mentioned because it has a bearing on both social custom as well construction. The average rural family used as little water within the dwelling as possible. Every drop of water had to be fetched on the head by women of the household and became something precious. As a result, all kind of domestic washing, including bathing, was reduced to the minimum. Arrangements within the house for use of water, such as bathrooms and floor-sinks, were virtually absent. Wherever possible, bathing, washing, cleaning, were all performed outdoors and near to the actual source of water in order to conserve the domestic supply. Many of the social customs of the family were thus governed by practical circumstances.

The shortage of water must also have played an important part in the work of construction. Materials requiring quantities of water for their preparation would become prohibitive. This may have been one of the reasons why lime mortar was avoided even in the well-to-do brick house. It must be remembered that the water supply was owned in common by the whole village and had to be shared equally by all. One rich family, wishing to draw extra supplies of a scarce commodity, would have put all the others to hardship and this could scarcely have been permitted. Lime mortar needs particularly large quantities of water for its use and would certainly have been prohibitive under normal circumstances.

Let us now examine one typical Khadki and one of its typical units in some detail. (The typical Khadki consists of a long, open space lined on both sides with dwellings of two storeys, with one end closed off and the other guarded by a two-storeyed gateway. The open space resembles a street but is not one. It functions, of course, as the circulation space for all the dwellings and all of them have their entrances from it, but it serves many more important functions as well. It is the space where all community activities are carried out, such as marriages, festivals, gatherings. During the day it is here that
many of the womenfolk do their daily chores such as cleaning vessels, the milch cattle are also stabled here so that their care, the care of young calves, the collection of dung, all this work falls to the women. The children use this space as their play area, in summer the menfolk use it for sleeping out. (In short, it is in fact a part of the common living area shared by all.) It is in every sense an extension of the house and bears a semi-private character. This point should be kept in mind when we study the urban house. There too the memory of the space in front of the house as a semi-private area is preserved and explains why the public streets are used as extensions of the dwelling. The custom originates in the village Khadki.

(The Khadki gateway dominates the whole of the common space and forms its threshold. In some of the richer villages it is very large, resembling the entrances of the fort or palace and correspondingly covered with carved woodwork. It reveals the wealth and status of the whole Khadki and there exists a competitive spirit among the various Khadkis to have a fine gateway. But the real reason for the large size is, originally, to permit carts to enter it. The door consists of two shutters, one of which contains within it a smaller wicket gate which is used at night when the main shutters have been locked. Upon passing the door, there are two stone platforms to either side which are meant for visitors to wait in while the information of their coming is carried inside. As this is the common property of all the members of the Khadki, it is naturally used for all kinds of heterogeneous purposes. In Dharmaj during the tobacco season much of the crop is temporarily stored here. (Ill. — ).

The first floor of the gateway is a large hall with windows which look onto both sides, i.e. down to the entrance and road on one side, and into the Khadki on the other. It thus functions as an ideal place for keeping an eye on all movement in the Khadki, and that is, of course, one of its main objectives. This function is carried out generally by those members of the Khadki
who have become too old to do anything else, and who have ceased to cohabit with their wives. These old people have, within their own individual dwellings, handed over control to their sons and grandsons and have, in many cases, ceased to sleep within the house. They spend their whole time in the upper floor of the gateway and use it as their residence, only going to their actual homes for meals. In other words, this hall becomes a kind of retirement area for the very old. Since many of them turn religious at this old age, the hall and its vicinity may serve for religious Kathas and a small shrine be erected at its plinth.

One important function of this upper floor is as a place for visitors. If there is insufficient accommodation within the houses, visitors will be put up here. Any kind of gathering of heads of families would also be held in this hall. It thus acquires the character of a 'public space' and we shall later see that in North Gujarat it is usually the upper floor which has this connotation. The ground floor, on the same level as the space used by the women, would not do for such a purpose. The two levels are clearly distinguished by their differing social usage. In times of danger, the upper floor would, of course, be used to defend the Khadki by controlling the gateway, but we could not find any residents who remembered this actually having been done.

(Within the Khadki, apart from the open, common space, there are no other common facilities. There are no common latrines or bathing places. Some of the Khadkis seen by us were very large incorporating numerous side lanes but in all of them the larger areas are merely covered by residences of a monotonously similar design and settlement pattern. Nowhere does the Khadki change its basic character or incorporate new functions. It is an extremely archaic, conservative formation which has ceased to develop any further at the village level. The changes which took place at the urban level are discussed later.)
The typical dwelling which is today found in the Khadki is a fairly substantial two-storeyed building with internal sub-divisions, but this was not always so. There is a saying among farmers of Kheda that "a field produces wealth, while the house eats it up". In other words, if there was any agricultural surplus in the past, it was utilized to extend agriculture and not to build extravagantly. (One of the reasons for the extreme simplicity of the original dwelling was the uncertainty of occupation of a particular site.) The "Socio-Economic Survey Reports of Shekhdi, Simodra, et al villages" carried out by the Baroda State Development Board in 1933, found that Shekhdi village in Petlad Taluka, founded 80 years ago, i.e. in 1853, had moved from an older site due to the depredations of marauders. (10). (The village of Vaso in Nadiad Taluka was shifted from its original site some 5 miles away due to persistent disease.) In some cases the villagers would be tempted to settle on new and better lands by an interested ruler or nawab. Due to this, and economic reasons as well, the original dwellings were made as simple as possible and the trend towards more substantial houses came much later. We shall therefore briefly describe such a simple dwelling because it helps to explain much of the later development.

(The Kheda farmer made his house as a large outer covering or envelope into which he could, as funds became available, add internal sub-divisions.) It is very important to understand this point clearly. (In the initial stage there was not enough money to make a complete house with all its parts. But if a small initial house was made, then to enlarge it subsequently would mean tearing down much of it, and that would ultimately prove expensive. For this reason, the house was made from the very beginning as large as the plot permitted and designed as an empty 'barn' with a front porch or veranda for stabling cattle. Within the single large space all the activities were performed as per convenience. Cooking was to the rear, separated by a low partition wall from the remainder of the space, and the smoke escaped upwards through the tile roof. There was no ventilation of any kind, no windows, and all light and air came in through
the single entrance door). Some of the old women interviewed by us told us emphatically that the smoke, trapped in the house, was a permanent nuisance and cause of hardship and they remembered those days with bitterness. They could not use the front of the house for their work because that area was visible to the menfolk and hence under restriction. It is well known that in the Hindu Joint Family household the women are under numerous restrictions with respect to the men. The younger wives have to 'avoid' both the father-in-law and the elder brother-in-law. All the women have to 'avoid' male visitors and strangers. Thus, there are numerous invisible barriers within the household which fluctuate with changing circumstances. When all the men are out, the women can move to the front temporarily and even occupy the common space. As the men return, the women move back to the rear of the house. There is no rigid sub­division of the house into women's portion and men's portion, by and large the rear is for the former and the front for the latter, and while there is always this relationship of a 'rear' to a 'front', the precise nature of each is not defined. In other words, it is primarily a functional relationship and only secondarily a spatial one.

The spaces of the house are throughout characterized by this fluctuating, imprecise usage. (The cooking area is fixed only because it has a fixed feature, namely the hearth.) But we have seen instances when, in hot summer months, even the cooking was done outdoors in the absence of men by using a portable chulha. (The remaining portions of the house are used in the same imprecise manner.) (There are no fixed sleeping places for various members of the family. In general, men sleep in 'front' and women in the 'rear'.) The 'front' may be the front part of the room, or the veranda, or the Khadki space. Depending upon where the men lay themselves down the women will accommodate themselves so as to maintain the imaginary 'rear'. The division between 'men' and 'women' is effected not through partitions or curtains, but merely by observing 'distance' coupled with partial covering of
the face. If we consider why this should be so, and why the family did not construct actual partitions to make things more clear, we are left to speculation.

It is not enough to say that partitions were not made because of lack of funds. When we examine Bhil houses, we shall see that a simple and cheap partition of bamboo wattle was always constructed along with the house and such a feature was well within the means of the Kheda farmer. No, the reason must derive from the social background. To us the reason seems to be the following. The Khadki pattern of settlement does not permit actual strangers into the vicinity of the dwelling, it is designed for use by only close relatives, and towards these the women would never have extreme reserve. The 'distance' maintained between men and women is certainly real but it is mild in nature and has nothing of the 'harem'. The young bride can serve food to her father-in-law and the only 'distance' she need maintain is to cover her face. The same applies to other male relatives. She will maintain this 'distance' in public even towards her own husband. The need for constant social interaction within the Hindu Joint Family between men and women discourages the erection of any permanent architectural barriers between them. The barrier has to be one of etiquette. The Bhil house, in contrast, is exposed from all sides and it is never known who will turn up. Therefore a real physical barrier is required within the house. We shall see presently that as notions of etiquette changed, even the Kheda farmer erected physical barriers, and in the urban house this became very extensive.

One important point here is regarding the sleeping habits of young couples. The general custom is that husbands and wives do not share the same sleeping area. The Hindu marriage is for the purpose of procreation, but the act of procreation must be disguised as far as possible. Husband and wife are supposed to exhibit no public sentiments of love or affection and any hint of sexual relations is completely taboo. For husband and wife to
lie down next to each other is out of the question. The bride will sleep in the 'rear' and the husband in 'front' or out in the fields. Small children will sleep next to their mothers, so that even a surreptitious approach by the husband becomes hazardous. How then do the couples procreate? and why is the sexual relationship between couples so masked? These questions have not been studied for our region and this is perhaps the first time that it is being raised in this context. Our own observation is as follows.

In the Joint Family system which prevails in Gujarat (and elsewhere) all married sons share the house with their parents. One would expect that under such circumstances a certain amount of sexual jealousy between brothers would inevitably arise, and this would soon disrupt family peace and endanger the Joint Family. Sexual jealousy is largely prevented from arising by creating an atmosphere where the husband-wife relationship is muted. The young husband has a wife, but she does not 'belong' to him as a possession with which he can do as he pleases. She belongs to the family and not to him. She is given as a bride to the family and not to him as an individual. She has to obey her parents-in-law far more than him. And her sexual relationship with the husband has to be completely pushed into the background. Sex has to occur perforce clandestinely.

As to how cohabitation takes place under these forbidding circumstances, we were told the following. The husband would be spending almost eight months of the year out in the fields, even sleeping there, along with all the other younger menfolk, while his wife would be at home along with the other womenfolk. Once a week or fortnight as the case may be, the wife would call the husband home in order to help her with the 'churning of the butter'. This was a task which was done in turn by the younger women and was heavy work. It was always performed very early in the morning when it was still dark. The husband would meet his wife over this task and by tacit agreement all the other family members knew that so-and-so was meeting his wife and the two would be left alone. This was the occasion for surreptitious cohabitation.
It is indeed very strange to find an act so essential to the existence of the family being relegated to a level bordering on the forbidden. This is because of the Joint Family. For a young couple to segregate themselves in any way within the dwelling would be to proclaim their sexual link and this could not be done in public. It is for this reason that even well-to-do families with large mansions still do not have regular 'bedrooms'. And in our simple farmer's house, with one large multi-purpose space, there would have been no place at all for a couple to retire in privacy even if it had been socially permitted. This restriction on sex also explains why the father of grown up and married sons would soon make it obvious that he had given up cohabitation with the mother of his grown sons and had begun to live in the upper floor of the Khadki gateway in a kind of Vanaprastha (the traditional retirement to the forest advocated in Vedic literature for the aged householder).

(The inside furnishings of the dwelling were in keeping with the simplicity of the exterior. The water for domestic use was stored in pots placed next to the hearth, while the grain was stored in large clay jars.) These jars were sometimes five feet high and so large in circumference that they could not be moved through the normal door. This point was very intriguing as it was a mystery how they were brought into the house in the first place. Questioning produced no clear answer, for these containers were older than the oldest living inhabitant we met, and this particular aspect had struck no one. The answer came later through observation. The original jars had been brought in through the main door which, being the widest, could accommodate them. Later, when inner walls had been erected, these had smaller doors in them which were narrower than the jars. The jars were in the innermost room and had remained there during all the stages of the house growth. (In some cases we found the jars being used as a kind of room-divider separating the hearth from the rest.)
The only other item of furnishing was a wooden chest on wheels which contained all the family valuables: mainly jewellery, money, clothes and vessels. The presence of the wheels clearly indicates that it was meant to be moved about, but why? Partly because within the house it had no fixed location, partly because it had to be moved to a new village site on occasion. Apart from these few belongings, the family in this simple condition had nothing else. This is understandable; but what is surprising is to find wealthy farmers having little more. The bareness of the house not only in Gujarat but in India as a whole has been noticed by many observers. And it is necessary to examine this phenomenon in some detail.

The first and most obvious reason for the lack of furnishings is that since most of the time was spent outdoors, there would be little inducement to develop and elaborate indoor life and correspondingly little thought was given to furnishings. Visitors would be met in the front veranda, next to where the milch cattle were stabled, and clearly nothing much could be done with this area. Female visitors would be taken in, but then for their sake alone no special arrangements could be expected. It was the menfolk who had the greater say in house expenditure, and since they lived so much outdoors, they would not furnish their homes for the sake of the women alone.

Another important reason for the lack of furnishings was the lack of clearly defined functional spaces. If there was no 'bedroom', 'dining-room' or 'living-room' as permanent sub-divisions of the dwellings, and if the interior space was used as a multi-purpose hall, then that imprecise character would also impart itself to the furnishings. No piece of furniture with a clearly defined purpose would fit into a multi-purpose character, except perhaps the ubiquitous charpai, and this was mainly used for outdoor sleeping and for visitors to sit upon. Indoors, everyone slept on the floor.)
The floor, finished with cow-dung, was in fact the principal location for all important activities. It was the ideal multi-purpose feature functioning simultaneously as bed, seat, table and work-bench. The mildness of the climate allowed it to be used without coverings, such as carpets, mattresses or spreads. The earth floor finished with cow-dung was cool in summer and warm in winter, it could be constantly renewed and kept spotlessly clean. The meagre use of water in the home ensured its long life. At most the surface would be renewed twice a year, or at festivals. The very perfection of the floor prevented other furniture from even being thought of.

And, nevertheless, when all the arguments have been marshalled, there still remains the strong probability that the relative absence of furnishings and domestic equipment stems from the fact that the settlers were not only migrants but originally nomads. The need to travel light is a hallmark of the nomadic existence, and the whole domestic culture of Gujarat seems to indicate such an existence. The willingness to migrate, to shift one's locus, appears so strongly in Gujarati culture that it persists up to modern times. Virtually all the equipment which the farmer uses is of a size sufficiently small for it to be packed onto a bullock-cart (the storage jars would be discarded). The bullock-cart is the decisive factor which influences the domestic life-style. What did not fit into a cart would be equally absent in the house. If this analogy is pursued further, then some startling possibilities emerge. Assuming that the life-style was originally nomadic, then the spatial system of the cart would form the nucleus of the domestic culture. The placement of men and women within the cart would be according to 'front' and 'rear', the front naturally for those who drove the carts and kept a lookout for danger. The interior would be one single multi-purpose space, its rear for equipment, the middle for women and children. Precisely the same arrangement obtains within the dwelling. Furniture of any kind would be absent, and all activities would be performed on the ground in the open. The placement of carts at night, forming some kind of protective
enclosure, with the families all grouped into the common space at the centre along with the cattle, is a mirror image of the Khadki. So many strong resemblances between the settlement pattern, the life-style, and the bullock-cart, cannot be entirely fortuitous.

The only item which does not fit into the above nomadic pattern is the huge clay storage jar. But instead of controverting our point, it supports it. The origin of the jar is the wattle storage bin of the indigenous Bhils (described later). There it is used precisely for the same purpose, is of the same size, and is coated with clay. It does not last and is made afresh every so many years. Our hypothetical nomad has borrowed this item from the Bhils, and that is why it is the only item which does not fit into the cart!

Turning now to some of the other activities of the family, let us consider those related to cleanliness. Bathing was done by the menfolk either in the pond or river, or in the open before the dwelling using a bucket. (The waste water ran onto a stone placed there for sitting on, and from there it flowed into a clay jar buried underground with its mouth facing upwards and the bottom end knocked out. This primitive soak-pit allowed the water to then drain into the soil and dissipate. The refuse water of the house was also thrown into this soak-pit.) The system of using soak-pits is, of course, very ancient in India and has been found during excavations at places such Hastinapur, Mohenjo-daro and Taxila. For the last named, Sir John Marshall reports, "Sewage ... was thrown down the private soak-wells which were maintained in every house." (11). The women of the house would follow the same custom as the men, but would have their baths so early that it was still dark and they would not be seen. Every member of the family was expert at having an outdoor bath without taking off all the clothes at any one time. Some would come indoors dripping wet from the bath and change inside. The same custom of changing clothes one at a time, without ever reducing the body to nudity, was also followed for every change of dress. Expertise in this
practice was essential if one was to survive in the open Joint Family where doing anything behind closed doors was considered indecent.

Cleaning of vessels was done at the same place in front as bathing. One important reason why so much water was employed outside the house was because the mud floor did not tolerate spilt water. Kitchen refuse was collected and taken outside the Kheaki and thrown onto the heap where the family cow-dung was daily heaped. All of this later became manure. The Charotar Servesangraha reports that some villages had an extra pond called Dhoye Talav into which all sewage and refuse was thrown and in summer, when it dried up, it was excavated and the material used as fertiliser.(12).

Regarding answering the calls of nature, the universal custom, as in the rest of India, was to go out to the fields. The women had to go while it was still dark. It will have been noticed that many activities described above have to be performed in the early morning while it is still dark, particularly those concerning women, and this will explain why traditionally the women wake up at such early hours. This tradition has persisted up to modern times, and for women to wake up at five is nothing unusual. In those cases where a person was sick and unable to go out to the fields, he used a device similar to the soak-pit which was buried in the ground towards the rear of the house. This was called either a Dattan Kuăn or a Khel Kuăn. The clay pot underground had a stone covering its mouth and a slight covering of earth to hide it. Since it was used very rarely it did not create any nuisance.

This brings us to a related and important matter, that of menstruation and child-birth. The menstruating female was not supposed to touch anything during the period of pollution, and this naturally precluded any housework, and she was to sit somewhat apart and strictly avoid the hearth. Since there were other women in the Joint Family to take over her duties
temporarily, it caused no dislocation of work. The most neutral and permissible place for her to stay in was the centre of the house; the rear was forbidden because of the hearth, the front because of the men. The practice thus set up was repeated during child-birth. But here one important point must be emphasized. The young girl menstruated in her own paternal home; she married and went out to the home of her husband; for the birth of her child she returned to the paternal home for all births took place there. This practice of the bride returning to her parents for the birth of children is a very curious one and has not been satisfactorily explained. Our own questioning produced two very interesting replies.

The one reply was that the time of child-birth being critical, it was only the own mother, and not the mother-in-law, who could provide the necessary physical and psychological support to the young prospective mother. The mother-in-law and daughter-in-law antagonism was here mentioned as the operating reason. The other reply, given by a Wagar Brahmin lady, was that during the lying-in period the young mother had to remain segregated for 40 days (this segregation applies equally to all other Hindus as well, including our farming family of Kheda), was not allowed to go out of the house, and had, therefore, to answer calls of nature within the house. At the time of the birth, she had to be assisted in this unpleasant task, and perhaps even cleaned afterwards by some one else. This unpleasant task only her own mother would do for her: no one else. It is easy to understand that the mother-in-law, even if not unkind, would hesitate before such work. And so the girl was compelled to be near her own mother during child-birth.

The place of child-birth and lying-in, in her natal home, was exactly the same one where she as a small girl had stayed during menstruation! This is a very significant coincidence, and it seems to us that it is not fortuitous. Menstrual blood and blood during child-birth are known to have been considered dangerous by many peoples. That is why the female was segregated
in the first place. May it not be that the fear of dangerous pollution of the affinal home by the incoming bride was the reason why she was sent to her parental home for this dangerous occurrence? The parental home was the place where she had already had her menstruation and whatever danger that entailed had already been met, so it would be safest place for the lying-in. This sociological reason seems so clear and convincing that we take it is the real one. This, of course, makes one interesting point. The lying-in area of the house is not the place where the own children are born! It is where the children of the in-laws are born! It is a debatable matter whether this whole custom goes even further back to a time when the bride did not permanently live with her husband until the first child was born, and that this was in turn derived from an even older matriarchy.

The actual lying-in had to have privacy, i.e., a commodity which was rare in the Joint Family. In simple conditions all that was done was that a curtain was slung across to create a sheltered space where both lying-in and the 40 days segregation was carried out. The menfolk might transfer themselves to a neighbouring dwelling during the actual birth. There are two matters related to superstition which must here be mentioned. One related to the use of cow-dung on the floor, the other to the use of carvings on the entrance door of the dwelling. Both practices are universal in Gujarat.

The use of cow-dung to coat the earthen floor (called Lipan) is prevalent throughout India, but again no satisfactory explanation for the custom has been given. The usual answer is that the cow is holy and so its dung is considered purificatory. But where is there any logic in assuming that because an animal is holy its dung must also fall under that category? Brahmins are also holy but no part of their bodily wastes carries that connotation. Besides, cow-dung Lipan is employed by communities such as the Bhil who by no means consider the cow holy. There seems to be a better explanation. Cow-dung is the most potent catalyst to increase crops. It increases fertility and is itself
a symbol of fertility. Consider the following from "The Popular Religion and Folklore of Northern India" by W. Crooke, quoted by Koppers and Jungblut in their work on the Bhils, "He (Crooke) mentions two more details, viz. the placing of cowdung on the grain heap 'for increasing its size'." (13). Here we clearly see the fertility aspect of cow-dung. Its use as a floor finish, i.e. as a finish for that surface on which procreation and birth both took place, fits in very well with the desire for fertility within the home. So much of Indian religion and cult concerns itself with fertility that this explanation becomes convincing as it harmonizes so well with known facts. Cow-dung about the home was thought to produce prosperity. It may even be, that the holiness of the cow derives from this very belief in the fertility of its dung. In other words, it is the dung which makes the cow holy, and not the other way round. To injure that creature which produces fertility would certainly be unwise, and for this to acquire religious overtones when the nature of fertiliser was unknown and mysterious would be quite natural.

It is curious that when we questioned members on why they used cow-dung, none gave the holiness of the cow as the reason. The most common answer was that "it was healthy", with the added information that it remained cool in summer and warm in winter. This last is perfectly true, as it is for mud as a whole. Others said that it could be kept fresh by fresh applications; while a few said that it was the only alternative. (The brick was too poor in quality to last as a flooring, lime mortar was too expensive, plain mud would crumble in a short while from constant use, while the smooth, glued-up cow-dung lasted.) This last explanation has much to commend it but it has one grave defect. In rich houses where almost all floors were of lime-mortar, yet in the interior of the Ordo it would continue to be of cow-dung. Obviously some ritualistic memory was here playing its part. Again, when a person was about to die, he would be laid upon a cow-dung floor, and if the existing floor was of stone, then a small patch of it was specially prepared with cow-dung. All this underlines its ritualistic nature,
The other superstition concerns the use of carvings on doorways. The details of this will be given later, here it is sufficient to say that it is a universal practice in Gujarat, and is found even in non-Hindu houses. The usual explanation given is that it is for 'beauty'. It is our contention that the origin is ritualistic. J.M.Campbell, writing in The Indian Antiquary of 1895 on "Notes on the spirit basis of Belief and Custom", examined a whole series of superstitions related to the domestic sphere. Thus, "So in time of cholera a toran or arch is set up outside a Gujarat village to stay the entrance of Mother cholera." "These ... (decorative arches) ... like the cholera or small-pox-stopping torans of Gujarat villages, and the Bengal Malers posts and cross-beams seem to be the rude originals of the richly carved gateways of Sanchi and other topes, which, like them, are crowned with charms, the Buddhist emblem of luck or evil-scaring." (14).

The decorative arch made of leaves was used on many occasions, such as at the time of founding a new village (mentioned by Forbes in his Ras Mala (15)), at the inauguration of any new premises, at marriage time, etc., and the usual explanation given is that it is 'auspicious'. Auspiciousness and the avoidance of evil influences are virtually identical in magic-ritual. Campbell has rightly identified the arch or Toran as a 'stopper' of evil magical influences emanating from the environment. That is why it was always placed at the critical place, namely the threshold. In folklore throughout India the threshold has a special significance and there are many ceremonies connected with it among tribals. For example, the Bhils worship the door posts and door threshold during ancestor worship at Divali, and again after child-birth (16). The worship is in thanks that the threshold has kept out evil influences and guarded the family from harm. (It may be added as incidental information that the Roman god Janus was the deity of the threshold, and he was two-faced because he faced the two sides of the entrance). The house entrance-door was the critical threshold which any evil influence had to cross in order to do
injury within, and hence there it was that it had to be stopped. The method of stopping it was to apply on the frame of the door those symbols and insignia which were believed to be anti-evil-spirit, and among these was traditionally leaves. Which leaves were in fact used is not recorded, but mango leaves are used even today. Perhaps the trees having a religious connotation, such as the Pipal, the Banian, the Nim, were used. And all of the carvings found in the door-frames of Gujarat invariably have leaves as a principal motif. The similarity to the Toren mentioned by Campbell is striking. In addition would be added the image of Ganesh on the centre of the door-lintel. To us it seems proved beyond doubt that the origin of this kind of carving is ritualistic.

A few minor domestic customs remain to be mentioned. Meals were taken near to the hearth, men and women eating separately, the men before the women. The clothes not being worn were hung up in three ways: on string suspended along the wall, on wooden pegs inserted in the wall, or on a bamboo pole suspended horizontally just above head height by ropes tied to the rafters. These primitive arrangements existed because there were no cupboards. The walls had niches, sometimes with shelves, but these were mainly for keeping small articles. A small niche contained the oil-lamp used at night. Sometimes the lamp was carried by a flat peg of wood projecting from the wall. In numerous houses we found both features, namely a lamp-niche as well as a lamp-peg, and all our questions as to why both were needed drew no really satisfactory answer, except once. The usual answer, more guesswork than knowledge, was that the niche was for the Divali lamps, but this was not convincing because the location of the niches bore no relation to where Divali lamps would normally come, namely outside the house. The one answer which made sense was that when it was windy the lamps were placed in niches, when not, on the pegs. We shall see later that niches have another, ritualistic, purpose as well.
Cash and jewellery were frequently stored in hidden chambers made either beneath the floor or inside the walls. The underground chamber was disguised to look like ordinary flooring. The wall-chamber was a hole made in a wall-shelf in the lowest soffit and covered with a plank.

(With the above, we have come to the end of this preliminary description of the simple dwelling and its usage. It will be seen later that the usages mentioned do not significantly change even in the most highly developed architectural environment. The basic life-style of rich and poor remains essentially similar. It now remains to describe the alterations made to this simple dwelling according to the conception already indicated, namely that the house was initially made as a 'covering' to which sub-divisions could be added as funds became available.)

(The first alteration was that a loft was added in the rear portion of the house.) To make this, a beam at intermediate height was spanned from wall to wall (across the narrower width), joists were added, over this a layer of slit bamboos was placed and covered with earth. (A removable ladder gave access to the loft from within the dwelling. Since the loft occupied roughly half of the depth of the hall, the ladder came to rest about the middle of the space and to one side. The roof of the house had already been made high enough in advance to permit just such a loft to be inserted. The loft was used for storage of miscellaneous goods, but principally fuel. It was the women who climbed up the steep ladder to reach the loft. The presence of the loft divided the dwelling into two parts, one double-storeyed to the rear, the other single-storeyed but of double height. Thus, in an indirect way, the first internal spatial sub-division had occurred. The ceiling of the loft came just over the hearth and now obstructed the movement of smoke towards the roof-tiles. To overcome this, small ventilators were made at about head-height in the rear wall and barred with iron grills (Fig.6.b.).)

(The next step was to erect a wall in such a way as to meet the beam which had been inserted to carry the loft, i.e. about midway in the internal hall. (Fig.6.b.) This internal wall was
carried up to the soffit of the loft and thus now closed in the rear part of the dwelling where the hearth was. This rear part became a fully enclosed room and a door was introduced in the centre of the wall for entry. The process of closing in now gave complete privacy to the hearth, and in addition it gave the family a lockable internal room. This new facility was used to store all that was considered valuable: the grain jars, the wooden chest, vessels, the finer clothes. And the hidden chambers for keeping jewellery and cash also moved into it. This rear room is called the Ordo. The word in Gujarati simply means 'room', and we shall use this, and other, traditional designations because there are no better terms for the spaces they designate. (The remaining part of the original hall, still retaining its hall-like character, is called Parsal (or Padsal), and the word is said to be derived from the Sanskrit Pratishāla meaning front hall (17). These two distinctly separate terms for two distinctly separate spaces is a good indication of their differing origins. One implies 'room', the other 'hall'.)

(The original single space of the dwelling had now become two, and together with the front veranda there were three distinctly separate spaces for the house as a whole at ground-floor level. The loft was the fourth space but at a different level. The three ground-floor spaces are called: Ordo, Parsal and Otlo (the last named is the veranda and is sometimes called Osari, but this term is actually more common in Saurashtra. One informant called it Raveshi, but we shall see later that this is not correct). The triple sub-divisions of the house were basic and final so far as the rural house was concerned and they recurred with complete regularity and unchanging monotony in all the thousands of villages of the sub-division. The three spaces followed in sequence, one behind the other, requiring a long rectangle for their placement, and this was the form the original house-plot had. All the houses within the Khadki had such long rectangular plots to permit precisely such a development along the axis.) There is no doubt that the individual farmer had a
clear pre-conception in his mind of what the house should ultimately look like. In other words, he was working according to a model which was well-known and established by tradition. When he built the outer shell, he already had in his mind the final model which he was aiming at, and accordingly occupied sufficient space of the requisite form for this to be achieved. That this was indeed so can be seen from the simple fact that all the traditional rural houses in the sub-division have this model. The fact that over such a wide geographical area the same house-pattern is faithfully repeated clearly indicates that it was the accepted norm of a people who formed one cultural entity. The three-part rectangular house was the traditional North Gujarat residence. Before we seek for its possible origins, there is one further alteration to be mentioned.

(In the more well-to-do family, the ceiling of the loft would be extended to cover both the Farsal and the Otlo, and we would thus get a fully developed two-storeyed house. What had been a loft would, after extension, be transformed into a proper first-floor.) Such a first-floor would, of course, require adequate head-height and it is not clear whether the average farmer actually planned for such a full two-storeyed house. He did not require it, for the loft was adequate. (It is our observation that the original model was not a two-storeyed house but merely a high house with loft.) The development into a regular two-storeyed house was not part of the original plan for the simple reason that it required a great raising up of the height of the veranda to get head-room. A very high veranda without the accompanying upper floor would let rain in into the front space and prove useless as a shelter. No, the height of the front veranda had to be kept low from the beginning, and this would not permit a full upper floor to be introduced subsequently. (The regular two-storeyed house was a later development, it no doubt grew out of the concept of the loft, but for it to be feasible it had to be planned and constructed that way from the very beginning. It could not grow out of the simple envelope indicated earlier. The whole sequence of development described above is shown in Fig. 6.)
that it was from the loft that the two-storeyed house eventually developed. (In later and more settled times, the two-storeyed house became the most common type and this is even today the standard house within the Khadki.)

Two further points related to the two-storeyed house need to be mentioned. The original location of the ladder going up to the original loft remained fixated by use and tradition, and when the house was made two-storeyed the new stairs which were introduced also remained at exactly the same location within the house. It will be remembered that this was in that part of the hall which later became the Parsal, and the Parsal remains the site of the stairs in even the most developed urban house. Even the direction of the stairs remains the same as that of the ladder, namely facing the loft, and the inclination of the stairs remains about the same as that of the former. This extremely steep and uncomfortable stairs has been noted by many observers and the usual explanation given is that it was 'for defence', meaning that an attacker would have difficulty in rushing up. But there is one flaw in the argument. The valuables of the family were kept in the ground-floor within the Ord. There would be no need for an attacker to climb up to the first-floor; all he was after was situated much more conveniently. It was not murder he wanted but plunder.

The real reason for the steepness of the stairs is that it is imitating the ladder. We shall see later that even the construction is similar. In addition, since the Parsal was fairly narrow in width (seen along the axis of the house), the amount of space for a stair was limited. A stair with an easy gradient requires more space for it to fit in, this the narrow Parsal did not have. Yet another reason was that the upper floor of the house retained the character which the loft once had, namely as an inferior interior space. Originally it had been for storage; now it was used by junior members of the family and married sons. The parents continued to stay in the ground-floor because that was the prestigious part of the dwelling. The hearth, the
valuables, the water-supply, all these remained in the ground-floor. The inferior status of the upper floor was matched by the inferior character of the stairs - there was no incentive to improve them. This, then, is the real reason for these steep Gujarati stairs. One proof of the inferiority of the upper floor may be given here. In later and more sumptuous houses, where carvings are lavished everywhere, the quality of the carving on the ground-floor far exceeds that of the upper floors (all our photographs show this), and thus indicates the respective status of the floors.

Having reached the end of our development of the simple rural house, we may now look for origins. In other words, was this house-form borrowed from those peoples who occupied the area originally, namely the Kolis and Bhils, or was it brought in with the settlers themselves? One thing is certain: the Bhil house also has two main internal sub-divisions, and they occur in axial sequence one behind the other, only the veranda is absent. They too have the same kind of loft and the same kind of a ladder. There are therefore important points of resemblance, but we do not believe that the Bhil house could have been the prototype because the Bhils are too few in number to have so dominated the situation. On the other hand, the Kolis are very numerous and influential. Many of the modern land-owning Thakurs and chieftains are Kolis who have become absorbed into the Hindu caste system, and have even inter-married with Rajputs. The Kolis are mainly represented in the Talukas of Chanasma, Patan, Kheralu, Sami and Harij, Kelol, etc., which are all in Mehsana district, i.e. the very area from which 'Gujarati culture' was supposed to have spread in ancient times (see page 6). The Bombay Gazetteer of 1901 on the Hindus of Gujarat says, "The earliest traditional kings of Gujarat were Bhils and Kolis." (18), and even after loss due to absorption into Hindu castes they still formed 23% of the population. This community is still active and strong. However, when we sought for typical Koli houses in North Gujarat, the houses we were shown were
identical with those of the ordinary Hindus. We could discover nothing which could be called a Koli house (whereas in South Gujarat the situation was reversed: all the houses were Koli houses). So the problem of origin has become insoluble.

Nevertheless, some information can be gained by analogy. A.K. Coomaraswamy was of the opinion that, "It is clear that architecture had not made much progress amongst the Aryans when they first entered India; on the contrary, all the later styles have been clearly shown to be developments of aboriginal and non-Aryan structures built of wood ..." (19). In the case of Muslims in Gujarat, it will be seen later (page 362) that they readily adopted the house-forms which they found already prevalent. In the case of North Gujarat migrants into South Gujarat, again the indigenous house-pattern was adopted. It seems that it was quite the normal practice for migrants to utilize both indigenous artisans and indigenous forms for housing. So that, by analogy, we may assume that a similar situation obtained in North Gujarat and that it was in fact the Koli house which became the prototype for the Gujarati house. The dominant position which Kolis appeared to occupy in North Gujarat would support such an assumption. And it would explain why no specific 'Koli' house could be found. The Koli house, as also many of the Kolis themselves, had become absorbed into the new class of rulers and influenced them from within. (To avoid any possible misunderstanding, it must here be added that all the discussion so far deals with the plan of the house; it has nothing to do with the materials used, i.e. it has nothing to do with the woodwork. That is a separate topic altogether. The house-plan described could, and most frequently was, in mud. The same plan could be in brick with wood added. The brick-and-wood version is the one which we have traced to West Asia in so far as the materials are concerned; it does not follow that the plan also has the same origin. The plan could easily be indigenous and only the use of brick-and-wood derived from elsewhere and superimposed upon the indigenous plan. Thus, there is no contradiction in assuming a
Koli origin for the plan and a West Asian origin for the technology of construction.

With regard to origins, it can be categorically stated that the house-plans of the Indus Valley Civilization bear no relationship whatsoever with those of medieval Gujarat. There the house is clearly one designed around an internal courtyard, here the courtyard is conspicuous by its absence. The whole system of arranging rooms is different. The other region which could possibly provide the prototype is neighbouring Rajasthan, but there too the typical house is designed around a courtyard. It does seem that our North Gujarat house is a purely indigenous phenomenon. A related question which then arises is: Is the Khadki indigenous too? Fortunately on this point there is clear evidence that the system of streets which used to be locked up at night by means of gates existed in north India as well. Bishop Heber reports this for Banaras in about 1820 (20), and Yuan Chweng found, "The towns and villages have inner gates ... " (20.a). The custom was therefore old.

Related to the subject of origin is the question as to whether any written or unwritten rules were ever followed in the planning and dimensions of the house. Was, for example, the width and depth of the house fixed according to norms or was it fixed by convenience? Was there any Śāstra used by the artisans or owners? Our repeated queries on this point always brought the answer that the farmer was usually too poor to bother himself with Śāstric norms. He was lucky if he could make some kind of house with his meagre means. The factor which was decisive for him was cost, and this was closely related to that of wood. The wooden purlins, rafters and door-frames were the most expensive items in construction. Again, even if he had the means, the requisite length of timber may not have been locally available and he would have to make do with one shorter in span. Village woodwork was mostly all local, inferior wood and he could not think of using imported timber. The width of his house was more
determined by the span of the available purlin and its cost than by any rules of construction. During field survey we found this information amply confirmed. Straight joists were rare, beams frequently were bent, rafters were never two of the same size. Again and again it was demonstrated that in the rural areas woodwork and house-dimensions fluctuated with circumstances. Norms might exist for the rich urbanite, they were impractical for the poorer farmer.

There were, of course, rough rules-of-thumb. The average width of the house was, we were informed, 16'; the depth of the Ordo was 18', the depth of the Parsal 9' and that the Otlo 8'. Thus the ratio of total width to total depth was 16:35 or about 1:2. We ourselves have not examined this in any detail because the rural house was not the primary task since it was not generally wooden. The wooden house is an urban phenomenon and it is in that context that our analysis is more detailed. The sample rural houses measured by us revealed the ratio of 1:2

There is one aspect of dimensional ratios which must be mentioned. There was a belief that the plan of the house should not be strictly rectangular, i.e. the two long walls should not be absolutely parallel, but slightly splayed. The splay should be such that the front width of the house was slightly narrower than the rear width, i.e. the house was slightly trapezium shaped with the narrow side in front. Such a form was known as 'cow-mouthed' and was auspicious. If the reverse occurred, i.e. the front was broader than the rear, then it was 'lion-mouthed' and that house would spell ruin. (The two expressions are in Gujarati Gaumukha and Vagmukha). Now, an exactly similar belief is quoted for Punjab by H.A.Rose in The Indian Antiquary, "It is unlucky to build a house broader in front than at the back. Such a house is called sher-dahan, lion-mouthed, or bagh-mahan, tiger-mouthed ... A house, to be lucky, should be gau-mukha, cow-mouthed, or broader behind than in front." (21). The Śilpaśāstra has a similar prescription, namely that the house shaped like a Surpe or winnowing-fan is insuspicious (21.a).
Two points are of interest here. The superstition mentioned above alters the form of the plot, but there is no mention of it in any of the more well-known Sastric texts on house-building. While many other minute prescriptions are stated, which are nowhere followed in actual practice, the one prescription actually followed in practice is not mentioned. This underlines the contradiction between classical text and actual practice. During our measurements we found clear examples of the Gaumukha plot at a number of places (there are given in detail later). The whole subject of textual prescriptions is dealt with elsewhere, here it may only be added that this furnishes one proof that the texts were not generally written by those who actually made the houses, meaning the masons and carpenters. The second point is that very probably there once existed a large body of similar folklore related to the domestic house, but these have apparently fallen into disuse for we could not learn of many others. We did, however, notice some peculiarities which must have once had a magico-ritual origin, and these are detailed below.

The ridge of the house, i.e. the highest part of it and locally called the Kobh, was never situated in the centre of the house-plot (the roof was a two-way pitch inclined towards front and back), but always more towards the rear so that its actual position was always over the Ordo. Because of this the roof was not symmetrical, but had a larger surface towards the front. Such a roof sloping two-thirds to the front and one-third towards the back was not at all required because of any structural considerations, and the only reason for it must have been to deliberately locate the ridge over the Ordo. The Ordo was the most important area of the house for it contained the valuables, and therefore its status and suspiciousness had to be sustained by placing the all-important ridge exactly over it.

The location of doors in successive walls was never staggered so as to make it difficult for an outsider to look all the way in. Instead, all doors were placed in the centre of
walls and in line with each other, so that a person standing on the house-axis could see right into the rear-most part of the Ordo. This is peculiar, considering the need for avoidance by the women using the Ordo, and here again there must have been a prescription specifying the central location. Some textual passages specify that the door must not be exactly in the centre (see page 528), but once again practice and text are at variance.

The level of the floor of the Ordo was always higher than that of the Parsel and this in turn was always higher than that of the Otlo. Here again it was not functionally necessary in the case of the first two spaces (the Otlo floor alone had to be lower to avoid rain-water flowing into the Parsel), and the reason must have been to ensure the status of the Ordo. The differences in floor level required door-cills be substantial and these were always far higher than needed for mere strength of the door-frame. Another reason for the high cill was that as subsequent layers of cow-dung were applied, the level of the floor tended to rise, and to meet this the door-cill had to be high from the very beginning. The cill of the Ordo door, however, was in a category by itself: It was extremely high, about 25-30 cm and very awkward to negotiate. To cross it one had perforce to bend the head to avoid hitting the door-lintel, and much has been made by commentators on this peculiar phenomenon. One group of informants told us that this was deliberately so arranged to compel an attacker to bend down while attacking the Ordo, thus giving a greater chance to the inmates. While this may be true, it still seems most unlikely that the defenders of the house would withdraw into the Ordo leaving everything else to be freely plundered. It would be far more logical to make the defence at the main entrance door to the house and place the high cill there - the chances of success were equal. But there the cill was low.
Another group of informants told us that the bending of the head was enforced because the grain jars were stored in the Ordo and thus respect was shown to them and they would prosper. This may also be true. But there exists a far simpler explanation, given by some very old ladies, which makes more sense. The Ordo containing the grain had to be secured against rodents and insects creeping about at dusk. These creatures have the habit of moving about along the edges of walls and they rarely seek to climb vertically. The high cill was a barrier to them. We shall again meet with the high cill in urban houses of the rich where it appears precisely in storage rooms other than the Ordo, so that this must be the real reason for the very high cill of the Ordo. The head-bending occurs because the lintels of all the doors in the house are at the same height (another prescription) irrespective of floor-levels, so that the Ordo door-lintel is respectively nearer the raised floor and raised cill and this reduced clearance forces the head-bending.

One very curious point must be mentioned here in this connection. The Ordo door with its raised cill, relatively low lintel, and carved frames, bears a striking resemblance to the door of the average Hindu temple Garbha Griha. The interior is again identical except for the late ventilators of the Ordo. The Ordo interior, as also the Garbha Griha, is completely plain without any carving, decoration or embellishment. In even the richest urban house, the Ordo is almost always plain and in sharp contrast to the wealth of decoration elsewhere. The richest temples still have the plainest Garbha Grihas, and both the rooms are traditionally without windows. All these clear similarities raise the question: Was the domestic Ordo the prototype of the temple Garbha Griha? And, was this because the Ordo was once used for installation of the house-deity? All our queries on this point drew, in the main, negative replies. No part of the traditional domestic house had any part set aside for religious functions. There was not even evidence of any house-deity.
The only two exceptions found were the following.

A Nagar lady told us that among Brahmins it was the custom to instal an image of the Mata (mother-goddess) during the Navaratri festival in one corner of the Ordo and worship it with sprouting grains to ensure future prosperity. It has already been mentioned that the grains of the household were stored in the Ordo and thus this religious ceremony becomes meaningful in this location. The other very curious evidence comes from the Bhils and related Dangis of South Gujarat. Among them there is a house-deity and it is always installed on top of one of the grain-bins at the back of the house (see page 698). Both these primitive customs, namely goddess-worship and grain-worship, occur there were the grain is stored in the Ordo, so that one important link between Ordo and worship is established. The purpose of temple worship is also aimed at increase of crops. A link between Ordo and Garbha Griha is thus established. It seems to us that all this does add up to a tentative conclusion which further research may confirm, namely that the Ordo-grain-worship linkage is the origin of the temple Garbha Griha, at least in its architectural context. The fact that only Brahmins and tribals show this custom, and not farmers, does not contradict the conclusion. The ceremony which the Brahmin performed domestically was the prototype of that which he performed for the community in the temple. The Bhil, having no priests, performed it for himself. The similarity of tribal customs to those of the upper classes is perfectly in accord with the theory referred to earlier (page 3) that the Little Tradition has frequently provided the material for the Great Tradition. Many of the Hindu cults are derived from tribal practice.

With the above we reach the end of this analysis of the layout of the rural house and may recapitulate its main features and describe their usage in the fully developed house. The model house is a two-storeyed structure occupying a long, rectangular plot and forming one of a row of similar houses which together
form a Khadki. All the Khadki houses have their ridges parallel to each other so that the rain-water falls off in two directions: one towards the front and into the Khadki common space, the other towards the rear, i.e. into the waste vacant space between two joining Khadkis, or into the road behind. (The individual house has, on the ground-floor, three main spaces: Otlo, Parsal, Ordo. The first-floor has only two spaces: one identical to and exactly over the Ordo, the other a single space equal to and situated over both Parsal and Otlo. In other words, the front wall of the upper floor is over the edge of the Otlo and overlooks the common space of the Khadki. The first-floor spaces have no individual names, they repeat the names of the ground-floor with the addition of a prefix: Melo or Medo meaning originally loft. Thus the upper rear-room is Melo-no-Ordo, the front room Melo-no-Parsal.)

In the ground-floor, the Otlo in the fully developed house has the following functions. It is the area where the menfolk hang about during the day and sleep in during the night. It is the area where visiting menfolk are received if the weather permits (otherwise they go into the Parsal) and where all business talk is carried out, including that with hired labour. Cattle are stabled just in front to one side, but in bad weather they may even occupy the covered Otlo. It may be added as a matter of interest that the milch cattle are always buffaloes, so that it is the buffalo which is found before the house. The animals used in the fields are bulls. Cows have little importance in the agricultural economy, paradoxical as this may seem. The Otlo is also used for the early morning cleaning of teeth with the twig of the Nim tree, a process which may take up to twenty minutes and becomes an occasion for early morning gossip between neighbours. Later in the day the women will use it for cleaning of vessels so that the waste water may trickle down into the underground jar. The Otla, being subject to slanting rain, is often paved with stone and protected with a good roof overhang. If possible, it is also raised above the ground on a substantial plinth so that stone steps are needed to climb up.) But this is
only when cattle are no longer kept in front, because they could not then be taken into the Otlo for shelter. (All the high plinths are a late phenomenon when prosperity had made the farmer imitate the city-dweller. The traditional rural house had, of necessity, a low plinth.)

(The next space, the Parsal, is the first interior space of the house and it performs some of the functions of the Otlo in bad weather. It becomes, for example, the men's area but strangers would rarely enter it. Under normal circumstances it is the area where all the domestic chores by the women would be carried out because the men would be out in the fields, and things like cutting vegetables, pounding of grain, keeping of small children, meeting women visitors, all these would be done here. If the men slept out in the Otlo then the women would sleep in the Parsal. Most of the meals would be taken in it, and because visitors might also have to be served, the water supply was also placed there at one end. The other end was occupied by the stairs going to the first-floor. It will thus be seen that the Parsal had a mixture of functions serving now the men, at other times the women, sometimes both of them. It was in fact a multi-purpose space interposed between the front of the house and the rear, and served therefore also as a link and as a circulation space. But by and large it was chiefly used by women and had accordingly a more private character. Throughout the day when the men were away, it was from the Parsal that the women kept a watch on the house and observed whatever was going on outside. The single door gave them both a shelter to remain unseen and yet look out. It also gave them more light and fresh air than was available in the dark and smoky Ordo and was therefore for them the preferred place of work. Possibly for the same reason it was also the preferred place for the lying-in; the smoky atmosphere of the Ordo would hardly permit the new-born child to survive.

Because of the numerous activities carried out in the Parsal, there was little space available for storing things (the floor was always being used for the activities), and so this had
to be solved by introducing niches and shelves. Pegs and lamp-niches were also in profusion. In addition, if there was to be any decor, it was here in the Parsal because that was where more intimate visitors would be received and fed. It is thus the space of the dwelling which 'represents' the family and shows their status. In richer homes it was here that the best carvings might be exhibited, along with garish pictures of gods and goddesses.

The second interior space is the Ordo, its location away from the entrance gives it maximum privacy and it contains that important feature: the hearth. Apart from cooking, it also has the grain storage and in many better houses the clay jars are stacked in rows against the rear wall on a slightly raised platform. The wooden chest is also here containing the family valuables; the more movable wealth formed by jewellery and cash is secreted away in the Ordo in hidden chambers. A very common location for the underground chamber was below one of the grain jars. The Ordo is remembered as a dark, ill-lit, ill-ventilated room which the women used only because they had to. The small ventilators were very inadequate for the purpose. With streaming eyes reddened by smoke, some female would tend to the cooking. And if the menfolk decided to sleep in the Parsal, then the women had to move into the Ordo even at night. Because there was already a fire in the room, no additional lamps were fitted. The door of the Ordo had, of course, to be kept open even at night to permit some air to penetrate, but also because the closing of doors was liable to be considered indecent. The Joint Family, even when it had closable rooms, rarely closed them. Everything had to be done in the open except cohabitation.

The location and character of the Ordo marked it out as the 'womens' area and menfolk would rarely enter it. Visitors would normally never see it. But one thing should be emphasized: the normal rural house was relatively small and the three spaces, even though differentiated and separated from each other, were
nevertheless within easy calling and hearing distance and a conversation could easily be carried out with one person sitting in the Ordo and the other in the Parsel. This was often the way men and women practicing avoidance talked to each other. Even when the men sat out in the Otlo, the women, supposedly sitting separate, could hear every word spoken and some of the elder one’s were free to join in from within. The Hindu Joint Family, at least in Gujarat, basically gives the women a great deal of freedom within the home and they know how to use it. They know how to join in a mixed conversation while yet retaining the notion of avoidance. Thus the divisions within the home should not be imagined as being in any way serious barriers to social intercourse.

The first-floor of the house, being a late development, has no usage established by tradition. It is the inferior part of the house and certainly the parents would never use it. Its main function was to accommodate the needs of the growing Joint Family. Married sons would move into it but not in the sense that a separate hearth was set up. The hearth in the home was generally one, the first-floor being used only for sleeping in and storing personal things. There was no particular function assigned to either the front room or the rear room on account of the relative location of each. Either room could be used indiscriminately; but in general each room retained the same function which the similar room had downstairs. In case the parents were no longer living, and brothers had the wish to effect some kind of division between them, then the first-floor gave ideal space for one or two such families to move up because all the interior spaces of the ground-floor were repeated on the first-floor. In that case, the rear became the Ordo and the front the Parsel. A separate hearth was in such a case permitted. One informant told us that in her own case when four brothers had quarrelled, they all stayed on in the same house and set up four separate hearths in four corners! This problem of growth of the Joint Family is an important one, and must be considered in some detail.
It was well known to all concerned that the Joint Family would eventually grow and yet there was no provision made for this eventuality in the majority of cases. The family simply grew and more and more filled out the available space. The multi-purpose character of the Otlo and Farsal made this possible, while the Ordo, being the largest room of the house bore the pressure best of all. The fact that everyone slept on the floor simply meant that members drew closer to each other. The near proximity of individuals to each other, to the extent of clear over crowding, has never disturbed the Hindu family because the members are from the very beginning accustomed to live in crowded conditions. That is precisely the character of the Joint Family. There are no private possessions and no private spaces. Children sleep huddled close to their mothers, or to each other, men and women sleep huddled close to each other in their respective groups. There is no feeling that each individual needs a minimum quantum of space around him as a matter of right. Thus, when the family grows and space becomes tight, it is not felt as an anomaly or as a source of discomfort. Possibly all feel it as a greater coziness and getting closer together. The fact that the menfolk spent most of their time outdoors must also have had a great mitigating effect on the problem.

When things became intolerable even to the Joint Family, then a new house was built. But this entailed serious problems. The Khadki was so designed as to accommodate exactly so many houses and there was no vacant space left within it for expansion. Accordingly, a new house could only be built in a new Khadki and for that a minimum number of families all wanting new houses was required. But probably that was not difficult to gather together. The population pressure must have been a constant factor and the problem was not so much of finding families to found a new Khadki as of finding the money for it. Land was plentiful and there was no limit to the number of Khadkis which might be set up. At any rate, that was how the joint Family expanded, namely by throwing out branches which formed new Khadkis. In some cases, where the family was wealthy, a different method was employed.
When a particular family was so wealthy that it had to show its status in its architecture, then from the very beginning a large house would be so constructed that it could be partitioned into smaller, autonomous units. The manner in which this was done was to simply duplicate the basic dwelling already described by two or three times. Instead of one Ordo, there would be two or even three Ordos, all in a line, all identical with regard to facilities. The Parsal in front of each Ordo would not be divided into parts corresponding to the number of Ordos, but instead be left as one long, common space running the full width of the house. The family had not yet been partitioned and therefore the Parsal was needed as a circulation space in order to reach each of the Ordos. This requirement gave to the Parsal a peculiar proportion, namely a narrow depth (equal to the normal house) combined with a very great width (equal to two or three Ordos), making it resemble a long passage. This long Parsal now functioned as the common living space for the whole house and was very spacious. At one end was the water-supply, at the other the stairs. The problem of future stairs subsequent to partition was solved by leaving in the ceiling of the Parsal regular openings which were lightly boarded up. At a subsequent date these could be removed and new stairs installed. The Otlo was treated in the same way as the Parsal, namely left as one long veranda running the width of the house, and supported on columns. The first-floor repeated all of these spaces. If and when partition between sons took place, all that they had to do was to erect walls within the Parsal corresponding to the Ordos, and extend these also to the Otlo, and what had once been one large house now became two or three smaller ones, as the case may be. The new internal additions were then a new stair and water-supply platform for each unit. The individual who had built the original, large house and had planned for partition between sons, fully realized that each son had to be treated equally. And so, from the very beginning each and every facility was faithfully duplicated in each sub-division. The number of niches, lamp-pegas, doors, grain platforms, all were made equal and identical so that after partition each son
had identical facilities. The rigidity and monotony with which all these duplications were made is quite surprising, and because of this such a large house has nothing novel or imaginative about it. It is a mechanical repetition of identical units without individual emphasis or balancing of parts. In one instance in Dhermaj we saw ten such identical units forming one huge mansion. What the architecture does reveal, however, is the complete equality and democracy which prevailed within the Joint Family. The same spirit pervaded the whole village.

D.F. Pocock describes the partitionable house as follows, "But ideally a man builds for his sons' families also. Such a house has as many doors as the builder has sons and inside provision is made for as many hearths ... The house is in fact composed of potentially distinct units." (22).

