

# Redefining the Defined, A Retrospective into Cultural Landscape: A Case of Mukkollupadu Village, AP, India

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**Abstract:** Retrospection into the footprints of antiquity, into the life and culture of man and his surrounds has led to intriguing arguments as to the validation of architecture as a reflection of the culture, and architecture as a response to the surrounding "physical determinist"<sup>(2)</sup> factors by the most eminent. Architecture, described as a "temporal art"<sup>(6)</sup> is subject to continual change due to conscious or unconscious interventions with changing times and needs of the people. This paper attempts to validate the thoughts of the highest minds and also tries to establish a relationship between the evolution of built form as a response to the needs and culture also assess the role of "physical determinist"<sup>(2)</sup> factors that shape it over the years. A literary premise is established preceding the analysis of the settlement focusing on Maslow's Hierarchy of Needs<sup>(1)</sup> The study being conducted at two levels, both macro and micro level gives an in depth understanding of the fabric at the settlement and the tissue level and validates the essential relationship between man's needs, life and built forms.

**Keywords:** Architecture, Built form, Culture, Human Needs

## 1. Introduction

The dawn of the civilization witnessed man as a food gatherer, whose main purpose was survival. Gradually survival attained a new dimension when man found the need for shelter to protect himself from the adversities of nature and other men, which turned into the establishment of territories, where the definition of built form assumed its position at two levels, the settlement level and the dwelling level. Evolution over time and space resulting in the morphology of the site, growth and depreciation of the built fabric, lends dynamism to indigenous architecture. Interpretations of architecture as a process of evolution of the user versus architecture as a response to the surroundings have led to interpretations of various kinds. The course of the paper will thus examine both interpretations of built form in order to understand architecture from the eyes of the user as well as a rejoinder to the surrounds. The reason behind the choice of Mukkollupadu as the site for study is that it is the best example of the two arguments presented above; it exhibits a beautiful evolutionary pattern over space and time.

## 2. Methodology

In order to comprehend the various interpretations of architecture the researcher felt the need to establish a literary premise based on understanding the works of Rapoport (1969), Maslow(1943),Jalan (2012), and Tipnis(2002). Based on the various factors, the study stratifies itself at two levels:

a) Macro Level: It focuses on the built fabric at the settlement level. It describes settlement patterns as a response to the movement, life and culture of the people. Significant man-environment relations are studied based on the surrounding elements at this stage in order to evaluate the relation between architecture and surrounding

landscape.

b) Micro Level: The micro or tissue level is aimed a defining indigenous architecture as an expression of the user activity patterns, "social structure", lifestyle and traditions of the people.

The analysis of the micro and macro level is done based on the literary premise established and a cognitive relation between the existential and the evolved is established in the due course of the paper.

## 3. Literary Premise

### 3.1 Defining Vernacular Architecture

*"Shelter is only one function of architecture-and other, and more important functions are the symbolic, place defining and socio-cultural-to any environment in which people live whether built or un-built" -Rapoport<sup>(2)</sup>*

Inferring from the above statement one can interpret architecture as having multi dimensional integrity with respect to man, environment and culture. Rapoport (1969) describes vernacular architecture as a reflection of the user in defining a place. Response of architecture to the surrounding site elements makes it unique to the place. It can be evaluated more as a "response" than just an element of shelter. The "additive" quality of this form of architecture also lends it an "open - ended" nature or the character to accept changes with the evolution of the user over time.

Al Sayyad (2006), also defines vernacular architecture as something native to a specific place, created without the help of imported components and processes, and possibly built by individuals who occupy that particular place. <sup>(6)</sup> As

Volume 6 Issue 3, March 2017

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appropriately defined vernacular architecture is a region specific manifestation of authenticity.

### 3.2 Defining Cultural Landscape

UNESCO (2005) defines cultural landscape as the combined manifestation of the works of man and nature which illustrate the evolution of human society and settlement over time, influenced by physical constraints or opportunities, presented by their natural environment and of successive social, economic, cultural forces both internal and external. Indigenous settlements, which reflect innate respect towards nature, which evolve as self-sustained communities, are the best examples of cultural landscape.

