

## REVIEW ARTICLE

# Progress and implications of international rural space research

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### ABSTRACT

Space is a product of society. Driven by industrialization, urbanization, informatization and government policies, China's rural space is undergoing drastic reconstruction. As one of the core contents of international rural geography research, rural space research are multi-disciplinary, multi perspective, multi-dimensional and multi-method, forming a rich research field. In order to comprehensively grasp the progress of rural space research abroad, this study reviewed international rural space research literature in recent 40 years. The study found that foreign scholars described the connotation of rural space from the aspects of material, imagination and practice, emphasize the importance of daily life practice. It introduced living space to construct a more systematic research framework of rural space by establishing a "three-fold model of rural space". With regard to the theoretical perspective, international research on rural space has experienced three stages: functionalism, political economics and social constructivism. In the evolution of time, it has realized the transformation from productivism to post-productivism; in the spatial dimension, it realizes the multiple superposition of settlement space, economic space, social space and cultural space. As a whole, international research on rural space has realized the transformation from material level to social representation, from objective space to subjective space, and from static one-dimensional space to dynamic multi-dimensional space, which enlightens us on the importance of interdisciplinary research and "social cultural" research on rural space. The construction of rural space in China needs to pay attention to the subject status of farmers and multifunction of rural space, respect the role of locality and difference of various places, and recover the function of production of meaning of rural space.

**Keywords:** Rural Space; Reconstruction of Rural Space; Social Constructivism; Post-productivism

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## 1. Introduction

With the advancement of industrialization, urbanization, globalization and informatization, as well as economic development and policy drive, China's rural space is undergoing drastic reconstruction. First, the elements, structure, function and organizational relationship of rural settlement space have changed dramatically. Taking the changes of population, land and industry as the core<sup>[1]</sup>, the rural structure in employment, land use, industry and architectural landscape have changed accordingly. The function of rural settlements has changed from simple residence and some agricultural and sideline production to diversified and comprehensive functions such as residence, industrial and agricultural production, consumer market, leisure tourism and ecological protection<sup>[2]</sup>. Rural settlement space has changed from "homogeneity" to "heterogeneity", which is increasingly differentiated and diversified. Urbanization, specialization, hollowing out, decline and even extinction constitute a variety of scenes for the spatial reconstruction of rural settlements in China<sup>[3]</sup>. Second, the rapid development and innovative

application of modern information technology have profoundly changed the way of integrating rural resources. “Internet +”, “ecology +”, and “tourism +” have been infiltrating every field of the countryside, giving birth to many new industries, new formats and new business models<sup>[4]</sup> and the economic space of the countryside is changing from the production landscape to the consumer landscape. Third, technology empowerment comes with technology going to the countryside. Modern technology and industry are profoundly changing farmers’ lifestyle, thinking mode and village governance mode. The communication between farmers has changed from highlighting blood relationship and geographical relationship to industry relationship. Farmers become increasingly professional and specialized. The village governance mode has also changed from overall governance to technical governance, indicating China’s rural social space is undergoing reconstruction. Fourth, under the impact of modern forces such as technology, industry and culture, the rural cultural space presents a mixture of vernacular and modernity.

It can be seen that the rural space in practice presents the overlapping and mixing of settlement space, economic space, social space and cultural space. The rural space has become a dynamic, heterogeneous, networked and meaningful system. However, in terms of theoretical research, in CNKI, taking “countryside” + “space” as the theme word and CSSCI as the source journal, as of November 30, 2018, a total of 968 research papers have been retrieved. Most of the research subjects are rural geographers and rural planning scholars. The research contents mainly focus on rural spatial transformation, land use, spatial differentiation, spatial reconstruction and spatial planning, centering on material space. Some scholars have also studied the rural spatial system from the overall perspective<sup>[5,6]</sup>, but they generally paid little attention to social cultural space<sup>[7]</sup>, and the theoretical research of rural space generally lags behind the practice of rural space reconstruction. The foreign researches emphasize on the “cultural turn” of rural space<sup>[8]</sup>, “rurality”<sup>[9]</sup> and “post-rural”<sup>[10]</sup>, as well as the application of “post-modernism” and “post-structuralist methods”<sup>[11]</sup>, which can provide

reference and inspiration for the theoretical research of rural space in China. Therefore, this paper attempts to systematically sort out the basic theories and trends of foreign rural space research to promote the combination of the frontier theories of foreign rural space research with China’s diversified and differentiated rural space reconstruction practice, so as to provide theoretical support for China’s rural space reconstruction and rural revitalization.

