Abstract
The paper observes that individuals are not single handedly capable of sustaining human interest in heritage dwellings, their environmental role and contribution to the quality of life. The maintenance of heritage sites must therefore be supported by providing various stakeholder incentives. This is a case study of a nearly 400 year old house near Udupi in South Canara region, Karnataka State in southern India. It is hoped that this provides further impetus for various stakeholders initiatives and such studies of individual heritage houses spread all over the country embodying various architectural traditions of the past centuries.

1. INTRODUCTION
Historic sites and traditional houses are the most important testimony to the past way of life. The conservation of these traditions in the context of adaptive reuse and revitalization of architectural heritage is in a sense the preservation of culture. The main goal of intervention in terms of conservation is to enliven cultural properties by evaluating their planning, architectural, historical, environmental, visual and aesthetic characteristics.

The process of protecting heritage dwellings must indeed recognize that the surroundings in which humans live and work predominantly influence the wellbeing of individuals and communities. Buildings constructed centuries ago to suit the lifestyle and work environment of that time need to be adapted to the changing world, particularly in the last decade and also may be to foresee the future. It is in this context that heritage dwellings need to be looked at. While the excellence, beauty, imagination, diversity have endured the ravages of time, they present a challenge in many ways to the occupant and the people who care about such architectural elements.

In India’s towns and rural settlements, where ancient and recent are interwoven, architectural distinctiveness exists in abundance. South Canara region in Karnataka particularly have many such dwellings. While a historical perspective of how these dwellings came about will be interesting and enlightening, it is outside the purview of this paper. The drive to conserve heritage buildings by...
adopting technologies that are existent now and the challenge of finding a viable use for them should not be allowed to override the question of whether the survival of this building will enrich the lives of those who use or see it.

What is required for interventions in heritage structures is an enhanced participation of various stakeholders like building related professionals, artists, politicians, local residents and local government to understand and appreciate the complexities in the social and cultural way of life. This has been explored in the context of a heritage house called Hirebettu House.

While the focus is largely on heritage buildings that are conserved by the State, this paper focuses attention on residential buildings that are part of the heritage of the country but which are in private hands and owing to various social reasons are losing their character. The issue is significant because not only do they lend credence to the antiquity of the nation, but are now getting considered as part of the national heritage. Associated with the image of India as a country with a rich tradition and heritage, these houses also contain the potential as tourism attractions. This work also highlights the problems in preserving such dwellings and the lack of proper system or guidance to preserve such dwellings with the result that their heritage character is diluted if not lost to the world. In short an official policy of government interventions for preserving and maintaining privately held old heritage residences is being told.

2. A CASE STUDY OF HIREBETTU HOUSE

A three acre Hirebettu House nestles in the characteristic greenery of South Canara region, about 12 km north from the city of Udupi. Hirebettu house was once the centre of a way of life. Life around it has changed slowly and so also the social settings of the region. But what is interesting is the changes to the house itself that has happened in over the last couple of centuries.

While records testifying to the antiquity of the house are hard to come by, it is generally believed in the region that the House is more than 360 years old. The present occupant Shivaprasad Hegde, the son of Nirupama Hegde, who inherited the house remembers a history lecturer testifying to his late father that the house was more than 360 years old. Not hard to believe considering that the building materials used in the original construction are those that were prevalent during those times.

Fig. 1 Front view of Hirebettu House
In his matrilineal family, the occupant’s mother Nirupama, now 81 years old, inherited the house from her father to whom the house was passed on by his sister who had no children. The occupant says that there were a few palm leaf manuscripts that certified to the antiquity of the house. But they are no longer with them.

Hirebettu House has seen more than six generations of people inhabit its sturdy walls. Through the course of its glorious existence it has bore witness to the evolving trends in terms of general architectural developments. It is remarkable to note the appropriateness of the building’s original construction materials with respect to the various climate and environment. Right from the positioning of the building and its orientation with respect to the cardinal directions, to the overall setting within the agricultural landscape, the reliance over all kinds of naturally available construction materials; the building reflects the careful thought process and the way of life of its ancestors and their traditions.

What is interesting and significant in the renovation of the parts of the more than three century old mansion is perhaps the unconscious attempt to balance modernity with old world.