### 3.3 Evolution of Built form

Examining "needs" as a primordial element in the creation of a settlement can be explained through "Hierarchy of Needs" given by Abraham Maslow.

#### 3.3.1 Maslow's Hierarchy of Needs

Abraham Maslow's (1943), description of man's needs in the "Theory of Motivation" describes the attainment of self-actualization on a systematic basis where man reaches the "being needs" on the pyramid after satisfying each level of existential or "deficiency needs". These needs are described as universal and not created by culture or tradition of the surrounds and hence help in understanding how the basic needs led to built form evolution. Maslow's hierarchy is broadly categorized into two levels where the "deficiency needs" occupy the lower tiers of the pyramid and the "being needs" follow upwards.<sup>(1)</sup>

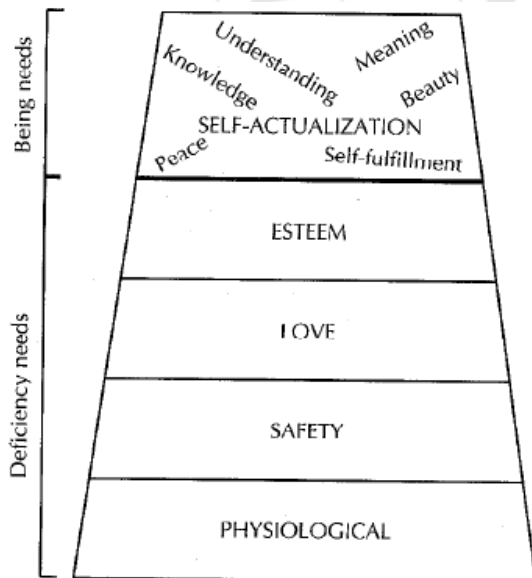


Figure 1: Maslow's Hierarchy of Human Needs  
Source: Theory of Human Motivation: 1943

#### Deficiency needs<sup>(1)</sup>

These are categorized into needs that arise due to Physiological reasons, Safety, need for love and self-esteem. Physiological needs pertain to physical needs like hunger, thirst, sleep, oxygen, sex, and freedom of movement without which a person will face discomfort and frustration. Once

this level is satisfied, the person looks for safety and security. This is more operative on a psychological level. After one attains a sense of security, he looks for the sense of belonging and the need for love. This level combines the respect of giving and receiving love. Once the person is significantly satisfied with all the below needs he proceeds to the need of achievement and power to define himself or self esteem.

#### Being needs<sup>(1)</sup>

Further higher on the pyramid, the topmost tier is occupied by the "being" needs, which majorly depend on the psychology of the person. These needs of "self actualization" are operative once man crosses the deficiency needs and is in search for knowledge, meaning and peace.

#### 3.3.2 Rapoport's Built Form

Rapoport's(1969) "*House Form and Culture*"

Redfield's definition of "culture" states that it is a total equipment of ideas and institutions and conventionalized activities of people. As identified by Rapoport(1969), this using "culture as a way of identifying architecture is a more "possibilist" perspective rather than the "physical determinist" way which is validated by the "material" factors affecting it. This is also rationalized by the example of "The School of Geography" represented by De La Blache, Febvre Sorre and Brunhes, which is called "possibilist" because it stresses the fact that a physical setting only provides possibilities and not "imperatives" and that man, rather than the site is the determining factor.<sup>(2)</sup>

Thus it is observed that "physical determinist" factors comprise of the material additions to the form that is determined by the "possibilist" features.

The physical determinist factors can be grouped into

- 1) Climate
- 2) Geography
- 3) Availability of resources
- 4) Geology and the possibilist factors can be grouped under
  - a) Culture and traditions of people
  - b) Relationship with nature

Rapoport(1969), describes the relation between man and environment as a)Religious and cosmological : Environment is regarded as dominant and man is less in nature b) Symbiotic : Man and nature are in a state of balance and man regards himself as responsible to God for nature and the Earth as a steward. c) Exploitative: Man as the creator, modifier and destroyer of nature<sup>(2)</sup>

