

Bhutanese Dwellings: Sustaining the State of Wellbeing-ness

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ABSTRACT

Although Gross National Happiness (GNH) is acclaimed as the Bhutanese overarching goal of development, the country's pursuit of modernization and urbanization has inevitably brought about a decline in vitality of traditional communities and indigenous dwellings. This paper aims to explore how to sustain the state of wellbeing-ness of the Bhutanese dwellings in the evolving context. Considering the abundance of natural and cultural landscape vis-à-vis the deficiency of human resource and skill in agriculture, Shari village is selected as the case study representing the nationwide concerns. Based on field surveys, interviews and documents provided by the DCHS, this paper proposes the smart collaboration of place, people, and profession as keys to regenerating the state of wellbeing-ness of the community.

Keywords: *Bhutanese dwellings, cultural landscape, sustainability, revitalization, traditional communities*

INTRODUCTION

Despite the fact that Bhutan is categorized among the forty lowest-ranked nations in the world in terms of economic wellbeing, there are no squatters or beggars in the country. The majority of its population is humble peasants; however, they reside in comparatively large multi-storied buildings and a significant number of the Bhutanese own agricultural lands for subsistence (Achavanuntakul, 2006). Unlike other countries, this small nation aims high and is determined to pursue the path to modernization in response to its own past and pace. Embracing the Gross National Happiness (GNH) as more important than the Gross National Product (GNP) development philosophy, Bhutan rejects conventional models of

global development. It emphasizes balanced and sustainable development economically, ecologically, and culturally.

This unifying vision manifests the “high value, low impact” tourism policy launched in 2005.¹ Rather than limiting the number of prospective tourists, the state strives to promote Bhutan as a high-end destination that provides a rewarding experience, high quality service and amenities, while encouraging responsible tourism that causes minimal, negative impact on its environment and culture. In addition, for sustainable economic development, conservation of the environment, promotion of national culture, and good governance the following essential policies have been enacted:

¹ The minimum daily package for tourists travelling in a group of 3 persons or more is as follows:
USD \$200 per person per night for the months of January, February, June, July, August, and December.
USD \$250 per person per night for the months of March, April, May, September, October, and November.

strict forestry programs in preserving a minimum of sixty percent of the total land area under forest cover, rules and regulations concerning national attire and Bhutanese style architecture, together with a system of Dzongs, the Bhutan's governance system that combines monastic, military, and administrative sectors as key mechanisms in reinforcing the "Four Pillars of Happiness."

Paro is a town and the seat of the Paro district in the Paro valley located in the eastern region of Bhutan (Figure 1). It is one of twenty dzongkhags and is home to Bhutan's only international airport. Endowed with natural and cultural resources and biodiversity, Paro is considered the country's rice basket to be promoted as an important hub for tourism, education, and health by the Royal Government (Tourism Council of Bhutan, 2014). Nonetheless, the active modernization² and encroaching urbanization during recent years has generated not only the citizen's increasing demand to convert wetlands into dry or buildable lands, but also the urban-rural migration.

This study aims to explore how to sustain the state of wellbeing-ness of the traditional Bhutanese dwellings in the changing context. The study selects Shari village, which is a traditional agrarian settlement

located not far from Paro, the country's second bustling city, and yet has preserved the indigenous style of dwellings and way of life, as the area of study that would represent the national concerns. Based on field surveys, interviews with inhabitants, and documents provided by the Division for Conservation of Heritage Sites, Department of Culture, Ministry of Home and Cultural Affairs, the study focuses not only on the physical dimension of traditional settlement and dwellings, but also the socio-cultural aspect of agrarian society. Grounded in Hall's theoretical framework (Hall, 1966), the study categorizes and examines the traditional dwellings in Shari village on three cultural levels, infra-culture level, pre-culture level, and micro-cultural level. To begin with, the study investigates the natural and cultural landscape of Shari village, community infrastructure and structure, and inhabitants' life and livelihood, which comprise an essential background of the village. Next, the study examines tangible aspects of dwellings including structure and materials, as well as physical components and functional usage, together with architecture and manners. Accordingly, the study analyzes spatial organization in relation to the hygienic condition of the case studies. The result includes suggestions that could contribute to the revitalization of traditional dwellings in Shari village.



