CHAPTER 7

RURAL HOUSE TYPES
THE RURAL HOUSE

Houses and house types reflect with great exactitude the inter-relationship between man and his environment and tell the man's struggle for shelter through time and space. The study of house types is necessary as well as fascinating.1

The house is man's first step towards his adjustment to his environment. It further develops his contacts in other spheres of life. The site of a house has a direct bearing on man's occupation. Water being most necessary to man, animals and crops man settles where it is easily and in large quantity available. Physical environment cannot however be eliminated from the study of houses.

Distance is of paramount importance and forms an important feature of rural settlement and land use. Several fragmented dwellings lie at various distances. For each plot of land there is a direct effect of distance.

The resulting building is thus an expression of the indigenous culture and society. Religion is further major factor underlying the form, spatial arrangements and orientation of the house.

The rural house is considered not only as place of shelter but as a functional unit in the context of socio-economic milieu.

1 Sharma, R.C., Settlement Geography of the Indian Desert, New Delhi, p. 157.
FACTORS AFFECTING THE RURAL HOUSE TYPES

The rural dwellings show a great dependence on geographical conditions in the Ganga-Yamuna Doab. It is well adapted to the physical and cultural environment of the region. The natural environment has not only determined the nature of building material in the region but has also influenced the form of the roof and the wall. Thus various natural and cultural factors have exerted their influence on the rural house types all over the Ganga-Yamuna Doab. The dominating factors influencing the house types in the region are as under:

(a) Configuration of Land

The configuration of land affects the shape and the construction of the house to a large extent. In the plain areas the height of the front and back walls of the house is the same while in Sub-Himalayan Region the height of the front wall is greater than other walls because of the sloping nature of the house so that water may not stay on the roof during the rains and may easily be drained off.

(b) Sunny Aspect of the Slope

The rural houses in the Ganga-Yamuna Doab are kept facing the Sun. If in some cases the house does not face the Sun some portion of the house is kept open so that the residents may receive the rays of the Sun freely in the house. As such a court-yard or broad lane infront of the house is essential.
(c) Amount of rainfall

As compared to the Sub-Himalayan Region the roofs in the plain areas are flat.

(d) Temperature and Direction of Winds

During the intense heat of the long summer months throughout the Doab except the Sub-Himalayan Region, where the temperature ranging between 40 and 48°C celsius is not uncommon, then mud wall provides great relief from the heat of the summer. In order to check these winds the doors of the house are kept facing east, while in the Sub-Himalayan Region the doors of the houses are small 1.25 to 1.50 metres. There are some holes in the walls in place of windows as a safeguard against the cold winds of the winter.

(e) Water Supply

In the Doab region the underground water level is high enough. So in every village there are several wells. The wells to do people construct their own wells in their courtyard. Within the last twenty years in almost every rural house, there is a hand pump for lifting ground water (Plate 9). For the purpose of repairing the house water is obtained from the village pond.

(f) Socio-economic factors

These factors are effective in controlling the shape and size of the rural house and the building material used. The
poverty and simple ways of the rural society do not permit better building materials and elaborate layouts. The layout of the house and the building material used is rather the index of the economic status of the owner. In the Doab region poverty compels the rural folks to be content with one or two roomed house. In the Upper Doab region the houses of the well to do people are made of bricks, cement and concrete, while in the Lower Doab region the houses are of mud walled and tiled or thatched roofs.

BUILDING MATERIAL

The houses in the Doab are frequently built of materials obtained locally (Fig. 26). Mud, wood, bamboo, thatching grass, sugarcane leaves, paddy straw and stalks of 'arhar' are the chief building materials used widely all over the Doab. The use of stone is limited in the Sub-Himalayan region. Bricks and cement are used by the rich people of the Upper Doab region. The stones constitute an important building material for walls and roofs.

Mud is a very important building material especially for walls and is rarely used for roofing. Unburnt bricks are also important for making walls in the Upper and the Middle Doab region. Burnt bricks and lime are used in the Upper Doab region.