## 2. What is “rural space”?

### 2.1 Four-level implication of rural space

There is no consensus on the division of “rural space” abroad. In the UK, rural areas are usually defined within the scale of local government areas<sup>[12]</sup>, while in the United States and Australia, rural areas are described as the larger scale of non-metropolitan areas<sup>[13]</sup>. To define “rural space”, we should not only consider the scale of “rural”, but also consider its uniqueness in culture, competition and commercialization<sup>[14]</sup>.

Halfacree<sup>[14]</sup> analyzed the connotation of rural space from four levels. First, rural space as material, that is, the locality of rural space. The locality of rural space is constantly produced, reproduced and potentially changed. To identify rural areas, at least two conditions must be met: one is to clarify the criteria for the delimitation of local spatial scale, and the other is that the description of rural space must be able to distinguish rural areas from cities. In short, there must be distinguishing criteria to define “rural”<sup>[15]</sup>. However, under the influence of the perspective of political economy, many scholars question whether the rural areas in today’s developed countries can still be identified<sup>[16]</sup>. The internal spatial structure of capitalist society is constantly rewritten, and the importance of “rural” scale is constantly destroyed by diversification. From a local, national and international (global) perspective, the countryside is outdated<sup>[17]</sup> and rural space is disappearing<sup>[18]</sup>. Second, rural space, as imagination, is the social representation of rural space. As an “analytical distinction or rhetorical device”<sup>[18]</sup>, rural space gets rid of the material internality and becomes the common imagination of

specific groups<sup>[17]</sup>. Rural space may have material expression, but this is not important. The cognitive representation of rural space rather than its performance in social and natural landscape is the starting point of research. This is not influenced by whether rural areas are recognized. Third, rural space, as material and concept, is embodied in “locality” and “social representation”. As a “locality”, it has the following characteristics: agriculture and other basic production activities, low population density, inconvenient transportation and consumption behavior. As a “social representation”, rural space is the rural landscape and community imagined by comparing with other spaces such as cities and suburbs. Fourth, rural space, as practice, emphasizes that space and time are inseparable, concerning about how the material space in rural areas exists through the practice of structural process, and how the conceptual space represented by rural society exists only through the practice of discourse interaction. Therefore, the research on rural space (time) needs a strong situational method.

## 2.2 Triple model of rural space

Halfacree<sup>[14]</sup> believes that the concept of rural space under the dual definition of “locality” or “social representation” is incomplete. Locality is the physical space at the perceived level, and the definition method is academic, while social representation comes from the conceptual space of the subjective mind, and the definition method is secular<sup>[6]</sup>. However, besides two types of discourse, a series of discourse between secular and academic should also be stressed<sup>[19]</sup>, which shows the hybridity and even infinity of rural space. Therefore, only via the close concern of the context can we reveal the “truth” of rural space. Space is not only a product, but also a medium of production<sup>[20]</sup>. More humanistic dimensions must be considered. Therefore, Halfacree believes that a more comprehensive description of the spatial structure should be made from the perspective of synergy, so as to establish an architecture enabling the better integrity of rural space<sup>[21]</sup>. Halfacree established the “triple model of rural space” based on the production of space theory of Lefebvre<sup>[22]</sup>,

namely rural locality, representations of the rural and everyday lives of the rural<sup>[14]</sup>. Rural locality refers to the rural areas characterized by spatial practices such as production or consumption; the representations of the rural refers to people’s subjective space such as cognition and image of the countryside, as well as the way in which the countryside is integrated into the (capitalist) production process; everyday life of the rural includes personal and social cultural factors of understanding and identification with rural life. Compared with the dual definition of “locality/social representation”, the “triple model of rural space” starts from the rural subject, emphasizes the importance of daily life practice, introduces experiential and living space, and makes up for the incompleteness of the concept of rural space under the dual definition. This theory is a more systematic theoretical framework for foreign rural space research, and has important enlightenment significance for domestic scholars to deepen the understanding of rural space.

