Section B - Ethnographic Study of the Adi-Galos

Chapter 4

Settlement Pattern

Over time and again archaeologists have realized the importance of man-land relationship which has led to the emergence of settlement archaeology or settlement pattern. Settlement patterns are the complex products of social and political relations. It assesses levels of social complexity. With increasing social complexity, the settlement pattern has become more elaborate.

Settlement pattern helps to understand how a particular society uses the available resources in its region. Settlement pattern study, when combined with ethnographic evidence can help in a systematic understanding of culture. According to Chang (1958), settlement pattern is the study of physical locale or a cluster of locales where the members of the community lived, ensured their subsistence and pursued their social functions in a delineable time period.

G.R. Willey (1953) substantiated the use of settlement pattern. He describes settlement pattern as a strategic starting point for the functional interpretation of archaeological cultures. These, according to him, reflect the natural environment, level of technology and various institutions of social interaction. The study of settlement pattern not only provides examples of human adaptation to the environment but according to G.R.
Willey (1953) it also provides insights into a broad spectrum of human behaviour that were influenced by both cultural and ecological factors. Analysis of settlement pattern provides information on environmental strategies and on social organization. The ecological approach considers the settlement pattern as a product of the interaction of environment and technology.

Vogt (1956) envisioned the scope of settlement pattern study as including a description of (1) the nature of the individual domestic house types, (2) the spatial arrangement of these domestic house types with respect to one another within the village or community unit, (3) the relationship of domestic house types to other special architectural features, (4) the overall village or community plan, and (5) the spatial relationships of the villages or communities to one another over as large an area as is feasible (Parsons 1972).

The settlement pattern of the Adi-Galo is sedentary. Presumably, they were "pure" hunter-gatherers in the past. With time agriculture became their mainstay and this change in their subsistence economy over the last hundred years have brought their settlement pattern to sedentariness.

Ethnographic evidence reveals that the Adi-Galos have been making use of every possible kind of landscape available to them, be it on the hills or in valleys or at foothills; as long as there was a water source nearby. A big water body such as a river was not necessarily a significant factor influencing settlement location among them, it was crucial but not the determining factor as the region has numerous streams. They have not only used what was available to them from nature but they have also tried to change the face of the landscape according to their requirements.

The settlement patterns of the Adi-Galos are framed by three main factors:
1. Environment

2. Subsistence techniques

3. Social relations (as noted by Polly Wiessner 1982)

The Adi-Galo tribe is constituted of numerous clans and generally people of same clan live together in the same village. For example in West Siang district the Bam clan is settled in two villages: Chili and Chiko and the Riba clan is settled in several villages like Dari, Dali, Pagi, Disi, Tapo, Rilu, Jime, Siji, Kane, Uli, Sili, Pale, Dipa, Lumpo, Nari, Deke, Regi, Lipin, Igo-Yamin etc (Fig. 4.1).

It is unusual to see a village with different clan members settled together though there are few instances where families of a particular clan is living in the village of other clan. To understand the settlement pattern of the Adi-Galos, surveys were conducted in the several villages namely, Dari, Dali, Pagi, Angu, Bam (Chili and Chiko), Nyigam, Gori, Basar, Nyodu, Bagra and Jini. During survey it was found that most of the Adi-Galo villages are intensely nucleated, concentrated and surrounded by farmlands. They have made use of different kinds of landscape. Several villages in Bagra are on slopes whereas Bam clan is settled in a region which is full of boulders around.

Houses in Adi-Galo villages are compact and constructed very close to each other. The number of houses in a village generally varies from 20-150 households (Fig. 4.2).

One major determinant of settlement pattern is house type. In traditional aboriginal societies house type demonstrates an attempt to meet the challenges of environment with the building material that the same environment offers. The traditional house of the Adi-Galos
shows how successfully they have balanced their available resources to suit the climate and environment.

Fig. 4.1: Bam village
In the study of Adi-Galo’s settlement pattern, three important structures are prominent:

- individual house
- granaries and
- *deerv* (community hall).