Grass, leaves and bamboo are more important for roofing than for walls and are used frequently. The building materials
give durability to the houses.

Above all the chief building material in the Ganga-Yamuna Doab is always mud and clay with very little wood. The use of clay in the Middle Doab, owing to small amount of rainfall is suitable and economical.

In the Upper Ganga-Yamuna Doab region in the districts of Muzaffarnagar, Meerut, Ghaziabad and Bulandshahr one finds houses built of mud, Jat houses are earth structures, earth coloured and permanent like earth.²

In recent years the use of flat and half rounded tiles has become more general. In the Lower Doab region especially in Fatehpur and Allahabad districts the half rounded tiles are frequently used in roofs.

Thatching grass for the houses of the poor class is available almost in every part of the region.

In Bhunar, most of the cultivators have their homesteads on their fields. They build their houses usually of grass or wattle. As land is plentiful, the houses are constructed at some distance from each other. Thus the rural house types bear the regional stamp of the type of building materials available in the Ganga-Yamuna Doab (Fig. 26)

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GANGA-YAMUNA DOAB

BUILDING MATERIAL

1. STONE WALLS WITH SLATE ROOFS
2. THATCHED HUTS WITH WATTLE WALLS
3. THATCHED HUTS WITH MUD WALLS
4. MUD WALLED HOUSES WITH MUD ROOFS AND BRICK HOUSES
5. MUD WALLED HOUSES WITH THATCHED ROOFS
6. MUD WALLED HOUSES WITH TILED ROOFS

SOURCE: FIELD WORK

FIG. 26
(a) The Walls

The geographical environment exercises a controlling influence on human dwellings in the Ganga-Yamuna Doab. They are strictly built according to geographical conditions. Mud, clay, mortar, sun dried bricks, bricks, stone and wattle etc., are the different materials used for the construction of walls of the rural houses in the Ganga-Yamuna Doab.

In the Sub-Himalayan Region, the Himalayan type of houses are of two storeyed. The lower storey is made of stone while the upper one is made of shingles and planks of pine or cedar wood. The floor of the upper storey is also made of wooden planks and beams. Here the lower storey serves as the cattle shed and fuel store while the upper storey is the abode of the family (Plate 10). The height of the walls of the lower storey is about 150 cm, and that of the upper storey is about 180 cm, so that the men may stand erect under the sloping roof of the upper storey. In the wooden walls the windows have small hole like openings which are kept open in the summer and their shutters are dropped in winter as a safeguard against the chilly winds. In the riverine tracts the walls are made of wattle and are coated with a thin mud plaster.

In the Upper Doab region in the districts of Saharanpur, Muzaffarnagar, Meerut, Ghaziabad and Bulandshahr unburnt or sun dried brick is the chief wall material. Burnt bricks are also
used as the wall material in the houses of the well to do people. Thus adobe or sun dried bricks are largely used in the construction of walls in this area. The strength and durability of the bricks is remarkable. Repairing of the walls is done both externally and internally. In external coating clay mixed with straw is coated on the outer sides of the walls. This process is locally known as Lhisai. In internal coating, yellow soil mixed with cowdung is plastered on the inner sides of the walls, and on the floors which is known as Lipesi. The walls are about one metre thick. The thickness of the walls is known as aest. The height of the walls is kept nearly 4.5 metres. Thus the walls are very thick and strong.

In the Middle Doab region mud as well as sun dried bricks form the chief wall material. In the districts of Aligarh, Mathura, Agra, Etah and Mainpuri unburnt bricks are frequently used for the construction of walls of the rural houses. The walls are similarly repaired every year as in the Upper Doab region. The mud dwellings are the coolest in hot weather which lasts for more than six months in the year and mud stands so well in the dry climate of the plains that better building material is not needed.  

All over the Lower Doab in the districts of Kanpur, Fatehpur and Allahabad the walls of the rural houses are generally

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made of clay obtained from the village pond. Their construction is simple and done by local masons. They are built with damp mud (landha) applied in successive layers (nadda) of 30 or 40 cm in height and when one nadda is dried a fresh one is added. The process continues till the required height is achieved. The outer walls are made thicker in comparison to the inner ones.