## 2.3 Three perspectives of rural space research

In the 20<sup>th</sup> century, three different theoretical perspectives have been developed in the field of rural research abroad: one is the functionalist perspective popular in the 1970s, which determines the rural space by clarifying the unique functional characteristics of the countryside. The theory holds that the rural nature features the dominance of extensive land use (especially agriculture and forestry), small-scale, low-level settlements and an environment-friendly and high-quality lifestyle<sup>[23]</sup>. The second is the political economic perspective popular in the 1980s, which links the countryside with the dynamics of national and international politics and economy, emphasizes the power field and institutions of social production, and tracks the transformation of social relations from Fordism to post-Fordism<sup>[24]</sup>. The third is the social constructivism perspective popular in the 1990s, emphasizing the role of culture in the uniqueness of rural space. The relationship between rural social and cultural structure and nature has become the focus of rural research. Halfacree believes that due to the increasingly diversified social representation of rural areas, the symbol of village (rural)

is more and more deviating from its meaning (rural meaning)<sup>[25]</sup>. In addition, symbols and meanings are increasingly disconnected from their reference (rural geospatial). Therefore, the rural space constructed by society has become more and more divorced from its regional function, which is called “post village” by Murdoch *et al.*<sup>[10]</sup>. Social constructivism may lead to the existence of future villages, communities and landscapes as a super real commodity<sup>[26]</sup>, showing a virtual pastoral scenery.

### 3. Historical evolution of foreign rural space research

Foreign rural space research has realized the transformation from “productivism” to “post-productivism”. From World War II to 1970, western countries realized that free market and laissez faire policies could not guarantee sufficient food production, so they continued the wartime planning and intervention policies, basically adopted the policy paradigm of producer system, and food self-sufficiency and income equality became the top policy priorities of the whole developed countries. Therefore, the research on rural space mainly focuses on agricultural production. At this stage, “rural areas mean agriculture” and “agriculture means rural areas”. During the 20 years from 1970 to 1990, the excessive emphasis on productivism caused a series of problems, and the rural space of productivism was destroyed. With the increasing environmental pressure, the research on sustainable development has become the focus of rural research. In the 1990s, rural space research realized the cultural turn and post-modernism turn. Scholars began to view rural problems from the humanistic dimension, and the post-productive rural space research rose.

#### 3.1 Rural space under productivism

The period from the Second World War II to 1970 was dominated by the concept of agricultural productivism. At this stage, western countries are in the recovery period of post-war reconstruction. For the sake of food security, countries have strengthened their policy support for rural production<sup>[26]</sup>. Under the guidance of the concept of productivism,

scholars have conducted a lot of research on commodity agriculture, discussing technological change, globalization and agricultural production under the joint force of government macro-control<sup>[28]</sup>. Based on the agricultural landscape, productivism is oriented by food production and pursues the maximization of agricultural production<sup>[29]</sup>. The key is that productivism is not only influenced by agricultural communities, but also permeates into every corner of rural life, which is the cornerstone of the consistency of rural local structure. Rural space in the period of productivism has three characteristics: Firstly, rural areas are remembered through the dominant agricultural practice, including farmers’ daily and seasonal activities, diversified and professional support services and the increasingly industrialized food production model. Secondly, outside the farm, this performance has been sustained and strengthened. From harvest festivals and other celebrations in the village to the service role of the market town, the activities and functions of the whole rural area are carried out around agriculture. For example, non-agricultural institutions related to agriculture tend to recognize and accept the leadership of agriculture<sup>[30]</sup>. Thirdly, productive agriculture is related to the wider rural society, and rural daily life is mainly realized from the perspective of productivism.

#### 3.2 Crisis of rural space under productivism

During the 20 years from 1970 to 1990, the excessive emphasis on agricultural production led to problems such as overproduction and land degradation. Sustainable agriculture has become the theme of world agricultural development. Productivism-oriented agriculture faces a “structural crisis” that cannot be solved by technological repair<sup>[31]</sup>. Rural areas are affected by both economic restructuring and social restructuring<sup>[32]</sup>, and agricultural practices are forced to adjust from coping with surplus and overproduction to dealing with the recognized consequences of environmental damage<sup>[33]</sup>. Individual farmers and their family life are increasingly affected by insecurity and uncertainty. High levels of debt and depression are the most acute expressions<sup>[34]</sup>, which makes the role of farmers as rural guards

and the impact of financial support more and more questioned<sup>[35]</sup>. Other commercialization methods in rural areas have emerged because: in terms of rural leisure, the British Conservative government published a report entitled “happiness, leisure and work: Tourism” in 1985, which heralded the beginning of the enterprise stage with the focus shifting from highlighting social welfare to meeting market demand through the private sector. This more diversified commercialization also impacts agricultural culture<sup>[36]</sup>, making agricultural culture more competitive, diverse, flexible and responsible for the environment<sup>[37]</sup>. Constitutionally, in 2001, the Ministry of Agriculture, Fisheries and Food was replaced by the new Department for Environment, Food and Rural Affairs, which abolished the prominent position of “agriculture” in rural policy. In the 1990s, British villages focused on the discussion of post-productive transformation, reduced food production and state support, and realized the internationalization of food industry in a freer global economic market, resulting in three bipolar dimensions: from strengthening to expansion, from concentration to dispersion, and from specialization to differentiation<sup>[38]</sup>. This emphasis on diversity not only prompted people to discuss the transformation of post-productivism, but also triggered a discussion on post-productivism villages<sup>[39]</sup>. Agriculture is considered to exist in rural space and society, not the opposite.