Figure 1:
Paro town and the Parochhu river viewed from Paro Rinpung Dzong

² Bhutan's socioeconomic and cultural changes can be said to have occurred through two main processes: active modernization, which Bhutan enthusiastically sought through its development 2 programs, and passive globalization, which reached Bhutan insidiously and spread across the country, particularly with fast communication.

SHARI VILLAGE

The first part of the study employs Hall's Primary Message System (1959), or PMS, as a key framework to examine the cultural system of Shari village. The PMS, or ten components of culture³, are outlined in relation to Norberg-Schulz's modes of dwelling (1985); natural, collective, and private.

Understanding the natural and cultural landscape begins with the study of physical settings, historical accounts, and cultural heritages of the village. The study of territoriality provides an overview of the villagers' way of subsistence and exploitation. Community infrastructure and structure features include not only the physical aspects of the settlement that facilitate the villagers' living condition, but also notes the psychological attributes that help foster the collective wellbeing-ness. Subsequently, life and livelihood discusses how the villagers interact with nature in accordance with the agrarian cycle, the traditional notion of temporality.

Natural and Cultural Landscape

Paro dzongkhag comprises ten gewogs, or administrative blocks, one of which, Shari gewog, locates Rinchending-Shari chiwog (or Shari village for short). Of eighty households in Shari village, a cluster of seventeen gungs, or households, was selected as the area of study (Figure 2). These households are registered under six sub-villages; the Buelchhukha (BE) in the north, the Totokha (TO) in the west, the Hingshingwog (HI) in the east, including the Ratongang (RA), the Zakha (ZA), and the Zikha (ZI) located in the south, southeast, and southwest of the village respectively. As shown in the map, Shari village consists of seventeen houses, which includes two houses in the BE area, six houses in the TO area, a house in the HI area, four houses in the RA area, a house in the ZI area, and three houses in the ZI area. Set in the valley along with the Dochhu river flowing into the Parochhu river, Shari village is approximately 3 kilometers from Paro

Rinpung Dzong and the Paro town and is 450 meters from the main motor road.

The settlement of Shari village has a long history that dates back to the fifteenth century. There are two historic buildings constructed over a hundred years ago: the house BE-01 in the Buelchhukha area and the house ZI-01 in the Zikha area. In the central part of the Totokha area, there exist ruins of thick-rammed earth walls, called pumotsen-gineyko (roughly translated as a holy place related to a deity) that are considered to be remnants of a large building (Department of Culture, 2014). Three chotens, or small chedi; a number of drup chhu, or underwater gods; and clusters of prayer flags for good harvest were built in and around the village. In the orchard of the historic house BE-01, there exists a lama tablet on which a renowned Buddhist master, named Drukpa Kunley (1455-1529)⁴, used to meditate. Located in the northwestern vicinity of the village is Rimdhang Lhakhang, or Rimdhang temple, constructed in the thirteenth century. It is believed that this temple is the first entrance of Chhumphu Lhakhang founded by Guru Rinpoche. Furthermore, there are two water springs that served the Shari villagers prior to the introduction of piped water. The water spring behind the house BE-01 towards the north is considered to be holy water; the spring adjacent to the house RA-03 towards the east is for daily use.

The residents of Shari village have engaged in agriculture for generations. Most of the lands are registered as paddy fields. In earlier days, the villagers were obligated to work on the governor's paddy fields in addition to large tracts of their own lands and deliver their harvest to a granary in the Paro Rinpung Dzong as a tax. These terraced farms where local Bhutanese and Japanese rice are cultivated are not homogenous pieces of land; rather, they are somewhat fragmented and scattered. The major portions of the lands are situated approximately 600 meters from the center of the settlement; however, there are also small portions of land owned by residents from other villages (Department of Culture, 2014). A few houses have apple and pear orchards. Wheat, vegetables,

³ Primary Message System, or PMS, consists of interaction, association, subsistence, bisexuality, territoriality, temporality, learning and acquisition, play, defense, and exploitation.

