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Research on Field Reconstruction and Community Design of Living Settlements—An Example of Repairing a Fish Stove in the Hua-Zhai Settlement on Wang-An Island, Taiwan

Shu-Yen Wang [1,*] and Shyh-Huei Hwang [2]

[1] Graduate School of Design, National Yunlin University of Science & Technology, Douliu 64002, Taiwan
[2] College of Design, National Yunlin University of Science & Technology, Douliu 64002, Taiwan; hwangsh@gemail.yuntech.edu.tw
* Correspondence: susanwsy@gmail.com

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Abstract: The Hua-Zhai Ancient Settlement is located in Wang-An Township, Peng-Hu County, Taiwan. The Ministry of Culture of the Taiwanese government announced that the Wang-An Hua-Zhai Ancient Settlement had been registered as an essential settlement construction due to the integrity of the settlement and the migration history of the Hans. Afterward, the housing lacked maintenance and was destroyed due to the huge population migration. After years of restoration of the housing, the activation plan was first launched in 2015. The initial idea was to build a settlement brand, but this failed due to difficulties in promotion. Even though the executive team reflected on the specific layout of the settlement space and the problem was apparent, the team had no idea where to restart. Therefore, the team decided to live in the settlement to learn about local living and explore possible issues. It was not until the start of the "fish stove repair" that the settlement changed; that is, the original disorganized settlement network became clear. This research analyzes the social network construction and the expansion benefits involved in the fish stove repair process to design the implementation rules of designing a settlement-based community. Based on participatory observation and interviews with the main actors who participated in the rehabilitation operations, the analysis results indicated that the community design method based on a selected site over a long period of time could largely increase the opportunity of encountering issues, finding appropriate disturbances in the cultural context and habits, and connecting these issues with real life values. Besides, this also encourages prioritizing local issues, helping traditional artists increase the value of their roles, and enabling them to be treated equally at the end of knowledge acquisition. The research case includes a breakthrough in the limitations of spatial activation after the restoration of the ancient settlement that Taiwanese scholars have always been focused on and continues the sentimental memory of the residents. The results of the study can be used as a reference for the future activation of the settlement.

Keywords: living settlement; field reconstruction; community design; important settlement construction; fish stove; actor-network

1. Introduction

The Hua-Zhai Ancient Settlement is the old name of Jhong-She Village, which is located in one of the largest settlements in the South China Sea, the largest coastal island in Peng-Hu County, Taiwan (see Figure 1). The settlement is regionally divided into four sections, namely Ding-Liao, Xia-Liao, Wei-Liao, and Shan-Ze-Hou, which are the only national village constructions that have approximately three hundred years of history. The original inhabitants of the settlement migrated from Kinmen and

Fujian and settled here, relying on fishing and farming. Moreover, they built their houses with local materials; the architectural styles were mainly based on the buildings of southern Fujian. The most striking feature of the houses is a primary hall located in the middle of the house, as well as the western and eastern symmetry of its wings. There are approximately 150 households in the whole settlement.



Figure 1. The location of the Hua-Zhai settlement.

The Hua-Zhai Ancient Settlement has been included in the List of 100 Most Endangered Sites by the World Monument Watch proposed by the World Monuments Fund in 2004. Because of the integrity of the settlement and the diverse architectural styles, this existing ancient settlement is mostly associated with a vital part of the cultural heritage of the "Han Settlement".

Before the 1950s, the islanders of Wang-An still relied heavily on farming and fishing for a living since these had fewer external influences. The main farming activities were carried out during the off-season. When the northeast monsoon began, the young islanders would leave the island to make a living [1]. After the 1950s, partly because of the great demand to make a living and partly because of the unique opportunities for the residents to pursue studies, most of them migrated to Taiwan and engaged themselves in work on offshore fishing vessels or other related industries, which further resulted in the destruction and dilapidation of houses, the loss of the population, and the lack of maintenance of the housing.

1.1. Settlement Dilemma: The Aging of the Population, the Loss of the Population, and the Innocence of Important Settlements

At first, the researchers entered the settlement as the role of implementing the project. but they didn't determine where to begin posed issues, even though the range of the settlement was specific and the solution. Initially, the total population of Hua-Zhai was estimated to be less than 400 after 1980. In the past 70 years, the number of registered households in Jhong-She Village decreased by two-thirds. Furthermore, from 2012 to 2018, the population of the elderly aged 60–69 and those over 80 grew rapidly (see Figure 2) [2]. In May 2019, the total population of Wang-An Township was 5296, and the total population of the Hua-Zhai Settlement was 326 [3], which was the third lowest number in the township. The actual number of people living in this settlement was estimated to be less than 60. Furthermore, the residents migrate to Taiwan to avoid winter whenever the northeast monsoon begins, and then, they return to the island in the spring.

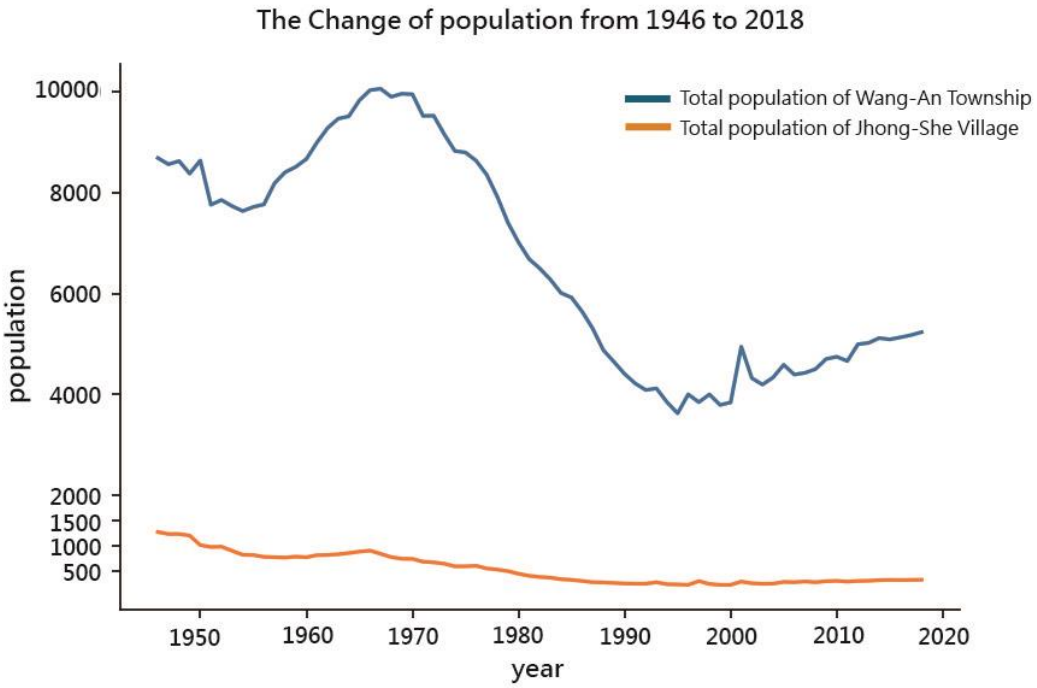


Figure 2. The change of population of Wang-An Township and Jhong-She Village from 1946 to 2018. Sources: Hu, W.Y. *Research and Challenges on the Revitalization Action of Wang-An Hua-Zhai in Important Settlement Buildings*. 2019, 12–13.

Furthermore, from the perspective of the demographics of the settlement, there were few nonlocal populations living in the settlements. Middle-aged and young people had to have multiple jobs to make a living. The main types of jobs included public servants, being an employee, farming, fishing, intertidal harvesting, and small commercial sales. Owing to the great difficulty in arranging time, the assembly activities have to be adjusted if the locals are expected to participate in them.

Finally, the residents of the settlements seem not to think much of the concept of "important settlements" and do not feel that they are the pride of the settlement; instead, they are discontented with the serious impact on the quality of the environment and the invasion of their private space, partly because of the inappropriate infrastructure for the development of tourism in the early days (see Figures 3–5) and partly because of the introduction of tourists to the residents who had lived there for a long time. Is this protection or restriction? Is this public or private? Such confusion has long left the settlement residents at a loss.



Figure 3. A newly-given place name due to the development of the tourism industry: Wei-Liao Lane.



Figure 4. The constant elevation of the pavement due to repeated works, resulting in the houses located in lowlands being flooded whenever it rains. After recutting and resurfacing in 2019, the original ground height was restored.



Figure 5. Loss of a cement kiln's original height due to the high pavement of the landscape construction.

1.2. Experiences in the Overall Construction of the Community: Internal Conflicts in Settlements, Unclear Awareness of Settlements, and Inadequate Government Notification Mechanisms

In 1994, the concept of "community overall construction" ("community construction") was introduced to Taiwan. This concept aims to advocate for social reconstruction through cultural activities, promote a high awareness of community participation among the residents to motivate them in the task of re-establishing their connection with the people and the environment of their community life simultaneously [4]. The beginning of the construction of the community of Niu-Jiao Village in Matsu also began with cultural activities. Because it is a traditional fishing village, it is hard to change the art and literature activities, so most of them are standing by and it is difficult to resonate [5]. The Ocean Cultural Innovative team (referred to as the executive team) from National Yunlin University of Science and Technology is specialized in the establishment of a settlement brand as its major strategy, such as trying to promote active engagement through the development of cultural and creative products, the introduction of experiencing activities, the use of technology, and so on. However, after six months of promotion, the executive team was still not allowed to get close to the residents. The design of such is a culturally created product based on the designer's expectations. In other words, the inherent logic behind culture is divided into the two components of production and consumption [4], and so this logic is unlikely to be in line with the expectations of the settlement residents.

Except for some hardware facilities in the settlement, there are very few traces left of the process of community construction. As a case in point, the residents actively acted as the community planners and worked together to paint a wall in the community. This incident almost completely ruined the community development process, which was barely established. This seems to be a long conflict within the community; yet, it also reflects the distrust between the community planners and the residents, which makes the results of their original creation out of focus. This has also caused some misunderstandings among both parties because of the mutual distrust. Besides, another obvious problem is that the protection norms for "important settlement construction" in the settlement are unclear, and the local government's notification mechanism for settlements is not sound either.