### 3.3 Rural space under post-productivism

In the 1990s, the shift of rural consumption became the concern in developed countries. Driven by post-productivism and the concept of rural multi-function, rural space has expanded its function from single agricultural production to industrial production and service. Rural tourism, rural consumption and rural cultural landscape protection are booming<sup>[26]</sup>, providing diversified and non-linear goods and services for urban residents<sup>[40]</sup>. With the socio-cultural turn and post-modernism turn of rural space, the concern about rural consumption has expanded from material space to non-material fields and diversified groups<sup>[41]</sup>, and some new concepts and research perspectives have emerged. For

example, Murdoch *et al.* put forward the concept of post rural from the perspective of post-modernism, emphasizing “production of meaning”<sup>[10]</sup>; Hopkins<sup>[42]</sup> believes that rural areas are changing from physical places dominated by agricultural production to constructive places dominated by symbols and spirit, and outsiders play a key role in the process of rural branding publicity<sup>[43]</sup>; Woods introduced the sociological spatial ontology theory to explore the connotation and extension of “rurality”, and believed that the rurality is jointly expressed by rural residents and rural immigrants, tourists and tourist attractions, policy makers, media and academic researchers<sup>[44]</sup>. Therefore, the countryside is no longer a place without competition<sup>[45]</sup>, but is a heterogeneous space socially constructed by participants according to their own will and experience. Marsden summarized the heterogeneous post productive rural space into four ideal types, namely, preserved countryside, contested countryside, paternalistic countryside and clientalist countryside<sup>[46]</sup>. The concept of post-productive countryside embodies the radical spatial imagination of super productivism, consumptive pastoral life and pastoral scenery, imagining the countryside as a manifestation of a diverse family accessible to everyone, as well as a daily experience of celebrating local and personal significance<sup>[47]</sup>. However, post-productivism villages are often mixed, because they focus on the struggle between the new differences and the existing space of (rural) capitalism.

## 4. Comprehensive multidimensionality of international rural space research

After the 1970s, with the crisis of rural space led by productivism, the research of rural space began a social cultural turn, emphasizing the unique role of social culture in the formation of rural space. Since then, the rural space research has realized multi-dimensional expansion in content, from the research of settlement space and economic space to the research of social space and cultural space, formed a rural space research system including settlement space, economic space, social space and cultural space, and realized the deepening from concrete space to ab-

stract space and from real space to virtual space. The research on settlement space mainly focuses on land use, architectural landscape, ecological environment, settlement origin and structure; economic space research mainly focuses on rural production practice and economic space differentiation; social space research has formed three research themes: social change, social differences and rural power. Cultural space research mainly focuses on institutional policies, pastoral intentions and values. In the following section, researches on international rural space will be elaborated from the above-mentioned four aspects.

#### 4.1 Settlement space

The research on rural settlement space abroad has roughly experienced four stages<sup>[48]</sup>. The first is the initial stage from the 19th century to the 1920s, during which the studies mainly center on the settlement form, the causes and conditions of settlement, the types of settlement, the relationship between settlement space and natural geographical environment, and preliminarily puts forward the theoretical basis of rural settlement. Generally, the research content is not rich, and the research method is mainly description. The second is the preliminary development stage from 1920s to 1960s. The research on rural settlements is gradually enriched and expanded. The research content involves the location characteristics, formation process, development conditions, functions and planning of rural settlements. The research method is mainly small-scale field investigation. The third is the expansion and transformation stage from 1960s to 1980s, with three important theoretical reforms. First, I. Burton's slogan of "quantitative revolution" has greatly promoted the study of rural settlements. The second is the slogan of "behavioral revolution" by R.M. Downs, which attaches importance to "spatial behavior" and "spatial induction", and emphasizes the role of human decision-making behavior on settlement distribution, form and structure<sup>[49]</sup>. Moreover, the concept of sustainable development has promoted the "rebirth" of western rural geography. The research content of rural settlements is very rich, and almost touches all fields