One small difference, unknown to the owners themselves, must now be mentioned. When we measured a number of such large, partitionable mansions, we discovered that all the Ordos were not really identical. One Ordo was invariably very slightly greater in width than the others. This could not be detected by the eye and was completely unknown to the house-owners. The larger Ordo was always the one to the right when facing the entrance. Our attempts to discover the reason for this proved fruitless because no one knew anything about it. And yet there it was clearly revealed by measurement in scores of houses. The only reason we could adduce was that the larger Ordo was most probably meant for the head of the Joint Family and for his descendants, and this again was tied up with some magico-ritualistic belief which had fallen into oblivion. We found no evidence that the eldest son of the founder did actually inherit this part of the house. Another reason could be that in Indian belief the 'right' side is always considered auspicious and has to be somehow emphasized, and therefore the right Ordo was made imperceptibly larger. Since the matter was ritualistic and of more concern to the mason who measured out the house, he made it
so without disclosing it to the owners. Again, the Sastres know nothing about it.

With the above, we come to the end of the description of the rural house in its social and architectural setting. The description was long and detailed even though the rural habitat is not the home of woodwork because the rural house and rural usage forms the foundation of all the domestic architecture, including the urban. We shall see presently that virtually all of the domestic customs prevalent in the town have their origin in the village and have retained their validity. Since so much identity exists between the rural and the urban usage, we shall not need to repeat many of our observations in the latter case.

(3) THE NORTH GUJARAT URBAN HOUSE:

Urbanization: Development of Khedki and Pol:

Experts are not yet in agreement as to what exactly is the difference between 'village' and 'town'; when does a village, through growth, transform itself into a town. It is not our intention to argue this point at length, for in our case there are indicators which have an influence on the architecture, and it is these which we are mainly concerned with. The matter can be ascertained in the following way. It is known that in the medieval period certain 'towns' were in fact founded, as for example Ahmedabad. The reason for founding a town was not merely to establish an administrative centre, but also to establish a place for manufacture and commerce. The policy of rulers was to deliberately invite traders and artisans to settle in these towns and to make it attractive for them to do so. The formation of wards (puras, mohellas, Khedkis, Pols) was freely encouraged for it gave to the citizens a sense of security, and the fortified wall which was constructed to surround the whole was for the defence of the town as a whole and not merely of the ruler. Towns like Dabhoi and Baroda clearly show this character.
If we take these founded towns as our point of departure, then what distinguishes them is the presence of administration and commerce (including manufacture), and we may therefore accept these two factors as hallmarks of the town, and apply them to our examination of the growing village.

The prosperous village would certainly attract artisans to settle there and this would in time become a centre from which manufactured goods were supplied to surrounding, less important, villages. The prosperous village would begin to function something like a district headquarters and gain administrative functions as well. In this way the village would begin to transform itself into a town. The process of urbanization would thus be two-fold: one from the top by fiat of an established authority, the other from the bottom by a process of growth. Once the village had become sufficiently important, it would discover the need for fortifications, and a town-wall would be constructed around it. Ultimately the two kinds of towns would have a strong resemblance to each other for they both performed similar functions, and the only way they could be distinguished was perhaps by the road pattern. The founded town would have at least a few regular roads leading to the administrative quarter (as for example in Ahmedabad), or a system of roads meeting at right-angles (as at Baroda). The town-by-growth would have the haphazard road-system of the village which was its nucleus, as for example Nadiad. But in either case the residential areas would continue to follow the same settlement pattern, namely the system of wards or Khadkis. In the founded town, on either side of the main roads, the residents would be allotted land for establishing their traditional pattern of settlements, and there would spring up the usual system of Khadkis. This explains why Ahmedabad, although a founded town, has the most highly developed system of Khadkis and Pols of any town in Gujarat. Baroda also, once we leave the main roads, presents the traditional pattern of winding lanes and cul-de-sacs. In short,
whether the town arose by fist or by growth, the residential pattern would be the same.

At this point something must be said regarding the Muslim pattern of settlement because in the medieval period it was they who dominated the scene. The Muslims in Gujarat were of two kinds: those who came from elsewhere as migrants and conquerors; those who were the local converts. The converts, by and large, continued the settlement patterns which they already had prior to conversion and so nothing more has to be added about them. Regarding the alien Muslims, they sought to produce a pattern which they brought with them and this was different from the indigenous one. (We shall here ignore the ruler himself because he was in a totally different category and resided within a citadel which was a-typical). Each Muslim chief was surrounded by a group of his followers which included everything from armed retainers to attendants to servitors such as barbers or washermen. All these followers formed a clearly structured hierarchy around the chief of which he formed the apex. The settlement pattern reflected this hierarchical structure. The chief would have his residence as an isolated building in the centre, and around him, according to status, would arise the dwellings of the host of his followers. The whole would have the appearance of a miniature city. In North Gujarat these were called puras. We may here quote the famous *Mir'at-i-Ahmadi*, a work of the mid-18th century on this aspect,

"Suburbs and Puras outside the City (meaning Ahmedabad)"

"As in the beginning the city was not thickly populated the Sultans and their nobles used to select plots for their palaces, and the houses of their attendants were built by the side of them. The whole block was called a Pure, such as Azāerpur, Kalupur, etc... These puras were like a city. The author of Tezkirat-ul-mulk says that Usmanpur had at least one thousand shops, and in all of them were traders, artizans,
craftsmen, Government servants, and military people, both Hindu and Muslim ... " (23).

It is not quite certain whether such Puras were actually situated within the city-walls or without. The heading of the passage says 'outside the city' and this seems to mean outside the fortifications. All of these Muslim Puras have disappeared so that field survey is of no help. Z.A. Desai made a study of the culture of this period, published in the Journal of the Oriental Institute (Beroda), and wrote, "The Mir'at (meaning the Mirat-i-Sikandari) also gives location of the residential quarters of important personages of their period, no traces of which remain to this day due to the extensive growth of the city and its population." (24).

The reason why we assume that they were indeed outside is because the central part of Ahmedabad is densely occupied by the Khadkis and Pols of the Hindus, some of whose families were here from centuries. All this mass of Hindu settlements could not have arisen in the heart of the city had that area originally been in the occupation of the Muslim chiefs. Many Muslim areas were no doubt de-populated after Maratha attacks, but it is inconceivable that the whole central area would thus become de-populated. It is far more reasonable to assume that the central part was from the beginning occupied by Hindu traders and artisans who lived peacefully within the city because they performed essential functions which brought prosperity to the rulers. Muslim rule in India has always depended upon the Hindus for support in non-political spheres and a mutually useful co-existence between the two became a reality, even if grudgingly so. The real wealth of the city was that of its trade and commerce and it was this which the fortifications protected. The chiefs were there to protect the city, and not the city to protect the chiefs, so that their location on the periphery of the city would be quite logical. At any rate, when we speak of the residential areas of the city, we are perforce compelled
to speak of the Hindu settlements because it is these which form the great majority. The surviving Muslim settlements (meaning of migrant Muslims) are few and therefore not representative for the city as a whole. The demographic situation which is characteristic for Ahmedabad is equally so for all the towns of North Gujarat. Patan, Cambay, Beroda, Dabhoi, Broach, all show a very substantial population of old Hindu families occupying virtually the most central parts of these towns, so that when we look for the typical urban house, we find it in the Hindu house and not that of the Muslims. For this reason we have treated Muslim houses as a separate category by itself (see page 366).

We have shown in the above that the criteria for being considered a town was the presence of administration and commerce. In this study we largely ignore the administration because we were unable to find any significant surviving remains of administrative buildings in wood. The only wooden buildings coming under that category were 'palaces' and they are treated separately (see page 369). Regarding the category 'commerce' it may be thought that since the town lived from commerce, there must exist a distinct class of building devoted to that activity, and that these must form a large percentage of all urban buildings. But this was not so. It was our finding that all those activities dealing with trade, manufacture, commerce, shopping, were performed in buildings which were indistinguishable from residences. More than that, it was in fact the residence which was generally used simultaneously for one of the other activities. Thus, for example, the blacksmith simply converted his front Parsal into a workshop and laboured there along with many of his family members. The potter, the weaver, the dyer, the jeweller, all of them worked either within their homes or in yards attached to them. All the equipment they used was small in size and could easily fit into a normal domestic room so that there was never any need to change the form or size of the house to accommodate them. Here again we come across a feature remarked
on earlier, namely that the equipment used by an artisan is so small and handy that it can either be carried by him alone or transported on a cart. We saw the same thing in the case of the farmer. The utter simplicity and primitiveness of Indian tools has been commented upon by scholars and one important reason for this was that it had to be so to render it easy to transport. The need for lightness was dictated by one other consideration. Almost all of the service-artistens, such as carpenters, tailors, tinkers, were itinerant by profession. They worked not in their fixed 'shops' but moved from place to place offering their services. A client wanting a door made procured the wood and then called the carpenter to work in his own yard. While surveying rural areas we found very interesting evidence of tile-makers (for roofs) who moved from village to village in the dry season making roofing tiles to order. In the small town of Radhanpur we came upon a small community of blacksmiths who were living permanently in their bullock-carts! They had parked them on the outskirts of the town and erected rude wattle shelters over them to cover more space. The edges were lined with low mud walls. One whole family lived, ate, cooked and slept within this tiny space (see Ill.94 for one such cart-shelter). The towns people came regularly to them to have small objects made or repaired. Another similar group of cart-dwellers was parked in the village of Thara some ten miles from Radhanpur. Once these groups had exhausted their clientele, they would move on to some other location. We see here a whole tradition of itinerant artistens operating in this fashion both in rural and urban areas, and there can be no doubt that this was the normal way for them to function. Given such conditions of work, it is obvious that they needed no specific architectural spaces for their workshops. A place to sit on was all that was needed. That is the reason why we could discover no buildings specifically designed to cater to any of these trades and occupations.
Turning to the question of shops, it should be remembered that the town was, in usual circumstances, not a completely safe place even though it was fortified. Within each town there was a collection of riff-raff always on the look-out for occasion to steal and plunder. The Muslim histories are full of accounts where, when a particular grandee fell from favour or had turned traitor, his house and property were given over to plunder by official command, and in a trice all his goods down to beams and joists were looted by the mob. To have a shop on the open undefended street under such circumstances was hazardous, and because of it there were no shops having any kind of superior goods on display. The only shops which existed were inferior ones selling provisions and petty goods housed in stalls and booths of a temporary nature. This was the traditional bazaar. In more secure times these booths and stalls gradually gave way to more solid structures but because the original plots which they occupied were small, the later structures could never be anything significant.

An other important reason for the absence of high-class shops was that the richer clients never thought of demeaning themselves by visiting 'shops'. Instead, the would order suppliers to bring their goods to their own residences for selection. This was the manner in which expensive goods were customarily bought. The practice of the itinerant trader who even today comes round to the house offering goods for sale is a remnant of this ancient custom. In some cases the goods would be inspected at the residence of the trader, and this was particularly the case in wholesale trade. All these factors produced a situation in which the elegant shop displaying goods as we see today just did not exist. There were no large, constructed markets, no places designed for commercial transactions. All the great manufactures, such as textiles were in the main farmed out to sub-contractors who had the goods produced in scores of families working at home. The domestic residence remained the location
for all commercial and manufacturing activities, and we shall presently see how the residence developed to satisfy urban requirements.

Before examining the individual urban house, it is necessary to look in some detail at the over-all urban setting in which this house was located. It has already been shown that the basic form of this setting was the traditional Khadki irrespective of whether the town was a founded one or one by growth. The only new feature was that now a number of Khadkis which opened out onto a common road erected gates at the entrance to this road and closed them at night. This addition meant that now the whole residential sector was guarded by a double set of gates, one to the individual Khadki, the other to the common Khadki road. This latter gate was called a Pol and after it the whole sector began to be called a Pol. A Pol contained within it a number of Khadkis, and each Khadki had within it its own group of houses. The fact that numerous Khadkis shared a Pol meant that not all the residents of a Pol needed to be of the same caste. The homogeneity of caste was maintainable only within the individual Khadki, one Khadki could not dictate the caste composition of the adjoining Khadki. While this was still possible within the village, in the urban setting this was no longer possible. However, in general it can be said that the demographic composition of each Pol largely remained confined to the upper castes of Hindus but whether this was achieved by a deliberate policy of discrimination or because the lower castes simply did not have the means to settle in inner-city Pols is not clear. The Muslims generally did not form Pols with the notable exception of the community known as Vohras. The Vohra Pol was identical to the Hindu Pol.

The Gujarati custom of forming urban Pols which were locked up at night apparently struck numerous observers as being unusual, and some of their comments are worth quotation. William Finch (1611) on Cambay, "Cambaya ... the streets paved in a
direct line with strong gates at the end of each ..." (25). (Incidentally, he specifically adds that Surat had no street-gates but only city-gates).

Tavernier (1640) on Cambay, "... Such good order was maintained at that time in Cambay, that at two hours after dark every street was closed by two gates, which are still to be seen, and even now some of the principal of them are closed..." (26). Tevenot saw the same thing in 1666 (27).

Carsten Niebuhr (1764) was commenting on Surat, but his remarks are equally applicable to towns of North Gujarat, "Each street has gates of its own, with which it is shut up in times of turbulence ..." and then he describes one such occasion when there was house-to-house fighting on the death of Teg beg Khan, "During the hostile operations ... the inhabitants were content with shutting the gates nearest the scene of action, and continued to go about their ordinary affairs, without fear of being pillaged." (28). (It is interesting that Niebuhr saw Surat street-gates while Finch did not. In fact Surat has both kinds of streets, i.e. it has a mixed character).

Turning to the old British Gazetteers, the Ahmedabad Gazetteer (1879) writes, "One peculiarity of Ahmedabad is its great number (356) of house groups, pols, literally gates ... Each pol, or house group, has only one or at most two entrances, protected by a gateway closed at night as a safeguard against thieves. Inside is one main street, with crooked lanes branching on either side. Most vary in size from five to ten to fifty or sixty houses. One of them, the Mandvi pol in the Janspur division ... includes several smaller pols, with an area of about fifty acres and a population of 10,000 souls. Pol are almost entirely inhabited by Hindus, in some cases by a settlement of families belonging to one caste ..."
"Most of the pols have been established and provided with a gateway, at the expense of some leading men whose name the pol in many cases bears, and whose family holds a position of respect as the head of the pol." (29).

The Baroda Gazetteer of 1883 gives a very interesting description of the relationship between main street, inner street, and the sense of insecurity. "No person acquainted with Baroda can fail to have observed that all the largest and most important buildings in that city, which belong either to nobles or to rich merchants, have been built as far as possible out of sight. The main streets are lined with the wretched little tenements of petty traders and of men whose insignificance must fail to excite cupidity. It has always been the aim of the richer classes in Baroda to depreciate altogether to their real means, and there is little doubt that the prince disliked the idea of his subjects making a display of wealth which might seem to be at all remarkable."

"It is hard to exaggerate the results on a people of a feeling of general insecurity, so wide-reaching are they and so lasting ..." (30).

The above described graphically the raison d'etre of the Khadki system, and at the same time explains the reason for the general decrepit appearance of the settlements along the main streets of the town. It will now become clear why so many travellers' accounts of Indian cities are so disappointing. Time and again we read of shabby buildings, lack of amenities, lack of grandeur, except in the few cases of royal residences. In Gujarat the Khadki pattern effectively hid the best houses from sight and the traveller could not know that within the Khadki gates were the better families. His general impression came from the petty shopkeepers lining the outer streets. Of course, added to all this came the fact of insecurity which prevented wealth being displayed in the architecture.
One point of interest to us is that the Khadki and Pol system of city-planning is nowhere mentioned in the classical texts on architecture. There we hear of spacious street lay-outs forming intricate geometrical patterns having a large variety of technical names. All the public buildings are enumerated in great order and regularity, while the domestic houses are supposed to be arranged according to a hierarchy of auspicious dimensions and proportions. But in the towns of Gujarat nothing of all this is visible. No two roads are similar (with the single exception of Baroda), no two Khadkis or Pols are similar, house-plots vary according to means and circumstances even within the same Khadki. The sharp discrepancy between classical prescription and actual reality has been shown frequently in the previous discussion, and the total impression which arises is of doubt whether any of these theoretical prescriptions were ever executed. It is not enough to say that Muslim invaders were responsible for obliterating all vestiges of ancient town-planning. Street patterns, once laid down, are not easily upset through invasions—there is no need whatsoever to upset a regular road pattern. Besides, a town such as Dabhoi, founded in pre-Muslim times, shows the same haphazard system of settlement. The same is the case with Broach. No, it seems that the classical texts were merely idealized images far removed from reality. Professor Amita Roy specifically remarks on this with reference to Kautilya, "But on the whole it is safer to accept Kautilya's idea of a city as a speculative essay on city-planning, and this too more or less in a mechanical manner. His idea of a city-plan is more in the nature of a design in abstraction than a matter of social reality, a comment which may be applied with equal force to the idealistic speculations on the subject as are found, for example, in the Puranas, the Manasara and other Vastussastras texts." (31).
The fact that each Pol was closed off with its own gates gave to that particular sector a sense of belonging together and this was reflected in a Pol organization which gradually emerged to look after Pol affairs. It is not certain whether this organization was an independent growth or whether it was fostered by the governing authority. Already in Akbar's time there were regulations as to what a city Kotwal (magistrate) should do. The Ain-i-Akbari, under the duties of the Kotwal, prescribes the following, "He should form a quarter by the union of a certain number of habitations, and name one of his intelligent subordinates for its superintendence and receive a daily report under his seal of those who enter or leave it, and of whatever events therein occur." (32).

The Mirat-i-Ahmadi, a later work of about 1746, and particularly relevant for Gujarat, describes a royal Ferma concerning towns, "Details of that are: A Kotwal of every city, town and village ought to write down its houses and buildings in co-operation with writers. He should jot down the residents of every street from house to house as to what sort of men they are. "Streets should be fixed and a mir-i-mohalla (street chief) should be appointed so that good and bad of that street may happen under his right direction. A spy should visit him every night and day to dictate to him the events of street... Whenever an owner of a house goes out, he should inform his neighbour about his departure. He should not travel also without informing his neighbour, chief of the street and informer. On arrival of a guest either a relative or a stranger, the host should inform about him to the street chief." (33). The Ferma goes on to detail what the inmates should do in case of theft or fire; also that the street chief should note down the income and expenditure of inmates in order to notice early signs of potential trouble; then strangers should be permitted to reside in streets only upon the giving of a security, etc. All these regulations, if actually enforced, would make it encumbant upon
Khadki residents to see that internal discipline was maintained and if they did not wish to have this enforced from above, they would have to ensure it by voluntary organization. The reports indicate that the latter method was chosen. This was easy to achieve because the demographic composition of the Pol was anyway fairly homogenous. In addition, there were leading families who inhabited the Pol and might even have been its founders. The normally close-knit character of the Khadki would make it possible for members to be represented in groups. What all these favourable factors led to was a Pol organization which took care of all matters of a common, semi-public nature. These are briefly described below taking the city of Ahmedabad as illustration.

The first responsibility was the upkeep of the common facilities, and foremost among them were: the gateway, the Pol well, and Pol privies. The gateway had to be kept in repair and watchmen appointed to guard it. The men who did this belonged to one of the lower castes, and if any stranger turned up at the gate wishing to visit one of the families, then it was his duty to conduct him thither and to see that he did not stray. The watchman also carried messages between Pols, and on occasion might also provide the music at festivals. It is not clear whether his family stayed within the Pol or not, but one informant in Broach (of the Nagersheth's family) told us that there was a small enclave set aside for them adjoining the Pol, called even now Harijanwes (Harijan is a modern word).

The Pol had its own well for drinking water but all other water had to be fetched either from lakes or from the river. People could be hired for this work. The problem of answering calls of nature could now no longer be met with a visit to the fields, because the town had become too large for such daily trips. The solution found was of two kinds. In one case deep sewage wells with walls lined with brick were constructed in some corner of the Pol, and these were used as privies by all
the inhabitants in common. At intervals lime would be thrown
down the well to dampen its smell. In the other case, near
to the gateway there would be constructed small, privies with
metal pans into which the fecal matter would fall; this would
then be removed by Bhangis (scavengers) once a day from small
openings at the back and taken for disposal out of the town. This
method of disposal has often been described as a sign of economic
exploitation and coercion of the lower castes by the upper, but
the facts are otherwise. The truth is that there was no coercion
whatevsoever. The Bhangis voluntarily collected this fecal matter
because they traditionally kept pigs and this was fed to them
daily. The fact that pigs are in the habit of consuming human
faeces is well known, and one has to only visit some of the towns
like Broach where there are still no municipal underground
sewers to witness this. Small children can be seen defecating on
the sides of roads, and pigs belonging to Bhangis are waiting
near by to rush in and consume the faeces. These pigs form a
part of the diet of Bhangis. There is no offense felt by the
Bhangis at this strange feeding habit of the pig. Thus, if
instead of looking for faeces by chance, the matter is fed to
them direct, there is equally nothing offensive in this, and
the Bhangis voluntarily offered to collect human faeces. The
practice was mutually advantageous to both Bhangis and Khadki-
dwellers.

Regarding the manner of management and financing of these
common Pol facilities, the Ahmedabad Gazetteer (1879) reports,
"The house property in the pol is to some extent held in common.
Formerly no man could sell or mortgage a house to an outsider
without first offering it to the people of the pol ... When a
house is mortgaged or sold, the people of the pol have a right to
claim from one-half to two per cent of the money received. Again,
on wedding and other great family occasions, each householder is
expected to feast the whole pol, and in some cases all the men
of the pol, though not of the same caste, are expected to attend
any funeral that may take place. If the pol rules are slighted,
the offender is fined, and, in former times, till he paid, he was not allowed to light a lamp in his house or to give a feast. The money gathered from gifts, fines and the percentage on house property sales, forms a common fund managed by the leaders, seths, of the pol. This is spent on repairs to the pol gate, the pol privies, or the pol well. The polia or gate-keeper is not paid out of the fund. He earns his living by begging from the people of the pol and works as a labourer for them."

It will be evident from the above that the management of an urban Pol was almost identical with that of a rural Khadki, and that the former was merely an extension of the latter. The system of taking fines for infringement of rules, the attendance of common ceremonies, all these derive from traditional caste practice and to find them superimposed upon a multi-caste Pol settlement shows how strong this tradition was. It is a clear proof that it was the rural environment which had produced the urban one, and that basically the Pol was an enlarged version of the village. And just as the demographic character of the village was always sought to be controlled (to permit smooth social interaction among members), similarly the ownership of property within the Pol was sought to be controlled in order to preserve its upper-caste composition. It was only by having a relatively homogenous population within the Pol that a common organization could at all function. The Pol leadership was again patterned on that of the village with the Pol-seth functioning in the manner of the village-Patel, except that he now had more to do with commerce than agriculture. It is very likely that the important office of Nagarseth or city-mayor evolved out of the custom of Pol-seths. In other words, that it was the most prominent Pol-seth who became the Nagarseth. In this connection the famous family of Shantidas Jawshāri may be mentioned, which occupied the office of Nagarseth of Ahmedabad in historical times and on one critical occasion saved the city from plunder by the Mahrathas.
The relationship between Khadki and Pol has already been mentioned and now some details of this must be examined. In general, the Pol was a collection of separate Khadkis and theoretically each Khadki had its own gateway, while the whole group was served by the Pol-gateway. But our field survey showed that this was not always the case. In many instances the individual Khadkis had no gates of their own and were apparently content to be guarded by the Pol-gateway. When this happened, it was no longer possible to distinguish individual Khadkis and all that one saw was a number of side roads lined with houses, served by a single entrance. Technically speaking, this was nothing more than a large Khadki and yet it was not called a Khadki but a Pol. We tried to exactly define the difference by questioning the inhabitants, but no clear answer emerged. Obviously a large settlement composed of some hundred houses could never conform to a clear, neatly defined system of internal sub-divisions, particularly when these sub-divisions had often become obliterated over time. All that could be done was to go by what could be observed on the ground.

We found a Pol consisting of numerous internal lanes lined with houses but without their own gates, and then, all of a sudden, there would be a particular lane marked off with its own gate. In other words, the Pol had both kinds of houses, some without separate gates, some with. When the latter was more closely examined, it was found to consist of blood relations and was usually quite small in size. As an example we may cite the Satbhai-ni-Khadki situated within Kothari Pol. This is a large Pol and has many different communities within it, so that tentatively we may say that a Khadki is defined as being a settlement of blood relations. The Pol is then a larger conglomeration of communities, but we have also found Pols having all the inhabitants of one caste, but not necessarily of the same blood. Thus, for example, the Jada Bhagat-ni-Khadki is wholly composed of Patels who have come together from different villages and settled here. (All these examples are from Ahmedabad).
Another example, from Baroda, is the Karsinhji Pol which is largely inhabited by Vaniyas, but not exclusively.

One reason why individual Khadki gates must have fallen into disuse was that the city itself was fortified. The original Khadki was designed for location in an unfortified village; once the Khadki came to be located not only inside a defended Pol but also inside a defended city, its need for individual gates would diminish. To us it seems that apart from these considerations there were others of a more occupational nature which brought the Khadki gate into disuse. And this was the increasing commercialization of life. We saw already that commerce (including trade and manufacture) was chiefly carried on at home. Commerce would bring with it the need to constantly meet a variety of clients who would certainly not all be of the same caste or class. The home of the trader or artisan would now no longer be visited mainly by relatives and caste-brothers, but, on the contrary, by precisely those who were relative strangers. The coming of strangers to the home was just what the Khadki had been designed to prevent! In short, commercial life had made the Khadi an anachronism. This dilemma was solved by having the Pol. By shifting the defensive gateway to the periphery of the whole settlement, i.e. to the Pol-gate on the main road, the inner Khadki-gates could be dispensed with and the inner groups of houses more opened up and made easily accessible. This is exactly what we find in large parts of Ahmedabad. A Pol is a large conglomeration of houses situated along a winding maze of lanes, but all of which end up in cul-de-sacs, and the whole is served by a single entrance on the main city road. Structurally the system looks like numerous Khadkis joined to a single entrance, but functionally the whole is more like a single large Khadki with many inner branches.

With the lapsing of the strict Khadki-type of settlement in favour of the Pol-type, the logical next stage would be for individual houses to be constructed along the edges of inner Pol
streets. In other words, houses would now not seek to be sheltered within remote Kshadkis for protection, but would seek out more accessible locations along main streets within Pols. The risky street-side location would now become the preferred one because security was provided both by the Pol-gate as well as the city-gates. The final stage of this development would be that, along with full urban security, houses would begin to seek a location outside the Pol and along main city roads. This was, of course, a very late stage and we are not concerned with it. But the point is, that this whole trend towards opening up closed settlement areas was in response to the requirements of trade and commerce. We shall see how this affected the individual urban house.

The Individual House and its Development - Stage 1

(In general the situation was that the average urban house retained the same house-plot and house-plan as that of the rural house, because that had already become standardized and accepted as the normal model for the domestic dwelling. The fact that the house-plot was already fixed prevented any significant changes from being made within the plan.) If a larger house was wanted, then two adjoining plots would have to be bought up and after demolishing of the existing buildings the new house could be set up. But this manner of acquiring property meant that the increase in the plot was merely linear parallel to the road, i.e. the larger plot had a width equal to twice the normal house and a depth equal to the normal house. The extra width without any corresponding extra depth made the plot disproportionate and did not permit any real improvement in house-plan. The house could merely be extended side-ways but not in depth. This defect must have been realized early during urbanization, for we do find a deeper house-plot appearing in many towns and using again Ahmedabad as illustration we shall examine its development.
The main motivation for a significant change in the house-plan came from what we have called commercialization and includes trade and manufacture. Commercialization brought with it the necessity of permitting relative strangers to visit the domestic house because that was the only place of business. The presence of strangers within the traditional house raised problems of privacy. The house, designed originally for a close-knit Joint Family, had no architectural barriers between its various parts. The individual spaces were close to each other and the custom of keeping all doors always open meant that sound and vision could travel freely from one part to the other. The women of the family would now become exposed to strangers while they were going about their domestic chores and this was certainly not welcome.

Another point is that in the traditional rural house the menfolk had generally spent their time outdoors in the fields and left the house mainly to the women and children and the aged. But now a commercial existence compelled the menfolk to remain at home to deal with customers. Thus, the avoidance between certain men and certain women inside the house would become rather more difficult.

Lastly, even assuming that all these new problems were met, there remained the problem of where to conduct business transactions. The traditional house had only three spaces, of which the Ordo could not be used for male visitors. The Otlo was convenient only during good weather, and in any case was too exposed to the lane for private negotiations. There remained only the Parsal; but this was so close to the Ordo that it was quite unfit for this purpose. All of these considerations led to a modification in the house-plan which was as follows. The traditional 3-part house was left as it was, in front of it a small open space was left, and then there was introduced a new unit consisting of a single room with its own front Otlo facing the lane. This is shown in Fig.7.a. The new layout now had six parts in all, three belonging...
to the original plan, two to the new addition, plus the central open space called a Chowk. The name used to designate the 2-part front unit is most revealing: it was called a Khadki. The dictionary meaning of this word, taken from the Jodnikosh, is that of a part built before a house, or of a common space or lane joining a row of self-contained houses with a gateway, or a gateway. The Archaeological Survey of India (1862-1884) in its Index to the Series gives the meaning of Khirki as 'back-door' or 'postern'. (35). Common to all of these meanings is the sense of 'gateway' or 'entrance-portion', and it is clear that it is in this sense that the front addition of the house is called a Khadki. In other words, the purpose of the Khadki was to act as a barrier to the more private parts of the house. It was here that the stranger was held up, business transacted, and a formal distance maintained between him and the family. The instrument by which this distance was maintained was the Chowk or inner yard (which we shall call a courtyard to distinguish it from a yard which is external to the house), and it is for the first time that we find the inner courtyard in the Gujarati house. The subject of the courtyard is one which has been wrongly described by most observers of Asian architecture in that they have put forward the proposition that the Asian house always has a courtyard. This is inaccurate. The courtyard in the Gujarati house is not traditional; it appears only in the urban house and that too as a subsequent response to commercialization and urbanization.

There are many scholars who maintain that the inner courtyard in Gujarat was for the purpose of ensuring ventilation to the inner rooms. But this ignores the plain fact that ventilation has never greatly bothered the inmates of the traditional house. The design of the Ordo is ample proof of this. The real reason why ventilation was neglected was quite different. (In the original rural house of one storey, the roof was of tiles which freely permitted the movement of air through its interstices. This house was at all times ventilated by the
natural movement of air. Later, when the house became double-storeyed, the lower floor became cut off from the source of ventilation and recourse had to be taken to ventilation via doors, but this was not efficient. Nevertheless, once the traditional ventilation pattern had been established, there was little innovation in this respect except the addition of a few windows facing the front. These windows located in only one external wall permitted no cross-ventilation of the house and were inefficient. The lack of good ventilation was borne because security dictated that no rear windows be introduced. The row-house, hemmed in on two sides, and virtually window-less on the third, could never have good ventilation. The Chowk was introduced, not within the house, but between two distinct and separated units. Its primary function was to create a formal distance between spaces which were semi-public and private. In other words, it acted as a barrier to sound and vision. The stranger was not expected to cross the Chowk in normal circumstances and sitting inside the front room or Khadki he could not know what was going on within the Parsal. (The Chowk did, of course, also provide ventilation to the inner rooms,) but that was not its primary function.

(The Khadki-room, designed to receive strangers, became the ideal place for many related activities. It could serve as a shop or as a workshop (for the carpenter or blacksmith), or as a place to show samples of wares to customers, (or even be rented out.) The addition of the Khadki-room as the space for visitors made a large front-Otlo unnecessary, and accordingly the new front-Otlo was made very shallow in depth. A glance at the photographs at the end of the volume will show this typical shallow Otlo of the urban house of North Gujarat. The plinth was now substantially raised (since no cattle were kept before the house) and stone steps added, giving to the house frontage a more distinguished appearance. The height of the plinth seems to have become a matter of prestige for we find plinths becoming ever higher and quite out of proportion to their normal purpose. The Khadki-room itself,
because of its character, never received any great wealth of decoration and this is in contrast to its commercial function. It remained consistently lower in status and decor compared to the inner Parsal. This point is architecturally very interesting, namely that the space intended for commerce was never made to exhibit wealth, and even though the front-Otlo may have a great show of rich carvings, the Khedki-room itself was always relatively plain. The only explanation for this strange feature seems to be that the Khedki-room was meant primarily for storage of goods to be shown to customers and hence its surroundings were kept free of encumbrances. The room itself could be a closed one, with single doors on either side, or it could be a kind of hall opening out into the Chowk and with a single door only to the front-Otlo. In the latter case the Khedki-room had the appearance of a deep veranda adjoining the Chowk.

(Apart from the addition of the 2-part Khadki, the remainder of the house often underwent no change at all and remained identical with the 3-part rural house seen earlier. In other words, the urban house was simply the rural house with the addition of a private Khadki in front.) We see here the great hold of the rural tradition on architectural design. The solution found to the urban problem was nothing more than a re-arrangement of architectural parts already in existence in the village. What function the Khedki performed there for a whole group of houses, the same function was here performed for the individual family by the Khadki-room, namely as a barrier to strangers. The common space of the former became the Chowk of the latter. We shall see later how the analogy is carried even further into details.

One minor point here is that the new layout now had two Otlos, one to the front, the other to the Chowk (i.e. the original one of the 3-part unit). To distinguish these two Otlos it became necessary to give them different names. The term 'Otlo' continued to be used only for the front veranda. The inner one was
variously called Osari or Raveshi). The term Osari is more commonly used in Saurashtra for that part of the house which in North Gujarat is called the Otlo, and its use here for the inner veranda seems to be loaned from that sub-division. The term Raveshi is not clear. The Jodnikosh dictionary gives the word 'Ravesh' as being derived from the Persian 'Ravish' which is said to mean that part of the house which falls beyond the loft. This would then make it refer to the part above the front veranda in a 3-part house. Raveshi is then defined as that part of the ParsaI which falls below the Ravesh. It will be seen that this definition is not architecturally clear. To us it seems that Raveshi simply means an inner passage regardless of its location.

Development of the House - Stage 2

(In the next stage of development, additions were introduced into the Chowk in such a way as to produce linkages between the front 2-part and the rear 3-part. The Khedki-room was separated from 3-part by the Chowk and to cross it during rainy seasons was inconvenient. Therefore, it became necessary to link the two divisions by means of a covered passage which ran to one side of the Chowk.) This seemingly simple architectural feature nevertheless produced very far-reaching difficulties. The analysis which follows is one of the most important for an understanding of the Indian house in general and hence it is given in depth.

The whole problem revolves around the construction of the roof. In our present case, the roof of both the 3-part as well as the Khedki-part was a pitched one with the ridge running parallel to the lane. In short, there were two separate pitched roofs which did not touch each other since they were separated by the open Chowk (see Fig.7.b.). Now, when the linking passage was added to the layout, its own roof was bound to touch both of the existing roofs at either ends of the passage. If the passage-roof was also made pitched, then the combined roof would appear as
Fig. 7.c. It will be seen that where the passage-roof joins one of the existing roofs, there is formed what is technically known as a 'valley', i.e. a meeting-line of two roofs which slope upwards. The rain water which falls on both these sloping roofs will flow down into the valley and after collecting there drain off into the Chowk. Now, the roof was made of round country tiles and one of the technical characteristics of the round tile is that whereas a ridge can be formed of such tiles, a valley cannot. The lowest level of the valley, if made of round tiles, is formed by one row of tiles and this single row is too narrow to take the whole quantum of water collecting there from two roofs. Some relief could have been had if a very broad concave tile had been manufactured in order to serve in the valley, but this was not done. The consequence of restricting the roof to the basic small, round tile was that the valley became impossible in Indian architecture! This point will be better understood if we consider how the same problem was solved elsewhere. In parts of southern Europe a round tile exactly similar to the Indian country tile was used (called a Spanish tile), but valleys were made by forming them out of lead sheets. The sheets could be given any desired width and hence could be dimensioned to suit the likely quantum of water discharge. The angle of inclination of the valley became immaterial once the valley was made of metal. In better houses copper was used, and the modern practice is to use zinc or galvanized iron. Metal for roofing in India was never a general practice, not even in the small quantities required for gutters or valleys. The simple solution found was to completely avoid valleys. This was achieved by permitting roofs to meet along upper edges, i.e. at ridges, but not at the lower edges, i.e. the valleys. The plain two-way pitched roof and the plain hipped roof met these requirements and these were the only two kinds of roofs used. Roofs having any kind of complicated junctions were never attempted. Now, since the complicated roof always corresponds to a complicated plan (the former is but a reflection of the latter), this simultaneously meant that the simplicity of the roof was achieved
by retaining a simplicity of plan. In other words, plans having a T-form, E-form or U-form were all generally avoided because they inevitably produced valleys. The plans which were used were simple rectangles and squares without off-sets or projections.

In our own case, we saw that the side passage to the Chowk produced roof-junctions which would have been valleys if made pitched. This difficulty was overcome in an ingenious way: the roof over the passage was made flat, i.e., as a terrace (see Fig. 7.d). The flat roof of the passage met the walls of the two units at mid-way and was de-watered by means of down-pipes. The two pitched roofs remained without extra junctions. In a later development, when a similar flat roof was erected on the other side of the Chowk, we would then get a regular courtyard-house or Atrium-type in which all the spaces were distributed around a central courtyard. It will now be seen that a house such as this could never have had pitched roofs all around but only on two opposite sides, while flat terraces would make up the two remaining sides. Add with this conclusion we come to that feature of Indian classical architecture described in texts as Chatuhśāla.

All scholars have been tempted to understand by this term a house made of four identical units called śāla distributed equally around a central courtyard. The above analysis will now show that this is quite impossible if by śāla is meant a unit with a pitched roof. The only way in which four śālas can be joined up is if they all have flat roofs, but the flat-roofed building has never been common in India due to the heavy monsoon rains. Terraces were certainly known but were used sparingly. To us the term śāla can only mean a unit with a pitched roof, and in that case the Chatuhśāla becomes an impossibility. Why, then, was it mentioned recurringly in classical texts? We have already hinted many times at the reason for such theoretical prescriptions. These prescriptions were made by authors who had no practical
experience of actual building construction. They were certainly not masons and carpenters. At best they were Brahmanical supervisors who looked to the over-all auspiciousness of the building and made formulations intended to cover all possible permutations and combinations. Given the unit known as *Sala*, which was in itself technically feasible, the authors were bound to extend this into a *Dvissala*, a *Trissala*, a *Chatuhsala*, etc., in order to produce a comprehensive text. But this did not mean that all of these were ever built or were even technically feasible. It seems to us imperative to look at classical *Silpa* texts with a fresh eye keeping in view real, technical aspects of architecture. We have shown on numerous occasions the serious discrepancies between the built structure and the prescription, and it becomes increasingly certain that those who wrote the texts never built the houses, and, *vice versa*, that those who built the houses could never have followed most of the textual prescriptions even if they had wanted to.

Turning back from this digression to the house itself, it was mentioned earlier that one side of the Chowk was occupied by the linking passage. (In a further development of this concept, what was done was that two or three small rooms were now added to the opposite side of the Chowk and also covered with a flat roof. Two of these small rooms were used as Kitchen and Water Storage (see Fig. 7.1), and the reasoning behind this change must have been as follows. The problem of smoke dispersal from within the badly ventilated Ordo had always been insurmountable but now the open Chowk offered an alternative means for the smoke to escape. By shifting the Kitchen from the inside of the dwelling to the side of the Chowk this problem could be solved once and for all. The displacement of the Kitchen naturally led to a corresponding displacement of the Water Storage, and this came to occupy a space adjoining to the Kitchen but more towards the entrance so as to serve visitors.) It is important here to note that the shifting of the Kitchen from the seclusion of the interior had become feasible only because of the addition of the
Khadki-barrior — it was this latter feature which permitted
the women to now come forward to the front of the 3-part unit.
It will be seen from the plan in Fig. 7.e that the entrance to
the new Kitchen was from the Farsal, thus still providing an
element of privacy vis-a-vis the Khadki-room. Smoke from the
Kitchen escaped through a small grill into the Chowk. The
Water Storage now came into its own separate chamber (called a
Paniaru) and an elaborate arrangement of platforms was made
to receive the clay water pots. It is interesting to find that
the Water Storage was very often without doors and without any
which it was used would make doors
cumbrousme and unnecessary; the cill was avoided deliberately
because a person carrying water on the head would find it
obstructive. Besides, water which had splashed about on the
stone or lime-plastered floor could drain out through the entrance
into the Chowk. A separate drain, partly underground, then
conveyed all Chowk water to the soak-jar outside the house. The
Chowk itself was, of course, paved with stones because it was
constantly exposed to water.

With the above important functional changes, the urban
house had reached its second stage of spatial development, and
we may now examine some of its details. The ground-floor now
had altogether eight parts: the 3-part rear as before, the 2-part
front, the Chowk, and to either side of the Chowk the passage and
the group of small rooms (these are numbered in the plan). In
the first-floor the arrangement remained substantially the same
as in the rural house.) Over the rear 3-part came two spaces
(as before); over the front 2-part Khadki came one single large
space whose front boundary came to rest over the edge of the
entrance plinth, i.e. it covered the front Otlo (see the section
in Fig. 6.f). The areas to either side of the Chowk had only
flat terraces over them and these also served as links to move
from one part to the other on first-floor. The manner in which
these various spaces were used was as follows.
The ground-floor Ordo, now deprived of its hearth, became a mere store-room and partial women's sleeping area. But the fact that this room was no longer subjected to smoke had one advantage: it could now be used for lying-in without discomfort to the new-born infant. Thus, the lying-in was shifted from its original location in the Parsal to the inner Ordo with a great gain in privacy. The accompanying Dattankua (seage well) had to also be moved to the Ordo, and its character as a purely women's area now became emphasized. When no lying-in was imminent, the Ordo was scarcely used during the day and it became customary to keep it locked. By this means we find, for the first time in the dwelling, a room kept 'locked' and the Ordo ceased to be a general part of the interior space. The control of this room was with the mother and we have heard wives telling us that when they were newly-wed bridges their mother-in-law would not let them ever enter the Ordo as long as she was in charge of the house-hold. (It should here be kept in mind that it was not the daughter-in-law who used the Ordo for lying-in but the own daughter married elsewhere.) The Parsal continued to be used as before except that with the location of the new Kitchen the part of the Parsal adjoining the Kitchen became more clearly demarcated as a dining area. In some Brahmin houses this end of the Parsal had a slightly raised floor forming a low platform and this served to give to the dining area that ritually exclusive character which Brahmin custom demanded. Very often in a niche in the wall next to the dining platform there would be kept an image of a deity to preside over the dining space. We shall meet with this combination of dining space and deity later when we look at the South Gujarat house. It will be noticed that the changes hitherto described had the effect of assigning more clearly defined functions to specific parts of the house and of reducing their multi-purpose character.

(The inner veranda or Raveshi now became a general-purpose space and circulation area connecting the Parsal and Kitchen to the front of the dwelling via the side passage. The Chowk was
used by the women at those times when visitors were absent for a variety of functions: cleaning of vessels and/or clothes, bathing, drying of grain (this could also be done on the terraces), parking of children during the day when they were in the Kitchen and could over-look the Chowk. The Chowk thus became actually an extension of the rear 3-part of the house and was most frequently used by the women during the day. This usage brought it more within the private sphere of the dwelling and denied it to visitors. The menfolk also used the Chowk for outdoor sleeping, while the women could move into the Raveshi. In the rainy season the men would move into the Khadki-room.

It will be seen that the additions to the urban house gave it more flexibility and the family now had much more space to move about in. Gradually a more clear definition of functional spaces had begun to arise. The dividing line between semi-public and private space was the inner edge of the Khadki-room: this was the line which the stranger was not expected to cross. In other words, out of the six parts seen axially, four were private. The privacy itself was a matter of degree. In the event of strangers being present, the women could withdraw into the Parsal and thus become virtually invisible, or remain invisible in the Kitchen. In case the visitors were only to be avoided, then they could continue to show themselves in the Raveshi or Chowk. This flexibility of usage was very valuable to them.

Regarding the usage of the Khadki-part, this has already been described while discussing its genesis. In short, it was the typical 'men's' area where matters pertaining to business were carried out, and where more formal visitors were accommodated. During our field visits it was in the Khadki-room where we were given to sit initially, and after some intimacy had developed, from where we could converse with the females of the household across the intervening Chowk. The next step would be to seek permission and cross this important barrier and enter the 'private' domain of the dwelling. The front Otlo was now too
shallow to be used in the way the village Otlo was used, namely for meeting casual labourers, etc., and hence had acquired a different function. It was that neutral space in which a visitor could stand and announce himself (thereby keeping out of the rain). The front door was always open during the day and a call from the Otlo would penetrate easily to the inmates within. The teeth-cleaning ceremony, however, continued to be performed from the Otlo and with it the exchange of views with neighbours.

Coming to the first-floor of the house, a few functional changes now occurred. Urban life was more complex than rural, there was more happening all around, there was more to see, and if the house happened to be located upon an important street, then much of public life unfolded itself in front. What all this meant was that the upper part of the house became a vantage point from which to observe things. And to do this it needed larger windows. We thus find the first-floor of the urban house now having a row of long windows stretching down to the floor level (rather like French windows) and in some cases designed to slightly project beyond the house-face like balconies. The need for the window to go down to the floor level was because it was the floor on which the inmates would sit and look out. Each long window had a small guard-rail to prevent mishaps. But this was so low (barely a foot high) that a child could easily fall over it, and yet they remained at this height. This point has been very puzzling to us and we could not account for it. On the other hand, in many buildings we found that a set of crude wooden bars had been superimposed upon the original long window precisely in order to safeguard children (Ill. 192). Why was the danger to children realized only in contemporary times? Was it that children were normally not permitted to use the first-floor? No definitive answers were forthcoming.

Along with the long window there appeared in some houses the regular upper floor balcony (see Ill. 249). This was designed as a kind of veranda either cantilevering over the Otlo or having the depth of the Otlo if the latter was deep. The balustrade of
this balcony was of solid wood slightly inclined towards the outside, richly carved externally and severely plain internally. The design and inclination of this solid balustrade is remarkably similar to that found in the classical northern Hindu temple and there called an Asan. It is quite certain that the design of the one is borrowed from the other, but which came first is a matter which will be discussed later in a separate section. Here we are concerned with explaining the presence of the inclination. There are two possible reasons. One, that it made it easier for a sitting person to lean over and look down; two, that it made it possible for a person to lean back against the balustrade and converse with those within. Both reasons might have operated simultaneously but we think that the second had preference. In the temple the balustrade forms the back-rest of a seat and there the inclination is obviously to support the back of the person reclining on the seat. A similar function must here also be assumed. The concept of a seat with a reclining back-rest is so clearly a domestic one that so far as the concept is concerned, it is clear that the temple borrowed from the dwelling or palace.

The appearance of the residential balcony was, however, short-lived. It could be observed, for example in the Ghadiali Pol of Berods, that out of three adjoining houses belonging to the same family, the oldest one had a balcony but the two later ones did not. Instead, the space which would have gone in the making of the balcony was included in the internal room making it correspondingly larger. The reason for the disappearance of the balcony was the pressure on space for many other uses. As town-life progressed, internal space became more valuable and the open balcony wasteful. It continued only in those few very aristocratic buildings where the purpose of the balcony was precisely to demonstrate wealth.

Apart from the above change in the use of the first-floor the general pattern of usage remained substantially the same in the majority of houses as described for the rural house. In short, the first-floor was used to accommodate the growing family.
Under pressure of population the normally two-storeyed house even expanded into three or four storeys, but in all cases the basic plan was repeated on each floor, and along with it the same pattern of usage. The ground-floor continued to be the main floor of the house, and each subsequent floor was considered in general to be progressively less important. This can easily be identified by the quantum of decoration and quality of finish applied to the various parts. The wood used in each succeeding floor becomes more inferior and of smaller cross-section; thick walls give way to partitions; and the details of doors and windows become progressively less attractive. A glance at the elevation of any building in the photographs will prove this.

Regarding the expansion of the urban family within the multi-storeyed house, we were informed by many informants that among merchants it was the custom to permit husbands and wives to share the same room (or corner) for sleeping. Nagar Brahmins told us of the same custom. In other words, here was a break from the rural tradition of keeping married males and females separate at night. Whether this difference in custom had always prevailed among the urban upper classes, or whether it arose under the pressure of urbanization, it is not possible to say. But it fits in with the urban pattern of life. We saw earlier that the males and females in villages were naturally separated from each other during a great part of their lives by the requirements of agriculture. The separation during night was merely an extension of a life-style which already prevailed during day. In the town, on the other hand, no such occupational separation arose. Rather it was the other way around: males and females were of necessity thrown together in fairly close proximity, and as families increased in number this would worsen. A real spatial separation between husband and wife during night would have become possibly a bar to any kind of cohabitation at all, for under crowded urban circumstances no surreptitious approach at night was possible. It therefore seems quite
reasonable to assume that town life compelled couples to sleep together, albeit discreetly. In that case the upper floors of dwellings would prove invaluable for such young couples. The contemporary practice certainly corresponded to this, but it must have already been established long ago. And it would explain the very common habit of adding floors to existing buildings, namely to accommodate more married sons and grandsons. Without the custom of sleeping together the mere addition of floors would not have solved the twin problems of growth and cohabitation. The conclusion, therefore, is that the upper floors of urban houses were used as sub-units of a common dwelling to accommodate younger married couples. The hearth and other facilities remained in common. The decrease in the quality of the finish of each succeeding floor would then correspond to the status of each succeeding generation occupying the respective floor. The "parents" would occupy the prestigious ground-floor.

A novel feature of the first-floor, mentioned earlier, was the two terraces linking the front and the rear of the house, and their presence gave opportunities for new functions. The terraces were primarily circulation areas but they could be used for laying out things to dry, for sleeping in hot weather, and, above all, for collecting rain water. The need for collecting rain water arose in a very curious manner. Hitherto, all the drinking water required for domestic use was procured from common wells situated in the Khadki or Pol. Many well-to-do families found this inconvenient and began instead to construct their own private wells within their houses. This private well was located inside the Water Storage chamber and served by a wooden pulley for drawing out the water; when not in use it was kept covered with a metal cover. In a town like Ahmedabad almost every house had its own private well and there were thousands of them in the city. But the problem was that after generations of use, all the wells, both private as well as common, became brackish and unusable. This happened because the sewage and waste water which was being constantly thrown into the soak-jars gradually percolated.
into the sub-soil and polluted the whole sub-soil water, and this in turn polluted all the wells. A process such as this must have taken many generations to occur and would not have been noticed at first. Once the domestic wells became unusable, an alternative source had to be found, and the method employed was to construct underground storage tanks (called Tanku) below the Chowk and to fill them with rain water collected from the terraces. This water, once collected, remained surprisingly pure even though it lay stagnant for the whole year until the next rainy season. Many families still use their Tanku water today even though they have municipal supplies because they claim that food cooked with it cooks faster and better.

The water for the Tanku was collected in the terrace after the first few rains had washed it clean, and after that no one was permitted to walk across the terrace. The water was carried down by pottery pipes embedded inside a wall, and there was a device to close off the pipe once the Tanku had become full and the excess water was allowed to drain off. In order to draw out the Tanku water an opening was required, and this was made in the form of a well-head and located also within the Water Storage chamber. This small room had now become a very important part of the layout. In better houses it contained, besides the well, the Tanku-head and the water storage pots, also a small, square recepticle for storage of Tanku water required during the day. In other words, the Tanku water was drawn up and deposited in this recepticle for casual use throughout the day. The Tanku itself had to be secured from the kind of pollution which had effected the wells, and this was done by lining it with a very good quality lime plaster which, after polishing, shone like glass. The ceiling of the Tanku was constructed of regular arches made of lime mortar or, if small, in the form of a barrel-vault. The use of vaults and lime mortar raises the question whether this whole practice was originally learned from the Muslims.
The countries of the Islamic world are arid and for them techniques for water storage became essential for their survival. Cisterns and Hamams or baths were an ancient tradition with them and methods of making water-proof underground chambers were well known. It should here be emphasized that the underground cistern cannot successfully be made using timber beams for the ceiling because water rots the wood. The underground cistern pre-supposes knowledge of vaulting and this was certainly not common in India before the advent of the Muslims, so that we are justified in assuming that the Tanku of Gujarat was derived from Muslim practice.

In order to avoid any possible misunderstanding, it must be added that the underground chamber (without water) was certainly known in India, and on this subject we quote from an article entitled 'Bhumigrha' by Dieter Schlingloff, "To conceive the purpose of an underground chamber, one has to realize the fact, that usually ancient Indian houses had no cellars. Accordingly, if an underground chamber is mentioned in literature, this room always serves as a secret chamber, which has to conceal persons and/or treasures." (38). Kautilya's Arthashastra mentions the construction of an underground chamber specifically using timber, but that again is for storage of things other than water. (39). The use of lime mortar for making terraces was also known in pre-Muslim India and this has already been referred to in the report of Cunningham quoted on page 84. Lime plaster of excellent quality (Vajrakupa) was also known. But what was uncommon was the general use of lime mortar associated with vaulting, and it is precisely this which is found in the Tanku.

It is a moot point whether private wells and Tankus were ever added to a building subsequent to its erection, i.e. whether it was at all technically feasible to do so. But even in those cases where it was planned from the very beginning, it must have entailed an exact preconception of the final form of the house and its detailed layout so as to be able to fit in the deep underground openings to the plan. The location of the well and
Tanku had to exactly fit into the spaces provided for them and for this the whole plan must have been thought out in advance. Thus, even though no drawn architectural plans have been found of the houses, it is certain that some kind of plan must have been used to demarcate the diggings.

The size of the Tanku was naturally linked to the size of the terraces which fed it, i.e. small terraces would not fill up a large Tanku. Many of the houses seen by us had extremely large Tankus and it could be observed that to match them the terraces had to be enlarged. This could not be done by enlarging the small spaces to either side of the Chowk (that would have been far too impractical), and instead what was done was that the roof over the Saveshi was also made into a flat terrace. In one extreme case in Cambay the whole Khedki-oart in front had a flat roof giving a terrace which comprised almost two-thirds of the whole plan of the house. These large terraces were not primarily for sleeping on but for water collection. This can be understood from the fact that the terrace was not secure from an intruder coming from an adjoining house. Privacy for women was also not ensured.

The link between terrace and water collection raises a very crucial question: was the terrace initially introduced precisely as a water collecting element into the architecture? And were the small rooms and passage an after-thought? It is very tempting to speculate that it was the necessity for pure drinking water which drove the inhabitants into thinking of having terraces, and that this in turn led to the shifting of certain functions (Kitchen, Water Storage) from the interior to the sides of the Chowk covered by terraces. This speculation is supported by the fact that terraces were completely absent in rural houses and were ill-designed in the urban ones. The terrace automatically collected water and remained damp for long periods. In course of time small hair-cracks developed in the lime-mortar used to surface the terrace, and water percolated through them and settled inside the ceiling next to the wooden beams and joists which
supported the terrace. This dampness within the ceiling led
to rotting of the wood and in due course the whole terrace came
crashing down. During our field survey we came across numerous
famous houses of rich merchants which had collapsed within the
last few years, i.e. during the period of our study, and when we
examined them to discover the cause of collapse, it was found
that it was always the terrace which had collapsed first.