1.3. Hua-Zhai Fish Stove

People inhabiting Peng-Hu have a close connection with the sea. Because of this, regardless of the elapse of time, the sea functions as a treasure trove of sources that the islanders mostly depend on for their livelihood, which is also the main form of industry for the residents. The settlement of Wang-An Township, one of the islands in the Peng-Hu archipelago, is also the same. Fish is the main source of protein for the residents of the Peng-Hu archipelago. Before cold storage technology was developed, the residents would preserve their hauls in the spring and summer seasons using the "salt-dried method" or the "salt-preserved method" and process them with home stoves, which is called the "cook-and-dry method". The processed products produced at that time were mostly eaten by the family in the autumn and winter seasons and gifted to relatives and friends [6,7].

There were approximately 10 fish stoves in the fishery settlement during its heyday, but now only three remain (see Table 1) [8] which are Yan-Fu's fish stove, Tseng's fish stove, and Chen's fish stove. Among them, according to Mr. Tseng's (2018) record of the restoration of Tseng's fish stove in Wang-An Hua-Zhai, Tseng's fish stove was established in the late 1950s, and the founder was Tseng Ping (1910–1995). It has not been used since 1960. So, since then, it has become a complete dump and has been abandoned until now. The descendants of Tseng were unwilling to abandon it; thus, they actively sought the opportunity to repair it. In 2006, Hanguang Architects was entrusted to complete the restoration design plan. However, because of the small number of artisans on the island and the busyness, it was not repaired until September 2017 [9].

Table 1. The Preservation of Hua-Zhai Fish Stoves.

Name	Style	Surrounding Facility	Current Situation	The Location of Preserved Fish Stoves of Hua-Zhai
Yan-Fu's Fish Stove	Single Fish Stove	Four single fish stoves, three fish troughs, one stack room.		
Tseng's Fish Stove	Double Fish Stove	One double fish stove, one fish trough, one vegetable farm.		
Chen's Fish Stove	Single Fish Stove	Three single fish stoves, several warehouses (for other uses)		

Sources: Classified by the research; Map sources: Easy map system, https://easymap.land.moi.gov.tw/R02/Index (accessed on 30 June 2019).

At the end of 2015, the authors and an executive team undertook the "Activation Reuse of the Important Settlement of Wang-An Hua-Zhai and Operation Management Plan", commissioned by the Cultural Bureau of the Peng-Hu County Government, because the descendants of Tseng had wanted to repair these fish stoves for a long time. Therefore, team members were invited to conduct a survey in September 2017. In October of the same year, the material expenses were paid by Tseng, and four skilled craftsmen with bricklaying skills were introduced by our team to cooperate with the local residents to repair and complete the restoration in January of the following year.

As mentioned previously, internal organization of the Hua-Zhai Settlement is almost absent. Thus, to consider the "reconstruction" action that involves the relationship between people and people is a difficult task because residents' connection with their own land must be rebuilt. Take the case of Niu-Jiao

Village in Matsu for example, the team commissioned actively participated in all the discussions about the re-establishment of temples in the village in the second stage of the community construction project. Specifically, in order to promote this concept, community construction was combined with local beliefs along with an injection of cultural preservation and environmental aesthetics [5]. In so doing, such a combination was an inspiration to all of the people involved in the task of repairing the temples. However, when it came to the issue of the existence of the Hua-Zhai Settlement, revitalization was complicated because the traditional religious activities in Hua-Zhai are precarious.

Before starting the commission, our executive team first considered how to build rapport with the local residents. Therefore, our team decided to take actions and began to mingle with the other residents before spending time living there. After learning the daily labor and work schedule from the settlement elders, our team members got feedback from the elders such as "very hardworking" and "come to me when you need". At this point, out team was allowed a chance to become a "Hua-Zhai resident" instead of merely an "outsider".

Despite the role we played as a "Hua-Zhai resident", it was not easy for us to promote the concept of this complex social problem and improve its weak connections. However, the situation started to change after the decision was made to "repair the fish stove". In other words, this project involved the owner of the local fish stove, the settlement residents, the traditional skill-renovating artists, and the outsiders (i.e., the executive team, modern craftsmen, and other actors) to engage in restoration, and so this made the original disorganized settlement network visible. Such cooperation further accelerated the growth of trust in outside people, and so the restoration work naturally came to pass. During the restoration work, all concerned parties gathered at the restoration site and searched the living area for clues needed to recollect the past. In so doing, they based this new restoration work on discussions generated from their field search.

Accordingly, this research aimed to analyze the social network construction involved in the process of restoring fish stoves in the way that the participants mutually agreed upon, how the actors involved are translating to each other. And it simultaneously investigated analyze the reasons that why is the external expansion of restoring fish stoves action was more effective than other actions of the executive team. Finally, principles for the implementation of a settlement-based community design based on our experiences are summarized.

2. Literature Review

2.1. Field of Living Settlement

In "Xian Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas" (2005) of International Council on Monuments and Sites, not only has it specified the importance of "setting" for cultural monuments and history, but also people are reminded of, while valuing cultural monuments and settings, the importance attached to physical, visual, and natural contexts and customs, traditions, and knowledge. The "Québec Declaration" (2008) further expanded this "spirit of setting" to highlight the significance of protecting the existing value of heritage and the cultural atmosphere of its setting in order to extend such spirit.

In terms of making amendments to the Cultural Heritage Preservation Act in 2005, the Government of Taiwan attempted to further lay great emphasis on the importance of intangible cultural assets through legislative support. For example, supplementary articles related to "settlement" and "cultural landscape" were established to highlight the "spirit of setting." In 2006, the Council for Cultural Affairs (today's Ministry of Culture) proposed the "Regional Cultural Heritage Protection and Maintenance Plan" to, based on the existing value of cultural heritage, re-evaluate and rethink the reasonable ways of preserving cultural assets and the rationality thereof.

According to the concept of "place" proposed by J.A. Agnew, "the settlement" is the place where people gather to settle down and live. The concept of place consists of three elements: place, location, and a sense of place. Place refers to the setting that constructs (non-officially or systematically) social

connections. Location is a social interaction site defined by social and economic processes that operate at a broader scale. The characteristics of "place" have specific forms and material matters, and so they must be related to people and human life experiences. A sense of place refers to the local sensory structure [10]. However, once the relationship between people and setting is established, their interdependent relationship is also affected somehow. A collective memory of the region and the identity related thereto also collapses. At this moment, the values that exist in the setting are meaningful no more.

Taiwan is a multiethnic country. Under the evolution of its historical background, this has also brought in different ethnic groups to move in and out with the replacement of various eras. Meanwhile, this replacement also gives rise to several debates about proper use of the land or space occupied by its original inhabitants, the impact of culture, and even the conflict. This matte is especially true when there are outsiders moving in. Regarding the traditional living space, a unique settlement is formed by the substantial architectural space and the coexisting society. In this case, the coexisting society and its residents become a community through mutual cooperation. Cohen believes that the concept of "community" lies in the construction of the aforesaid three interrelated symbols, resulting in the sense of belonging, rhetoric and tactical use; sense of things; and participation in a common symbolic field [10]. Settlement itself is a place where local people construct a collective memory. Even more, human memories can also be converted into physical objects. Therefore, memory, objects, and setting are closely related.

Take this current research as an example. The repair of fish stoves was firstly intended to encourage resident interactions in the setting, and then, through a series of events, the contacts between participants gradually became enough. At present, the restored appearance of the site enabled all the residents to have a collective memory of what lives their ancestors used to lead and have; in the meantime, this also created new connections and memories among those who were involved in this event. This kind of design framework is relatively easier for researchers to find the opportunity to start to mingle with people living in a settlement.

2.2. Community Design: The Development History of Overall Community Construction in Taiwan

In 1994, the Council for Cultural Affairs (the Ministry of Culture nowadays) of Taiwan began to promote the policy on "overall community construction" as its core. *The goal is to promote the awareness of community affairs among the community members and so enhance the aesthetic level of their community life situations* [11]. These problems that plague the community members are rather comprehensive, and it is not simply a case of building hardware in the environment. Therefore, Miyazaki's teacher from Japan divided the concept of a community into people, literature, geography, production, and scenery. In 2002, Executive Yuan proposed the "Overall Community Construction of New Hometowns", which was one of the promoted events of the "Challenging 2008; National Key Development Plan", and it was also the very first time the policy on community construction was evaluated and regarded as a government-oriented one. To that end, holding cross-departmental discussions about how to promote community construction, emphasizing community-based proposals, and promoting the training system for "community planners" were urgently implemented. In 2005, the "New Community Six-Star Project" was launched, and the rural regeneration program was promoted in 2010. A series of political actions have been taken mainly to promote people's self-sufficiency to care for their own communities, to create a sense of identity through the theme of humanistic real estate landscape. This helps mobilize organizations to jointly create an ideal living environment. In recent years, various policy initiatives, including regional revitalization, local activation, community re-engineering, popular community design, and participatory budgeting, have all been based on community development and are related to the important issues of social development and various policy actions generated by various public sectors.

The overall process of community construction is "*the application process through re-design by using elements of local culture, which is based on people and the community design led by residents themselves. The care*

felt by the local residents must be implemented in a small society where local life is" [12]. Miyazaki believes that each community has a unique history, and so the community is gradually bred and reflected in the form of "personality". The community is part of history, the concept of which is closely related to the concept of "personality" [13]. In other words, this can be very different from region to region in terms of daily life or folk (religious) beliefs. We deeply believe that community design should take into account the care given to "people" inhabiting the community, as only personal experiences can impact residents' feelings towards the land and inspire great loyalty among them. Emphasizing and recreating local culture enables people to, through participation, develop emotions towards place and further allows them to connect their memories with the community life. On this basis, both the present and the past are connected to form an interrelated typology comprising community, common sense, and a new lifestyle considered to be created by active participation.

In summary, community design does not refer only to hardware design. Instead, it is mainly about how we can design a series of activities related to our culture and habits, which are considered essential to encourage residents to recreate the community hand-by-hand while reinforcing their co-existence and identity towards the land. This kind of design activity is decided based on cultural, industrial, and natural contexts as Yamazaki Ryo described, *"cohering the community through the power of design"*, *"the power of the community is the key to solve the problem"*, *and "solving the problem with the power of the community"* [14].