of rural social economy<sup>[50]</sup>. At this stage, there is a trend of combining qualitative and quantitative research methods. Fourth, the stage of transformation and reconstruction since 1980s. Under the influence of philosophical thoughts such as post-modernism, post-structuralism, radical geography and humanistic geography, the research on rural settlements begin to transform to the direction of society and humanities, with the content mainly involving rural conflict<sup>[45]</sup>, rural population migration<sup>[51]</sup>, local government and rural discourse<sup>[52]</sup>, environmental sustainable development<sup>[53]</sup>, rural reconstruction<sup>[54]</sup>, the relationship between rural community types and residential areas of the elderly<sup>[55]</sup>, *etc.* As a result, a variety of disciplines (such as architecture, geography, sociology, landscape ecology, urban and rural planning) and technologies (RS, GIS, GPS, landscape model, *etc.*) have been comprehensively applied into the study of rural settlements, and research methods such as grounded theory, semi-structured interview, concern groups, participant observation and literature analysis have been continuously developed and applied<sup>[56]</sup>. In addition, Q methodology has made significant progress in breaking the distinction between qualitative and quantitative research<sup>[1]</sup>.

#### 4.2 Economic space

Marxism believes that in the developed capitalist society, there is no longer any characteristic rural space, because all spaces will eventually be colonized by capital. Nevertheless, under the influence of multiple factors such as resource endowment and cultural values, there is a pattern of economic spatial differentiation between urban and rural areas and within rural areas, and elements and information flow between different economic spaces and transform each other under certain conditions. Marsden clearly pointed out that the policy not only needs to get rid of the rural concept of strict geographical definition, but also needs to recognize the differentiation of rural space in regional, national, international supply chain, network and regulatory dynamics<sup>[57]</sup>.

(1) Economic spatial differentiation between urban and rural areas. Rural economic space is generally dominated by the production of primary

products, which is often associated with backwardness, poverty, lack of opportunities, traditionalism and isolation. Urban economic space is dominated by manufacturing and service industries, which are often associated with wealth, opportunity, modernization and concentration. Additionally, the speed and intensity of urbanization have exacerbated urban overcrowding, class conflict, moral corruption and environmental pollution. Therefore, nostalgia for the ideal rural environment began to rise in cities. In the mid-1870s, the development of infrastructure and telecommunications technology, the pursuit of cheap labor by capital, the motivation to develop new markets, the need for a better life and raising children promoted the flow of goods and opportunities to many rural areas in Europe and North America<sup>[58]</sup>. Regions are thoroughly infiltrated and shaped by societies far away from them<sup>[59]</sup>. Globalization has led to the possible homogenization of all spaces. Rural areas attract suburban immigrants by building their own unique niche, which Marsden calls consumption villages<sup>[40]</sup>. The flow of capital and opportunities has had a profound impact on the rural economy and social structure. The local economy shows diversity and mixing, and culture has become the main determinant of the local economic model<sup>[60]</sup>.

(2) Economic spatial differentiation within rural areas. Due to the difference of economic development level, resource endowment and cultural values, the rural economic space has formed a circle structure from the center to the edge, namely entrepreneurial economy, dependent economy and rent-seeking economy. i) The income of entrepreneurial economy mainly comes from the value of local resources, and meets people's demand for high-quality goods in the process of globalization through the tacit knowledge of local society. Traditional commodities (local food, furniture, rural tourism, etc.), integrated into the modern marketing structure, are equipped with the characteristics of postmodernism<sup>[61]</sup>. These rural characteristics and modern infrastructure will attract industries fleeing the city<sup>[62]</sup>. Besides, local enterprises rely on cultural factors<sup>[63]</sup> and social capital<sup>[64]</sup> to form cooperative networks and realize economies of scale<sup>[65]</sup>. ii)