⁴ Drukpa Kunley, also known as a "divine madman," was a great master of Mahamudra in the Buddhist tradition, as well as a famous poet. He introduced Buddhism to Bhutan and established the monastery of Chimi Lhakhang in 1499.



Figure 2:
Map of Shari village, Paro



Figure 3:
Settlement of Shari village, Paro

sunflowers, and fruits, such as chili peppers and bananas, are grown in gardens surrounding the houses. Zocha, a poisonous plant,⁵ and marijuana grow wild along a small road connecting the village to the main street (Figure 3).

Community Infrastructure and Structure

Since the 1960s, basic infrastructures were introduced to the village: electricity in 1965; a concrete channel and the motor road leading to Paro town in 1985; a supply of drinking water in 1989; modern toilet facilities, gas stoves for cooking, and telephone and broadcasting services in the 1990s. Children commute to Gaupay Lower Secondary School from class 1 to class 8 and Shari Higher Secondary School from class 9 to class 12. Both schools are located two kilometers from the village. There is no basic health unit in the area. The nearest hospital is almost six kilometers from the settlement (Department of Culture, 2014).

Given that water plays a vital role in agrarian communities, maintenance of the community's irrigation channel has been undertaken through cooperative works among all the beneficiaries (Figure 4). Channels branching from the main waterway are maintained by individuals. All paddy owners who use the main waterway annually contribute labor for its maintenance. In cases where

there is no attendance, the owner has to compensate with a monetary contribution. Following this water management rule, when paddy fields on the lower elevation do not receive water because of poor maintenance of the channel by upper paddy owners, lower paddy owners have the right to take water directly from the upper fields. As a consequence, the upper paddy owners lose rich and fertilized soil (Department of Culture, 2014).

When communal buildings, such as the Rimdhang temple, are in need of renovation, the villagers and the residents of Kempa village, located in the north of the settlement, have to contribute their labor force. In previous years, the residents of both villages undertook annual maintenance of the wooden shingled roofs. Additionally, the villagers help each other repair not only public thoroughfares, but also private properties. Each village is alternately responsible for the preparation of the rituals that are performed on eight auspicious days every year. Such traditional practice and mutual cooperation have been strongly felt and well inherited despite the ever-growing modern lifestyle decreasing the vitality of the village.

Life and Livelihood

Not until recently, the population of Shari village numbered around one-hundred people. Because of urban-rural migrations only sixty people, of whom



Figure 4:
Children commuting to school (left) and maintenance of community's water channel (right)

⁵ Zocha is a contact-poisonous plant. It can cause itching and burning pain after touching the leaves. However, the leaves are edible when deep fried.

one-third are school children, currently reside in the village. Most villagers engage in agricultural work as their major source of subsistence. Aside from rice cultivation, they raise cows for milk and cheese production that can be either for household consumption or sold at the market for cash income (Figure 5).

At Shari village, agricultural works are planned and performed according to lunar cycles. Farmers start preparing seedling in the first month of the lunar calendar (February/March), plant seedling on paddy fields in the fourth month (May/June), and harvest in the ninth month (October/November). Sowing rice seeds and planting seedling are carried out on an auspicious day in consultation with an astrologer. The villagers perform rituals at home in hopes of a good harvest as well as to mark the beginning and the end of year. Believing that it is auspicious to have their granary amply stocked with rice, they will only sell their rice after their granary is full (Department of Culture, 2014).

Most inhabitants do farming on their inherited lands; however, there are a small number of households who do agricultural work on wet lands rented from other people in the village as well as those who hire labor from other villages to work in their paddy fields. During planting and harvest seasons, the villagers wake up early in the morning, preparing breakfast and leaving their homes by 7.00-7.30 am. They work

long hours having lunch and tea breaks in the fields and do not leave the fields until sunset. In winter, the villagers go to the forest to collect dry leaves, the villagers go to the forest to collect dry leaves pave the ground where they keep their cattle. These leaves, when mixed with cow waste, serve as good manure for the paddy fields. It is noteworthy that the villagers' way of life is self-sufficient by growing rice, crops, and vegetables. Only salt and sugar have to be purchased.