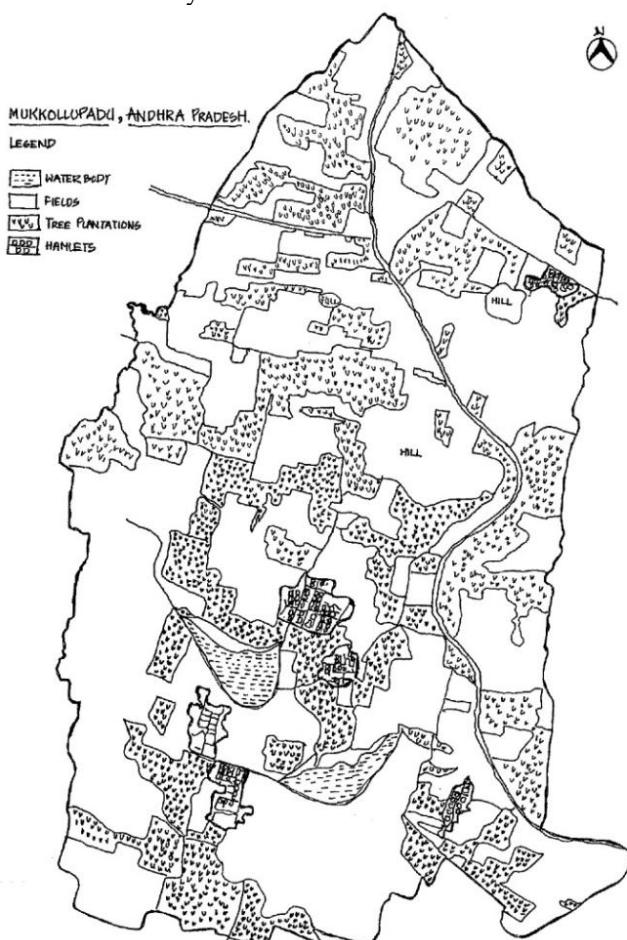
These factors vary broadly from place to place depending on the beliefs of people and thus built form takes variations in the various parts of the world. This clearly shows that cultural landscape needs to analyzed not only on the basis of the surrounding physical factors but also the lifestyle and culture of the people.

## 4. Case Study

### 4.1 Mukkollupadu, Krishna District, Andhra Pradesh, India

The village of Mukkollupadu, lies in the Krishna district of Andhra Pradesh, in India. The village is conjunctions of six hamlets, which are at a varied distance of 2km to 10km from the origin of the village. The evolution of the village is traced back to 150 years ago where the centrally located water body acted as the origin of the settlement.

Beginning with a mixed-profile clustered settlement of ten houses near the water body, the village slowly expanded in varied directions based on various factors. Analyzing the settlement at the macro and micro level is preceded by understanding the origin and growth of the village based on Maslow's Hierarchy of needs.



**Figure 2:** Map of Mukkollupadu (NTS)  
 Source: Author, 2016

## 5. Validating Maslow's Hierarchy of Human Needs

### 5.1 Origin of the Village

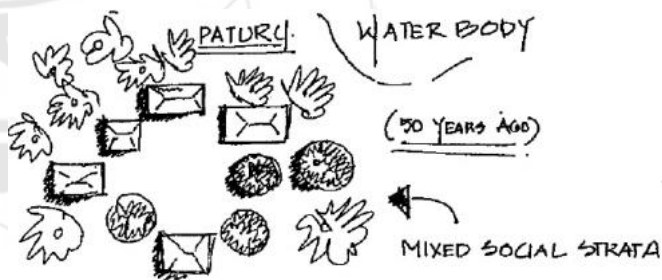
As observed from Maslow's "Hierarchy of Needs"<sup>(1)</sup>, man maps his life mentally into various stages and proceeds to where he began; the peace in self-existence and reflection. Being persisted to cross the physiological needs in order to attain this "self actualization man", seeks one step after other

beginning with trying to satisfy his basic physiological needs proceeding with safety, love and esteem.

When the evolution of Mukkollupadu is concerned it is clearly evident that these needs present themselves as a series of steps physically visible from built form to settlement.