Dependent economy refers to areas where income mainly depends on external sources. Cheap labor and the "friendly" environment brought by the national infrastructure construction and services did help a lot for these areas to attract external resources. However, the dependent economy is vulnerable due to the lack of control over the source of investment, which can be alleviated by learning the skills and attitudes of entrepreneurs and moving towards "entrepreneurial economy". iii) The rent-seeking economy is dominated by agriculture and extractive industries. Relying on the advantages of natural resources to obtain "rent", landlords can obtain surplus without investment. However, the rent-seeking strategy will hinder economic growth due to insufficient investment<sup>[66]</sup>. In addition, due to the class polarization and closed culture, there will be inevitably appear the oligopoly economy, which will not only reduce the landlords' demand for local economic diversification, but also will be easy to cause a zero-sum game, resulting in local instability and difficulty to attract external investment. The social structure of economic power and the characteristics of local value system render the rent-seeking economy in low-income status and marginal areas<sup>[67]</sup>. In the spatial pattern of urban and rural economy, metropolitan areas are located at the core of territorial space. They extract raw materials and commodities from rent-seeking economies located in the most marginal areas, finished products from dependent economies, and high-quality commodities from entrepreneurial economies<sup>[68]</sup>. The change of types leads to the increasing differentiation and regionalization of rural space. Different types of economies can also achieve mutual transformation. The key lies in whether local communities are willing or able to respond to the increasing opportunities in the process of globalization.

### 4.3 Social space

Rural social space research attempts to understand how people experience and organize rural life, how families manage farms, how communities construct cultural identity, and how marginalized groups negotiate against inequality, so as to conceptualize social forms or systems and identify the processes

and relationships that affect rural life practice. The study of rural society has formed three key analysis themes, namely change, difference and power.

(1) Social change is the most lasting theme of rural social research. The research in the 1960s and 1970s recorded the process of modernization, industrialization and urbanization of rural society<sup>[69]</sup>. It mainly focused on the change of population structure and population migration, mainly adopting methods of positivism and quantitative research. However, hermeneutics believes that a single empirical and quantitative method can not explain the diversity of social experience and process<sup>[70]</sup>, and advocates the use of ethnography to explain how the changing rural society realizes diversification<sup>[71]</sup>. Marxism and feminism expound social changes through the study of agricultural production and its relationship, and provide critical comments and cases for agriculture and agricultural structure adjustment. Generally, the study of change has always been the constant analysis theme of rural society. The macro attention to social system and relationship enables scholars to explain the material and cultural changes that change rural life, system, culture and landscape. In terms of research methods, most quantitative studies were conducted from 1970 to 1980, and most radical studies were conducted from 1980 to 1990. Recently, more researches have been carried out using post-structural and post-modern methods<sup>[11]</sup>.

(2) The second core analysis theme is the study of rural social differences. A large number of studies have proved the differences of rural social groups in economic, cultural, political activities, experience and interests. Early difference studies used property and labor relations to analyze people's social status, which was reflected in Marxist social class research. Recently, under the influence of the feminist movement, gender is regarded as an important dividing line between human labor, community life and rural spatial experience, resulting in increased research on rural gender inequality. The study of class and gender is the core explanatory variable to understand rural social differentiation, but it should be admitted that other types of social differences also exist. Some scholars recorded rural social differences based on

age and intergenerational relations, poverty and exploitation, race and disability, which laid the foundation for the research and evaluation of rural society in the 1990s.

(3) The third analytical theme concerns the consideration of power. The traditional research on rural power focuses on formal political topics, diversified concepts of power and political interests. Therefore, the analysis of agricultural political interests and political consciousness is the most common<sup>[69]</sup>. The research on resources and the operation process of power shows that how ruling groups, classes or interest groups grasp or mobilize power unevenly to "cover up, suppress or seize" interests and groups that may challenge the dominant power<sup>[72]</sup>. These works focus on resources such as property and capital, as well as processes such as labor relations, sponsorship and charity, which maintain (and sometimes mask) the legitimacy of dominant minorities<sup>[73]</sup>. Marxist and feminist methods critically analyze the power of agricultural social organizations and show the class and gender characteristics of property and management. Similarly, community studies also focus on systems and relationships that maintain social differences (such as class and gender) and specific interests<sup>[74]</sup>. It can be seen that power plays an indispensable role in understanding rural change, spatial and community planning and political struggle<sup>[75]</sup>. Recently, the research scope of power relations in rural society has expanded from conservatism or historical hegemony<sup>[76]</sup> to new political units such as the New Testament Group<sup>[77]</sup>.