At present, a certain number of agricultural fields are left uncultivated for various reasons. These factors include the hilly terrains that are major obstacles for farm machines, wildlife attacking, irrigation shortage, and flash floods that change water veins causing water sources to dry up (Department of Culture, 2014). Furthermore, socio-economic progress and introduction of modern education have accounted for the changes in worldview, aspiration, and the professions of the young generation in Shari village.⁶

BHUTANESE DWELLINGS

The study of indigenous dwellings at Shari village involves both the physical dimension of dwellings and the physiological aspect of dwellers. Structure and materials illustrate the use of natural resources such as earth and wooden timber as main building materials including their construction technique. Then, the study examines the physical components



Figure 5: Rice fields surrounding the village (left) and cow yard, apple orchards and chili gardens (right)

⁶ By far, the most dramatic and far-reaching of the changes Bhutan saw during the modern era can be attributed to the program of education. The nationwide introduction of modern school education brought about fundamental changes to the social, cultural, political, and economic structures, and has revolutionized the Bhutanese worldview, outlook, and way of life. Agricultural farming is no longer seen as a desirable option by most of the educated youth.

and functional usages of these dwellings, which are significantly influenced by the agrarian and Buddhist culture of Bhutan. Given that both man and his environment participate in molding each other (Hall, 1966), the following discusses an intimate relationship between architecture and manners, that is to say, dwellings and dwellers.

Structure and Materials

In traditional Bhutanese architecture, temple and house construction employs the same building technique and materials, including rammed earth wall structures and wooden components. A slight difference between these architectural typologies lies in the portion of materials used in the construction. To illustrate, constructing a house requires a larger portion of wooden materials than that of the rammed earth walls, whereas temple construction uses more rammed earth walls than wooden components.

Rammed earth walls are strong and durable and are considered one of the most sustainable building materials and methods. Built in an L-shaped elevation, the rammed earth wall, functions as the main structure of the building. These walls have a minimum thickness of sixty centimeters. Owing to its material properties, the rammed earth wall is thermally massive. It moderates daily temperature variation allowing the interior to be cool in summer and warm in winter, thus reducing the demand for air conditioning and heating. While the cost of material is low, rammed earth construction without machinery tools can be very time consuming. As a consequence, shortage of skilled labor ramming earth has presented a huge challenge to the practice of Bhutanese building tradition.

Of seventeen houses in Shari village, two houses are over a century old; the other houses are approximately thirty to fifty years old. Most houses were affected by the 2011 earthquake with differing degree of damage. Though different in construction date, dimension, and detailed decoration, these houses unveil shared aspects as follows:

Built in the traditional Bhutanese style, houses in Shari village are two-storied buildings with either an open or enclosed attic. Main structural materials are rammed earth walls and wooden components, particularly pinewood. New facilities such as toilets are typically built of brick and cement. Additional rooms are made of brick and concrete. Rammed earth boundary walls are particularly thick and have an L-shaped elevation that serves simultaneously as firewood storage (Figure 6). The floor of the living quarter is made of wooden planks and covered with mats. The attic floor is supported by axed cham, covered with ceiling plank and topped with earth. Traditionally, Bhutanese houses had wooden shingle roofs; however, since the inauguration of the policy on preserving forest area that discourages the use of wooden materials, new materials have been introduced into the Bhutanese building industry. As seen today, corrugated galvanized iron sheets have gradually replaced the old wooden shingles.

Physical Components and Usages

The inhabited landscape of the Bhutanese dwelling reflects a harmonious relationship between dwellers' way of life and the way they use their space. Surrounded by small homegrown gardens of chili peppers, bananas, and apples, each house in Shari village is equipped with a bath unit, a wooden



Figure 6:
Rammed earth wall as building structure (left) and boundary wall (right)

bathtub, buckets containing cow feed and, in case of the houses with spacious areas, a separate cowshed in the front yard. Lamps are located alongside boundary walls for burning incense and pinewood, the Buddhist practice that gives the village a unique olfactory experience. The ground floor of the building serves as a cowshed, granary, and storage for agricultural tools. It is noted that heat from these domestic animals acts as a natural heater during nighttime.