The walls are repaired every year. A thick coat of mud plaster mixed with cow dung and paddy straw dust is laid over the walls, so that the wear and tear caused by rains may be repaired. The Deepawali festival which falls just after the rains, is celebrated by cleaning the entire house and burning oil lamps (Deepaka). Thus the life of Kechcha house is greatly increased.

It will thus be seen that the walls are made of stones, wattle, sun dried bricks, kiln bricks, mud or clay and are plastered with mud or cow dung or even white washed with lime. Generally speaking there is no better wall material than mud in the Doob.

(b) The roofs

Roofing is the most important element of the house as it gives the main characteristic to the form, plan and layout.

The chief roofing material is composed of thatching grass, sugarcane leaves, bamboo, wood, stone, slate, tiles, kiln bricks.

In the Sub-Himalayan region in the Dehra Dun Tehsil, the roofs of the rural houses are slanting and are mostly of slate. The roofs are of slate and much more steeply sloped to allow the rain to run easily. In the roof of each room there is a small hole which serves as the ventilator. These holes are meant to let in light and to let out smoke. In Dehra Dun district and in Jaha-npur east, roofs are thatched with grass and leaves etc. because of their easy availability. On the hill slopes of the Mussoorie Range the roofs are slanting and mostly of slate (Plate II).

In the Upper Doab region, the structure of the roof is interesting. There is a wooden frame on the walls in order to support the roof in which the long beams locally known as Kari and the shorter pieces which are placed on these beams and are known as barange. In the frame the first layer is of dried grass (Podiya) and then above it the second layer is of mortar (gara) and then finally above it is the third layer of dried powdered earth. For the purpose of obtaining light, there is an opening in the form of a hole in the roof locally known as chumala through which the light enters the room. It also serves the purpose of ventilation. If the Kitchen is covered the same hole (Dhumale)

is provided in the roof as an outlet for smoke which is covered
with a piece of broken earthen pot Keriel as a precaution
against rain water.

An outlet parmale made of tin or of wood or of baked
clay is fixed at one corner of the roof for draining the rain
water from the roof. Flat roofs of bricks and lime are hardly
met with as only the rich can afford them.

In Middle Doab region both flat and sloping thatched roofs
are met side by side in the rural dwellings. The thatched
dwellings are frequently seen in the districts of Mainpuri,
P Farrukhabad and Etawah. The districts of Aligarh, Mathura, Agra
and Etah have predominately flat roofs. In some cases there is a
mud walled thatched hut in the upper storey of the house which
serves the purpose of sleeping room in the rainy season.

In the Lower Doab region in the districts of Kanpur,
Fatehpur and Allahabai, the roof is tiled or thatched. The form
of the roof is dictated by the conditions of climate in the region.
Brunhes has rightly remarked that "climate expresses itself
through the form of its roofs", is perfectly borne out by the
rural house. 7 The framework of the average house with tiled
roof is prepared from local materials.

The thatched roofs are simple and also cheap enough. So
they form the common feature of the rural dwellings in the area.

But in fact sometimes they prove costly because of their susceptibility to fire.

The tiled roofs are not so cool as the thatched roofs. But they are comparatively more durable. At times the tiled roofs are also liable to be destroyed by the hailstorms and the playful nature of the monkeys.

Thus in the Lower Doab the poorest houses are simple with mud walled and thatched or tiled roof and a single door. Occasionally there is some sort of enclosure in front of the house. Larger families have generally two huts facing each other connected by mud walls so as to form a courtyard and in the case of still larger joint families four, five such huts run together and are arranged in the form of a hollow square with a common courtyard in the centre.

