

Conference Paper

Suburban Villages: Conceptualizing Urban Fringes in a Global Context. The Case of Wangzhai

Vincent Peu Duvallon

Michael Graves College, School of Public Architecture, Wenzhou Kean University, China

Abstract

Early settlements, or “Suburban Villages,” are organized along the Wenruitang water network, a millenary old canal system which structured the territory around Wenzhou. The extension of the urban boundaries from the late 1980’s onward included the rural villages along the Wenruitang in a form of diffused urbanism. Those villages became linked to create an *Urban Archipelago*, defining an indigenous kind of suburbs. At present these villages are threatened by the constant mutating character of this suburb: the agricultural land preservation policy will preserve the diffuse urban form but puts the burden on the already built areas, i.e. the suburban villages, as the only place of redevelopment, and real estate speculation.

Our research project aims to define this mutating territory and focus particularly on the relation between the Wenruitang water system and the settlements, within this new suburban situation. Our goal is to show the patterns of its architecture and urbanism in order to propose either a preservation and rehabilitation plan.

Our first case study is the village of Wangzhai in Wenzhou in Zhejiang Province. Located on one branch of the Wenruitang water network, Wangzhai village is both typical and specific. As part of these Suburban Villages network, it is typical with its relation to the river, its spontaneous urban development, and its modern vernacular architecture heritage.

However it is located within the boundaries of the Sino-American Wenzhou-Kean University, and is part of the planned Kean Town. The objective of our research is to examine the condition of the village in order to propose conceptual tools that might be used for design strategies.

Keywords: Vernacular Landscape, Urban Fringes, spontaneous urbanism, scattered density, Suburban Villages.

Corresponding Author:

Vincent Peu Duvallon
vincentp@wku.edu.cn

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1. Introduction

To understand the concept of Suburban Village we need to work at two different scales. The large scale of the *suburban* territory constitutes the urban fringe on one hand. The scale of the urban fabric of the *village* on the other hand and its relation to the landscape is the second scale. The dialectic relation between these scales that defines this issue. But one has to work on two periods in order to understand the territorial mutations which occurred between the 1980s and the 2010s in China and in Wenzhou in particular.

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During the last thirty years of development in China, attention has been put on the urban areas, and the urban revolution was accompanied by a large scale infrastructural deployment that redefined the Chinese territory at large scale. In addition the rural exodus emptied the countryside of its population. The combination of the rapid urbanization, the urban exodus, and the restructuring of the territory through the infrastructure led to the creation of leftover territories beyond the urbanization frontline.

For the last ten years in China, the growth of the tourism industry brought back the countryside in the center of attention and of the debate, with large scale initiative in Yunan province or in Songyang County, Zhejiang (Kögel E. ed., *Design and Architecture, Rural Moves*, Berlin: Aedes).

However fringe territories, such as the Suburban Villages we examine in this paper, remain the blind spot of large scale planning strategies, which cannot go beyond the rural/urban dialectics and find a way to think about the in-between.

Recent research put the light on these territories through the analysis of a series of specific cases (Verdini G., Wang Y., Zhang X. eds. (2018) *Urban China's Rural Fringe, Actors, Dimensions and Management Challenges*, London and New York: Routledge). Although our current research focus on the particular village of Wangzhai, our objective will be to understand them as part of a consistent territorial system which finds its logic in the interaction between the settlements and the infrastructures.

The village of Wangzhai has the particularity of being within the boundaries of Wenzhou-Kean University, a Sino-American institution and also part of Kean Town, a local authority initiative to create an international town around the American University. As part of the future development of the university the village went through several designs, from the total destruction of the first drafts to the partial remodeling and then the preservation of the later plans. However it is also a typical village of the Wenzhou suburban territory and it is as such that we will analyze it.

In a first part we will describe the large scale context of the suburban villages in Wenzhou urban fringes. What does the idea of suburb mean in China? How could we define this mutating territory? Could such concept such as *Green Archipelago* or *Citta Diffusa* (Secchi B. (2009) *La Ville du Vingtième Siècle, Paris: Recherche*) makes sense and could either be applied in this situation? We will try to understand this new kind of urban sprawl through a landscape and geographical perspective and through the relation between the infrastructure and the landscape.