When man moved to what is now "Mukkollupadu", he sought food (PHYSIOLOGICAL NEED) as the basis of choosing area of settlement. The origins of the village were at the Devana Cheruvu where the "cheruvu" means river. The water body acted as the nucleus of the development. With the help of this resource man sought to farming which helped him satisfy hunger. The village was a forest when man had first come a century ago. In order to protect himself from the adversity of animals and climate he sought safety in the form of shelter (SAFETY). Gradually a group of ten houses formed a community of their own amidst wilderness (BELONGINGNESS AND LOVE). When man established himself in this manner, the need for self-esteem led to the social stratification in his community. The community, which had mixed social strata till then, split and dispersed into what, is now the six hamlets making up the village over the years.

This clearly shows how man's physiological needs led to the evolution of built form and the spread into settlement



**Figure 3:** Mukkollupadu Settlement 150 Years ago  
 Source: Author, 2016

### 5.2 Evolution of the Village

The evolution of the village over time is analyzed as based on the effect "externalities" (man, climate and animals) sequentially as observed from the "History of Settlements". It is observed that the establishment of territory due to internal and external conflict led to the overall structure of a settlement. Adding on to the attributes, further culture shapes it to the form it attains.

## 6. Macro level

### 6.1 Regional Character

#### 6.1.1 Physical Determinist factors

These factors include the climate, soil, food and resource availability, minerals, land characteristics and location.

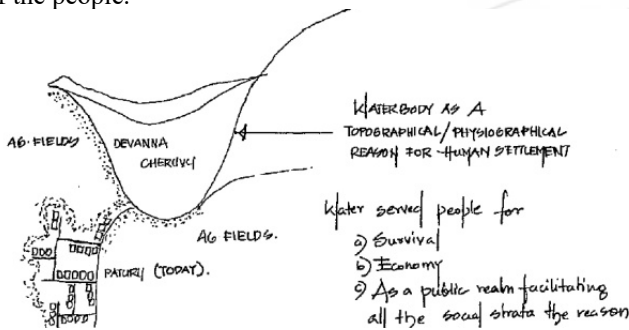


**Resource availability:** In the case of Mukkollupadu, the availability of water and resources for survival are the physical determinist factors affecting the development.

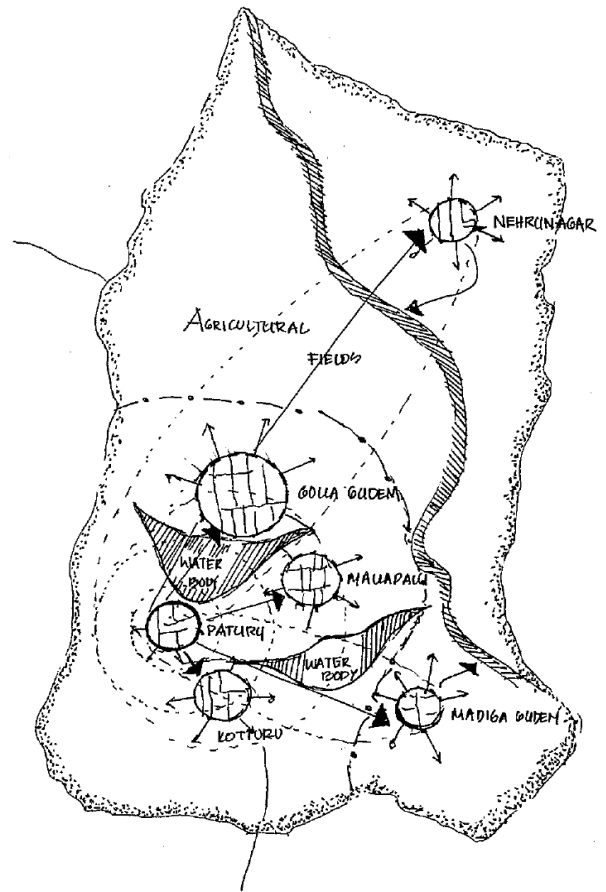
**Geology:** Being an agro based economy; the people had chosen to stay near the "Devana cheruvu" where the soil is fertile for agriculture. The settlement saw its origin and growth majorly due to these two factors. However the pattern of the settlement assumed dispersal due to the cultural persistence among the people.

**6.1.2 "Possibilist" factors**

Culture as observed in Mukkollupadu is based on the culture prevalent in the place, the peoples definition of "God", their occupations, and their lifestyle. Mukkollupadu, as a settlement is an expression of dispersal due to the most evidently prevalent marker in the society- the caste system. The dispersed character of the village fabric suggests the prevalence of social strata on all levels in the life and living of the people.