A wooden stairway leading to the upper floor is steep and normally has no risers. Upon arrival, a line of small prayer wheels is visible on one side of the front balcony (Figure 7). Palm-sized religious calendars are hung over an entrance door. At the back balcony, a toilet is often constructed after the completion of the house. While the lower floor space is dedicated to agriculture-related activities, the upper floor space serves as the inhabitants' main living area. In terms of function and decoration, this living quarter is

divided into two spaces that accommodate everyday life and ritual.

The household space consists of a multipurpose or living area, sleeping area(s), a kitchen, and room(s) for storing harvested rice and tools used daily. In spite of the dwellers' humble economic status, the ritual space, choeshum or altar room, is invariably the most decorated space of the house. It occupies the front corner of the building and has wooden exterior walls filled with small windows. The interior of the altar room is richly painted and delicately carved by local craftsmen. When compared to those recently built, old houses have comparatively large altar rooms. Hence, it can be inferred that the size of this ritual space connotes the age of the building.

The attic floor can be reached by a ladder located at either the front or the back balcony. Since the Bhutanese regulations prohibit the use of the attic floor as a living area, it is widely utilized as



Figure 7:
Lamps for burning incense (left) and front balcony adorned with a prayer wheel (right)



Figure 8:
A ladder connecting the main living floor and the attic (left) and the attic used for drying straws (right)

a service space, storage for agricultural products and household utensils, and an area for hoisting an ancestral flagpole. Furthermore, the exposed structure is enclosed by woven mats that make the attic space airy and breathable so that it is suitable for drying clothes and rice straws in addition to preserving staple (Figure 8).

Architecture and Manners

The dwellers' way of life has been very much floor-oriented. There are few fixed furniture pieces and modern appliances in the house. Among them, bukhari, or an old style heater equipped with a smoke pipe, usually located in the kitchen, is the most essential item that helps keep the interior warm in wintertime (Figure 9). While sleeping on a mattress on the floor is the most common practice among the villagers, a certain number of the elderly own beds due to their physical condition.

Typically, there are two wooden doors in external walls—one at the front entrance, the other at the back balcony. As evident in several cases, the interior space is separated and connected by cloth curtains, instead of wooden panels. Window grids are installed in the non-rammed earth walls. Each grid consists of three rows. Each row is composed of three to five small windows. While the windows in the upper two rows are filled with fixed glass panels, those in the lowest row are additionally covered with wooden panels. Depending on the dwellers' demand, when in a sitting position, these opaque panels can be opened for viewing or closed for visual privacy. In this regard, it is noteworthy that architectural elements of these traditional dwellings reflect the Bhutanese floor-sitting culture.

SPATIAL ORGANIZATION AND HYGIENIC CONDITION

In the agrarian context, each dwelling is a physical manifestation of an intricate relationship between life and work, in other words, served and service domains. The service domain, which includes various activities, preparing meals for family members and feeding domestic animals, takes up a larger portion of time and space in traditional dwellings than in modern homes. Therefore, it is essential to note that the service space not only contributes to a unique characteristic of the traditional Bhutanese dwellings, but also affects the dwellers' quality of life, their hygienic conditions, and the living environment of the entire village.

Based on the interrelationship between the served quarter, i.e. the main living space, and the service quarter, i.e. the cooking and the cattle spaces, traditional dwellings in Shari village can be categorized into three scenarios; the houses with integrated kitchen and cowshed, the houses with integrated kitchen and separate cowshed, and the houses with separate kitchen and cowshed; each of which has a differing degree of hygienic condition as outlined below:

Houses with Integrated Kitchen and Cowshed

The houses that integrate kitchen and cowshed into a single building are typical examples of the old dwellings with limited land. The cases with integrated served and service quarters include the house ZI-02 and the house ZI-03; both are situated in the lower

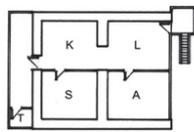


Figure 9: Floor-oriented living space (left) and a traditional heater called bukhari (right)

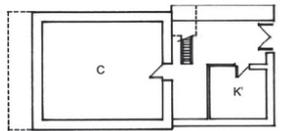
part of the village. Although the domestic animals kept on the ground floor of the house act as a natural heater that helps make the main living quarter warm during the night, they have certain disadvantageous aspects. Undesirable smells from animal waste, fresh garbage used as fodder for livestock, and a large number of flies account for an unhygienic and unhealthy living environment. Such situations could be even worse if the kitchen is not properly located and partitioned off, as shown in the house RA-01 (Figure 10).