In a second part we will focus on the urban fabric of the village, its morphology and its relation to the surrounding landscape. We will look in detail on the morphology of

the village and how it is a continuity of the agricultural landscape. Finally a typological analysis will reveal the architectural constituency of the suburban village.

Our third part will be a proposed definition of the suburban village beyond the particular case of Wangzhai. It will be a working hypothesis for further research on similar cases.

Finally we will conclude by mentioning the relevance and the necessity of preserving these village and the development potentialities.

2. Suburbia: Defining the Large Scale Territory As Scattered Density

Suburbia refers to a specific urban model of planned communities, which appeared in America as an anti-urban form of urbanism(Choay F. (1965) *Urbanisme, utopies et réalités, une anthologie*, Paris : Editions du seuil) and which Olmsted gave its ideal form and model with the project of Riverside, Illinois in 1875.

Although this form of suburbia exists in China in the form of gated communities, this is not the suburbia that we will talk about. “Suburban Villages” is understood as the edge of the urban sprawl, a territory that appears to be spontaneous and unplanned, of low built density, a vernacular landscape (John Brinckerhoff Jackson defines the vernacular landscape by changes and mobility in Jackson J.B., 1984 *Discovering the Vernacular Landscape*, New Haven: Yale University Press.) where infrastructures overlaps with a collage of many different forms of urban settlements. When talking about suburbia, we understand it as Robert Smithson describes it: a zone that” encompasses the large cities and dislocates the “country”. Suburbia literally means “city bellow”; it is a circular gulf between city and country, a place where buildings seem to sink away from one’s vision.” (Flam J. ed. (1996). *Robert Smithson: The Collected Writings*. Berkley: University of California Press. P91) It is a not-yet planned environment were the territorial structure of the countryside (farmlands, irrigation and drainage water system, pathways) meets the large infrastructures of the urbanization process (Highway, roads, train lines). In between lies some island of new urban development such as high rise housing estate, shopping malls or university campus, each island with its own urban logic and form and each islands is disconnected from the other one by the infrastructure. There is a disconnection between the circulation and the settlement.

To make this landscape legible we have to look at its organization prior to the urbanization process that occurred during the 1990s and the 2000s. On the diagram (Figure 1) of the Wenzhou area from 1984 we can notice the Wenruitang as the main

