

Bikaner as case study

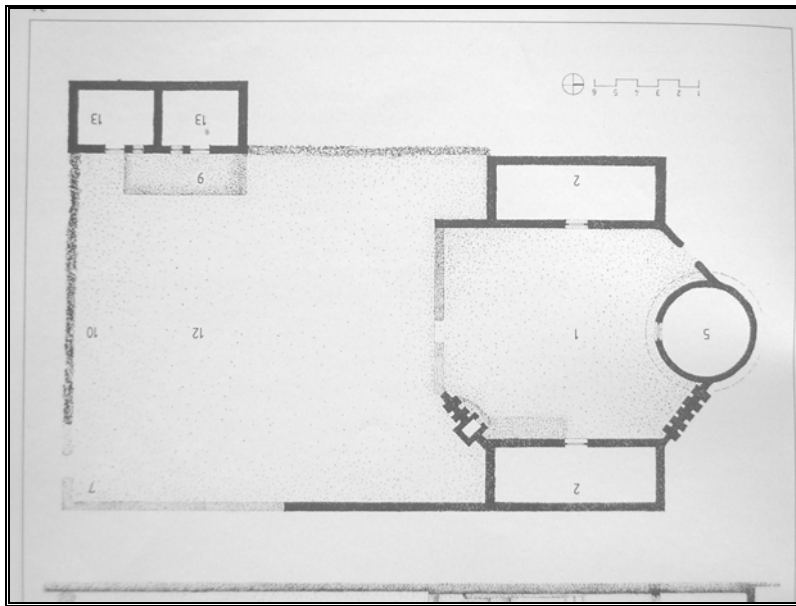
The district of Bikaner lies almost at the northern most edge of the desert. It is bounded on the north east by Ganganagar district by the district of Churu on the east, Jodhpur and Nagaur on the south and Jaisalmer on the southwest. It lies along the Pakistan border on the west.



The district takes its name from its capital, the city of Bikaner, the settlement founded by Rao Bika in 1488. It is said that the spot on which the city stands was the birthright of a Jat called Nera. Who only gave it up on condition that his name was linked with that of Bika and hence the word Bikaner. The surface of the country is for the most part covered with undulating sand hills, varying in

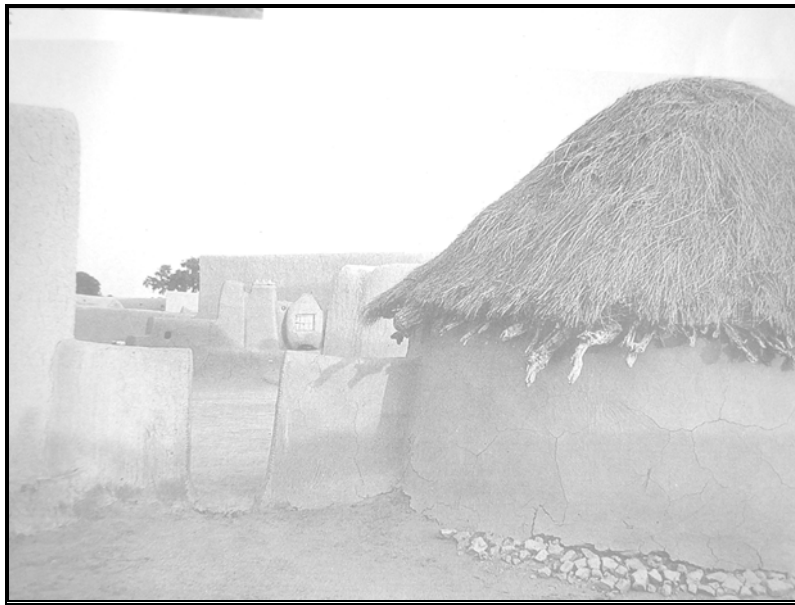
height from 10m to over 30m. The land is as dryt as a desert can possibly be, with no perennial rivers or streams. Two salt lakes exist: Chhapar in the salt near Sujangarh, and another at kunkaransar about it eighty KM northeast of Bikaner. Of Frace water lakes, the most notable is that of Gajner, 30km southwest of the capital city.