The overall plan of the building is rectangular (Fig. 2) in nature. The truth stone marks the entrance (Fig. 3) of the building as a stepping stone. There are two rows of columned space which mark the dominant external space. The grand entrance to the courtyard and the columned space is a community open space which marks the introvert planning considerations along with cross ventilation.
Provision of ample perforation on the vertical surfaces also contributes to the cross ventilation within the building. The inclusion of the upper storey further contributes to effective massing. Since the surrounded region has surplus rains, various water percolation points have been provided throughout the higher levels for water percolation. Seasoned timber plays the most prominent building material, used for explicit carpentry artistry.

The use of well-seasoned and waxed solid teak blocks not only enhance the aesthetic appeal but also act as massive moisture-resistant structural members. These timber columns support the weight of a double-storey structure i.e. the ground floor and the clearstory. The provision of eave boards at roof edges prevent the rainwater from splashing inside. The teak wooden rafts still hold aloft the tiles on the roof. The massive front door, hebbagilu, opens slowly to reveal the angana or courtyard (Fig. 5).

Upon careful observation, it can be clearly concluded that the double floor height composed of granite and laterite that is further extended into the verandah and staggers into two levels depending upon the location. This design feature is an efficient contributor in cooling the surface of the building. The massive walls finished with brick, jaggery and straw act as efficient thermal insulators. Also the mud walls on the outside continue to hold out against the fierce rains that lash the region for more than four months at a stretch every year.

The house stands the test of time even from the point of security and privacy. Traditional locking systems at the door-jambs that are laid with brass and a monolithic wooden section threshold provide sufficient security at entry and exit points. The size of the openings grows smaller with increasing elevation and the provision of clerestory windows provides a birds-eye monitoring view of the surroundings.

A direct line of sight connects the main entrance to the external fields enhancing security. The existence of domestic farm animals not only contributes to the
self-sustenance of the household but also as an alert in case of approach of intruders.

2.1 Building Profile of the House

The structure of the house is typical of the manor or farm houses of the region. It comprises the ample hebbagilu (waiting area), the angana (the courtyard), the majestic chavadi (assembly area for the inmates and guests) and the private paddasala (private area) with its small rooms beyond which lie the big kitchens. Up a steep flight of stairs going to the first floor just opposite to the main entrance from the chavadi is the huge hall out of which two rooms branch off.

The overall ergonomics of the building is centered on the time of its construction when the overall anatomy of the inhabitants was not very large. This is clearly reflected in terms of the height of the openings, walls of the building. The ancient architectural norms of Vaastu clearly play a major role in the planning of the building. The prayer room is oriented along the north in accordance with the scriptures.

Although the old structure seems to be untouched on the outside, the insides of the house have undergone a massive change. At the outset this has nothing to do with the colour TV set, the sofa in the chavadi or the dish antenna above, it is an indication of what drives the changes within. When the present owner decided to renovate the house, he wanted to do it the way it should be done, keeping intact the heritage character of the house. So he went about contacting conservationists to find out the ways of doing it. While he says that experts were most reluctant to offer advice, and the supportive systems and agencies available is the chief hurdle and the issue of exorbitant cost also involved.

A guess estimate put the total cost of renovation at Rs.20,000,000 an amount that the inhabitant who was a farmer could ill-afford. The estimate however came as no surprise to the occupant for in the last year he had to spend Rs.52,000 in replacing an intricately-carved pillar in the chavadi. It is not so much the cost of materials, but it is the larger expense, more than half the amount on the labor charges on the highly skilled labor required for these work.

The occupant, 38 years old, is looking after the property for his sisters. As his sisters are away in different parts of the world he lives in the house with his
aged mother and it has become his responsibility to attend to the house. The
front walls are weakening and due to the lack of expertise guidance in building
mud walls, the occupant has used tiles and cement to bolster them. At a
modest cost of ₹800,000 he has had to renovate the house and introduce
cement, tiles, and granite slabs and equip the kitchen and rooms with modern
facilities. These modern facilities include a kitchen table top, storage for utensils
and provisions, wardrobes and dressing tables in the rooms above. The wooden
windows have given way to iron grills and glass panes.

There have been lots of attempts in terms of intervention made to adversely
affect the character and heritage value of the building. The evolution of aesthetic
embellishment is clearly evident in terms of the treatment of the house. With
the skill-set complementing the material, the intricacy of the timber columns
goes on increasing with the later additions. Same can be said about the wall-
frescos done with natural pigments. Over the years, parts of the house have
been handled by heritage conservationists. It has been a case of being unable
to understand the value of the items as also an inability to preserve them as
they should be. Some lanterns and antique pieces integral to this heritage
building are now housed in a conservation related institution in Manipal.