Houses with Integrated Kitchen and Separate Cowshed

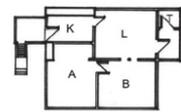
Regardless of the period of construction, the houses with integrated kitchen and separate cowshed are normally located in the house compounds with ample open space. Most are located in the middle part of the village, such as house RA-03 and house RA-04, and the upper part of the village, such as



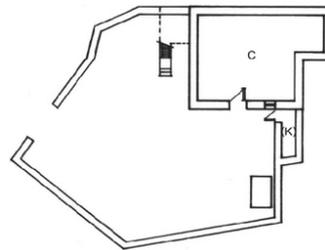
Upper floor plan



Ground floor plan
House ZI-02



Upper floor plan



Ground floor plan
House RA-01



Note:

A = Altar,
K = Kitchen,
(C) = Unused cowshed

L = Living area,
K' = New kitchen,

B = Bedroom,
(K) = Unused kitchen

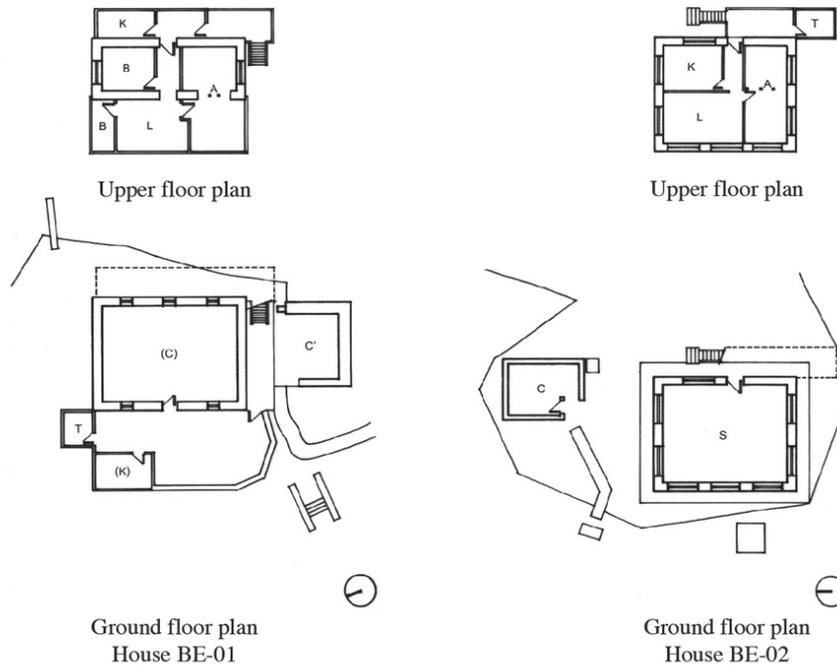
S = Storage,
C = Cowshed,

T = Toilet,
C' = New cowshed,

Figure 10:
Floor plans and exterior of house ZI-02 (left) and house RA-01 (right)

house BE-01 and house BE-02. Since the strong 6.9-magnitude earthquake in 2011, the house BE-01 became smaller in size with a renovated façade. The severe damage of the earthquake caused the family who lived in the house TO-02 to abandon their home; the family bought land from the owner

of house BE-01 and built a new house, which is the house BE-02, situated in the south of house BE-01. While most villagers own wet lands for agriculture, the residents of the house BE-01 do farming in the paddy fields rented from the family of house TO-04. In addition to rice cultivation, the residents of house