For Taiwanese people, most of the residents are not habituated to communicate or express their opinions in community activities related official meetings or public places. Therefore, the effectiveness of collective meetings is relatively weak and, imperceptibly, opinions of the few, particularly those with leadership qualities, will become consensus of the community. And yet, these leader-type characters can be challenged by public opinions of the community and decide to hold back. There are also some examples of success. As a case in point, through unofficial conversations given by local people and their experiences of living bounded in the community, we can better understand their life and feelings from simple things around aspects of our lives. Although it was surprisingly easy to enter the field, and the cost of this was very low, it was somehow appealing, as personal participation can engender the deep feelings people have towards place [12]. "People" is the decisive key factor because this can reflect whether the community design model is a success or not. Through appropriately designed activities, people will be more involved in, and familiar with, the community in which they have inhabited. This will dramatically increase the possibility of their having conversations or talks with others. In doing so, creating success in the development of community participation is relatively easier in this regard.

2.3. Important Settlement Construction: The Values of the Hua-Zhai Settlement as a Cultural Asset

The article of "Convention Concerning the protection of the world and Natural Heritage" passed and established by the United Nations Educational Scientific and Cultural Organization (UNESCO) in 1972 has long specified the necessity of having outstanding universal values for cultural heritage, including monuments, groups of buildings, and sites. The "site" refers to works created by humans, or jointly with the nature, and, from historic, art, and scientific aspects, has indeed shown outstanding values [15]. Taiwan's Ministry of Culture has divided cultural heritage into the categories of "tangible cultural heritage" and "intangible cultural heritage" by referring to Article 3 of Chapter I of the Cultural Heritage Preservation Act. Tangible cultural heritage includes monuments, historic buildings, commemorative buildings, groups of buildings, archaeological sites, historic sites, cultural landscapes, antiquities, natural landscapes, and natural monuments, whereas intangible cultural heritage consists of traditional performing arts, traditional craftsmanship, oral traditions and expressions, folklore, and traditional knowledge and practices. What this idea tells us is that tangible and intangible cultural heritage are inherently connected to each other.

At the beginning of 1985, the Peng-Hu County Government planned to establish six folk villages within five towns and one city. At that time, it was planned by Hanguang Architects. The "Folk Village

Research Project of Peng-Hu Ancient Settlement Maintenance and Development" was completed in June 1986. The Hua-Zhai Settlement of the Wang-An Township along with the Er-Kan Settlement of the Shi-Yeu Township were nominated as essential areas for the development of settlement culture in the county. Finally, because of the convenience of transportation and the superiority of the geographical environment, the Er-Kan settlement was selected. Therefore, the preservation of Hua-Zhai was postponed (field notes).

In 2003, driven by the autonomous efforts of many scholars and people, Hua-Zhai was eventually included in a list of the 100 most endangered sites in 2004. Because of its particularity and the importance of its cultural meaning, Hua-Zhai was announced as the first "important settlement" of the country in 2010. The Ministry of Culture announced that it would re-register the Hua-Zhai cultural heritage category as an "important settlement group of buildings" in March 2018. There are 13 cases in total that have been announced as important settlement groups of buildings by the country; however, Wang-An Hua-Zhai is the only settlement recognized as important at the national level.

Before Wang-An Hua-Zhai was registered as an important settlement, Professor Lin Hui-Cheng of Chung Yuan Christian University had already led students in conducting spatial and building style mapping related studies in the settlement. Since then, research institutions have successfully conducted a series of investigations and research on the tangible and intangible heritage of the settlement such as the "Cultural Heritage Integration and Management Plan for Hua-Zhai Settlement of Wang-An Township, Peng-Hu County" and the "Fundamental Data and Expanded Cultural Landscape Registration, Investigation and Research Project for Wang-An Hua-Zhai Settlement". The tangible cultural heritage of Wang-An Hua-Zhai was, therefore, specified as follows: (1) groups of buildings (the residential area); (2) industrial historic sites (fish stoves, cement kilns, and the popsicle factory); (3) archaeological sites (Liyushan); (4) cultural landscapes, folklore, and related cultural relics; (5) culture of living (food and drinking; farmer and fishermen life); and (6) natural landscapes (e.g., intertidal zone and Hua-Zhai bay).

Regarding the current status of the Hua-Zhai Settlement, the settlement building groups and the overall landscape are both identical and preserved at a consistently good quality, which is rare to be seen in all the other old villages found in Taiwan. Besides, the building group patterns and settlement space are classic examples of Peng-Hu's traditional settlements, making it truly valuable to cultural heritage with respect to its local characteristics, history, humanities, and arts.

2.4. Peng-Hu Fish Stoves and the Fishery Processing Industry

Before Japanese occupation, fishery manufacturing mainly used general cookware. The price of the product was not good because of its coarse production process and unstable quality (see Figure 6) [16]. As a result of this, experimental equipment was introduced, and the fish stove facilities were reshaped and improved during Japanese occupation in 1923. Also, the testing of dried fish herring was conducted at Xiao-Chi-Jiao, Shi-Yeu Township. This experiment was done to improve fish stove construction so as to further promote the "cook-and-dry method", which was considered best to improve the quality of the fish product. This method was then distributed to every part of Taiwan, and so this method was officially used as the way to industrialize fisheries [7]. After 1980, because of advanced fishing techniques, overfishing resulted in the depletion of hauls, and the fishery manufacturing industry was simultaneously weakened. Nowadays, fish stoves are mainly distributed in the villages of Ma-Gong and Bai-Sha Chi-Kan Village, and there are fewer in Wang-An and Qi-Mei. Most of them are abandoned or used only for sightseeing [17].



Figure 6. Fish stove in Peng-Hu area. Sources: https://www.facebook.com/groups/400417913407522/?ref=nf_target&fref=nf (accessed on 2 October 2018).

3. Research Methods

The current research was based on a qualitative perspective, using participatory observations and interviews. The target participants invited to take part in the observations included fish stove restorers and our implementation team.

The implementation team had 5 members. The authors entered the community together with the implementation team at the end of 2015, 1 to 2 times per month, and stayed 4 to 5 days or, at most, 2–3 weeks at a time to observe the settlement. Long-term on-site observations not only facilitated discussion on the project but also enabled the authors to thoroughly comprehend local opinions of place, context, and interpersonal relations.

The authors participated in the entire fish stove repair project, from preparation to formal repair. Through a series of observations, discussions, and interactions, the authors managed to record relevant activities and conduct in-depth interviews. Interviewees were selected based on their level of participation in the restoration project. The participants consisted of the following: (1) the descendants of Tseng family, Mr. and Mrs. Tseng; (2) 2 local elderly people with the traditional know-how of repairing fish stoves; (3) 4 people with knowledge on contemporary techniques of repairing fish stoves; (4) and 1 person that had experience using fish stoves. Finally, a total of 9 people were invited to participate in the restoration work. Individual interviews were conducted with all of the participants, and this lasted 90 min per person. The interviews were mostly conducted at the Hua-Zhai Settlement, except for those who had experience using the fish stove, in which case they were interviewed in Kaohsiung. As for the craftsmen who possessed knowledge on the modern techniques of repairing fish stoves, they were interviewed in a group, as this method was considered best to elicit all the details about the entire story.

4. Fish Stove Restoration Case Study

4.1. The Beginning of Hua-Zhai Activation—Descriptions of Actions in the Past Few Years

The core strategy our implementation team adopted was to build a settlement brand immediately after we undertook this project. The team proposed, based on "local characteristics", "highlights of the year", "specialty of Hua-Zhai", and "experiencing tours", a three-year sustainability-based business model to accomplish this, including "improvement and union", "activation and innovation", and "sustainability and business opportunity" for the first, second, and third years, respectively.

4.1.1. The Entrusted Execution Project of the Peng-Hu County Government Cultural Bureau

The authors entered the community and launched planning and promotional activities, as the executive team was entrusted by the Cultural Bureau of the Peng-Hu County Government. The following is an analysis of the corresponding implementation from 2015 to 2018.

1. Establish the Network

    A. Hua-Zhai management and maintenance service center: internally based on the exchange of residents' services; externally based on providing accurate information about the history and culture of the settlement.
    B. Facebook fan page: mainly based on reporting the relevant news, activities, and messages of Hua-Zhai.
    C. Community services: clean and re-cultivate Caizhai (vegetable farms with coral stone fences), internally based on the expansion of interpersonal relations of the executive team; externally based on inviting residents of the island and schools to get to know Hua-Zhai.

2. Local Empowerment

    A. Interpreter training: cooperated with local high schools for interpretation training. The training was divided into two stages: the first stage was basic data gathering and learning of Hua-Zhai; the second stage comprised humanities, history, and architectural learning. Interpretation could actually be carried out after satisfying the examination threshold.
    B. Rooting education: cooperated with local elementary schools to offer courses and lessons based on local features and characteristics, for instance, getting involved in native courses through the production of gross shoes, which, due to the application of traditional woodwork, has become the subject of scientific research, transforming the learning of traditional skills into modern educational research materials.
    C. Creation of illustrated books: invited local elementary schools to jointly create picture books through oral translation of historical records.

3. Spread of Information

    A. Hua-Zhai 111 Repair Engineering Information Exhibition: an exhibition that focused on traditional buildings, and the materials are available for online reading.
    B. Production of a guide map: cooperated with local designers to create the map, which included a historical introduction, attractions, traffic information, and so on.
    C. Active and passive digital guides of QRCode and iBeacon: combined with a navigation map to record guided videos or audio guides; combined with digital technology to promote a digital guide of the settlement.
    D. Standard explanation manual: an explanation manual mainly used for tourism and educational purposes. The contents included the formation of settlements, the introduction of geographical names, a guide to the whole area, the construction, and so on.
    E. Photography exhibition of Hua-Zhai: to present the beauty of the living environment of Hua-Zhai from a microscopic perspective through the presentation of photography.
    F. Augmented reality (AR): combined virtual images and live scenes to reproduce the scene of life at that time.

4.1.2. Cause of Action Transformation

The planned transformation was originally conceived through self-reflections and conversations with and between team members. The team members once described: "When we arrive here at the beginning, we watch the settlement and constantly ask ourselves, where should we start? And what is the most needed for the settlement?" (field notes). We were once overwhelmed by it. However, for the past four years, because of our participation, field observations, and adjustment, everything became more precise.