COMPONENTS AND USE OF THE RURAL HOUSE

(a) Courtyard (Anogan)

The courtyard is the most distinguishing feature of the rural house in the Ganges-Yamuna Doab. It is surrounded either by rooms or walls on all sides and is multi functional. It serves as a working place for the women of the house. In the Sub-Himalayan region it is usually in front while in the rest of the Doab region it is sometimes in front and sometimes in the centre.

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The Anan in the rural house serves very important and distinguishing function.

(i) It provides suitable sleeping place for the ladies and the children of the house in the hot weather season.

(ii) It is used as barn, stable and drying of corn, wool or cloth in sun shine.

(iii) In the absence of verandah one of its corner serves the purpose of kitchen except when it rains.

(iv) It also provides suitable place for bath specially for the ladies and the children of the household.

(v) At the time of marriages mandap is constructed in the centre of the anan.

(vi) It also helps to a great extent to maintain the privacy of the family.

(b) Verandah

Tiled or thatched verandah is also a notable feature of the rural house. The thatch verandah often is called Usara (Plate 12). Usually there are two verandahs. One is an outer one and another is the inner verandah usually known as Delan. The outer verandah is used as a sitting place for the males and guests. Fodder for the cattle is also prepared here. The village grocers use it as the shop and by enclosing it with screens of wooden planks which are removable. The inner Verandah is
frequently used as a sitting or sleeping room for the ladies. At one of its sides there is usually a kitchen. Adjacent to the kitchen a part of the verandah serves as the dining hall. The size of the verandah varies with the means of the people living in the house.

(c) Gateway (Deorhi)

The best type of houses are built with a covered gateway sometimes large enough to admit a loaded cart having side room or Deorhi which opens on to the land. It is an entrance room to the house having double doors. The outer door is the main entrance of the house. The main door is not exactly in the middle of the whole length but it is a little to one side from the centre. The inner door opens into the courtyard and is not exactly opposite to the main door but slightly to the side. It allows the free movement of the air from outside as the doors are always kept open except at night. The Deorhi serves distinct functions. It serves as a cart lodge, tool shed, stable and also as a lodging for some guests. It also serves as a sitting place for the ladies of the house in the afternoons. Here they receive their friends and gossip with them. Its length is equal to the full length of the house and its depth nearly two to three metres.

(d) Kitchen

The rural houses in the Doab region have generally no separate kitchens and dining rooms. Thus kitchens are rare and cooking is generally done either in the open courtyard or in the
inner verandah or in the very sleeping room.

In the Himalayan region in one corner of the kitchen or sleeping room stands the hearth which is generally made of stone and thickly plastered with mud and is built on a flat stone. There is a small almirah in the kitchen in which clarified butter and other important things are kept.

There is almost in every house a provision of a Chhika or hanger, to keep the foodstuffs in the open. It is a simple wooden framework with strings and is hung in the roof of the house. It keeps the food material safe from cats and dogs in the house, and the fresh air in the open saves the food from fermentation. Burnt earthen pitchers are used for storing water.

(e) Lavatory

The most remarkable feature of the rural house in the Doab region is the complete absence of the lavatory except in rare cases in the houses of the rich people. Uncultivable lands lying in the vicinity of the abadi site serve the purpose of lavatories. Such open air lavatories are responsible for creating insanitary conditions in the rural areas. But at the same time the trees like mango, neem, peepal etc. add colour to the landscape of the rural dwellings (Plate 16, 17, 18)

(f) Cattle Shed (Gher)

Singh identifies three main functional classes in the rural houses. Gher (residential houses) Gher (cattle shed and
enclosures) and Ghar-Ghar combined. A fourth category is of those blocks or units where shops are located and rudimentary village market exist.

Thus the rural house is not only residential unit but it is rather multi-functional. As such provision is made for animal shed, grain store and fodder silos etc. Thus one room apartment or thatched verandah having a sufficient open land surrounded by a boundary wall in all sides is known as Gher or Khark or Ahata. The main purpose of the Gher is to provide shelter for the cattle and provision for keeping the agricultural implements like fodder cutting machine, cane juice extracting machine, plough, tractor, bullock cart, etc. Some place is also provided for fodder silos bhoona and cow dung stacks bitora. It also serves as a meeting place for the gents (Plate 13).