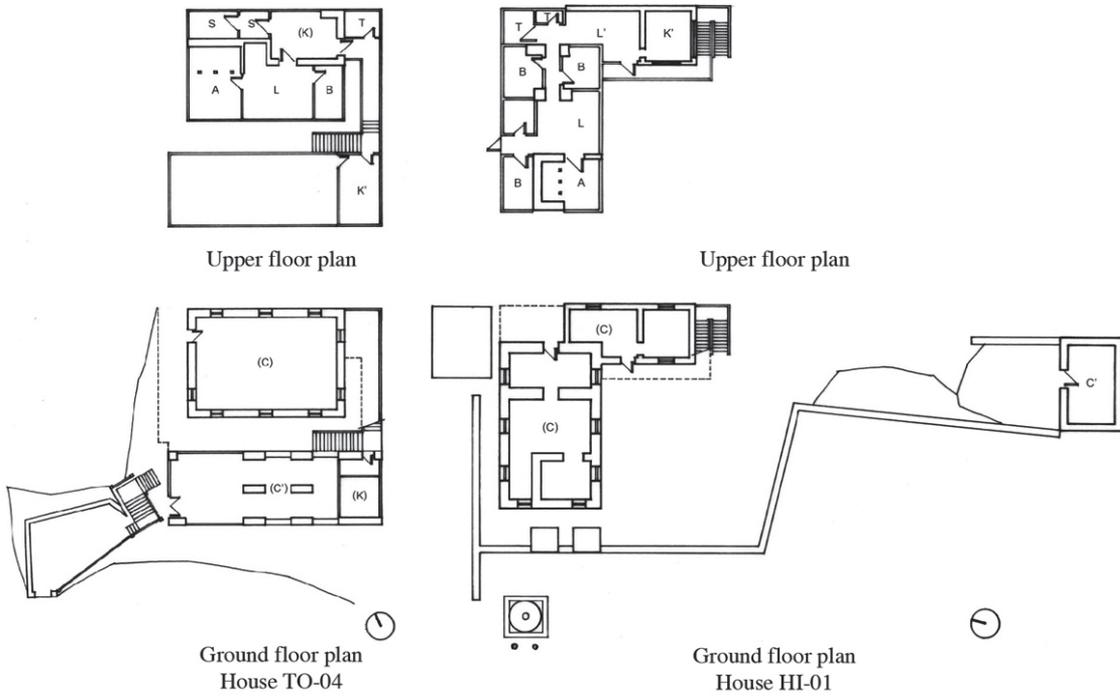
Note:
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 S = Storage
 C = Cowshed
 T = Toilet
 C' = New cowshed

Figure 11: Floor plans and exterior of house BE-01 (left) and house BE-02 (right)

BE-02 engage in construction work. Considering that separating the served space and the service space is practical in terms of maintenance, they plan to construct a new structure to be utilized as a kitchen and a toilet in the vicinity of the house. Encouraged by the government, constructing a cowshed separate from the main building is regarded as a key factor that contributes to the lesser degree of undesirable smell and the smaller number of flies (Figure 11).

Houses with Separate Kitchen and Cowshed

In case of the large estates such as house HI-01 and house TO-04, the kitchen and the cowshed are often constructed separately from the main house. Situated on the eastern boundary of the village, house HI-01 is a large compound overlooking vast paddy fields. Built in an L-shaped plan, it is



Note:
 A = Altar
 K = Kitchen
 (C) = Unused cowshed
 L = Living area
 K' = New kitchen
 B = Bedroom
 (K) = Unused kitchen
 S = Storage
 C = Cowshed
 T = Toilet
 C' = New cowshed

Figure 12:
 Floor plans and exterior of house TO-04 (left) and house HI-01 (right)