An Adi-Galo house is made taking into consideration the sub-tropical monsoon climate of the region. Houses in their villages are simple rectangular structures with slanting roof and sometimes there is an open platform attached to the main house. These open platforms are primarily used for drying grain in the sun and also to bask in the sun in the wintry cold. Houses are supported by wood and bamboo structure with raised floor (*Chaang*) of well split bamboo over beams supported with wooden or bamboo stilts at a height of 4-12 feet from the ground to avoid dampness. The floor and the walls are made of bamboo matting tied with cane and mats are laid on the floor. Rough or sawn planks or bamboo splits are used as walls and the roof is thatched with *toku* leaves which belong to family *Arecaceae (palmae)*.

An Adi-Galo house is dominated by a slanting roof: it has short wall and lacks windows therefore the interior is dark and smoky. Mostly Adi-Galo dwelling places are bamboo houses or plank built houses.

The interior, though wide open is traditionally sectioned into niches where every space has its dotted function; for sleeping, for cooking, wine-making etc. For them a house is not only protection against the sun, wind, rain or cold but each and every part of the house
has its own meaning and its own distinct functions. The layout and the decoration of the house reflect the beliefs of the people.

4.1. Raw Materials

Arunachal is a forested land, so bamboo and wood are available in plenty. A typical traditional Adi-Galo house is made of locally available bamboo, wood and cane. Traditional houses are usually built with roof made of *toko* leaves. It is a multipurpose tree; different parts of the tree like leaves, fruits and fiber are also extensively used by the other tribes of Arunachal Pradesh (Fig. 4.3).

For them, a large amount of wood, bamboo and *toko* leaves are required for the construction of the house and therefore, the accumulation of building materials are done slowly over a period of a year. The woods collected while felling down the trees of the agricultural field are collected and stored in the backyard of the house or at the new building site.

Woods of certain specific trees like *Koyom, Koraa, Enci, Agraar, Korbin* are used in the construction of house. Not all kind of trees are used. Certain trees are tabooed as building material for house construction as they are considered as the dwelling place of *Yapoms*, malevolent spirits.

Recently, changes have been observed in the use of house building materials. Even the Adi-Galos are opting for modern brick house or partial use of modern materials in the construction of house. The posts and pillars are made of brick and cement instead of wooden
poles and tin roofs are used instead of roofs made of leaves (Fig. 4.4 & 4.5). This helps them to escape the regular maintenance of the house.

![A house under construction](image)

**Fig. 4.3: A house under construction**

However, in most cases the modern houses are modeled on the traditional home plan respecting the traditional architecture. Though wealthy people prefer to have modern concrete house, a traditional house is also built within the compound near the modern house. The traditional house is still used as a place for cooking or sitting in the evening, around the fireplace with all the family members or as a venue for any ceremony major or minor sponsored by the household.

4.2. Shelter
There are various considerations to be taken into account before building of a house. Rituals are an important aspect in the construction of the house. Before selecting a piece of land, a small ritual is performed to check whether the chosen land is appropriate or not for the

Fig. 4.4: A traditional house
Fig. 4.5: A modern house

cement pillar

construction of house. The ritual is called `ambin huunam in which a small hole is dug in the
ground and grains of rice are put in pairs, like 4, 6, and 8 etc. and covered by a leaf of nvjwr-
`popwr and left for overnight. The next morning it is checked to see whether the grains are
still there in pairs. If the grains of rice are still found in pairs then only the land is considered
suitable or else the plot is abandoned. But with time and modern influence the importance of
this ritual is fast fading. As the traditional Adi-Galo house is built on stilt, there are ladders
to climb up. In a highly humid and rainy area such houses on stilts are appropriate as these
avoid retaining dampness and at the same time protect the dwellers from the attack of wild
animals.

The construction of a traditional Adi-Galo house takes around 4-5 days to complete.
First of all gwwloo, the central post of the house is inserted into the ground. Subsequently
other supporting pillars are pushed into the ground. Brick pillars instead of wooden pillars are preferred in the modern time due to its durability and attack the attack of termites.

The main four posts at different directions of the house are ritually tied with bamboo shaving which is an indication of owning or possession of the house. They strongly believe that whatever is not possessed immediately is taken over by the spirits and it can have bad effects on the dwellers of the house.