(g) Chhanies

In the Sub-Himalayan Region the well to do people have separate cattle sheds set up in the distant fields to serve as sheds for cattle and temporary residence during agricultural operations. Such out post quarters are locally called Chhanies (Plate 4). A Chhani is either a single storeyed hut or a two storeyed hut with walls made of stone and the roof of thatch or planks. In two storeyed hut the cattle are penned in the lower storey and the upper storey is used as the fodder store and the

sleeping room. For sheep and goats there are vast enclosures with walls of rubble. In one part of the enclosure a thatch is put up as the shelter for winter nights.

THE GROUND PLAN

In the Ganga-Yamuna Doab the plan of the mud structure or the main residential part of the rural house is simple with one room with a single door. There are no doubt houses having three or four rooms or more but as a rule there is still one door for protection against thieves and hot winds. The houses have narrow door ways and no window (Fig. 27)

The rural dwellings throughout the Doab region vary from one room to eleven rooms. The size of one room dwelling varies from 5 metres to 7 metres in length and 2 to 3 metres in breadth. In front of the room there is generally a raised platform locally known as chabutre. Sometimes a covered thatch verandah of 2 metres wide is also used. With the growing need of more space, one room is added to it and the plan of the three room dwelling becomes L shaped. This third room is meant for sitting for the males and also for welcoming and receiving the guests.

The fourth room of the house generally faces the east or the north and the provision for the main door of the house is made in this room. The perfect evolution of the courtyard type dwelling is reflected in the five room dwelling which is most

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GROUND PLANS OF RURAL DWELLINGS IN GANGA-YAMUNA DOAB

FIG. 27
common in the rural areas of the Doab. The fifth room is added to the fourth side and occupies the full length of the house and is known as Deorhi.

If there is no any outer room for storing fodder and agricultural implements the room next to Deorhi may be used and in winter they also serve the purpose of cattle folds. The remaining rooms are utilized for the purpose of sleeping and keeping the personal belongings of the family.

In the Sub-Himalayan region the ground floor is used as cattle shed and the upper storey for residential purposes of the family. Here also the plan of the house is simple. In front of the house there is an open space.

Thus in the Ganga-Yamuna Doab two main types of house plans may be distinguished:

(a) rectangular or squared ground plan with flat roofs.
(b) rectangular or squared ground plan with sloping roofs

The first one is limited to regions having an annual rainfall below 100 cm. Such houses are prominent in the Upper Doab and partly in the Middle Doab region in the districts of Saharanpur, Muzaffarnagar, Meerut, Ghaziabad, Bulandshahr, Aligarh, Agra, Mathura, Etah and Mainpuri.

The second one is the characteristic feature of the Lower Doab and the hilly regions of the north Sub-Himalayan Region.
where the rainfall is comparatively heavier — more than 100 cm, annually.

Generally absence of windows and in frequency of the sky lights are the notable features of the rural dwellings of the Ganga-Yamuna Doab. The windows are rare and for ventilation there is a small hole in the roof known as Dhumala which is covered by an broken earthen pot when it rains.

RURAL HOUSE TYPES

There is a great variation in the rural dwellings not only within the village itself but also from one region to another in the Ganga-Yamuna Doab. It is more or less related to the building material available and to the socio-economic conditions of the people. The size, form and colour of the house directly reflects the economic condition of the owner of the house. The houses of the poor low caste people are small with one or two rooms with verandah as they are economically backward. While the high caste people have bigger houses because of their indoor privacy and better economic conditions. As such, better pukka houses of bricks, cement plaster and stone are gradually coming up in the rural areas of the Doab region. In their layout these houses are the same as the common mud houses are. But they differ in having two or more storeys with windows.