On the banks of the lake is a palace and a garden belonging to the maharaja. The lake is fed by water from the rocky country to the west, and in about 700m long and 500m wide.



The climate of the area is dry and generally healthy, though characterized by extraordinary extremes of temperature. During the summer the, heat is instance; hot winds blow with great fury in may, June and part of July. severe sandstorms are a

common feature of the area. These are made even more severe by the intense and powerful sun. On the other hand, severe cold is experienced during the winter. It is, therefore, natural that the house is of the region have to be built to respond to such extremes of climate. To the north of Bikaner, the houses are constructed out of stone as well as mud. Rectangular rooms arranged in geometric pattern around the courtyard constitute the basic plan form. all major Spaces are rectangular, with flat stone slabs or rough wood roofs, except for one circular(kitchen or store) space with a conical thatched roof.



The walls are either constructed out of sun baked mud bricks or undressed stone, plastered with mud. The village Houses have two or three courtyards. The outer court has a high and strong compound wall

for and protection against the sandstorms. The inner or central court is the place onto which all rooms open. And it is the hub of activities. The rear yard is where the fodder is stored. The interior of and these built spaces is used only when the climate is specially severe. Semi open space like verandahs are used most of the time.



The room which is accessible from the outside maybe used as a visitor's room or as a shop. The play of walls of different heights set on various planes gives the main façade an appearance characteristic of the area. Openings in the walls are small and few in number. The mud plastered walls are painted white at these openings and this makes them look larger. The blank surfaces are provided with an element of contrast and

declaration. This technique of declaration is very simple but nonetheless effective. It transforms the simple masses of the walls into works of art. Since the flat interior slab is usable, a solid stair is provided, which forms an important visual element within the central court. The circular form of the kitchen or store helps in bringing some variation and fluidity to the over all façade.

Example

House of Jalwali village

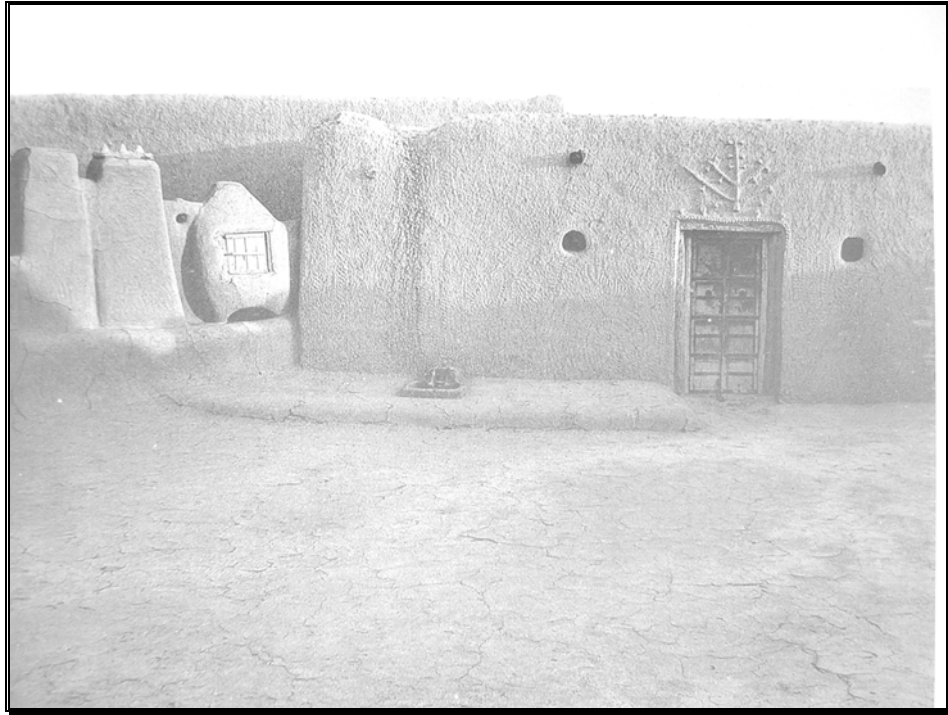
The smaller villages north of Bikaner epitomize the true Indian village. The main economic activity of the desert region is agriculture and dairy products. The farmers produce millet and other grains for their own consumption as well as to sell. These villages show very few signs of progress. Occasionally, some villages near the bus route area are seen to have more modern facilities, like electricity. It is in the interior villages that one finds some of the most beautiful mud forms in an undisturbed, vernacular, architectural environment.