Construction of house is a group activity in which the whole community is involved. It is a venture in which the whole village participates, at least a male member from each house helps during the construction of the house. During the construction, it is the duty of the owner of the new house feed the helpers. The participants are served with food, meat and alcoholic drink. Relatives of the owner of the new house also contribute by feeding the participants.

A traditional Adi-Galo house consists of different units. There is a distinct division of the house into male and female unit.

Firstly, there are two separate ladders and entrances to the house which are separately used by the male folk and female folk. The ladder which is used by male is called Xiloo-‘Koobaa and the one for female is use is called Ximv-‘Koobaa respectively (Fig.4.6).

The ladder which gives entry in the house is very crucial for them. Girls after attaining puberty are tabooed to use the male ladder. It is believed that continuous use of the male’s ladder by females who attained puberty can have an adverse effect on the mind of the males of the house by making them slow-witted or it can result in the failure of an important assignment or any future hunting mission.
The front part of the house, mostly used by men is called Xiloo-`Koodaa (Fig.4.7). The rear part of the house, which is particularly the domain of women, is called Ximv-`Koodaa. Xiloo meaning husband and Ximv meaning wife, are terms used to refer in general to the spaces occupied by male and female.

Women are allowed to go to the Xiloo-`Koodaa except during menstruating period. Female guests are allowed in the outer part of the house but they have to use the Ximv-`Koobaa to climb up and enter the house.

The Xiloo-`Koodaa is an open veranda where during the daytime the male members of the house spend their time making bamboo baskets, mats etc. Sometimes, the skulls of the animals taken in the chase or hunted by the householder are exhibited on the outside wall of the veranda. They are displayed to show the bravery of the hunter and his manhood.
Further, the house is divided into three to four specific chambers. When entered from the main door, a large hall is approached which is the largest room in the house. This big space is for multipurpose activities.

It is used as kitchen-cum-bedroom-cum living room. The same place is used for cooking, entertainment of guest, serving of food and also used for sleeping. As the region gets extremely cold during winters and it rains more than half the year, the family members usually sleep around the fireplace in order to keep themselves warm.
During the old days people used to keep the embers burning whole night as there was no sufficient clothing. The teenage members of the house are assigned their own room. The younger ones either sleep with the grandparents or the parents. In remote villages of Arunachal Pradesh, elders of the family still sleep near the fireplace.

4.3. Fireplace

Fireplace is the most important place in an Adi-Galo house. It is approximately in the middle of the house and there are various activities that revolve around the hearth. But it is equally a private place where outsiders are not directly brought unless the guest is a well-known to any of the family members, otherwise entering the fireplace by just an acquaintance during non-ceremonial occasions or without invitation is considered as prying. During ceremonies, women of villages may enter the kitchen to help the family but not the other guests.

Over the fireplace, there are two tiered structure suspended one over the other. These tiered structures are made of bamboo and wood and suspended over the hearth to keep various items of food, chillies, meat and fish to smoke, grains are dried during rainy season and woods are also kept for drying. The topmost rack is used for keeping baskets etc. Keeping the baskets over smoke for a long time increases the strength and the durability of the baskets. Maize is also hung in rafters above the hearth. The smokiness helps in preservation. Apart from these racks, a few other hanging selves are also seen in the house to keep things away from rats.

Thus, different part of the house is specified for different members of the house. (Fig.4.8 & 4.9). Likewise, the place around fireplace is also assigned gender based as well as
age-based. The space surrounding the fireplace is specifically divided into 2 parts ‘\textit{Pintv}’ and ‘\textit{Pimmee}’. ‘\textit{Pintv}’ covers the area around the main fireplace and ‘\textit{Pimmee}’ is the area around the second hearth. It is used exclusively by female members especially during menstruation period and child delivery.

