1 INTRODUCTION

Like the spider weaving a web
We find that there is a network of people and built form.
The transformation of one is affecting
the environment in different intensity,
Changing the surrounding....
The links are complex but they make a legible pattern.
- Shetty Deepika, 2007

The design of place addresses the relationship of people and space. The meaning given by people identifies the space into a place. As a designer it is difficult to define the relationship in specific terms of what aspect of built environment affects people’s behavior and in which ways. However it is important to know this relationship or at least give a serious thought to it as we are finally building to house people’s activities and enhance their day to day lives.

A settlement is characterized by constant activity and design to create an environment satisfying needs of the community/society. In the hierarchy of present times we have classified the human settlement into village, urban nodes, small town, large town, city, metropolitan city etc. As an urban designer or planner one needs to understand the system more in order to define it appropriately and further plan its future for its progress suitable for human development and sustainable environment. There are many definition to town based on land use distribution, density of population, type of occupation of people, male female ratio etc. however if we look at it closely there is a problem giving the classification in the old towns in this region as it is sparsely populated and the occupation is agriculture and trade spread over a large area. When we do the development plan of these areas based on standard definitions it might do more harm to the system rather than help the development. Understanding the system of design and its
reflection on response of people and reflection of needs and nature of people on systems of town design is the focus of this study.

In many towns of Udupi district we find the density of population very less compared to north and central Indian towns and villages. The land-use also includes some agricultural property and plantations along with urban facilities of healthcare, education, commercial and religious institutions. The sizes of plot and agriculture are smaller compared to villages; however the lifestyle and land-use are very similar to the villages with respect to residential area. In fact the urban rural divide in terms of lifestyle and population characteristics is very less. These towns if categorized with the regular standards of urban development (Frey, 1999, pp. 16-22) may feature as villages and may not meet all the parameters of density and land-use of urban development. However their role in regional development and the scale of infrastructure that they provide to the region is that of third or fourth tier towns. So when we plan development and up-gradation of such towns to meet the demands of the people will the regular standard definition of towns suffice to guide us or do we need to understand the working of the town with respect to people their association, relation and meaning to various features of the town. Along with infrastructure, character and heritage of a place also plays an important role to any development as many of these towns have their beginnings from 8th century A.D. (Bhat, 1969, pp. 1-21) Can we define the goals of development more in tune with the perception of the people of the region and respond to the characteristics unique to the town. This study is to find a way to define the town in terms of social logic of space and people’s perception of town, which in-turn may help identify key features of the town which gives its identity with respect to region and people.

In urban geography to find the relation of activity of people, movement pattern and physical form of town was defined as morphology of town (Dickinson, 1948, pp. 221-38). To pay attention to the physical form the town was seen and analyzed in terms of land-use (including land area, water area, 3-dimensional spaces above the town) and understanding the land and use characteristically
urban (Bartholomew, 1955, p. 196). This prevents us to define the association and social classification of spaces and its utility and activity with respect to people, especially if they combine natural and man-made elements in their definition of spaces. Hence the natural boundaries and the site specific meanings and associations are neglected in this kind of understanding.

In 1980’s the research done by Hillier and Hansen led to development of space syntax analysis which tried to define and measure the social logic of space. Spatial order is one of the most important means by which we recognize the existence of cultural differences between one settlement formation and another. The changes in the evolution of societies have usually either involved or led to distinct changes in spatial form, and in relation of society to its spatial structure and language; these changes appear to be not so much a byproduct of the socio-political changes, but an intrinsic part of them and even to some cases reason of them. ‘Different types of social formation, it would appear, require a characteristic spatial order, just as different types of spatial order require a particular social formation to sustain them’. (Hillier Bill, 1984, p. 27). Though this gives a site specific or location specific pattern or logic of connectivity, it is incomplete in its definition of the spatial relationship without the social association and meanings assigned to the spaces.

The discussion is not intending to say that morphological relations are the only contributors of architectural meaning since meaning is given through social order, historic events, symbolisms, socio-political identities etc. However in recent years due to failed utopian experiments of modernism, architecture is dissociated from social order and is blamed for de-contextualizing places and some blame it on industrial modes of production. Since we cannot deny social significance of architecture we cannot isolate it from social order or society, at the same time we must acknowledge that along with architects, social, political and economic agents contribute to the design and production of buildings. (Psarra, 2009, pp. 3-6)
Morphological study is based on the notion of interrelatedness of parts to other parts and to the whole. This is defined by Bill Hillier’s notion of ‘configuration’ as, ‘a set of relationships of things all of which inter-depend in an overall structure of some kind.’ (Hillier, 1996, 2007, p. 33). The inherent belief is that there is a relationship between know ability and spatial pattern linking cognition to the configuration of physical form and this leads to the pattern of movement, economic development, land-use patterns.

The justification to take Barkur as a case study comes from the fact that in terms of a designed town it has the longest history in the district. There was a sound political organization in this region by 2nd cent. A.D. from 1st cent to middle of 15th century, the Alupas ruled over Alvakheda, which is a unique record of unbroken political supremacy of 1500 hundred. After which it was developed by the Vijaynagara Governors. Tipu destroyed the palace and governors bungalow of the town however rest of the temples have survived and the footprint of the town has not seen much transformation since then as it has not seen any conflict or war or major modern man-made intervention like a highway or industry. The bridge and introduction of main road did change the organization of town and the demarcation of the three panchayats and hence there was some shift in the nodes. However most of the structure of town has served and survived for the longest duration of time. The second aspect of the town is the structure of institute such as temple and water tank have been used in all the old towns of this district too. To find this as a structuring element of the town would be possible in case of Barkur as it has this element being repeated in every sector as against one in Udupi town and Brahmavara town. In fact no other town in Udupi district has such elaborate temple, tank and sector planning of those times. It still has the religious centers for certain community for which it becomes a reference at regional and national level for those sects of people. The festivals and some educational centers attract population from the surrounding 37 villages. The commercial and industrial part of the town has not grown much as it did not get any modern facilities or industry in the recent times. However it remains as an icon for the identity of heritage of Karnataka. Hence it is a good town to study as the town
structure will be rooted in the regional context and it has had time to have made distinct mark in mental map of the people of the town and surrounding villages. There are many terms used in this study for the description of town which are distinct to the region and the research methodology, these are marked in ‘italics’ which are explained in the Glossary.

1.1 Objective of Study:

The morphological study is aimed to arrive at a pattern which is related to perception and cognition of people with respect to understanding of the town, where the syntax (ordering principle) defined is generic and the individual meaning is brought out by the semantic (meanings bound in place and time) interpretation of the particular case.

The study is the morphological analysis of a small historical town of Udupi district, namely Barkur. Hence the objective of study will be-

- To understand the physical town structure in terms of configuration pattern with the help of space syntax analysis
- Later relate it to people’s perception of the town to find a relationship between physical form and popular perception of form
- The results are further compared with three other towns of Brahmavara, Udupi and Basrur, which have similar history and belong to the same region of Udupi district, to validate the observation

1.2 Scope and Limitations:

The study is focused on the potential of the physical configuration of the town for social activities and references (i.e. in terms of space syntax), and to understand the perception and cognition of Barkur by the people and relate it to the previous study.
The comparative study is to find similarity and differences in physical configuration of other towns in Udupi district with respect to space syntax.

The study is limited to Barkur town as a case study and does not make overall assessment of towns in this region.

The study does not quantify or qualify land-use, population density, scale-distance-area and such other parameters of physical plan of town.