composed of an old building and a new annex enclosing an open space. This courtyard serves simultaneously as a multipurpose area for farm-related work and as a buffer zone between the house and the cowshed located at the other end. Owing to their educational and economic background, the owners work as government officers and hire labor to farm their lands. Located on a mound in the middle part of the village, house TO-04 has a separate and spacious cowshed with a new kitchen on its rooftop built parallel to the main building. The dimension of this service quarter undoubtedly illuminates the prosperity of the family's farm business. Resembling the previous case, the inhabitants however no longer engage in agriculture. They release lands for rent and work in government sectors, most of which are in Thimphu. Besides separating the cowshed from the main living unit, the construction of the kitchen in the new annex as shown in house HI-01 and on the rooftop of the new cowshed as evident in house TO-04 helps reduce a significant degree of smell and flies from fresh garbage that occupies the service space. Among three categories, this type of spatial organization is thereby the most efficient way to delimit the unhygienic and unhealthy zone off the main living quarter. Given that the hygienic issues influence not only the quality of space of the dwelling, but also the dwellers' quality of life, the proper served-service spatial relationship needs to be planned and managed (Figure 12).

SUSTAINING THE STATE OF WELLBEING-NESS

Like traditional communities in other Asian cities, Shari village has inevitably encountered changes in multidimensional aspects. The decreasing number of its population and the decline in its inhabitants' aspiration and skill in agricultural profession has presented tremendous challenges to the existence of the village and the wellbeing-ness of its inhabitants.

Place

Owing to the urban-rural migration and the change in the inhabitants' occupation, a number of these traditional dwellings have become poorly maintained and underutilized. Reinforcement of damaged structures, improvement of the served-service spatial relationship, and installation of proper sanitation equipment are required to accommodate the inhabitants' modern lifestyle and ensure their

hygienic living conditions. In addition, adaptive reuse of existing structures to be served as home-stays will allow both the inhabitants and the visitors to mutually benefit each other. Considering that tradition is not about the static past but, instead, of customs inherited through future generations, the proposal for prototypical dwellings where the old tradition coexists with the modern technology is highly encouraged.

People

Despite the elder members' strong belief in their young's commitment to inheriting the house and pursuing their ancestral walk of life, such promise is an individual effort and thus insufficient. To revitalize the village in a smart way, both individual and collective attempts are equally important. In this respect, the establishment of Shari community center will play multiple roles as a communal space where various activities such as community initiatives, casual gatherings, and festive events take place; a learning platform and workshop space that allows not only young villagers, but also visitors to learn and gain first-hand experience in sustainable farming and accumulated cultural wisdom; and a market place for promoting and distributing local products. Together with the network of mutual help, this center of communal life will reinforce social coherence among the villagers.

Profession

Given the paradoxical situation between the abundance of natural and cultural resources and the lack of human resources, eco-tourism can be employed as a means to engage people with place through their profession. This program has a threefold benefit. Economically, it will increase a family's income, and with the help of modern farming technologies, raise the quality and the value of local products. Such economic prospects will make the inhabitants realize that it is not necessary to migrate to the cities in search for a bright future and better life. Furthermore, the inhabitants' psychological value of being a part of the village and the sense of belonging will be heightened through mutual collaborations among the villagers in promoting the eco-touristic activities and through cultural exchanges with the visitors. Last, efficient management of eco-tourism will conserve the natural environment and the cultural landscape of the village.

CONCLUSION

This paper started with an intention to explore a smart approach in sustaining the state of wellbeingness of traditional Bhutanese dwelling amidst the ongoing process of modernization and urbanization. It adopted Hall's Primary Message System (1966) and Norberg-Schulz's modes of dwelling (1985) as key frameworks to examine the cultural system of Shari village. Following the investigation of cultural context, the study delved into the content that is the physical dimension of dwellings in relation to the physiological aspect of dwellers. Based on field surveys and interviews with inhabitants, it is clear that the relationship between served and service domains is a key factor contributing to the hygienic condition of these indigenous dwellings and the dwellers' quality of life. Therefore the study analyzed the served-service spatial organization of the case studies, which comprises the houses with integrated kitchen and cowshed, the houses with integrated kitchen and separate cowshed, and those with separate kitchen and cowshed.

Given that the main trust of the GNH is to include all significant factors—social, cultural, economic, and ecological—determining the sense of wellbeingness, this paper proposed the separation of served-service space in dwellings, the integration of the old tradition and the new technology, and the reintegration of education and profession, as a holistic approach to achieve the goal. It is significant to note that only through the collaboration between people, place, and profession will true sustainability take root in the soil of this traditional settlement.

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