Awareness-Living in the Settlement

We started the transformation according to the planned project; however, there had always been a constant sense of it not being realistic. We seemed to be playing a one-man show in the community action. There was something wrong with it. *"We don't seem to have a good understanding of Hua-Zhai . . . the team does not seem to really see it. The situation of Hua-Zhai,..., should we live in for a while"* (field notes). So, we decided to re-observe, to explore in depth from the perspective of the local people, and then to better understand and promote the Hua-Zhai Settlement.

Recalling in the early stages of implementation in 2016, an elder often said "*You come to live in the settlement, even though this place is crude, and you can save some money*" (field notes). At that time, what really concerned us was how to reduce the expenditures of our team, but eventually we realized how important it was for us to come and live in the settlement. In August 2016, we accepted the offer and decided to live in the settlement. This led to new breakthroughs for the team and even considerably affected the implementation of subsequent plans.

Transposition Thinking—Saw It, Heard It, Felt It

In this work, we "saw" and "witnessed" several vital factors leading to this construction work: (1) the aged population, a serious problem for the settlement; (2) the discontinuity of the community affairs; (3) and the decrease in religious activities due to the shrinking population. The internal structure of the settlement was weak, and the settlement industry disappeared as soon as the population shrank.

We "heard" that the residents of the settlements had long been dissatisfied with the misunderstandings and inconveniences caused by the improper implementation of public infrastructure and the poor quality of their work. For example, the continuous elevation of road works had caused the original drainage facilities to lose their functions, which, in turn, flooded houses. Also, a large number of tourists had swarmed the settlement and trespassed on the locals' land and in houses. However, what was worse was that the residents had lost confidence in the construction and long-term goals of the settlements. An old man who actively promoted settlement preservation in the early days said, "I don't know if it is correct for me to do that at the beginning? Who knows our feelings? . . . but the time has come and we should think for ourselves so that we can say something" (field notes).

However, the first step our executive team took was not a success; instead, we encountered many difficulties. The three core elements of *"sensing power"*, *"sympathy"* and *"critical power"* in relation to the "design thinking" [18] were strongly considered by us to avoid negative impacts on the settlement brought by our actions. To that end, this required more time, manpower, and resources, and we deeply believed that this would be accepted and affirmed if we could more closely integrate our actions with the settlement.

After continuously asking ourselves "what have we found in the settlement?" we eventually knew the answer, which was "life wisdom", or local knowledge, and it came from the survival methods derived from the needs of the living environment. *Local knowledge is a simple, empirical fact* [10], which varies as a result of the environmental conditions and resources, and it is also closely related to the traditional cultural habits of the locals. From the perspective of community construction, this construct is oriented with sense of time, taking its past and constructing its future [19].

Imagine the Future, Depicting Settlement Activation through Experimental Design

Again, we asked ourselves "what will the future of Hua-Zhai be like?" Hua-Zhai is a space without basic conditions. In addition, the most urgent thing was how to reactivate stagnant settlements and solve the problem of a shrinking population. The aforesaid goals can be achieved if we consider the possible ways of how to attract people to visit this place?

"*In Austria, starting with the transformation of industrial value, wages, technology research, and development, the technology developed can be exported to the world. The so-called cultural capital is to preserve the culture itself rather than the house, and to integrate the industry and technology of real*

resources" (field notes). Probably, the successful preservation of culture bounded in the settlement will not be a single event if we would like to reactivate the settlements of the community. What concerns the aforesaid issue is the matter commonly associated with the industrial foundation; that is to say, if the living conditions of the settlement residents are better, the significance of the concept of settlement reactivation will resonate down through the centuries.

However, the key to this is how to base the draft of a community design program on local knowledge and natural resources of the settlement if we hope to direct the community towards industrial development, facilitate the implementation team to be even more proactive in promoting experimental design programs for the region, and slowly outline the picture of "activation" (settlement industry and living conditions).

4.2. The Test of Activation: Thinking about the Circulation of Community Resources and Creating Values

The implementation team officially had set the tone for reactivating Hua-Zhai (field notes). From here, we started to consider the departure of the industry according to the current situation of the settlement. Also, it was not the best time to develop and talk about the development of sightseeing and tourism. The easiest thing to start with was basic environment preparation, and so a series of actions were carried out starting from there.

4.2.1. Backyard Renovation of the Hua-Zhai Service Center

In November 2016, the team decided to start with the Caizhai structure right in the backyard of the service center. After cleanup, sand rafts, hedges, garden tables, and chairs were all set up. Originally, an attempt was made to locate the places where the environment could be improved and tourists could rest. After continuous care, the backyard landscaping turned out to be even much better than before, and it began to receive attention in 2017. But the impact on the homeowner was more significant somehow. The owner responded, *"I used to introduce my home like this. The backyard is a beautiful garden. I didn't expect it to happen now"* (field notes).

4.2.2. Cleaning Up Caizhai and the Benefits of Diffusion

With the experience of cleaning up the backyard of the service center, we also wanted to organize the Caizhai structure further. Therefore, in a community session in 2017, the concept of environmental conditioning was officially proposed and simultaneously adopted the borrowing of Caizhai. We decided to clean up Tseng's Caizhai in February of the same year. This startup led the landlords, Mr. and Mrs. Tseng Wen-Ming, to wear work clothes and use tools to rush to Caizhai to join the cleanup work. During the cleaning period of approximately ten days, a few residents would come to the Caizhai to watch; one of them asked the landlord, "Why don't you ask the public sector to handle it?" Teacher Tseng Wen-Ming gently replied, *"This land belongs to me"* (field notes). The diffusion of benefits generated after cleaning up Caizhai included the following.

1. Receiving the Attention of the Residents of the Settlement

The most challenging thing for us to do while we were cleaning up the Caizhai structure was to clear the roots of the white popinac tree. Usually, the residents would use an excavator to clean the tree roots. The teacher and the couple initially chose this method, but on their way to rent the excavator, they were caught up by the elder. The elder said, *"You can't dig with a backhoe. If you do so, all of them get broken. You need people to help to dig"* (field notes). According to the couple, *"All that we have to do is to grab the tools borrowed from Grandpa, listen to his instructions on how to remove the tree root out of the ground, and they will sneak into Caizhai to help dig the tree head when there is no one. I will rush! Hold the tool, hurry to dig! Don't be tired, the more you dig, the more you have a sense of accomplishment"* (field notes).

2. Expanding the Scope of Settlement Activities through Caizhai Recultivation

Caizhai recultivation unexpectedly reconnected or encouraged interaction between the executive team and the residents, and so this formed a dialogue with the settlement. A new Caizhai opened up, this time at the top of the settlement where the team lived. Usually, the activity area allocated to the team was mostly located at the settlement service center (Wei-Liao) because of the work and relevant activities that needed to be done there, so there was little contact with the residents inhabiting the top of the settlement. It started with arranging the Caizhai of grandma A-Kui. She was approximately 80 years old and lived in the Wei-Liao of the settlement. Every day she went to check on the house from Wei-Liao to Ding-Liao. Immediately after the grandma had agreed to lend her house to us, the news of the arrangement of her house spread throughout the settlement. From time to time, the elderly watched, and it was not until the start of planting work that the interaction started; the grandma said, "Plant it closer to the north (edge); otherwise, it will be hit by the wind". But the partner in charge considered this and said, *"We should try to make most use of the south side as much as possible. Although the strong winds blow in from the south, it will not affect grandma by planting in the south. It will not let the elderly feel aggression"* (field notes).

Of course, there was also a mixture of cultural and traditional shock. As soon as the team decided to plant the vegetable seeds in the south part of Caizhai, a series of urgently sought-after messages had been spread in Ding-Liao again on the next day. Grandma said, *"You can't grow vegetables like this way. They will be uprooted by the wind and fail to grow up. You should plant them at the bottom of the furrow"* (field notes). More and more people were concerned, and there was no reduction from appeasement. The partner in charge considered this and said, *"I want to carry out experiments to test the effectiveness of this method by planting them in different settlements. Through this way, I can have a better understanding of how to make the plants grow well on this sort of land which is not considered as a field by the locals. Meanwhile, I can also better understand what to do and how to avoid the strong winds in case they will be uprooted"* (field notes). Besides, the efforts invested by the elders were more than enough, until one day the partner moved the seeds that she planted a long time ago from the top to the bottom of the furrow. The partner was questioned, *"Why are you willing to do this now"? "Because I want the residents to know that the team has followed to what they suggested. But this does not necessarily mean that I have accepted such a suggestion without a doubt"* (field notes). The feedback we received after replanting was, *"This is right"* (field notes).

Fortunately, the attempt of this new planting technique is still in progress. The plants were not uprooted by the wind. Instead, the young leaves were eaten by snails and sparrows, the leaves eroded, and they were gone. Although the plant eventually died, the team had successfully encouraged interactions with residents at the top of the settlement and so developed a close rapport with them. The recultivation of Caizhai is now still in progress, and as a medium to establish friendly interactions with the residents, it is limited to the peripheral benefits generated by the individual actions of the executive team.

4.2.3. Cutting Down a White Popinac for Experimental Design

At this point, another team discussion was underway. What would the future of the settlement look like? How can we find a sustainable path for the community? According to the speed and quantity of the growth of white popinac, it was indeed a waste of resources if we kept cleaning up the trees; thus, a profitable strategy should be sought.

Development of the experimental design could not be carried out unless we cut down the trunk of a white popinac. We performed this task in the steps of drying the whole material, designing a use for it, and reusing it so it became a distinctive combination of white popinac furniture. We also developed a trolley system with unique features by combining it with local ingredients. This experimental design lasted for more than one year, and the elders seemed to not be suspicious anymore, as the elders once took the initiatives and said, *"a tall and strong student who is cutting trees diligently. It's not an easy task to design something like this"* (field notes). The student said, *"The grandma told me that the branches around her house are overhanging across the wall. She asked me to help her to cut it. Immediately after I had finished,*

she treated me to something delicious" (field notes). This experiment was quite close to the user. It was intended to be part of the role of residents in the community. The elders acted as both the participants and supporters of the students in the settlement, and the effect was much more significant than the design work itself.

4.3. Breakthroughs of Activation: Restoration of Family Tseng's Fish Stoves

Although it was an accident, restoring the fish stoves was a breakthrough for the team. There were three motives for repairing the fish stoves. Firstly, this allowed the Tseng family a chance to realize their dream. Secondly, this helped to develop craftsmanship to solve the shortage of local craftsmen. Finally, the settlement needed more public space to replace the current lack of landscape. In the process of settlement reconstruction, we made efforts to recognize the original settlement based on the existing spatial qualities, characteristics, culture, and natural assets. The fish stove and Caizhai were unique in the cultural landscape of the settlement; therefore, in the reconstruction operation, we stayed cautious and alert and tended to integrate and preserve the cultural elements of the existing landscape [20]. The differences between the past actions involving the Caizhai and the fish stove are compared (see Table 2).