**Figure 4: Evolution of Settlement**  
Source: Author, 2016



**Figure 4: Origin of Village: "Physical determinist factors"**  
Source: Author, 2016

**6.1.2.1 Indian Caste System**

Ghurye (1932), appropriately describes caste as "Segmentation of society into groups whose membership was determined by birth". The hierarchical system classifies the most privileged strata occupying the top of the pyramid based on the occupation and lives their forefathers lived. The Brahmins on the top of the pyramid and the Shudras being on the lowermost tier head the system. Restrictions at various levels are prevalent among the lower and upper classes in feeding and sexual intrusions. The upper caste are not do not accept food or drink from the lower caste and also certain kind of food which only the upper class has the opportunity to eat. Segregation is often observed as to the location of upper caste being the centre of the settlement and the lower being restricted to the periphery of the village. Endogamy i.e. restrictions on marriage as to people getting married to people who belonged to their caste and in certain areas restrictions prevail as to people not only getting married to people who belonged to the same caste but also stayed in the same place. Restrictions on any kind of liberal choices is a marker of the Indian caste system which prevails even today<sup>(9)</sup>

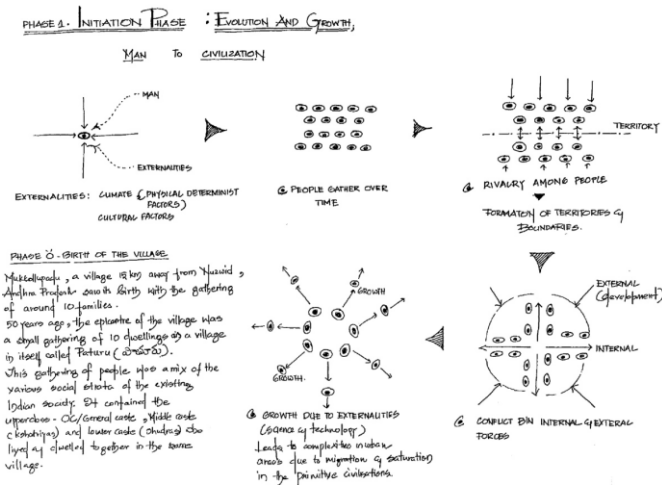


Figure 6: Sphere of Cultural Influence-Regional Pattern  
Source: Author, 2016

## 7. Settlement Character

### 7.1 Existing Settlements in the Village

#### 7.1.1 Proficient classes

**Paturu** remains as the administrative as well as the evolutionary origin of the entire village since its origin. The Panchayat or the administrative head at the village level is located here. The people from Madiga gudem, Nehru nagar and Malapalli visit Paturu in case of any dispute or any emergency.

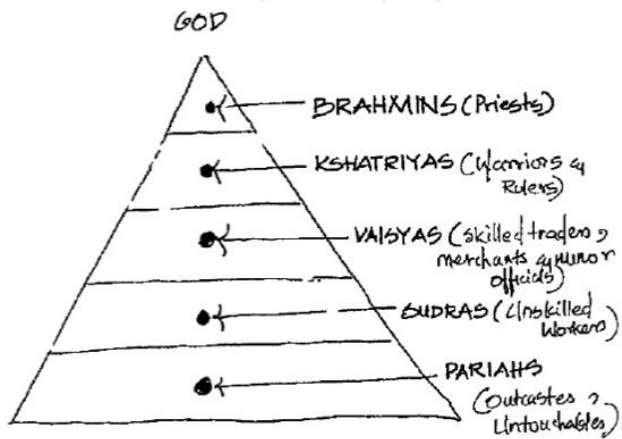


Figure 7: Indian Caste System  
Source: Author, 2016

**Gollagudem** mainly consists of the SC population and is located on the other side of the water body from where they gradually expand to the periphery of the village. Gollagudem evolved 80 years ago.

**Kothuru** came into existence only 60 years ago. Predominantly OC/BC population. Occupation is mainly agriculture. Emerged recently and is marked by the presence of pukka houses, and borrowed practices (from cities). The proficient classes are observed to evolve near the water body in all three cases

#### 7.1.2 Backward classes

**Madigagudem** being the second oldest hamlet aged around 100 years is predominantly backward caste in nature. More than 50% of the population are engaged in agriculture whereas the others are self employed or are involved in daily labor.