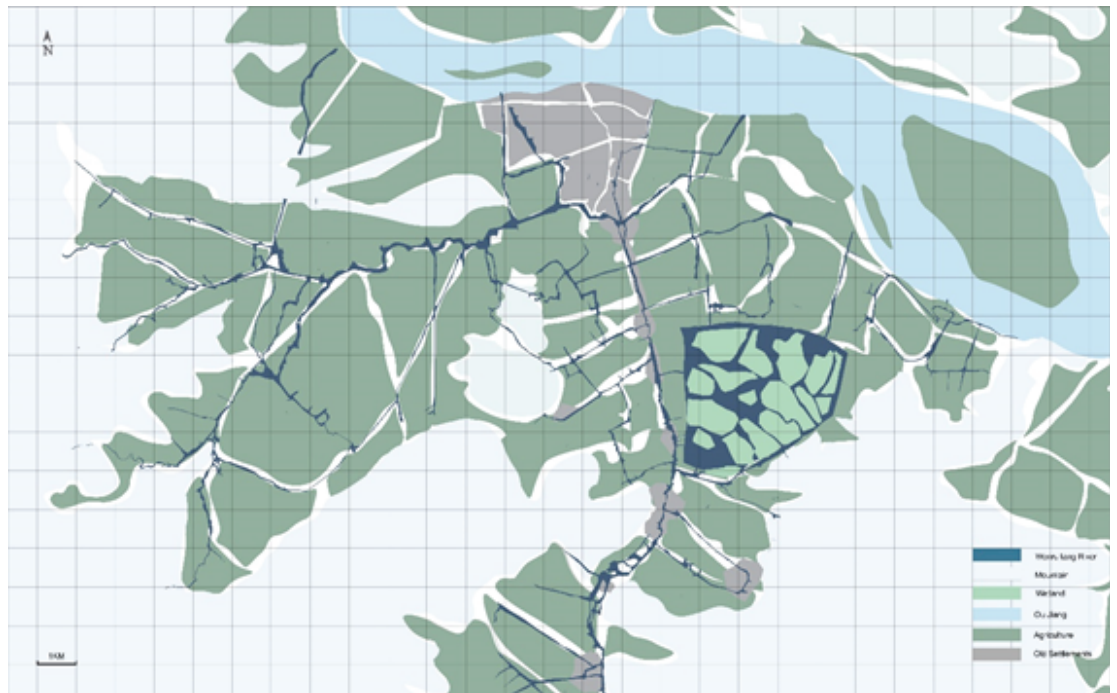


Figure 1: Wenzhou, 1984. (Diagram: Zhang Zitao).

infrastructural system that organizes the whole territory. The Wenrui Tang is a hybrid system composed of two rivers, one that goes into the Oujiang in the north and one that goes into the Feiyun in the south, and many canals. The Wenrui Tang links the historical downtown of Wenzhou on the Oujiang to the city of Ruian on the Feiyun, hence his name. It links together all the part of the territory and is connected to the Sanyang wetland which is a large agriculture area. The Wenrui Tang organizes the Wenzhou territory along this north-south axis. It links the different settlements together and articulate the settlements with the agriculture land.

If we look on the diagram (Figure 2) of the Wenzhou Area from 2018 we can see that the new infrastructures networks (highway, light rail, high speed train...) has been superimposed on top.(Figure 3) Therefore the new urbanization which follows the new infrastructure, conflicts with the former Wenrui Tang organization. So we have on one hand, a rhizomes of old settlements that follow the structure given by the Wenrui Tang water network, and on the other hand a recent urbanization that follows the new infrastructures network and these two logics overlaps into a hybrid landscape.

The result is not a sprawl in the classical meaning of the term as a self-developing low density urbanism but a form of what we could called *scattered density*: each settlements follows a different territorial logic: the high-rise housing, the shopping center and any new development following the new infrastructure and the suburban villages following the old infrastructures.

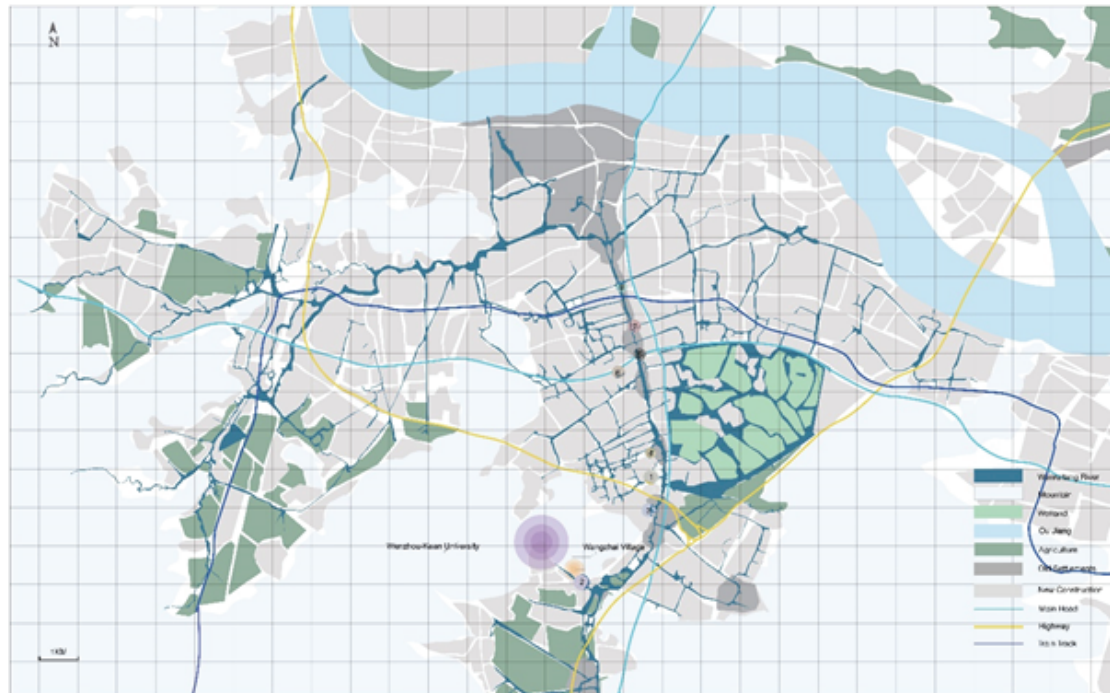


Figure 2: Wenzhou. 2018 (Diagram: Wang Yixin).