Fish Stove. Although it is privately owned, it is an open public space. Besides, it was also regarded as one of the sources of community economy in the era of fish processing. It could engage more people in working jointly, which is important for the cultural landscape in combining the works of nature and of human interactions.

Caizhai. It is owned by a private individual and has apparent boundaries. Most residents have universal farming knowledge. The arrangement of it is relatively easy, and there is no threshold. The team selected Caizhai as the focus of recultivation because this would enable the team to actively enter the living area of the residents, encourage interaction, and build trust. Because of this, the neighborhood residents were also encouraged to work together and maintain the surroundings actively. Compared to the participation in gathering around fish stoves, the Caizhai was different because it impacted the distribution of regional influence.

4.3.1. Segmentation and Functions of the Restoration Process of Fish Stoves

When the Council for Cultural Affairs (now the Ministry of Culture) launched a survey of Hua-Zhai resources, it was targeted at settlement buildings, religion, industry, and so on. Simultaneously, the entrusted unit was also requested to conduct a survey to investigate whether the local residents were willing to participate in construction work and have the houses repaired. At that time, the fish stove of Tseng was dilapidated and covered with dirt and weeds. Hence, the Tseng family made a formal request and sought assistance from the government for repair, but it was not approved. In this case, they decided to repair the house by themselves. To that end, they held many discussions with the fish stove repairer about the repairmen, but the repairs were still not a success. Therefore, it was abandoned and used as a dump again. However, it was not until September 2017 that, from the team's on-site assessment, the Tseng family purchased repair materials on their own and imparted bricklaying skills on four students in the school to participate in the restoration work in October of the same year. The restoration project was, therefore, started after evaluation of the implementation team, and then it was accomplished by the implementation team together with local residents.

Table 2. A Comparison of Different Motivations for Rebuilding.

Event	Time to Start	Main Participant			Action Motivation
		Organizer	Secondary Member	Low Participation	
Backyard Cleanup	11 November 2016	The Executive Team	None	None	Improve the environment of the service center
Tseng's Caizhai	8 February 2017	The Executive Team	Owner of Fish Stove The elders and residents of the settlement	Minority residents paid attention	Recultivate Caizhai, providing source materials for returning residents Main living ingredients source of the team when living in the settlement
A-Kuai's Caizhai	1 August 2017	The Executive Team	Two residents of the settlement	The interaction of residents of the settlement	Agricultural farming experiment base
Clean and Design Popinac	1 August 2017	The Executive Team	Residents borrowed the restored historic house as experimental space	The interaction of residents of the settlement	Improve the environment of the settlement Promote the experimental design
Tseng's Fish Stove	4 October 2017	Owner of Fish Stove	The Executive Team Traditional stove repairer Construction plant manager	The interaction of residents of the settlement The interaction of local elementary schools	Realize the dream of the Tseng family Find ways to stir up community involvement Promotion of local activation of existing settlement hardware facilities The obstacles encountered in the process of training the repairer of community historic houses Learning and future employment considerations for practical vocational experience for outstanding students

Resources: Classified by the research.

4.3.2. The First Phase of Restoration: Motivation, Discovery, Evaluation, and Invitation

Based on Peng-Hu's history, fish stoves are common in the memory of the people inhabiting there, especially in the 1950s. People are more deeply impressed and closely related to life. This is especially true for the Tseng Family. In the early stages of preparing for the restoration, the motivations of the various actors were diverse, but they were tied to Peng-Hu and formed a good relationship due to the restoration of the fish stoves. The initial motivations of the following factors were.

The Motivations of the Tseng Family

Teacher Tseng Wen-Ming is the nephew of Tseng Ping, the owner of Tseng's fish stove, and one of the pioneers of the "Taiwan Hua-Zhai Historical House Preservation Association". He grew up in Hua-Zhai since childhood and used to work with his mother and shared the work of the fish stove. Because of his studies, he travelled back and forth between Ma-Gong and Taiwan for his studies. In 1979, he returned to Wang-An to work and often returned to Hua-Zhai with his wife to handle daily affairs. During interactions, he gradually learned about his family history and the construction process of his ancestral home from Tseng Ping, and he knew that it should be protected and preserved carefully. Even after the death of Tseng Ping in 1995, he still continued to take care of his ancestors' house.

Teacher Tseng Wen-Ming was very close to Tseng Ping. In addition to the late interactive emotions, the care of Tseng Ping for his family had always been genuinely from the bottom of his heart. The most impressive part was that after his acceptance to a junior high school, he successfully registered because a teacher working at the elementary school paid for his registration fee (because of the poor economic conditions), but he barely completed the first semester. The registration fee for the second semester was

a big problem. It was not until the deadline of registration that his aunt actively requested his uncle to help him with the registration fee so that Tseng Wen-Min could complete his studies. However, he still gave up his studies because he was unable to afford the living costs and accommodations.

Feeling thankful for his grandfather's construction of their ancestral home and the Tseng Ping couple care given to the whole family, teacher Tseng Wen-Ming, he actively discussed with his siblings about the restoration work of their ancestral house. So, in 1998 they invited the available family members to discuss and said, *"We repaired our own ancestral l house. At that time, I was the first opponent, as we didn't know when the government would complete the restoration if the government got involved and was in charge of this work even though we knew that we were capable of repairing, and I had always emphasized that the only one meaning for the restoration was that the descendants would know that there is a historical house belonging to them in Wang-An Hua-Zhai in Peng-Hu, and they would come back eventually"*. The restoration of the historical house was completed in 2002, and thereby "The Tseng Family Historical House Convention" (Figure 7) and "The Tseng Family Historical House Restoration Record" (Figure 8) were established with the family members to jointly maintain the historical house.



Figure 7. The Tseng Family Historical House Convention.



Figure 8. The Tseng Family Historical House Restoration Record.

The Motivations of the Tseng Family

A. We aimed to persuade our students who had decided to quit the studies into participating in the project proposed by us. Before the executive team had promised to assist, what motivated us was the focus on the way of education and careful consideration given to the future of these outstanding students with sufficient vocational training knowledge. In reality, one of the team members who served as the head of the department had experienced this problem quite often. Most students with outstanding vocational training knowledge tend to interrupt their four years of university studies due to difficult times, and they almost feel overwhelmed by this problem. So, taking this project for example, the head felt concerned about this and said, *"This male student*

quit the studies when I was in charge. So, I wanted to find him back" (field notes). In the meantime, what this idea tells us is that even though his obtaining a university degree is a success, there are still difficulties in the future career development of students such as these who have a major in design. Therefore, we decided to allow these students a chance to bring their talents and skills into full play so as to further equip and cultivate their ability to be in charge of projects independently after graduation.

B. The settlement needs to develop its own repair team. In the past, it would lead to subsequent collapse if the historic settlement houses were not immediately repaired. In the face of the gradual restoration of the historical house, it would be difficult to maintain the status quo if an on-site repair team could not be established. However, it was not easy to find a proper person in the local community because the repair task is most associated with the concept of "workhorse", which refers to a group of people who are lower in social class. Therefore, we attempted to involve students with training knowledge (basic brickwork skills) in relation to this construction work to participate in this task. This further encouraged the locals to reconnect themselves to their hometown. Also, the students could put what they had learned into practice and, thus, inspire local resident interests in putting joint efforts into restoring the historic house through this on-site practical learning. *"It is a good idea to learn in Hua-Zhai, and this kind of talent cultivation is the urgent need for the settlement currently. If they can stay, the historic settlement house will have an exclusive restoration team in the future, and its status will become better"* (field notes).

C. Settlement activation requires more public facilities. The settlement is currently undergoing hardware restoration and software activation. In terms of hardware, the focus is on the restoration of the historical house, which can be divided into two categories: partial subsidies and full subsidies from the government. The historical house with full support would be preserved by the government on their behalf after ten years of its restoration. On the other hand, partially subsidized homeowners may have the right to use the historical house, but part of the use must improve the activation of the settlement. However, houses are valuable private properties. Traditional social housing is a "home", which is obviously separated from a public space, and this concept is not easy to change. Accordingly, if the focus of activation continues to be on the restored historical house, it would be difficult to have room for implementation. Therefore, the restoration of public spaces that are culturally valuable to the settlement is even more critical.

Mobilizing the Residents of Hua-Zhai and the Teachers and Students of the Executive Team

A. How to look upon the students involved in fish stove repair? Give the students an opportunity to try. At first, we wanted to let the students try it out, giving them an opportunity. We were sure that the decision to allow the students to participate in the repair process was the right one. They would learn the local unique materials and techniques through practice, such as the unique shape of Tseng's fish stove, which also had a complicated internal structure. In terms of smoke exhaust, it was more difficult than just a single-port implementation. We needed to consider the air convection, the rate of smoke exhaust, and the chimney emissions, and the method adopted could not affect the operation of the opposite exhaust pipe. This was a very rare learning experience for the students. *"It did not matter even if it was broken after being repaired. It could be restrengthened when it is used. It also did not matter if the shape of the stove was different since it was in the style of the students"* (teacher Tseng Wen-Ming).

B. The invisible professional division in the settlement made most use the talents and skills with which they were equipped, creating more participation opportunities. Although the fish stove was recognized as industrial equipment, it was also part of traditional construction that contains much local knowledge, which was hidden from us. To make the most use of traditional techniques and, to a greater extent, the wisdom obtained from the encouragement of settlement elders, the elders needed to conduct operational explanations. In this case, the students could go through every step smoothly. Besides, the division of labor in the settlement was considered,

for example, the public well of Chang was broken; intuitively, we felt that we had to find Guang-Xiang's grandpa to handle it. Polishing wall surfaces and removing water chestnuts should be handled by Ma Gai-Xian. If the farming tools were broken, it would be handled by Guang-Xiang's grandpa, and Mrs. Chen Li-Xiang would be mentioned in terms of the cultivation of Caizhai. By asking different questions in a settlement, we would receive various and reliable suggestions.