Another evidence of faulty construction in the terrace was
the fact that in order to hold off the large quantities of water
likely to fall on it, the terrace was invariably made extremely
thick and heavy. This led to a bending of the supporting timbers
and hastened the moment of collapse. All in all, it could
clearly be observed that the indigenous artisan was not familiar
with the problems of terrace construction and he made mistakes
which showed that he was dealing with a concept foreign to his
tradition. It may be incidentally mentioned that the terrace is
so successful in Islamic architecture because, firstly, there
is very little rainfall in their countries, and, secondly, in
north India the Muslims used stone beams and joists in terraces
and thus no damage due to dampness could arise. The Gujarati
craftsmen, experienced in woodwork, applied wooden construction
to a place exposed to water and blundered. The alien character
of the terrace vis-à-vis Gujarati domestic architecture makes it
very probable that the whole idea imported in response to a
pressing need, and that could only have been the need to collect
rain water for drinking.

The deterioration in well water which made the above process
necessary can be documented from various sources. The
Prabandhacintāmāni of Merutunga speaks of the water of Anshilapure
becoming brackish (40). In the Tūzuk-i-Jahāngīrī Jahangir writes
of Ahmedabad, "Its water is very bad and unpalatable... Its wells
are mostly salt and bitter, and the tanks in the neighbourhood
of the city have become like buttermilk from washermen's soap.
The upper classes who have some property have made reservoirs in their houses, which they fill with rainwater in the rainy season, and they drink that water until the next year."(41). The Gazeteer for Ahmedabad (1879) reported; "As in other parts of the town the water of most of the wells is too brackish for drinking."(42). Pietro della Valle observed Cambay in about 1623, "The Houses (have) ... Cisterne, which is the custom in India for provision of water..." (43).

We may close this account of Tankus with a description from Gillon, "The least impure water was that supplied by the 8000-9000 household tankus (cisterns) in the better houses. These often dated from the time of Muslim rule. They were carefully constructed brick reservoirs under the floor of a room or courtyard, lined with plaster and filled with rain-water by channels or pipes from the roof ... The water from the roof could be directed at will into the cistern or not, and was not so directed until the roof was clean; the water from the part of the roof where people walked about was never taken; and the mouth of the cistern protruded above the floor level, so no water could accidently flow into it, and was kept constantly closed."(44).

Development of the Divankhnu:

Continuing with our analysis of the first-floor of the urban house, we now come to a further development of the Khedki-part in front. It will be recalled that this part had been added under pressure of commercialization and functioned as the place of business. In normal circumstances, this business was carried on in the ground-floor of the Khedki-room as it was more accessible from the lane. But there were some kinds of business which brought in a more sophisticated and richer clientele, such as the sale of precious stones, jewellery, brocades, or which involved private negotiations which could not be carried out in
rooms near to the lanes. For such kind of transactions it became the custom to move to the first-floor of the Khadki-part. There was from the very beginning a separate stairs in this part corresponding to its autonomous character, located just within the room, so that visitors could circulate without disturbing the private part rear. The presence of two stairs in the urban house is noteworthy for they were not required due to any great increase in the volume of traffic; rather they were introduced to preserve the separateness of the two parts of the dwelling: the one private, the other semi-public.

Once the Khadki first-floor had become the place of business, it made the ground-floor free for other usages and there was no need for a client to enter that floor at all. To meet these considerations, a simple change was made. Hitherto the Khadki stairs had been accessible from within the Khadki-room; now by adding an additional door to the Otlo the stairs could be entered directly from the Otlo without having to pass through the Khadki-room. This is shown in Fig. 7.f. In actual fact the stairs could be approached from two sides: one through the Otlo door, the other through the Khadki-room, and in many houses this double arrangement was retained. But in some houses the stairs were screened off internally by a wooden partition and the only entrance left was from the Otlo. The opening up of the Khadki stairs to the Otlo meant that now a client could walk up to the first-floor directly without having to pass the main entrance door of the house. Since the Otlo was at all times open and accessible from the lane, he could approach the stairs without any reference to anyone in the ground-floor, i.e. he did not have to call and announce himself to members on the ground-floor. Instead, he could climb up straight away and announce himself to whoever was in the first-floor of the Khadki. In this way all need or occasion for any contact between the client and the family was eliminated. The main entrance door could now be kept closed if desired without creating inconvenience to prospective clients. The privacy of the dwelling in its ground-floor now
became extended even up to the Khadki-room and included it. The
Khadki-room, bereft of its original function, became reduced to
a private entrance lobby to the ground-floor and was used for
storing odds and ends. It had really lost its main purpose and
became a wasted space.

The first-floor Khadki-room, now transformed into a
superior business premise, gradually was further improved in
its appearance by the addition of various internal furnishings.
There was, of course, the inevitable mattress on the floor and
cushions against the walls; but in addition the windows looking
out into the lane were made more decorative, sometimes with the
addition of glass panes in colours; the walls were given painted
patterns; the floor was made of polished lime plaster tinted a
light red or yellow; and the ceiling was now covered with a layer
of panelling carved out into an intricate geometrical design and
hung with glass chandeliers imported from Europe. Some times
wall niches were given the sweeping arched shape so typical
in Islamic architecture. The Khadki-room had become aristocratic.
It was designed to impress upon a rich clientele the status and
wealth of the merchant. This room now received the designation
of Divankhanu.

Divankhanu is of Persian derivation, meant a kind of
reception room for nobility. The fact that a foreign word had
to be used for a space which had a purely indigenous origin was
because the word was already in common use and was handy. It
does not mean that the feature was copied from Mughal architecture.
The Gujarati Divankhanu was the commercial equivalent of the royal
reception hall; both arose independently in response to similar
requirements. Of course, the Gujarati merchant was perfectly
familiar with Moghul or even West Asian Islamic architecture, and
he could not but be influenced by the decorations he saw there.
The decorative features which he incorporated from Islamic
practice were the following.
(a) **Stucco Mouldings**: These were added as small borders on wall surfaces to produce panels which were then filled in with painted decorations. In some cases the moulding appeared as a projecting course just below the carved ceiling, or around doors and windows.

(b) **Carved Niches**: The carved niche is a very favourite device in Islamic architecture and was the main element used to decorate a flat surface in India. Such niches always appeared in royal Islamic buildings and were copied by all those who wanted to display status. They could be used for keeping things as well, but their main purpose was decorative.

(c) **Carved Ceilings**: The carved ceiling was known to pre-Muslim Gujarat and excellent examples of the art can be seen in the temples at Mount Abu. But of all these examples are in stone - the carved wooden ceiling has not survived either in examples or in references. It would have been possible to argue that the wooden carved ceiling used in the Divan-khanu was designed by those craftsmen who made the temple ceilings if there had been any resemblance between the two. But there is not. The temple ceiling has great depth and under-cutting in its carving, and the themes used in it are floral and mythical. The Divan-khanu ceiling is flat and smooth and over it is overlaid a network of design made of thin pieces of wood cut like fret-work, the whole gives invariably a geometrical pattern. The whole design is quite obviously Islamic and similar designs can be seen in innumerable Muslim palaces and tombs. Good examples of this kind exist at Fatehpur Sikri, there done in stone on dados and wall-panels. A strikingly similar design in wood is found in the 17th century architecture of Bijapur. A more detailed discussion of the carved ceiling must wait till we have considered the construction in chapter V, and here we may only give the conclusions. The carved wooden ceiling having a geometrical fret-work design is borrowed from Islamic architecture, but executed here by Gujarati craftsmen.
Regarding the use of glass in architecture, there is clear evidence that it was absent in Gujarat until it was brought in by Europeans. In "The English Factories in India" there is a letter dated 1618 from Ahmedabad which says, "By the last fleete we received heer a barrell of wyndowe glasse, but not withstanding my advice to Surratt of Muckrab Chans (the governor) desire to experyence the use thereof ..." (45). Obviously the governor at Surat was so enamoured of this novelty that he sought to seize it for his own use. Edward Terry (1615), speaking more from experience of Surat, wrote, "In their upper roome they have many lights and doores to let in the Ayre, but use no Glasse." (46). Pietro della Valle (1623) had travelled much in Gujarat, "The use of glass windows ... being not known there." (47). Ovington (1639), "The Windows are without Glass, and kept open for the Convenience of the fresh Air ..." (48). The most informative comment is by John Fryer (1672-1681), "Glass is dear, and scarcely purchaseable (unless by way of Stamboole, or Constantinopel, from the Venetians, from whom they have some Panes of Painted Glass in Sash Windows) therefore their Windows, except some few of the highest Note, are usually folding Doors, skreened with Cheeks, or Letises, Carved in wood, or Ising-glass, or more commonly Oister-shells." (49).

The glass used in the Gujarati Divanhana was not in the form of window panes, but as a filling to a trellis or Jalli situated above the regular window. The same practice was found at Bijapur (50), and the two seem to be inter-related. In other words, the intention was not to be able to look out through the glass, but to let coloured light enter and heighten the decor of the interior. The window itself was made of solid shutters which completely closed off all light when closed.

It is a curious point that the elegance and richness of the Divanhana was not matched by a corresponding improvement in the entrance stairs. These remained narrow and steep. The reason
was that there was no other model to go by. The more comfortable dog-leg stairs, also found in many Gujarati houses, is a late development borrowed from European houses of the 19th century. The only change made in the stairs, and that too in only a few examples in North Gujarat, was to make them solid. These will be described later as they are not typical for this sub-division.

With the above, we reach the end of the details of the second stage of the development of the urban house (the first being the introduction of the front Khedki and the terraces), and may briefly recapitulate the usages of the house. These are so similar to those already mentioned for the rural house that much need not be said. The details of the sleeping, dining, receiving of family guests, bathing, storing of goods, lying-in, were virtually identical with rural practice - and this had to be so because the rear 3-part of the house had remained almost unchanged. The only significant changes in domestic custom were the following. The Kitchen and Water Storage had moved out to the Chowk. The custom of going out to the fields for evacuation had given way to the use of latrines situated within the common Khedki or Pol. Drinking water, previously fetched from wells and ponds outside the settlement, had now to be drawn from either private wells or private cisterns. The terrace had begun to be used as an alternative open place for sleeping. Increase in the family was now met by building vertically rather than horizontally. The vertical growth was matched by permitting married sons to occupy upper floors of the dwelling and to keep their wives near to them.

Regarding the superstitions associated with the dwelling, those already mentioned earlier continued to prevail. But here two new points must be mentioned. It was our observation during field surveys that the Kitchen and Water Storage rooms were always next to each other, and generally located to the right of the Chowk as one faces the entrance. The frequency with which this occurred seemed to hint at some ritual reason, but we could elicit no information about the custom. The Śāstrī
texts do have prescriptions governing the directions in which particular parts of the house must be located, but these directions are with reference to specific points of the compass. The Khadki or Pol in Gujarat has never any fixed direction, and accordingly the individual houses face all points of the compass haphazardly, so that the Sāstric injunction is certainly not being followed. The only explanation which seems appropriate is the same as given earlier in the case of the two Ordos of differing sizes (see page 160), namely that the right side of the house must have been considered the more auspicious or superior side.

The other superstition refers to a matter in which we do find a correspondence between textual prescription and actual practice. This is technically known as Vedha. The dictionary meaning of the word is 'piercing', and in architecture it means that any opening in a surface, i.e. a door or niche, produces a piercing effect on any object in front of it and this will have harmful consequences. To meet this some corresponding opening has to be made in the opposite wall surface and by thus balancing the two Vedhas an equilibrium is reached. The rules regarding Vedha are given in, for example, the Samarāṅganasūṭra-dhāra (chapters on Karnavedha and Grābhodshnirupana), the Visvakarmāprakāśa (7.74 to 7.78), the Brāhatsamhitā (53. 76 to 53. 78) and the Rājavallabhā (5.27). They are all similar in content and it is sufficient to reproduce only two of them, one namely from the Brāhatsamhitā, "If a path, tree, opposing house-corner, well, column spring, produces a Vedha with the door, then it is insuspicious" (51). (The translation is from the Hindi translation of the original). The Gujarati edition of the Rājavallabhā, with Gujarati translation, is interesting for it gives the indigenous point of view. It reads:

"A tree, house-corner, water-source, column, well, path crossing the house, temples and Kīla (post or peg), coming before a door create Vedha and are to be discarded, but if open space equal to twice the house-height lie between the two then there is no Vedha." (52). (The English translation is by me from the Gujarati).
The main Vedha, so far as our study is concerned, was within the house, and the chief measures taken by the architect were as follows. Every door had to face a door. Thus, all the central doors of rooms located axially were put in one line to neutralize each other. If no corresponding door could be placed (as for example in smaller rooms), then if possible a window or at least a wall-niche was made opposite the door. In our survey we found this practice carried out meticulously and a glance at the various house-plans will show how the openings consistently face each other and/or are aligned. Numerous wall-niches, which at first seemed useless, became meaningful once this custom was realized. The house-owners were themselves quite aware of the meaning of Vedha (pronounced Vēḍ), and the removal of the defect was called Avēḍ'. The rules of the Vedha filled the house with symmetrical openings and there was not a single wall which did not have at least one tiny niche in it. These gave the house a very strange internal appearance.

Before proceeding to the final stage of development, something must be said concerning the relationship of the urban house to the urban lane (or street) in front. It will be recalled that the Khadki pattern of settlement had made the common space between houses a community space which at the same time served as a circulation space. In towns, with the break-up of a rigid caste structure within Khadkis and Pols and with the gradual removal of Khadki gateways, the common Khadki-spaces became more and more into lanes which were used by a great variety of people. In many cases the Khadki cul-de-sacs were broken through with passages which allowed people to move from Khadki to Khadki under protection of the Pol-gateway. The transformation of the Khadki common-space into a public path did not completely remove the private character which had once governed it. The residents continued to look upon the lane as 'theirs', and continued to use it for all those social activities which were customary in the rural Khadki. All public ceremonies, such as marriages,
festivals, gatherings, would be held partly within the dwelling and partly outside in the lane. Small canvas Shamians or Mandeeps (tent-like structures on bamboo poles) would be temporarily erected before the house and no one was supposed to mind if it dislocated traffic. At other times children would play in these lanes as if it belonged to them, housewives would often wash their vessels squatting on the edge of their house-plinths and use the mud from the lane to scour their vessels. Kitchen refuse would freely be thrown out into the lane. Thus, the lane (or street) retained its private, domestic character because the tradition, once established, would not change. Even with the coming of vehicular traffic these inner lanes and streets are still used in the same way, namely as extensions of the domestic space, and this gives to them an intimate character which is quite un-urban.

Development of the Haveli-Stage 3

(We come now to the final development of the urban house, namely to the Haveli. The common meaning of this word is that of a great mansion associated with wealth, status and size.) The dictionary meaning is similar but adds that the word is of Persian derivation. In architectural terms the Haveli was nothing more than a very grand version of the urban house already described. The increase in size was achieved by the device already known in the village, namely the duplication of parts. (Instead of the single Ordo there might now be two or more. The standard was two and the 2-Ordo dwelling became very common among the wealthier families of North Gujarat. As in the village, the row of Ordos would be followed by a long, continuous Parsel and this by the Reveshi. The Chowk or courtyard now became very large, corresponding to the large width needed to accommodate the numerous Ordos. The sides of the Chowk had the usual spaces, namely a passage to one side, and on the other the smaller rooms for Kitchen and Water Storage. One additional room now made its
appearance: the Puja-room (prayer room). It had to be located after the other two because the Kitchen needed a direct entry from the Parsal and had to adjoin it, the Water Storage naturally came next, and the Puja-room came as the third of the row. The prayer-room was not a common feature of the rural house, and here we have again a purely urban phenomenon. It is not as if only Brahmin houses had them: many other castes had Puja-rooms, particularly the Jains, and with the spread of Vaishnavism many Vaniyss took to the custom. (These three small rooms were soon joined by a covered passage running in front and meeting the Raveshi-passage to the rear. In this way the Chowk now had covered passages running on three sides, and it was natural for this to be continued on the fourth side as well, i.e. the Khadki-room side, thus enclosing the courtyard completely by passages. The Khadki-room was designed in two ways: it could either be a single, long room running the width of the house, or, as was more common, it too had duplicate spaces. One of these functioned as the entrance lobby, the other as a storage or office. The front of the house had the usual shallow Otlo running the full width of the house. In many houses a small latrine with its own sewage well was added to one corner of the Otlo thus giving to the family a private privy, and they no longer had to use the common privies of the Pol. This, then, was the Haveli.) The plan of a typical Haveli can be seen in Ill. 176.

It will be observed that the difference between the Haveli and the normal urban house was one of degree and not of kind, i.e. the difference was quantitative, not qualitative. All of the architectural features already forming the repertoire of the craftsman were re-introduced and merely given greater dimensions and number. Nothing fundamentally new was added. The innate conservatism and lack of innovation in domestic architecture is here strikingly confirmed. The owners of the Haveli had wealth to display and a desire for ostentation, yet the architects could do no more than merely repeat cliches. The
changes which did eventually come, and they came with a rush, were those which derived from European architecture on Indian soil. During the period of this study, the Portuguese in Goa and the British in Bombay had begun to construct buildings in the Renaissance style and these were seen by merchants and imitated by their craftsmen. The imitation first took the form of adding small details here and there to the traditional house, as for example the use of attached Roman columns on elevations, and later to changes in house-plans as well. All of these changes are outside the scope of this study and they will be noted only when unavoidable. The point here is that the houseowners themselves were not averse to change; they welcomed it when opportunity offered itself; what was missing was the capacity for making innovative changes on the part of the craftsmen. These artisans, carpenters, masons and architects belonged to castes traditionally considered inferior; they worked at a level of great simplicity bordering on primitiveness; their education and training was little above that of a rural worker; so that all they could do was to work harder and more skilfully at solutions which were already codified and accepted. In effect, the attention was directed towards a perfecting of details rather than a re-thinking of fundamentals. The fault lay with the social system which kept the artisan at the bottom of the hierarchy.

The multiple Ordos of the Haveli permitted one new functional space to arise, namely a special room for the lying-in. It has been shown already that with the shifting of the Kitchen from the Ordo, that room could be used for lying-in and menstruation, but this function was in addition to others with which that room was associated. Now that many Ordos were available it was natural that one of them should be used exclusively for lying-in and menstruation and where there were three Ordos, the third one was made much smaller than the other
two and reserved for this function. This smaller Ordo, designed for this specific purpose, was called a Ga\textsuperscript{\text{\textregistered}}j\text{\textregistered}. When not used for this purpose it became a general storage room which was emptied of its contents when lying-in was approaching. The presence of the Gej\text{\textregistered} was a sign of status for the family because the female could withdraw into complete privacy in this room. The Dattank\text{\textregistered} (sewage well or latrine) was also placed here. Where there were only two Ordos, we found in many examples that still one Ordo was made much smaller than the other in order to serve as Gej\text{\textregistered}. The extreme smallness of the room was clearly designed to accommodate one sleeping person comfortably in it. And, as already explained, this smaller Gej\text{\textregistered} had to be on the left of the larger Ordo. (Ill. 463)

The long P\text{\textregistered}r\text{\textregistered}al in front of these multiple Ordos had now become a very large space and it permitted the introduction of yet another small new feature into the interior: the Swing (Hinchko). We have so far not spoken of this item of furniture unique to Gujarat because it presented certain difficulties. We shall explain this whole situation in depth. The Gujarati Swing is a flat wooden board supported at two ends by metal chains which are fixed to beams over-head. The board or seat is large enough for a person to lie upon it and frequently it was used just for this. But generally its main purpose was for elders and honoured guests to sit upon it and by continuous swinging get fresh air on to their bodies. The guests would, of course, manage the swinging with their own legs but if the host wanted to be particularly affectionate he would insist on doing this for the guest seated next to him on the Swing. It was a mark of respect and honour for a guest to be invited to share the Swing. Conversation would be carried on not only with the Swing-partner but with everyone else while continuously swaying in the air in a most remarkable manner. In expensive Swings the chains would be of brass and carved into most intricate designs.
Now, the Swing requires a great deal of space for its movement and the relatively shallow Farsal does not permit the Swing to be placed parallel to its length. If this is done, then the movement of the Swing will bring the person up to the walls of the Farsal and it will fail. Instead, the Swing has to be placed at right-angles to the length so that it swings out within the long length to either side. In other words, the Swing becomes practicable only in the Haveli where the Farsal is long. In the normal house of narrow width this is not convenient. And yet, so highly valued is the Swing that it has been forcibly inserted into many houses despite the shortage of space. In many it was placed inside the Ordo - obviously an after-thought; in most it was in the front Khadi-room. But the real place for the Swing is in the Farsal, i.e. in the space where intimate visitors are received. It was because of this uncertain location of the Swing that the subject was kept pending till now.

The origin of the domestic Swing has not been documented but there is some interesting evidence on this point. There exists a tradition in Gujarat, particularly among nomadic tribes of Saurashtra, for the small child to be kept in a hammock during the major part of the day in order to free the mother for other work. This hammock is normally a piece of cloth stretched between two convenient pegs (in fields any two branches of trees will do) and once given a gentle push it will keep moving, and the child quiet, for a length of time. In better homes the crude hammock is replaced with a regular constructed trestle of wood and cloth which can be set up on the floor anywhere in the house. Well known trestles of this type are made in Sankheda. It will now be clear that the custom of swinging a person to make him comfortable goes back to an archaic tradition whose beginnings are lost in time, and that the domestic Swing is derived from the primitive hammock. The grown up adult enjoys the Swing because he has experienced it as an infant.
(It may be added that the cross-wise location of the swing in the Parsal made it compulsory for the over-head beams also to be laid cross-wise. This point is discussed later).

Another interesting feature of the Parsal was the use of wall-pegshaped to look like prancing horses. The normal wall-peg was a short, rounded piece of wood turned on a lathe and fixed into the wall with some 15cm projecting. It was used for hanging up clothes, turbans and caps. In many houses this rounded peg was replaced by a larger, oblong piece of wood carved into the front part of a rampant horse (Ill. 168). These horse-pegs look very attractive and it was our first thought that their only purpose was decorative. But a number of other considerations go against this interpretation. Firstly, the horse-peg is found only in the Parsal and nowhere else, even though the normal wall-peg is found in many other parts of the house. Secondly, we found in a few significant cases that the horse-peg was fixed, not to the wall, but to a corner of a window-frame (see Ill. 63) in such a manner as to make it obvious that it was a later addition. Why was it added later and why in this peculiar non-functional manner? Thirdly, why was it that it was always the horse which is the motif but never any of the more common and popular animals of folklore such as the bull, the elephant or the lion. The most logical animal would have been the elephant, being the classical bearer of loads. Fischer and Shah (52.e) found horse-heads used extensively in Saurashtra, for example in Tolas, and add, "No information could be obtained as to the significance of horse-heads." It seemed to us that there was more to this phenomenon.

The Pramânmanjarī, a very valuable treatise on wooden domestic architecture, refers to these horse-pegs as follows:

"In all dwellings horse-pegs (turaga) should be fixed to the left and to the right, in door-walls (meaning those walls which have doors) and rear-walls."
"They are suspicious if facing the house-entrance, and not the other way. They should be tranquil, placid; their forelegs bent (to denote prancing)."

"But in the house of Yavana (Muslim or foreigner) there should be a rajadanta (round peg) to the left and right and no harm accrues."

(I am indebted to Shri M.N.Gandhi for this reference; the translation is based upon his.) (53).

The above textual prescription makes it clear that the horse-peg was considered auspicious but in which way it is not mentioned. The horse does not figure in any religious ritual in classical Hinduism and is altogether an insignificant animal in mythology. Why then is it prescribed? On the other hand, it is precisely the horse which figures as the main votive animal in the tribal cults of the Bhils and of the lower castes in South India. In "The Village Gods of South India" by H.Whitehead there appears the following, "He (Iyener) generally has a shrine to himself, and is regarded as the night-watchman of the village. The compound of his shrine is generally crowded with clay figures of horses, great and small, on which he is supposed to ride round ... to keep off evil spirits." (54). Koppers and Jungblut, in their exhaustive study of the Bhils, unfortunately do not give details about the horse-figure, but it is well known that clay horses are offered to the village shrine (Mélvan) every year and soon accumulate into dozens spread about the deity. In Bhil houses at certain religious ceremonies wall-murals are made consisting of images painted on the wall in various colours, and the chief motif here is again the horse (see Ill. 93a). Our own observation showed that in many cases the horse was shown rampant and with the phallus erect. Enquiries from the inhabitants drew confused answers and the matter could not be examined in detail because of their obvious reluctance. It seems to us quite clear that there is a magical-ritual association with the horse and this
is most probably dealing with fertility. The fact that the painted image of the horse and the carved horse-peg appear in exactly the same location and the same room in both the houses (Bhil and urban Gujarati) cannot be without significance. If this reasoning is correct, then the horse-peg is derived from the primitive tribal cult and it is placed within the Parsa precisely because in the traditional house that was the original place for the lying-in. Further, the example of the horse-peg added to the window-frame would indicate that in that particular family there had been a lack of fertility and hence the auspicious symbol. The families we questioned on this point knew nothing about any such practice, but neither could they explain the peculiar location of the horse. The fact that even the Pramānanjari insists on the horse being rampant fits in with its role as a fertility symbol because that is exactly the posture during copulation. A rampant horse as a mere clothes-peg makes no sense.

The upper floors of the Haveli generally repeated the spaces of the ground-floor and no lengthy description is necessary except to note a few points. The Divan-khanu of the wealthy family now became something magnificent. There is an example from Vaso in which the Divankhanu has a carved wooden ceiling showing scenes from the Rasalila as a centre-piece within the geometrical pattern. The woodwork in general became equally grand with a profusion of mythical figures carved into brackets and balconies. The inner courtyard, surrounded by a columned passage on the ground-floor which became an open veranda on the first-floor, was the arena in which the most lavish carvings were displayed. The effect was heightened by the use of colours, applied both to woodwork as well as to wall surfaces, and the total effect of so much decoration concentrated into this relatively small space was stunning. The fact that so much was displayed in the Chowk is an indication of its purpose: namely to astonish the visitor, for it was around the Chowk that all formal and ceremonial meetings were held. The other space full
of decorations was the Parsal, where the more intimate meetings would be held. We thus get three main areas of display: the road-side elevation, the Chowk, and the Parsal - and they tell us that that is where the visitor was expected (Ill. 183, 185).

There was a fourth place of display which must now be mentioned. In a few very selected Havelis there was over the normal three storeys yet another fourth storey built as a small pavilion surrounded by a great expanse of terrace. This pavilion was modeled upon that of a royal palace and consisted generally of a single room with a columned veranda all around with decorative arches in wood. The room was meant for the host and his male friends to retire into at night in order to enjoy the pleasures of wine, women and song. It was furnished accordingly with all kinds of decorative knick-knacks, but the walls were covered with murals of an erotic nature. James Forbes, in his "Oriental Memoirs", refers to such rooms, "Many Indian princes, Hindoos and Mahomedans, as also the wealthy nobles have a favourite upper chamber, with walls and ceilings covered with mirrors of every size and shape; in the centre is a sofa, or a swinging bed, suspended from the roof ... This apartment is sometimes decorated with indelicate paintings, in a wretched style, suited to their depraved appetites ..." (55). But it must be added that in Gujarat the 'wine, women and song' was always subdued and rare; and frequently instead of erotic paintings the murals were quite innocent landscapes resembling miniatures. Under the influence of Vaishnavism many such chambers had religious themes depicting the Krishna cult. The origin of such painted chambers seems to go back to the classical Citrāgalā which every royal monarch was supposed to have as a matter of custom. There is an interesting reference in the Triṣṭitīśīlaśūtruśacitra of Hemacandra where an ideal house is described, "In every house there are horses; in every house charity; in every house picture galleries, in every house theatres." (56). Since this was written in Gujarat it reveals the model
which was anciently set up for the rich mansion, and it shows the persistence of the tradition when the medieval Haveli emulates the Citrasālā.

We have mentioned above, and earlier on (page 213), the influence of Vaishnavism on certain domestic customs, and this is the appropriate place to add something of importance to this subject. It is our observation that a great many of the motifs which appear in the carvings of the Gujarati domestic house and the Gujarati Vaishnava temple (known as the Haveli-temple) are identical. For example, the Apsaras playing musical instruments, the mythical composite beasts (part man, part lion, part elephant, etc.), the mythical birds, the rows of elephant heads, all of these appear in identical fashion in both buildings and it is quite obvious that they are made by the same craftsman. But the question is: How did the domestic house acquire this kind of motif? The matter is not as simple as it appears.

The classical texts have rules which forbid the appearance of many motifs within the house. The Samarāṇasūtraāṅga forbids the following (the list is selective): gods, daityas, grahas, stars, yaksas, gandharvas, vidyadhāras, nāgas, ..., apsaras; scenes of battle or hunting; chariots; (among birds) vulture, owl, pidgeon, hawk, crow; (among animals) elephant, horse, buffalo, camel, cat, donkey, monkey, lion, tiger, pig, deer. (57) It will be noticed that many of the forbidden creatures find a place in the urban house. Among those permitted are: objects arousing devotion, family deities, pretiharas, treasure, gauri, lakṣmī, cows, leaves and flowers, females in love-play (ratikrida), water (lakes, etc), (among birds) partridge, parrot. (58)

An examination of the above lists will show that the motifs which are permitted are those which symbolize plenty, peace, personal devotion; those forbidden are those symbolizing energy, fierceness, animal-qualities. And yet the urban house had motifs which should not be there: elephant heads, mythical beasts, apsaras. In one very curious example from Baroda there
is a carving showing a peacock devouring a scorpion. This non-compliance with classical rules is not due to ignorance. It is due to the appearance of a later and stronger tradition: Vaishnavism. Popular Vaishnavism brought a host of mythical motifs into the domestic sphere by putting them onto the decorations of the Haveli-temple. The Haveli-temple was a domestic house converted into a temple (its origins will be discussed in a separate section, see page 413). Once the precedence was created, the next step was for these motifs to reappear in the Haveli itself. Creatures, hallowed by the Vaishnava tradition, ceased to appear fierce and dangerous and became instead part of a devotional atmosphere which tamed them all into docility. It is in this manner that so much of the fantastic themes of carved woodwork found their way into the domestic house of Gujarat.

A subject related to the carvings is that of wall paintings. Wall paintings (murals) were a common feature all over North Gujarat and Saurashtra. They appeared both internally and externally. The immediate precedence for the custom seems to be Rajasthan. T.N. Mukharji made a study in 1888 of the "Art-Manufactures of India" in which he wrote about the art of 'fresco' which is, for our purpose, the same thing, "Fresco paintings - Grotesque figures of men and animals are painted on walls all over the country ... Soldiers, tigers, and elephants are favourite subjects ... this kind of work is executed by masons..."; he then continues by quoting a Dr. Hendley, "It is the fashion in Jaipur, and many parts of Rajputana, to cover the outer as well as the inner walls of houses with paintings of various kinds, such as battle-scenes, figures of elephants, or mythological subjects, in various colours."(59). The extreme popularity of this kind of art in Rajasthan would make that the source for Gujarat. Also the themes selected, namely of those of a distinctly martial kind, point in the same direction. During field survey we have found such murals both in villages as well as towns, and the two most popular motifs are soldiers and elephants (Ill. 292).
They give to these houses a very festive appearance externally and although much of it has today faded away, it is certain that the art was extremely wide-spread once. The interiors in Gujarat have, on the contrary, more peaceful subjects such as landscapes, birds and flowers, all done in a very simple and unsophisticated manner. It is in fact a form of folk-art and has little to do with classical traditions.

Continuing the subject of decorative elements in the urban house, we now come to a modification which occurred in the first-floor facade of the building. By facade we mean the side of the building which faces an observer along the axis; in this case there were two such facades, one facing the road, the other facing the inner courtyard. Our remarks apply to both these facades. Hitherto, the first-floor facade was constructed in half-timbering or timber-bonding so that the elevation showed two materials: wood and plastered brick. In some cases this was now altered to make the facade exclusively in wood. In other words, the whole front was constructed of thin wooden uprights and planks inserted between them (Ill. 192, 253) making it look like panelling. Now, this technique is very unusual for Gujarat and proof of this will be given in the chapter on construction (chapter five). The origin of this alien technique will also be analyzed there, and here it must suffice to say that it appears to have been derived from West Asia, i.e. from Muslim practice. The reasons why this unusual technique was adopted are not clear; but it seems to have been motivated by a desire for yet more decoration. The all-wood frontage gave opportunity for more carving to be applied, and as the illustrations will show (for example Ill. 192 & 215), this was applied with a lavishness which surpassed even the past exuberance. The whole surface of wood was literally covered with a minutely chiselled network of geometrical-floral patterns executed with incredible accuracy and sophistication. Here was no folk-art, but a fully matured and rich (too rich !) tradition strangely resembling textile design! It was not architecture but embroidery!
When we seek for an origin, not for the structure but for the decorative pattern, we come upon the wooden block used for textile printing! A glance at a specimen of one such block (Ill. 868) and a comparison with the facade will at once show the similarity. We are driven to the conclusion that both were made by the same craftsman. This is, of course, not at all surprising when one considers that carving in wood is common to both professions: that of the block-maker and that of the carpenter. The block-maker was indeed a carpenter working to a different scale and with a different objective. The technique of carving in both was quite similar, namely working out a pattern in very slight depth from a flat surface. Block-making was associated with the textile industry and Ahmedabad was at that time a great centre for this, and it is significant that this kind of carved wooden frontage also appears predominantly in Ahmedabad and its vicinity. Towns further away, such as Beroda, Broeck, Surest, Cambey, and the whole of Saurashtra, have scarcely one or two specimens to show while Ahmedabad has hundreds. Towns which were apparently more under the influence of Ahmedabad, such as Petan (ancient Anshilasura), Palanpur, Radhanpur, Siddhapur, all contain much of it, so that it can be said with certainty that the style originated in a part of North Gujarat which had Ahmedabad as its centre. It is interesting to speculate why this kind of wood-carving did not spread to other parts of Gujarat, and the only possible reason must be that those who were block-makers (and simultaneously did wood-carving) were disinclined to migrate elsewhere since they were fully occupied in these few North Gujarat towns. This fact would give an indication as to the kind of textiles being manufactured in various towns, i.e. textiles requiring blocks were mainly being made in the northern parts of North Gujarat, while other techniques were being employed elsewhere.

One other point of interest here is the following. All of these all-wood carved frontages had purely floral and geometrical patterns, they did not carry any human or animal figures even though
they appeared extensively in Hindu houses. Now, this is very curious because mythical figures were otherwise greatly preferred by Hindus. The first and obvious explanation would have been that the profession was chiefly in the hands of Muslims and they would naturally avoid figurative work. But discussions with scholars specializing in medieval textile design (60) disclosed the fact that this was not so: Hindus were largely occupied in textile manufacture and were, besides, the chief carvers in wood. Further discussion brought out the curious fact that textile design itself had almost exclusively floral and geometrical patterns and an absence of figurative work. Why this should be so is a matter for textile experts to discover; here the remarkable correspondence between textile designs, block-making, and one style of wood-carving (there are others) is established, and we may conclude that textile design was the origin of the style. A few literary references in this connection are worth quoting.

Sir George Watt, who was responsible for publishing the official report on "Indian Art at Delhi - 1903", was commenting on a wooden Rajasthani door and wrote, "The higher portions of the carving look in fact as if originally prepared as blocks for the calico-printer, the edges of the minute incised pattern being brought to a smooth surface." (61). It is remarkable how the author had discovered the similarity after seeing only a few examples. Regarding textile design in Gujarat we quote from "Indian Painted and Printed Fabrics" by John Irwin, "Not only did pre-Islamic traditions persist tenaciously throughout the Islamic period in Gujarat, but there was in fact an underlying unity of regional culture which to some extent transcended religious iconoclasm, and there is no field in which this is more obvious than in the local conventions of decorative art." (62).

And again, "The unity of style occurs because the makers of print-blocks are small communities of wood-carvers who specialise in this work, preserving their traditional patterns which they repeat as the printers order them." (63).
These references make our conclusions quite certain on two important points: namely that block-making was the origin of the style, and that pre-Islamic patterns persisted throughout.

We may now conclude this description of the North Gujarat Haveli with a few minor details. It will be recalled that the development of the first-floor Divankhanu had rendered that space into something very magnificent, and that the owner spent most of the day there receiving clients. It now happened that he would take to sleeping there at night also (it was already furnished with mattresses and cushions) and this custom was already sanctioned by the past use of the 'Khadki as a place for the aged to retire to (see page 133). The presence of the head of the household in the first-floor, plus the magnificence of the space, changed the status of the whole first-floor from one originally low to something approaching superiority. This would induce other senior members of the family to also want to spend much of their time in the first-floor, and we could observe in a few examples how the whole first-floor gradually began to be better furnished. The carvings and quality of woodwork would improve, as also the floor and wall finishes, there would be added a Swing or two (one in the Divankhanu, the other in the rear upper-Parsel), small platforms for Water Storage, and even a place for washing and bathing. This was a corner of one of the rooms, separated from the rest by a low curb, and plastered with lime or stone-paved, with a gulley for water to drain down via pottery pipes. This corner (called a Chokdi) was also used for urinating during night. To facilitate the supply of water, and to avoid it having to be carried up on the head, a hole was made in the floor just above the ground-floor well and Tanku-head. Through this hole water could now be drawn up directly without any further assistance. Another very interesting feature, found by us in only one house in Baroda, was a similar hole in the upper-Gajer closed off with a wooden lid, which could be used by a female during lying-in in the first-floor. This hole lay directly over the ground-floor Dettankua (sewage pit). All
of these features gave an indication how the first-floor had begun to be used as a respectable part of the common residence.

In some of the Havelis we found the use of something normally very rare in Indian architecture: the chimney. Edward Terry (1615) remarked upon this, "They have no chimneys to their houses, for they never use fire but to dresse their meate."(64). What he meant was that they used fire only for cooking and not to heat their homes as was the custom in Europe. The absence of the domestic chimney had always been a problem in the dwelling and no effective solution had been found. The appearance of these chimneys built into walls and taking the smoke high up over the roofs was a novelty and it seems that the only source of the idea must have been European houses built in Goa, Bombay and perhaps Surat. In one house in Broach the chimney had an opening on the first-floor as well, thus indicating that cooking was also done on that floor, but this was unusual. The covering of the chimney was typically Indian: a domical form resembling a temple Mandap, and two elegant examples can be seen in Ill.66 and 738. The largest chimney seen by us was in Bhavnagar; it measured some 150cm across and rose up like a turret out of the house and was covered by a metal grill. Such large chimneys could only have been for families which gave large caste-dinners on their premises. Another similarly large chimney was in the house of the Nagarseth of Surat. Both these families had known dealings with the British and were leading citizens of their towns.

Something must now be said about the ground-floor window. Hitherto we have spoken about windows only in the first-floor (page 196), and of small ventilators in the ground-floor. The ground-floor window was generally rare because of the need for security. The rural house had hardly any. The urban house had some, copied from the Haveli. The location of the ground-floor window was at three places: in the wall of the Parsal facing the Chowk, and in the two walls of the Khadki-room facing Chowk and
Reasons of security compelled all of these windows to have iron bars (Ill. 187). The origin of these iron bars is intriguing because the use of iron in domestic architecture was generally little. This point will be discussed at length later (chapter five), and here we shall only say that there is clear evidence that iron bars identical to those used in Gujarat were prevalent in Islamic buildings of West Asia of a much earlier date. While an earlier date is not decisive, it does give an indication. The use of barred windows gave to the Haveli somewhat the character of a fortress, and in this aspect they strongly resemble Italian Renaissance palaces. (The magnificent Divanhana with its rows of windows was again similar to the Renaissance piano nobile. In fact, a good comparison could be made between the Haveli and the palazzo, both serving merchant princes.) The cill of the ground-floor window was raised some 100cm above the floor level, while, as we saw, the windows of the upper floors went down to floor level. This difference in treatment derived from their functions. The ground-floor window had been introduced primarily for ventilation, the upper floor windows for sightseeing. An anomaly here was the fact that the parsel window also had a raised cill: it should have logically been at floor level in order to bring the breeze onto a person sleeping on the floor inside. But this was never done. The reason for this omission is not clear, but one very likely reason was that a window at floor level would also enable anyone to look in from the Chowk and see a person, say a female, sleeping on the floor just behind the low cill. This would not be desirable. The high cill gave privacy to the interior and that is why, on the important ground-floor, all the windows had high cills. This inconvenience would not exist for the first-floor elevation and there the windows could have low cills. The internal windows, even on upper floors, had high cills.

A very interesting variant of the iron-barred window was the window with bars of wood. There is not the slightest doubt that the latter was the earlier form. The use of wood even in
this sensitive place underlines the overwhelming dominance of woodwork and carpentry in Gujarat. These wooden bars were carved into the most beautiful patterns having a close mesh so that while air could enter, no one could look in. They functioned virtually as screens. Very few of these windows survive because they were over-taken by the stronger iron ones (Ill.83,330). Yet another variant of the wooden screen was a design in which the wood was cut into long, undulating strips and placed crosswise in two diagonal layers (Ill.448). It will be noticed that the holes of the screen resemble 'eyes' — to be more exact, cow's eyes, and it seems to us that when the classical texts speak of the Gavāksha they mean this kind of screened window. Hitherto scholars have taken it to mean a whole window shaped like an oval, but we have not come across such an oval window which is not copied from later architecture. The oval form does not fit into a carpentry tradition which, perforce, deals more with straight pieces of wood. The Gujarati screen starts with straight pieces and only cuts away portions along a curve. The oval would require wood to be bent into shape and is not common in carpentry. The Gavāksha screen, in contrast to the wooden bars, was extremely common but, of course, it could only be used in internal windows because it was not safe. The wooden strips used were thin and could be broken with ease.

The last feature of the Haveli which we must mention concerns security of a different kind. The open Chowk in the centre of the house was a weak point in its defence. An intruder could climb over from a neighbouring house, cross the terraces, climb down into the Chowk and enter the rooms at night. To safeguard against this a large iron grill was stretched across the top of the Chowk if the span was not too much. In some cases two such grills were placed, one on each floor (Ill.32 ). But if the courtyard was too large, then nothing could be done. This eventuality would only arise in the very largest of Havelis and possibly in those cases some kind of watchmen were posted within the Chowk for security.
There was also some danger of intruders climbing up to the roof-terraces and entering, not via the open Chowk, but via the doors of the top floor by breaking in. They would only have to climb down the regular stairs to reach the ground-floor. To guard against this kind of entry each stairs was furnished with a sliding trap-door which could be closed off and locked either from above or below. The trap-door had a wooden grill in it through which the intruder could be spotted (see Ill. 542). Many informants told us, wrongly, that this trap-door was intended to ward off an attack from below, but, as already explained, the treasure, if any, was kept in the ground-floor and there would be no point in defending it from above. The far more likely danger came from above where the presence of terraces provided an entry to thieves. The whole misunderstanding comes from a wrong interpretation of security. The house was not designed as a place for rear-guard action where the inmates withdrew to the upper floors successively closing doors and trap-doors behind them. Rather it was thought of as a place where the most valuable things were kept in the ground-floor and this had to be defended from all sides, including the above. The defence was of property, not of lives. It was a mercantile concept of defence and not that of a warrior. (We shall see later that in the Narathes house the situation is exactly reversed.)

A striking proof of the above can be seen from the following. In some houses of money-lenders, i.e. where a quantity of cash was expected to be kept within the house, this was secreted in hidden chambers in the ground-floor and to ensure that an intruder did not surreptitiously dig his way in through a rear or side wall a very quaint solution was employed. The walls of the Ordo on three sides were covered with thin wooden panelling; any thief digging through a wall would cause reverberations to be set up in the panelling and the sound would at once warn the inmates. No such precautions were taken in the upper floors because that was not the place where defence was envisaged.
Yet another, equally curious, method of tackling security arose in the following way. Once the first-floor Divankhanu had become established and once many members of the family had begun to use the first-floor during the day, there was often no one to watch the entrance door of the ground-floor. If it was kept permanently closed, and if anyone had to be admitted into the ground-floor, then it meant that someone had to climb down from the first-floor, open the door, lock it again, and climb up back to the first-floor. This was a tedious process. To circumvent it a very simple and ingenious device was introduced. In the floor of the Divankhanu, just over the main entrance door, a small hole was bored and a thin iron rod passed through which went down and fitted into a hole drilled in the main shutter of the door. Until this iron rod was pulled up from above, the door below could not be opened even if it was not formally locked. With the help of this device there was no need for formal locking, the door could be left unlocked during the day, and its opening and closing controlled from above. The visitor had only to call and identify himself for the rod to be pulled up from the Divankhanu.

Regarding the secret chambers for storing valuables, mention of some typical methods has already been made (page 148), namely that these chambers were made inside walls and under floors. A very favourite place for them in the urban house was the cupboard. Cupboards were generally absent in the rural house but they had begun to appear in the urban house, and were regularly distributed in all the rooms. The wooden planking of the cupboard permitted a false bottom designed to slide out to be introduced, and this hid the secret chamber underneath. Another location was in the planking which closed the gaps between ceiling joists, while in some cases the location was behind the door-jamb. (All these are discussed again with details in a later section.) The great variety of techniques and locations for concealing wealth indicate the anxiety of the inhabitants on this score, but also reveal the fact that wealth had begun to accumulate.
The most remarkable method observed by us was in a house in Broach. Here the cupboard had a whole false-back which could be opened and from it there went down a passage with steps which opened out into a large underground cellar. The use of such cellars is, however, rare in North Gujarat; they are more common in South Gujarat and this example from Broach seems to have been inspired from that sub-division.

We have now completed detailed description and analysis of the individual urban Haveli in its typical features and may close with some general remarks. It will be readily understood that an architecture which is living does not conform mechanically to norms, it has to make too many concessions to the changing requirements of social existence, so that the actual Haveli on the ground is rarely a neatly organized whole showing all its parts in pristine purity. Many additions and alterations have had to be made in the course of generations. Particularly the exigencies of urbanism, namely the lack of urban space in which to expand, compelled families to make do with the house-plan once established and all that could be done was to set up internal partitions or to expand vertically by adding floors. The adding of floors had its own problems. The increase in weight caused by the additional floors had to be borne by the ground-floor and this could have had damaging structural consequences. For this reason the additional floors had to be kept as light as possible, and this meant reducing the thicknesses of all structural parts such as ceilings, walls, beams, joists, and this automatically gave to those floors a more flimsy and inferior appearance. The top-most floor, despite all changes, continued to have the simple roof-covering of country tiles which was not at all in keeping with the magnificence displayed elsewhere.

Moving from the rich Divankhanu to the top-floor was like moving from a palace to a shed. It is quite remarkable how the ostentatious Haveli retained within itself individual features of an archaic and primitive quality little removed from the village
hut. While the rest of the dwelling might have stone paving or lime mortar floors, the Ordo continued to have the mud Lipan. The grain jars used by the simplest villager were identical with those used by the rich urbane. The steep stairs originating in the primitive loft re-appeared in the mansion. The scarcity of furniture remained. In no Haveli did we find regular and well-made beds of ornate design - sleeping continued on the floor with the help of mattresses and carpets. Chairs and tables were, of course, completely absent. This juxtaposition of great wealth and absence of those articles commonly associated with the home elsewhere points to a lack of innovation. Underlying the whole of the urban life-style there persisted the life-style of the village.

The Haveli, having already a multiplicity of Ordos, could with ease be converted into smaller units in case of partition between sons. The duplication of facilities made this convenient. Two interesting examples must here be mentioned in conclusion. In one composite Haveli in Ahmedabad, we found the partition already effected from the very beginning. In other words, the Haveli was from the beginning in two parts, both identical, and the only link between them was a single door. As long as the family was united they used both parts indiscriminately but once partition became real, all that had to be done was to seal off one door and two separate households had emerged. In the other example, from Kapadvanj, the Haveli had from the beginning three sets of rooms, each with a double-Ordo pattern, i.e. there were altogether six Ordos grouped into combinations of two each. The family was still united and used the groups for individual brothers, and partition would need only the erection of one wall between each group. These examples show that the founder of the family had been quite aware of the need for ultimate partition and had planned correspondingly. Many examples of this kind will be given when individual houses are examined in chapter six.
The Kacheri and Treasury

We now turn from the individual residential house to a different category of building, namely one associated with administration and called a Kacheri. The Kacheri is clubbed together with the Haveli because it was closely integrated with it even though it was architecturally separate. The word Kacheri derives from political administration and was used for a place where matters concerning revenue, legal cases, disputes, etc., were adjudicated. In Gujarat there were many individuals who exercised an occupation called revenue-farming. This practice became common during Maratha times. Under it the revenue of a particular area was collected, not by the ruler or his military representative, but by a middle-man who was generally a local inhabitant. This middle-man was selected through an auction of the fiscal unit. The individual who could successfully bid to collect the maximum revenue from that unit was appointed revenue-farmer on behalf of the ruler and he received both a commission plus his own cut from excessive exactions. The system was ruinous but it enabled the revenue-farmer to accumulate a great deal of wealth in a short time.

Now, for his daily transactions with tenants and scribes he required an office, and this began to be called his Kacheri in imitation of royal practice. Initially the Kacheri was his own front Khedki but as he came to prosperity and status he decided to build a new structure adjoining to his residence for this purpose. Having great wealth at his disposal and also a need to exhibit it in order to maintain his position, plus the political backing of his superiors, this new Kacheri became something large and spacious resembling more a palace than an office. It sought to deliberately dominate the neighbourhood by its size and impress upon the citizens that here was a power second only that of the ruler.
Kacheris of this kind were not very common, and we found barely a dozen during field survey, but they all showed striking similarities between each other and it is obvious that they were emulating a common model. Basically, the Kacheri was a great columned hall, repeated over two storeys, open to one side, the whole resting on a stone plinth of awe-inspiring proportions. The interior was bare except for the low desks used by the scribes (called locally mehtas) for spreading out their books and making entries. The area of the scribes was separated from the public by a low guard-rail. Large doors and windows were distributed symmetrically all around, and at one end of the building was a solid stone stairs for going up to the first-floor. The first-floor repeated the ground-floor, and the roof was a flat terrace with a pavilion or two. Architecturally, there was nothing very extraordinary about the Kacheri except its size. Here everything was taken to its physical limit. The plinth, the width and majesty of the steps, the immense dimensions of columns and beams spanning incredible distances, the huge floor heights, the doors and windows larger than life, all of these were calculated to produce an overwhelming impression upon the lowly tenant and revenue-payee. (See Ill. 555.552 for examples.)

As regards the origin of this kind of architecture, this will become more clear once we have examined Maratha architecture, and it will then be seen that it was the Maratha palace which provided the model. Here we must look into a different kind of problem. The Kacheri being a new building, and its location being near to the residence, how was land found for its erection? The normal residence, surrounded by neighbouring houses of the Khadki and Pol, could never provide the requisite open space for this kind of new structure. The fact is that such Kacheris were apparently never built inside Khadkis and Pols — we found none. All those seen by us were outside the usual residential conglomerations and were located on main streets of towns. Here both residence and Kacheri were constructed in
close proximity to each other, separated by a mere lane or even interlinked, and the arrangement was always that the Kacheri faced the road while the residence was behind it. In some cases the entry to the residence was through the Kacheri and in some cases it was from a lane serving the residence from the rear. In two examples, that of Samal Becher and Lallubhai Parekh, both of Baroda, the residence was linked to the Kacheri by a bridge at first-floor level. This road-side location of buildings, i.e. in defiance of security, was possible precisely because the incumbents enjoyed the special protection of the rulers they served. They had ceased to be mere residents and had become part of the administration. They had no need to hide themselves within Khadi inis and Fols for they had armed retainers to work for them.

Although the Haveli and the Kacheri were in close proximity to each other and often built together at the same time, yet the styles of the two buildings were different. The Haveli continued to be traditional, as described, while the Kacheri followed an alien model. The craftsmen who made the two buildings were the same and they repeated in both the same detailing of doors, windows, ceilings, etc., but the difference came from differences in planning, proportions and scale. The intimacy and human scale of the former gave way to anonymity and largeness. While this is understandable, it is a curious fact that the Kacheri, although planned for ostentation, had very little carving in it. Wood appeared in profusion and in huge dimensions but it was left relatively plain and undorned, and this is not so easily explained. It is not as if carvings would have been out of place in a public building or that the owner was averse to it. No, the real reason is quite different. The Kacheri was imitating the Maratha palace and this model was characterized by just these very qualities of largeness combined with plainness and simplicity. It was this which made James Forbes cry out when he saw the Maratha palace at Baroda that it
was "mean and shabby". This aspect of the architecture will be analyzed in detail while discussing the Maratha palace and may therefore be postponed till then. Here it must be mentioned that the Kacheri was not only faithfully imitating the palace for reasons of style but also that it dared not display more grandeur than its prototype for that would have aroused hostility. The revenue-farmer had to maintain a status inferior to that of the ruler and so the palace set the tone which he had to follow. In his private residence, on the other hand, there were no such restrictions, and we thus find a strange contradiction between the Haveli and Kacheri belonging to the same individual. While the former was small in scale but overloaded with carvings, the latter was huge in size but 'mean' in appearance.

From a historical point of view, the erection of these private Kacheris (functioning as public buildings) was an accurate indicator of the economic and political conditions then prevailing. These private buildings documented the accumulation of capital by a new class of entrepreneurs who did neither trade nor manufacture and yet became rich. The names of these individuals are recorded in the histories of the period and they must have wielded a great influence on public affairs. Along with the political rulers and the Pagarseths they constituted the urban leaders of society. If sheer size of built-up space is taken as a criterion of status, then these Haveli-Kacheri complexes represent some of the largest buildings seen in the town. We were informed by descendants of some of these revenue-farmers that in their hey-day there used to be stables for carriages and chariots, apartments for retainers, and guards at all points. All of these have disappeared.