Figure 3: Train and light rail crossing the Wenruitang. (Photo:Wang Yue).

This scattered density is close to what Ungers and Koolhaas have defined as a *Green Archipelago*. (Hertweck F., Marot S. (2013) *The City in the City: Berlin: A Green Archipelago*, Baden: Lars Müller Publishers) The main difference being that we are in a situation of urban growth where Berlin was at that time in a situation of urban shrinking.



Figure 4: Suburban Archipelago or Scattered Density. (Diagram: Vincent Peu Duvallon).

This Urban Archipelago condition is sustained by the limitation of the buildable land, particularly in the area between Wenzhou and Ruian, a thirty kilometer long wetland which includes many protected agricultural land.

With its punctual density surrounded by agriculture or natural reserve, the scattered density is the answer to the *Citta Diffusa*, or sprawl that is defining suburbs in Europe or in America. It is somehow the spontaneous application of Ebenezer Howard model of Garden City as a network of dense urban islands.

3. Suburban Village: A Typomorphological Understanding of Its Fabric

The Wangzhai village is one of these old settlements. It is located in between Wenzhou and Ruian and developed along one arm of the Wenrui River which gives its northwest-southeast orientation. It is surrounded by farmlands that were used by the inhabitants of the village before their forced expropriation into relocation apartment. Following the basic precepts of Fengshui, the village is set with the river on the south and the mountain on the north and on the left.

Its urban fabric is defined by a morphology that continues the pattern of the farmland and by an architecture that is following a very specific type of courtyard house.

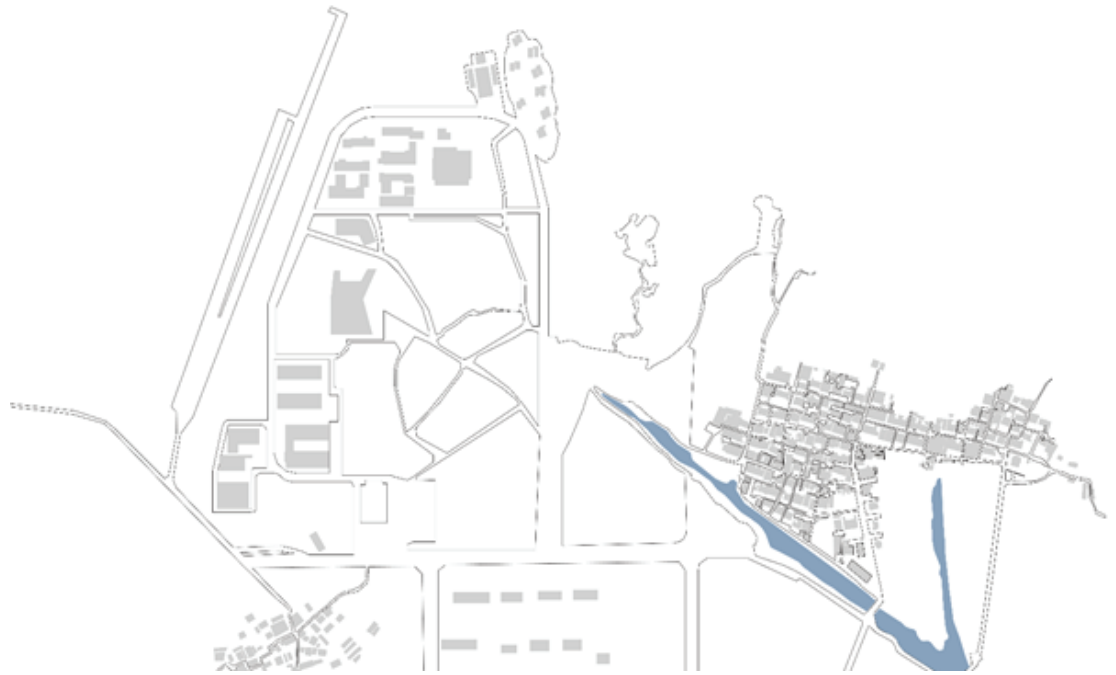


Figure 5: The village of Wangzhai on the right and the campus of Wenzhou Kean University on the left. (Map: Wang Zirui).