C. Teacher Tseng Wen-Ming and his spouse in arrangement, adjustment, and translation capacities. The actors mentioned in the preceding paragraphs were mainly Teacher Tseng Wen-Ming and his spouse. In addition to adjustment and arrangement, they also acted as the communicators to work with the repairers because they had an advisory capacity when it came to the construction work. They did not simply communicate the information encoded in the spoken languages; instead, they interpreted the local dialects or regional language and technical language used by the elders, through language switching and body language, to help the repairer understand the meaning of the language and the way of operation so that the repair work could be carried out smoothly.

4.3.3. The Second Phase of Restoration: Launch of On-Site Implementation

For the technical problems we encountered in the process of building the stove, we consulted Mr. Yeh Chen-Ren. Mr. Yeh Shen-kaw was consulted for the size of the stove and the chimney and local customs were handled. Although teacher Tseng himself is a cultural and historical worker in the settlement, and he knows a lot about the settlement customs and folk beliefs owing to his brilliant mind, he would still have to seek reliable advice from the older opinions of the settlements or make timely discussions in practice.

The Role and Mission of Local Professionals: Delivery of Local Knowledge and Workmanship

A. The traditional technique needed for repairing stoves came from Mr. Yeh Chen-Ren. Mr. Yeh is also known as "MacGyver"; as his name suggests, he could handle affairs of life and work from the original conception, deliberate according to principles, and research and develop to produce all on his own. According to Mr. Yeh's descriptions, even the house in which he used to live was built by experimenting and making mistakes after observing other sites. Repairing the fish stove is one of the methods to learn about the knowledge of local cultures and customs. This was done by transforming the construction principles of the buildings of the settlement, and the simultaneous understanding of the local culture, through understanding the knowledge acquired from the restoration of the stove. By referring to the concept of "how to mobilize the community" written by Mr. Yang Hung-Ren, the common workings of the daily life of the peasants is described and, based on their value, are ordered as "experience", "ability", "technique", "knowledge", and "theory" [19]. Accordingly, the students involved as fish stove repairmen were expected to know not only how to repair (work) but also how to operate (technique). The principle (knowledge) was the most important thing to know because this enabled us to gain knowledge of local cultures and customs. Mr. Yeh said, *"The operation process of the fish stove is not simply the experience of using fish stoves or building fish stoves; instead, the reconstruction of such a fish stove is because of the increasing demand in use of the stoves used to be used at home in the early years"*. Since he started working in the construction industry, he had built a home stove, and even though it had a different shape from an original fish stove, its function, structure, and principle were all the same. Therefore, with his own experience, techniques, and flexibility, he became a supervisor due to his extensive knowledge of building a fish stove. He was one in the tiny minority of residents in the settlement who could operate the construction of the stove. The operation or technical instructions were mainly based on the suggestions given by Mr. Yeh during the restoration process.

B. The traditional technique needed for repairing stoves came from Mrs. Chen Li-Shiang. Mrs. Chen was well-experienced in the construction of fish stoves and home stoves. That is because her father was a building construction labor worker, so she has been considerably influenced by her father since her childhood. She has learned how to build a stove through her own repeated applications, revisions, and corrections of the construction procedures. She also took her father's suggestions in relation to these aspects. In doing so, she knew her users' needs while doing this kind of construction, and so she always considered how to help them in this regard, including effective cooking times and how to use the firewood, and how to best do the construction so as to allow the stove users to have a high-performance stove. For Mrs. Chen, the materials and techniques of building a stove were not the most important, rather, how to provide the users with stoves designed in an effective way that enabled their best use was of paramount importance (i.e., a stove that is easy to use, quick to fire, and good to use for cooking). In terms of simple construction, regardless of the type of material, even if the stove is for temporary use only and there is no professional technique, it is truly a stove of good use. *"Initially, I did on my own. I built a stove that is easy to burn a fire, to save firewood, and quick to boil. First, we started to build the bottom of the stove, and the progress was slow. That was because we had considered the possibility of future adjustments before we started to do the construction. For example, we adjusted the bottom part of the furnace before the completion of it because this process was vital to the final part of the construction. In this case, we adjusted the bottom part of the furnace and made it rather narrower, compared with the top part, which is rather broader. We wiped it from the top (referred to as the cooktop) thoroughly and put a tripod on to it to check whether there was a circle. If so, then it would be fine"* (Mrs. Chen). During the restoration, the role Mrs. Chen played in this task was less important than that played by Mr. Yeh. This was because we did not actively refer to the experience we gained from past fish stove work before the restoration. However, through the on-site situations and environment this time, we indirectly aroused Mrs. Chen's past experiences tied to this task. Thus, she eventually actively participated in the restoration and acted as supervisor and guided us. Gender is not as frequently discussed when it comes to the division of human labor in the settlements. Women are often limited to certain job categories, and they unwittingly maintain a rather traditional role in the community because of male domination and female subordination. So, they rarely have a say in public, nor do they act as a leader to promote something publicly. With this in mind, their potentials, talents, and skills in relation to this task were neglected to a greater extent.

Local Technique for Stove Restoration: Demonstration of Local Instruments and Techniques

Because of the lack of resources or transportation in the second-level outlying islands, regardless of the construction of Tseng's fish stove, even today, the construction work itself heavily relied on materials and tools, and they were developed and created using the available local materials or self-conducted research and development. As a result of this, the obtainment of available resources at hand was far more flexible. Compared to the repair work done by high-tech tools, modern science, and technology experts, the elders laughed and said at the construction site *"I am a traditional technician, and I use both of my hands"*. *"We can simply get the knack of this and know what to do next whenever we give it a glance or feel it"* (Mr. Yeh). The locals mostly gained their knowledge related to this through repeated practice and self-corrections, exploration, self-observations, and their risk-taking behaviors. However, there are apparent contradictions in acquiring knowledge in this way. That is, undoubtedly, for those artisans who have received training in modern science, the seemingly unorthodox technology is not a very suitable technique to be applied to this type of construction even though it can also save time for the work on the island (see Figure 9).



Figure 9. Learning the Techniques Used by Locals to Build Fish Stoves.

Take the replication of the stove and the hole embedded within it through the use of a tripod hoop as an example. If we had adopted the modern way, it would had been precast and then assembled at the construction site. Based on the experiences of those elders inhabiting this outlying island, we set about this construction work with our bare hands because we regarded this method as the most intuitive solution to this task. During the construction process, immediately after the fish stove was repaired, we started constructing the hole embedded within the stove via using a tripod hoop for support. According to experience, what we had to do was dab some water on the back of the tripod, and we then placed it into the hole embedded within the stove and glued it with red earth slabs. Meanwhile, we also affixed broken tiles onto the periphery of the tripod to enhance its strength. Furthermore, we covered the top with tiles mixed with red clay slurries, and we rotated the tripod to make it firmly and closely fixed onto the hole. After that, we scraped off the excess concrete, and then we gently removed the tripod to complete the cuff after a short rest (see Figure 10).



Figure 10. Learning to Make A Tripod Hoop Model without Using Modern Tools.

In addition, the combination of using both modern and traditional materials is usually seen, for example, in flinging the soil (Piā-thôo. This is the Taiwanese Minnan language, meaning that the soil is held in the hand, and the soil is forced onto the stone to make the two combine). When it comes to producing the stove, the conventional method of production is to smear it with a mixture of ash and cement to increase the degree of heat resistance, whereas the modern way is made of resistant mud. In terms of our constructing the stove, various kinds of unwanted waste stones were arranged and put in a smooth pattern into the stove. In the process of organizing, soil (thôo-tsiunn) was used to fill the gaps to tightly combine the gravel, which is described by the action "piā-piā". When Mrs. Chen was describing the construction process, there were almost no other tools used except for the materials used in the construction. During the interview, she said, *"I always collect them (the materials) everywhere and I do not intend to use the cement (piā-piā) throughout the entire process of the construction of this kind, based on my personal experiences and beliefs"*.

A Student's Respect and Acceptance of the Way the Experts Repaired the Stove

In terms of repairing the fish stove, the participants held diverse views on the process and differed in their concerns about this task. Diverse views in this regard would cast doubt on the speed and accuracy of repairs at the construction site. For those residents who were capable of applying construction techniques, both elements of speed and accuracy were the first priorities in terms of construction work. Speed is essential to reduce construction expenditures, and accuracy helps to save time and materials. Hence, when observing the students, there would be words such as *"you cut slowly piece by piece... People outside are laying and arranging one by one, not at a time"* (field notes).

How do the craftsmen, who possess knowledge of modern techniques, view these things? What do they think about the differences between traditional craftsmanship and modern technology? Firstly, for the craftsmen equipped with modern knowledge, the brickwork training in which they have been engaged for a long time is not the same as that implemented in most of the construction sites. The modern craftsman with learned skills and knowledge tends to use bricklaying skills for scenery and special landscape design. Bricklaying is an art and a skilled job; thus, requirements for the precision and appearance of bricklaying are rather strict. *"Basically, bricklaying is an art. It is all about the idea of beauty (aesthetics) or landscape design. This concept is not the same as the concept of engineering." "If there is a foundation (of bricklaying laying bricks), we just follow what they have done. The bricks just need to be stacked; anyway, what they want is the speed of bricklaying"* (modern techniques). Traditional fish stove chimneys are all made of stacked, exposed red bricks and will not be specially bound with cement. Therefore, modern craftsmen would judge and decide whether they should apply their knowledge of aesthetics according to the standards of art, rather than the experiences or knowledge observed and acquired from the construction sites.

By referring to "How to Mobilize the Community" published by Yang Hung-Ren, "regarding community activities, the network can become a useful network while the resources become meaningful through cultural translation" [19]. To that end, through mutual translation between different actors, they share and construct meanings so as to not only further accept one another but also to establish a new operational order mostly accepted by community inhabitants. As mentioned previously, in addition to the differences in the value of the object, a similar situation occurred in the restoration process, especially between traditional craftsmanship of nearly 60 years and modern craftsmanship. The situation became more obvious, and more problems needed to be overcome. In other words, the use of language and terminology, the behavior of how they used the materials needed, and their operation skills and experiences in relation to this task were all different from those possessed by modern craftsmen. Traditional stove repairers were, in this project, observed to be eager to demonstrate the techniques they had for this task; yet, in the end, it would still be destroyed and remade because of the implementation process.