**Nehrunagar** is the settlement, which was formed most recently in the last 20 years and is known to be occupied by SC's who are majorly Christians. The people in this hamlet are either employed in the fields of the upper caste people from Paturu Kotturu and Madiga Gudem or are involved in daily labor, poultry etc.

### 7.2 Built form-open relationship

Rapoport (1969), describes settlements in two types

**A. Dispersed settlements:** In a dispersed settlement, the activities which take place inside the house possibly take place on the exteriors

**B. Concentrated settlements:** There are two types where in the first case, the whole settlement is considered as a setting for life and the dwelling is merely as a more private, enclosed and sheltered part of the living realm. The second case is where the dwelling is the whole setting for life where the village is regarded as the connective tissue, almost "waste space" to be traversed. It is secondary in nature. It is thus observed that the hamlets exhibit the concentrated settlement pattern of the second type where the village is more of a connective tissue than being a significant space. The role of the dwelling is more significant than the open spaces due to the perception of social life and public realm. This can be validated by the differential status of people in the Indian society. The women are not considered to belong to the same social status as they and more confined to the interiors of the house and the verandah whereas the men are more socially active. Thus the public realm is not a very significant space in the village and is generally the backyard of the house where the women of the house cook and the verandah for the men.

### 7.3 Man-Environment relationship

Mukkollupadu exhibits a "symbiotic" relation between man and his surrounds. An inherent balance is observed and validated through the cultural evidences. The village celebrates a festival, Sankranthi to thank God for the yearly harvest. God is considered to be the creator and the destroyer of this universe. Man stands as a custodian of nature which is considered to be God's gift to man. This creates a balance between the universe and man. This balance is what is observed in most of the rural settings where man's reverence for the Almighty is unaltered by pretension and externalities. Mukkollupadu is also an example of the similar balance helping the sustenance of this village over all these years.

## 8. Micro Level

The micro or the tissue level concentrates on the evolutionary patterns of dwelling units, spaces used, social structure, cultural divide among the people and its reflection

on the design and layout of the houses, the function of built form and surrounding open spaces.

### 8.1 Cultural divide in the society

The cultural divide in the society exhibits itself in the society as the caste system as discussed above. The cultural divide, on a micro level exhibits itself in the differential status of men and women.

Men are considered to be superior and given more freedom whereas women are more confined to the households. This divide is reflected in the layout of the dwelling units as based on the lifestyle of the people.

### 8.2 Lifestyle

The daily routine of a man begins at 6a.m in the morning when he wakes up and goes to the agricultural fields for his work. The woman of the household, begins by cleaning the surrounds of the house and preparing breakfast for the men who would return to the house around 10:00 a.m. After breakfast, the men return to the fields, and the women get back to household chores and start making preparations for food in the noon. Along with this they look after the livestock in the house. During the evening the men return by around 5:00 p.m. and either take rest or communicate with the others in the village. Women make preparations for food in the night or if they have any visitors, or pertain themselves to the backyard of the house where they communicate with the other women. This clearly depicts that the men mainly use the verandah or the "arugu", whereas the women maximally use the private domain of the house. The layout of the house is formed in such a way that the cooking area is separate and is mostly screened from the public domain. The backyard generally has the kitchen and the livestock area, which is generally used by the women of the house.

### 8.3 Lifestyle

The structure of the society based on the social intercourse among the people and the layout of the village. In Mukkollupadu, as observed the private domain is more prominent than the public domain. The village majorly acts as a "connective tissue"<sup>(2)</sup> rather than being the hub of activity. The weak social structure is due to the cultural divide among the people. Women meet other women in the backyard and men prefer the verandah or the temples in the village. Hence the village is representative of a "concentrated settlement" of the second order.