Today, the house has a few items of heritage value. In the paddasala is a
massive wooden box, the kallambi, which was used to store grains in the days
of yore. The kallambi, according to traditional architecture was placed first
and the house built around it later. Almost hidden on the wall of the verandah is
a mural depicting a forest scene. It is almost obscured by white wash. The
present occupant explains that the grandeur of Hirebettu house prompted film
director G.V. Iyer to shoot his television serial "Krishna Avatar” in 1984, when
some superficial changes to the colour and texture of the walls were made.

It is easy and unthinking to criticize the occupant for diluting or adversely
affecting the character of the house. Reactions to the changes range from
asking the occupant to hand over his traditional home to heritage conservationists
to calling for state intervention. But neither is it a viable solution considering
that it would not be inhuman to expect a family to give up its ancestral home
nor it is practical to expect the state to acquire such dwellings in the name of
conserving architecture. It is not possible for the occupant not to keep the
character of the dwelling. It is said that it takes four workers to clean just the
living quarters. It has been ₹80 a day per worker as labor for cleaning work.

The maintenance of the house comes to about ₹30,000 per month. This however
included the traditional ceremonies that are part of the life in Hirebettu house.

2.2 On the Cusp of Change
Since the building housed the local feudality of the village, the entire structure
serves as an efficiently self-contained and people-centric atmosphere. Culture
is complementary to the building and the central courtyard is an excellent example in this aspect. The courtyard serves as a multi-purpose area covering all sorts of events ranging from the daily events to the special religious festivities.

The covered walkway around the courtyard also acts as an activity zone with activities like supper to worship happening in various areas. There is a clear segregation of public, semi-public and private areas. The women’s quarter is distinctively separate in the plan. The stepped veranda at the entrance serves as the area for the Sabha or the public congregation for the settlement of various administrative issues.

The surface material used at the entrance of the house is granite that is locally referred to as the truth stone and thus contributes to the majestic establishment of the building. The 8000 sq ft. house once catered to a household of around 40 people, 10 to 15 cattle and other livestock that degenerated at every successive generation and has finally come down to 5 making it an expensive proposition for the inhabitants.

Surprisingly, although life has changed around them, their role in the village has been very slow to change over the years. The Hegdes, who once owned the village lands, are now owners of 60 acres of land, of which 20 acres are dedicated to paddy, arecanut, coconut and sugarcane cultivation. Unlike his father and forefathers, occupant is no longer the panchayat chief who stands on the “truth stone” at the entrance to the house and tries offenders. But like his forefathers, he still hosts the annual kambala (buffalo race) and tambala (festival), the elaborate pujas or worship to Dhumavati (native goddesses) whose shrine forms a part of the house. The main worship before and after the monsoons and the bhooth kolas, is unique to the region. On those days, about 50 persons from the village feast in this courtyard. A case of sources of income drying up and expenditure obligations operate inexorably. Even today the drive down the washed out tar roads and winding mud path laced with tulsi plants still show a slice of life as it was centuries ago. But one cannot help wondering for how much longer it would be so.

Hegdes persistent queries on what would happen to the House in future with a smile, a shrug and a faint ‘I am not sure’.

3. CONCLUSIONS
Applying aesthetic considerations to heritage dwellings and related architectural structures as well as to urban settlements is complex, as factors extrinsic to

C. K. Ajai Chandran, Krishne Gowda
spatial design (such as responsive planning, structural integrity, technology, skilled labor, cost, the nature of building materials, and the functional utility of the building) contribute heavily to the design process.

Architects, planners and urban designers can still apply aesthetic principles relating to the dwelling experience of residents and contingent users. In this process the meaning, transcendence, and harmony of the built environment. What needs to be taken into account in such interventions is the changing social, economic and cultural way of life as the above case study indicates. It seems an unpretentious claim under the modern circumstances for responsive planning involving traditional and local crafts, materials and methodologies to address the issue of heritage in an holistic way the. The approach towards heritage dwellings, climate, resources, design philosophies regarding the revalorization of social-cultural patterns supporting vital communities in the perspective of identity and continuity will be top priority.

Heritage has its own special value that conveys a specific image. It appears at a given point of time and continues to evolve throughout. For every coming generation it provides a unique understanding and interpretation. It is a phenomenon that cannot be terminated as a mere whim. In other words, the study of a heritage structure can not be ever complete. With every passing day it opens up new possibilities that can be only experienced at that moment. The maximum one can do is trying one’s best and come up with the best possible interpretations within one’s capability and understanding.

REFERENCES