> *The action he did at that time was actually a superfluous move to the back road.... Grandpa had his own way, when his approach was in use, and we all had to listen to him before we set about the task. However, we secretly modified it in due course. That was because the situation would have become worse if we had disagreed with what Grandpa told use to do. In this way, we would not reply, Grandpa, you can't do like this." Also, this was not a big problem for us to tackle because Grandpa just simply wanted to teach us, and he would not stay for the duration of the whole construction process. In other words, Grandpa was there just to teach us what they had known and learnt*. (modern techniques)

The settlement elders finally felt reassured of the work, even if their usual ways of using the materials for traditional architecture were still quite different from modern technology. This leads to the problem of whether to rely solely on personal experiences rather than science and rationality, and vice versa. Undoubtedly, when the two opposite concepts meet, confusion over the traditional technology, the modern education training, experience learning, and science education could not be prevented. For example, in the technique of mixing old and new cement, the two were handled in different ways. However, modern craftsman chose to accept the traditional method, even if the method was not in accordance with the standards practiced in modern times, because it did not affect the overall application.

When you come to a place, you should learn from the local elders. The existence of either the local cultural or technological knowledge has its own value, and so this must be formed under particular circumstances, which makes local cultural or technological knowledge valuable since neither of them are irreplaceable. Modern experts, who were specialized in bricklaying, failed to complete a fish stove; instead, they followed ancient wisdom, and so they completed the fish stove locally. After all, the restoration of fish stoves is not a simple repair task. Modern craftsmen must be humble because

they are not considered as the only sources. Instead, the local settlement residents should be regarded as the community actors to promote the concept of community participation.

4.3.4. The Third Phase of Restoration: Evaluation After Restoration

During the completion phase of this fish stove restoration project, the local settlement residents participated in this project in different forms of observations, discussions, or direct participation in the repair task. There was also some lively discussion about the original use of the fish stove and its future application after the completion of its repair.

The Fish Stove Is Repaired and It Is Not Bad (koh-bē-bái)

The fish stove repair site attracted many residents to gather and discuss; simultaneously, attention had also been received through the community network. Such a connection was extended through human activities; its largest benefit is to arouse the community residents' curiosity about the fish stoves dated back to different ages. The younger generation or someone without the same experience would ask "What is a fish stove? What is it for?" The elders, who know what a fish stove is, what a "fried-cooked fish" is, would generate further discussion deliberately and evoke memories. For instance, for elders aged approximately 70 years old or older, in addition to the recollection of their memories, they would think that it might be great to clean up the fish stove. But now, there is no "fried-cooked fish", or what is it used for? For the elders, the stove can also be considered as a kitchen utensil to be used, even though it is an old one, since the existence of the object should have its own function; otherwise, it would become useless (bô-khah-tsuah) as suggested by the elderly. Without recognition from the local community regarding the value of its function, this object would become useless (bô-khah-tsuah) based upon the opinions given by the elders, and what is more, the value of repairing the fish stove would be completely meaningless and not beneficial at all. As soon as the fish stove starts to function as a cooking tool (a kitchen utensil), all the repairing actions would become quite rewarding because of the recognition given (koh-bē-bái) to it. Eventually, this value would also be changed through the transformation of the past production into the current cultural form.

Application after Restoration: Culture Delivery

So far, there is no existence of the traditional fish stoves used for fish processing in the Peng-Hu area, there is no processing of "fried-cooked fish" on Wang-An Island, and Tseng's fish stove was the only one available on the island after its repair. Because of the current state of the industry, the repaired fish stove will not be used for fish processing. The reproduction of cultural assets via fish stoves should be perceived in an applicable manner, and the value of cultural assets can go beyond other forms of visual art because they allow the visitors to enter real "past experiences" instead of virtual reality [21]. During the repair process, the residents who gathered at the site had jointly redefined the future use of the fish stove. After restoration, several cooking events such as "frying and cooking fish", steaming black sugar cakes, and frying and boiling peanuts have been given. This place was also selected to be used in teaching materials for the local school and also in curriculums across the areas of Peng-Hu (see Figures 11–14).



Figure 11. An Experiential and Learning Activity for the Returning Residents Through the Use of Fish Stoves.



Figure 12. The Use of Fish Stoves for harvesting peanuts.



Figure 13. Hua-Zhai Maritime Culture Study—Fish Stove Experience.



Figure 14. An Experiential and learning activity given to Wang-An Elementary School Teachers and Students—The Cooking of Stinky Fish at Tseng's Fish Stove.

4.3.5. Analysis of the Overall Fish Stove Restoration

After careful inspection of the phenomenon in relation to the task of repairing the fish stove, the actor network was adopted for analysis. This research established a construct between the network and repair process based on the actor network (the relationship between human and nonhuman). The important roles played in the restoration operation can be divided into the following three major types: the locals, foreigners (executive teams), and fish stoves. The interrelation between these three subjects regarding stove repair is shown in Figure 15 below.

The executive team tried to repair the fish stove with one of the methods referred to as the concept of life field recovery. The main problem that the various main actors needed to solve together during the repair operation was "how to repair the fish stove?" Besides, for the executive team, the aim of doing so was to find "a breakthrough point in activating the settlement" and to be able to form a specific diffusion effect.

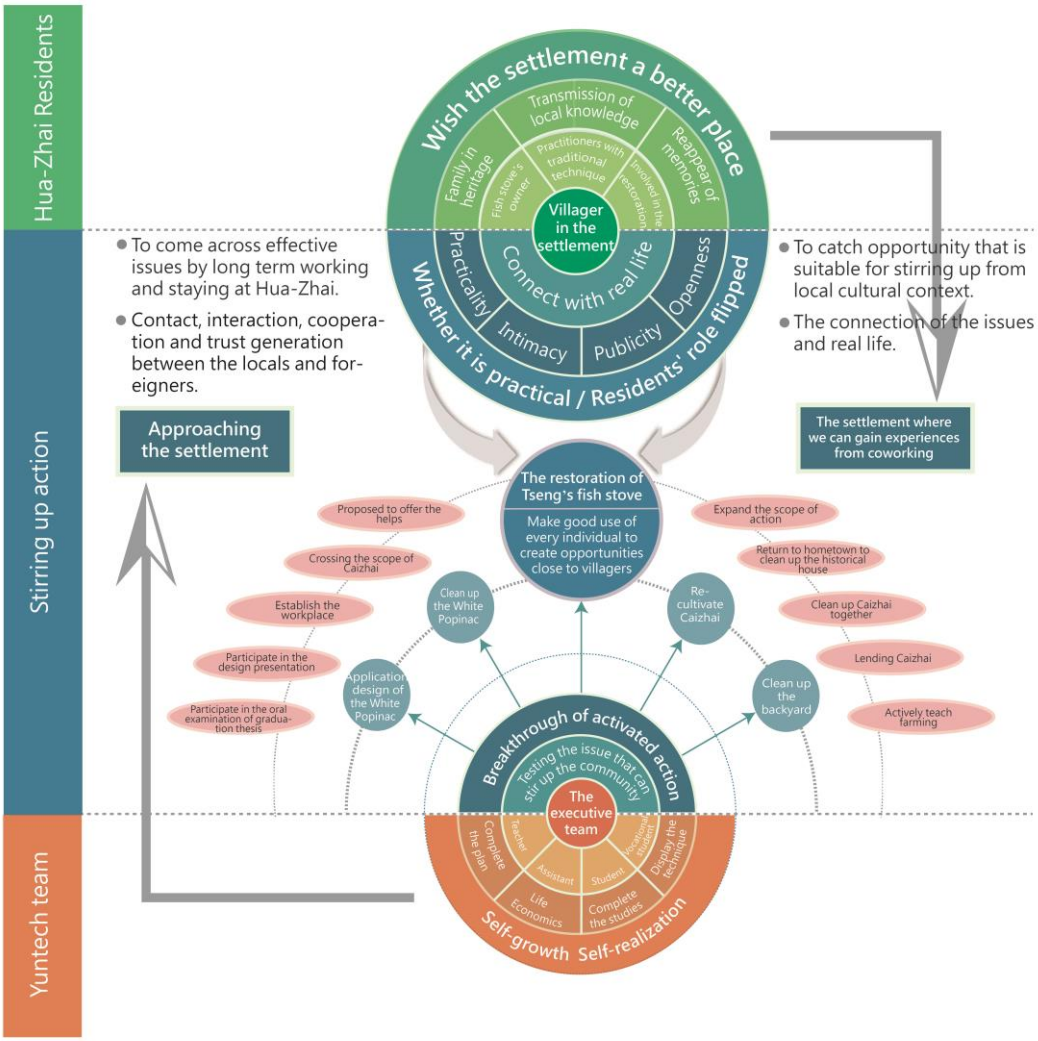


Figure 15. Contact, interaction, cooperation, and trust between the locals and foreigners.

The Locals

A. They played the role of activating local knowledge, and the existing science education and techniques used to reproduce the traditional technique complemented their knowledge in this regard. Each actor possessed mutually acceptable joint tasks in this network. In the stage of repairing the fish stove, regardless of the selection of materials, human collaboration, and technical operation, priority was given to local conditions. Upon its repair, the owner of the fish stove invited the local elders, well-experienced in constructing stoves, to join the restoration and to teach the traditional techniques of constructing the stove and collecting the materials. The team unexpectedly discovered that, in addition to Mr. Yeh Chen-Ren, Mrs. Chen-Li-Shiang was also well-experienced in building and using the fish stove; therefore, she actively participated in the executive team. Simultaneously, someone was also invited to be in charge of the settlement construction plan and to assist in the process of material and equipment scheduling and borrowing. Because the "student" was very curious about cement work, this process changed from observing to participating in repair, providing experience in commercial construction. The elders knew the traditional techniques of repairing the stove. The student's techniques helped to realize the traditional techniques described orally by the elders and re-presented it to the restoration of the fish stove. The value of traditional knowledge moved and honored the elders and made them quite harmonious and willing to share throughout the process.

B. Collective memory and cross-regional participation. Based on this study, there is a region restricted to all the local residents and used as their own living area. This settlement area was mainly divided into the following four areas, including Ding-Liao, Xia-Liao, Shen-Ze-Ho, and Wei-Liao. Because of the limited scope of farming, the mobility of the residents in the settlements had been promoted. The fishery restoration process and the post-repair experience activities has made contributions to the cross-regional activities for the residents. Meanwhile, from a historical perspective, the discussions of the past memories of daily life were also triggered, and so the restoration of the fish stove is worthwhile.