\textit{Pintv} or the area around the main fireplace is divided into:

1. \textit{Baago}
2. ‘\textit{Xoodvv `cwwrww}
3. \textit{Nyosi penkoo}
4. ‘\textit{Xoodvv}
5. \textit{Uduu}

\textit{Baago} is the immediate space around the fireplace as one enters from the main entrance. It is considered as the cleanest place in the house. This place is strictly meant for the male members only. Father of the house and village elders sits in \textit{Baago}. It is strictly restricted for menstruating women, women who delivered baby, men who carried dead body or bitten by snake and have not completed a stipulated time period are tabooed from entering \textit{Baago}.

The space in the extreme corner of \textit{baago} is called ‘\textit{Xoodvv `cwwrww}’ which is associated with rituals. Rituals altars, \textit{doi-ginchi} (ritual basket) and the heads of the sacrificed \textit{Mithuns} are decorated on the wall of ‘\textit{Xoodvv `cwwrww}’. Sometimes, the horns, hides, skulls and mandibles of animals are also displayed on the ‘\textit{Xoodvv `cwwrww}’ wall (Fig. 4.10).
Nyosi Penkoo is on the opposite of baago which is meant strictly for the use of female members of the family, generally used by the daughters-in-law of the house.

Xoodvv is on the left side of Baago. It is meant for the use of the female folk of the family especially mother and also for the grandparents. It is the place where women of the house sit and cook for the family.

Uduu is on the right side of the baago. It is generally meant for guests. Galo house also has a room which serves as a storage room, `Kagrww.

The use of the space in an Adi-Galo house clearly defines the social relationships by allowing or prohibiting particular members of the family from entering a certain spaces. It is highly restricted for any male member or male guest to enter a girl’s bedroom.

A traditional Adi-Galo house can have 3 fireplaces with specific purposes:

1. `Koodaa `Imik
2. `Pintv `Imik
3. `Pimmee `Imik

They use the term `imik for hearth. The hearth which is in the outside verandah in the Xiloo-`Koodaa, is called the`Koodaa `Imik. `Koodaa is the term for outside.

`Pintv `Imik is the main hearth which is inside the house, around which the whole family sit in the evening, guests are welcomed and meal is cooked.

The third hearth is called `Pimmee `Imik. This hearth is used on certain occasions only. After delivering baby, it is forbidden for a woman to eat food cooked in the `Pintv `Imik for 5 days. She is only allowed to cook her food in the `Pimmee `Imik (Fig. 4.11). The space around this hearth is considered as the most unclean part of the house. This hearth is
also used by people who were bitten by snake or who carried dead body and have not completed their stipulated time period.

The size of an Adi-Galo house varies based on the status and also on the number of family members. Here too the economic status of the people is marked by the size of the house. Usually in daytime, the inhabitants spent little time in their structures except the old members of the house who are too weak to walk. The house is very much the domain of women, and houses are said to be built for them.

During the daytime, usually men do not stay in the house but women when they are not in the agricultural field, spend their time at home - cooking food, weaving, drying grains or pounding rice in the mortar.
Fig. 4.8: Inside Plan of an Adi-Galo house

Fig. 4.9: Inside the house
Fig. 4.10 a,b: Xoodv v‘Cwwrww (Nyode Chiri)
This ethnographic data suggests specific patterns in the division of space among different members of the Adi-Galos. It was observed during field work that with time materials used for the construction of house has changed, some of the affluent families also started residing in concrete houses but their values of their tradition has not changed (Fig. 4.12).

4.4. Animal Shelter

Most of the traditional Adi-Galo houses do not have separate shelter for animals. An attached pigsty is a part of the main house (Fig. 4.13). They build large rectangular pig pen with separate compartments for each pig. But nowadays, people prefer to make the pig pen...
separately. Animals like cows and mithuns are kept below the houses and chicken coops are also made within the outer walls of the house.

For Adi-Galos, house is just not a structure to protect them from the rain, wind and sunlight but it is an animate entity.

![Attached pig sty and chicken coops](image)

Fig. 4.13: Attached pig sty and chicken coops

If accidentally, a person cuts the wooden pillars of his house, a ritual has to be performed to pacify the spirit of the house. Insulting one’s dwelling place is considered as a dreadful crime. A ritual called *layap* is performed to bring back the soul of the house which vividly highlights the fact that it is viewed as an animate entity.