Related to the Kacheri but different in function was the Treasury. The reason why it is mentioned here is because the kind of building in which it was accommodated was, in three examples known to us, again the residence. The Treasury we speak of was that of State Bankers who were private individuals appointed
by the State for fixed periods. It was their duty to advance sums of money as and when required and to guarantee payments and loans. The three examples were the family of Haribhakti in Baroda, that of Tankshali in Ahmedabad, and of Vyas in Dholka. The name Tankshali is derived from the word Tankshal which means Mint. This family had the charge of the Mint in Ahmedabad when that city came under British administration and they also used to store the coins until demanded. They told us that the Mint used to be within a part of their domestic establishment but of this today only a very small and unrecognizable part remains in Haja Patel's Pol. The family of Vyas in Dholka still have their original house in which the bullion was stored and it is guarded by an elaborate system of winding passages, iron-plated doors and guard-rooms (this building is described in chapter six) but all within the traditional house-plan. It is not certain whether this family were public bankers or mere money-lenders but their establishment was certainly large enough to justify either title. The most famous of the three was, of course, Haribhakti who were bankers to the Gaekwads in Baroda. The lane in which they live once had the Mint in it but this has disappeared. The old residence still exists, greatly damaged and partially renovated, and in this there used to be kept the Treasury. The building is in all respects a Haveli converted to public use without any architectural modifications. The whole lane was once guarded by troops so there was no danger to the building. The point of this recital is to show that even for a function so different as a Treasury no new building-type was apparently evolved and what served for this, and probably a great number of other functions as well, was the stereotyped Haveli. It is quite remarkable how few are the different varieties of buildings which the medieval town had evolved. The obquitous residential dwelling was the prototype which served a host of different functions and the question of the relationship between form and function was never raised at all.
Basically the reason for this state of affairs was that the medieval individual never strictly differentiated between his private functions and his public ones. In the execution of a public role his private attachments and commitments always intruded and his vision and understanding of society was coloured by domesticity. The family, the Khadki, the Pol, these were the social units within which his mind functioned. The concept of a city, an urbs, as something fundamentally different from the Pol was never envisaged. It was precisely because the city had evolved ever so gradually and over a long period of time out of the introvert Khadki that when it did emerge, it was never experienced as anything different. The town was merely a glorified Pol, the city gates larger versions of the Khadki and Pol gates, the city administration a larger version of the Pol administration. The situation would have been different if cities had been founded by those having a different concept of architecture, and this could only have been an alien power thrusting itself onto a subjugated population. But in Gujarat the indigenous tradition had always been strong due to the resources and ingenuity of a very active mercantile class, and whatever rulers came to Gujarat had to seek their accommodation in order to survive. The town in Gujarat remained indigenous, all that the political authority could do was to construct fortifications around traditional settlement-patterns and, within it, to draw up an inner citadel for its own residence. This inner citadel could, and did, have often a foreign character but that did not furnish the model for the urban architecture as a whole. The merchant class already had their own architectural model and its influence was so overwhelming that it was even adopted by the Muslim population (with modification). In the sphere of religious architecture as well, the indigenous tradition proved strong enough to become the dominant influence in the mixed Indo-saracenic style which emerged.)
The urban inhabitant saw the Khadki-pattern as the unchangeable matrix of architecture and the norms set up within it as adequate for every kind of function concerning him. The palace existed but its life-style had no attractions for him. The life-style of the Khadki was the one which he carried into all social inter-actions including the urban, and this meant that he was primarily a private person even when he was engaging in public activities. Because of this blurring of the private and public domains there never emerged an architecture exclusively devoted to public affairs. Whenever a new functional need arose, it was sought to be contained within the same architectural envelope which already housed his family. And this envelope had evolved in the village. Thus, from beginning to end of the development, we find the rural pattern providing the underlying foundation for all urban manifestations. The few exceptions to this rule, such as the Kacheri, are not significant in the over-all context.

It was said in the beginning of this study that North Gujarat furnished the cultural model which dominated the whole region, and as a consequence of this it can be said that it was the North Gujarat Haveli which formed the architectural model for the general house-holder. The importance of this model therefore justifies that we briefly recapitulate the stages of its development.
Stages of Development

Stage 1: Prosperity transforms the village into the town; what was originally a rural house becomes an urban one. Commercialization of occupation brings in its train a new class of visitors to the home: the client. This necessitates the creation of internal barriers and of a neutral zone apart from the private dwelling which takes the form of a new front block (the Khadki-room), separated from the rest of the dwelling by a courtyard. The Khadki-room becomes the business premises.

Stage 2: Two functions, previously located within, become transferred to the side of the courtyard: Cooking and water Storage. A domestic well is added. The shifting of the Kitchen from the rear Ordo frees that room of smoke and the lying-in, previously in the Parsel, moves into the Ordo. The change in functions in the Ordo renders that room relatively disused and it remains locked up most of the time. The Parsel area next to the new Kitchen becomes differentiated into a dining space. Windows appear in the Parsel and Khadki-room for ventilation. The small rooms adjoining the courtyard receive flat terraces. Pollution of the domestic well leads to the construction of under-ground cisterns and collection of rain-water from terraces.

In some houses the business premises is shifted to the upper Khadki-room and this room is made ornate (Divenkhanu). The head of the family begins to spend most of his time here and this raises the status of the whole first-floor, tempting other family members to use it more. But the all-important hearth remains in the ground-floor along with storage of valuables, so that the ground-floor retains its status as the most important part of the dwelling.

Married couples are permitted to sleep in proximity. Increase in members of the Joint Family is met by allotment of upper floors to couples and construction of additional floors.
Stage 3: Appearance of the Haveli as a multiple of the normal dwelling (multiple Ordos and twin Khadki-rooms). All internal functions remain unchanged except that one Ordo now becomes differentiated into an exclusive lying-in room. Addition of a prayer-room. Addition of a roof-pavilion embellished with paintings and used for masculine entertainment. Increase in terraces to match increase in size of cisterns. The Haveli permits easy and convenient partition of the common house into sub-units between married brothers. It also permits the front ground-floor rooms to be converted into shops or even rented out.

Stage 4: A few exclusive Havelis add a new block proximate to the dwelling (the Kacheri) for administrative functions (revenue-collection), and link it with the former.

Influence of Traditional Architecture on Contemporary Attitudes

Having completed the description of the North Gujarat traditional house, we may now give an answer to the following question posed earlier: In what way does the traditional Gujarati house influence contemporary attitudes to the dwelling? We shall put this in the form of brief conclusions.

(a) The individual family conceives of the settlement, not as an anonymous grouping of units selected at random, but as a closely-knit collection of families which, if not of the same caste, are at least of related castes. The introvert and intimate character of the Khadki is sought to be imposed upon the contemporary housing colony or apartment block. Not everyone is welcome to settle in the colony. The self-governing association of the Khadki is re-introduced as the modern housing society with restricted membership. The social obligations of the Khadki (attending common ceremonies such as Garba, marriage, death) are continued in the housing society. All roads and open spaces are still considered as extensions of the dwelling and used as such. Civic feeling is in inverse ratio to Khadki loyalty.
(b) Within the individual house the Joint Family system is sought to be retained as far as possible. When it becomes impossible, it is replaced by a Joint Family which operates 'across space'. The members now live in separate houses in separate parts of the town but retain the right to visit any member at any time regardless of personal inconvenience, and expect to be accommodated and fed for any length of time. This floating population of relatives descending on the dwelling unexpectedly puts pressure on domestic space and this is met by retaining the multi-purpose character of the rooms. The 'bedroom' and 'living-room' are so only in name; they are used indiscriminately for a variety of functions and are readily converted from one use to another. The floor remains the greatest multi-purpose space of all. Shortage of furniture is compensated by moving onto the floor. So habitual is the use of the floor that furniture itself is used in the manner of the floor. For example the sofa is not used for sitting on but for squatting with drawn up legs; it is also used for sleeping. The bed is a raised platform for sleeping, entertaining, doing home-work. No member of the family has any personal right to any particular piece of furniture or part of the house. No member has any right to personal privacy; no doors are closed. No conversation is private. Studying (for examinations) is a group activity performed without seclusion.

(c) The division of the dwelling into male/female or public/semi-public is on the basis of fluctuating requirements. When the visit is formal, the women and children withdraw to other rooms and leave the 'living-room' temporarily to the head of the house and the visitor. The moment the visit is over, they all float back to it. When men and women visit jointly, the women all sit in the same room as the men but separately, thus discreetly maintaining 'distance'. This setting up of 'distance' at short notice is a great art and its successful manipulation makes the Joint Family work and enables the members to live together in such crowded conditions. What in Europe is achieved
by setting up physical architectural barriers, is here achieved by an invisible space which appears and disappears as required and is not an entity but a relationship. As the social relationships change from occasion to occasion, so does the intervening space, and the dwelling as such is only a backdrop to the inter-action and not its modulator. This concept of the dwelling is quite different from the Western. If any one word describes the Indian home, it is multi-purpose. And yet, the dwellings which are put up repeat the European pattern of rigid internal sub-divisions. These hinder, rather than support, the fluctuating needs of the Joint Family by setting up rigid barriers which are either superfluous or inadequate. The only space which requires isolation and a fixed location is the Kitchen and the Water Storage. The absence of domestic servants makes this unit into the space which is most used by the women, and from where they have to keep an eye on the dwelling and also do their socializing. It is thus the core of the dwelling, a kind of control point, which has to be centrally located if it is to function effectively. And this, it will be recalled, was precisely its location next to the central Chowk in the traditional house.

(d) The attitude to the traditional Divankhana is transferred to the modern 'living room': it is looked upon as the space meant for representation and display. But this concentrated display at one point is compensated by a neglect of all other spaces, and their bareness and mediocrity is not felt as a lack of internal harmony. Display is for the visitor, not for one's-self. This attitude towards aesthetics is supported by the fact that in a Joint Family no individual taste is allowed to prescribe the over-all approach to decoration, or even to architectural style; the multiplicity of opinions can only be met by an eclecticism which caters to the sense of jointness - and the only space which symbolizes this is the 'living room'.
Some further functional analysis is made at the end of the description of the Saurashtra house, because it is by a comparison of the spatial character of the two that new insight was gained (page 271).

(4) THE SAURASHTRA HOUSE

It has already been explained that in this sub-division the great majority of buildings were in stone, with woodwork having only a supporting role. Since the sub-division is thus not representative of wooden architecture, it has not been surveyed intensively and the account will therefore necessarily be short. It is for this reason that instead of taking the rural and the urban house separately, they have been taken together, and what follows can be considered as the typical urban house. (But it should be kept in mind that, just as in North Gujarat the urban house was a modified rural house, so also in Saurashtra there is no fundamental difference between the two. The urban house has one stage of development in which it is identical with the rural house) so that an account of the whole development will automatically include the rural stage and no loss of information occurs. There is also another aspect of the matter.

It was stated earlier that one of the definitions of the 'town' was that it was fortified (page 167). But in Saurashtra, including Kutch, virtually all the settlements were at one time fortified. The poorest village would have a thorn fence around it while the better one had a regular mud or stone wall with bastions and gateways. The need for this extreme degree of precaution was because of the constant state of political unrest and turbulence. Saurashtra is well known for its large number of feudal princes who were still mutually contending for territory as late as the 18th century and their feuds and raids,
added to the outlawry of the Kathis, made the whole region extremely unsafe and no settlement could escape plunder if it was not fortified. Settlements which, on account of their relatively small size and importance, would never think of a walled fortification in North Gujarat, would not be without it in Saurashtra. The difference in insecurity between the two sub-divisions is striking. The prevalence of the fortification around even small settlements means that, according to our definition, these must be considered as urban even though they do not possess all the other criteria of urbanism. In this sense it would have to be said that (the normal Saurashtra settlement was not the village but the town - paradoxical as this may seem. An examination of the town house would, therefore, be of something which was typical for settlements as a whole since the dichotomy between rural and urban scarcely existed.

(The fortified town was not the work of the common citizens (as was the Khadki or Pol) but was established under a political authority which also maintained an armed force within the town for its defence. In larger towns the authority vested in a local chieftain or Thākur who had in the centre of the settlement his palace or Derbārāghāth. This pattern of settlement was quite different from that of North Gujarat. There any body of citizens could establish a village without external assistance and defend it by means of the autonomous Khadki. In other words, it was an endeavour of certain families acting unitedly. In Saurashtra the state of unrest was too precarious for such an endeavour to succeed and a settlement could only be formed under the protection of an armed authority. A settlement founded in this manner was no longer a collective of related families but comprised a variety of families and occupations from its inception held together by a superior power. Security was not provided to individual families or groups of families but to the whole settlement. The fact that the town was thus planned from 'above', so to speak, and did not grow from 'below', may explain why the Khadki pattern was not established. (The Saurashtra towns in general show a linear settlement pattern with houses
occupying main streets and there are no closed enclaves or cul-de-sacs. Apart from these political reasons, there are also sociological reasons for this kind of settlement pattern (already mentioned on page U9), and these may be briefly re-capitalized.

The traditional occupation of the majority of the inhabitants was herding. While a group of herders would form a collective, the actual maintaining of the herd was done individually by each family having its own group of animals to look after. The family-herd and the family would thus form a sub-unit which moved and stayed together and when a settlement was established the sub-unit was maintained as a basic, irreducible element of the settlement pattern. The herd itself could be kept outdoors for the whole of the year because of the mild and dry climate of the region, and all that was required was an enclosure for stabling the animals at night. The dwelling of the family was located within this enclosure, so that the 'dwelling + enclosure' became the architectural expression of this way of life. This point should be particularly noted because it is in sharp contrast to the pattern found in the agricultural community. (There the basic unit of architecture was the group of families settled around a common space. Here it is the individual family surrounded by its own personal enclosure which is the basic unit of architecture. There the group of families was called a Khadki; here the 'dwelling + enclosure' may be called a Delo for that is the word commonly used in Saurashtra to designate the entrance gate of the enclosure.)

The primitive herder was dependent on the vagaries of the climate for his livelihood and was, therefore, compelled to be a nomad. His normal dwelling was temporary in nature, made of brushwood, and his enclosure of thorn-bushes. (The traditional manner in which a group of such nomadic herders would set up a temporary settlement was linear. In other words, a number of Delos
would form a long row with all the entrances on the same side as this was the only way to solve the circulation problem. Each herd had to be taken out every morning for grazing and brought back every evening, and the linear pattern made movement of animals convenient. This primitive settlement pattern is found exactly repeated in all towns and there can be no doubt that the urban settlement pattern has a close affinity to the primitive herding settlement. It is difficult to say whether the latter was the direct precursor of the former, but if it was indeed so, then the stages of development must have been as follows. The occupation of herding had to be supplemented, at first partially and later increasingly, with agriculture and there is evidence that this transformation in occupation took place among the community known as Ahirs. On the other hand, many traditionally agriculturist Patidar families were especially invited by the local chieftains to migrate from North Gujarat and settle in their territories and even these families would engage in keeping herds as a supplement to agriculture because the climate was too uncertain to rely on agriculture alone. In this way there would arise groups of families who practiced the mixed occupation of herding as well as agriculture and it is these who would need, and receive, protection from the political authority in the form of the fortified town. The mixed occupation would compel them to retain the indigenous house-form of 'dwelling+enclosure', i.e. of the Delo because that had a functional advantage. Once the Delo pattern of house and street had become established it would be very difficult to intrude a Khedki pattern into it, even if so desired, and this would become the model for all settlements. It will be seen later when examining the individual examples how this Delo pattern persisted even in rich trading families who never kept herds, i.e. because it had become the accepted model for the urban house.}
The social character of the Delo pattern was determined by its architectural layout, or rather was consistent with it. Each Delo was a self-contained, autonomous unit surrounded by its own enclosing wall and gate which cut off direct communication with the street and the immediate neighbours. The 'private' area was within the Delo, what fell outside it, including the street, was 'public' or 'alien'. While it was possible that all the Delos in any one row might all belong to inter-related families or families of one caste, this did not produce a close-knit organization because there was no direct communication between individual Delos. The only communication was via the street and that being 'public' served to break the intimacy between close neighbours. No family could object if members of other castes occupied Delos in the same row. All of these factors gave to the street and ward a more heterogeneous character and the introvert character of the Khadki was absent. It must, however, be added that in a few cases we did see larger Delos in which a number of dwellings were accommodated (of relations) and these resembled Khadkis. But such larger Delos required a much larger space and a different road-pattern to accommodate them and they would certainly not fit in the normal ward. They were rare and may be considered exceptions to the rule.

(The fact that each Delo accommodated one family and that this family felt no sense of insecurity even though alone can only be explained by the presence of the town fortifications and the armed force within it. In addition, it would indicate that the kind of street-fighting and plundering of houses by urban mobs as found in towns of North Gujarat did not exist.) This difference in inner urban security has not been examined by historians of Gujarat, and we can only speculate as to the reasons, but it seems to be the following. (The towns of North Gujarat were under the political authority of Muslims while the
majority of the urban residents were Hindus, so that a kind of inner urban tension always existed.) Accompanying the rulers was a host of adventurers drawn from all parts of India, who had no stake in the town and took advantage of every disturbance to plunder their own neighbours. Added to this came the fact that the tenure of the rulers themselves was not always secure, being at the fate of changing political fortunes, and each change of masters was accompanied by looting of property and general urban unrest. (Under such circumstances the Khadki pattern was essential for the survival of the group.)

In Saurashtra the towns were directly under the control of Hindu chiefs who were socially and culturally akin to the urban residents and their own tenures were guaranteed by laws of inheritance rather than political fortune. The armed force which maintained security was drawn from the same ethnic group to which the chief himself belonged and their loyalty was based more upon tradition and kinship rather than personal aggrandizement. (Due to these various factors, urban existence was less prone to sudden inner disturbance and the individual family residing in its enclosure could survive without further assistance of its neighbours. The Delo pattern persisted precisely because it gave only that quantum of security which was required. The Khadki was retained in North Gujarat towns because there was no alternative to collective defence. It is a curious situation which is found in Saurashtra, namely that while the region as a whole was full of unrest which compelled all settlements to be fortified, yet within the settlement conditions were so peaceful that an individual family residing alone felt safe.)

It was mentioned earlier while discussing the Khadki (page 122) that one possible reason for the Khadki was protection of women from liaisons. The formation of a collective group watched over by the older men was one answer to the problem.
The Delo pattern, with its single family, was obviously less secure in this regard. This raises the question whether women were given greater freedom in this region. The visitor to the Delo could not be observed by the neighbours and in the event that the aged members of the single family were out on some minor errand, then it was up to the women to face him. It has been our experience that the typical herders family (for example the Rabaris) does indeed give a greater freedom to its womenfolk and we have been received by them in a manner quite different from the Khadki-dweller. We have visited homes in which there was not a single male present and the visit had not been mediated by any of the neighbours. And yet we were received without any embarrassment and without any of the 'avoidance' gestures which women usually make. The women alone felt that they were quite capable of looking after themselves and did not need the menfolk to watch over them. This behaviour pattern fits in with the constant outdoor life which herding demands. But whether this was shared by the other castes it was impossible to say because the urban family today seeks to emulate the 'ores of North Gujarat and introduces many customs which may not have been indigenous to Saurashtra. But if one is to go by the architecture alone, then the conclusion is clear that control over the family was more lax in the Delo pattern. When we analyze the house-plan this conclusion will become reinforced.

(The typical Delo house (Fig.3.c.) consisted of two Ordos adjacent to each other and in front of which ran an open veranda called an Osari. In the simplest example these three parts completed the dwelling. It is worth recalling that the North Gujarat house had originally also only three parts but these were arranged axially one behind the other. This arrangement gave a narrow width and a great depth to the plan and this kind of plot was ideally suited for a row house. (In the Delo house the arrangement of the two main rooms was adjacent to each other
and this produced a house-plan having greater width than depth. The greater width resulted in a wider yard in front and this was obviously useful if a herd was to be maintained. Now, it would have been theoretically possible for the wide house to be placed facing the road (i.e. parallel to it) with the yard in front, then the entrance gate, and then the road. But if this had been done, then a functional problem would have arisen. The rectangular yard would have had its greater length parallel to the road and its shorter depth facing the entrance. If a herd of animals, say cattle, were driven into this yard, they would soon fetch up short against the house because of the short depth of the yard. (Fig.8.a) This is impractical. It would be far more practical to so arrange the yard that its greater length faced the entrance so that the movement of cattle would be along the longer axis of the yard. (In this case the dwelling would have to be located at right-angles to the road (see Fig.8.a and 8.b for the comparison). (And this is in fact the manner in which yard and dwelling are actually located with reference to the road, and it fits in neatly with the movement of cattle.) The cattle would then be stabled to one side of the yard and there would still remain an open area between stables and dwelling for normal circulation.) These main functional sub-divisions of the plot are so well-arranged for a herding existence that the origin seems quite obvious.

The orientation of the yard at right-angles to the road and the dwelling parallel to the yard produced one great advantage of a different kind: any visitor standing at the gateway could not look into the interior of the house since it was not facing him. There are some who claim that this hindering of the view was the real reason for the arrangement of the yard, but to us it seems that while this may have operated in the case of a few upper-class families, it could not have been the main reason for the majority of the people. This point will become more convincing when we discuss the details of the
dwelling, but the main arguments can be given briefly in advance. The main activities of the family were performed not within 'rooms' but either in the veranda or the yard itself, so that the question of trying to conceal them from view by a visitor was never a practical proposition. While this kind of attitude did to some exist in North Gujarat, it was largely absent among the common people in Saurashtra, and this will become apparent when the manner in which the spaces were used is examined.

The most significant aspect of usage derived from the unusual location of the Kitchen. In the simplest case, cooking was done at one end of the Osari and in order to shelter the area from wind and rain a low parapet wall was erected around this corner. The women using the Kitchen were thus exposed not only to the weather but also to the gaze of visitors calling at the gate, and this is a very surprising phenomenon. Why was the Ordo not used for cooking as it was in North Gujarat? We could not get any clear information on this point but the reasons are not difficult to guess. The herding family had to take the cattle every day out for grazing and this was the work of all the active males. The women were left relatively isolated in the home because each Delo generally had only one dwelling in it. The yard and entrance gate had to be watched, and in addition there might be cows with calves to be attended to, and these tasks devolved upon the women. The execution of them could not be efficiently done by the women secluding themselves within the Ordo and instead they had to occupy that part of the dwelling from which a watch could be maintained. This could only be the veranda. And, accordingly, it was there that the Kitchen also perforce had to be located so that the women could carry out their dual tasks of guarding the home as well as cooking the food. The fact that the veranda was exposed just could not be helped. The women were compelled to be self-reliant under the circumstances.
brought in its train a number of other functions. The Water Storage had also to be there, and small children had to be parked nearby so that they could be conveniently watched. Infants were kept in hammocks or swings suspended from roof beams. Cows with newly born calves were stabled at the other end of the Osari for shelter, and protected from the weather by another low parapet wall. All female socializing had also to be done in the Osari, and all in all it will now become obvious that the Osari was being used in the identical manner as the North Gujarat Parsal except for the cooking. The form of the two spaces was also identical, and for a length of time it seemed to us that the Saurashtrian Osari was in fact the fore-runner of the North Gujarat Parsal. This matter is examined in depth later and so is not further touched upon at this stage.

The use of the Osari for the main activities of the household is interesting on two other counts. The Osari was a veranda open to one side and exposed to the vagaries of the weather, and yet this exposure did not prevent its use as the main living space of the family. In other words, the family was living practically half outdoors. The climate was no doubt mild and permitted this, but nevertheless it is curious to observe the persistence with which the outdoor life is chosen even when an indoor life is easily available. This must derive from the tradition of herding which required a close proximity to the herd at all times. During the seasonal migrations which changes in the climate often necessitated, the family would cook, eat and sleep surrounded by the herd and a kind of symbiotic relationship was thus set up which persisted even when permanent settlements were constructed. The exposed life was, of course, mitigated by the presence of the enclosing wall which at least provided a physical barrier to the external world. One might go even further and say that it was the enclosing wall which made the exposed life at all possible, and that its function was not
only to protect cattle but equally to protect the domestic life which was normally played out in the open yard or in the semi-open veranda. The real living space of the family was the area lying between the Ordos and the stables, and the concept 'house' included even these two. The 'parts' of the 'house' were therefore not merely the built-up and roofed areas but the open areas as well; in short, all the space enclosed within the wall was 'house'. It is interesting to find that a very similar attitude existed in the Khadki. There the common space in front of the group of houses was considered as an extension of the domestic space and protected by a gateway. Here the corresponding space becomes individual but its treatment is the same. The psychological attitude which governs such behaviour is that all the space in the immediate vicinity of the dwelling is part of the 'house' and must be protected and enclosed in some way. We shall see during the discussion of tribal houses that many extremely poor families who could not afford even a compound wall would erect a low mud parapet wall barely 20 cm high around what they considered their front yard and thus include it within their living space. The behaviour of the family behind this scarcely visible boundary was noticeably different from that beyond it. All of these attitudes reflect the outdoor life which a rural existence made habitual and which blurred the distinction between 'outdoors' and 'indoors'. While behind the whole behavioural complex there was the decisive aspect of the Indian climate which had eight months of dry and mild weather and which permitted even sleeping outdoors. But it should be kept in mind that even though the yard was considered a part of the living space, this did not automatically result in the Atrium-type of 'courtyard' house which is so characteristic for West Asia. The yard of the Delo was not within the dwelling but in front of it. The internal courtyard, surrounded by rooms, is a secondary and late development in Gujarat.)
(Turning now to the Ordos, in general these rooms were used in the same way as in North Gujarat (except that cooking was in the Osari) and not much that is new has to be said. But there is one point of divergence here which must be examined. In the North Gujarat house there was originally only one Ordo, whereas in the Saurashtra house the dual Ordo pattern was widespread and traditional. What was the reason for this difference? We could not get clear answers on this point from the families questioned and have had to depend upon our own analysis for the possible explanation. It will be recalled that in the North Gujarat house the lying-in was in one corner of the Parsal, and that after the shifting of the kitchen from the Ordo this function could be transferred into that room (page 194). The Parsal and the Ordo were both in this case sheltered spaces well protected from the climate and the lying-in could be in either. In the Deo house the Osari was too exposed for lying-in and this function had to take place within the sheltered Ordo. But the Ordo also had other functions, one of which was to provide accommodation for sleeping of the menfolk in particularly bad weather. Now, both lying-in and sleeping by menfolk could not conveniently take place within the same Ordo and therefore from the very inception of the house it would be more practical to have dual Ordos so that one could be allotted for the lying-in and the other for the men. Another point is that for general socializing also it was convenient to have dual Ordos so that one could be used by the females and the other by the males. This requirement was met in the North Gujarat house by having two spaces behind each other (Parsal and Ordo); in the Saurashtra house it was met by having two spaces adjoining each other (dual Ordos). This analysis would indicate that a minimum of two separate spaces was required within the dwelling if it was to function conveniently; the third space was the veranda. The dwelling of three spaces was thus common to both these sub-divisions, but their mutual arrangement was not identical. In North Gujarat, with greater seclusion of females,
the closed-in Parsal became essential; in Saurashtra, with greater freedom of the women, the open Osari could function as a Parsal and a formal Parsal dispensed with. Behind these divergent social customs lay divergent occupations: agriculture and herding.

A question which has to raised here, however, is the following. Given the social need for two Ordos, why were they located adjacent to each other and not behind each other? (The reason is that both Ordos had to be related directly to the common living space of the family which was the Osari. Eating, cooking, sleeping, socializing, all these activities were generally performed in the Osari or in close relation to it. If one Ordo was located behind the other, then that would mean cutting off the rear Ordo from direct contact with the Osari and thus emasculating its functional efficiency. Each Ordo, whether used by males or females, had to remain in close contact with the common Osari because that was the common point of reference for the many common activities of the group as a whole. To give an analogy, in the North Gujarat house the link between Ordo and Parsal could not be broken without spoiling the functional efficiency of the home. No matter how many Ordos there were (and there were many in the Haveli), they all had to be directly linked to the common Parsal. In the same way the Ordos of the Saurashtra house had to be linked to its common space, namely the Osari. This could only be achieved by placing them adjacent to each other.) (The question whether the dual Ordos arose out of partitioning of an originally single, large Ordo was not taken up for this sub-division because that is technically not feasible. The originally single Ordo would have to have such a great width that it could not be spanned by a beam without intermediate supports. In North Gujarat the Ordo was partitioned along the axis i.e. along the depth, and not along the width.)
Regarding the other aspects of domestic usage, such as those concerning sleeping, eating, washing, defecating, lighting, ventilation, storage, all of these were identical with those of North Gujarat and nothing new has to be added. As a matter of fact, the culture of these two sub-divisions is strikingly similar in all respects, despite the occupational differences, and the statement quoted earlier that it was the culture of North Gujarat which spread to other regions of Gujarat is here clearly established. Saurashtra was in the past a much poorer and less developed region than North Gujarat and it received its economic and cultural impetus from that region and the architectural traditions had a similar origin. (The Saurashtra house is basically the house of North Gujarat very slightly modified to suit local requirements. The domestic customs and terminology are the same and the only reason that we have separated the topic into two sections is because there is a significant difference in the settlement pattern and in the manner in which the same spaces are arranged to meet differing occupational requirements.) This difference will be seen when we now turn to the development of the Delo house.

The first change which occurred was in the introduction of a loft within the Ordos. Since each Ordo was a relatively small, self-contained room, the loft was made to stretch over the whole room without interruption and entry to it had to be made from the Osari. In the simplest case there was an opening left in the vertical wall facing the Osari and a movable ladder was used to gain entry. (Fig.8.e and 8.f). Since there were two lofts, there would have to be two such openings. The next stage of development saw the transformation of the lofts into a regular first-floor (as in North Gujarat) stretching the full depth of the house and this was accompanied by other changes in the ground-floor. The introduction of a ceiling over the cooking area (part of the new first-floor) led to a related idea, namely to continue and extend the already existing low parapet walls into partition walls reaching up to the ceiling. By this means
the cooking area became fully closed in and was transformed into a small, private Kitchen. Entry to this Kitchen was through a door from the Osari, while smoke was permitted to escape through a ventilator into the yard. The first-floor required a permanent stairs for circulation and this was located at the other end of the Osari from the Kitchen, and also enclosed in partition walls to protect it from rain. In other words, both ends of the Osari received enclosing partition walls so that the character of open veranda was retained only in the central portion. The first-floor was provided with spaces which exactly duplicated those of the ground-floor: dual Ordos, front veranda, and the Kitchen. The partition walls around the stairs were also continued in the first-floor. Thus, in elevation, the ground-floor and first-floor looked exactly the same. The first stage of the Delo house was now complete and it had a characteristic appearance (Fig.8.e and 8.h).

The house was two-storeyed, and on the left and the right of the elevation was a portion of wall which went up over both floors while in the centre was an open portion forming a veranda on each floor, the upper one guarded by a railing. This tripartite division of the elevation became the standard model for the Saurashtra house and it was repeated faithfully in all examples even when it was functionally not justified. In other words, even when there was no Kitchen at one end of the Osari, the partition wall was retained and matched with a corresponding one at the opposite end because the tripartite division had become a visual norm. This can, for example, be seen in the elevation of the hall attached to the Lakshminarayana temple at Mahuva (I.I.736). In numerous palaces in Saurashtra the same tripartite division was found repeated a score of times on the same long elevation, i.e. it had become a unit of design which was utilized as an aesthetic motif in architecture. This motif is characteristic of Saurashtra and it can be used to identify the architecture of that sub-division and to differentiate it from
that of North Gujarat. It was precisely by locating this criterion that we were able to identify Delo-type houses in some parts of North Gujarat which had close contacts with Saurashtra and had come under its influence. This was, for example, the case in the strip of territory stretching between Radhanpur and Palanpur, i.e. the western border of Banaskantha. It is precisely in one part of this area that the famous Kankrej breed of cattle is found and the link between cattle-breeding, Delo-house and Saurashtra is most revealing. Among some Rajput chieftains of North Gujarat the Delo-type of house was also prevalent and this fact would indicate that they were migrants from Saurashtra.

It has been mentioned above that the 'Kitchen' of the ground-floor was also repeated on the first-floor, but the fact is that it was only the space which was repeated, the hearth itself remained on the ground-floor. The repetition of the space without duplication of the function shows the rigidity with which the idea of repetition was followed in upper floors. This duplicated space in the first-floor was actually redundant and was used as a minor storage room.

The next stage of development of the Delo house came in response to the need of growth in the family. Married sons who wanted to separate had to partition the house. It will be recalled that in North Gujarat the partition could take place only if there were multiple Ordos, and division was made vertically between two adjoining Ordos. In the Saurashtra house the dual Ordos were already there and division was made in the same way by erecting a partition wall between them. The one brother then had to duplicate the Kitchen in his portion of the reduced dwelling while the other brother had to introduce a new stairs. The once common dwelling had become two separate homes, but some peculiar problems now arose. It has been said earlier that the normal house required three spaces for proper functioning.
and of these two had to be Ordos. But the Delo house, after partition, gave to each junior family only one Ordo on the ground-floor plus half the original Osari, and this was not enough to meet the social requirements. Since the layout of the house did not permit any enlargement horizontally, the only way to solve this dilemma was by utilizing the first-floor as the second Ordo. And now it will be obvious how the two Ordos were functionally differentiated. The ground-floor Ordo had to continue as the more private one, being nearest to the Kitchen, and had to serve the females. The first-floor Ordo had to serve as the area for menfolk and visitors, but since the upper veranda intervened it was abolished and the whole upper floor was made into one large space functioning as the second Ordo. The stairs from below now opened directly into this large room. By this manner of utilizing the house some curious anomalies arose. The stranger visiting the house had to pass the ground-floor Kitchen (and could not help seeing the females going about their work) on his way to the stairs, and frequently had to ask them for directions before he could proceed up to the 'mens' area. In other words, he was compelled to first announce himself to the females before meeting the males because that was how the spaces were arranged. The whole problem arose because of the frontal location of the Kitchen. This location persisted in even the urban house, and in the houses of, for example, Palanpur, it was an embarrassment to have to first pass the more untidy part of the ground-floor before climbing up to the more elegant first-floor. If the owner of the house happened to be on the ground-floor, he would insist on the visitors moving to the first-floor because that was his 'reception room'. All of this once again underlines the different social standing of the women in Saurashtra: they could occupy the exposed front of the dwelling because they knew how to deal with strangers.
The further development of the house into a 'Haveli' now requires no elaborate explanation. The rear part and the yard were already there, and all that had to be done was to add an extra block in front as a barrier. But an interesting variant is now found. The front of the house already had an enclosing wall and a gate, and the architectural enlargement which was contemplated for this portion could not deviate from the concept of 'gate'. The front was the 'gate' and so any enlargement of it to produce additional space had to retain the character of 'gate' and thus, what was in fact added was the kind of gateway which we already saw in the Khadki or Pol gateway! In other words, it became a regular and deep gateway with a single room on top intended for visitors. (Ill.746,748). Once again we find the interesting situation that when any architectural problem arises, it is solved by utilizing forms and functions already existing in the repertoire of the designer. The Khadki gateway had been designed specifically for this purpose, namely to act as a barrier to visitors, and the form was taken and transplanted virtually unchanged to the front of a domestic dwelling. This spacious entrance was actually the Delo which we have given as designation to this type of house.

It will be remembered that the Delo-type house did not face the gate but was at right-angles to it (in order to permit the yard to be at right-angles to the road). This meant that the enlarged gateway also did not face the house but was at right-angles to it. In some late urban examples it could be noticed that this practice was given up and the house made parallel to the road and gateway, thus giving to the whole a more axial layout. But even in these examples the actual entrance gate was not placed in the centre of the yard but shifted slightly to one side, and this was obviously done to avoid a visitor from looking straight into the house interior. Once the house orientation was changed and made to face the road, the interior was more exposed to the entrance and hence this precaution had to be taken.
The introduction of a Delo-type gateway in the layout solved the problem of urban privacy and provided the architectural barrier to visitors, but it did not provide the commercial premises which was such an important part of the North Gujarat Haveli. There were in the Delo-gateway, for example, no spaces for either a workshop or a shop, and even the upper room (the Divankhanu) was not very developed. This absence of commercial premises in the typical house of Saurashtra is a reflection of the under-developed state of the economy. Saurashtra was for long a backward area populated by herders, farmers and warriors, but with little representation of traders and manufacturers. In contrast to North Gujarat, where the rich trader was a leader of society, in Saurashtra this function devolved upon the political aristocracy. The class of building which represented status and prestige in the sub-division was not the Haveli but the Darbargadh (palace), and it was the latter which set the tone. The external symbol of the Darbargadh was its huge gateway, and that was the feature which every Haveli sought to emulate. And if it could not erect a large structure to house the gateway, it could at least make the doors of the gateway imposing. In consonance with this attitude, we could observe in Saurashtra a passion for magnificent doors and the sheer variety of sizes, designs and finishes which doors received in this sub-division is to be found in no other (see Ill. 682, 70, 723, 730). It may be thought that the influence of the palace would not only extend to the gateway but to the plan of the Haveli also, but, as will be shown later (page 383), it was rather the other way round. It was the palace which repeated the layout of the Haveli. In other words, the only feature of 'royal' architecture which found its way into the domestic architecture was the gateway.

The absence of the development of the Delo into a place for business gave to it a character quite different from that of the Khadki-room. It will be remembered that in North Gujarat the Khadki block was linked by a passage and small rooms on the ground-floor and terraces on the first-floor to the rear dwelling, and that the front spaces were used for business during the day.
The development of the Divan-khanu into a place for partial residence of the head of the household brought it into fairly close contact with the rest of the house and there was thus between Khadki-rooms and the rear parts a general architectural and functional unity. In other words, although the purpose of the Khadki-block was to create a barrier to visitors, yet the manner in which it was used made that barrier flexible and in the night removed it altogether. The case with the Delo-gateway was completely different. Here there was no business, no Divan-khanu for the head of the family to spend the day in and possibly sleep at night, and the room above was used strictly as an office rather than a reception room. The Delo-gateway was linked by small rooms and terrace to the rear building, but there was no general movement from one part to the other because the remaining members of the family would not, even at night, have occasion to go to the Delo-room. This room remained far more oriented to the road and retained its character of a physical barrier more sharply. The difference in the psychological atmosphere which prevailed in the two spaces can best be understood if we compare their differing origins.

The Khadki-room had come from the Khadki in which all the inhabitants were a united group of relatives and where the Khadki-room was used by the aged members of the group for their residence and for receiving visitors on a basis of equality. There prevailed, thus, a domestic character in the Khadki-room which continued when it was added as the front block of the urban Haveli (see pages 64-65). The quality of the 'distance' which it created between the visitor and the family was of the same kind which was normally maintained within the family between males and females, i.e. a discreet avoidance rather than a turning of the back. The Delo-gateway sought inspiration from the palace where there existed a strict hierarchy of persons ranked according to 'superior' and 'inferior' and the distance maintained between a visitor and the head of the family was far more rigid. The family
itself would neither see nor be seen by the visitor so long as he remained within the Delo-room since his status as an 'outsider' was determined by that location. In other words, the family 'turned its back' towards someone who was not permitted to advance beyond the gateway. The visitor had not really entered the house, he was still on the verge of the road. This gave to the Delo-room an anonymous and alien character very different from the Khedki-room, and this was continued to some extent when it was added to the Saurashtra Haveli. The link between Delo and main building was purposely kept weak to emphasize this, as the following will show. The example is from an ancient building in Ghogha (see also page 676).

In this case the Delo was at right-angles to the house, and the area between Delo and house was occupied by a small room containing the well and Water Storage, but there was no covered passage linking the Delo with the main house. This meant that the visitor who came into the entrance door was not being invited to lay off his outer things (dirty or rain-soaked) and stroll into the house, because he still had to cross the yard without shelter. The arrangement clearly showed that there were two kinds of visitors. The one kind would remain at the door and be received and at most be led upstairs. The other kind would come to the door and be asked to cross the yard and enter the Osari and there to lay off. The absence of the linking passage made all this quite clear. Furthermore, even though the roof of the small room was a flat terrace, it was not used for sleeping in summer for it was not part of the private area of the dwelling. The 'distance' to the Delo-room had to be maintained.

This particular Haveli had one feature which we saw for the first time now. Opposite to the entrance and at the other end of the yard was a covered veranda with a raised plinth and steps, called a Phurja. The word is of Persian origin and means a customs house situated at a port. Obviously the design of the veranda resembled the customs shed and hence its name. The
purpose of the Phurja was to accommodate a class of visitors which was not of sufficient status to be taken up into the Delo-room and yet too inferior to be taken into the Osari, and so they were parked in an intermediate area beside the yard. This class consisted of retainers, tenants, servants, etc., i.e. those who would be employed by administrators such as this family was. It will be recalled that a building having this function in North Gujarat was called a Kacheri. In Saurashtra the equivalent function was exercised by the chieftain himself and the hall in which he set for this purpose was the Darbār (from which came the word Derbergadh meaning palace). The Darbār was the exclusive prerogative of the chieftain and neither the term nor its architectural setting could be used by others, so that a new concept was required for the corresponding, but of course much smaller, space in the Haveli, and this was Phurja. In our subsequent survey we came more often across this kind of space in other Havelis which showed that it had become a traditional part of the richer houses.

Another concept borrowed from the port and from shipping was a very curious roof-pavilion shaped like the cabin of the ship (see Ill. 762). It will be seen that the form is curvilinear and this is quite uncharacteristic for Gujarati carpentry. There are many reports that ships were made in Gujarat, and we have seen shipyards at Mandvi and Billimora (the former in Saurashtra, the latter in South Gujarat), and, of course, curved timbers are required in the making of ships. The curving pavilion was thus a typical ship-building form. But the curious point is that in the domestic architecture made by the traditional carpenter no such curving forms are ever seen. Everything is straight and plane except for round columns which are in turn made of timbers which were straight and rectilinear. The curvilinear form used in the pavilion is different: it is made of wood which is bent into shape, and this kind of technique is not found in domestic work. It is strange to find two
differing carpentry techniques existing in the same sub-division and the question arises whether they are executed by two different castes. Since this is a structural problem, it will be discussed in chapter five (page 427). Here it should only be added that the curvilinear pavilion is of a different technique and style from the rest of the building and is an obvious importation.

One last feature in the development of the Haveli as seen in eastern Saurashtra was also imported, namely the Parsal. It was stated earlier that the Parsal in Saurashtra was conspicuous by its absence. But in one or two examples we could observe its presence and that too in families which told us that they had migrated thence from North Gujarat and brought the custom along with them. The Parsal can be seen in the same Haveli taken as an illustration above (Ill. 746), and it will be noticed that the location of the Parsal is in its traditional place after the front veranda or Osari. The introduction of the Parsal into the traditional Saurashtra house-plan resulted in some useful changes in the functions. To begin with the entry into the Kitchen, hitherto from the front (exposed) Osari, could now be effected from the Parsal, thus giving greater privacy to the women. Secondly, the location of the stairs could also be shifted from the Osari into the Parsal and this also gave it privacy. But there was a much greater advantage. The shifting of the stairs from one end of the Osari enabled a second kitchen to be located there (shown in Ill. 746) and now for the first time the Saurashtra house had a complete duplication of parts. This had hitherto not been convenient because of the stairs at one end of the Osari and the Kitchen at the other. To duplicate the Kitchen in this plan would have meant shifting the stairs - but where? There was no convenient place. The only free space in the Osari was towards the centre, but that would have obstructed entry into the house and was quite impossible. The other possibility was to shift the stairs
into the Ordo, but this was in the great majority of cases never done (here it is an exception). The Ordo was never considered as a general room in which circulation within the house could be located. Its function as a storage for goods and valuables, plus its more private character, precluded the location of a general stairs within it. Thus, the difficulty of finding alternate accommodation for the general stairs prevented the duplication of the Kitchen within the Osari, and this in turn meant that the house could not, from the beginning, be planned for partition. It will be recalled that in the North Gujeret house the Kitchen was originally inside the Ordo, so that a house designed for partition merely had to have multiple Ordos for there to be multiple Kitchens which could be divided between brothers. But in the Delo house of Saurashtra the Kitchen was in a separate corner of the Osari, and this feature could not be duplicated for reasons already given. The introduction of the Parsel now made this feasible and the plan illustrated shows that it was a partitionable house.

The features which could not, however, be partitioned were: Delo-gateway, yard, and well. These had to remain in common even after partition and this meant that the partition wall dividing up the dwelling had to stop at the Osari and could not continue across the yard. During survey we saw numerous examples of Delo-type houses which had been thus partitioned and they are shown in the descriptive part later on. In many instances one part had been rented out while the owner kept the other part for himself; the yard and entrance remained in common. Under pressure of urbanization the owner had built a second dwelling in a vacant portion of the yard (in that portion, namely, where the cattle stables would have normally stood) and given that also on rent. The whole group of dwellings was located around the common yard and served by the common gateway and well, even though they were occupied by many different tenants. The
group strongly resembled a Khadki but in fact the origin was quite different. The Khadki was a group of dwellings constructed by related families occupying a large site from the very beginning. The Delo-group, on the other hand, had arisen out of partitioning of an originally single site occupied by a single family. The resemblance between the two is only superficial.

The development mentioned above was made possible by the introduction of the Parsal, and it may be asked whether this was the reason for its presence. In other words, was the Parsal introduced in order to make a better partitionable house? While it is not possible to be certain about the reasons for changes which go so far back in time, it seems to us that the Parsal was introduced for another, more important, reason. It is a noticeable and well-known sociological fact that with increase in prosperity the family begins to practice increasing seclusion of its womenfolk. The Saurashtra house was particularly vulnerable on this score and the situation must have become more inconvenient with urbanization. Added to this come the fact that the model of status which appeared before the citizens of this sub-division was that of the aristocracy, and among this group the seclusion of women was a must. Thirdly, North Gujarat already had the Parsal which gave a degree of privacy to the women which was in conformity with upper-class ideals. It was therefore a greater desire for such female privacy which prompted the introduction of the Parsal into the traditional Delo house. The advantages of the Parsal for making a dwelling partitionable must have come as a secondary phenomenon.

(Perhaps it is curious that the Kitchen never moved out from the Osari into the yard, as it had done in the Khadki house. The situation is very revealing. The courtyard of the North Gujarat Khadki house was an internal one fully integrated into the domestic life of the family, and it was easy for the Kitchen to shift into this essentially private area. The yard of the Delo
(we have deliberately called it a yard and not a courtyard to maintain the functional difference, see also page 186) was not thus closely integrated because the front block confining the gateway retained its outward-facing anonymous character and never became a relatively intimate part of the house in the way the Khadki-room had. In other words, despite the presence of the enclosing wall, the character of the yard was of a space external to the dwelling. Its exact nature can best be understood by saying that it was a counterpart of the common space of the North Gujarat Khadki. In both cases the yard was in front of the dwelling and while it had a semi-public character it was simultaneously an extension of the domestic space. This ambivalent character of the yard in the indigenous architecture is very typical and it is precisely this fluctuating nature of the function which prevents any permanent structure from encroaching upon it. Just as no part of the house could intrude into the common Khadki space, similarly no part of the house in the Delo-plot could intrude into the Delo-yard. This is the reason why the Saurashtra Kitchen remained within the Osari. If we now utilize the knowledge gained in this characterization of spaces to define the traditional house, we find that there are four classes of spaces, each having a greater degree of privacy or intimacy. There is first of all the De-lo-gateway which is essentially part of the road and the visitor occupying it has not yet received any welcome into the home. Then there is the yard which is ambivalent; it can be used for intimate gatherings, or for sleeping outdoors in summer, but it can also serve for more formal meetings with people who need not be relatives. The Osari is clearly an intimate part of the dwelling and entry into it is already a sign of welcome into the home. The Ordo is only for close relatives and even they would only use it under unusual circumstances. These four classes of spaces are arranged in such a manner that one has to pass each of them successively and the boundaries are clearly demarcated and respected.)
If we now extend this characterization to the North Gujarat Khadki pattern, we find that there are here five sequential spaces: the Khadki-gateway, the common space, the Otlo, the Parsal, and the Ordo. The additional space is due, not to the Parsal (as it may appear at first glance), but due to the Otlo! It should be remembered that the Parsal functioned in almost exactly the same way as the Osari, so that these two spaces are equivalent. It is the Otlo which is not duplicated in Saurashtra and whose functions are merged with those of the Osari. This merging could take place because there was less seclusion of women, i.e. men and women could both jointly utilize the Osari, whereas in the Khadki the men used the Otlo and the women the Parsal. The comparison between North Gujarat and Saurashtra reveals in a most striking manner how differing social customs, deriving from differing occupations, influence the design of the dwelling. And yet, underlying both was a common culture and a common architectural tradition. The elements of design, i.e. the spatial units, were the same and they had become codified into rigid categories which could be combined into various permutations but whose basic character could not be changed. The fact that they represented varying degrees of privacy implied that there was always a point of reference from which the privacy was measured, and this was from the 'entrance' which could be either the Khadki-gateway or the Delo-gateway. From this initial point to the 'end' of the dwelling the measurement of privacy was always along a 'line', i.e. was linear, and this line represented the movement which a person would normally make to enter the dwelling. The concept of architecture which is revealed in this layout is of a sequence of spaces or zones arranged in a linear manner, having a definite beginning and a definite termination, and in which each successive zone is more private than the previous one.

The sequential layout is essentially two-dimensional, i.e. it is measured out on the ground and follows the horizontal movement of a person walking. It does not have changes in level.
The upper floors do not continue the sequence of spaces or zones which already exist on the ground-floor but set up, instead, on each floor a fresh set of identical sequential spaces in the same linear manner. In other words, each upper floor simply duplicates the arrangement and values of the ground-floor. The house, although three-dimensional in form, is conceived two-dimensionally. It is basically the kind of concept of space which a pedestrian has, or, to put it more accurately, that of a rural inhabitant living on a vast plain in which there are no heights but only distances.

(It is important to realize that the varying values which the spaces or zones have in the dwelling are not hierarchical. The area occupied by men is not 'superior' to that occupied by women but only more private. The essentially democratic structure of the Hindu family could never produce anything else. The fact that women are placed behind the men in the sequence is merely a reflection of their need for privacy, and not a mirror of the dominance of one over the other.) The avoidance which women practice vis-a-vis the men is a reflection of a moral situation and not that of a power situation. What is being exhibited is modesty, and not physical weakness or incapacity. The situation here is quite different from those societies which have what is called the murshah-system. In such societies the hierarchy which exists is not merely between men and women, but equally so between man and man. It is the very concept of superior and inferior which infuses the whole of that society and which brings it also into the domestic sphere. The domestic hierarchy in which women rank below the men is a reflection of a general situation in which some men rank below other men. We saw that in the Khadki settlement each family ranked equally with all the others in the settlement, and that in the village also the same equality prevailed between all the various Khadkis. This general sense of social equality within a given community is continued within the family as well, and gives to the home an equality of spaces. In contrast to this, the Muslim settlement,
described earlier (page 169), had no such democratic structure but was hierarchical. And therefore we can be sure that within the home also the same kind of hierarchy will be found, giving to architectural spaces an hierarchical ranking. But this certainly did not exist in the Gujarati home of the Hindu.

We may close this comparison of the North Gujarat and Saurashtra house with a discussion regarding the dual Ordos. The dual Ordos were the normal feature in Saurashtra, and they are also extremely common in the North Gujarat Haveli. When we first observed this similarity, it seemed to us that Saurashtra must have been its origin because that sub-division was more underdeveloped and had retained many archaic customs which had disappeared elsewhere. The Saurashtra house also seemed so obviously simpler and more crude that it seemed to be the fore-runner of the more elegant house of North Gujarat. But this line of thought survived only so long as only the urban Haveli of North Gujarat was compared with the Saurashtra house. Once the rural Khadki house of North Gujarat was seen extensively, with its single Ordo, it became quite clear that this was the dominant type for North Gujarat and that its simple duplication produced the Haveli. (Thus, if a simpler house was to be assumed as the prototype for the more complicated, then the single-Ordo house answered this very well.)

(Associated with the above line of reasoning (and given up eventually) was the thought that the Parsal arose as a result of completely enclosing the Osari, and once this had been done, then the missing veranda was replaced by the Otlo added to the building. In other words, the development was as follows: Dual Ordo + Osari → Closure of Osari into a Parsal + addition of Otlo.) The difficulty with this theory was that it completely failed to explain why the Kitchen, originally in the Osari, did not shift to the Otlo or its equivalent, the Raveshi, but went out into the courtyard, whereas in the Delo-house it remained in the Osari despite all developments.) The differing locations of the Kitchen could not be derived from a common origin and hence the theory had to be abandoned.
In concluding this section, some remarks are required regarding the relative absence of business premises in Saurashtra, mentioned earlier. It is obvious that Saurashtra had merchants, but it was our observation that the houses which they constructed for themselves, and which also contained business premises, were not simple extensions of the traditional Saurashtra dwelling but instead had changes in plan which were borrowed from elsewhere. Many of the merchants' houses were late and showed a great deal of foreign influence. Since all of these deviations from the norm were fully in stone or brick, they were not taken up for detailed study and are here largely ignored. It remains for some other occasion, and for some other scholar, to examine the stone architecture of the subdivision which is very extensive. By way of illustration one merchants house from Mundhra is shown (Ill. 697), and it will be observed that while a small part of the dwelling shows the traditional dual Ordos, the rest is completely different and is very awkwardly integrated with the traditional portion. This particular family had very old trading contacts with Zanziber, and they told us that their house incorporated elements of design of that area. We mention this in order to indicate how this eclectic architecture probably arose and that it does not form any part of the traditional architecture which is the main concern of this study.

For the same reason, namely the extensive use of stone, a great many of the aristocratic Darbargadhs of Saurashtra were not examined, but the few that were looked at closely revealed that they were following the Ordo-pattern of layout. These have been described in section nine of this chapter.
As already mentioned in the section on Settlement Patterns, South Gujarat represents a sub-division which has a cultural identity which is distinct from that of North Gujarat or Saurashtra, and this derives from its different ethnic composition. This difference has been noted by a number of scholars, and the following quotation from "The Dublas of Gujarat" by P.G. Shah is illustrative of their findings, "It is a significant feature of the rural economy of the Surat District that as high as 40% of the total population of the district consisted of the aboriginal population in 1941." (65). In a separate study, "Tribal Life in Gujarat", the same author presented a tribal population chart which showed the following percentages of tribals in the various districts of Gujarat:

<table>
<thead>
<tr>
<th>District</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baroda</td>
<td>17.48%</td>
</tr>
<tr>
<td>Broach</td>
<td>37.28%</td>
</tr>
<tr>
<td>Surat</td>
<td>46.74%</td>
</tr>
<tr>
<td>Dangs</td>
<td>84.35%</td>
</tr>
</tbody>
</table>

The figures clearly reveal how the percentage of tribals increases towards the south and even if the individual figures may not be very accurate, the trend is unmistakable. The ethnic groups included in the term 'tribal' are those registered as such and comprise mainly, in South Gujarat, the Dublas, Chodharas, Dhodias, Naika and Dheds. The largest ethnic group of the Kolis is not included because they are agriculturists and have become absorbed into the regular Hindu castes and no longer count as tribals. Those responsible for the various Census Reports found it very difficult to exactly define who a Koli was, and in the Census of 1911 stated, "Difficulties were experienced in the census in connection with the classification
of Kolis. The difficulties were not essential to the subject, and were solely due to the combined stupidity and ignorance of the lower degree of Koli ... who will describe himself as anything but what he is." (67). This harsh comment only indicates that the term had become derogatory and that if anything, the actual number of Kolis was certainly more than what the census had found. The percentage, calculated from the 1921 Census for Surat, was about 15%. Whether the Kolis were officially 'tribal' or not is not important; what is important is that they are an indigenous people who were once dominant and who had their own culture which was different from that of North Gujarat. If the Koli population is added to the 'tribal' then the total percentage becomes even greater. Since the Kolis are even today the main agricultural community in large parts of South Gujarat, and since they themselves own the land and are prosperous, we are justified in holding them as the leading representatives of the indigenous population and to consider that those called tribals are merely the remnant of a once unified community which could not become absorbed into a Hindu caste. In other words, the tribals and Kolis were originally one community but split up into sub-groups having different occupations. Those who were agriculturists could merge into the Hindu caste system and retained the name Koli, those who could not were given the various tribal designations and remained inferior. This situation has parallels in many parts of India and is nothing new.

