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Adaptability Research of Creation in the Context of Local Ecology

Based on the example of Hearth in Ancient Village of Dongcun

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Abstract: The article takes the hearth in the farmhouse and village ecology of ancient village of Dongcun and Mingyuewan as the research object, on the premise of changing lifestyle on the basis of the local research, the research reflects upon the theory of the creation when setting hearth as an example in the crossover of local ecology and designing. Combining ecological anthropology and adaptive design, social significance role that hearth plays in the ecological environment around the Lake Taihu and its folk custom are discussed.

Key words: *Rural life ; Hearth of Ancient Village ; Adaptability.*

Survival existence of ancient villages is intertwined by circulation chain of existing body, survival order and existing inertia, and stability of the local logic tend to be unstable because of the rapid growth of one side. In the continuously strengthening pace of life, production activities of the kitchen prove a more concentrated ecological thought. Serving the basic operation of a family, its geographical conditions of the ancient village of Dongcun is in Xishan Island, facing Taihu Lake, and it was built between the end of Qin Dynasty and the beginning of Han Dynasty, which was originally called the Dongyuan Village. In the period of village morphology and interpersonal communication being relatively stable and continuous, with contemporary ecological structure gradually being disintegrated, the assistant factors such as pushing forward the phenomena of the study of the social transformation under the reality are examined. In the process of pursuing and recording the dramatic changes of human lives which are closer to the nature, this article aims to discuss the social significance of production activities represented by the hearth in local life.

1. Convergence of Local Ecology and Adaptive Design

“This is to some extent the cause of ecological anthropology research limitation. However, what ecological anthropology studies is human life closer to nature compared with modern society, mastering ecological parameters for restoration of the basic structure of human life and evaluating the adaptation and evolution of people also becomes the inevitable result of the discipline.” (Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber, 1988) This is not only development bottleneck of certain subjects but also is more adapted to the advancement of a broader category of anthropology and the theory of creation. Based on the vertical analysis and comparison of evolution of rural remaining life of original life form, in the process of the development of anthropology, research disciplines are constantly being refined, and significance of the memory and history recording discipline gets clarification. “As it is put by Simon, the internal structure is called the internal environment while external environment is called external environment, and the adaptive system is seen as the interface between the two environments. The symmetry of integrated point of view is the key to understand the adaptive system.” (Yang Li, Xu Li, 1988) Compared with research objects that anthropology focuses on, intersections of the basic idea of the design and anthropology surely can produce joint forces in dealing with the problems occurring in ecological systems, and internal environment is tentatively identified as village complex while external environment is social environment in addition to this. In two or more subject systems, discussed problems for people's survival tend to generate short cross or fusion phenomenon after paralleling. “In other words, the adaptive system refers to such a system, they show that the behavior of one kind or another simply because of their need for survival, according to a certain purpose or intention, to adapt to their living environment. So, whether it is artificial things, or people themselves, in terms of behavior they are all adaptive systems”. (Yang Li, Xu Li, 1988) Compared with the recovery mode of ecological anthropology, designing strives to solve the combination of the two system design. Hearth change from life necessity be spiritual yearning in rural life memory retention, in terms of the experience of design science, energy given by burning other materials cannot be compared with the burning the plants in hearth. Both faint scent of a bundle of firewood in village streets and smoke piling up in the sunset are real life experiences that need to be recuperative themselves.

Understanding of situational analysis research has the constructive significance for adaptive design, and the theoretical dimension this involves is what kind of logic development it is. Having a history of prior research as the first driving force of the development of the study, or taking the empirical relationship with deduction as the

research conjecture, promoting and deducing the focus of the theory can be said to be the starting point of the study, so the selection of folk art sociology is relative to the general folk disciplines, finding stable contact from the edge or the expansion of things so as to demonstrate in return or find out the origin of the creation process.

“The folk art sociology gives priority to the natural environment and social environment of folk art survival, explaining the role that natural environment plays on personality and disposition of people as well as on the artistic creator and crafts.” (Wang Haixia, 1995)

The emphasized natural and social environment factors are called differently, such as geographical space, geographical society and so on. The thoughts created through the refinement of people by the geographical conditions promote the implement design. “In traditional society, the distribution of folk art is closely connected to natural economy and rivers as well as the businessman roads; the prosperity of commercial trade provides favorable conditions for local economy, and the thriving of urban economy influence the local farmers and their folk art.” (Wang Haixia, 1995)