The urban morphogenesis understood as the continuation of the agricultural settlement has been depicted repeatedly (Kostof S. (1991) *The City Shaped, Urban Patterns and Meanings Through History*, London: Thames and Hudson Pinon P. (2016) *Une Archéologie du Sol Urbain*, in Viganò P., Mantziaras P. eds., *Le Sol des Villes*, Genève : Metis Presses. Rykwert J. (2000) *The Seduction of Place, The History and Future of the City*, New York : Oxford University Press). In the case of city development, the agricultural pattern leads to the laying out of streets. The streets will replace the limits between each field and the city will replace the countryside.

Here we have a continuity between the agricultural pattern, defined by its drainage waterways, and the urban pattern defined by its streets and blocks. The path continues in the village in to streets. The waterways overlaps with the path on the edge of the village and goes underneath to reappear in the form of wells.

This urban form that could look organic, or spontaneous, is actually following a rigorous landscape logic. The setting of the fields and the irrigation waterways is the result of a careful work on topography, orientation, water engineering over decades and centuries of dwelling. It is the embodiment of the *oecoumene* (*Mesology develop an understanding of the relation between human being and their environment through the analysis of the milieus*. Berque A. (2000) *Médiance, de milieux en paysages*, Paris: Belin), i.e. the crafting of the environments by the cultural forces, the physical form that a particular culture gives to itself, the mediation between man and its environment.

The built part of the village, the urban form, follows this logic and keep an organic relation to the surrounding landscape. The urban form cannot be understood as an independent entity but only within its relation to its agricultural environment at close scale and to the Wenrui tang at the territorial scale. (Figure 6)



Figure 6: Relation between the urbanized area and the water network. (Diagram: Zhang Miao).

The streetscape is defined by the courtyard houses that border it. Each house will have a large courtyard on the south of the house facing the street with an enclosing wall to separate the courtyard from the street (Figure 7).

These courtyard houses are two-story houses with usually two load bearing walls made of grey brick on both sides, a wood structure inside, and stone lintels on brick piers for the loggia that faces the courtyard. Its size can range from one bay to five or six bays depending of the size of the family. The size of the bay is defined by the maximum span of the stone lintel which is around three meters. On the south part of the house behind the loggia, will have the main living room in the center and rooms on the side. On the back of the house, the kitchen facing the street. A central stair, usually



Figure 7: Courtyard in front of the portico. (Picture: Zhang Miao).

in between the kitchen and the living room, will lead to the second floor with additional bedrooms.

The typology is extremely flexible and adaptable to the growth of the family and the location in the village. The row of houses on the north, facing the mountain will have back enclosed gardens that will articulate the built area with the fields. The courtyard, facing south, will be the main living space.

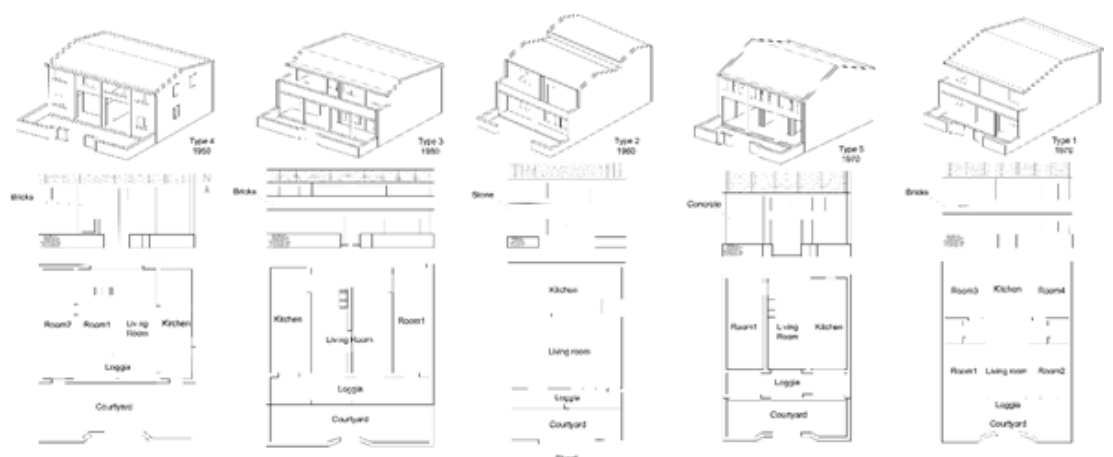


Figure 8: Typologies. (Diagrams: Zhang Miao and Wang Zirui).