#### 4.4 Cultural space

Cultural space is a unique space form of human beings based on human discourse system, representational activities and order concept. It is an unrealistic and ideal social space<sup>[78]</sup>. For many rural researchers, the support of social constructivism represents the cultural turn, which means that rural research deviates from the basic core of concern about rural socio-economic change. Others believe that rural studies have not yet accepted the full deconstructive power of cultural turn. On the whole, the cultural turnaround is increasingly focused on the foreground



cultural issues such as the significance, identity, expression, difference and resistance of social science, resulting in a variety of manifestations of cultural turn: from the increased use of cultural texts and high reflection on language roles to the introduction of post structural epistemology and the emphasis on non-representational theory. Generally speaking, the evaluation of cultural turn is mixed. The evaluation of cultural turn by people who are more in favor of cultural projects can be summarized into four points: first, cultural turn separates social science from society and begins to study structure, space and inequality. Gregson called this “social withdrawal”<sup>[79]</sup>. Second, the cultural turn focuses on the non-material process, inter subjectivity and transcendence of identity politics, which is a non-material social science. Third, the cultural turn depoliticizes social science. The debate of post structuralism leads to political silence and academic intellectualization<sup>[80]</sup>. Fourth, the cultural turn is far from deconstruction. The cultural focus of social science is excessively conservative and still dominated by constructivism.

In an editorial in the *Journal of Rural Studies*, Cloke believes that rural research has begun to enter the process of cultural turn, reflecting the potential of rural re-conceptualization of natural social relations, high sensitivity to rural experience and imaginary discourse, and incisive consideration of rural cultural symbolic text, and rural life and landscape with a strong emphasis on mobility rather than fixity<sup>[8]</sup>. The cultural turn of rural space is mainly reflected in two aspects: on the one hand, through actor network theory (ANT)<sup>[81]</sup> and hybrid research<sup>[82]</sup>, we have constructed innovative opinions on the relationship between non-human actors and their networks and rural environment. ANT focuses on how networks transcend space and time, and how rural actors are involved in distant and unexpected events. On the other hand, the concept of “dwelling”<sup>[83]</sup> is used to show how animals, plants and humans work together to form a specific place. The intellectual stimulation of cultural turn has also appeared in other fields of rural research, including the use of imaginative texts to investigate the representativeness of rural areas, and the discourse understanding of rural aesthetics

and rural poetics becomes increasingly important. It reemphasizes the identity and subjectivity related to rural masculinity/femininity, sexual orientation, disability and children, as well as the research on differences and neglected “others” in rural areas<sup>[8]</sup>.

## 5. Dimension expansion of international rural space research

### 5.1 From material level to social representation

Rural social representation is a subjective space that describes people’s cognition and image of the countryside<sup>[25]</sup>. In the past, rural space research mainly focused on rural material space such as agricultural economy, land use, landscape architecture and ecological environment (settlement space and economic space in this paper). Material space is a realistic and concrete space composed of real things. It is the most basic starting point for understanding rural space. After 1980, with the rise of the perspective of political economy and the emergence of the theory of “space production”, social space generated by human practical activities became a public concern. Social space is not a concrete physical space, but a spatial relationship between human social behaviors<sup>[78]</sup>. Since the 1990s, with the rise of social construction theory and the theoretical orientation of postmodernism and post-structuralism, the study of rural cultural space has sprung up. Cultural space permeates with material space and social space, and transforms material space by influencing social practice. Social space is between material space and cultural space. It is not only an abstract material space, but also a breakthrough into cultural space. Material space, social space and cultural space are progressive layer by layer, realizing the transformation from concrete to abstract, from objective space to subjective space, and from real space to virtual space<sup>[6]</sup>. Therefore, the research on rural space has realized the transformation from material level to social representation.

### 5.2 From objective space to subjective space

The actor network theory has great inspiration for us to understand the shift from “objective space”

to “subjective space”. Unlike social constructivism, which focuses on social relations, nature and non-human are only regarded as the place and background of human activities. Actor network theory realizes that nature and non-human are also legal and lively subjects of rural construction, and emphasizes that the essence of society is a network connection composed of many heterogeneous elements. Nature and “non-human” have changed from the object of human practical activities to the subject of actor network. The relationship between society and nature, human and non-human can be reinterpreted. Latour’s actor network theory<sup>[84]</sup> reflects the rural nature of human and non-human subjects, as well as local, national, global and other interest subjects, puts nature and society, human and non-human subjects in the same important position, and reflects the recognition of the subject status of multiple actors in the rural world. Material and action are no longer the object of understanding the countryside, but are affirmed as a subjective force. Therefore, the understanding of rural space has deepened from objective space to subjective space.