There is lack of healthy development of the energy problem in folk disciplines, but mostly relating to the something like the concept of habit. Image of concept schema is common in the study of existing folk fine arts, such as auspicious pattern, folklore context forming a fixed pattern and existing in the day-to-day work has not been fully explained. Space of liquidity in the village of rural life in China is embodied in the principle line of events continuity, and the ancient village of Dongcun as one of the few ancient village of surviving, from the village of the overall condition, has faced a lot of crisis. The self-sufficiency of the ecological environment in the process of gradually being broken, and the fuel used in the hearth is indispensable in the energy circulation system. Artifacts are related to the local ecosystem, and food chain are derived from land, just as taking the naturally mature fruit tree branches as hearth fuel, after being burned into ashes as fertilizer into land, playing an important role of both avoiding pollution and at the same time ensuring that the reasonable resources circulation order. The conceptual mode constantly enriches itself in the theory researches and exploration from the folk art, and the following behavior or worship of objective image implicated in labor attains enough theoretical promotion. The objective image corresponds with a certain object, whose specific forms being changed and dribbled away, telling the special experience of the undergoing of the whole process. For those creation activities in the living environment, the existence and the production forms established upon it creates inter-textuality. The mutual identification of the research is to review ecological soil in direct geographical context.



Figure.1 Ecological Environment of Ancient Village of Dongcun

2. Concerns of the Dissociation of Hearth from Everyday Items

Although farmers in ancient village of Dongcun retained the family hearth, the actual functions have been weakened. From the known peasant household kitchen layout, more than 10 years of hearth accounts for about 70%, among them, and other basic kitchen furniture beginning in the same period are also retained. Figure 1 selected four local families owning traditional kitchen hearth and gas burner as well as induction cooker to compare with each other within the same space, reflecting the hearth in life ecologically also faces the problem of gradually being out of life in the environment that last longer. And ancient village of Dongcun under the state of daily life can also be retained in the form of traditional production, which can also be seen from the part of the kitchen space organization, as shown in figure 2, hutch ark of wooden structure and table and placed around the short ark occupy the edge of kitchen space, the space implicated in some ecological meaning virtually reflected in the relationships between the objects.

"Restoration to realize the nature of art anthropology is the most fundamental task of art anthropology. The so-called restore the nature of art anthropology, that is to say, through the original forms of arts and the checking of art mechanism, revealing the original and intrinsic quality within it, which is just forgotten after entering the civilization age, or being uncovered, even distorted by different theories, schools, common senses and stereotypes which should all be 'restored'. (Yi ZhongTian, 1992) The research method of restoration boasts methodology and realistic value, and with the passing of time and space living forms are continuously losing under historical conditions, obeying the limited material and historical conditions, the starting point of this research benefits from the experiences of different disciplines.

"In this sense, social institutional environment is similar to the natural environment. They are all around us, setting up a set of perception, and the relatively stable pattern, making

the internal reasons unnecessarily understood by us and involved in the environment of every detail, as long as we have acknowledged a few patterns of influence of life we need so as to deal with the problems we face in spite of the constraints of limited cognitive competence." (Yang Li, Xu Lizhu, 1988) Modern household appliances such as gas range gradually being replaced .The status quo of integral ambry fixed mode compared with traditional hearth mobility of goods, we can find that the kitchen work space attribute, select two cooking time, found that two kitchen forms the contrast on the activities of people. Hearth of spiritual existence, to ensure family life abundant supplies cues, such as kitchen king belief. "In fact, in the field of kitchen mechanization, standardization and rationalization process approved by the particularity of its function, it is important and degenerated into the role of family. (Design Institute of History of the Central Fine Arts Academy compiles, 2010) When the psychological role transformation occurs, after kitchen working efficiency enhances unceasingly, originally is open and loose space structure is tucked in modular position is determined, in food production and consumption are clearly distinguished from hearth and home for the center of positive communication were cut off gradually. The identity of the conversion from a space into the space in the layout of production integration, life world under the system of cultural anthropology and to further explain, the natural state of being is the basic point of view.

	Farmer1	Farmer2	Farmer3	Farmer4
Hearth or kitchen environment 1				
Hearth or kitchen environment 2				

Table 1. Hearth and kitchen Space Environment of Ancient Environment of Dongcun



Figure.2 Kitchen Furniture of the Ancient Village of Dongcun

"So-called" life world, as to 'the attitude of the natural' in social life as a 'self-evident things' and accept the world, is being typed in advance and the world of meaning, as its objective existence of reality, and to experience the world of its own. According to the simple view of positivism, it seems to be not ideology, and given the nature of people and do not add up the facts." (Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber, 1988) Substantiality and certainty of identity seem to be little changed, and the history is connected to the pristine objects existence. Custom habituation of hearth and kitchen in the traditional local-style dwelling houses do not have to be discussed, natural life world and the natural attitude becomes a difficulty in the process of research. How to restore correctly for dying life phenomena or clear up thoughts to achieve consensus is another focus of sociological level. Originating from the demonstration but not limited to it, collection of data or image is not the ultimate goal, and the problem of research is the core throughout the research.