C. The problem of concreteness. Among the many actions performed by the team, all that the residents were concerned with was as follows:" is it true?" and "doing nothing". We needed to listen to the voices of the elderly carefully and clearly explain the process of each action involved in the restoration. The meaning hidden in the back of the elderly's mind was whether the team treated every part of the settlement and everything with sincerity. When the affirmation was accepted, the elderly would say, *"I don't care what you want to do! Do what you want to do"* (field notes). This was a sign of rapid acceptance based on trust and understating.

Foreigners (The Executive Team)

A. A breakthrough in the community development. As far as dying settlements are concerned, the restoration work of the local heritage must be taken seriously because a major breakthrough in community development is when residents are constantly thinking and trying to create a "link" through action. Such connection represents the link between people and their reconnection with physical objects. With the alteration of time and space, there have been multiple changes in the relationships among people and between people and physical objects, including the use of existing resources, an understanding of the living surroundings, and the "local knowledge" that is accumulated gradually by constantly adapting ways of living to communities [22]. In addition to making good use of "local knowledge", we gradually discovered that specific, visual, and life-related actions were more likely to produce dialogue through a series of actions. Each action with similar or close values to the local values is more likely to encourage interaction, which, in turn, creates a sense of trust and understanding. Because the locals adapted to the living environment over many years, both the tangible and intangible cultural assets can become the biggest catalyst for local interactions and so enhances the sense of belonging in the stages of community reconstruction, recovery, and development [23].

B. Self-growth and self-realization. When each member of the team gathered in Hua-Zhai, in addition to the task of coordinating the project, the goal of self-realization should also be achieved. A detailed review of the executive team's projects, most of which were independent from the commissioned project in order to increase the implementation of the project, shows motivation from observations to face real problems the settlement is dealing with, which also includes the challenges of self-growth and realization. Settlement activation was common along with the challenges of self-growth and self-realization. Settlement activation is an ordinary case; yet, how to find out a specific solution was also a challenge for the team. When faced with challenges, each person had a different task. The teacher must decide on the research topic in the implementation process and complete the project while facing the problems that arise. The students will enter the settlement, set about the research topic, and seek guidance from their professor. What the assistant needs to work with most directly is the economic needs of the inhabitants. The vocational students combine bricklaying with traditional techniques so that the bricklaying technique can be displayed in the traditional settlement; thus, traditional technology is preserved by the combination of bricklaying.

When the Locals Are in Contact with Foreigners—Fish Stoves and Other Activities

Each of the above-mentioned recruiting subjects, whether they were directly or indirectly involved in the restoration of the fish stove, had an appearance in the settlement network. Why did the executive team choose to carry out actions using materialization in planning operations, from the backyard of the service center, to the restoration of Caizhai, to the restoration of the fish stove. Also, the research analyzed the impact of various actions involved in the process of contacting, interacting, and cooperating with residents; generating trust between locals and foreigners (see Table 3); making efforts to seek breakthrough points for activation; and the connections created by approaching the settlement through a living thread of history. This was a community background dominated by agriculture and fisheries. In facing the activities introduced from the outside, the settlement residents would be more at a loss. Specific visual actions can link existing life with the community and help to understand the implications and meanings of new actions based on past life experiences.

Table 3. Analysis of the Impacts of restoration.

Event	Resident Participation Degree	Acting Body	Number of Impacted People	Local Knowledge	Collective Memory	Publicity	Concrete Benefits
Backyard cleanup	None	The executive team			Not related to life experiences		Obtained a clean garden.
Tseng' Caizhai Cleanup	Attended and expressed views in the discussion	The main laborer's owner of Caizhai due to the physical action produced by the arrangement	The owner of Caizhai, the whole family of No. 114 Hua-Zhai	Intimate, obvious	Contains family memories	Kindness	Drove the whole family of No. 114 Hua-Zhai to organize the surrounding environment of the house Recultivation of 3 Caizhai
Recultivation of A-Kui's Caizhai	Attended and expressed vies in the discussion	The executive team	The owner of Caizhai, The residents of "Dingliaochia"	Intimate, obvious	Contains area memories	Kindness	Obtained interactions with the elders of Ding-Liao. Able to use a Caizhai Got permission to use the surrounding Caizhai
Popinac cleanup and application design	Informed, expressed views in the discussion	The executive team	Active diffusion across a range of people		Never appears in life memories		Completed the cleaning of various places in the settlement The elders actively proposed to provide assistance Promote the experimental design study of 2 cases Borrowed space Expanded the interaction with the residents of Shan-Ze-Hou.
Restoration of Tseng's fish stove	Attended and expressed views in the discussion Strategy and self-management	Special acting body Main actors: traditional craftsmen, craftsmen, fish stove owners, and planners	Including the owner of the fish stove, traditional craftsman, the residents of the settlement, and local elementary schools	Intimate, practical, high-level of traditional technique	Contains the collective memory of the settlement	Kindness and localized publicity	Repaired a fish stove After the repair, experienced the venue Settlement's new attractions Rural teaching material for the elementary school Residents actively participated across regions (Chiatou)

Resources: Classified by the research.

5. Conclusions

Speaking to the motivation for conducting this project, the major task confronting the executive team was how to reactivate a stagnant settlement. If it is literally dismantled, we should move on and continue. Reuse is the value that is generated after re-translation. The focus is on the preservation

of "living". In addition to the style of the building space itself, the preservation of "people" and "things" is important to preserve in the local area [24]. With respect to the analyses of the executive team's many actions, "living in the settlement" was the most important to us because we constantly adjusted our designs out of empathy. In this case, we adopted a relatively easier way to achieve our goal. For example, we tried not to use our professional knowledge in relation to this task. We also had thought much of the inequality of knowledge, and so we acted as a learner, and gained considerable valuable experience and feedback from the repairs. The following empirical principles for promoting community design were obtained from the above case analyses.

5.1. The Long-Term, On-Site Community Design Approach Helps to Identify Effective Discussion Topics

In terms of the community design project, we should not limit ourselves to a small number of topics from which to choose. One of the most effective ways to identify topics is based on the concept of "effective on-spot observations". That is, it is relatively easier for researchers to find important research topics because these topics are often strongly connected to the local communities and people. In this case, by entering and living in the local community, informal conversations or talks can allow researchers a better chance to uncover issues to which the locals have paid great attention. Also, when deciding on good topics, it is important to be keen and flexible when encountering specific discussion topics. This enables research to not only put related discussions and directions into real practice but also to promote community design and establish effective interactions with local people.

5.2. Community Design Often Finds Opportunities for Disturbance from the Local Cultural Network and Habits

The life motto followed by the elders living in the settlement was the concept of "sharing and mutual assistance". Sharing can be divided into the sharing of "things" and the sharing of "techniques". During the interview, Mrs. Chen often mentioned an exchange of knowledge in relation to the techniques needed for the repair task so as to assist neighbors in repairing the stove. Grandma Hsu would share the catch with families that did not have food and assisted (sio-phuānn-kang) with farming to help each other and complete tasks collectively. Concerning the selection of community design topics, it is vital to consider the local cultural context and the values co-constructed by the local actors in order to actively engage them in the task. For example, the topics we selected dealt with Caizhai and the restoration of fish stoves. In the lending of Caizhai lands and restoration of the industrial landscape, we adopted an implementation method that complied with local culture and habits and effectively lowered the thresholds for local people to participate in it. The concept of "sharing and mutual assistance" is based on the collective memory and life experiences of the settlement residents, providing the locals with opportunities to get a better understanding of their own local life context. In other words, to collect all forces and sources needed for a solution to be given to the local issues, a high awareness of community activation and development would need to be aroused among the settlement residents.

5.3. Community Design Issues Shall Be Connected to the Values of Real Life and Be Practical, Intimate, Public and Open

Used as a life tool and defined as an industrial production tool, the stove ("Zhao") and the local residents in early days were inseparable. Its existence and spatial pattern can easily be recollected by people's authentic experiences of using it. Although the experience as such can be affected by an individual's background, it has somehow reflected the memory of the region in times gone by. Therefore, it can be deemed as a collective memory or an important sign of the times. Although fish stoves can be considered as a private industry, the production facility is strongly valued as a public open space.

5.4. Local Priority Shall Be Given to Community Design so the Value of Local Knowledge Is Treated Equally and the Role of the Traditional Craftsman is Reversed

Community development and design is a form of codesign. Take our fish stove restoration project as an example; it was a practice-based design that encouraged local participation. Traditional craftsmanship became the primary local knowledge resource; thus, the locals had a high awareness of the traditional technology they possessed. The main reason for this might have been the fact that these practical techniques were obtained from their own experiences based on repeated practice and error detection and correction, especially for people inhabiting the outlying island environments. Such a way of knowledge accumulation was irreplaceable at that time. When the traditional stove repairer and the modern repairer, equipped with the knowledge of modern science technology, met in Hua-Zhai, the traditional craftsman and modern science educators continuously exchanged their views or opinions throughout the entire repair process. We have learnt that all the life experiences and technical values of traditional craftsmanship are relatively more important for the restoration of fish stoves; thus, having local knowledge and gathering the force of the entire settlement are of paramount importance in this regard.

By reflecting upon the entire research process, during a certain of period of time we were engaged in an internal dialogue during implementation of the project. Although the findings of this project are tentative, we cannot deny what happened; that is, through the past few years, a group people with design backgrounds interacted deeply with the settlement elders, and so they had learned the meaning of local language expressions and the values of life cherished by the locals. All of these had made a series of settlement activities come to pass, including repair of fish stoves, and also included many attempts of "bô-khah-tsuah". Wright mentioned in the Guidelines for Envisioning real utopias that the choice of social action is characterized and evaluated based on desirability, viability, and achievability [25]. However, not all the solutions are feasible and achievable when they are embedded in different structures. Instead, establishing trusted relationships between each other encourages people to attempt community participation. This also further enables them to optimize their performance.

However, there is a long way to go in terms of settlement activation. The repair to Tseng's fish stoves provides a good example of gaining experience, and this has brought many benefits and should not be neglected. The executive team is also going to set about repairing "Yan-Fu's fish stove" and restoring the cement kiln. This not only breaks the restrictions imposed on the focus of activating and reusing historical houses, but it also further preserves the continuation of the "living space."

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