The Kolis of South Gujarat are the major community in numerous villages where they own some of the best land and their skill has been described by G.S. Ghurye as follows, "The Telabda Koli (a sub-division) ... is a confirmed agriculturist and in some parts almost the superior agriculturist." (68). The Kolis are in fact to South Gujarat what the Patidars are to North Gujarat, and in conformity with their social standing they have
begun to call themselves Koli-Patelts, and it is likely that in a few generations the prefix will be dropped and they will become 'Patels'. There is, however, another important community with which the Kolis are closely associated and that is the Anavil Brahmin. The Anavils reside in the same villages as the Kolis and are also land-owners, and many of them engage in farming themselves. This sub-division of the Anavils, known as Bhsthele, is looked down upon by those who get their farming done by hired labour and this privileged group prefers to adopt the suffix 'Desai' after their names as a mark of status. The Desais were in the past frequently revenue-farmers of the region and this enabled them to acquire great wealth and power and adopt a feudal life-style. In general, the Anavils as a group had in each village a higher status and influence than the neighbouring Kolis by virtue of their greater education and resources, and even though their number was small they were accepted as social leaders by all the rural communities. But the curious fact is, that despite their political, social and economic dominance, in their house-forms they repeated the same domestic architecture as that of the Kolis! The village dwelling of the poor Koli and the rich Anavil used different materials according to their means, but their house-plans showed a basic similarity. This is a surprising phenomenon and it testifies to the fact that the Kolis were the earlier inhabitants of the area, and must have once been the more dominant group. It is because of this persistence of the indigenous Koli house that it has to be considered as the typical dwelling of the sub-division and form the basis of our enquiry.

But in this endeavour there are immediate difficulties. The Kolis have largely given up whatever indigenous culture they once had and acquired the customs of the Hindu agricultural castes; in addition they have been for long under the influence of the Anavils and, in later times, under the influence of the culture of North Gujarat. Thus, although it is the Koli dwelling which we have to study, its concomitant cultural background no longer exists in its original condition and we are
reduced to seeking for secondary sources to understand the architecture. Fortunately, there are some mitigating circumstances in this matter. The Kolis of Gujarat are not an isolated community but have ethnic links with those across the border in Maharashtra, and these have retained many of their original customs and have also to a small extent been studied. In addition, the customs of the 'tribals' of South Gujarat have been covered in a series of monographs, and it is our assertion that since these tribals represent the unreformed Kolis of the past, their customs can provide us with clues to the original Koli culture. By using these studies and relating them to the situation on the ground, we can unravel much of the evidence.

The simplest Koli house is an extremely primitive structure made of upright poles, wattle and palm fronds (see Ill. 67c). The plot which it occupies is a long rectangle of narrow width and great depth. The dwelling can stand by itself or, as is more common, it can combine with others to form a long row in which all the units are identical in height, width and proportions, so that from a distance it appears as a single building of extraordinary length. The fact that each individual dwelling is a potential row determines the kind of plot which it occupies and this is the reason why that plot is a rectangle. All the rectangular units are arranged in such a way that their narrow sides face the front and back of the row and the long sides form party walls between two adjacent units. The rectangular unit is particularly suited for this kind of arrangement and it will be recalled that a similar house-plot existed in the rows of the Khedki.

The formation of a residential row was not the result of a predetermined plan in which the final number of units was fixed beforehand and the total site required already defined. The row developed according to individual circumstances and convenience. The fundamental reason which lay behind its growth was the absence of the Joint Family among the Kolis. A married son
was expected to establish a separate dwelling. We quote from P.G. Shah on the Dublas, "It is a fundamental feature of Dubla life as distinguished from ordinary Hindu social life that the joint family system has been at a discount and may be considered as absent at present ..." (69), and further, "As soon as the sons marry, they separate themselves from the parents." (70). If they are unable to afford a new dwelling then they will erect a separate hearth within the parental house. L.N. Chapekar, studying the Thakurs of the Sahyadri just across the border from Gujarat, observed the same phenomenon, "In the majority of cases, they (married sons) separate sooner or later after marriage - though usually one of the sons continues to live with the father and supports him in his old age." (71). Oral evidence taken by us directly from Kolas supported this tradition, and the custom was that the married son would set up a new dwelling adjacent to that of his parents. Each subsequent marriage and fission led to yet another additional dwelling and in due course a long residential row would arise. The whole row belonged to descendents of the common parent and normally the oldest unit in the row, i.e. that of the parents, was the first one on the right facing the entry. In this manner of growth the unit to the left was always later in time, and junior in descent, to the one on the right and the row as a whole showed a descending scale from right to left. It will now be clear that the end of the row could never be predetermined; it all depended on individual circumstances. At some point in time one of the married sons would set up a separate and independent dwelling and this would then initiate a fresh row. The location of this new unit was not governed by any particular rules of planning; it often was placed in such a way that the new row was parallel and some distance away from the old one; but it was equally possible for the new row to be at an angle and bear no spatial relationship to the previous one. This kind of architectural development gave to the village a very peculiar appearance quite different from
North Gujarat. Here the village consisted of either single free-standing dwellings or of long rows, all generally unrelated to each other and spread out over a wide area. There was no dense, close packing together of houses, and no part of the village which could be called a 'common space'. The spatial arrangement was loose and undefined and devoid of clear boundaries. The only settlement 'pattern' which was clear was the individual row.

The above settlement pattern reveals a great deal about the general situation in South Gujarat. Obviously the inhabitants felt no sense of insecurity and thought nothing of setting up a dwelling anywhere and everywhere. There were no fortifications or walls of any kind surrounding the village, nor was there any defensive arrangement made either by the family or group of families. This absence of insecurity in a community of farmers is so strikingly different from a similar community in North Gujarat that it calls for an explanation, and we have already hinted at it earlier. The inhabitants of North Gujarat were migrants settling in an area containing an indigenous population hostile to them and they were therefore compelled to produce defensive settlements. The Kolis of South Gujarat, on the other hand, were themselves the indigenous population, they continued to form the majority of the population and had not been ousted by migrants, and there was thus no grounds for insecurity. The whole atmosphere of brigandage and plundering, so characteristic of North Gujarat and Saurashtra, was absent and this is reflected in the settlement pattern. It is significant in this connection that the houses of the richer Anévils, located amidst the Kolis, were equally free of defensive arrangements in most cases (the exceptions were the revenue-farmers, for obvious reasons.)

There are two other aspects related to the settlement pattern which have here to be mentioned. It was said earlier (page 119) that among the determinants of the settlement was
the manner of keeping the cattle. In the Khadki these were stabled just in front of the dwelling (or kept in the fields), while in the Delo they were herded together into the enclosed yard. In South Gujarat the much heavier rainfall made it compulsory for animals to be kept under shelter and normally they were kept within the dwelling. The protection of cattle thus did not need the enclosure or the Khadki-space because they were already indoors, and the free-standing house being simultaneously residence and stables made any other arrangement unnecessary. This argument is not at variance with the one about the absence of insecurity. The indoor arrangement is perfectly feasible in a Khadki pattern and yet this kind of close grouping was never formed. (Obviously, the single family felt that the free-standing dwelling was sufficient for both cattle and themselves, and the fact that this kind of pattern persisted indicates the absence of serious danger.

Regarding the second aspect, namely the protection of women, it is well known that 'tribal' women were always given a great deal of freedom both physically and morally, and we may assume a similar situation for the Kolis before they became Hinduized. The very fact that the individual dwelling could be free-standing, without the Joint Family to ensure the presence of older males, is itself a proof that the women were not kept secluded. In the case of the Delo house also, the presence of separate units was an indication of such a freedom. In our opinion it may be taken as an axiom of domestic architecture that a loose or scattered settlement pattern is an indication not only of general security of existence, but also of general freedom of the women, and the examples from Gujarat bear this out. The example of the Bhils is even more obvious, as we shall see.
Turning from the settlement pattern to the individual dwelling, the house-plan was as follows. Basically the house was a single, large space running without interruption from front to back, covered with a single pitched roof of enormous dimensions. The size of the roof was governed by the size of the plot, and this was traditionally very large in order to accommodate the cattle. The heavy rainfall which made this necessary had other consequences on the domestic life. We saw earlier that in North Gujarat and Saurashtra a great part of the domestic activities could be performed outdoors because of the relative mildness of the climate, and that this was architecturally expressed in the presence of yards and courtyards. The climate of South Gujarat did not allow this kind of outdoor existence, and all the domestic activities had to be performed indoors, thus making a much larger covered interior necessary. This is the main reason for the large houses of this sub-division.

Before describing the details of the interior it is necessary to refer briefly to the construction because it plays a part in the partitioning of the dwelling. This has already been described (page 278) and may be summarized as follows. The house had a system of wooden columns placed in pairs along the longer sides of the plot and these carried over-head the purlins of the roof which spanned, in the short direction. The number of pairs of columns were even or uneven, i.e. the ridge did not need to be in the centre of the house. The number of pairs could be anything from three to eight, thus giving two to seven bays to the dwelling (a bay being the distance between two columns along the depth). It was possible for a house to start off with, say, five bays and then to enlarge the house by adding one bay in the front and/or one at the back. The only precaution to be taken was to ensure that the enlarged roof still had head-room at the eaves. In order to
ensure this, i.e., in order to have an expandable house, the ridge was made traditionally very high and as the extra bays were added the lower edge of the expanded roof still gave head-room. The space between columns was closed off with wattle and palm fronds, and the roof was also of the latter material. In some cases the wattle was coated with mud to render it more weather-proof. When a second dwelling was added to the first in a row, it was not necessary for the former to again add pairs of columns; instead, use could be made of the existing row of the first house and only one line of fresh columns had to be added. In other words, one row of columns (along the long side) was common to two houses. Once a row had been established, it was not practical to increase the depth of any one unit as that would upset the row (Fig. 9.6 and 9.7).

It will be seen from the above that the 'wall' of the dwelling was made only of wattle and leaves, and while this gave some privacy from view it did not prevent sound travelling through. This meant that in a residential row the conversation or sounds emanating in one dwelling could easily be heard in the two adjacent dwellings and thus destroy the sense of privacy. Despite this phenomenon dwellings continued to be built in rows, and the only conclusion which one can draw from it is that privacy in our sense of the word did not exist. Those who occupied adjacent dwellings were in any case close relatives to each other and probably felt themselves to be some kind of 'Joint Family' extended spatially across the row, and mere sounds were not considered disturbing. What was essential was a separate locus for each dwelling and a visual barrier, and these were provided.

The maintenance of cattle within the dwelling required certain additional facilities. The heavy rainfall prevented cattle from being taken out daily for grazing, and instead a large quantity of fodder had to be stored within the house. The most convenient method of storage was in a loft. There were two advantages in this: firstly, it left the ground-floor free for
other more important activities; secondly, by storing the fodder up in a loft, the daily quantity could be thrown down to the cattle below without any additional carriage. This labour-saving practice meant that the cattle had to be stabled immediately below the loft and the location of the loft thus became critical in determining the other functions. Now, since the storage of fodder took up a great deal of space, the best location for it was there where the roof was highest, i.e. below the ridge, so that the large air-space there could be utilized for this purpose. The erection of the loft required the addition of extra pairs of columns because the existing columns were already fully occupied in holding up the roof and could not conveniently take up a dual function. This structural measure resulted in the strange situation of having twin columns adjacent to each other at four places within the same space; of these four went up the full height of the building, and four went up half-height to the loft. The appearance of these twin columns, the one set quite unrelated to the other, seems extremely crude and primitive and shows how the development of the dwelling occurred in additive stages without proper integration of parts (Ill.9c).

The location of the cattle in the centre of the dwelling had important consequences on the house-usage: it automatically divided the house-plan into three parts, one part in the centre and one each at front and back. This tripartite sub-division of the dwelling arose, not because it was functionally required, but because the creation of a 'centre' within a long rectangle automatically left two spaces to front and back, and once the three spaces were manifested, they tended to remain and become functional. What we mean by this is that it should not be assumed that because the Koli dwelling had a tripartite division, that was the original intention. What that intention was cannot today be known. All that can be done is to show that the
divisions of the dwelling arose in response to certain functional requirements concerning one part of the space, but that it seemed to have repercussions on the use of the other parts as well. Of these, the front began to be used mainly by the male for his occupational activities and for receiving visitors, while the rear began to be used for cooking and for the more private activities. This division into 'male' and 'female' was, however, quite different from that prevailing within the North Gujarat family. In the latter case there was the Joint Family in which a number of adult males and females were thrown together in a common residence, and where such proximity was met by a custom of mutual 'avoidance' which necessitated some demarcation between areas more used by males and those more used by females. Furthermore, husband and wife never slept together and generally avoided proximity. The Koli family, having no Joint Family system, knew nothing of all these domestic problems. Husband and wife slept in the same corner of the dwelling, along with smaller children, and the fact that they were a couple could not be masked by any amount of 'avoidance' because they were the only two married adults within the home. Thus, Koli domestic practices must certainly have been different from those of North Gujarat, but due to absorption into a Hindu caste system they too have begun to use their home in the manner of the other castes and what we observe today is a largely borrowed culture superimposed upon an indigenous house.

The tripartite sub-division of the dwelling was in the beginning only a notional one without any actual partitions separating the individual spaces. Around the area occupied by the cattle there were wooden bars placed horizontally to create a rough enclosure. At this level of simplicity there were very few other requirements which had to be spatially accommodated within the dwelling, and the only fixed feature was the hearth
at the back. Most of the domestic life centred around the hearth and everything which was valuable was also kept there on the ground, stored in various receptacles. Grain was stored in bins made of either wattle or clay. The front of the dwelling might have a slightly raised earth platform to one side for visitors to sit upon. Entry to the loft was by a removable ladder. Within this primitive dwelling it is important to note the circulation pattern for that will engage us when we come to the urban house.

The presence of the cattle in the centre left a narrow passage at one side (Fig. 9.c) for movement from front to rear. Since the cattle also had to be brought along this passage to the stable, it became convenient to locate the entrance to the dwelling in line with it so that the cattle would have a straight path from entrance to the stable. The back of the house also had an entrance and this was located in line with the passage and the front entrance. These various measures had the result that a movement or circulation was set up within the dwelling which stretched right through it from one end to the other and was terminated by the two entrances. We shall henceforth refer to this as a 'passage' even though it is not always demarcated by partitions. Movement to other parts of the dwelling was via this passage, and because it was located along one side of the plan, the other side was automatically where all the usable spaces had to be located. This functional division of the house is characteristic for South Gujarat, and it was later repeated in the urban house, and one of its important features was that the entrance door was not in the centre of the elevation but to one side. The off-centre door is one of the diagnostic criteria for the South Gujarat house (whereas in North Gujarat and Saurashtra it is centrally located).
The next stage of development saw the introduction of regular partition walls within the dwelling, accompanied by a removal of the cattle to sheds outside. The first partition to be erected was that separating the area of the hearth from the rest of the dwelling (we shall call it the 'Kitchen' although this term is misleading because it was much more than a mere cooking area since the family also slept there.) This partition was made of the same light materials as the rest of the house and went up for about 250 cm, i.e. it did not reach to the roof but only to the height of the loft, and it now partially separated the one unified interior into two spaces. One was the Kitchen, the other comprised stable and front area. At some point in time it seems to have been realized that the keeping of cattle within the dwelling was a sign of social inferiority and the practice was given up by those who could afford to do so. Cattle were now stabled in a separate shed at some distance from the house. The freeing of the central part from cattle permitted its use for other purposes and this was modelled on that of the upper castes who set the tone. It is most likely that it was North Gujarat which provided the model being followed. In this development a second partition was erected between the erstwhile stables and the front, and the house now had three parts in perfect identity with the North Gujarat model. (Fig.9.d). It should, however, be kept in mind that all these partitions went only half way up, and that the upper regions of the house just below the roof continued to remain one unified space. The flimsiness of the partitions made the distinctions between the spaces very tenuous and in reality the whole house retained its old character of being one space. This specific quality of the interior being one space despite its partitions was confirmed by the terminology.

We questioned families to find out the names used by them to designate various parts of the house, and discovered that there were no common names generally accepted by all except for loft and stable (the former was called either Kātariu or Māriya,
the latter *kodhiu*. The other names varied from place to place and the information was given in such a hesitant manner that no detailed record was kept since it was obvious that to the inmates themselves the parts of the house were not differentiated enough to need specific and unambiguous names. The general tendency was for names borrowed from North Gujarat to be applied. The lack of clarity in this regard clearly indicated that the dwelling was originally thought of as having one unified interior which, even if partitioned, was not used according to neatly separated functions. Dining, sleeping, cooking, all these activities were performed around the hearth. The economic condition of the average Koli, even though living from agriculture, was not so prosperous as to have brought a more complex life-style into being. The merging into a Hindu caste had occurred in recent times and had not fully matured. Thus, the attitude to the dwelling still had much of the 'tribal' element in it and although the three divisions had emerged, their use and terminology had not become fully defined. It is because of this ambiguous state of domestic culture that we cannot describe the functions of the rural dwelling with that precision which was possible in the case of North Gujerat. It is best to proceed with the physical development of the house first, and then revert to its functions later.

The final stage saw three developments taking place: the appearance of the front veranda; the transformation of the loft into a regular first-floor (but of low height); and a change of materials. It will be remembered that the cattle had occupied a large area in the centre of the dwelling and their removal now left this space without function and the area was too large for practical use. The excess space permitted, however, a novel re-arrangement of the plan. The second partition to be erected, instead of being placed at the boundary of the previous stable, was shifted more inwards, thus reducing the excessive central space. And the front wall of the dwelling was shifted by an equal amount inwards, thus making free in
the front space for a veranda. (Fig.9e). It should be kept in mind that since the walls were made of light materials there was no difficulty in shifting them at will, and all that was needed were posts for fixing the wattle. One such post was already provided by the supporting column, and each partition which was erected came therefore to be placed in alignment with a column. The shifting of a partition only meant its detachment from one column and re-attachment to the next. The whole process was extremely simple and formed part of the customary practice of the local people and there was nothing revolutionary about shifting of partitions. The placement of partitions in line with columns gave to the internal spaces a great regularity of proportions because each space was either equal to, or a multiple of, a column-bay. The newly formed veranda was thus exactly equal to one column-bay.

The loft which had originally been for storage of fodder now became largely redundant and was only used for storage of sundry non-essential articles. And yet, it was extended to stretch over the whole dwelling to produce a first-floor with a low height at front and back, i.e. there was no head-room. The need for such a first-floor did not exist. There was no expanding Joint Family which had to be accommodated, nor was there any pressing need for additional storage space. The first-floor, when built, continued to be used for trifling purposes, as a glance at Illus. will show. Obviously the sole motivation for it was prestige. The upper-classes had first-floors and therefore the well-to-do Koli family also had to have one.

The change of materials which took place was also introduced as a result of prosperity. In the first instance the inside surfaces of the walls of wattle and leaves were coated with mud up to the height of the loft. As gradually more mud was applied, it thickened into a substantial mud wall in the centre of which was embedded the original wattle and the
supporting columns. Now for the first time the family had a solid wall around its dwelling and between its neighbours, but of course, only as far as the loft. Above that the original wattle and leaves continued. Since the height of the loft was equal to the height of the roof-eaves in front, this meant that the mud wall reached up to the roof in front; it was only at the sides of the row, and between units, that the wattle appeared in the upper levels. The reason why the mud coating was not taken up higher was because the loft was not used for any important activity and so giving its walls a mud-coating was not necessary. While the inside of the house received the mud-coating, the outside continued to show the covering of leaves because mud on the outside would have washed away. It was the leaves which kept the house water-proof.

Those who could afford it now changed the whole of the wattle-mud wall into brick. The brickwork was applied in exactly the same place and in the same manner as the mud, i.e. as a material which filled in the interstices and embedded the wooden columns. It was also gradually taken up the full height of the roof, and in this way a kind of half-timbered house was ultimately produced. The whole process by which the original material was changed step by step into another depended upon resources. In many cases one stage had been reached and there was no money for the next; or, half of one stage had been reached and the money ran out. Because of circumstances it could happen that in the same house part of the wall was of wattle-mud and part of brick, while a covering of leaves still adhered to the mud wall. In the same row one could see different stages of development, and the village as a whole showed a variety of stages. It is a very curious phenomenon to see houses actually in the process of change. During field survey, we found houses completely without internal partitions, others with some partitions and a partial loft, yet others with a full first-floor and partial brickwork. The process of change
occurred all within the overall existing external covering of the house. The roof remained as it was - even its height did not have to be modified to incorporate the first-floor. The supporting columns all remained where they were. As the house progressed, they became embedded within material and disappeared from view. The main reason why these changes could be effected without breaking down the house was because it was a self-supporting wooden frame structure. (Fig. 9f).

It is curious to find the wooden frame persisting even though brick had begun to be utilized as a filling material and could have provided a load-bearing structure. The reasons for this are the same as for North Gujarat, namely a lack of reliance on the strength of the brickwork. The technique of half-timbering continues in the rural areas till today and when the village house is to be constructed, at first the wooden frame is set up to a great height (to make a double storeyed house) and then the brick walls are inserted in between. What is, however, more difficult to understand is why a solid mud wall was not made in place of the wooden frame. The mud wall has great strength and hence could not have been rejected on this ground. And it is not as if mud was not used at all in South Gujarat. The houses of landless labourers in the vicinity of towns was often of very elegantly made mud and so the precedence was there. The answer we got from our informants was that 'the mud house is considered inferior to that in bamboo', meaning that it was only the landless labourer who displayed his poverty in this way. The land-owning Koli considered it essential to have a wooden house. It seems to us that this explanation is false. The real reason why the wooden frame was preferred was that it gave a large external envelope which, once made, had no longer to be altered, and the dwelling could be internally sub-divided to make it resemble the upper-class model. A similar large external envelope in mud would have required an initial investment which was more than that required
for the wooden frame. It should be kept in mind that the objective before the Koli family was ultimately a large and prestigious house whose outer envelope could be established from the very beginning. The wooden frame was the ideal material for this because the intervening gaps could be filled in a variety of materials depending upon resources. The mud house offered no such flexibility, and if the initial money available was small, then it meant that only a small mud house could be made. The landless labourer was satisfied with this because he saw no alternative before him, but not so the land­owning Koli. It is here interesting to find that the concept of the house as an envelope is identical with that of the North Gujarat farmer, and it seems to correspond with an agricultural existence.

It was mentioned earlier that the Koli house, as described above, was the typical house of the region and was adopted by other castes irrespective of their economic condition. The rich Patidar farmers of the north who had come and settled in South Gujarat were better off financially than the indigenous farmers and wanted to show this by having a superior house. The solution which they adopted was one already known to them, namely to duplicate the unit. The traditional name for the unit was Gārā, and the fact that this term existed is a proof that multiple units were being considered as a feature of design. Two identical Gārās (or more) were constructed next to each other using the traditional wooden frame, and the intervening wall was left out thus producing a very spacious interior of great width. Running down the centre of the space was the line of columns dividing the units. The appearance of an interior space with columns standing free in the centre was not common in North Gujarat, it could be seen in some first­floors where the upper Raveshi extended upto the edge of the Chawk. But it was common in many buildings of this sub­division because the system of framing encouraged it. The interior resembling a columned hall was something new and different in domestic architecture.
and because it is so closely related to wooden framing it is possible to say that this feature has a southern origin. It may be added by way of clarification that the woodwork generally employed in the north was bonding-timber and not framing, so that the kind of spaces which the former produced were different from those which framing permitted. Bonding-timber always required a heavy wall for its functioning and the internal spaces were defined more by the presence of solid walls than by the woodwork. In framing, the woodwork could stand without the assistance of walls and hence it was the frame which defined the spaces and made them more open and light.

Regarding the use of the developed dwelling, the situation was determined by certain features which were missing in North Gujarat. The most important of these was the sense of security which prevailed in the settlement. Quite apart from the fact that walls were often of light wattle and leaves, the house had a rear entrance which was freely used and gave to the 'rear' an importance almost equal to the 'front'. Whereas the defensive northern house could have no rear openings and was therefore strictly oriented to the front, the southern house was oriented both ways. It should be kept in mind that the southern settlement pattern was such that frequently the 'front' of one row faced the 'rear' of the next row (see page 279), and the fact that such a pattern existed itself indicates that the two ends of the house were considered as being equal and that it was not objectionable to face either way. The simple dwelling in the pre-veranda stage had no distinguishing feature to mark the 'front', the two entrances looked exactly the same, and it seems quite clear that before northern influence was felt the house really had no 'front'. It will now be realized that in such circumstances to attempt to discover the house-usage is not only not feasible, but probably theoretically wrong. The very concept of 'usage', as a demarcation of functions which are performed in different parts of the dwelling, is derived
from northern practice and does not seem to fit the southern situation. The primitive life-style of the Kolis which originally prevailed, and which is still very much in evidence, precluded any such categorization and the dwelling was used as a multi-purpose space surrounding a fixed point: the hearth. Our observation of tribal houses showed a similar situation and the only element of demarcation found was a single partition which separated the area of the hearth from the rest of the dwelling. The partition served to demarcate what was 'private' from what was 'semi-private', i.e. it served to separate the family from the visitors when such turned up. There was no other differentiation. The family lived around the hearth indiscriminately and performed all hygienic functions outdoors. It seems to us that this tribal life-style was what the Kolis originally had and which remained as an under-current even today.

The hearth was located in what we would today call the 'rear' because of the veranda demarcating the 'front'. This rear was in fact the main living space of the family. The front was kept for visitors. The centre was in reality redundant, but was preserved in order to imitate the northern model. Some of our informants told us that this central space was used for grain storage and the lying-in, i.e. it was used as a kind of Ordo. The central location was logical because it was the safest and most secluded part of the dwelling. But, it will be remembered, it was at the same time crossed by the passage which went from front to back. To maintain privacy during lying-in a curtain used to be drawn along the passage. The stairs going to the first-floor was also located in the centre and this is proof that it was used mainly by the women to fetch things from the loft.

The front veranda was not partitioned off towards its neighbours so that, in a long row, all the verandas joined up with each other to form a continuous passage as long as the row.
This feature gave to the row a most unusual appearance, as if it was one single, long house or a series of quarters rather than individual dwellings. The same continuous verandas and the regularity of units remained a feature of urban architecture, as will be shown later. The veranda in the rural house was not used as much as the northern Otlo because the accompanying outdoor life in the yard was absent. All in all, it must be said that the Koli house was actually too large for the use of a single family (since the cattle had been removed) and there were many vacant areas within. The northern house was crowded due to the Joint Family system; the southern rural house was bare by contrast. The general flimsiness of the walls precluded all those numerous niches, lamp-holders, cupboards and shelves which filled in the wall-surfaces of North Gujarat. The woodwork, even in the best houses, was inferior, being mainly rounded, unplaned timbers devoid of decorations. Carvings over doors and windows were extremely rare; the door itself being of the simplest kind. The contrast in this respect to North Gujarat is striking. Here was an area in close proximity to rich sources of teakwood; wood was plentiful and relatively cheap; and yet the carpentry was of the most primitive kind. North Gujarat, far from sources of timber, was full of houses displaying a wealth of carving even in the rural house and a superior standard of carpentry. Both represent wooden traditions, but whereas the one borders on the tribal, the other borders on the urban.
(6) **THE SOUTH GUJARAT URBAN HOUSE**

The most cursory field survey of the towns of South Gujarat will show that there is an ethnic difference between the urban population and the rural. While the latter consists of indigenous people closely related to 'tribals', the former clearly appears to be migrants from North Gujarat. This ethnic difference would indicate that urbanization in the south was itself brought about by northern migrants, and was a later phenomenon than urbanization in the north. This is, of course, borne out by historical references. While North Gujarat has towns whose names stand out in the culture of the past, towns such as Anshilasure or Siddhapura, South Gujarat had no such corresponding centres. The largest town of this subdivision, Suret, is a late foundation. The ethnic composition of these towns should have resulted in a North Gujarat pattern of settlement, i.e. there should have been a system of Khadkis and Pols, or even Delos. But this is not the case. Barring a few exceptions, the greater part of these towns shows the same pattern of settlement as the Koli village, and this is quite remarkable. How is this phenomenon to be explained? It has been stated earlier that the town grew out of the village through rising prosperity and development. According to this, it should have been the indigenous Kolis who created the town; but in that case the ethnic composition would not show such a preponderance of northorners. The answer to this problem seems to be the following.

The South Gujarat town certainly did develop out of the village, but under northern initiative. Northern migrants who came to the south would buy up a row of houses from the indigenous people and transform them for their own use. The house-plots and rows were already established and could not be much altered - and there was no great need for this because of the prevailing sense of security. Over a period of time
other adjacent rows would be similarly bought up and improved, and urban functions would commence in them (business, trade, manufacture) and in this way an urban core would be established within the village. This was the nucleus of the town, gradually superimposed upon the village settlement pattern. Two proofs that the development actually occurred as here described are the following. The upper caste Anavils made their houses (and settlements) identical to those of the Kolis. Part of this imitation was, of course, because they had to co-exist in the same environment and hence adopted similar forms. But part of it must have been because they had to settle within an already established pattern which left them no alternative. The other proof comes from the example of the house of Jamshedji Tata still surviving in Nāvseri (Ill. 632). This house shows the wooden frame embedded within brickwork in the typical rural style. The house is located in the centre of Dasturvādi where all the wealthier Parsis reside, and besides this house all the others show the same kind of architecture in varying degrees of finish. Such an identity between an urban form of one community with that of a different rural community cannot be satisfactorily explained in any other way. The assumption that the forms were identical because the craftsmen who made them were the same begs the question. Why should have carpenters from the north not have been available when so much of northern culture was accepted as the model for the life-style? Those who migrated from the north must have easily included carpenters. As a matter of fact much of the urban carpentry is northern; it is only the house-plot and house-form which remains indigenous. The northern carpentry is superimposed upon an indigenous house-form. The adoption of a primitive house-form and settlement pattern by a wealthier migrant population can only be explained by assuming that these migrants came in small groups which gradually settled into indigenous villages and had to fit themselves into existing conditions. They had to buy
themselves in because they had not come as conquerors and displaced the local people from their habitations. Thus, when the village became prosperous and developed into a town, it continued to have a rural settlement pattern and rural house-forms.

It is possible to make one objection to the above line of argument: The reason why the northern migrants preferred the southern house-form was simply because it was cheap and convenient and answered all their needs, so that there was no pressing need to bring in their native forms. But this objection is palpably wrong. The southern settlement pattern was by no means satisfactory to northern sensibilities. The front of one row looking into the rear of the next was offensive to the feeling for privacy. Because of this, the men's area in front looked directly into the women's area of the opposite row. Another defect was that the passage which ran right through the house took away almost a third of the house-width for circulation and left only two-thirds for making the intermediate rooms which therefore became very small. Again, the extremely long depth of the dwelling made the central area dark and virtually unusable. Yet, despite all these defects, the southern form was retained. The reason could hardly have been functional convenience.

A significant exception to the above situation was Surat. Here one could clearly see both northern and southern settlement patterns (and house-forms) co-existing and it indicated a different origin for the town. Surat was also, incidentally, the only fortified town in South Gujarat and some parts of it are reported to have been deliberately founded (for example Gopipur and Rustampura). In other words, here it was not simply a village growing into a town but a regular foundation, and that would explain the differing settlement pattern. Some parts of Surat show a Khadki-like conglomeration of densely packed
houses and winding lanes, while other parts show the typical straight roads and deep plots of the south. The northern Haveli also makes its appearance. The exception which Surat presents actually supports our conclusion that it is only the founded town which has a northern pattern in South Gujarat.

A matter of great general interest in this connection is the fact that a number of northern towns, for example Dabhoi or parts of Broach, show a South Gujarat settlement pattern. In other words, here the reverse situation exists, and if our theory is correct, then we shall have to say that these represent originally Koli settlements which were taken over by northerners. This whole topic is full of possibilities for unravelling the settlement history of Gujarat and we shall leave it aside for the moment until we have seen in more detail what the southern urban house really is.

It will be recalled that the village pattern was of long rows of houses separated by a considerable distance from each other, with the rows sometimes parallel and sometimes askew, and frequently the front of one row facing the back of the next. The urban pattern was exactly like this. When roads were driven through the spaces between the rows, the distance from the house to the road was large and each house-owner took possession of this vacant land and added it to his plot (see also page 279). In this way each house-plot became even greater in depth than it already was, with the width remaining constant. The vacant portion was always to the rear of the house, and in due course it was enclosed with a wall and a back entrance thus producing a yard. These extremely deep plots of narrow width with a back yard are characteristic of South Gujarat and constitute a means of identifying the southern urban pattern.
The house itself had the long rectangular form within which there were partitions across the width creating three main internal parts: the back room, the front room, and a central area. In addition there was the front veranda. (Ill.833) (We shall not use the North Gujarat names for these spaces because they do not fit the situation.) The distance between the front room and the back room was unusually large due to the deep plot of the dwelling, so that the privacy which the rear had was great. The front room was used in exactly the same way as the Khadki-room of the northern house, i.e. as a place for visitors, clients, business, shop-keeping, etc., and it could very well serve this function precisely because it was so far from the rear-room. The rear-room had the hearth and the water-storage and served also as the dining area and the general women's area. The fact that there was a back entrance brought this part of the dwelling into intimate contact with the back-yard and many of the domestic functions could be performed outdoors, particularly washing, bathing, cleaning of vessels, etc. In other words, those activities which were performed in the northern Chowk were now transferred to the southern back-yard. The enclosing wall of this yard preserved the privacy of the area from the house-row across the road to the rear. In numerous houses the back-yard had the family well and its location next to the hearth and washing area was very convenient. An interesting variant of this feature, and one again only found in South Gujarat, was a well which was located exactly on the boundary between two adjacent houses so that it belonged to neither and could be equally used by both. The well was an open affair and never enclosed within a chamber as in the north.

The presence of the back-yard now enabled a very useful item to be located in an ideal manner, namely the family latrine. This was placed right at the end of the yard and adjoining the road running at the back. By this means two advantages were gained: firstly, it was removed at a distance
from the dwelling; secondly, its back wall faced the road, and the untouchable Bhangi could clean it manually through a hole in the wall without entering the yard. The caste-conscious family was only too happy with this arrangement (Ill. 355).

It will be observed that the above features gave to each family a private latrine and a private well, whereas in the northern pattern both of these facilities were very often common for the Khadki or Pol. The reason for the difference was precisely the fact that there was no Khadki or Pol organization to arrange for these facilities in common. Each family had to fend for itself, but ultimately it got a better arrangement.

Before leaving the yard one change must be mentioned even though it belongs to a later stage of development. The hearth in the rear-room permitted smoke to escape into the yard through a ventilator and there was no problem. But it appears that there was another problem which we could deduce from the changes made. The hearth was the women's area where all the female domestic activities were performed but where also the men (including male relatives or intimate visitors) had to be fed. There was no alternative to this because the normal men's area out in front was too far away for serving meals. The feeding of males in the same area as the hearth was not convenient because it clashed with the custom of female avoidance of males. It will be remembered that in the northern house this problem was solved by having a Parsal next to the kitchen (but in a separate area) and the feeding was done in the former. The absence of the Parsal in the southern house was felt as an inconvenience and a change was made so as to introduce a space equivalent to it. The hearth was pushed out into a shed-like structure built as an extension of the dwelling and projecting into the yard. The construction of this shed was noticeably more primitive and cheap than the rest of the house and it was obviously an after-thought. This now
freed the back-room from the function of cooking and the whole range of female activities and permitted this space to be used exactly as a Parsol. Northern social practice was thus superimposed upon a southern dwelling. It is interesting to note that the displacement of the hearth into the back-yard was quite analogous to the shifting of the northern Kitchen from the Ordo into the Chowk! (All these, and other features, can be seen in Fig. 9.g in typical form.)

The back-room, however, continued to have the water-storage since guests had to be served, and, in the case of Brahmin families one well was provided with a niche for the household deity. Here, next to the hearth, the head of the orthodox family would spend an hour or so at his devotions (see also page 184). The precise reason for this association of Puja with the hearth (or with dining) is not difficult to guess: both activities required a purified and ritually protected area.

It is now time to examine the central part of the dwelling which has been kept to the last because it is unusual. In the Koli dwelling this part was one of the tripartite internal spaces but it was not otherwise closed off from the passage. In the urban dwelling there were other considerations which made changes necessary. This central part was used for three functions: storage of grains, lying-in, and location of stairs to the first-floor. In the Koli dwelling all the three were performed within the same space; in the urban dwelling two, or if possible three, separate spaces were thought necessary to accommodate these various functions. The grain storage had to be a lockable room for obvious reasons, i.e. it had to function similar to an Ordo. The lying-in could also take place here although it was not ideal because for the duration of that occasion many articles had to be removed from this room and temporarily kept elsewhere. The chief reason for the inconvenience was the size of the room. As already mentioned,
the passage took away about a third of the width, leaving barely two-thirds (about 2 metres) as lockable space and this tiny space was too small for multiple activities. It was preferable to have a separate room for the lying-in and to also make this closed off for privacy. The third function, the stairs, could not be located either in the grain storage or in the lying-in room, and so it needed yet a third space for its location. Those who could afford it had three separate spaces for these three separate functions, and of these two were closed off with partitions from the passage and served with doors. (Fig.9.g). Each of these three spaces was almost identical in size because the cross-partitions were aligned with column bays and was one bay deep. The front-room and back-room were each two-bays deep, making them of double size. Together with the veranda the whole house had eight bays. It will now become clear that the number of bays had to be known in advance if all the spaces were to be satisfactorily accommodated. This was therefore no longer a multi-purpose dwelling with multi-purpose spaces in which a few large spaces could accommodate a number of varying functions. Here there were a number of smaller and clearly defined spaces with specific functions. The interior of the southern dwelling was thus completely different from the northern.

The arrangement of the stairs was ingenious (Fig.9.g). It could not, of course, be located in the passage, even though that was the main circulation artery, because it would have obstructed it. It was located against the other wall, and its first tread was placed in such a way that a small door leading off from the front-room opened exactly onto it. By this means a person could directly climb up the stairs without entering the passage. On the other hand, the stairs could also be reached from the passage. The first tread was awkwardly placed for this movement but it was feasible. This double entry to the stairs from two spaces, the one semi-public the other private, was extremely convenient for business. The menfolk could move to the
first-floor (which was often their residence) and back to
the front-room via the stairs without disturbing the others,
and women could use the stairs without being seen by clients.
The situation was determined by the fact that the southern
dwelling had only a single stairs, whereas, it will be recalled,
the northern had two, one in the Khadki-room and one in the
Parsal. There was, however, one disadvantage here. The space
reserved for the stairs could be used for nothing else but
circulation and was, to this extent, wasted. The Khadki stairs
was more economical in space utilization. In fact, the southern
house as a whole had a wasteful amount of circulation space
and this struck one noticeably during surveys.

The first-floor was virtually a duplication of the
ground-floor except that the front-room was larger as it now
extended over the veranda. The Kitchen was not repeated as it
was only a shed. In general, the use of the dwelling by the
Joint Family was similar to that of North Gujarat, but the
presence of so many separate 'rooms' brought in a significant
difference. In North Gujarat itself the custom of joint sleeping
by married couples had arisen (page 196). This was continued in
South Gujarat and now most of the married couples could be
given their own separate rooms, especially on the first-floor.
The head of the family would often use the upper front-room
since it was the largest space in the dwelling. It is distinctly
noticeable that the southern first-floor was not assigned that
inferior status which it normally had in the northern dwelling.
This is because the ground-floor did not have all of those
centralized facilities (Chowk, Parsal, Kitchen, Water-Storage)
around a common space which gave to the northern ground-floor
the character of a dominant domestic space. In the southern
house all of these facilities were dispersed in a linear manner
and there was no dominant space. The front and back of the
dwelling were equally important so far as domestic activities
were concerned. The guest had to be taken right in, past all the small rooms in the centre, to reach the back-room where he was offered hospitality and food. It is very interesting, and at the same time curious, to see how the values which obtained in the Koli dwelling persisted even though a northern family was using the house. It was the architecture of the house which resisted change.

If we were to subject the southern dwelling to the same kind of analysis which we made for the northern (page 271), then we would have to say that although there was a sequence of spaces these were not graded according to function in any kind of order. From the front to the back there was no gradual change in the scale of intimacy but simply a sudden drop between what was 'private' and what was not. The front room was semi-private, all else equally private with no further gradations. In short, the dwelling had only two 'zones', one for 'outsiders' and one for the family. This was the exact pattern found in the tribal dwelling, as mentioned earlier, and was also present in the Koli house. The threshold of the private area commenced from the door leading to the passage from the front-room; all the spaces beyond this were indiscriminately private, including the stairs-areas. The first tread of the stairs also began precisely along this threshold line, i.e. it met the semi-private area but was itself within the private zone. Grain storage, lying-in room, back-room, these three all had the same value. The Kitchen, being under a shed, and pushed out of the actual house, was in a very peculiar situation. It was not the core of the dwelling, its enclosure looked obviously inferior, and at night when the dwelling was locked up it was outside the private zone and part of the open yard. In fact the Kitchen had become devalued. This was very unusual for a Hindu house-hold but the reason why such a thing was permitted could not be ascertained, and we are left with speculation.
The devaluation of the Kitchen could only mean that Kitchen-work had become devalued, and the only way in which this could happen was if domestic servants had begun to cook the food instead of the house-wife. There is indeed some evidence of this having occurred. Among Persis, who form a leading community in many towns of South Gujarat, the keeping of servants for domestic work had become a regular custom. And all their Kitchens were pushed out into sheds at the back. Among the richer Anavils also the keeping of servants for some work, if not directly for cooking, was prevalent. The availability of servants was governed by the fact that South Gujarat had a very high percentage of poor tribals who were landless. These people hung about urban settlements in search of work, and happily took up domestic chores. The entry of servants into the dwelling was facilitated because of the back-yard and the rear entrance. In the northern dwelling there was no such back entrance and a servant, if employed, would have to enter via the front – which was not socially permissible. The tightness of the Khaâki and Fôl pattern further discouraged stray and unemployed people from wandering about the settlement looking for jobs. They would never have been allowed beyond the entrance gateway. The southern settlement, being open and unrestricted, brought various groups into contact and induced a working relationship. This, then, would explain why the Kitchen was no longer a very private and protected part of the dwelling.

We may now collect together the main characteristics which distinguish the southern settlement pattern in towns: a very narrow and deep plot of land with a deep house-plan; a back-yard with rear entrance and latrines; a well to the rear; a rear entrance to the dwelling; a Kitchen which is located outside the main house; and a passage which runs through the dwelling next to a series of small rooms. Of these criteria, those which will assist in identifying a southern pattern in a northern town are: the long, deep plot; the rear entrance to the house; and in some cases the series of small rooms plus passage (this is, for example, the case in Broach). The two entrances to the
house are possible only when the house-plot occupies the whole depth between two parallel roads. This kind of plot does not normally exist in North Gujarat. There the houses are back-to-back and only a front entrance is possible. Among the northern towns which had southern features were: Broach, Acod, Karjan, and Dabhoi. This intrusion is significant.

Regarding the other details of the southern house, such as arrangements for lighting, the steepness of the stairs, the wall niches, etc., these were all similar to the north and nothing new has to be added. In general, the house had far less of the richness and display of the northern house, the woodwork was plainer and less massive, and the carvings were poor copies. It was quite obvious that there was less wealth invested in the house than in the north and this must have been due to the less developed state of the economy. In particular the doors, which were symbols of status and prestige in North Gujarat and Saurashtra, were in the interior extremely plain and unpretentious. The entrance door attempted some kind of show but was far less imposing than that of, say, Ahmedabad. The normal house had no sumptuous Divan khanu; the front-room served for business and was not unusually rich in decoration. One peculiarity was that the front verandas of neighbouring houses were often continuous even though they belonged to different families. This was in keeping with Koli practice.

Two features were generally absent: the terrace and the balcony. The terrace was absent for a variety of reasons. Firstly, the wetness of the climate made it impractical. Outdoor life was restricted by the rain, besides this the terrace was liable to leakage. Secondly, there were few small chambers adjoining the dwelling which could be covered with flat terraces. Thirdly, in the normal town there was no need for the underground cistern because the sub-soil water was not polluted. The town was too recent for its soil to have become saturated by waste water. Thus,
for all these reasons the terrace was rare. The balcony was absent for the same climatic reason, namely heavy rainfall. All in all, the southern urban house was an extremely simple affair of wooden framing and plain walls with very little complications, and by a strange coincidence it looked strikingly modern (see Ill. 856). Those who desired something more impressive went in for the northern Haveli, i.e. for a house which completely imitated northern practice, and what this was has already been described. It would appear as if the southern house offered little opportunity for development or modification and it remained close to its prototype. The only change which it permitted was the clubbing together of additional units to produce a larger house. This can be seen in Ill. 833. The traditional name for the unit is Gārā and it will be used here. The plan shows that even though the dwelling now had a double width, the location of partitions parallel to the depth did not take full advantage of this but, instead, were placed in line with the central line of columns. This re-alignment gave to the smaller rooms in the centre a greater space than before, which was useful, but at the same time it made the passage equal to one Gārā, and this was wasteful. The now extremely wide passage could not be used for anything else but circulation and hence remained largely empty. Its greater width permitted the stairs to be shifted into it, thus bringing together all the elements of circulation and the space previously occupied by the stairs could now be converted into yet another small, closed room. The double-width arrangement made the front- and back-room spacious and gave them more the proportions of a northern Khadki-room. The column standing free in the centre of the room was typical for wooden framing.

It will be observed that the doubling of the width resulted in no essential change in the plan of the dwelling. The single-Gārā plan was simply expanded to fit into a 2-Gārā width; the operation was mechanical and repetitive. This attitude of merely duplicating or repeating functions also existed in the north and it appears to have been part of a general cultural tradition. Once again we are confronted with a lack of
innovation in design. A point of interest in this: Why were the small, central rooms not made yet wider by reducing the wasteful width of the passage? The reason is that these small rooms were generally used by couples or by a single female for the lying-in, whereas the passage was for the Joint Family as a whole. The individual space could never be enlarged at the cost of a general space because that went against the ethos of the Joint Family, and so a wasteful passage was retained.

The practice of clubbing together a number of Garas to make a larger house was utilized for two further purposes. One was to make a partionable house (as in the north). This can be seen in Ill. 836. Here the head of the family had from the very beginning built four Garas and given to each of them those features which could not conveniently be added later, namely the small, central rooms, the passage, and the stairs. The front- and back-room he had made as continuous spaces similar to the northern Parsal. In this case partition had actually taken place and the intervening walls had been extended to sub-divide the front- and back-rooms into individual rooms. The veranda and yard had not been so divided and the well was still common. The idea of a partionable dwelling between married sons was, of course, completely alien to Koli custom, and it was a northern practice applied to a southern dwelling. The manner of its execution was the same as in the north but far more wasteful because so many repetitive rooms and passages had to be made from the beginning.

A variant of the system was found in a Farsi house in Billimora (Ill. 832) where, due to the needs of a very large Joint Family, a 3-Gara house had been built in which, on the first-floor, the central Gara was the common passage while the two outer Garas were residential rooms. On the ground-floor the passage was repeated, while to the sides were duplicate hearths for the various married sons. It is a remarkable arrangement of
joint living. It means that the dwelling is not divided either vertically or horizontally into sub-divisions in order to accommodate married sons, but instead a very complicated system is evolved by which a part of the first-floor and a part of the ground-floor (the two parts being not above each other - that would have produced vertical sub-division) are allotted to one son. The circulation areas have to remain common. Here we have a system which is clearly not indigenous, being neither Hindu nor Koli. (It should be added that this kind of partition of the Parsi house was observed by us not once but many times, so that it definitely conforms to a custom.) The reason behind it is the following. In the Parsi family, even though there exists the Joint Family, each married son is traditionally allotted a separate room for his lodging and his attachment to this corner of the parental house is so possessive that he does not wish to surrender it after partition. His holding onto it means that he must later also be given a separate hearth to go with it and this is traditionally on the ground-floor. Because of this unusual behaviour pattern, the house gets split up into sub-divisions which cross each other and cause a considerable amount of tension in the group. The originating factor in this complex situation is the fact that the southern house was never designed for joint living by married adults. The internal partitions split up the once unified space into complex parts which had specifically assigned functions. These functions could not be changed to accommodate the changes which a family-partition demanded. Another point was that the internal spaces were lined up parallel to the depth whereas a neat partition of the house needed division parallel to the road. The multiple Ordos, being parallel to the road, permitted such neat division. The small rooms parallel to the depth did not. The only way to make a neatly partitionable house was that utilized earlier (Ill. 836) in which the whole 2-Gara unit was duplicated four times. It was by this wasteful procedure that the problem could be
effectively solved. Any other solution, such as the Parsi one, created more problems than it solved.

This is the appropriate place to describe some other Parsi domestic customs. They were an important urban community in South Gujarat and for a time, due to their initiative and wealth, they formed the social leadership and many of the richest southern houses were of Parsis. In Navsari they occupied (and still do) the central part of the town and it is very instructive to observe their settlement pattern. The majority of the houses are according to the traditional southern pattern of long rows, but at one place the pattern changes and we find the 'Pol'. This Pol was founded by a wealthy and influential revenue-farmer's family (known as the Poliya-Desai family), and obviously they had adopted a northern pattern to display their rank.

Two features of the Parsi dwelling are of special interest. One is the room for lying-in. This is today referred to as the 'Time-room' and we could not discover what it was called before the use of this English derivation. Among the Parsis the lying-in period was observed with a far greater ritual severity than among the other communities. The female remained for forty days within the closed room and did not stir out; during this period she was forced to use only iron furniture for her personal use (iron bed and stool); and to use the familiar sewage well for hygiene. The use of iron is well-known in many communities for warding off evil, and for Gujarat the following is reported by J.M. Campbell in the Indian Antiquary, "Iron - among the Hindus of Gujarat, in Western India, the two chief articles that guard against the malign influence of the evil eye are iron articles and articles of a black colour." (72). The house in Navsari of the renowned Meherji-Rana, who had visited Akbar, still has a sewage well covered with a wooden cover in the Time-room. Regarding the custom of seclusion, there is an observation of K.N. Kabraji, also from the Indian Antiquary (1904)
in which he refers to events fifty years ago, "... consigning women, at a most critical period of their lives, to dark, damp, and noisome rooms on the ground floor of the house for forty days together. If there is no close room available in which to shut them out so long ... then a huge curtain ... is put up, forming an enclosure for the ... woman." (73).

In one Parsi house the Time-room pointed out to us was next to the front-room and had a small barred window looking onto it, and when we enquired as to how such a proximate location and view of the female was permitted, we were given the following answer. There was apparently no bar for the woman to speak to her family members or even to visitors, and she could do this through the barred window. This answer indicates two interesting aspects. Firstly, the position of the woman in the Parsi family was obviously not that of a subordinate or inferior but of one equal to all and entitled to status even during the 'critical' period. Secondly, the whole idea of seclusion was not only because the female was 'polluted' and had to be kept away from the others, but because she was weakened and liable to evil influences of a magical nature from which she had to be protected.

The second feature of interest was the room at the back known as the Room-for-the-Dead. Here, upon any death in the family, a ceremony known as Muktād was performed for the deceased for which a raised platform was required with wall niches (see Ill. 85), but what is striking is that this Dead-room was located to the rear, i.e. in almost the same place where the southern Brahmin had his prayer-niche. The need for ritual purity governed the location of both spaces. Another feature related to the dead was that the entrance door of the Parsi dwelling was not located in line with the passage but to one side (see Ill. 847). This was deliberately done because in connection with ceremonies for the dead there was an occasion when the deceased was brought to the front-room and placed at the head of the passage, and at this time the body was not to be looked at by any outsider.
Yet another custom related to 'purity', but of a different kind, was that every Parsi was supposed to wash himself/herself after cohabitation, and for this purpose every room for sleeping in was provided with a low parapet wall which enclosed one of the corners the inside of which was paved with lime and had a gutter for draining away water. The parapet wall carried pots of water for the ablutions. The presence of these corners in a house immediately revealed that they were bed-rooms. A similar custom exists among Muslims. The custom of providing the paved corner made it quite obvious that a couple was inhabiting the room and that they had sexual relations, i.e. the fact of cohabitation was not sought to be masked. In the Hindu family exactly the opposite custom prevailed: sex was not supposed to 'exist' between couples; the act was surreptitious, and it was therefore quite impossible to openly provide for it by introducing washing arrangements. Basically the matter is related to the manner in which married sons are accommodated within the house, i.e. whether they are allotted separate rooms or not. A number of Vaniya houses had these gutters in upper floors and this indicated that they too had rooms for couples, but that was not universal.

A point of general interest here regarding the Parsi house is that although this community came from Persia and had a different culture from the Indian, yet when it came to the house-form they freely adopted the regional type and adapted their life-style to fit into it. This phenomenon to some extent supports our thesis that the migrant group generally accepts the indigenous architecture without much difficulty, and this is particularly the case when they come in peacefully and merge into the local population. But it is nevertheless remarkable that they did not apparently introduce a single architectural feature from their native land.
We may now leave this particular community and turn back to the Ansvils about whom so far not much has been said. The reason is that in general the Ansvil house was modelled so closely upon that of the other groups that no special attention was needed. There is a distinct possibility that the modified Koli house which we found as the prototype of the urban house was the creation of the Ansvils. It was they who had from the beginning been closely associated with the Kolis but at the same time, because of their being Brahmins, had brought a northern culture into the region and hence produced the modified house. There is no record of when, or how, they came to South Gujerat. Klaes W. van der Veen, who made a special study of them, says that their origin is not known but that, "The Ansvil Brahmins are grhastha Brahmins which means they cannot perform priestly functions. Traditionally they are land owners." (74). He then goes on to add, "So-called Desai rights were conferred by the Moghul Princes on certain Ansvil Brahmins, making them representatives of the Moghul administration in charge of land-tax collection." (75).