The village of Jalwali is situated in this region on an uneven terrain. Here the Houses are compactly grouped within a network of narrow meandering paths. Generally, each of these houses has a private inner courtyard and a semi-private outer courtyard for the cattle. The most significant and typical feature is the entrance gate of these houses, and also their unique grain and other storage jars made of mud.

The streets of the village jalwali are defined by the long boundary walls or hedges of the outer courtyards of the houses. An occasional entrance gate enlivens these walls or hedges. The various sizes and shapes of these entrance gates symbolize transition and proclaim individual territory and identity. The structure of these houses and

supports the entrance door. The mud Walls of the boundary are heightened at this point to cover the doorway in the shape of an arch, a triangle or a square. A few inches maybe provided for lamps.



The selection of the form of this element is always special and individual, and means a lot to the residents. Any single street is dotted with a number of entrance elements and is made interesting in that manner.

The house selected here is entered through one such gate. In the plan form, the houses have an enveloping quality with the inner courtyard as a nucleus. The mud walls of the rooms and the encircling walls, with their numerous storage elements, are the first envelop around their private open to the sky domain. The outer envelop encloses the open space for animals, the rooms for visitors, the storage area for fuel wood and areas for other, less private activities. The entrance gate is the main reference point. The guest rooms are in one corner and are away from the main house. These indicate the need for privacy in line with social custom. The two small rooms have a platform in front of the guest rooms. These rooms might also be used for storage purposes or to house animals during conditions of severe heat or cold. The floor of this court is left unfinished and is often left in its natural condition.



The main house is entered through a small opening in a low mud wall, separating the two courtyards. Two rectangular rooms on the two sides and one circular Jhompa right across the entrance surround the internal space which is open to the sky. The circular Jhompa has a conical thatched roof. The rectangular rooms have flat roofs. Symmetrically placed rooms emphasize the entrance door of the circular Jhompa when observed from the gate. It is also the seat of the head male member of the family. The view of the entrance from the Jhompa is important, both visually and socially.

The circular Jhompa is the main living space while the rectangular rooms are for children and members of the family. On the two diagonal walls linking the rooms, are seen grain storage units of various

sizes, built of mud. Since they are hand made, the heights, depths and widths of each differ from one another.

The sizes of these grain storage units are such that access to them is possible only from the outside, as in the case of a large bottle. A storage unit is never entered into. The conical top is closed once the dried grain is placed within and it is then locked.

Guda Bishnoiya, Jodhpur district

Guda Bishnoiya falls under jodhpur district as significant place, worth visiting.

This village is just 22km far from Jodhpur city being very much discussed and widely popular holds the major share in the architecture of mud. This village It set long the bank of famous Guda lake. Where the majority birds come every year.



A Visit to Guda Bishnoiyan reflects the perfect way to appreciate and respect Bishnoi culture, wrapped in mud. This is the place where anyone can come to know how the villagers around live and protect the nature and environment. The atmosphere in this whole region is so admirable that anyone being Visitor could be easily absorbed in their own culture.

Construction techniques

The complete construction is in traditional style. And Built with naturally available surrounding

material like, mud, thech, bamboo and lime. Houses are made of local materials and plastered with cow dung.

Beautiful paintings have been done in traditional style by local woman artisans.



Painted walls

The further covering of houses is done with thatched roofs. Each house is made and individual dwellings units which has opened the sky courtyards. The houses are aromatized by guggule collected from local forest. The material chiefly utilized is sun-dried mud bricks and plastered with mud on it.