### 8.4 Built form

#### 8.4.1 Architecture as an expression

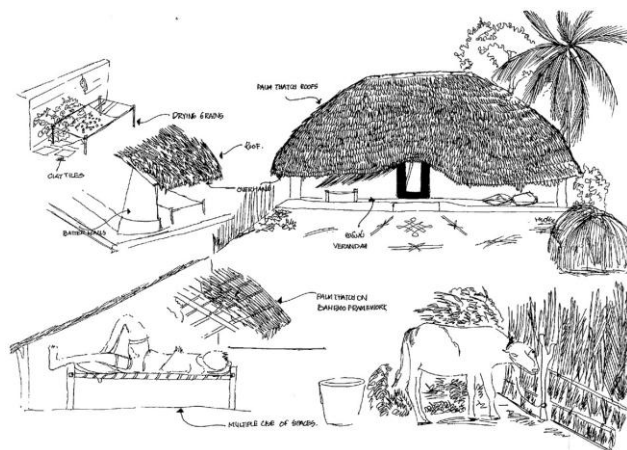


Figure 8: Functional depiction of spaces in typical house  
Source: Author, 2016

*"The general attitude of respect and reverence for the site means that one does not browbeat or rape it but works with the site. Buildings fit into the landscape and express this attitude through choice of siting, materials and forms. These forms only satisfy cultural, symbolic and utilitarian requirements, but often are so much a part of the site that it cannot be imagined without the dwelling, village or town. Such qualities also reflect the presence of shared goals and values, a clear and agreed-on purpose, and an accepted hierarchical structure of house, purpose, and landscape, as well as direct response to climate and technology. The forms are also a clear reflection of needs, leading to the direct and intuitively clear feeling of rightness described above."*-Amos Rapoport<sup>(2)</sup>

The non-pretentious and unselfish architecture presents itself as a response to the needs of the user and the surrounding environment. Conscious hindrance to the environment is minimal as the need to satisfy ones minimum requirement is put over greed. Mukkollupadu stands as a live example to this. Vernacular houses, using locally available and easily available materials and simple construction techniques are put to use; the result of this being the rustic and true beauty of the cultural landscape. The layouts of the houses are not sprawling; compactness in planning and multi-functional usage of single space is observed. Certain houses exhibit self-sufficiency and are completely dependent on the available resources. They do not use electricity. Lamps and candles suffice the lighting suffice the requirement of the household.

The house depicted in Fig14 clearly shows the multifunctional space, which satisfies the basic needs of people. The simple form satisfying the required functions also reflects the culture of the users. This shows how Mukkollupadu acts as a live example of a settlement, which is a part of the nature and is molded according to the surrounding landscape.

## 9. Conclusion

Mukkollupadu as a rural settlement thus stands as an appropriate example in establishing a link between need, culture and built form. Man's need paved way to "shelter",



man's life paved way to the "form" it gained, man's existence gave it life. A

Architecture is thus not defined only as an art, but as an expression of the inhabitant.

It stands a clear example of the phenomenon where necessity made man define "shelter" as a means of survival. Gradually culture (apart from physical factors) shaped it into various forms as perceived by various eyes. Some forms of culture defined their settlement in direct relation with the cosmos, while some chose to stand as the custodian of what was bestowed to them by God.

These varied perceptions have led to various interpretations of built form. This paper has thus tried to establish a link between need and culture in shaping architecture.

## References

- [1] Maslow, A.H, "A theory of Human Motivation," Psychological Review, Vol.50 pp. 370-396, 1943.
- [2] Rapaport, A House Form and Culture, Foundation of Cultural Geography Series Prentice Hall, Englewood Cliffs, 1969.
- [3] Mazumdar, S "The Zoroastrian House and the Islamic House," Built Form and Culture, Vol.50 pp. 51-60,.
- [4] Jalan, R "Morphology of Agrarian Settlements," Dessertations in Architecture , Vol.3,4 pp3-22
- [5] Tipnis, A, "Vernacular Traditions Contemporary Architecture, TERI, New Delhi, 2012
- [6] Sen Gupta, B.K "History of Human Settlements, A quarterly Journal of Institute of Town Planners, IIT Kharagpur, 2006
- [7] Sen Gupta, B.K A, "Vernacular Traditions Contemporary Architecture, TERI, New Delhi, 2006
- [8] Retrieved from About Education and viewed on 15<sup>th</sup> November, 2106  
<http://asianhistory.about.com/od/india/p/indiancastesystem.htm>

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