These Ansvil revenue-farmers became very wealthy and powerful and sought to imitate a feudal life-style by setting up large mansions as symbols of status. Our survey of these mansions, however, revealed a strange situation which we shall also meet in the case of royal palaces, namely that all of these great mansions belonged to a late period by which time European influences had begun to strongly enter the area. As a consequence of this, the buildings had much colonial architecture in them and did not represent an indigenous style. This colonial influence could already be seen in rural houses, and was, of course fully present in leading families such as those of Gandevi or Valsad. In some cases the building showed features from the stone architecture of the Rajputs. Because of these extraneous influences this class of buildings was not taken up for study and only one has been illustrated to provide a comparison, that of Gandevi (Ill. 826). This will again be referred to in the descriptive portion.
We come now to the end of our examination of the typical domestic architecture of South Gujarat, and it remains to look at Surat which forms a significant exception to the situation as hitherto described. It was stated earlier that Surat shows a mixed character (page 238) in that it has parts which are typical of South Gujarat, and others which are typical of North Gujarat. The city also has a number of Muslim buildings which will be described in the relevant section. Here we have to say something about some features which are common to all of them and which have not so far been included in South Gujarat. These are:

(a) Tankus: Surat is the only town in this sub-division to have the underground cistern for storage of rain-water. In this connection the following quotation from Ovington (1689) is relevant, "The Bannian seldom drinks of the common Water of the Wells or Rivers, only what falls from Heaven in the time of the Musssouns (meaning monsoon), which is preserv'd in large Tanques and cisterns made on purpose to receive it, and keep it ready for their use the following Year." (76). The common people of the town had, of course, to drink well-water as was noted by Thevenot in 1666, "The River of Tapty is always brackish at Surrat, and therefore the Inhabitants make no use of it, neither for Drink nor watering of their Grounds, but only for washing their Bodies ... They make use of well-water to drink..." (77). Stavorinus (1774-5) had more to say about these wells, "Although the city of Surat is built upon the banks of a river, the inhabitants would be in want of water, as that of the river before the town is almost always brackish, if provision were not made against this inconvenience, by a number of wells, lined with brick, which are very deep, and whence the water is brought by oxen in leathern bags." (78).
The Gazetteer of 1877 reported, "Another point worthy of note in the arrangements of Surat town houses is that very many of them are provided with a private well and a cistern for holding water. With only one or two exceptions the water in the city wells is, from its brackishness, fit only to be used for bathing and cleaning. Almost all the well-to-do drink rain water. This, falling on the flat cement coated roofs and terraces, is drawn through metal pipes or masonry channels down to a cement lined cistern, where it remains fresh and fit for drinking throughout the year. Those who have no store of rain water, drink water drawn from the Tapti or from one of the few wells of sweet water in the suburbs and outskirts of the city." (79).

The above descriptions make it clear that even well-water had turned gradually brackish between the time Thevenot and Stavorinus saw Surat and the Gazetteer was written. The reason for this deterioration was due to the pollution of sub-soil water from sewage and waste, and this was bound to be greatest in the parts of the town which had the earliest settlements, namely the central parts. The report of the Gazetteer that it was only the wells in the suburbs and outskirts which contained sweet water bears this out. One could almost measure the age of various parts of an old town by measuring the degree of pollution. The Tankus of Surat were identical with those of North Gujreport and no further description is necessary except to add one point. The Tanku was found only in those houses which had a northern house-plan, i.e. which had an internal courtyard. Those houses which had a southern house-plan with a back-yard had no such Tankus. The reason is because the southern house-plan had no provision for internal courtyards and also little possibility for arranging terraces to collect the rain-water. The substantial terrace was always associated with a different kind of house-plan, be it northern or Muslim, and hence the Tanku only appeared in such houses.
(b) Terraces: It will now be obvious that where there were Tankus there had to be terraces. These terraces of Surat had struck many of the old travellers, among them Ovington (1689), "... and the Floors both of the lower and upper Stories are all Terrass'd to make them cool."(80). John Fryer saw the house in which the English lived in 1674, "It is contrived after the Moor's Buildings, with upper and lower Celleries, or Terras-walks ..."(81). The most useful reference is that of Carsten Niebuhr (1764), "The larger houses are flat-roofed here, as through the rest of the east, with courts before them. The houses of the common people are high-roofed."(82). Here we have a clear reference to the fact that the 'common' houses, i.e. those derived from the Kolis, were pitched and without terraces, while only the few larger buildings had terraces. The mixed architectural character of Surat is evident. But where these observers went wrong was in assuming that these terraces were made either to keep cool or to sleep on, or merely in imitation of Muslim houses of North India. It is our understanding that it was the need to feed the Tanku with rain-water which made the terrace so essential in Gujarat.

(c) Bhoiru: This is the local Gujarati word for the underground chamber or cellar. We have mentioned such chambers earlier as being used for the storage of concealed wealth, and they were common throughout the whole of Gujarat. But the speciality of Surat was something different. It was an underground cellar of such large dimensions that human beings could inhabit them for lengthy periods in order to escape the heat of summer. This is how the Gazetteer of 1877 described them, "But the bhoysaru, a cellar or underground strong-room, is seldom found except in Surat. Though alike in being always made of brick and cement without timber, these cellars vary much in size and construction. In some houses they are but little more than treasuries or safes for keeping articles of value. In others they resemble the underground retreats in a Muhammadan mansion, rooms furnished with swinging
cots, favourite resorts in the hot season. Occasionally, especially in the houses of rich traders, the cellar contains an inner safe, or \textit{Khajan}, secreted with great care in one of the walls of the chamber." (83).

The above is a very accurate description of the Bhoiru of Surat. In the old house of the Nagarseth of the town, a family which has a record of dealing with the East India Company, we found such large cellars replete with ventilation shafts for a regular residence. And in one corner was a secret chamber which went even further underground. In many houses which had such large cellars the Tanku was located next to the Bhoiru, and by this means the latter space was kept cool due to the proximity of the water. Regarding the origin of the custom, there is no doubt that it derived from Muslim architecture. The following reference from "Fathpur-Sikri" by Rizvi & Flynn will clarify this, "Two methods of mitigating the heat were practised by Persian builders ... the \textit{badgir} (a Hawa Mahal or wind-palace) ... and \textit{zir-zamin}. This latter, whose name means "underground" is a cellar or basement beneath the house; in India it is usually called "tahkhana", which roughly means "underground chamber". Buildings raised on a plinth, such as the palace-forts of Delhi and Agra ... incorporated such rooms in the plinth, coolly plastered and reached by stairs from above ..."(84). A famous example of such cellars next to water was at Mandu. It seems quite clear that these royal chambers were being emulated at Surat.

(d) Changed Stairs: Surat was almost totally destroyed in a devastating fire which occurred in 1837. The buildings made after this date showed a noticeable disinclination to use wood and one consequence was the introduction of the solid stone stairs. Solid stairs were already known from Mughal architecture and here it only meant the transference of the idea from the palace to the domestic house. All solid stairs were encased within two walls and because there were no hollows between treads, the individual tread projected more than usual beyond the next tread,
and this gave to the stairs a less steep inclination. But coupled with this the stairs now needed much greater length for its accommodation. In other words, the normal northern Haveli had no space within which such a long stairs could be fitted in, and an alternative arrangement had to be discovered. The method employed was to place the stairs in one of the external walls of the building and adjust the circulation to the traditional plan. This was done in different ways depending on circumstances and no general pattern was followed. These solid stairs can be seen in Ill. 555–754. One problem which arose was that the length of the stairs within an external wall was not equal to the depth of the building so that the stairs projected out beyond the face of the respective external wall. This looked ugly, and to mask it a very peculiar device was resorted to. The solid stairs was made tapering so that by the time its end was reached, it could be made to merge with the face of the external wall and the projection would be hidden. The tapering stairs seen in Ill. 641 are due to this reason. This peculiar solution appears in other sub-divisions as well and will be referred to in the descriptive part.

Another change in stairs seen after 1837 was that a great many of them were made 'dog-legged'. The dog-legged stairs is one which has two flights and a landing and is far more spacious and comfortable than the ladder-like traditional stairs. It naturally requires more space due to its greater width and smaller inclination. This kind of stairs is of European origin and its widespread prevalence in Surat reveals the influence which colonial architecture had begun to exert in the region. We have elsewhere (page 56) called this the 'Bombay style' and the Surat which was re-built after the great fire came heavily under its influence. In the normal house, this influence manifested itself not in any significant change in the house-plan, but in a change in the decorative features. The new stairs could be fitted into a normal house-plan because the additional space which it needed was in width and not in depth.
We may close this section with a general remark on Surat. As already mentioned, Surat was re-built under strong influence of the 'Bombay style' and many of the wealthier buildings went in outright for pseudo-Gothic and pseudo-Renaissance. Even in the traditional house-plan the spans of rooms was dramatically increased due to the use of iron girders and trusses, so that the original proportions and character were completely changed. Some of the richest buildings in Surat belong to the community known as Vores and most of their architecture shows this Bombay influence. All such examples of colonial architecture have been excluded from this study. Because of it, much of the architecture of Surat had to be excluded as it fell, not only in the post-1837 period, but also under colonial influence. The problem in Surat was rather to discover what part had survived the fire and to seek within it that which was traditional. Among the post-fire buildings there were many which had a northern house-plan but of greater depth and with a back-yard. In this case the interior was simply divided into three parts without the small, central rooms. The functions of these smaller rooms was then shifted to upper floors. Since nothing fundamentally was involved, these late houses are not described.
THE TRIBAL HOUSE

The word 'tribal' is liable to misunderstanding and needs to be clarified. By tribal we do not mean only those communities which are listed in constitutional schedules. There is a whole group of communities which is originally tribal but has begun to merge itself with the lower Hindu castes and they are generally landless labourers living on the fringes of settlements. They do menial work and are often the local scavengers. The houses which they build for themselves are not broken-down versions of upper-class houses, but are independent and original structures possessing a definite style which is repeated in all of their fringe-settlements, thus proving that they are following a real tradition. These structures with certainty represent what was once a tribal tradition and hence are included in this category. The communities in Gujarat which still preserve this tribal tradition, even though living in urban areas, are, for example the Dheds and Chemars, but they do not have different styles by virtue of being different communities. In other words, the style does not follow communities but is general to many such poor communities, and so we shall describe them under the general name of Harijans. In this study, therefore, the word Harijan refers to an urbanized tribal, but not a Koli.

In addition to these urbanized tribals, there are those others who are still living in the forested hills of Gujarat and of them the two largest groups are the Bhils and the Dangis. The Bhils occupy the eastern fringes of the state stretching from Danta in the north to Rajpipla in the south, and there are groups of them in many villages of North Gujarat where they work as labourers. Where the Bhils have settled near to agricultural settlements of the upper-classes, they have generally turned to mud houses and these have been excluded for study except to take one or two as illustrations. The true Bhil house is found in the forested areas and is a wooden house. The Dangis live exclusively
in the forests of South Gujarat which border Maharashtra, and their use of a mixed Marathi language proclaims their ethnic affinities.

There is a third style of houses which is found mainly in Kutch and northern Saurashtra called the Bungō or Kōbō, and its origin is obscure. It occurs always on the fringes of settlements and because of its utter primitivity it has been included under tribal. One superior kind of Bungō is found in the Reuni area of Kutch, used by a pastoral community. Lastly, there is a kind of shelter used by the nomadic Rabaris of the Gir forests which is very similar to the Bhil house.

Common to all of these tribal houses is the fact that they use exclusively those materials which are found in a natural state within the forest itself and do not require any processing. It is this which makes the house so primitive, so that here we have an all-wooden house. Incidentally, the poorer Koli house also has this characteristic. The use of unprocessed materials is not a sign of 'poverty' (although they are no doubt poor), but of the fact that their life is nomadic. The Bhil, for example was originally a hunter and food-gatherer and he had to be constantly on the move seeking out suitable hunting grounds. When he later added some agriculture to his occupation, the method which he employed was the following. A selected portion of the forest was burnt down, the ash was allowed to mix with the soil and fertilize it, and in this soil the seed was scattered or sown with a seed-drill. Once the crop had been harvested and the fertility of the soil exhausted, another patch of forest was selected, and so on. In this way the Bhil constantly moved from forest to forest without any fixed settlement. It should be added that at this stage he had no cattle for ploughing and no dung which he could use as fertilizer. The use of cattle was gradually learned from the superior agricultural communities, after which he also learned to settle down and work on a fixed plot of land. But the style of his house remained that of the nomad.
The case of the urban Harijan was both different and similar. Being a mere labourer he was never sure of where he might find work. Even the land where he built his temporary shelter was not his own but lent to him by his employer. Under such precarious conditions there was no incentive to build a permanent house, for economically speaking he was a nomad moving from settlement to settlement in search of work. The Bunga is a good example of a house made from waste products of the landscape. The last case, that of the Rabari, was nomadic by profession. Cattle grazing, completely divorced from any kind of agriculture, made constant movement essential and his shelter, the Nes or Nesra was equally made of forest produce.

Regarding the sociology associated with the tribal house, it should be mentioned at the outset that while the domestic customs of these peoples are often complicated and full of rituals, yet they do not cause any complications in the house-plan. The latter remains extremely simple and uniform regardless of the community under study. What this implies is that the house is still primarily a 'shelter' without much internal differentiation arising from usage, and that 'function' and 'architectural space' have not yet become closely interrelated, as they have for the more settled people. Thus it is not necessary to give many details of the life-style as these mostly do not affect the house-plan, and only those few customs which are relevant need to be described. In general, most of these customs, and many of the details of the house, are remarkably similar among all tribals and all such common features may be described together. It will then not be necessary to repeat them when individual groups are taken up for study. Given below are such common features.

The most important aspect of tribal life is that the family is nuclear, i.e. that the Hindu Joint Family system is absent. Husband and wife live together with small children; a son who grows up and gets married is expected to separate and set up an independent house of his own. Where this may not be
immediately possible due to economic circumstances, he sets up a separate hearth temporarily either in an extension to the parental house or within it, but eventual separation is the rule. The separate dwelling is not joined in any way to the parental house, as it is among the Kolis, but instead a completely new and physically separate unit is constructed some distance away. This results in the scattered settlement pattern so typical for tribals. The distance between individual houses may be only a few metres where land is scarce, or it may be 50 metres where it is plentiful, but there is always by tacit agreement a break in the continuity. This phenomenon is in striking contrast to the settlements of the non-tribals and its reasons are worth inquiring into. It is not sufficient to say it is the nuclear family which causes it, because the Kolis also have this custom and yet they build row houses.

Among the tentative reasons given by scholars for the scattered settlement are the following: that the fear of disease or death in an existing house forces others to keep at a distance. Koppers & Jungblut write, "The new house (of Bhils) must not be built on the site of an old one, the spirits of those who died in the old house may harass the inhabitants of the new house."(85). The Bombay Gazeteers (quoted later) thought that it was partly due to fear of infectious diseases and partly due to fear of fire. Modern scholars think that it permits each family to better watch over the individual field (in the case of the Bhils). But all of these explanations do not serve to explain why the Dangis or the Harijans, neither of whom build within their own fields, have separate houses. The fear of disease would not only force the houses to scatter but also restrict social intercourse, and as this is not the case, this cannot be the real reason. It seems to us that the reason for such a wide-spread and common phenomenon must itself be equally wide-spread and common, and the one feature which fits this category is already evident: the nuclear family.
The nuclear family system of tribals is associated with two other well-known phenomena, namely the relative freedom of women and sexual jealousy. It will be recalled that the Hindu Joint Family survives precisely because it masks sexual relations and restrains the women from extraneous contact. Tribal society has exactly the opposite characteristics. The females have complete sexual freedom before marriage and much of this persists throughout married life. This leads to constant tension and intense sexual jealousy within the family, and is a potential source of disharmony. If married sons and their wives were to live together with unmarried younger brothers, there would inevitably follow a sexual entanglement leading to the disruption of the family. This problem is met by the custom of separating married sons as soon as possible into independent dwellings, so that each forms again a nuclear family. But the reason for the scatter is still not explained, for married brothers could as well form nuclear families in adjoining dwellings. Here the explanation lies in the nature of the tribal house. The walls of the house are of the flimsiest kind, being only wattle and mud-plaster, and not only can a whispered conversation be happily carried on through a party wall but it takes little to make an opening. Adjoining dwellings would not at all prevent liaisons from developing but in fact would encourage them, for once the head of the family was out on some task his wife would be alone in the home and secure from observation. Proximity, which kept the wife under constant watch in the Joint Family, has in the nuclear family the opposite effect: it facilitates liaisons. This, then, is the real reason for scatter. It is not fear of fire or disease which compels the distance between houses, but the fear of sexual involvement between wife and neighbours.

The presence of scatter makes the individual house exposed to theft, attack and plunder, and it is curious that this does not over-ride the sexual jealousy and compel the cluster. Most likely the tribal house contained so little worth theft or
plunder that there was never any danger of this kind. If at
all, it was the other way around: namely that the tribal was
the one who committed the brigandage and compelled the more
settled communities to make strong walls and thick doors and
live huddled together in defensive Khedkis. The tribal attitude
to personal security is described by Chapekar in his study of
the Thakurs, "Wattle and daub screens of the same material as
the walls serve as doors. There is no arrangement to fasten the
doors from inside ... In every village there are a few houses
with an open entrance with no means of closing it. To a Thakur,
a door is protection against the cold. The idea of its
affording security to valuables is quite foreign to him, as he
owns so little." (86). The flimsiness of walls and doors is
characteristic of the tribal house. In case it might be thought
that wild animals would find it easy to enter such a house, it
should be added that the forest predator, unless it is a man-
ester (which is very rare), never breaks into an inhabited
dwelling. A screen of bushes is quite sufficient to keep him out.

The wattle and mud-plaster or daub which was used for
walls and partitions had other consequences on domestic life. The
daub was generally applied only to a certain height of the wall
and the remainder was left unplastered. The 'wall' above the
loft (on gable sides) was often made only of palm fronds suspended
from the rafters. Both these materials allowed air to circulate
freely through them so that the interior was at all times well
ventilated. The ventilation was far superior to that of a
brick house, and this explains why no windows were ever made. Of
course, there is also a material reason, namely that the woven
nature of the wattle does not permit it to be arbitrarily cut
within its surface to make any larger opening. If something
resembling a window was wanted, all that had to be done was to
leave out the daub along a part of the surface and what remained
was a 'window' (see Ill.343). The exposed part of the wattle
acted as a grill to the opening! The air-permissiveness of the walls, and of the roof, had one great advantage: despite their lightness and flimsiness they rarely blew off in a storm. The air passing through the meshes never built up enough pressure to do any damage. It is because of this characteristic that simple rope-bindings sufficed to keep the structure in place. So far as the internal partitions were concerned, these never went right up to the roof - this was not required - and the interior space thus always retained its uni-spatial character. The loft rarely extended the full area of the house, so that it looked like a mezzanine floor inserted within a large, single space. The lack of full partitions within the dwelling is explained by the fact of the nuclear family: a single couple with small children would not need closed off spaces. A great many of the complications within the dwelling which the Joint Family produced, the whole system of avoidences and partial seclusion, were all absent once the family consisted of a single couple. This explains the great simplicity of the internal sub-divisions.

Within the tribal dwelling it could be seen that there was a desire to divide the interior into two distinct spaces by means of some kind of parapet wall or partition. One of these spaces, the inner one, contained the hearth and served as the general living area for the single-family. All private domestic activities were indiscriminately performed around the hearth and there were no particular corners set aside for particular functions. The articles of private use were also kept here without any specific locations. The second space, the outer, served for receiving guests but it should not be imagined that the segregation of males and females was as neatly maintained as it was among non-tribals. There was a rough division of inner and outer spaces into 'female' and 'male' but, as already indicated, it would be more accurate to speak of 'private' and 'semi-private'. In the absence of guests the male was alone and
as likely to sit in the inner space as in the outer. It must be kept in mind that the male/female problem was not a family problem (as it was in the Joint Family) but one which arose only when visitors were present. Among the tribals themselves, males and females were free to mix without embarrassment unless they had begun to absorb Hindu practices. Therefore, the inner and outer spaces were only meant to differentiate a private area from a semi-private one, and not specifically male from female. There were certain visitors who were entitled to sit in the inner space and others who were not; the deciding factor was the degree of intimacy and not the sex of the visitor. For those visitors, however, who were not intimate, the outer space was intended to serve as a barrier. The tribal house, being isolated, permitted strangers to approach it without warning and since there was usually neither porch nor veranda to delay him, an inner threshold was needed for this purpose. The outer space functioned as this threshold. The twin-space pattern was all that a family required as a permanent feature if it did not keep cattle.

There was one important activity which could be performed only in the inner space and nowhere else: the lying-in. Related to this was the matter of female menstruation. It will be remembered that in the non-tribal Hindu family menstruation was a period of taboo, and it was our contention that the reason why the daughter returned to the parental home to have her child was because that was where she had safely undergone her menstruation. Now, among tribals it is characteristic that there is no menstruation taboo. G.S. Ghurye writes about the Mahadev Kolis, "As a result of freedom from any rigorous taboo, women in menses are not easy to make out." (88). Chapekar reports the same thing regarding the Thakurs and adds that they are permitted to draw water from the well (89), while Foppers & Jungblut observe, "Bhils have not any idea about any ceremony in connection with the first menstruation ... There is no restriction or taboo of any sort: neither on the first time nor any other time." (90).
The absence of any menstrual taboo meant that there was no part of the dwelling where the daughter had secluded herself during its occurrence, and the question arises as to whether our theory holds: namely that in this case the daughter would also have no occasion to return to the parental home for child-birth. Fortunately it does: the tribal woman does not return to the parental home for the lying-in, but instead has the child in her husband's home! This is specifically reported for the Mahadev Kolis and implied for the Bhils (91, 92). The other observers took it to be such an obvious fact that they have not commented upon it, but have straightaway described the subsequent ceremonies (Chapekar-93, F.G.Shah-94) in the husband's house. The location of the lying-in in most cases was in the inner space but the Bhil practice was different. Among them there was constructed a temporary shed built as a lean-to adjacent to the dwelling and it was here, outside the normal dwelling, that the lying-in took place. (This fact has been apparently overlooked by Koppers & Jungblut but was pointed out to us at a number of places in Chhota Udaipur). The reasons for this peculiar custom will now be obvious. The dwelling had no locus for menstruation and so it could equally have none for the lying-in; the latter had to be in a separate shed because the woman having the child was not a daughter of the house and could not be given the ritual seclusion within the husband's home. In other words, the pregnant woman could not go to her own home since there was no menstruation-corner there, and she could not use her husband's home because that was ritually alien. She was thus compelled to set up what was virtually a separate dwelling for the duration. It is our opinion that this practice of a separate hut for the lying-in was previously a universal tribal custom and was partially given up under Hindu influence.

In those groups where the inner space was used for the lying-in, then its seclusion by means of a partition was necessary, and this would be an additional reason for the twin-space arrangement. Although the menses was free of taboo, the lying-in
was not, and for the duration of the latter the inner space was a restricted one having ritual connotations. This can be seen from the following from Ghurye, "All visitors sprinkle some drops of cow's urine on their feet before entering the lying-in room as a precaution against evil spirits trying to enter with them." (95). The fact that the inner space could be converted to a ritual use without difficulty reveals the ambivalent attitude towards domestic space. Space by itself had no specific function - it could be put to any use depending on circumstances. The utilization of a space for one purpose did not disqualify its use for another diametrically different one. This attitude is quite different to the Hindu which seeks to assign permanent restrictions to ritual spaces.

The sub-division of the dwelling into three spaces was undertaken only by those tribals who kept cattle, and lived in areas of heavy rainfall which made the indoor stable essential. In Gujarat this particular feature appears only among the Dangis of South Gujarat. The keeping of cattle among tribals in general was only for the purpose of farming on small plots of even land lying in the valleys between hills. The farming itself was rudimentary and the number of cattle kept few. There was no pastoralism of any kind. But irrespective of whether cattle were kept or not, it could be observed that every tribal family desired to have a loft. And when these lofts were inspected during survey, they were found to be largely unused and merely full of odds and ends and some fuel. Guests were not put up in them. The under-utilization of the loft, coupled with its persistence, indicated that the tribal family was under the compulsion of some old tradition which made a house without a loft as something inferior. No clear explanations could be obtained from the families concerned, and it seemed to us that this tradition related to the time when the tribals were largely food-gatherers. Food-gathering needed storage space for all kinds of forest produce and it was probably discreet to keep it all up in the loft away from visitors. The storage of grain, being heavy, could not be easily done in the
loft and was kept in large bins of either clay or wattle on the ground.

All the sub-divisions which the dwelling was provided with were made of posts and wattle and these had to be anchored to the columns of the roof. Because of this structural necessity, all internal partitions followed a system and their location was restricted. If we now assume the simpler kind of dwelling having a single row of columns in the centre, then there were two ways to make the partitions: either along the row of columns or at right-angles to them. The former method produced only two divisions of the dwellings, the latter as many as there were free-standing columns. Both methods were found actually employed by particular groups, but one group using the one method would not use the other. The reason is that the system of partitions set up a house-usage which, once it became the accepted tradition, could not be changed. An interesting aspect of house-usage was that the entry to all the tribal houses was from the longer side of the rectangular plan. In other words, the entrant faced the longer side of the house while entering. It has already been mentioned that this was the opposite of the custom which prevailed in the general non-tribal row house. In the latter, the convenience of the row compelled each dwelling to have its short side facing the entry, and the plan to be extended along the depth. In the tribal house the extension was generally along the width, and there was a simple structural reason for it. The shallow house had a shallow roof and this, given the primitive methods of construction, was always an advantage in keeping out rain. The deep row house had a deep roof and its water-proofing required much greater skill, and was hence avoided by tribals where possible. The fact that the Kolis used it seems to derive from their agricultural occupation which produced a different settlement pattern and a social pattern mid-way between the Joint Family and the nuclear family.
Having made the above general remarks about tribes in common, we may now turn to some individual examples, beginning with the west and then moving to the east and south.

(a) **The Bunga or Kuba**:

This is a remarkable dwelling made of bent branches, brushwood, mud and thatch (Ill.947,950), and having a typical bee-hive form. It could be observed in large parts of Kutch and northern Saurashtra, with an intrusion into Banaskantha district of North Gujarat. The ordinary Bunga always appears on the outskirts of settlements and belongs to extremely poor people who work as casual labourers, wandering from settlement to settlement as occasion demands. One community which most often lives in the Bunga is the Vaghri. There are, however, some important references to the bee-hive hut in literature which indicate a much wider distribution in the past. James Macmurdo travelled through Saurashtra in 1809-10 and wrote about the area north of Radhanpur as follows, "The villages throughout the Mehwas all resemble each other: few tiled houses are to be met with: the generality being the shape of Beehives..."(96). Koppers & Jungblut wrote on this form as described by other authorities, "In the literature on the Bhils one also comes across the antiquated beehive type of house. This circumstance became important from the moment von Furer Haimendorf established the fact that this type is fairly widely spread among the Chenchus, who - according to Cusa - are very closely related to the Bhils."(97). The Gujarat State Gazetteer (1971) for the Dangs quotes the Khandesh Gazetteer of 1880 on the Bhils, "Living like Kunbis in cone-shaped huts made of tree-boughs, they burn them on the slightest mishap, and seldom stay in one place for more than a fortnight."(98). These references show that the bee-hive hut was once very common to many tribes and was an expression of an extremely nomadic existence. The main reason why it has persisted in Saurashtra is that the local timber which
grows in this sub-division is all stunted and bent and the only kind of shelter which can be made out of such inferior material is the bee-hive hut. (This is explained in the chapter on construction, page 432.) The form is a reflection of the materials used and not due to any social tradition, although in one case (in Banni) the latter aspect played a part.

The Bungas form a small cluster of huts of families related to each other, and they share a kind of common space around which the dwellings are located. But they are not neatly arranged or aligned to each other, and the tendency is rather for each to place his dwelling exactly as it suits him. In general one dwelling avoids locking into the other and this explains the apparently haphazard arrangement. In addition, fresh members may continue to join the cluster and thus any over-all pattern is quite impossible. Each hut has before it a small raised plinth of earth with sometimes a low parapet wall, and this represents its front-yard. The interior of the hut is unique in that there is no column to support the roof. This is again due to the non-availability of straight timber. The single, column-free space is so small that it does not permit any further convenient physical sub-divisions, and it is used very much like the 'inner space' described earlier. The 'outer space' is formed by the front-yard and it serves all of those functions which are semi-private and require a 'barrier'. The mildness of the climate permits much of the socializing to be done in the yard and so the interior remains reserved for essentially private activities. The poverty of the family living in a Bunga is so great that they have virtually no possessions except what they use daily, i.e. there is little to store and hence few simple receptacles. The construction of the roof permits no loft even if it was desired. The walls of the hut are sometimes of mud, at other times of wattle with thick mud-plaster, and within the wall small niches are left for keeping articles. Smoke from the hearth escapes through the roof. There is no need to give further details of the house-usage as these can be gathered from the information already given earlier, except to add one point.
The lack of twin-spaces in the interior was to some extent compensated by the front-yard, but the need for a separate area for the lying-in was not met. In this case, as there was only a single space available, the whole dwelling was vacated by the menfolk and children and handed over to the females for the delivery. The hearth was not used during this time and food was cooked by one of the neighbours. Once again we find the house transformed from its normal every-day functions into one having ritual connotations.

A quite different and superior kind of Bunga was made in the northern part of Kutch known as Banni by a pastoral people who are Muslim Jats. (Ill. 96-4). The Jats are, of course, not tribals but the house-form is clearly tribal and they have either borrowed the form from elsewhere or are themselves in fact tribals who have acquired a higher status. It is interesting to find that right next to their own settlements there are groups of Chamars who have migrated thence in order to work the leather which they make out of the hides obtained from the Jats. And the houses of the Chamars are all in mud, while the Jats persist with the wooden Bunga combined with mud. Here we see clearly that it is not the availability of local materials alone which determines house-form, but equally the operation of other functional factors. The wooden Bunga represents the dwelling of a nomad: the mud house that of a settled community. The wooden parts of a Bunga can be dismantled and transported to a new site, while the solid and painstakingly made mud walls have to be left behind. The pastoral Jats were originally nomads and they have retained the nomadic Bunga even though they have now settled down in permanent settlements.

Cattle-breeding appears to have been an economically favourable occupation because the Jats are all fairly prosperous and their dwellings show far greater wealth and sophistication than those of the leather-working Chamars. One manifestation of
wealth and permanency was that the wooden part of the Bunga was placed upon a mud wall which was first raised to a substantial height. This change altered the material character of the structure, making it non-wooden, but we have nevertheless included it because it is a variant of an originally wooden structure. The finish given to the circular mud wall and the wooden roof was very fine and the inside also had various decorative features, all of which showed that the people were very conscious of the representative character of the dwelling. Under normal circumstances, a community which had wealth and wanted it to show in the architecture would have expanded the dwelling and made it more differentiated, but this could not be done because of two constraints. One was the choice of the Bunga in preference to the mud house; the second was the poor availability of timber. Because of these constraints, the size of the individual Bunga could never be made sufficiently large so as to permit any significant sub-divisions of the interior. The largest Bunga was only about 4 m across in radius. The solution found to this problem was the same as already existed elsewhere, namely to duplicate the unit. Each nuclear family had a number of separate units for separate functions. The following was normal: one Bunga for visitors (i.e. the semi-public space), one Bunga for private use, and one mud-walled shed resembling the Chamar hut used as a hearth. The social usage was determined by the fact that the community was Muslim.

In keeping with this, there was a sharp division between 'male' and 'female' and a system of female seclusion. But to therefore speak of 'masculine' and 'feminine' areas seems to us nevertheless wrong. It should be remembered that the family was nuclear and that at night all the members, including the husband, slept in one Bunga. During the day the situation changed: now the men shifted his locus to the second semi-public Bunga and the women remained in the first one. The semi-public Bunga automatically became a place for male visitors and the private one for the women, but for meals the husband still had to repair to
the latter. It seems far better to avoid terms like men's area and women's area when the family is nuclear and reserve them only for the Joint Family where within one and the same family there is an avoidance between male and female. In the nuclear there can be no such situation and the terms 'private' and 'semi-private' are more appropriate.

The semi-private Bunga, therefore, was the space which corresponded to the 'outer' space of the twin-space arrangement. The private Bunga corresponded to the 'inner' space. The two Bungas were so arranged that the entrance of one did not look into the other. The functions of these two spaces need now no further elaboration. What was new was the hearth separate from the private dwelling and its change of form. The reason for this peculiar feature was that if the hearth was kept within the Bunga, then its low height would trap the heat inside and make the dwelling very uncomfortable during the intense heat of summer, and the family would suffer when they retired for the night. The separate hearth was the answer to this problem, and its change of form into a shed ensured that it got much more lateral ventilation than the Bunga and so permitted cooking during the hottest part of the day. Some families went a step further, and had yet another small hearth open to sky where things could be left to boil. Adjoining to the private Bunga was often a small walled enclosure for bathing and washing. All of these separate units belonging to a single nuclear family were united by a mud platform, some 60 cm high, which extended all around the various structures. The next group of similar units had their own platform and the two platforms did not touch. By this means a kind of mutual isolation between families was effected and at the same time each family was defining its 'territory'. The Benni area is a vast, flat plain which gets flooded during certain seasons and then the water enters between the individual platforms and transforms each into a small island surrounded by uninterrupted water. The original purpose of these platforms was
It was stated that the Jats were pastoralists: where were the cattle stabled? It is quite remarkable and scarcely believable, but the cattle were not stabled at all. They were left to wander about freely without anyone to accompany them. They would graze on their own and regularly return to their owner twice a day to receive some fodder and be milked. The herd stayed together and knew its way around, and spent even the night outdoors under trees. It was during the season of floods when the cattle moved to higher ground that some additional care on them was needed. This peculiar behaviour by the cattle meant that no separate stable for them was required. And furthermore, that the menfolk were largely free from any kind of work except milking and marketing the produce, and buying provisions. It is just possible that this leisure which they had induced them to devote their time to engage in various kinds of decorative handicrafts which have become famous. Within the dwelling they had numerous clay containers shaped like boxes which were covered with intricate designs and glass inlay, while the surface of the walls was similarly embellished. The roof was finished with planks and painted (Ill. 365). Every part of the dwelling showed signs of care and elegance.

One query which may be raised here is the following: Since the Jats needed multiple units, why could these not be joined together into one large complex? The reason was that the circular roofs could not be connected to each other in any satisfactory manner. Quite apart from the fact that valleys would be formed which were unmanageable, as explained earlier, the construction of the roof depended upon continuity and a counter-balancing of parts. Its design was similar to that of a basket, placed upside down, and to interrupt it in order to make junctions was not feasible. Had the Jats given up the Bungs and taken to the mud house, they could have solved the problem.
(b) The Bhil House:

The typical Bhil settlement is a collection of houses scattered over such a wide area that it scarcely seems to belong to one village. And yet the inhabitants maintain a sense of territorial identity and of belonging together. The main reasons for such a scattered settlement have already been discussed, and only some evidence is required to support the phenomenon. The Gazetteer of 1879 says, "The Bhils have no village site or group of houses. Each man lives in his field."(99). The Gazetteer of 1880 on Rewakentha, Nerukot, Cambay attempted some analysis, "Bhil houses, built neither in groups nor rows, are scattered some distance from each other, so that the village covers an area of three or four square miles. For this there are three chief reasons: the fear that their neighbour may be a witch and bring some calamity on them; their great dread of infection, which they believe to be the work of evil spirits, so that the favourite cure for a Bhil who has been long sick is to change his house; and lastly there is the fear of fire, fires being kept burning in every hut for both heat and light."(100).

S.L. Doshi, in his work "Bhils", writes, "Occasionally a Bhil's grown up son may build a new house close to his father's hut, but in most cases they are separated by a distance of fifty to two hundred yards. Such habitations where the fields surround the hutments provide an obvious advantage of living on the holding which ensures protection of the crops."(101). It is best to dispose off this argument at the outset. Koppers & Jungblut write, "On the other hand, however, the higher form of agriculture, viz. that of a continuous tilling of the soil, seems to have developed under Hindu influence ..."(102). The only farming which the primitive Bhil knew was the slash-and-burn method and his chief means of livelihood was hunting and food-gathering. And even the supplementary farming which the family engaged in was the work of the women, not of the men. The link between the men
and farming had arisen only with the introduction of the animal-drawn plough, before that it was women's work. It is not likely that a secondary occupation performed by females would determine the settlement pattern of a whole community. This is a rationalization of data, not its explanation. The aspect of sexual jealousy is not one which would be easily ascertainable by oral questioning and hence its isolation in data-collections. Sex has been linked to its more obvious manifestations such as marriage, escapades, jealousy, murder, but not to its equally obvious locus, namely the dwelling. Given the moral laxness of society, coupled with sexual jealousy, how else is the male to isolate his wife than by isolating his dwelling? It should be kept in mind that the dwelling itself was of the flimsiest kind and its walls offered no real defence. A person in one dwelling could whisper to a person in the next through the wattle, assuming that two dwellings were adjoining. Secret assignations under these circumstances would be easy. It therefore seems far more logical to assume that it was the desire to isolate the female from neighbours which determined the settlement pattern.

The scattered settlement had the same architectural qualities, or rather the lack of them, as described for the Kolis: absence of common spaces, absence of defined spatial boundaries, absence of any kind of 'pattern'. Each isolated dwelling stood by itself as a clear symbol of a nuclear family which insisted on its separateness. This has been well described by Doshi, "The primitive Bhil family is based on individualism and does not represent in any way the joint family system of the Hindus, for when a grown-up son marries, he separates from his parents..." (103). Y.V.S. Nath reports a similar situation (104).

Regarding the individual dwelling, the typical form seen in places as far apart as Danta, Idar, Bhiloda and Chhota Udaipur was the rectangular, single storeyed structure with internal loft.
(See Ill. 918, 926). The interior was partitioned into two spaces along the central line of columns, with the inner space having the hearth and the outer for visitors. The functions of these spaces has already been generally described, namely as 'private' and 'semi-private'. The location of the hearth in the inner space was always centralized because a too close proximity to walls or columns could lead to accidental fire. Goods were stored in bins of either clay or wattle. The loft, resting on a separate system of columns and served by a ladder, was used in a very cursory manner for keeping odds and ends, and never used for sleeping. The cattle were stabled in an irregular manner. In some dwellings, part of the outer space was fenced off for the cattle, in others a kind of lean-to shed was added as an extension to the side of the dwelling, and in the case of well-to-do Bhils they were kept in a separate building altogether in imitation of upper-class custom. The variety of ways of stabling cattle was an indication that there was no general tradition and this supports the evidence that the use of cattle was learned late from other communities.

The custom of building a temporary shelter outside the regular dwelling for the lying-in has already been mentioned. The woman stayed in this for seven days after which she could rejoin the family but did no cooking for another month or so. During this period the man cooked his own food or took the help of a relative. Apart from this temporary shed, there were many other similar sheds which were added to dwellings as the need arose. If an enclosed space was needed for keeping goats, a wattle fence was erected next to a wall of the house; if an enclosed space for drying of mahuva flowers was needed, another fence would be put up (Ill. 938). In this way the original rectangle would soon get multiple extensions on all sides giving to the house a rather untidy and disorganized appearance. The extensions were not made to accommodate a growth of the family, but to accommodate new functions acquired by the same nuclear family. The reason why
such extensions could so easily be made was firstly, because the materials used were of the simplest kind and virtually free of cost; and secondly, because the house was free-standing. The ease with which extensions could be made obviated the need to start off with a large envelope, and the original house could be made small and compact. The whole process of design reveals a nomadic existence.

In parts of Danta and Idar an interesting feature could be observed which was absent in Chhota Udaipur. The whole house with all its out-houses and extensions was enclosed within a compound wall made of brush-wood, and frequently creepers were grown onto it. These hid the house within and provided complete privacy. Bishop Heber, who passed through Banswara in 1824-25, has given a very accurate description of this arrangement and the reference is quoted in full, "Each was built of bamboos wattled so as to resemble a basket; they had roofs with very projecting eaves, thatched with grass and very neatly lined with the large leaves of the teak-tree. The upper part of each gable and was open for the smoke to pass out. The door was wattled and fastened with a bamboo plait and hinges, exactly like the lid of a basket and the building was enclosed with a fence of tall bamboo poles, stuck about an inch apart, connecting with cross-pieces of the same ..."(105). What is striking about this description is the resemblance noted between house-making and basketry. Everything about the tribal house was plaited, woven, inter-twined, tied, plastered - but rarely nailed. It is relevant here to state that the local Gujarati word for 'building' is bāndhkhām which exactly means 'to tie together'. Whether the latter word is derived from the former is a matter for speculation, but it seems very likely. The practice of having a surrounding fence was probably once universal among Bhils for it is reported by the Gazetteer (1879) of Kaira and Panch Mahals, "The hut divided inside into two rooms is surrounded by a cattleshed, The whole enclosed by a strong high creeper-covered
fence ...(106). It could have fallen into gradual disuse in imitation of the upper-castes.

The question of imitation brings us to a very interesting aspect of the matter. In the village of Surkheda in Chhota Udaipur we were informed that in olden times it was the custom that upon the death of the father the parental dwelling was torn down and every part of it was partitioned equally among the sons, who used the parts to add to their existing dwellings. In later times this custom was substituted by another in that the youngest son of the deceased inherited the house in exchange for caring for the father in his old age. All these ancient customs came to an end with the coming of the solid brick house! The rich Bhil who made a brick house found that the old system of inheritance broke down because neither could the parts of the house be torn down and distributed nor would the older brothers willingly permit the youngest to inherit the expensive brick house. To overcome this dilemma the father made, in his life-time, as many rooms to the brick house as he had sons, or made at least two, so that after his death some kind of partition could take place. (This last piece of information was received in the village of Od.) In other words, what was now made was the twin-Ordo house having a complete identity with the upper-caste house of North Gujarat. And the important question which arises is: which came first? Did the non-tribals copy the tribal house, or vice versa?

We have already hinted that it was the Woli (or tribal) house which was adopted by the migrant peoples who settled in Gujarat (page 152). If we now examine the Bhil house closely we shall see that it has a remarkable similarity to the North Gujarat house. Both have two main internal spaces arranged behind each other; this sequence follows logically from the practice of placing partitions along the central columns parallel to the entrance. The twin-spaces which thus arise have similar
functions in both cases: the inner space is the private one, containing the hearth and the stores; the outer space is for visitors. All that the North Gujarat house has done is to add a veranda to the front, and to narrow the width of the unit to make it convenient for fitting into a row of the Khadki! The narrowing of the width has been compensated by a slight deepening of the inner space and by the addition of the veranda giving to the house-plot a deep layout as opposed to the shallow one of the Bhils. The Ordo of North Gujarat is the 'inner' room of the tribal; the Parsal the 'outer' room. Since the tribal house is with certainty an indigenous product, it seems logical to conclude that the North Gujarat house is modelled on that of the tribal. Our earlier tentative assumption is here sufficiently attested.

But the twin-Ordo arrangement is not tribal: that is a product of a life-style in which partition of the house was contemplated by dividing it down the middle after death of the father. The tribal family, on the other hand, had already split up during the father's life and each elder son had made his separate dwelling. He could do so with comparative ease because all he needed was forest produce which cost nothing but labour. There was neither occasion nor custom to partition a house as it stood on the ground. The single-Ordo dwelling, i.e. with a single inner space, was quite sufficient for the needs of a nuclear family. The twin-Ordo dwelling made sense only if the sons stayed in close proximity after partition, and this was not customary among the Bhils until they came under contemporary influence.

The only link which is missing in the above argument is that the prototype here is that of the Bhils whereas it is the Kolis which we have found as the dominant tribal group in North Gujarat. This point is easily answered. The dwellings of the Bhils and of the Kolis must originally have been identical — this is perfectly logical when the nature of the structure is
seen in detail. The house is simplicity itself: three parallel rows of columns arranged to form a rectangle; the external columns connected with wattle partitions and the same placed in line with the central row of columns, thus producing two internal divisions. There is no ingenuity involved in such a house and it is in fact a basic house which could arise anywhere given straight timbers, a scattered layout, and an undifferentiated nomadic life-style. It is quite possible that, just as the beehive was not exclusive to Gujarat but was found among the Chenchus, so also our tribal dwelling may have a much wider distribution. The searching out of that distribution is another task; here it is sufficient if we can trace out the origins to indigenous peoples whose existence is documented and who were occupying the area prior to the migrants.

There are some other features of the Bhil dwelling which relate it to that of North Gujarat. One is the presence of the large storage bins. These bins were originally made of bamboo wattle in a technique exactly resembling basketry and they were of a very large size, so that once filled with grain they could not be moved. Such large bins were often used as space-dividers inside the house. Exactly the same practice is reported for the Mahadev Kolis by Ghurye, "The inside of the house is divided at least into two compartments, the built-up receptacle for grain serving as the dividing wall in many cases." (107). The more improved bin was mud-plastered on the inside to prevent insects getting in. This primitive technique of storing grains must have been common to the Kolis also, and the large clay storage jars of North Gujarat are modelled on the tribal bins. As already mentioned, such a large storage container is not normal to a nomadic people and this feature must have originated among a settled agricultural community. The only community which fits this description in Gujarat is that of the Kolis, but as they have merged with the 'Hindus' it is no longer possible to discover what was originally Koli and one is forced to reconstruct some of it from the vestiges found among other tribals.
Another related feature is the roof. The roof was always a two-way pitch with low eaves on two sides and high gables on the two other; the ridge was parallel to the eaves, and all internal spaces were divided parallel to the ridge. The entrance door was below the eaves and all other internal doors were aligned to it. A roof of this kind can, theoretically, be expanded in all four directions so that the house too can be extended on four sides (up to the limit of the head-room towards the eaves). But we have seen that the location of the columns was parallel to the ridge and the system of partitions set up in this way was a sequence of units behind each other. The North Gujarat house retained this linear sequence partly because it was the established system, partly because it fitted in so well with the row development. It is at this point interesting to make a comparison of the Bhil (possibly North Gujarat Koli) house with that of the South Gujarat Koli. Both have the two-way pitched roof with the internal depth of the house, and the main partitions, parallel to the ridge because of the position of the columns. In both the movement within the dwelling is linear and towards the depth. The only difference is that the depth of the Bhil house, being a free-standing structure, is much less than that of the row house; and furthermore, that the depth of the southern house has greatly increased to accommodate the cattle inside. In other words, the similarities between these two house-types of north and south are far greater than the dis-similarities, and the latter are not fundamental but in response to occupational needs. This would then mean that there was once a uniform Koli house in Gujarat irrespective of north and south, that it subsequently became modified in South Gujarat in response to climate and occupation, and that it was adopted in North Gujarat by the migrants and transformed into a Khedki pattern. The same house, but this time duplicated into a twin-Ordo type, became the standard house of Saurashtra. This theory of a single house-type being the prototype for all the others is
attractive, and therefore to be treated with caution, but it seems at the moment inescapable.

Before closing this section on the Bhil house, some remarks are required about some features which are exceptional but important. It has been reported by observers, and also seen by us during survey, that in some cases where the married sons could not set up a completely separate dwelling, they formed shed-like extensions to the main house and moved into it with their own hearths. This can be seen in Ill. 933 from Bhiloda. Here the dwelling on the left was that of the deceased father and now occupied by the youngest married son. The large dwelling to the right was built later by one of the other sons (he was better off) adjacent to that of the father, and he permitted the third married son (his brother) to build an extension to his own house and live there. Thus, all the three dwellings are adjacent to each other but have three different hearths even though they are all brothers. Now, this appears to be the beginning of a row house. Our informants told us that the arrangement was temporary and that once each of the poorer brothers could afford it, they would move away and build separate houses. It seems to us that if the occupation of the people changed from nomadic to settled, i.e. if they became agriculturists, and if in response to this they had to organize themselves better, then such a situation could lead to the growth of the row house which the southern Koli today has. This can be understood by the following.

The nomadic scattered Bhil has no effective village organization so far as facilities are concerned. There is no common well made by joint effort. Koppers & Jungblut write about this aspect, "... as far as the Bhil is concerned there was generally speaking no question of wells and dams." (108). Without well-water the Bhil would be compelled to settle near to streams and leave unoccupied much of the best agricultural land further away.
If he wished to practice serious agriculture, he had to move away from riverine gulleys and banks to better land inwards, and to be able to do this permanently he had to have well-water, and this in turn required a village organization. The individualistic family living separately would not work in this case. Assuming that close relatives agreed to co-operate in setting up a well, where would it be located in a scattered settlement? Again, circumstances would compel them to come closer and form a nuclear village. Of course, this does not automatically lead to the row house, but it is close to it. There may be factors as yet unknown which made the row house preferable to the mere close grouping (for example that the row represented descent and this played a part in village politics, etc.), but all that is today difficult to ascertain because the original social conditions among row-dwellers no longer obtain. We have here given a tentative account of the growth of the nuclear village seen in its incipient form in a few actual examples.

The last point is that some observers (Koppers/Jungblut, Nath) have reported about some Bhil houses being two-storied in which the family lived on the first-floor (actually the loft) while the cattle were kept on the ground-floor immediately below. We ourselves saw no such houses. As no reasons are given for this kind of dwelling, it is not possible to examine the matter.

(c) The Dangi House:

There are mainly two communities which live in the Dangs: the Bhils, and a group which speaks a language related to Marathi and is clearly related to people across the border in Maharashtra. But since the houses which they build in this region are identical, we may speak of a common Dangi house. It will be seen later that this same house-type becomes the modified Harijan house in South Gujarat.
The Dengs is an extremely mountainous area in the south-east of Gujarat, possessing some of the finest stands of teak, and having a heavy rainfall. The typical Dangi village is to some extent scattered but not as much as that of the northern Bhils. There is also an attempt at the creation of a pattern, with individual houses forming a line although not connected to each other, and two such lines facing across a common space resembling a street (Ill. 889,887a). Since there are many such identical layouts, the village as a whole has no nucleus, and no kind of over-all orientation.

The individual dwelling has some typical features which distinguish it from others. The most conspicuous of them is the roof. The Dangi roof is what is technically known as 'hipped', i.e. it slopes down on all four sides. The reason for this is the heavy rainfall. The hipped roof is not possible in the row, and therefore does not appear in the southern Koli house; it becomes feasible in the Dengs because each house stands by itself. The presence of the hipped roof makes additional columns necessary on two sides and leaves the central columns more free standing in the large interior. The material used in walls and partitions is the same as for the other tribes, namely wattle and mud, and the only difference lies in the particular species of plant used. What is new in the house is the system of internal divisions: these are not in depth but in width. This is shown in Ill. 887,885. There are altogether three internal spaces corresponding to three functions.

These three functions are already known from earlier discussion, namely an 'inner space', an 'outer space', and a space for the cattle. The cattle, as elsewhere in South Gujarat, had to be kept indoors because of the climate. The other two spaces were used in exactly the same manner as before with one exception. Within the inner space there was a platform made of wood and on it were stored the grain bins (Ill.90). Inside one of these bins and placed on top of the grain was a tray
containing the family deity. This was the first time that we had found a house-deity within the dwelling. That it was placed in proximity to the grain was logical, because the deity was supposed to watch over and increase the family provisions. It will be recalled that the southern Brahmin family also had a Puja niche in the same location adjacent to hearth and storage, and the association of food to deity in both cases is interesting.

The space meant for cattle was fenced off from the outer space only by means of wooden bars placed horizontally. To prevent cattle having to use the same entrance as people, a separate entrance for them was provided to one side. The sequence of these three internal spaces was apparently not fixed except that the outer space was always in the middle between the other two. The inner space could be to either side. The space for cattle had in addition a loft for storage of fodder. One prominent feature of the Dangi house was a structure identical to this loft and located just in front of the main building (Ill.897), called a Mandwa. The Mandwa was used for storage of waste products of the field and as the mass of light material above gave shelter to the space below, it automatically became an outdoor sitting area for visitors. The owner would place cots hers for more important people to sit on. This unplanned extension of the dwelling towards the front must have proved very useful for virtually every single house had it. It must be remembered that the climate of the region forbade outdoor yards, so that this 'sheltered' yard was ideal during milder weather.

In one or two houses another feature could be observed, namely a front veranda, and this was obviously borrowed from elsewhere. The space required for it was achieved simply by shifting the front wall by one bay towards the inside. This could, of course, only be done if the total number of bays along the depth was sufficient. But, in general the Dangi house was large in order to accommodate the cattle, so that the number of
bays was usually more than two. Related to the number of bays and the placement of columns was the number and size of the internal spaces, and in this connection it remains to examine why the three divisions of the interior were along the width and not the depth.

The introduction of the hipped roof made the interior much wider than deep, i.e. the extension of space was towards the width, so that a sub-division of it would also be logical along the same direction. The division along the large width would produce individual sub-divisions of substantial space; a division along the shallower depth would cut the available space into small sub-divisions of great narrowness. While this did not effect human residence (the normal twin-space was of this type), it was not suitable as a stable. Another reason was this. The central row of columns parallel to the ridge had three spans of which the central span was slightly larger than the two end spans. A placement of partitions along these columns, but at right-angles to the ridge, produced three internal spaces of almost a square shape each, and of a good proportion for a stable. This easy sub-division along given columns was a simple and effective solution to the problem. The central space served as a circulation space for the two lateral spaces and being largest of the three was also representative of the family status. This tripartite arrangement in width was different to that hitherto seen in all the tribal houses, and it seems to us that it is not indigenous but is part of a tradition from across the border. The whole complex of architectural features, namely hipped roof plus division in width, is contrary to the indigenous tribal tradition which is of a pitched roof with division in depth. This difference supports our theory that the latter is a Koli pattern typical to Gujarat and its relatively dry climate, while the former belongs to a far more wetter region. They too may be Folis (may are), but regionally separate. The Dangi type is therefore peripheral to Gujarat.
Before leaving this region, one exceptional example may be mentioned: the single-columned hut (Ill. 905-7). This was seen in the village of Pimpri, and belonged to a family which was new to the area and was so poor that they could not afford more than one central column (forest materials were no longer free as in the past). The hut which the owner had made was tiny in size (Ill. 905) and poorly finished, yet within this space he had felt the necessity of having twin spaces and had erected a small partition to give the notion of a sub-division. This was a good illustration of the force of the custom.

(d) The Harijan House of South Gujarat:

As already explained, the word 'Harijan' is used to give a common name to a variety of communities of South Gujarat such as the Chamars, Dheds, Chodharas, Dublas, etc., who are on the verge of becoming absorbed into Hindu castes or have already reached that status. Their exact ethnic origins are not known, but their social customs reveal them as being related to tribals and at present they are landless labourers who live on the fringes of settlements and are completely dependent upon others for their livelihood. They are far below the Kolis in status and wealth, and are economically worse off than the genuine forest-dwelling tribals, so that their existence may be described as a twilight zone between that of the tribal and the agriculturist. Their unfortunate condition arises from their being neither.

As regards their settlements, since they owned no land of their own, they could build only upon land allotted to them by their employers and from which they could be turned out at will. The materials for their dwellings were also often given to them from the waste products of the farm and were correspondingly of the cheapest kind. They were not in the fortunate position of the tribals who could forage around for building materials, such as reeds or teak-leaves, but being in a village where everything belonged to an 'owner' they had to either buy or beg from
someone else. Being dependent upon their employers, they could not form regular villages of their own but had instead to settle in small groups scattered about on individual fields. And yet, these small groups of houses already show a settlement pattern very similar to that of the Dangs. The individual dwellings are arranged in two lines facing each other across a common space; each dwelling stands by itself and maintains a tacit distance from its neighbours; each has the characteristic roof looking vaguely like a Bunga but is in fact hipped (Ill. 884). The difference between the two can be seen in the ridge: the Bunga has none, the Harijan house has an extremely small ridge but it is there.