Raising concerns for hearth exit everyday lives, which is the same with Mingyuewan Village, an ancient village at a similar historical conditions villages, has so far shown in the form of excessive commercialization, village periphery is designed as visiting route, in the center of the village lay some ancient dwellings, provide some villagers to continue living, leading to the gradually changing of the original condition from outside to inside. At present, through the field survey to collecting images, the original village became the scenic area, destruction of concrete walls, signs and unalterable management for small environmental is relatively strong. Village basic outlook undergo dramatic changes, and the original orderly life order won't be able to continue. Due to the dramatic changes in the form of production, self-sufficient family balance is imbalanced. With several ancient villages as

an organic whole, its existing incompleteness or to be damaged entity retention are the material objects of archaeology.



Figure.3 Mingyuewan Village Entrance Indicator System



Figure.4 Renovated Resident Housing Mingyuewan Village



Figure.5 Mingyuewan Guiding System and Scene of Villagers Selling Goods

3. Social Significance of Hearth Production Pattern Transformation

Production experience lost its existing context and hearth cannot be attached to the previous local environment. Production pattern as implied in social relationship in the creation activities from an introduction to the subject of the research significance, working in the production of morphological change can provide powerful rule or method to the research of integrated paradigm. Ancient villages around Taihu Lake depend on ancient developed and thriving commercial communication, along with the change of the original ecological social conditions losing its folk vigor. Like ancient buildings facing the embarrassment of disappearing or commercializing phenomenon, they are listed as protected objects that deserve maintenance, triggering thoughts from design or anthropology or multidisciplinary cross. To research those hearths that have changed in the ancient buildings, intuitive adaptability between the hearth and buildings is scarce. New looks of hearth after the renovation appear to be ordinary. In the process of selecting the way of life, local relationships are broken, so young people go out of their country life, leading to craft loss and local ecology difficult to sustain.

Secondly, the relationship between the kitchen and home changes from hearth domination to separated independence, namely functional consequences emphasized by everyday household environment space. Items of design level relations and spatial properties should be considered at the same time, "Thus, the kitchen was classified as food preparation space, separating from food consumption space, which can exactly explain the trend toward differentiation in the family and service area which separates the kitchen from true and strict sense of home."**(Design Institute of History of the Central Fine Arts Academy compiles, 2010)**The change of design purpose in the kitchen is related to the previous purpose of strengthening design adaptability repeatedly, which benefits behavior of people and their lifestyles within the kitchen area.

Daily life philosophy of sublimation in the hearth of fade also get embodiment from epistemology to the subjectivity, and the independence of the daily life world cannot represent the establishment of its subjectivity, "It is believed that understanding is the only source of a variety of knowledge accumulation, a prior subjective 'life world ', we as a member of the society never put the "life world" as the theme, only taking theme as 'self-evident things'."**(Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber, 1988)**Self-evidence is got from the repetition of the cycle of life phenomenon, and extracting the philosophy of daily life is more important for design studies and anthropology.

4. Conclusions

4.1 Focusing on the problem discovery and way of solution of human ecology and designing so as to refine perspective of addressing problems.

4.2 In the research of ancient villages, the existing situation of hearth cause reflection, taking the remaining farmers homes and kitchen hearth utilization for consideration. For the value of the ancient village as archaeology category, changes of original appearance trigger the research difficulties.

4.3 The highlight and retreat of hearth in daily life is a focus in the study of designing. In the transition section between the external environment and internal environment, hearth, as a carrier, is a searched object of adaptive design. In the discipline overlapping, the design value of implements is widened.

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References

- Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber. (1988)Fifteen Kinds of Cultural Anthropology Theory, Beijing: International Culture Publishing Company, pp 117.
- Yang Li, Xu Li. (1988) Human Rationality and Designing Science—Human Designing Skills, Shenyang: Liaoning People's Publishing House, pp 122.
- Yang Li, Xu Li. (1988) Human Rationality and Designing Science—Human Designing Skills, Shenyang: Liaoning People's Publishing House, pp 122.
- Wang Haixia. (1995) Chinese Folk Art Sociology, Nanjing: Jiangsu Fine Arts Publishing House, pp 7.
- Wang Haixia. (1995) Chinese Folk Art Sociology, Nanjing: Jiangsu Fine Arts Publishing House, pp 7.
- Yi ZhongTian. (1992) Anthropology of Art, Shanghai: Shanghai Literature and art Publishing House, pp 18.
- Yang Li, Xu Lizhu. (1988) Human Rationality and Science—Human Design Skills, Shenyang: Liaoning People's Publishing House, pp 287.
- Design Institute of History of the Central Fine Arts Academy compiles. (2010) Designing Truth, Nanjing: Jiangsu Fine Arts Publishing House, pp 587.
- Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber. (1988) Fifteen Kinds of Cultural Anthropology Theory, Beijing: International Culture Publishing Company, pp 180.
- Design Institute of History of the Central Fine Arts Academy compiles. (2010) Designing Truth, Nanjing: Jiangsu Fine Arts Publishing House, pp 587.
- Ayabe Tsuneo edits, Japan Research Institute at the Chinese Academy of Social Cultural Chamber. (1988) Fifteen Kinds of Cultural Anthropology Theory, Beijing: International Culture Publishing Company, pp 180.