4.5. Granaries (Storage structures)
The harvest are generally stored in granaries which are separate structures that are constructed preferably at the village outskirts, away from the residential houses as a check against fire break (Fig.4.14). Like their house, the granaries are also raised on stilts.

Granaries consist of only one room. Effective measures are taken to protect the grains from the attack of the rodents; therefore wooden discs are fixed on the poles. But these days in order to avoid the hassle of cutting wood, tins are cut and attached to the post which serves the same purpose. It is easier as tins are easily available and it needs less labour. The space below is used for keeping firewood collected from the forest or *jhum* cultivation (Fig.4.15). Customarily it is the women who have the sole access to the granary and remove rice for daily consumption. Granary is considered as a sacred place so menstruating women are not allowed to go inside the granary. Then only women relatives are asked to get rice from the granary. Some specific rituals are also performed in the granary. The Adi-Galos sometimes keep the valuables of the household like the brass items in their granaries.
Fig. 4.14: Granary site

Fig. 4.15: Granary

Wooden disc
4.6. *Deerv* (Community Hall)

Community hall is a common feature in almost all the tribes of Arunachal Pradesh. Among the Adi-Galos also it is a very important part of the village. Community hall is called *deerv* by them. *Deerv* is a politico-judicial institution of the Adi-Galos. Every Adi-Galo village has a *deerv* which is located in the centre of the village. All the village rituals and ceremonial gatherings are conducted here and social and cultural affairs of the village are also discussed here. It is the centre of social and cultural interaction. On certain occasions, cultural programmes are also organized in *deerv* (Fig.4.16). The *deervs* are considered as sacred place as it is not only a meeting place for the village elders but the community rituals are also conducted here, therefore, menstruating women and tabooed people are not allowed to enter the *deerv*.

The *deerv* is a large structure which can accommodate around 150 people at a time. Presently these halls are also used to house trophies which the villagers win in games like football and volleyball tournaments and other cultural competitions where the village was represented (Fig.4.17). Recently, in the surveyed villages, these *deervs* are being used as anganwadi schools for village children.

Apart from individual house and granaries, activity specific huts are also used by Adi-Galo farmers especially the crop watching hut which is constructed in the field. The settlement pattern of the Adi-Galos reveals that there had been little change in the house types, building materials and techniques compared to the past. As evident much of the material used to construct an Adi-Galo house is made of organic materials and is perishable.
Moreover, the preservation of these materials in a tropical humid climate is very poor, obviously leading to very scanty archaeological sites.

Fig. 4.16: *Deerv* used for gathering during festivals
The ethnographic study of the settlement pattern of the Adi-Galos has brought to light certain difficulties in understanding the prehistoric settlement pattern of this region. As the traditional Adi-Galo houses are made of perishable raw materials collected from the forest most of the domestic items used by them are also perishable; potential archaeological traces are likely to be limited.

In most cases they construct a new dwelling house at the same spot where the old house was built. Before constructing a new house the old house is dismantled, so that some of the strong wooden pillars of the old house can be reused in the new house. Woods, bamboos which could not be reused are used as firewood or burnt at the spot itself.

The only probable trace left could be the post holes but once again easily covered by dense vegetation. Further, in many cases, flat stones are kept at the base of the pillars of the house which eliminates the chance of finding any postholes as well (Fig. 4.18 & 4.19).

They keep animals like pig, cow, goat and even mithuns in the below portion of their house and the excrement of these animals turn the soil fertile. Therefore, on abandonment the old site is turned into a vegetable garden which destroys any probable traces (Fig. 4.20). In cases when the old site is abandoned without being reused, vegetation growth is so fast and so dense that a site is easily covered in a matter of few months thereby once again covering any probable traces.

These are some of the systematic and post-depositional factors which disturb sites and make the study of prehistoric settlement pattern difficult in this region. The low discard rates along with unfavourable condition for poor preservation limit the archaeological visibility of the site.
Fig. 4.18: Stone at the base of the pillar

Fig. 4.19: Stone supporting the pillar of the house

Fig. 4.20: The abandoned site turned into a vegetable garden