The individual dwelling has a single, central column because that is all that they can afford. This immediately sets a limit to the size of the interior; but this is made worse by the fact that the height of the column is barely 3 m so that at the eaves the head-height is about 1 m and the person entering has to bend down almost double to get in. The eaves height could be kept higher by making the dwelling smaller, i.e. terminating the external walls at a point more inwards, but this loss of space would be too inconvenient, so between more space and more head-height the former is preferred. Another peculiarity concerns the plan. It will be recalled that both the Bunga and the generally single-columned dwelling of Pimpri were circular in plan. This is logical with a single, central column because then the span of rafters all around remains equal and the inclination of the roof remains uniform. But the Harijan makes his plan rectangular! This produces problems for the roof: the span of rafters varies at different places and the inclination of the roof is not uniform. When asked about this irregularity, the families told us that the rectangular plan was adopted knowingly because it gave them more space. This was true: the rectangle covers a larger area than the corresponding circle. They could manage to cover this larger space with a roof because bamboos were available
to serve as rafters. The family making the Bunga of Saurashtra had no such wood available, all they had was bent branches of short span, and so their interior was small and round. The Harijan, being nearer to supplies of good wood, could manage a larger house although he was economically in the same position.

The material of the walls was either wattle or mud; the latter being the more common because it was cheaper. It should be remembered that the material for wattle, i.e. reeds, or split bamboo, and even the palm fronds, were all virtually free in the forests, whereas they all had to be paid for in the agricultural village. The Harijan therefore made a mud wall which cost nothing. This mud wall became symbolic of the Harijan dwelling and the richer Koli would avoid it just to show his superior status (but also for other, more substantial, reasons). The habitual use of the mud wall, however, made the Harijan an expert at it and we could often find in his dwelling all kinds of excellent 'furniture' made of mud. Thus there would be, for example, a storage container shaped like a box very similar to that of the people of Banni (Ill. 866). These containers are very elegant and show artistic skill, and it is curious that the same technique and similar forms occur at such widely separated places as Banni and South Gujarat. The container of the tribals is never of this kind, while the southern Koli has completely gone over to the clay jar of the upper castes. The skill in the use of mud is a sign of a people living in the plains, and it is just possible that the group responsible for all such clay work is the Chamr who is also found in Banni. Mud is also used to make a small platform in front of each dwelling for people to sit about on.

The interior has the central column in the middle of the single space, and the hearth is sheltered by a low partition of brushwood and leaves, so that the notional twin-spaces are restored. The domestic customs are the same as for all tribals:
the inner space is for the hearth and general private use, including the lying-in; the outer for visitors. Here too the married sons were expected to set up separate house, but when this was not possible (due to inadequate means), they had to at least set up a separate hearth within the parental hut. Because of the extremely small interior, during the lying-in the other members would leave the hut and move to relatives. The woman would have the assistance of other females, and would follow the usual taboos on not leaving the hut for a fixed period of about seven days and not cooking for another month or so. Although we were not specifically told this, but it seems to be the case that the hearth should not be lighted as long as the woman is under her constraints. In the Joint Family there are other females to carry on the domestic work, but in the nuclear family this is not practicable and automatically the hearth remains unlit until the woman can do it herself. The information received on this point was not always consistent.

It was mentioned earlier that the form of the roof was hipped but that the ridge was very small. If one compares the appearance of the hipped hut of the Harijans with that of the Dangs, there seems to be no resemblance for the one is long and spacious while the other is humped. But in fact both are following exactly the same structural technique. This will be discussed in more detail in chapter five, and here the common origin will be only briefly explained. The Dangi roof has a large central span of two columns (or more) with a horizontal ridge and smaller spans at the ends where the hip slopes down. This system requires timbers of substantial length but as these were easily available in the teak forests of the region, there was no problem of construction. The Harijan of the plains, compelled to make do with much less, solved the problem by simply reducing every structural part to its minimum. Instead of two central columns he had only one, and its height was low.
Onto the upper fork of this column he fixed a horizontal piece of wood about 60 cm long with rope and this formed the ridge (Ill. 88). From this precariously balanced ridge he took out rafters of bamboo radiating in all directions and resting on the mud wall. All of these parts were the same as in the Dangi roof but as if shrunk to a smaller dimension. This identity of the Harijan roof with that of the Dangs raises the interesting question whether the two groups are related. (If we exclude the Chamar from the list, all the others are specifically communities of South Gujarat and form a part of the indigenous population. The Chamar may be a migrant.) On the evidence of domestic customs and house-form it seems to be so, and this would mean that we have here in South Gujarat an intrusion of southern tribals who have partly settled in the Dangs and partly come to the agricultural villages of the plains to work for the land-owning Kolis. The house-form is clearly different from that of the more northern Bhils, and is typical of a region of heavy rainfall such as, for example, the Western Ghats. It is further interesting to find that this hipped form is concentrated only south of the Narmada and chiefly around Navsari and Billimora, but becomes less near Surat. The identity of the house-form extends also to the settlement pattern, so that it is not the climate alone which is the determining factor; possibly it represents an ethnic difference.
The expression 'Muslim house' is a misnomer so far as Gujarat is concerned, because the great majority of the houses which are inhabited by Muslims are almost indistinguishable from the houses of the Hindus. This is, of course, not surprising when it is considered that a very large number of the Muslims of Gujarat are converts from Hinduism: for example the Khojas, Memons and Vohras. Not only in the house, but also in many social customs, these groups have retained some of their previous traditions and produced a composite culture which does not differentiate them sharply from the surrounding population. But apart from this, even those Muslims who do not belong to these various sects have generally houses which resemble those of the region which they inhabit, and this is a phenomenon which we have already remarked upon. The migrant group has by and large always had to depend upon the indigenous artisan to construct their houses, and it was but inevitable that what was produced differed little from the existing type. Just as the Parsei house was identical with that of south Gujarat, so also the Muslim migrant's house was similar to that of his neighbours. But despite these similarities, we have nevertheless placed them in a separate category because the way in which they were used differed. And this difference arose precisely because they were Muslims and had adopted certain customs which were indeed different. In other words, the same house which the Hindu used in one way was used in a slightly different way by the Muslim, and often this change in usage led to minor changes in the plan. In some cases it could be observed that the existing plan had been altered in its proportions, so that while all the spaces remained nominally the same, they virtually created a new plan and a new domestic atmosphere. It is this change in usage and modification of an established house-type by Muslims which we have called, for the sake of convenience, the Muslim house.
Apart from such modified houses, there must once have existed houses which were representative of Muslim architecture as practiced, say, in north India or even in West Asia. But by and large, if such houses ever really existed, they have disappeared. Our search for what we thought would be truly representative Muslim houses in Gujarat was generally in vain. A city like Ahmedabad, once the stronghold of Muslim rule in Gujarat, had scarcely a score of old and significant buildings still surviving. All the ancient Puras mentioned in historical accounts had vanished leaving no trace (see also the quotation from Z.A. Desai on page 170). In the old capital of Champaner all that is left above ground are the mosques, tombs and fortifications: all the domestic residences have disappeared except for some foundations waiting to be fully excavated. In the case of Surat, there occurred first the firing of the town by Shivaji in 1664, and then the great fire of 1837, so that much of what survives is late. It is a very curious phenomenon that of the many governors, commanders, nobles who administered the region, except for a few Mughal palaces, so little is left. The reason for this is not only the damage caused by warfare and plunder, but also the fact that the Muslim nobility which lived in towns had generally no security of tenure. They were appointees of the court and their service could be transferred or terminated at will. The positions which they held were not automatically heritable and there was no guarantee that they would continue. In their personal lives also, they were expected to reside wherever the court of the ruler or of his representative happened to be located, and as these were of a fluctuating nature there was never any opportunity to settle down permanently in any place and build with an eye to future generations. Muslim historians report the sudden and whimsical foundation of towns at short notice and all the grandees of the court were expected to set up their residences around the newly constructed palace as a matter of duty. In a very short time a 'city' would spring up with a large population; but once the royal interest had shifted
elsewhere the place would with equal rapidity begin to decline and become de-populated, the houses would be neglected and soon ruined and become quarries for those who had remained behind. It was in this way that Chamraner disappeared, and by a similar process the aristocratic residences of Ahmedabad must have given way.

An illustration of the above can be had from Sir Thomas Roe who was forced to reside at Ajmer in 1615, “But the King now resideth in a base old citie, wherein is no house but of muddle, not so great as a cottage on Hownslo-heath; only himself hath one of stone. His Lords live in tents, and I have suddenly built to my muddle wals, upon canes, a dozen thatched roomes.” (109). Later, when Jehangir left Ajmer, he ordered that the camp should be set on fire “to compell the people to follow”. A similar sentiment was expressed by Pietro della Valle (1623), “Now I come to take notice of their Buildings; and here I must tell my Reader, that this People are not much taken or infected with that plague of Building ... The reason, first, because all the great men live a great part of the year ... in Tents, Pavilions, or moveable habitations ... And secondly, because all the great men there have their Pensions (meaning grants) and whole subsistence from the Ping, which they hold upon very fickle and uncertain terms ...” (110).

Here is further evidence from Francisco Pelsaert (1620-27) “These houses last for a few years only, because the walls are built with mud instead of morter, but the white plaster of the walls is very noteworthy ...”(111). Stavorinus (1774-5) saw the buildings in Surat of the Nawsb, “Although these buildings are said to be not forty years old ... everything seems to be in a very ruinous condition, which is indeed the case with all the Moorish buildings.” (112). There is a very interesting account of Lahore in 1892 by Syad Muhammad Latif in which he describes how entire wards were demolished, "During the
time of Maharajé Ranjit Singh, the brick-sellers pulled
down the buildings to their foundations, and not a vestige
was left of the Mohalla (Lakhi Mohalla)." (113). The main
reason why buildings were so easily ruined or dismantled was
that they were built in mud mortar instead of lime mortar. In
the former case the individual bricks could be removed by hand
from the structure and re-used; in the latter case this was
not possible. This is also one reason why many fort walls have
survived although the richer palaces have disappeared.

Another general disincentive to any kind of great
magnificence in building has already been extensively
mentioned (pages 163 ff.), namely that a too visible display of
wealth was liable to be construed as a sign of disrespect or
hauteur and attract adverse attention of the ruler. The quotation
from Sharar is very clear on this point and bears repeating,
"In Delhi and Lucknow it was traditional to restrict outward
pomp and ostentation to royal palaces and government buildings.
The residences of wealthy men and merchants, however grand and
spacious inside, had the outward appearance of ordinary houses.
This was sound policy, for a house that was outwardly magnificent
sometimes found favour with the king and its builder rarely got
the chance to live in it. In addition, for a subject to build
such a house was to show regal aspirations which were ascribed
to insolence and rebellion and made it difficult for him to live
in safety.

For this reason, except for tombs, you will see no elegant
buildings of ancient times in Delhi that were built by nobles or
rich merchants. It was the same in Lucknow..." (114).

Corroborative evidence for the above comes from a report
by Cunningham in the Archaeological Survey of India in which a
domestic house from Sarhind (Punjab) is described, "The Haveli
or dwelling house of Shahabat Beg, or Sandik Beg, is only worthy
of notice as, perhaps, the largest existing specimen of the ugly domestic architecture of the wealthy Muhammadans of the Moghul Empire. It consists of two great piles of brick building each about 60 feet square, and 70 or 80 feet in height, connected by high dead walls, which enclose a courtyard. Externally, the dead walls are divided into ten rows of square panels mounting one above the other with monotonous regularity. Here and there may be observed a few small square holes which are much more suggestive of the dreary cells of a prison than of the cheerful rooms of a nobleman's palace." (115).

The cumulative trend of all the above evidence would indicate that the general domestic house of the Muslim nobleman was not designed to be very impressive, nor meant to last for generations, and that the display of wealth was preferably directed towards moveable property which could be better preserved during times of uncertainty. The life-style which went with this may be described as one of 'conspicuous consumption' in which wealth was expended more on expensive jewels, apparel and equipment rather than on the dwelling. M. Mujeeb has put this succinctly, "The first characteristic of the upper strata of Indian Muslim society which strikes us is recklessness with life and resources. The service of a despot such as the sultan was involved risks that would have gradually converted the steadiest person into something of a gambler. As this service precluded the accumulation of heritable wealth, even those who were cautious in political matters did not care how narrow the margin was between their income and expenditure, or how often their expenditure exceeded their income." (116).

The only class which seems to have escaped this fate was that of the merchants. Our survey showed that at least in Gujarat it was the buildings of this class which were still extent in good condition and in sufficient number to form a style. The merchant, by his occupation, was not driven hither and thither seeking his political fortune, but had a fixed abode from which
he operated. As long as he accommodated himself to those who ruled, his existence was secured and whatever wealth he accumulated could be passed on to his heirs. The houses of the merchants, therefore, show a greater capacity for survival and form the bulk of the extent Muslim houses in wood. Among these the most wealthy and successful were the Vohras and their settlements in towns such as Patan, Siddhapura, Kapadvanj, Surat, form some of the richest areas of those places. Unfortunately, the best Vohra houses are so thoroughly influenced by the 'Bombay style' that they have been excluded from this study, but among them were sufficient structures of traditional design and these were examined in detail.

Another kind of Muslim wooden building was found in only two specimens, one in Baroda which was still in the occupation of the owners, the other in Surat which had been acquired by a Parsi family. In the latter case, the last surviving owner had recently died and the fact that it had originally been Muslim was discovered by chance upon studying its plan. We have called this type the Muslim Haveli.

A third class of buildings found during survey had what may be called a T-plan, and a perfect specimen of it belongs to the Kazi family of Ahmedabad. Upon making a comparison with buildings of the Nawabs, and also with those of other Muslim centres in India, it could be seen that the T-plan is in reality typically 'Muslim' and has links with West Asia. The buildings of the local Nawabs has been discussed in the section on palaces. Finally, mention must be made of the wooden mosque. It appears that once there existed numerous large mosques constructed in wood, for even now one can see many small and very dilapidated examples, but the major ones have been in recent times replaced with modern materials. Two surviving examples of note are: the mosque of the Vohras in Surat; and one private mosque in Broach.
It will be seen from the above account that it is not possible to speak of a general Muslim domestic architecture prevalent throughout Gujarat. There are different groups of buildings made and inhabited by Muslims, and in the majority of cases they retain the forms found in the region or locality which they belong to. There are other examples, few in number, which represent a non-indigenous form but which are more interesting on that account. Because of this extreme diversity of house-forms and their often rare occurrence, we shall in the following be unable to classify them according to sub-division, and instead use functional terms to categorize the types. Thus we have: the Unmodified House; the Modified House; the T-Plan; and the Haveli. Sectarian designations will be used within these functional categories when necessary. In this account all buildings in stone and pure brick have been excluded.

(a) The Unmodified House:

This is the house which is virtually identical with that of North Gujarat and occurs extensively in towns such as Siddhapurs, Himmatnagar, Godhra, Dholka, Broach, Dabhoi and also Surat. It is also the house-form which is used most commonly by the Vohras and it is among them that the best examples are found. It is an interesting fact that among those late houses following the 'Bombay style' this house-plan is basically retained but made more spacious and given changes in the interior which make it look 'European'. This europeanized version is the one which prevails generally in Surat and is one proof that they were all built after the fire of 1837. In other towns the traditional house and the 'Bombay' house co-exist side by side and it is not certain that the former are really older than the latter. In other words, the mere presence of a traditional plan and traditional carving is no proof of age, because there is clear evidence from many places that this indigenous style continued to enjoy popularity along with the europeanized version.
Before discussing the traditional house, it is necessary to say something about the Vohra settlement pattern because it is distinctive. Almost all Vohra houses are grouped together in specific wards or Pols which are locally called 'Vorwad', and which in earlier times had gates for closing them off at night. But what distinguishes the Vorwad from the comparative Hindu Pol or Khadki is the extreme regularity of the road-pattern. The roads of the Vorwad are generally very straight, without any of those complicated twisting lanes and offsets, and the houses have plots of almost equal size and depth, all neatly aligned to each other. The general impression is one of orderliness and regularity. The normal Vorwad is not situated in the central, congested part of the town, but to one side of it, and this recurring off-centre location, combined with the regular pattern, reveal a great deal about the origins of the Vorwad. It becomes obvious that the Vorwad did not arise in a manner similar to the Hindu Khadki, i.e. it did not arise by a gradual process of accretion, but was a regularly founded colony settled upon land which was either vacant or rendered vacant before settlement. The settlers must have come as a united group and parcellled out the site among themselves according to a pre-determined plan which included the provision of regular roads. The difference in development to the Khadki or Pol lay in the following. The individual Khadki was a closed group which was planning for itself and had no interest in how the other Khadkis arranged themselves. These could be aligned or askew, and no consideration was given to roads. The Pol organization which eventually arose had no control over the individual, internal Khadki arrangements. The Vorwad, on the other hand, was obviously so well organized from the very beginning that it could impose an over-all plan for the whole colony and see to it that all individuals obeyed. In this sense the Vorwad reflects a truly urban pattern, whereas the Khadki is merely a village pattern continued into a town.
The striking difference between a Khedki or Pol and the Vorswad can be seen at Kapadvanj. Here the central part of the town is occupied by very wealthy Jains and Hindus and has the usual maze of lanes and houses packed together without an over-all plan; while just to one side of it there is the Vorswad like a world apart. A similar contrast exists at Sidhpure, Himatnagar (ancient Ahmadnagar) and Surat. H.C.Briggs, who wrote on "The Cities of Gujarashtra", noticed this phenomenon in 1847 in Surat, "In the very heart of the city, in a quiet, retired quarter, which branches off from a bridge in the nosiest, busiest, filthiest part of Surat, is the Jhanpá ... here exists no bustle, no turmoil, no din - the houses are large, well built, and with every regard to ventilation and light ... Within this atmosphere reigns the Mullah - the lord paramount, temporal and spiritual, of the Däwudi Bohors ..." (117). In Surat we were given the important piece of information that these Vohras had originally inhabited a more central part of Surat but under religious persecution of the more orthodox Muslims they had been forced to shift themselves to a new location. The present site had once been a rejected wasteland which they had acquired and developed into what is in Surat today the best part of the old town. This account is significant because it gives an indication that all the other Vohra settlements were probably acquired and developed in a similar manner. And it would serve to explain their extreme regularity and off-centre location. It is also very likely that all of these regular settlements date from about the same time as Surat, i.e. about 1840, and that the regularity derived from Bombay which at that time had begun to flourish.

The normal, traditional Vohra house had a plan very similar to that of North Gujarat, i.e. a sequence of spaces in depth separated by partitions, of which the centre was occupied by a Chowk (Ill.102). The front part had the usual Otlo and Khedki-room, and the sides of the Chowk had the small rooms for Kitchen and Water Storage. The rear part had the two spaces corresponding
to Parsal and Ordo. This typical house-plan appeared in places such as Dholka, Kapadvanj and parts of Surat. But at Siddhapure something different could be observed, namely an extremely deep plot of narrow width and a back exit opening out into a back-yard. It will be recalled that this was the typical arrangement of South Gujarat, and there the great depth had been utilized by having numerous small rooms to one side of a continuous passage. Here the extra internal space was utilized by having a very deep Khadki-room and three rooms in the rear (Ill. 102). This was a novelty—introduced precisely because the plot was unusually deep. It seems quite obvious that this deep plot was borrowed from South Gujarat and most probably from Surat. Surat was, and is, the headquarters of the Daoodi Vohras and whatever important buildings were erected there would serve as model for Vohras elsewhere. The buildings of the Surat Vohras frequently show the deep plot running between two roads front and back so that there are two entrances. Here the South Gujarat system was adopted and made into a model which influenced the northern pattern.

The terms used by the Vohras to designate their spaces closely followed Gujarati practice: Ordo, Parsal, Chowk and Otlo—these were common; only the Khadki-room was now called Deli which is clearly the Saurashtrian Delo; and the Reveshi (the veranda around the Chowk) was called Aves which curiously resembles the former. In the example from Siddhapure which had so many extra spaces, the names were Ordo, Parsal, Agali Parsal, Chowk, Deli, Agali Deli, Otlo. The suffix 'Agali' means that which comes before, and it is noteworthy that the point of reference changes for the two different parts of the house. When the main rear-part is considered, then the 'Agali' suffix is taken with reference to the Chowk, and when the subsidiary front-part is considered, then it is with reference to the Otlo. The way in which the terms are used makes it quite clear that the dwelling is considered as having two distinct parts each of which
has its own sequence of spaces. The point of reference in each case is the respective yard or veranda. Common to both is, of course, the fact that the terms are according to the movement into the house.

(Regarding the use of the Vohra house, there were some significant differences to Hindu practice. The main room for visitors was the Ordo. This rear-most room of the dwelling was furnished with costly mattresses, coverlets and cushions, while the walls carried religious pictures, and the honoured guest was conducted here and served with refreshment. In order to reach this elegant room he had to pass through all the other, lesser spaces of the dwelling, he had to pass the Kitchen where the females were working, and cross the Chowk - that supposed barrier to visitors! The reversal of functions is here striking and rather confusing. Why does the visitor have to be taken to the inner-most recess of the dwelling? Do the women not feel exposed? To our questions the families answered that this was the custom; that they did not maintain a rigid purdah-system and therefore the women did not mind male visitors seeing them, etc. But in Kapadvanj we received an explanation from a very educated member of the community and this made sense. She told us that being Muslims they have to segregate males and females. Now, the usual visitors' room was either the Khadki-room or the upper Divankhanu, but the difficulty of using these areas was that from them a part of the Chowk could always be seen, which meant that a guest, willingly or unwillingly, would always see the females moving about doing their work. The mere sight of the womenfolk did not disturb Hindus, what was important there was the notion of 'avoidance': the segregation was not so much physical as psychological. Among the Muslims this was not permissible: the women should not be seen by male visitors, which meant that the usual arrangement would not work. The only room of the dwelling from which women could not be seen in the Kitchen was the Ordo; it had the Parsal as a barrier between it and the Kitchen, and so it was here that guests were conducted!}
Although this was not told us, we could observe the custom from other Muslim houses that when male visitors were to be received, by tacit agreement they would wait a moment or two at the threshold of the house and give time to the females to withdraw into more secluded parts of the dwelling. When the males had passed the Chowk and Kitchen, they would then re-appear and calmly go about their domestic work, unseen by the visitor hidden in the inner-most recess of the dwelling. At departure a similar drama would be enacted. We ourselves have experienced this phenomenon while studying Muslim houses in Surat (of non-Vohras) where the purdah-system was still enforced. The Vohras probably had a similar custom in the past but which has now fallen into disuse. Today the relationship between males and females is very free. This involved manner of receiving guests in the house arose because Muslim social custom had to be superimposed upon a Hindu house-plan. It is characteristic that the house-plan was not changed to fit the changed requirements, nor was a completely new house-plan adopted, but the existing house was used in a different way. This capacity for changing functions within a given plan is an indication of the basically multi-purpose character of domestic spaces. It is, in this case, also a reflection of the fact that the majority of the Vohras were originally Hindus and would naturally retain the traditional house-plan.

The use of the Ordo virtually as the Divankhana of the house made it essential that it be well-ventilated and well-lighted. It will be recalled that the normal Ordo was just the opposite: a dark, dungeon-like room with barely two small ventilators at ceiling level. The new requirements made large windows essential, and these were now provided in profusion. In keeping with the elegant character of the room, they were made very decorative with carved balconies and arched frames. Once this development towards large windows had occurred, it must have appeared incongruous that the Ordo located at the back of the
house and having virtually no view should have the best windows. This realization led to two further, very interesting developments: one at Kapadwanj, the other at Surat.

At Kapadwanj, the whole orientation of the house was reversed so as to make the rear-part containing the decorative Ordo facing the main lane (this was contrary to the usual practice of making the main entrance face the lane). One consequence of this was to make the main entrance now face a back-yard and entry was made from a side-lane. The other consequence was that people walking past in the street could now look into the private Ordo through the windows. To prevent this, the plinth level of the building was raised up so as to make the level of the windows higher than head-height at road-level. This whole complex of changes gave to the house a very imposing street-elevation and permitted the inmates to sit at their decorative windows and look down upon the passers-by. This novel feature can be seen repeated numerous times in the Vorwad of Kapadwanj (Ill.144,146). Its architectural charm appears to have been realized by the Jains and Hindus of the town, and they in turn modified it to suit their particular life-style. They too reversed the orientation of their houses, but instead of giving the decorative treatment to the ground-floor Ordo, they gave it to the same room on the first-floor, and sometimes to the second-floor as well. Now these houses could display a very rich and impressive street-elevation comparing with those of Ahmedabad but in a quite different manner. What we see at Ahmedabad is the front of the house with Otlo and Divankhanu composed of columns and wood-frontage made of panels. At Kapadwanj it is the solid rear wall which faces the street and shows a blank surface unto the first-floor, and then suddenly opens out into decoration (Ill.121).

The above change by the Jains and Hindus must have gone hand in hand with a shift of the family partially to the first-floor, as had occurred also in the case of the North Gujarat Haveli.
In many late Vohra houses a similar development could be observed. The general opening out of the street-elevation along main roads, which is particularly noticeable in Kapadvanj, meant that security was better guaranteed. The town was fortified, but nevertheless it seems clear that under Gaekwad rule, assisted by the British, greater safety prevailed. The large number of important buildings along main roads illustrates this.

The change which occurred in the Surat houses of the Vohras was to transfer much of the domestic life to the first-floor. The visitor could be taken from the front Deli straight up without having to pass the ground-floor kitchen. This was the traditional arrangement in the northern Haveli, except that the reception room continued to be at the back of the building. It is not clear why the front of the first-floor could not equally have served for visitors, i.e. in direct imitation of the Divankhana. The passing through the whole depth of the dwelling in order to reach the Ordo for visitors remains a mystery. An attempt was made by us to correlate it to Islamic practice in West Asia and all that could be established was that there was there a tradition of keeping the 'reception room' away from the street, because it was a custom that no windows of the upper floors should overlook the courtyards or terraces of neighbouring houses. This was to prevent the chance view of females belonging to an adjoining family, and is specifically mentioned by Guy T. Petherbridge in his essay on Muslim Vernacular Architecture (118). The upper-floor was critical because it provided the height from which the private life of a neighbour could be observed, and this was objectionable. It is our estimation that it was this possibility which made the first-floor reception room to be located at the back (as at Surat) while the same room on the ground-floor could face the front (as at Kapadvanj).

Having discussed one aspect of the Ordo at length, we may now turn to the other functions of the dwelling. The Vohra family had the Joint Family system and hence had the same
problems of accommodating the numerous members within the same house. We were informed, but could not prove the statement, that there was a tradition among Muslims that each married couple had to be provided with its own separate room. Whether this custom obtained originally among Vohras is difficult to say, but it seems possible considering the fact that a similar practice was reported by the Hindu Vaniyas. At any rate, the areas for sleeping were the Ordo, Parsel and the upper floors. The urinals and washing arrangements which we saw among Parsis (Page 313), and which were generally compulsory among Muslims, were here not so common. The lying-in was in the Parsel, and the usual period of seclusion was necessary. The first child was delivered in the parental home of the wife, the subsequent ones in the husband's home. In general, it can be said that there was no difference in the house-usage between the Vohras and the Hindus of the same urban class, namely merchants, in so far as the Parsel, Chowk, Kitchen, Water Storage and Well and Otlo was concerned. The main difference related to the Ordo. The grain storage, which was traditionally in the Ordo, was here shifted to the Deli and this space was in other ways also reduced to a general storage and given a poor finish. One important reason for this was that a great many of the Vohras had been shop-keepers dispersed in small towns and villages throughout Gujarat, and the front part of the dwelling was the place for keeping the goods. The function thus traditionally assigned to the front was continued, and it is curious to find that the treatment of the front rooms, i.e. of the entrance, is inferior and becomes more refined as one enters deeper into the dwelling, until in the Ordo the high-point is reached. This is a striking feature of many houses in Surat where the entrance lobby and stairs are in no relation to the elegance which awaits one in the upper floors.

(Regarding the interior furnishings, one point must be made, namely that the Vohra house, following the general Muslim practice, shows a great display of cupboards built into the wall.
These are not only full of very attractive crockery meant to be admired, but are in themselves objects of beauty. This custom derives from that of having wall niches which were a traditional and very popular feature in Islamic architecture. The other decorative element was the wood carving, which appeared in exactly the same locations as that of the Hindus but naturally avoided figurative work. In one Vohra house it could be observed that some part of the carving had been neatly sawn off, and it may be conjectured that this had been once a traditional Hindu door whose figurative work had to be removed before use. In others, the place of the Ganesha over the door lintel was taken by Koranic inscriptions.

Finally, if we now make an analysis of the sequence, circulation, zones, and values given to spaces, of the Vohra house, then we get the following. On the ground-floor, the sequence of spaces is the same as in a Hindu house but the values are different. Except for the Kitchen and area of the Chowk, there is no private women's area, for the Ordo is semi-public. The Deli's also semi-public. In other words, the two ends of the dwelling both have semi-public character, and squeezed in between them is a private area which is, however, crossed by a path connecting the two semi-public areas. The picture is confusing only so long as we assume that the women remained where they were during the passage of the visitor. But it becomes more logical if we assume that at this critical time the women withdrew or closed curtains and doors until the moment had passed. The element of 'privacy' in this case did not adhere to the space but to the person. The withdrawal of women could reduce a space to anonymity. The idea of 'privacy' adhering to the person is after all the principle behind the wearing of the veil or burqa: the female carries with her wherever she goes her own screen which produces privacy. Thus, the presence of a visitor merely meant the absence (or withdrawal) of the women – during the critical period. There was a compromise between clash of functions.
The above analysis shows that there were no degrees of intimacy characterizing various zones of the dwelling (as in the Hindu house), but that intimacy was a quality which adhered to the female and wherever she was, there was intimacy. There were no functionally permanent private and semi-private spaces but all depended upon circumstances. It is curious to find here in the Vohra house a system which is neither fully Islamic nor fully Hindu; we shall see presently that there are alternate systems.

We come now to a variant of the Unmodified house (meaning that the house-form remained indigenous), but was inhabited by families which were not Vohras. Since some designation is needed for this type, we shall refer to it as the non-Vohra house. The houses of this type were seen at Godhra and Dabhoi, and the most surprising thing about them was the fact that they had deep plots, back-exits and back-yards in imitation of South Gujarat. As this is part of a larger problem which will be discussed in the descriptive portion, it is not questioned here but merely stated as fact. The general plan was similar to that of North Gujarat but with one important difference: on the ground-floor the interior was divided into two spaces, one for the Kitchen at the back and having the proportions of an Ordo, the other taking up the whole of the deep plan and forming one single, long hall (Illus. 273-605). This extensive hall was the reception room for visitors. Since it stretched from the Otlo upto the Kitchen it could be directly entered from the front without having to pass through any other rooms, and be serviced from the rear. The Kitchen, being fully separated from the hall, was not visible to guests and the women could remain undisturbed in it regardless of what was going on a front. They had in the kitchen a separate stairs by means of which they could reach the first-floor where all the private spaces were situated. Thus, the whole movement of females within the dwelling, as also their work, went on segregated from the males assembled in the front hall.
The solution here adopted was ideal for Muslim social life—only it was very wasteful of space. The large hall was generally under-utilized, but because it was the prestigious space of the dwelling that did not much matter.

A number of interesting points emerge here. Whereas the Vohra house always had an internal Chowk (and thus betrayed its northern origin despite the southern depth of plot), the non-Vohra house had none. It did not need one because the smoke from the Kitchen could escape into the back-yard—another southern feature. The back-yard was really the decisive element in the design: it eliminated the necessity of having the Kitchen in the centre of the dwelling and thus at one stroke avoided all those complications which affected the Vohra house. In one sense the plan was similar to the rural house of the north: the Kitchen corresponded to the original use of the Ordo, the large hall corresponded to the Parsel, and the Otlo was common. The main difference lay in the fact that now the first-floor was clearly the place to which the family retired at night. Here also the females could stay when they had no work in the Kitchen, while the males would descend to the ground-floor hall, so that during the day the house clearly had a zenana or women's area (first-floor + Kitchen) and a mardana or men's area (front hall). There was another stairs in the hall so that the males could use it separately, thus giving the house two completely separate circulation patterns. The first-floor was partitioned into three spaces, one equal to the Kitchen and over it, the other over the Otlo but somewhat larger, and a third large hall in the centre. The two rear spaces were used for sleeping, the front space for meeting relatives who were entitled to greater intimacy. It can be seen in this case that it was quite impossible for each married son to have a separate room, besides, the parents also slept here. The family told us that they simply used separate corners and pulled curtains across for privacy. Separate washing arrangements in this congested space would be impractical.
It is here interesting to note that the use of the first-floor for sleeping by the whole family had already become customary in South Gujarat, so that again it is the southern pattern which is providing the model.

An analysis of this non-Vohra house discloses some novel theoretical aspects. The first-floor does not duplicate the ground-floor: the two are assigned different but complementary functions. The semi-public area occupies about three-fourths of the ground-floor; the private area occupies the remaining one-fourth and the whole of the first-floor. The last two are inter-linked and in reality form one continuous domain extending vertically and horizontally. There are two distinct circulation patterns: one moving horizontally only from the entrance into the hall and back (visitors); the other moving from the ground-floor kitchen up to the first-floor, across its depth to the front, and then down to the threshold of the hall so that a person could move out without being seen if the stairs were screened from the hall. The two movements neither touch nor cross each other at any point - in short, they provide the segregation which Muslim custom demands. The whole arrangement is a more successful adaption of Muslim social life to an indigenous plan and it is curious that the Vohras did not introduce it.

One obvious reason seems to be the status of the women. In the non-Vohra house we were unmistakably kept apart from the women, i.e. the architectural separation was a social reality, and were given little opportunity to question them. In the Vohra house the opposite occurred - it was the women who gave us the maximum information. This difference in social orthodoxy possibly reflects different social origins: the one being converts, the other not.
(b) The Modified House:

This house type was found existing only in Patan (ancient Anahillapura) and shows clearly a West Asian influence. The Muslims who lived in them are Vohras and Sodagars, and about the latter there is an interesting reference in "Muslim Communities in Gujarat" by Dr. S.C. Misra. "Sodagars are a dwindling community of merchants settled in Patan. They appear to have come to Patan from South Arabia in the Mughal age when it was a flourishing centre of cotton and textile manufacture and intermarried with local Sunni Vohras." (119). This remark is in full harmony with the facts observed by us. The Sodagars showed a strict purdah-system and only selected houses were made available to us for working in. A great many of their houses were disused and locked up because the families had migrated to West Asia. The Vohra houses had, strangely, a plan very similar to that of the Sodagars and this supports the view that it was through contact with the latter that the former style among them arose.

The most striking feature about the architecture was the settlement pattern. Superficially there were also wards or Pols, here called Vado or Pado, guarded by gates, but inside the picture was totally different. There were no densely packed rows of houses forming groups around lanes and common spaces; instead there were small groups of houses but widely separated from each other so that the intervening space was neither lane nor road but a kind of open ground or no-man's land. It was as if, once the total ward-site had been taken possession of, the families had decided to split off from each other and maintain a strict distance between individual groups. The only word which best describes the layout is 'avoidance': the groups of families were avoiding each other even though they obviously belonged to the same community and shared the same ward. The solution to this peculiar architectural layout was found from a reference to the Islamic architecture of West Asia. The description is too long to quote in full, but its salient points are the following.
The generating point of the whole design is the strict necessity of keeping females out of sight. One way to achieve this was to establish a 'courtyard-house' which faced inward and had towards the exterior a relatively blank face. The spaces around the private courtyard were separated into those for males and those for females, and the whole arrangement was secured by keeping the main entrance far from the court-yard so that no one could inadvertently look in. But there was one peculiar danger: a person standing at a height on any surrounding prominence or building could over-look the courtyard and observe the women. Even a palm tree could by chance lead to this danger. Petherbridge quotes an Islamic ordinance about this, "Anyone may, if necessary, climb up his date palm, provided he previously informs the neighbour into whose house he might obtain a view." (120). This danger also meant that houses should not be too close to each other and that upper floors should be such as to never over-look a neighbour's courtyard. One interesting proof of this comes from the Akhbar-i-Mubahbat of the early 19th century and mentions how the English under Job Charnok had constructed a tall factory at Golaghat which they were compelled to abandon," ... and founded a factory, the buildings of which raised two and three stories high. When the compound was made, and the rooms were ready to be roofed in, the nobles and chief men among the Seiyids and Mughals, ..., went to Mir Masir, Faujder of Hugli, and declared that if the strangers were allowed to ascend their lofty houses, they, the Mughals, would be greatly dis-honoured, seeing that the persons of their females would be exposed to view."(121.a). This reference makes it certain that the scattered grouping of Patan was the result of a similar sentiment. (See Ill. 36 for the layout.)

The individual groups of houses belonged to the same family and were accretions made over time to accommodate the growing number. Petherbridge writes, "Proverbially, the Arab house is never complete; as each extended family grows, so does the house ..." (121). A curious feature of these additional
houses was that each succeeding one was set back with respect to the previous one, thus giving to the whole a zig-zag appearance (Ill. 57). Obviously, the need for continuous growth would also require a large initial gap between houses, and the zig-zag layout would lead to diagonal roads if and when they came. The need for the set-back was probably to emphasize the subordinate rank of each succeeding dwelling, because this was again demonstrated in their relative widths: the first dwelling had the largest width.

The individual house in this case - we may refer to it as the Sodegar house - was basically the North Gujarati house but with some important modifications which made of it almost a new creation. It had a central Chowk of unusually large size, and to compensate for this the spaces to front and back were drastically reduced. On the other hand, one or two wings were added to the sides, thus giving the house a great width. With this layout we come for the first time to a true courtyard-house or Atrium in which all the spaces were arranged around a central court and took their relevance from it, so that a description of the plan and its usage must follow the same pattern. The courtyard, surrounded in the first instance by passages and verandas, was the main living area of the family. Within the verandas (corresponding to the North Gujarati Raveshi) were the swing, and numerous wooden platforms which were removable and served as seats during day and beds at night. This central space was simultaneously reception area, guest-room, living-room, dining-room, sleeping-room, and general-purpose room of the house - in short its functions were not really defined. This extreme lack of differentiation of a domestic space is remarkable, even for Indian conditions, and is in fact characteristic of West Asian social life. According to Petherbridge, "In the harem most interior spaces are functionally polyvalent and non-specific; rooms can be used interchangeably for eating, sleeping, recreation and domestic tasks." (122). This characteristic re-appears in
Moghul architecture where it is quite impossible to ascertain where any particular domestic function took place. All the buildings consist of so many large halls which could have been used for anything. The Sodagar house was thus scrupulously following West Asian and Islamic practice. The polyvalence functioned successfully because two activities which were likely to clash never occurred together in the same space. Thus, if male visitors arrived, the females withdrew. At night, no visitors would ever arrive un-announced, and the court-yard could be given over to sleeping. All the various activities assigned to the courtyard were performed in a certain sequence and were preceded by precautions to see that the male/female clash did not occur. The extreme flexibility which this system permitted made it unnecessary to have functional sub-divisions. (Ill.37).

The courtyard, being interchangeably semi-public and private area, had to be carefully guarded from sudden intrusion, and this was achieved by a complicated system of doors. The main entrance lobby had two doors in succession, and to the side of the second door there was a third door which led into a cubicle having two potential continuations: one could either mount the stairs which began here, or turn at right-angles and pass through an opening into the courtyard (the whole scheme is shown in Ill.37 and the detail.) The manner in which the scheme worked was as follows. The main outer door was left always open during the day as an act of hospitality; the visitor entering could call out from the lobby but could not walk straight in because the second door was kept closed. This gave time to females to withdraw, after which it was opened and he was received in the court-yard. If the visitor was an inmate, he could walk from the lobby straight into the cubicle as this door was also left open (one could not see in because it was at right-angles to the lobby), and proceed either into the courtyard or upstairs. The whole arrangement of doors was efficient but
burdensome; the shutter of the second door upon opening would obstruct the side-door; movement was awkward and tight inside the cubicle; but it was the only fool-proof method given the fact that there was no watchman stationed at the main door.

It was mentioned earlier that to either side of the Chowk (or at least to one side), a wing was added and this was the equivalent of the zenana or women's area. It was fully self-contained for it had the following facilities: hearth, underground cistern (Tanku), well, water storage, and even one latrine. The relative proximity of hearth and latrine was strange but must have been dictated by the rigors of the purdah-system. Frequently there was a separate stairs from this wing to go up without being seen from the Chowk. A notable feature of the wing was that it had its own small opening to the sky for escape of the smoke. This was necessary because the main Chowk could not be used for this purpose as it was the living space of the family and the reception area for guests. The presence of the independent opening in the wing, with paved surface below, made it actually into a Chowk in miniature and the women could not only cook here but did all their domestic chores such as washing, bathing, cleaning, etc. It had windows opening onto the road but usually high up so that no one could look in. One very interesting feature seen in some houses was a porch attached to this wing and screened with bamboo wickerwork (Ill.2341). The woman could stand behind it without being seen and communicate directly with someone on the road, and, if required, pass her hand through a small opening in it to either give alms to a passing beggar or to receive some small article (perhaps a purchase from a wandering hawker). This was an ingenious solution to a peculiar problem. The wing had only a single door to the main Chowk and through it guests could be served conveniently. The actual serving was done either by servants or children and younger males, as the females could not come out.
In this particular house there were two almost identical wings having duplicate facilities and the purpose of the second wing was not clear. The family could not explain the matter. It then struck us that the Muslim husband was permitted more than one wife: could this second Kitchen establishment not be for the second wife? Alternatively, it could be for a married son or brother. One of these two explanations is certainly the correct one.

Opposite the main entrance and across the central courtyard there were spaces very similar to those of North Gujarat: first the veranda (Raveshi), then Parsal (here called Awas), and Ordo. In this particular house the Awas was absent due to shortage of space, but it can be seen in its typical form in Ill. 35. The usage of these traditional spaces had become problematic because the wing containing the Kitchen, the zenana, had usurped most of the functions. One consequence of this change had been that the rear spaces had anyway become reduced, so the problem was not serious. The rear-most Ordo became a storage room when there was an Awas, when not, it sometimes served as the lying-in room. The Awas (or Parsal) had multiple functions: it was the meeting place for women visitors who wanted to sit together with the women of the house while the men occupied the courtyard. It could also be used for the lying-in at which time a curtain was drawn across one corner. During cold weather it was used for sleeping.

We now come to one feature of the house which was certainly borrowed from West Asia or perhaps Sind, the wind-catcher. In Gujarat it mostly appears in Muslim houses and this is itself one proof of its origin. But there was an important reason why it could not easily be accommodated in the Hindu house. The wind-catcher works only if it is situated at the high point of the roof but since this was generally pitched in Hindu houses there was no way for it to be introduced. The Muslim houses generally had larger
terraces, and the ones of Patan most clearly so, with less areas covered by the pitched roof and this enabled the device to be fitted in. In Patan there was on the ground-floor at one corner of the courtyard a cabin-like chamber which went straight up without diminishing and projected over the flat roof. Its hooded opening faced the wind-direction (south-west) and the sucked-in air was drawn down and allowed to flow through two grilled windows into two areas of the ground-floor: one into a corner of the courtyard, the other into a corner of the Awas. Both these areas were used for sleeping and visiting so that the draught came where it was most needed. In other parts of Gujarat where the wind-catcher was seen, for example at Broach and Cambay, it resembled more a chimney which worked in reverse.

Regarding the general sleeping arrangements, the families here retained the Joint Family and our informants were emphatic that each married son was allotted, if possible a separate room, or at least a separate corner. Privacy was secured in the latter case by putting up curtains during the night, and to effect this numerous hooks were fixed to the ceiling. The presence of many gullies around the courtyard (for washing after cohabitation) seemed to support this. About menstruation we were told that the matter was deliberately kept secret, no change in duties was made, and the only "person who knew about it in the family was the husband". The birth of the first child was always in the house of the wife's parents, the others were delivered in the husband's house. This is the practice in contemporary society even among Hindus and it seems that our informants were merely repeating current custom. What the real customs were in the past could not be ascertained with certainty. Muslim domestic life was always kept closed to general scrutiny and little information about such personal matters has been published. The account of Mrs. Meer Hassan Ali, an English lady married to a Muslim about 1816 in Lucknow, discloses nothing about such delicate matters although she lived in a zenana. Her description
about the interior is nevertheless worth quoting, "As they have neither doors nor windows to the halls (meaning halls of residence), warmth or privacy is secured by means of thick wadded curtains, made to fit each opening between the pillars." and "The bedsteads of the family are placed, during the day, in lines at the back of the halls, to be moved at pleasure to any chosen spot for the night's repose..."(123).

The use of curtains to partition off spaces was a characteristic of the Muslims, and because of its simplicity and efficacy it was retained as a custom and made the erection of permanent, constructed partitions unnecessary. The occasions for putting up such temporary curtains were frequent in the Muslim house because of the general segregation of the sexes. Its use made it possible to provide each married son with an enclosed space at night and thus the problem faced by the Hindu family was avoided. In other words, cohabitation between husband and wife was openly accepted. This open acceptance of the sexual relationship was in fact the main reason for the whole business of segregation - a man and a woman in sight of each other were expected to think of sex. Not so in the Hindu household. It is not clear how the Muslim Joint Family solved the problem of sexual jealousy between brothers; or whether this was not solved and resulted in early allotment of separate quarters to married sons. The various wings and accretions added to the house, mentioned earlier, would seem to indicate this.

We may now turn to the first-floor and preface this with a general observation. The first-floor was quite clearly the insignificant part of the house. This was, of course, already the case with the Hindu house, but the Sodagaras took it a step further. Barring a few small rooms of shed-like appearance at front and back, the rest of it was a large, flat terrace of uninviting character. The doors, windows, finishes were of the poorest kind, while the rear room had a lean-to roof (Ill. 39). This peculiar feature was seen only in Patan and was at first glance an anomaly. The only explanation for it seems to be that
by having a lean-to with a slope towards the terrace all the rain water which fell on it would descend onto the terrace and go to filling up the family cistern. Water being traditionally precious commodity in West Asia, the lean-to would increase the water supply. The general plainness of the first-floor and its undeveloped condition, despite pressure on space, had to have a strong reason and this has already been hinted at. It seems to us that it arose from the necessity to avoid using upper floors lest a view be accidentally obtained of a neighbouring courtyard. If this reasoning is correct, then it would also explain why growth of the dwelling was made by adding lateral wings rather than vertical units. The former was more expensive and consumed more land, yet it was resorted to. Behind the whole system of settlement and design there lay the acute need for strict privacy of the home because of the women.

Between the first-floor and the ground-floor, wedged in as a mezzanine was a narrow intervening area to the front of the house called a Sojāla. (It is in Ill. 41, 49 the middle floor. This looks like a first-floor but is only a mezzanine; the top-most floor is the real first-floor. Ill. 39 shows the section.) The Sojāla was meant for the women to withdraw into during important public ceremonies such as marriage, hair-cutting of the child, etc., being performed in the courtyard in the presence of the men. From it they could look down through a row of windows without being observed. The unique Sojāla appears only in the Sodager house of Patan and in none of the Muslim houses scattered throughout Gujarat. It reveals the social orthodoxy of this group and is in striking contrast to the easy relationship of the other Vohras. The entry to the Sojāla was by the common stairs from the courtyard, but in many houses there was a second stairs from one of the wings which enabled the women to go up without being seen. Once again we come across the system of segregated circulation paths for men and women. In our house with two side-wings, the women's circulation was very intricate: starting from the single Ordo on the ground-floor, it passed through the
air-shaft chamber, entered the left wing and terminated at the porch. It could continue via the single door into the courtyard, then up the common stairs to the Sojals. The right wing had its own stairs to the mezzanine. Both these movements met at the Sojals and is a proof that the right wing was also for women. This circuitous movement avoided the courtyard as much as possible, and obviously the ideal would have been if it could have avoided it altogether.

The introduction of the mezzanine into a house in Gujarat was clearly a structural problem for the local craftsmen. One could see the clumsiness of the junctions and the frequent lack of head-room. The whole system of beams was also different and not very logical. All this betrays the fact that a house which was significantly modified to suit a particular requirement was somewhat beyond the designing talents of the craftsmen concerned. The house resembles a maze rather than the neatly ordered system of the normal Gujarati house.

A last word about the decorations. It will be seen from the photographs (Ill. 3o,4) that the elevation of the typical house is different from that of the typical Hindu house of, say, Ahmedabad. There is an absence of the open, front Oto with its carved columns and struts; there is no balcony. There is no front Khadki-room or elaborate Diwankhanu. The absence of all of these traditional features is due to the excessive need for privacy. Clients were not expected in the house – the separate shop was meant for that. Instead, the house front shows a more closed and flat appearance made up of wooden panelling and arched windows, occasionally broken by a projected and grilled first-floor window. This wood-panelled front is so common here (also in the rest of Patan) that it seems to be the place from where it originated in Gujarat and then spread through North Gujarat. It shows similarities to woodwork of West Asia and this theme will be discussed in the chapter on construction. The carving of the
Panelling is in many places very rich and typically Islamic. It is in the interior courtyard that the traditional Gujarati features break out (Ill. 45-6-7). The designs of the columns and ceilings are identical with those of Ahmedabad and make it clear that the woodwork was indigenous but adapted to Muslim use. Illustration 49 shows the typical front of the Sojala. The sumptuousness of the woodwork was further enhanced by innumerable wall niches distributed symmetrically about the surfaces, each one framed with a carved frieze. Above them came a continuous line of shelves carrying rows and rows of china imported from abroad and displayed with deliberation. To one side of the entrance door was a small and elegant alcove for more intimate talks. (Ill.57 ). The manner in which the interior was treated, i.e. given a far greater wealth of decor than the exterior, points to two conclusions.

One was that, in accordance with West Asian practice, the house was actually turned inward, showing its true face to the inmates and their guests, while the exterior by its relative plainness indicated its isolation. The Islamic house was not participating in a civic architecture of close-knit neighbours surrounding common spaces, but separating itself from too close contact with any other unit. The second conclusion was that by not displaying too much wealth on the exterior it was playing safe. The plainness would not attract plunder. Since the business premises were not within the house, there was no need for an ostentatious exterior.

Before leaving the Sodagar house of Patan, it is necessary to add that some of the peculiar features noticed in them were also present in the Hindu houses of the town! Thus, for example, the courtyards were bigger than usual, and, accompanying this, the ordos were smaller; on the first-floor was often a lean-to. Since it is hardly likely that a Hindu population would imitate a Muslim house, the only possibility is that these were originally Muslim houses acquired by Hindus. The local Vohres
told us with great pride that half of Patan once belonged to them before they were driven out in some remote past to the present outskirts of the town. The persecution of the Vohras was not necessarily by the Marethas (who ruled Patan under the Gaekwads), but equally by the more orthodox Muslims who were incensed at the lack of Vohra obedience to orthodoxy. Aurangzeb was famous for his religious persecution of the Vohras.

(c) The T-Plan House:

In domestic architecture, as opposed to royal, this plan was seen only once, namely in the house of the Kazi family of Ahmedabad. But since it clearly represents a more general type, it is briefly described here. Basically, it is a large, columned hall surrounded by a heavy wall on three sides and open to the fourth. The form of the plan is rectangular, with three bays along the width and two along the depth (Ill.254), thus producing in all six compartments. Two of these compartments at the rear corners are further enclosed with partitions, leaving four open compartments. These four are arranged in the shape of a T - hence the name to it given by us. The house of the Kazi family clearly shows this T-plan. Now, what is interesting is that the same T-form appears in, for example, the Darbar hall (or palace) of the Nawab of Cambay; and it also appears in the top-floor of the palace of the Gaekwads at Patan (Ill.56); and, curiously, in the reception area of a great mansion in Surat (Ill.616).

In trying to discover the background to this unusual plan, it was found that the 6-compartment arrangement was in fact the customary one for the sanctuary of the mosque! In the volume "Bijapur and its Architectural Remains" by Henry Cousens the identical system can be seen in the following mosques: Ibrahim's Old Jami Masjid (Plate VIII), Fau Gumbaz (Plate XXXVIII), Mosque of the Mihtar-i-Mshall (Plate LXVII); and the complete T-plan
appears in the Gagan Mahall (Plate XVII). The last named is a Darbar hall. All of these columned halls are typical of an Islamic architecture which goes back to the primitive halls made of posts and stretched cloth, i.e. the Shamiana. The Mughal audience halls are derived from the same source. Structures of this kind were characteristic of the Muslim nomads. And it was from this that the custom of having 'polyvalent' spaces arose, i.e. halls in which multiple functions were carried out interchangeably. Our T-plan is but the constructed equivalent of the Shamiana with two corners partitioned off. The fact that it appears in royal architecture, as an audience hall, is logical; what is unusual is to find it used as a residence.

In the case of the Kazi family, there were altogether four such halls used, of which a pair faced each other across a large open space containing a fountain. One such pair of halls was the actual audience hall meant for auspicious gatherings, the family being the religious heads of the community in the past. The other pair, closed off by a wall, was used as a private dwellings. The 6-compartment plan was supplemented by an extra set of spaces at the back whose purpose was for storage. The first-floor in all cases was a duplication of the ground-floor (Ill. 255). Regarding the manner in which the house was used, it is not necessary to go into many details. The usage was simplified by the fact that the private area (dwelling) was now completely segregated from the public area (audience hall). This was also the royal practice, and it seems that in this case the family was deliberately emulating an aristocratic tradition. The part containing the living quarters was in two main divisions: an open veranda-like space, and two closed rooms. Whenever particular privacy was needed, as for example during lying-in, then the closed rooms were used. Otherwise all activities were performed in the veranda in the same way as they were performed in the courtyard of the Patan house. The original Kitchen had been in an outhouse linking the pair of halls and had been
renovated. The site had the usual private well, latrines, etc. Since the whole complex was in turn surrounded by its own compound and completely isolated and cut off from neighbours, the first-floor was a regular floor with pitched roof and was extensively used. The family told us that much of the surrounding property had also once been theirs, and contained the houses of lesser people, shopkeepers, etc. What the whole arrangement looked like was that of a traditional Pura as described in historical accounts (see pages 169ff.). The centre of it was occupied by the leading family of the Pura and their residence was probably the only one which was multi-storeyed (to prevent others looking into their courtyard), while all around them was stretched out the humbler dwellings of retainers, attendants, soldiers, shopkeepers, etc. If this assumption is correct, then here survives one of the last of the Ahmedabad Puras. The details of the audience hall are given in the descriptive section. The analysis is on page 396 together with the Haveli.