Rees and steams mixed with mud to provide strength



Locally available mud



The sunken spaces



Entrance to a hut



Wall construction with jalis

Overview

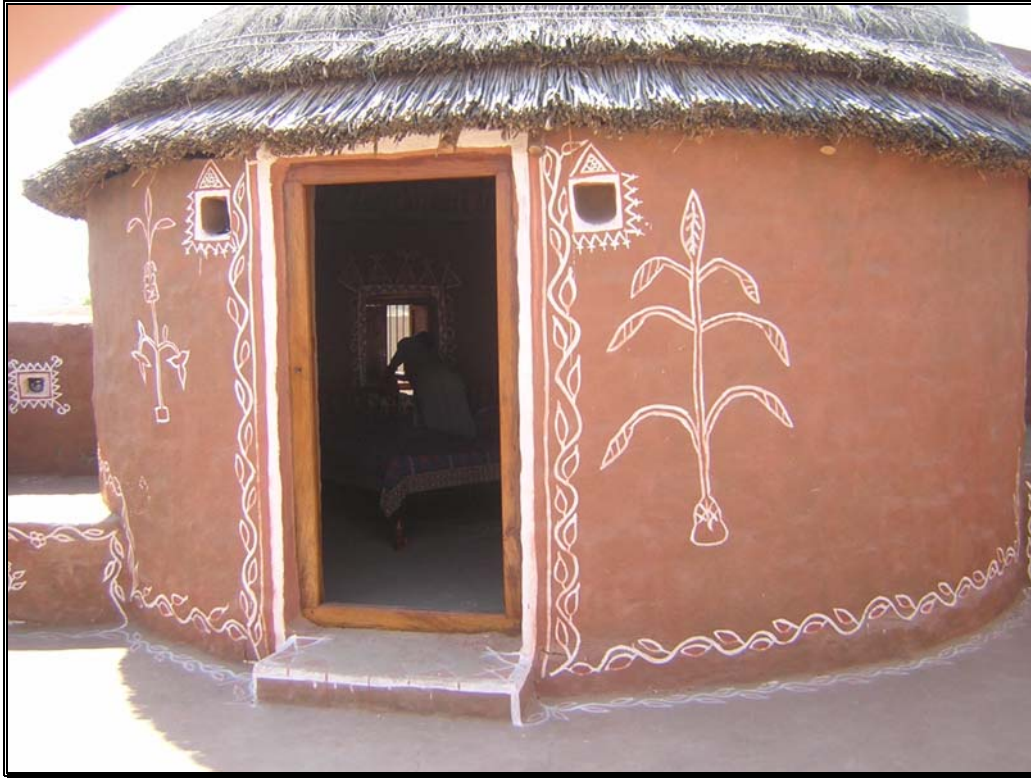
No trip in Rajasthan could be called as a completed one without a visit to guda bishnoiyan.

The widely visible features of this village are:

- . Mud around the entire region.
- . Desert wild life.
- . Demoiselle cranes.
- . Craftsman ship of the native place.
- . Shepherds and farmers.
- . Beautiful morning and soothing evening.

This village show slow signs of progress but it is very much full of beauty and natural scenario. Occasionally, some villages near the bus route area are seen to have more modern facilities, like electricity. It is in the interior villages that one finds some of the most attractive mud forms in an undisturbed, vernacular, architectural environment.

Guda bishnoiyan could be considered as an ideal example among the studied in the case study because of facilitates more of the surrounding people tourist with its appearance. Although it is a village but contributes a lot in making any mud profile more rich.



(Facilitated hut with beautiful exterior and interiors)

Mud architecture in traditional construction method continues to thrive in most of the Third World, and gives the vision of originality.

The day is coming when architecture will be for living, and not merely a spectator sport, because

it being accepted in many spheres of construction ,still unknown to many .

The most humble material of so called material of ural construction can bring the new world of more appreciation and so with the hope of this awareness building with mud has become an important factor in planning new development.

Mud depicts the true and productive link between traditions and modernity.because of its application in the ancient cities and villages and vivid use in modern interiors.

The classical and beautiful architecture of India has been well documented and saved, but the traditions are threatened by the new demands for change and development.But still the importance of this technique of construction can not be added because MUD ARCHITECTURE has its own beauty.