What is striking is to see how this typology persists in the concrete buildings that came later. Although they can reach height up to three or four floors, they are organized in the same way. The loggia with the brick piers and stone lintels will be replaced by cantilevered balconies that will serve the same purpose. Between the stone, bricks and wood buildings and the concrete buildings we can find a variety of hybrid forms mixing different construction methods but always based on the same type (Figure 9).



Figure 9: Concrete version of the traditional typology. (Photo: Zhang Miao).

Punctually, some houses built after 2000 by wealthy villagers break the consistency of the village architecture.

The architecture of the Wangzhai village is mostly built after 1950 and its architectural interest lies more in its consistency of the village as a whole rather than in the individuality of one particular building. Therefore it is important to understand what could look like a banal architecture as part of a system that founds its logic in landscape.

4. Defining the Suburban Village

Based on the example of the village of Wangzhai we can lay out some preliminary and temporary definition of the suburban village.

4.1. The Suburban Village is the result of urbanization and the mutation of the territory.

The suburban village cannot be understood individually or as a timeless model. Taken individually it is a rural village. But understood within the large scale of space and time, it is a part of the new territory which is the result of the urbanization process of the last thirty years. It follows an old territorial logic in a landscape that has been reshaped by new infrastructure.

4.2. The Suburban Village is high density within a scattered density landscape

The density of the suburban village is dense compare to the low density of American suburban sprawl or the one of the villages in the mountain that we can find in the countryside of Wenzhou. It is a compact form of urbanism.

4.3. Suburban village works as an extension of landscape

The urban form of the suburban village comes from the agriculture settlement which works in close relation to landscape. Hence its organic relation with the surrounding and the continuity between the built part of the village and the landscape that surrounds it.

4.4. The architecture of the Suburban village is banal.

The architecture of the Suburban Village is neither historic (most of the buildings were built or rebuilt within the last fifty years) nor specific (few of the building are noticeable in themselves). Rather, the architecture presents a consistent system that sustains and evolve beyond material changes. It is not the age value (Riegl A., *The Modern Cult of Monuments: Its Character and Its Orgin*, Foster K.W. and Ghirardo D. Trans. In Hays M. ed. (1998) *Oppositions Reader*, New York: Princeton Architectural Press) of the building that makes it worthy of preservation, but its consistency within a given urban system (Giovannoni G. (1931) *L'Urbanisme Face aux Villes Anciennes*, Mandosio J.M., Petita A. Tandille C., Trans, Paris : Editions du Seuil).

5. Conclusion

The village of Wangzhai, as part of Wenzhou-Kean University, went through different planning phases and it is now agreed, both by the University leadership and the local planning authority, that the village should be kept and reused. This short analysis lays the ground for a design proposal of the village.

However, as we have seen it, it is one village among a network of villages that were along the Wenruitang water network. Along with urbanization comes destruction and the villages close to the downtown have already been demolished to provide space for contemporary high rise housing which is totally unrelated to the Wenruitang. Conventional Wenzhou planning methodologies do not revert to the former territorial logic based on the Wenruitang. But we have seen that the two logics overlap and can coexist. We think that the revitalization of the suburban villages could revalorize the Wenruitang as a whole infrastructure which can be a matrix of public spaces. Suburban village are part not only of the Wenruitang logic but part of the current vernacular landscape in the fringe of Wenzhou. Since they develop along the Wenruitang, they develop a privileged relation to the water that the contemporary housing does not address. As such they should be studied and developed rather than demolished and replaced by parks and new settlements that turn their back to the river.

Wangzhai village could be a pilot project in the redevelopment the Wenruitang through urban revitalization.

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Conflict of Interest

The authors have no conflict of interest to declare.

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