(d) The Haveli:

The Muslim Haveli, seen in only two specimens at Baroda and Surat, is in fact not so rare when it is added that the Maratha buildings of Baroda all have a very similar plan! This discovery of the similarity between Maratha and Muslim architecture is not really surprising when it is considered that the two were closely associated in the Deccan during the period under study. Later, when details of Maratha architecture are described, this aspect will become more clear. Because of the apparent common origin of both the classes of buildings, we have thought it advisable to take them together under the head of Maratha buildings because they are the more numerous, and this is on page 396.
THE PALACE

This subject will be dealt with very briefly because of those palaces which still survive the great majority are in wood. The largest number of extent palaces - called Darbargadhs - is in Saurashtra and they, in common with the buildings of the sub-division, are all in stone. Woodwork appears in them only as a decorative feature, and occasionally as veranda columns, not as a structural system. Some of these Saurashtra palaces are discussed because they contain elements of domestic design. The historical palaces of the Sultanate and Moghul periods are equally all in materials other than wood and have therefore been excluded. Their layouts do not assist in understanding the indigenous architecture, nor do they have any relationship to it. Thus, for example, the palaces in the Bhadra of Ahmedabad, the Shahi Bagh built by Shah Jahan, the buildings at Sarkhej, the Bhadra at Baroda, all follow a structural system and a style which is related to stone and brick but not to wood. They also have very little decorative woodwork in them so that even from this point of view they do not fall within our purview. Regarding the palaces of the various Nawabs, these do indeed show a greater display of wooden elements, and these have been mentioned. The remaining palaces of North and South Gujarat have one peculiarity about them which is striking: they are almost all colonial in style! The palaces of, for example, of Danta, Idar, Mohanpur, Ranasan, Ilol, Himmatnagar, Amod, Chhota Udaipur, Bansda - all are either fully or partially colonial in style. The phenomenon was also observable in Saurashtra: for example in Gondal, Jasdan, Sardar (old palace of the Rajkot family), Morvi, Junagadh and Bhavnagar. Some of these princes had older palaces which were indigenous in character but always much smaller in size and significance. Most of the old palaces had disappeared and been replaced with these in colonial style. What this meant was that the princes as a group had come to well-being and prosperity only during British rule. The change in fortune could be particularly noticed when the older
and newer palace were both in existence. This was best illustrated in the example of Bhavnagar. Sihor, the original seat of the family, had an old, imposing palace (Ill.759) but nothing to compare with the one built later at Bhavnagar (Ill.761) and still called locally the old 'palace' because one even never had been built. The three palaces at Baroda (Sarkarvada, Nazerbagh, Laxmivilas) show the same progression towards increasing magnificence.

It will now be seen that as a class of buildings the palaces of Gujarat are not representative of an indigenous tradition, and that if this has to be located, it will be found in those few examples of chieftains who did not prosper and were therefore unable to renovate their buildings. Such relatively original structures were found in obscure places such as Thara, Ketosan and Karjan-Miyagam. The buildings were so simple that they would scarcely merit to be called palaces, yet they were the residences of local chieftains whose names appear in the historical records. And it could be seen by making a comparison that the larger palace was often but a development of this simpler prototype.

The palaces can be divided into three main groups:
(a) the Ordo-type palace, (b) the Nawab's palace, (c) the Maratha palace.

(a) **The Ordo-type Palace**

The Ordo-type palace appears in two varieties: one in which there are twin-Ordos and an Osari, i.e. a Delo-type of plan; the second in which there is an additional wing to the rear resembling a Parsal. These two varieties may be described in a different way, namely that the former has along the depth only two parts, the latter three. In general the two-part plan is found in Saurashtra and parts of North Gujarat, the three-part plan in areas of North Gujarat adjoining to South Gujarat.
The simplest version of the Delo-type residence is that of the chieftain of Thara (Ill. 81); a richer version is that of Sihor (Ill. 757); and its fully developed form can be seen at Halved and Rajkot (Ill. 703, 711). It will now be apparent that the fully developed palace merely repeats a dozen times what the simplest one has only once, namely the twin-Ordo pattern with Osari. The manner of arranging the fixed elements of the design is the same as that which was employed in the layout of the larger Haveli - a duplication of units. Whereas in the smaller palace the yard remains in front with its gateway forming the typical Delo, the larger palace converts it into an enclosed courtyard. It is truly remarkable how little change occurs when the scale and purpose of a building changes from a private residence to a palace. The interior of the royal Ordo retains its bare walls and small openings, the Osari remains a plain veranda. The accommodation of the queen is basically the same as that of the farmer's wife. It has already been shown what a strong influence the rural tradition exercised on architecture, and here is one further proof of it. The family which had risen to royal status had passed through stages from being a petty chieftain living in a fortified village to that of a prince surrounded by a town, but there had been no break in the development. If the prince lived in a town, his relative and supporters, who were still part of his social circle, continued to live in villages and the link between the two was necessary for survival. The urban palace could not become something dramatically different until social conditions had changed, and, as we saw, that came only under the British.

Regarding the usage of these Ordo-type palaces, it is not necessary to go into the details because, on the one hand, it is impossible to reconstruct the life of princes who have abandoned their old palaces; and on the other, the smaller chiefs live just like their neighbouring farmers. The architecture shows that very little must have changed. The only important aspect which could be observed was that the custom of female seclusion became more
emphasized with rise in status. Increase in status brought with it more of public life into the residence, and the need for greater segregation of the family arose. This was achieved in a number of ways. The Delo entrance was no longer kept open as a mark of hospitality, but was deliberately kept closed to signify isolation. The visitor, if low in status, had to call out to be admitted; if of high status, would first send a messenger to fix an appointment. One could not just drop in on a chief (Thākur in local parlance) for an informal meeting. The greater Thakur would, of course, have a gate-keeper to screen visitors. The second mode of achieving seclusion was by greater use of the first-floor - this can be seen in the presence of the screens in the Halvad palace (III.709). The third was to erect a series of courts so that the different classes of visitors could be held up at various stages (III.84). In one of these courts was a Kacheri for transacting the daily business (III.85-7). Here the Thakur would sit every day to receive those who wished to see him. Unfortunately, such interesting layouts in wood could not be found, either because they have disappeared, or because they were normally in more resistant materials. It must be kept in mind that in any unrest it was the Thakur who had to bear the brunt of the disorder, and an outworks in wood would be easily fired. The two wooden Facheris illustrated here were fragments of layouts which had once been more extensive.

This is the appropriate place to speak about the woodwork of these palaces. In the whole of Saurashtra, stone is the main structural material and wood appears in the usual way in doors, windows, ceilings and roofs. The details of this woodwork are substantially the same as in the rest of Gujarat, except that it is noticeable that the sizes are smaller and the carvings less intricate. There are some important differences in style which will be explained in the chapter on construction. In general, it can be said that wood is always treated as something rare and precious and used as a means to display wealth. This is clearly visible in Halvad palace, and is remarkably confirmed in the palace of Fateh Muhammad at Bhuj (III.689,690,691). This is a
stone building and carries a great quantity of stucco carving on the elevation, yet the interior is richly furnished with wood. The main reason for this is due to the material conditions. The stone of Saurashtra, as already explained (pages 79-80), is generally poor and does not permit any fine carving. Wood thus becomes the substitute when possible. The weakness of the local stone is also the reason why it cannot be used for beams and columns, and therefore any large, columned hall has always to be in wood. The various Osarins, when left open, have wooden columns to support them and this gives an opportunity for display.

The three-part palatial residence appeared mainly in parts of North Gujarat adjoining South Gujarat, and it clearly revealed its southern influence (Ill. 61-62). The rear part of the residence, along with the rear-yard, became the place of seclusion for women and the hearth. The remainder was designed as the Delo-type with front-yard and gateway. Two points are here of interest. The northern Parsal did not generally appear because it was not needed: the central space, i.e. the part which corresponded to the Ordo, had taken over the functions of the Parsal. The layout now had two yards, one to the front, the other to the back, and this was a novelty. The Delo had a yard only to the front, while the South Gujarat residence had one only to the rear. This type had features borrowed from both namely two yards arranged in depth. The division is very convenient, for it permits one to be used as a private yard, and the other as the public yard. The situation of the women's area is here ideal. By opening out onto a back-yard which could be turned into a private garden, it avoided the closed-in character of the Muslim courtyard, and the one-sided privacy of the Delo. The dwelling now did not terminate towards the back but continued into external space; even if visitors had come, there was no necessity for the womenfolk to 'withdraw', as in the
Belot-type, but they could carry on at the back. From the examples seen at Ksrjan-Miyagam, it could be observed that the back-yard had all the intimacy and life of the northern Chowk, and less of the anonymity of the southern back-yard (caused by the rear entry to the back-yard). This ideal layout developed because of the synthesis of two different traditions, a northern and a southern. The northern tradition governed the more formal, public aspect of the family (front-yard), the southern the more personal (back-yard). The synthesis was made possible because the settlement was self-contained with a single entrance and not wedged between two parallel roads. Its circumference was sufficiently large to prevent neighbouring houses from getting too close a look at the back-yard. It was most successful when it lay, not in the centre of habitations, but to one side, or on high ground.

(b) The Nawab's Palace:

Among prominent Nawab's of the past, the palaces of those of Surat, Broach, Baroda, have disappeared and the two former have been replaced by new buildings. Those with still extent old palaces seen by us were Palanpur, Radhanpur and Cambay. Palanpur had been sold off in separate parts to separate purchasers and no longer retained its unity; much had been dismantled. Cambay was partly intact and locked up and could not be examined fully, but its outlines were clear. All these three old palaces showed once a magnificent display of wood even though they were not fully wooden structures, and they illustrate the fact most strongly that at the time when they were constructed it was wood which was the material of preference (ILL.15/6,5,6). The details of the woodwork was in all cases indigenous and brilliantly executed. For sheer exhuberance of wood, possibly there was nothing in Gujarat to exceed that of the old palace of Palanpur.
All the three towns were once fortified, and it is interesting to find that all the three palaces occupy one corner of the fortified site. This was obviously to achieve greater privacy from neighbours who might overlook courtyards. Each was surrounded by its own separate citadel with gateway. The system of planning of Palanpur and Radhanpur are not described for both are chiefly in brick with wood having a subordinate role structurally. One part of Palanpur had a layout somewhat resembling that of the Kazi family of Ahmedabad, i.e. two T-shaped halls facing each other across an enclosed courtyard and these contained some wooden columns, but the major part was apparently different, as the remains show. The planning of Radhanpur was quite different again. Common to both these palaces was a magnificent Jharokha (royal balcony for showing the ruler to the subjects and viewing processions) fully in wood, and cantilevered in such a way as to make it appear as if it rested on a single point. A smaller version of this Jharokha appears in one of the subsidiary buildings at Jamnagar (Ill. - ), while the Bhadra at Baroda has something similar in stone. The feature had, of course, been copied from stone palaces in Rajasthan, but the fact that two were constructed in wood indicates the dominance which this material had in Gujarat.

The palace at Cambay had the typical T-plan in the part which was still intact and was the main audience hall or Darbar. This building has a close resemblance to the Athar Mahall at Bijapur which also has wooden columns in front of a double height. The crenellations at the top also appear in numerous Bijapur monuments, and both are obviously following a common model. The residential buildings at Cambay had all fallen into ruins.
(c) **The Maratha Palace:**

The Maratha palace should nominally be discussed along with the other palaces, but there are good theoretical reasons for not doing so. It has already been mentioned that the Muslim Haveli and the Maratha buildings of Baroda show so much similarity between them that they may be taken together as belonging to a common tradition. The Maratha palace, as seen in Gujarat in two examples at Baroda and Patan, is in turn closely related to this common tradition and therefore all of these inter-related buildings will be analyzed together under one head. That head we have called Maratha because it is among Maratha families that the most numerous examples of this style are found.

(10) **The Maratha Residence in Gujarat:**
( including the Muslim Haveli )

Before commencing this subject a number of explanations are required. There is firstly the choice of nomenclature: Why Maratha? The Marathas captured Baroda in 1734 and settled down to a permanent existence in Gujarat. They ultimately made Baroda their capital and built a number of residences which still stand. But among those who accompanied them into Gujarat were also castes other than Maratha, for example Maharashtrian Brahmins, and these other groups also built residences. And it is clear that all of them were following a common tradition in their architecture which they had brought with them from the Deccan, so that a more accurate name for the style would be 'Deccani'. But this was purposely avoided as it would lead to confusion when the main theme was the architecture of Gujarat. The name Maratha was retained because it was they who, in Baroda, provided the model which the others followed. It was the royal palace of the Gaekwad which was sought to be emulated, albeit on a smaller scale, by the other groups, so that so far as the local phenomenon is concerned the designation is just. From a historical point of view also, the term is already in current
usage and what was established in Gujarat was not Deccani rule but Maratha rule. But in all subsequent discussion of the architecture it should be kept in mind that 'Maratha' was one facet of Deccani culture, and that through the latter it was associated with the Muslim culture of that region.

The second explanation concerns the fact that the Maratha residences of Gujarat are mainly concentrated at Baroda; those of Ahmedabad have disappeared; and there is one at Patan. These residences are of nobility, and are few in comparison to the population of these towns, so that they form but a peripheral phenomenon in the general architecture. Their style did not have any great influence on the domestic architecture of the region except in the design of kacheris. The limited quantum of Maratha residences, and their all belonging to the same class of urban nobility, makes it impossible to trace their development from simpler beginnings. To do this would mean following Maratha architecture outside the boundaries of Gujarat and since that would be out of context it has not been done. What has been done is to show that the style prevalent in Gujarat is closely related to that following by Marathas in their homeland and that both belonged to a common tradition. The life-style has been described in so far as it appeared to be relevant to the architecture.

The third explanation concerns our statement that the Muslim Haveli is related to Maratha architecture, or vice versa. This will become apparent when the plans of the Havelis are compared with those of Maratha buildings, and even more when their structural systems are compared in chapter five. This system is so distinct to that normally practised in Gujarat that either it was made by a different group of carpenters or by indigenous carpenters working according to a different model. This problem is discussed at length in chapter five.
The most important of the Maratha buildings in Gujarat (in wood) are the two palaces at Baroda and Patan. The Baroda palace had altogether five different units in a row, all linked to each other by various means, including a bridge, but of these one has since disappeared. It was fortunate that we could make a plan and drawings of it before its destruction. This whole complex is known as the Sarkarvādā. Another valuable building was the Mastubag palace, one of the minor palaces, situated within the grounds of the present Laxmivīlas palace. This smaller palace has also been destroyed but we were able to record much of it before its final dissolution. The whole process of its break-up was photographed and provided important information on structural techniques. Besides these royal buildings, there were significant residences of the nobility which surrounded the Maratha court, such as those of Phandre, Akolkar, Pādnis, Tambekar, Mairal, Puranik, and many others, and of these those which still survive show by their system of planning that they were all following a common tradition of architecture. To this group must be added the Muslim Haveli of the Jamādār family (now pronounced Jāmedār) situated very near to the Sarkarvādā. They were personal bodyguards and commanders to the Gaekwāds and their descendants are still living. The size of this Haveli and proximity to the palace indicate the importance they once had. The description and analysis which we make in the following is thus valid for this whole class of aristocratic residences. The Muslim Haveli at Surat is included here even though it has nothing to do with Maratha influence, because it has features which are nevertheless common.

(The most important aspect of the Maratha residence is that it forms no part of any collective group, Phadki or Pol, but stands by itself as an isolated entity surrounded by its own compound. The two Gaekwād palaces are exceptions to this general rule, being situated directly on main roads, and the reason for this difference is not immediately apparent. It could
have come from the need of making the ruler more accessible to his followers, but then, by the same reasoning all the residences of the nobility should have followed the same pattern, for most of them had to do with public affairs. The difference in accessibility between the normal residence (called Vāḍā) and the palace is striking and not mere co-incidence for it is repeated at Patan. It seems to be that the real reason must lie in the fact that the nobility did not transact public affairs in their own Vadas but assembled in the Sarkarvada for the purpose. The palace was so much in the centre of daily decision-making that it had to be made accessible as a place for assemblage of office-holders. The various accounts of the British Resident at Baroda make this very clear. There is a Memorandum dated 1807 which shows that any official order had to make a tortuous journey through eight official instances before it came into effect (125). The palace was, thus, not merely residence but simultaneously a place for audience and a place for business, i.e. it was residence and court combined. Some of the other Vadas which had a similar road-side location were those of the Killedar (commandant of the fort) and of the Jamshed (body-guard), whereas those with private compounds were, for example, Tambekar, Dhamdhere, Akolkar and Fadnis.

(The typical layout of the residence was a system of large halls arranged around a courtyard of Chowk, and it was considered a matter of status to have as many such Chowks as possible. This has been described by Dr. M. S. Mate in his "Decuman Woodwork" as follows, "Literary descriptions and extent examples agree in one respect. And that is the plan of the (Maratha) mansion. Most of the mansions worth the name are described as having so many 'chowks' or quadrangles. The usual number was three but in more pretentious constructions it went up to seven." (126). In his work "Maratha Architecture" he states that the Phadke
Vads at Poona had seven, while the famous Shanivar Vads of the Peshwas had four (127). In Baroda, the usual number was two, arranged not behind each other in depth but adjacent to each other in width. The identical manner of arranging courtyards is found in three important Muslim buildings seen by us: one is the old Bhadra of Baroda, the other is the Jamatdar Haveli, the third the Muslim Haveli at Surat (referred to hereinafter as 'Ainti', the name of the Parsi family which owned it.) This is the proper place to say something about the Bhadra of Baroda. Among Muslim structures in Gujarat it is one of the oldest, being from the times of the Sultans. The Geekwads, when they first came to Baroda, used it as a residence before they had constructed the later Sarkarwada, and continued to use it for various purposes during the whole period of their rule. This Muslim palace (in brick) also has the twin-courtyard arrangement and the reason for it is as follows.

It has been shown earlier how Muslim families introduced various planning devices in order to segregate the women's area from the men's. One of these had been the addition of self-contained wings to either side of a main block (as at Patau), and the other the complete separation of the two into self-contained courtyards (as with the Kazi family of Ahmedabad). The use of separate courtyards devoted to functions which must be kept separate can be seen in Mughal practice also where the Diwan-i-Aam (hall of public audience) was separate from the Diwan-i-Khas (hall of private audience) and this was in turn distinct from the private apartments or zenana (All the three functions were grouped around courtyards, and the custom is pre-Mughal and must have been typical for Muslim society as the Baroda Bhadra shows. The twin-courtyards of the Bhadra were, thus, in accordance with Muslim practice of segregating the more public men's area from the more private women's area. The location of these two courtyards adjacent to each other, rather than one behind the other, had certain advantages in circulation. The females entering their
private domain could do so directly from the front-yard without having to pass through the men's area, which they would have had to do if the courtyards were arranged in depth. Two adjacent courtyards, each with its own separate entrance, permitted separate entry and exit. This seems to have been the main reason for this pattern, and not only does it exist in the Baroda Bhadra, but is present in the following buildings: Sarkarwada, Jamatdar Haveli, Dhamdhere Vada, Bhaskar Rao Vithal Vada (all in Baroda) and Ainti Haveli (Surat). (The layout of all of these buildings can be seen in Ill. 426, 569-1, 570, 816, 782.)

It will now become apparent how close is the similarity between the Maratha residence and that of the Muslims, and why they have been considered together. It is not, however, possible to say that the Marathas borrowed the system from the Muslims without further study of the rural house of Maharashtra. All that can be said at the moment is that there is this similarity in the residences of families belonging to two different communities but who belonged to the same class, namely to the aristocracy. And the plans indicate that they were used in a similar manner. In other words, the presence of twin-courtyards made it possible to separate the residence into two divisions of which one was for public functions, the other for private. Each division was, to some extent, self-contained with its own separate entrance and stairs, and it is typical that the link between the two divisions was kept restricted so that it could be controlled.

The other point of remarkable similarity between the two is that each division was again sub-divided into separate sub-functions according to the floors. Thus, the ground-floor was given over to attendants, retainers, domestic servants, and in some cases to the parking of a carriage (in Jamatdar and Ainti). The first-floor was for the reception of guests and for the holding of 'audience' or 'Darbar', while part of it would be for
Apartments and services. The second-floor was clearly for personal and private use; while the third-floor consisted of airy pavilions and terraces meant for private entertainment. This manner of using the floors reflected the fact that the value assigned to each moved from 'public' to 'private' in increasing degree as one went higher. The ground-floor was the most public area, the top-floor the most private. We come here upon an attitude to the dwelling which we have already encountered before, namely in the Muslim houses of Godhra and Dabhoi. There too the degree of privacy increased as one went up from the ground-floor to the first-floor. But in general this manner of using the house was difficult because the Kitchen and water supply had to remain on the ground-floor near to the well. The absence of domestic servants made it inconvenient to shift these essential spaces higher up. But now in these aristocratic residences this kind of problem never arose because the use of servants for domestic work was the rule, and it permitted the hauling of water, fuel, stores, to any floor regardless of inconvenience. The freedom thus gained was utilized to secure greater privacy within the residence by moving up to higher floors. This movement upwards freed the ground-floor from domestic functions and it could be given over to functions resembling those of a Kecheri.

What the aristocratic residence thus created was a very complex division of functions both horizontally and vertically. The residence as a whole was bifurcated horizontally into two divisions, marked by courtyards, of which one was 'public' the other 'private'. But within each division there was a secondary, vertical differentiation according to floors in which the values 'public' and 'private' were arranged floor-wise in ascending scale. The ground-floor was not merely 'public' but inferior public - it was little better than the road. The first-floor was for 'public' but not the common public, instead it was only for the more refined visitors who were permitted into the audience hall or Darbar; it may be termed superior public. The two upper
floors were what may be called 'domestic'. These three categories of vertical spaces were, curiously, almost identical with Moghul practice. The inferior public were admitted to the Diwan-i-Aam, the superior public to the Diwan-i-Khas, and the private apartments were the zenana. Here again it is not necessary to posit that the one tradition was borrowed from the other. It is the lifestyle which imposes the pattern. Given a situation where the aristocrat is immersed in a hierarchy of functions of which he forms the pinnacle, and further, that the excessive centralization of power makes every decision a personal one, then public life begins to invade private life and the distinction between the two gets blurred. The numerous officials and clerks which have to be on constant attendance have to be accommodated in proximity to the residence, and the kacheri moves into the residential area. Where the Moghul and Thakur could provide a kacheri adjacent to their apartments because space was plentiful, the urban aristocrat was compelled to move it into the ground-floor of the residence because of lack of space. The degrees of privacy which could in the former case be distributed horizontally, now had to be arranged vertically. The development was quite logical given the circumstances. Of course, once a particular community or group had introduced the system and provided the respectable model, it would make it easier for others to imitate. Whether it was the Deccani Muslims or the Marathas who first took to this urbanized pattern it is not certain, but the fact that Muslim culture was more urban than Maratha gives an indication.

The vertical differentiation of the building according to its floors had two consequences which were characteristic. Firstly, the fact that each floor had to accommodate a different function meant that the plan of one floor could not be automatically duplicated on the next. Thus, for example, the great Darbar hall of the Baroda Sarkarwada which was on the first-floor had no corresponding space on the ground-floor, with the result that some
of the supporting columns of the former found no continuation in the letter and came to rest on beams. These beams had in course of time begun to give way and had to be supported by additional columns placed later. The lack of skill in planning which this shows was not an isolated phenomenon but was repeated again at Paten. If such errors were due to the local craftsmen, then it could only have been because they were working with an alien system. Some of the later buildings show that they had begun to learn from experience.

(Secondly, the floor-wise differentiation was marked by a differing treatment of woodwork and finishes. The inferior ground-floor was extremely plain in appearance and almost devoid of any decorative features; the first-floor was given columns with offsets and decorative arches were spanned between them, many verandah bays had wooden screens, and the doors and windows were smaller and better proportioned. The ceiling, which was of open joists on the ground-floor, was now concealed behind a false ceiling of painted planks. The second-floor often had columns turned on a lathe and made elegantly tapering in form. The third-floor pavilions received arched doors and windows and stucco decorations on the plaster-work. In the famous Tambekar Vada; which is a protected monument because of its murals and painted woodwork, the nature of the paintings reveal the difference most strikingly. The first-floor themes are partly religious and partly heroic. The more intimate second-floor has only erotic themes, and it is quite obvious what this floor was used for, namely entertainment with wine, women and song.) It was an upper chamber such as this which made James Forbes write, "Many Indian princes ... have a favourite upper chamber, with walls and ceilings covered with mirrors of every size and shape... This apartment is sometimes decorated with indelicate paintings... suited to their depraved appetites ..." (130). It was precisely this difference in treatment between individual floors which gave us the clue to the different values assigned to them. It may be
here added that those local merchants and revenue-farmers who imitated Maratha architecture in their Kocheris, already described (page 234 ff.), gave a similar differential treatment to their various floors. This can be best seen in the Kacheri of Lellu Behadur Parekh in Baroda (Ill. 552), situated a few hundred yards away from the Sarkarwada.

The above use of space can be illustrated by three descriptions from literary accounts. Louis Rousselet was permitted a personal visit to the Sarkarwada in 1864 and wrote, "... a simple flight of steps, at the summit of which was stationed the guard, who presented arms to us as we proceeded to mount one of the narrow, dark staircases I have already described. The rooms were decorated with tapestry, and had a rich appearance on the whole, though of small size. We at length reached the immense upper terrace, upon which, on all sides, rose kiosks and pavilions, some of them four storeys high. This mass of buildings, planted on the summit of an edifice almost entirely of wood ... betokened great audacity on the part of the architects. The space covered by this palace is so laid out that the terrace forms a labyrinth of courts and corridors, rendering it necessary to have a guide." (131).

(The Baroda Gazetteer of 1883 is more explicit, "The chief entrance is a narrow door from the very foot of which springs a steep and still narrower staircase, which, twisting here and there is now and again barred by a regular trap-door. During the day, the large room in the first storey, in which the gadi is kept (meaning throne) and from the Devagar of the Gaikwars with its thousands of little gods may dimly be seen; during the day, this room is crowded with clerks and soldiers ... Above were of old the jewel-room ... In the highest storey are the royal apartments with their gold and silver beds, their mirrors ... But who can describe this curious building with its labyrinth of little rooms, dark passages, and deep yards?" (132).)
The top-most pavilions of the Sarkarvada have disappeared and today only three floors remain.

Rousselet also visited the residence of the Killedar (fort commandant) of Beroda, whose building still stands, and some part of his description is revealing, "My companion, without hesitation, proceeded to ascend a dark staircase, nearly perpendicular, and so narrow that I could easily touch both walls with my elbows. It was closed at the summit by a heavy trap-door, which a servant opened and then closed after us ... When we reached the fifth floor, we came out on a spacious terrace, covering the whole palace, surrounded by elegant apartments with galleries in front, supported on columns ... and the terraces, stuccoed, and sheltered from the sun by thick awnings, are transformed into capacious rooms."(133).

(These descriptions give us an indication of the life-style which prevailed, namely of a horde of guards and servants who occupied the lower floors while their masters reposed in airy pavilions and terraces on the upper floors. Movement from floor to floor was not made easy, but passed through restricted control points and steep stairs of considerable complexity. It was the usual custom to have stair-cases in pairs, of solid construction and enclosed between supporting walls, and the reason for the dual arrangement appears to be that one was for service, the other for the inmates. The solid stairs becomes a standard feature of these residences and it is explained by the fact that so much heavy material had to be constantly carried upstairs by the servants (water supply, provisions) that a wooden construction would have early given way. In the Sarkarvada some of the solid stairs commenced only from the first-floor and were clearly only for the family members. At others, there were small, grilled openings through which the guards could view visitors before letting them in.)
The most pretentious space within the aristocratic residence was the Darbar hall. This had become so customary that it could be seen, apart from the palace, in the Vadás of Dhamdhere, Tambekar and Puranik. The lesser aristocrat would, of course, never refer to this as a 'Darbar' but only as a 'Diváňkhānu', but his pretensions were similar. And it was these halls of audience which formed the model which was later followed in the Gujarati Haveli and the Kacheri. The effect of grandeur was sought to be given by the use of painted woodwork, and wooden arches spanned across column bays (Ill. 134).

Rousselet states that tapestries were hung and probably gave the spaces more charm than they possess today. But, nevertheless, there is a general air of mediocrity about these interiors which is very surprising. The same lack of decorative refinement is visible also on the exterior, as the photographs will show, and it was this which made the British travellers exclaim that they found them shabby. The most critical of them was James Forbes, "The Mahratta structures are mean and shabby, more so than the durbar, then lately finished by Putty Sihng; which resembles most modern Hindoo palaces, in the want of taste and proportion in architecture, and elegance in the interior decoration."(134) Bishop Heber, more kindly disposed, wrote, "The palace, which is a large shabby building..."(135).

What is particularly surprising is that in the midst of Gujarat, which was then so full of magnificent wood carvings and possessed of the artisans to make them, the Maratha aristocratic structures should look so plain. (The photographs of the elevations of Sárkervada, the Dhamdhere Vada, and even the Tambekar Vada (which has an exceptionally rich interior) reveal an almost complete absence of decoration. Even the doors are generally mediocre.) It will be recalled that a similar character marked the average Muslim building, and those of Baroda and Surat are no better. James Forbes, who participated in a
Maratha campaign, wrote about them, "The Mahrattas seem to prefer their tents to houses, and enjoy more pleasure in a camp than a city." and, "A Mahratta is not ambitious to make a figure in his house, furniture, or apparel ...(136). He quotes elsewhere from a report of Sir Charles Malet on the Maratha army, "... which, added to the simplicity of manners, and absence of wants with the Mahrattas, accounts for their spending their lives as happily in the field as other nations do in cities ...(137).

If these accounts are accurate, and they appear to be so, then the simplicity of the Maratha residence is to be explained by the simplicity of those who lives in them. But to this has to be added another factor. The times in which the Marathas lived was one of general unrest and insecurity, and it was never certain how long the occupation of a particular territory would last. The Marathas who settled in Baroda all had contacts with their native villages in Maharashtra and had not given up their attachments to those places, so that their sojourn in Baroda was, in the beginning, more an occupation than a settlement. This would explain why the residence was never made with too great an investment on decorations. A third factor was that no residence could be made more grand than that of the ruler: this has been referred to in the quotation on page 176, and since the Sarkarwads had already set the tone in relative mediocrity, it dared not be improved upon. The Gaekwads themselves must have soon realised this, and as more settled times arose, they built other and far more magnificent palaces such as those of Nazarbagh, Mekarpura and Laxmivilas. In this progression to magnificence, accompanied by British security, they were following the trend of other aristocratic families in Gujarat. The relationship between architectural plainness and insecurity had also existed in the case of Muslim residences, as was discussed earlier, and thus we find a mutual harmony between the two phenomena in the residences of Baroda.
(Apart from the audience hall, there was one other representational space in the residence, and that was the Ganpati hall or domestic temple.) The Baroda Gazetteer quoted earlier calls it the Devagar, and the one in the Sarkarvada still stands in the same relation to the Darbar hall as there mentioned. It is a very large space and once had an opening to the sky producing a Chowk-like area on the first-floor, and from the size it is apparent that it was meant for large gatherings. The deity used to be installed behind a wooden screen. In the Tembekar Vado the temple was simply a screened off space within the main audience hall at one end and carried religious themes on the wall murals. The Fadnis Vado had a similar arrangement but it is now in ruins. The Nairal family, whose Vado has completely disappeared, went a step further and constructed a whole temple to Ganpati adjoining their residence which still stands (Ill. 58). It is of immense size and must have once drawn large gatherings. The size and location of these temples indicate that although they were attached to domestic residences, yet their purpose was semi-public and the ceremonies must have had a community character. Maratha society was much more egalitarian than elsewhere among Hindus, and it explains this phenomenon. (The Muslim Havelis, of course, had nothing equivalent).

(A third kind of representational space, found only in two examples, namely Sarkarvada, and Ainti Haveli, was a private audience hall on the first-floor. Its location was exactly similar to that of a Gujarati Divankhanu. The presence of two audience halls within the same building was curious, and since neither examples are in use the reason cannot be ascertained. Regarding the one in the Sarkarvada, it is located in the second division, i.e. attached to the second courtyard which was for the women, and hence it is possible that it was meant for them to receive females of nobility.) The fact that the passage leading to this particular Divankhanu was screened to any view from the road, whereas the other hall was not so protected, strengthens
this assumption (Ill. 427, right part of the elevation shows the screen). If it is questioned whether Maratha women of such a household would ever engage in such semi-public activities, it should be added that we were reliably informed by numerous families that the women used to also attend the temple ceremonies, and that a separate gallery used to be provided for them. Not only this, but the great Darbar of the Sarkarvada also had a similar gallery designed as a mezzanine floor to either side of the main chamber, and furnished with wooden screens, from which the women could look down and watch every detail of the proceedings. This can be seen in the section in Ill. 432, 433.

In the Ainti Haveli, the second audience hall was attached to the first, men's, courtyard and it must have been for receiving more private guests. In many of these aristocratic residences, it was the custom to receive superior officials such as governors and commanders, or even the ruler himself, on occasions, and the normal, more open audience hall would not be suitable. The distinction between the two kinds of audience halls was clearly brought out in this particular building. The private audience was on the first-floor and could be closed off with doors. The more public hall was on the ground-floor and had the typical T-plan formation. This T-plan needs some further elaboration. It will be recalled that it occurred in three prominent Muslim buildings: the Baroda Bhadra, the Cambay Nawab's Darbar hall, and the residence of the Ahmedabad Kazi family. In addition it appeared in Dhamhure Vada (Ill. 575). In every single one of these cases the T-plan formation always appeared in association with an open courtyard, and it is obvious that the two features formed one linked whole. The building from which the form was derived, namely the mosque, had a similar linkage between covered space and front yard and this was determined by the functional requirement of 'speaker' and 'audience'. The form of the building was closed off on three
sides and open on the fourth, resembling a 'stage', and it is interesting to find that this form had become standardized as the model for the domestic audience hall. Apart from receptions, it must have been used for music and recitations, for one finds it transposed to the top-floor of the Gaekwad palace at Patan (Ill. 56). The use of such a fixed architectural composition in varying locations is proof of how certain designs had become a kind of 'motif' which could be repeated anywhere so long as the function was retained. That this Muslim motif appears in Maratha buildings is proof of the common Deccani origins. The use of this motif in the Nahi house as living space is, however, an anomaly and can only be explained if it is assumed that, being a Nahi, he had no 'private' life but lived virtually in a 'mosque'. This is, of course, only a speculation.

(Regarding the more personal elements of these residences, for example the locations of hearth, water storage, latrines, sleeping areas, it is curious that in almost none of them was it possible to identify any such features. In most cases the families inhabiting them had completely changed the original usages, given large areas over to tenants, and no one could remember with clarity the original situation. From the design of the interiors also it was not possible to discover anything. In the case of the Sarkarvads, the whole building was rented out, and nothing of the personal life could be reconstructed.) It was only in the case of the two Muslim Havelis, those of Jamatdar and Ainti, that the exact location of the hearth could be established – in both cases within the second courtyard. The Ainti Haveli had, in addition, an arrangement on the first-floor for drawing up water with a pulley from the well on the ground-floor, and opposite this were the bath-rooms clearly visible, with a down-pipe for the waste water. An interesting feature in this particular building was the high parapet walls surrounding the opening of the first courtyard on the first-floor. This showed that the women could, on special occasions, cross over to the first
courtyard and observe events down below in the men's area. This was very similar to the women's gallery of the Sarkārvadā, as also to the Sojales of Fatan. All these similarities in custom among such disparate groups derived from similarity in requirements.

One general aspect of these residences must be mentioned. They all have, on all floors, a large number of openings, verandas, galleries, doors and windows, which give to the building a very open appearance and provide the interiors with good light and ventilation. This open character was in sharp contrast to the more defensive appearance of the medieval house, and the reason was simply that all of these aristocrats were defended by their armed retainers who hung about the premises. The families themselves had male members who could handle weapons and there was little need for them to shut themselves off in closed 'Khadkis or Pols with walls bereft of openings. Their 'Khadkis' was the fortified town itself.

A Digression

Before leaving the subject of the Maratah residence, there is one peculiar aspect which must be discussed. During field survey, the extreme similarity between the Muslim and Maratha residences made us, at first, assume that many of Maratha residences were in fact captured from the Muslims who had been ousted from Baroda. This practice was common in medieval times since in conditions of general unrest it was not practicable to set up new buildings in every captured town. The personal use of plundered material was anyhow customary. This theory found support in a strange way. In one of the residences, that of the Purānik family, there still exists, within the house (!), the tomb of a Muslim Fir and it continues to be faithfully tended by the family. A similar tomb was reported both from the
Dhamdhere Vada and the now demolished residence of Dr. Rajendrasinh Gaekwad outside Gendi Gate. The Fadnis family told us that their residence had once belonged to Muslims, and in fact the whole area where it is located still bears the name Muhammad Vadi. The Dhamdhere Vada is also located within a predominantly Muslim area of Baroda. Thus, the theory of these buildings being originally Muslim cannot be completely brushed aside.

The reason why it has not been put forward firmly is because there is an equally plausible alternative theory. And this is that the sites where these Maratha residences stand must certainly have been Muslim, and that would explain the various  
finds found. The Marathas, while constructing their own, new residences, could have avoided demolishing the tombs because among their own soldiers were Muslim contingents (for example the Arab and Sindhi forces of the Gaekwad). Another reason for this alternate theory was that if the Maratha residence was to be declared as Muslim because of style, then the Sarkarvada itself would have to include for it had all the same typical features! But the British records clearly speak of the construction of this palace by the Regent Fateh Singh so it could not have been by the Muslims.

(11) THE HAVELI TEMPLE

The Haveli temple is the local term used to designate a kind of Vaishnava temple which has many characteristics of the domestic residence or palace. The temple is called simply Haveli or Haveli-mandir. The Vaishnava sect which constructed such Haveli temples was that of the Pushtimarg founded by Vallabhaacharya. Its religious attitude was a variant of that known as Bhakti according to which devotion to the deity was more personal, and in the nature of 'service' performed to a 'lord' conceived in anthropomorphic terms. That is why the deity
was installed in a residence supposed to symbolize the 'palace'. There are some who believe that the reason why the temple was made to resemble a domestic house was to escape persecution by the Muslims. Certainly it is true that to have constructed a normal temple with a shikhara, say under Aurangzeb, would have been a hazardous undertaking. But when there is a much simpler explanation for the Haveli temple, there is no need to speculate.

R.C. Bhandarker, in his "Vaisnavism Saivism", explained the theory behind the Vallabhaśchārya sect (Pushtimarga) and stated that according to their beliefs worship was not to be in a public place but only in the house of the Guru. He put it thus, "... the God cannot be worshipped independently in a public place of worship, but in the house and temple of the Guru ... which has therefore to be regularly visited by the devotees with offerings." (139). It was this insistence on the devotion through a Guru which sanctified the place of his residence since this was simultaneously the residence of the deity. The Guru was the one who performed the service of the deity and the two became inextricably merged. This expressed itself in a Haveli temple in which the dwelling of the deity and that of the Guru were both housed within the same residence and the border-line between the two was not very strictly demarcated. In some cases the actual temple might be separated from the dwelling of the priest by a courtyard (as at the Giridhari temple of Jamnagar) or it could be so arranged that the priest resided in rooms which were just above those of the temple. The latter was the case, for example, in the Haveli Mandir of Bhavnagar, the Marsinhji temple of Baroda, the Mota Mandir of Surat, and the Nanchodji temple in Broach. This intimate association between priestly family and deity is a unique phenomenon and the entry into such a residence a very strange experience.
The nature of worship under this belief was determined by the personalized relationship between deity and Guru. The deity was conceived of as a lord or king who was residing in his palace and being served by a human agency acting as a 'servant', while the public which came to witness this act of service symbolized the 'subjects' which every king had. This triple division of the relationship was expressed in a triple division of the functions. The core of the layout was the dwelling of the deity, and this, in its most ideal form resembled a palace in miniature. Before this royal apartment there had to be a space for the congregation of the subjects. Lastly, there had to be a barrier between the two to prevent any impurity from crossing from the latter to the former, and this barrier was occupied by the Guru or his assistants during public ceremonies. It is curious to find that in these functional requirements our old spatial categories re-appear, namely 'private' space, 'public' space, and barriers between the two. And, it is even more striking, that the barrier between the two is a Chowk!

The whole of these religious spaces were always on the ground-floor; the apartments of the family were always on the first-floor (if within the same house). Here we again find confirmation of the values assigned to the different floors: namely a higher status to the ground-floor and a lower to the first-floor. Thus, the 'Haveli' was not merely notional, but real.

Because of its public nature, the location of the Haveli temple was generally not within any individual Khadki but either within a Pol or main street. The building itself had both externally and internally all the features of a domestic house and could not be easily distinguished from the surrounding houses. It is possible that in some cases an actual residence was converted into a temple, but our survey showed that every Haveli temple had been constructed from the very beginning with that end in view. This could be judged from the fact that because there were in fact two dwellings within the same building (one for the deity, one for the Guru), all the facilities
had to be duplicated. This was, of course, not difficult to do over two floors which in any case duplicated each other. But nevertheless, the much larger size of the ground-floor required for the accommodation of the devotees was proof that it had been so conceived from the beginning.

The layout of the parts depended upon the amount of space available. If the site was small, then some of them could be dispensed with or distributed in adjoining plots. If space was adequate, then what may be called the ideal layout became possible, and it is this which is described for it shows what was the model conceived in the minds of the followers. It is quite obvious that this model sought to imitate an actual or imagined royal residence, but because it does reflect a remembered tradition it can be used to reconstruct something about the palace of the past. Basically the parts were as follows. To the front of the site appeared a substantial gateway designed exactly as that of a Khadki, only richer. This was followed by a large front-yard with out-houses to either side some of which contained the offices of the trustees. The other out-houses formed the stables for cattle. The presence of cattle derived from the cult of Krishna but it seems very likely that the real palace had something similar, probably for the royal elephants or horses. Then came a large, covered veranda for the preliminary assembly of devotees. Here they could wait for others to join them, take off their shoes, rest if they had come a long way. From here they could enter the inner courtyard and this was the beginning of the more secluded domain. The courtyard had a passage running all around, the portion of it which was just before the deity was barred with screens, and then came the main chambers of the God. These were formed of three typical Ordoṣ placed adjacent to each other (Ill. 763 ). This was the usual end of the layout and the rear was kept without openings just as in the normal dwelling.
The reason for the three Ordos was the following. From the functional point of view, only two were required: a chamber for the deity to be seated on a throne to give darshan to the subjects, and a chamber for him to retire into - a sleeping area. But two Ordos would have destroyed the symmetry and so three were made, two to flank the throne-room. Only the central one was generally open to view, but in some the two side rooms were used for keeping various equipment belonging to the religious service. The deity, with or without accompanying figures, was always small in size, wrapped up in various costly garments, and placed upon a solid pedestal. It was small because it had to be handled by the priests during various rituals. A very important part of the layout was the Kitchen - but its location presented problems. The usual locations, either within the Ordo or to one side of the Chowk, were unsuitable. The Ordos were already reserved for 'residence' and could not be made untidy with cooking; the Chowk was too exposed to accommodate a sensitive feature such as the Kitchen, for it was here that the prasad was prepared. Therefore the Kitchen was accommodated wherever space permitted. It could be in a hall to one side but separate from the Chowk, or somewhere behind the main Ordos, or even in a separate wing. Some of the Haveli temples had additional features depending on local circumstances.

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In the famous Narasinhji temple at Baroda (which, by the way, does not have a Guru but is looked after by the family who built it as a private temple), just above the deity-room was the 'treasury' containing the silver articles and jewels belonging to the Haveli. In another portion of the building was a special room for the making of garlands. In a second courtyard near the entrance was a masonry water tank which in earlier times used to be used for the jalakrida or water-sports festival of the deity. And near to it, in a covered veranda, was the place for the temple chariot which was used once a year during the 'marriage' of
the deity to a Tulsi plant in a suburb of the town. Before
the main building stood a tall tower called the Deepmal with
innumerable niches for holding lamps during Diwali.

In this connection one very exceptional temple has to be
mentioned even though it is not a regular Haveli temple. This
is the Mairal temple in Baroda built by the Maharashtrian,
Brahmin family of that name. It is in honour of Ganapati but
has all the features of the Haveli temple. The throne-room of
the deity is flanked by a bed-room containing a swing and the
walls are hung with numerous miniature paintings. Behind the
throne-room is the treasury and we were fortunate in being
permitted to see it and even photograph one of the silver
cheriots used during ceremonies (Ill.588.a). In front of the
throne-room is a large hall resembling a Darbar hall and above
it is a gallery for women. This whole area was meant for large,
distinguished gatherings to hear recitals and kirtans, and it is
a proof of how popular and established the tradition of the
Haveli temple had become. The great popularity of this temple
can be judged from another of its features. To the rear of
the main complex is a second courtyard surrounded by chambers on
two sides which was meant for the use of pilgrims coming from
afar. It is a self-contained unit with its own separate well
and separate entrance and must have once functioned as a
spacious dharmashala attached to the temple. Today it is disused.
It will be seen from the total layout (Ill. 581) that here there
are elements borrowed from a number of sources: the Ordo-type
dwelling of Gujarat, the Maratha aristocratic residence, and the
religious dharmashala, all combined skilfully into a grand design.

In those Haveli temples where the family lived above the
temple, it was strictly prohibited for anyone other than the head
of the family to enter the Ordos situated above those of the deity
as this was considered disrespectful. The personal rooms of the
family were thus in other parts of the building, and since the
Ordos were prohibited, they had to occupy spaces which were more like halls than rooms. Their own Kitchen had to be on the first-floor and this was inconvenient but could not be helped. Their dwelling also had to have two separate stairs, one leading from the front up to their rooms (for casual visitors), the other leading down to the temple from within so that the service of the deity could be performed even when the temple was formally closed to the public.

The above general description of the typical Haveli temple can be supplemented from a detailed prescription given by N.A. Thoothi in his "Veishnavas of Gujerat'',

"Then of the Vellabhite house (haveli) in which the Lord Krishna lives and rests ... in external appearance the haveli does not look either like the palace of a king or like the domed edifice of a usual Hindu temple. But all comforts and luxuries that the King ... may desire ... are made available inside in the simple-looking mansion called haveli ... The ground floor of such a haveli is completely furnished with every comfort and service considered necessary for the Deity ... It consists of the cow-stall, the store-houses for milk, corn, cooked food-offerings, fruits and vegetables, the room where garlands are prepared, the room for ornaments and rich clothes, the room where betel-leaves are folded into bidas; then there are the kitchen, the dining-room, the water-room ... the drawing room and the bedroom." (140).

The details of the service actually performed can be judged from the above ideal prescriptions. It included every act performed for a king and in its complete form would have required a vast retinue of servants for its execution. That is why we have posited that a study of the Haveli temple enables us to draw some conclusions about what the mythical Hindu palace must have been like. These points will be summarized at the end.
The average Haveli temple could never perform all of these ideal prescriptions and had to reduce them to symbolic actions. The main religious part of the service consisted in the personal servitude offered to the body of the deity, and its intimate nature can be seen from the partial quotation from R.G. Bhandarkar, "He (the Guru) should then open the door of the temple and, going into the sleeping apartments, bring out the wreaths of flowers and all other things used on the previous day, and then sweep and clean the apartments. He should then brush the throne and make all the arrangements necessary for the reception of Krishna awakened from sleep. He should then approach the bed-room and sing a song calling upon Yrsna to rise from sleep, to take the refreshments prepared for him ..." (141). The ritual continues in placing the God on the throne, dusting and cleaning the bed, providing of water for mouth-washing, performing ārati, attending to the bath and dressing in fresh clothes, offering of betel, rocking of the cradle (for God in boy-form), arranging for the God to graze his cattle, etc. etc., finally ending with putting the God again to sleep. Almost all of these actions are symbolic. The devotees attend only when the God is seated and ārati is performed to the sound of music. They stand within the inner court-yard but preserve some distance to the deity, and the intervening space is occupied by the priests and musicians. It is a community worship in which men and women freely mix.

It will be noticed that the religious part of the ceremonies all occupy very little of the architectural space, being confined to the Ordos and courtyard; all the other spaces are so many adjuncts to the symbolic palace and they can, under circumstances, be dispensed with. On the other hand, in a large temple such as the Mota Mandir of Surat, they have been expanded to include symbolic rituals unknown elsewhere. The quantum of ritual is thus flexible. It is interesting to find here that the model of the palace again consists of Ordos placed in a row.
This was the precise arrangement of some of the royal palaces described earlier, and it is proof of the persistence of the concept. The Ordo was the symbol of 'dwelling' and we have already mentioned the similarity to the Garbha Griha of the normal temple. All that was needed to convert the latter to the former was for a shikhara to be placed upon the central chamber and the side ones to be eliminated. A step in this direction was taken in the Giridhari temple in Jamnagar where a stone Garbha Griha was joined to a wooden hall (Ill. 7/9) and a pradakshina-path.

In connection with the Bseveli temple, it should be added that many Jain temples adopted a similar form but most of them have since been converted to the domical type. One very notable example still surviving is the little known but magnificent Parsvanath temple at Surat (Ill.8/10).

If we now review the above symbolic palace as preserved in this folk tradition, the parts which can be identified are the following: massive entrance gateway, first courtyard with stables and office, general reception area, inner courtyard, audience hall, private apartments with associated facilities, and adjoined to these the private garden with water pool; the treasury was near to the apartments. None of these spaces is new; all belong to the well known repertoire of myth and legend; but what is new is to find on the ground the actual sequence of such a legendary palace albeit compressed and distorted. The arrangement is linear and moves from 'public' to 'private' by stages or zones which are clearly understood. The differentiation is not between women's and men's areas but only between public and private - this was also roughly the case with the domestic dwelling. The courtyard is the great area of transition where one value changes to the other. The parts so identified are general in nature and more cannot be read from them. One should not take the Ordo as being in this general category until it is proved that it re-appears elsewhere outside Gujarat.
The sequence of courtyards moving from 'public' to 'private' was another recurring poetical theme, and in "The Little Clay Cart" of Shudraka the palatial mansion of Vasantasena has eight of which the second has elephants, horses, bullocks; the fourth was for music and dance; the fifth was the Kitchen; and the last for the personal residence (145). In the Harsacerita of Bana, the king receives his subjects in the fourth courtyard (146). The Haveli in this case follows myth, even to the provision of the stables. It is noticeable that in all these cases the movement is linear, progressing from the main gateway to the antah-pure or inner apartments.

Another kind of temple belonging to Vaishnavism and related somewhat to the Haveli temple in parts was that of the Swaminarain sect. This sect was more orthodox in its belief and constructed a regular stone temple with shikhara, but surrounded it with a series of enormous halls in wood meant for pilgrims and administration. Because of the need to separate the men and women, a separate wing for female pilgrims was built. All the various parts were arranged around a court-yard in the centre of which was the main temple while the entrance was through a huge gateway.
similar to that of a palace. The sites occupied by these Swaminarain temples are among the largest found in Gujarat and testify to the wealth and popularity it enjoys. In our case what was of interest was not the temple as such, but the wooden halls. These are medieval representatives of an architectural feature which was once very common, namely the dharmashala. Their design is similar to the arrangement seen earlier in the Neirat temple of Baroda, and also to a regular dharmashala found intact in Broach (ILL. 675). What is common to them all is the pillared hall, virtually open on all sides, in which pilgrims could gather in large numbers and use both as temporary residence and meeting place for discourses. Adjoining them were other halls with doors which could be closed, and these were for the cold weather; in some of them various Sadhus who lived permanently on the premises were accommodated. To one corner was the communal kitchen. The three elements of the design were: open hall, closed hall and veranda. The stark simplicity of the scheme, the great regularity of the design, the repetition of stereotyped spaces, all of these point to a tradition which appears to be old. And yet, they are all closely related to the indigenous Ordo-type layout. The closed hall is nothing else but an extended Ordo and reveals its identity in its proportions and interior furnishings. The veranda is the Otlo, and the Otlo extended over several bays of columns becomes the open hall. The familiar elements re-appear only changed in size and extension. A glance at two photographs (ILL. 336 and 705 ) will show the great similarity between the veranda of the palace and that of the dharmashala. The indigenous origin of both is evident.

The last point concerns the carvings. Both the Haveli temple and the Swaminarain temple display an enormous quantity of wood-carvings in columns, struts and balconies, and the themes are all taken from Vaishnava mythology. Mythical birds, composite creatures half-lion-half-bird, elephants, apsaras, creepers and flowers, scenes from the epics, these form the motifs appearing
in fantastic profusion. Being temples, it was natural for such motifs to be used, but what is surprising is that many of these mythical motifs re-appear in the domestic houses of Gujarat irrespective of whether they are owned by Vaishnava families, and despite there being clear Sastric injunctions prohibiting many of the motifs. This matter has already been discussed earlier (page 221), and it was then shown that the permissiveness arose because the Haveli temple had made them respectable.

In connection with the Haveli temple, mention must be made of the wooden Mandapas of Jain temples, some of which are famous. But it must be emphasized that these Mandapas were not generally structural; meaning that they were neither fully self-supporting buildings in wood nor were they exposed to the climate. Instead, they were interiors which were inserted into existing buildings in brick or stone, and they thus fell within the category of decorative wood-work. One important reason for this was that the domical form in wood could not be made waterproof using tiles in the usual manner, and to use thatch would have been unsuitable considering the grandeur required. The only possible material was lime mortar, but there is no evidence that this was ever considered, probably because of the difficulty of supporting the weight with curved timbers. Thus, these wooden Mandapas remained decorative interiors and from the various examples seen it is obvious that they were merely reproducing the carvings done elsewhere in stone. This imitation was even extended to the manner of construction. The wooden parts of the dome were made of short, curved lengths of wood placed in a horizontal ring, with each ring corbelling out over the one below. This was the exact manner in which stone domes were made and it was a technique quite foreign to wood. The wood was treated as if it was a block of stone.

The origin of these wooden interiors can be traced back to the house-temples or Ghar Derāsārs which were traditional and common in Jain families for domestic worship. These shrines
were always in wood and many of them still exist. The design of the Ghar Berssar was a miniature of that in stone, so that here already there was given the practice of imitating in wood what was in stone. It must have been soon apparent that wood-carving gave a fineness in detailing which was equal to, or superior to, even marble and was at the same time cheaper, and hence it became practical to have the wooden interior on a much larger scale within the regular Jain temple. Some of these were of great size and magnificently executed, but because there was fundamentally nothing new in the concept, it is not necessary to give many further details of planning or usage. The nature of the carving may be briefly mentioned. These were, besides the usual religious themes, frequently of domestic scenes showing, for example, people travelling on bullock carts and processions, or women performing the rāsalī dance. There are a number of old specimens preserved in various museums and these are detailed in chapter six (Ill. 860).
or marriages. The Gazetteer says that among these lodges were those built by the guilds of: gold thread drawers, rice-pounders, potters; while others were by the 'kanbis', meaning a farming caste, probably Patels. Some were built by rich merchants as an act of charity, for example that of Samal Bechar.

Among other buildings omitted were those of which there were only one or two examples and which did not form a typical category. Such were, for example, the European factories in Gujarat. By the time our survey was conducted, only three were surviving, one each in Surat, Broach and Ahmedabad. These have been described in the descriptive portion. Another unique building is the wooden mosque found in Broach. Related to it are a number of wooden temple interiors of the Jains, some of which are still located within structural exteriors, and some of which are now distributed in various museums throughout India and abroad. These interiors generally fall within the subject of 'carving' rather than 'structure' and have therefore been included in the descriptive portion, while their construction is described in that chapter.