Thus the rural houses in the Ganga-Yamuna Doab can however be classified according to their (a) size (b) shape.
(a) Size

As regards size, the houses vary from one room to eleven rooms. They may be grouped into the following four main types depending upon the economic aspect of the owner of the house:

(i) One or two room houses of the poor
(ii) Three to four room houses of the lower middle class
(iii) Five to seven room houses belonging to the upper middle class
(iv) Eight or more room dwellings of the well to do people.

According to tradition in the rural areas of the Doab region, usually the dwellings contain odd numbers of rooms because the even numbers are regarded as inauspicious. The dwellings of 1, 3, 5, 7 and 9 rooms constitute more than 70% of the total houses.

(b) Shape

According to shape in general the houses are of two types:

(i) Rectangular or Square with slanting roof
(ii) Rectangular or Square with horizontal roof

Rectangular with slanting roof houses are common in the Sub-Himalayan Region and the Lower Doab region.

While the rectangular or squared shape with horizontal roofed houses are frequently observed in the whole of the Upper
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- Himalayan Type (two storyed stone walls and slate roofs)
- Bhabar Dun Type (thatched huts with wattle walls)
- Upper Doab Type (north) (thatched huts with mud walls)
- Upper Doab Type (mud walled houses with mud roofs and brick houses)
- Middle Doab Type (mud walled houses with thatched roofs)
- Lower Doab Type (mud walled houses with tiled roofs)

Source: Field work

Fig. 28
Doab region and partly in the Middle Doab region.

In this region L shaped houses and U shaped houses can also be noticed. In general the plan of the rural house is simple. In most cases the rural houses have a raised platform chabutra outside the main door of the house adjacent to it.

REGIONAL DISTRIBUTION

Six main types of rural houses showing some regional characteristics may be distinguished within the Ganges-Yamuna Doab (Fig. 28)

(a) The Himalayan Type
(b) Bhabar Dun Type
(c) Upper Doab Type (North)
(d) Upper Doab Type
(e) Middle Doab Type
(f) Lower Doab Type

(e) The Himalayan Type

Two storeyed stone walls and slate roofs houses are common along the northern most limit of the Dehra Dun Tahsil. The ground plan consists of simple, rectangular or square type and the roofs are slanting because of heavy rainfall (Fig. 29)

(b) Bhabar Dun Type

Thatched huts with wattle walls are most common in the Bhabar areas of the Sub-Himalayan Region (plate 14). In the Dun Valley the houses are of the composite type (Fig. 29).
SUB-HIMALAYAN REGION
TYPICAL RURAL HOUSE TYPES

A. HIMALAYAN TYPE
B. BHABAR DUN TYPE

SOURCE: FIELD WORK

FIG. 29
UPPER GANGA-YAMUNA DOAB
TYPICAL RURAL HOUSE TYPES

A UPPER DOAB TYPE  
(NORTH)

B UPPER DOAB TYPE

SOURCE: FIELD WORK

FIG. 30
(c) Upper Doab Type (North)

Thatched huts with mud walls are the characteristic feature of the Simla like and the forest zone in the north of the district Saharanpur. Here thatched dwellings with mud walls are most common (Fig. 30).

(d) Upper Doab Type

Mud walled houses with mud roofs is the most prevailing type in the Upper Doab region in the districts of Saharanpur, Muzaffarnagar, Meerut, Ghazipur and Bulandshahr. Brick houses can also be seen at some places (Fig. 30).

(e) Middle Doab Type

Mud walled houses with thatched roofs are common throughout the Middle Doab region. At some places two storeyed houses can also be seen in which the upper storey has a mud walled thatched hut (Fig. 31).

(f) Lower Doab Type

Mud walled houses with tiled roofs is the most striking feature of the Lower Doab region. Such types of dwellings are frequently found in the districts of Kanpur, Fatehpur and Allahabad (Fig. 32).
MIDDLE GANGLA-YAMUNA DOAB
TYPICAL RURAL HOUSE TYPES

FIG. 31
LOWER GANGLA-YAMUNA DOAB
TYPICAL RURAL HOUSE TYPES

LOWER DOAB TYPE

SOURCE: FIELD WORK

FIG. 32