### 5.3 From static single dimensional space to dynamic multi-dimensional space

The early theoretical perspective regarded rural space as static, homogeneous, established and absolute. Since the 1990s, the countryside has experienced the transformation from productivism to post-productivism<sup>[14]</sup> and from production landscape to consumption landscape<sup>[85]</sup>. Rural space is no longer regarded as a simple material space, but a superposition of multiple spaces such as material space, social space and cultural space. With the cultural turn of social constructivism and the promotion of postmodernism on difference, network, connection and mobility, the countryside is no longer regarded as a static and closed geographical entity, but as the interweaving of complex power relations, social communication, discourse practice and institutional forces. They are constantly combined and reorganized, which is called “post-rural”. “Post rural” is regarded as “hybrid and networked space”<sup>[86]</sup>. It has the characteristics of diversity, difference, mobility

and uncertainty. It is a process of continuous production and reproduction. Rural development is no longer regarded as the result of the action of a single factor, but involves multiple subjects, spanning multiple scales, intertwined flow relations, embedded in mixed social construction, spatial practice and network interaction<sup>[87]</sup>. Therefore, the understanding of rural areas has realized the transformation from static single dimension to dynamic multi-dimension.

## 6. Enlightenment and reference

This paper combs the expansion of foreign rural space research in different perspectives, times and dimensions. International rural space research is a research system composed of settlement space, economic space, social space and cultural space. Generally, foreign rural space has changed from a static, homogeneous, established and absolute system to a dynamic, heterogeneous, uncertain, hybrid, networked and multi-meaning system. Accordingly, international rural space research has also experienced the transformation from material level to social representation, from objective space to subjective space, from static one-dimensional space to dynamic multi-dimensional space, forming a progressive and deepening research process. In addition, foreign rural space research also has multi-disciplines (such as geography, economics, sociology, urban and rural planning, public policy), multi-perspectives (functionalist perspective, political economy perspective, and social constructivism perspective), multi-dimensions (settlement space, economic space, social space, cultural space), multi-methods (RS, GIS, GPS, grounded theory, semi-structured interview, participant observation, Q method, post-structure and post-modernism method), presenting a rich research picture. Compared with foreign rural space research, domestic rural space research has a long way to go and needs to strengthen efforts in the following three aspects:

(1) Expand the research group and realize the integration of multiple disciplines and methodological systems. At present, the research groups of China’s rural space are mainly geographers and urban and rural planning scholars. Scholars in the fields of

economics, sociology and public policy have also carried out active exploration, but interdisciplinary research still needs to be strengthened. Rural space includes not only settlement space and economic space, but also social space and cultural space. Therefore, only by attracting scholars from different research fields, observing rural space from different perspectives and methods, and effectively integrating the research of different dimensions, can we build a complete system of rural space research. In terms of research methods, standardized qualitative research and supplement quantitative research should be applied to realize the combination of qualitative and quantitative research. Rural space includes not only settlement space and economic space, but also social space and cultural space. Therefore, only by attracting scholars from different research fields, observing rural space from different perspectives and methods, and effectively integrating the research of different dimensions, can we build a complete system of rural space research. In terms of research methods, we should standardize qualitative research, supplement quantitative research, and realize the combination of qualitative and quantitative research.

(2) Expand the research content of rural space and the concern of the “social cultural” space.

China’s rural space research mainly focuses on rural space transformation, land use, settlement space, spatial differentiation, spatial reconstruction and spatial planning in developed areas. The research perspective is mainly from the perspective of functionalism, the research object is mainly production landscape, and the research focus is on material space. The report of the 19th National Congress has clearly put forward the “Implementation of the Rural Revitalization Strategy” and the general requirements of “Industrial prosperity, Ecological livability, Rural civilization, Effective Governance and Well-off Life”. In practice, rural production, life, ecology and other fields have also put forward new and higher requirements, which need a positive response from the theoretical circle. Firstly, we should turn from the perspective of functionalism to the perspective of political economy and social constructivism, put the research of rural space in the regional, national

and even global background, and pay attention to the influence of power and cultural factors on the shaping of rural space. Secondly, we should expand the research from production landscape to consumption landscape. At present, China’s rural tourism, leisure industry and e-commerce are booming in rural areas, which has changed China’s rural landscape to a great extent. Domestic scholars have carried out relevant research. For example, some scholars have studied the process and effect of rural space reconstruction from the perspective of actor network theory<sup>[88,89]</sup>. Wu Qianbo *et al.* studied the characteristics of the development of beautiful villages in Hangzhou from the perspective of consumption space production<sup>[90]</sup>. However, compared with the booming practice, the theoretical research is still relatively backward and weak. Thirdly, we should expand to the field of “social culture” space. The research on rural space in China mainly focuses on material space, especially the research on rural settlement space<sup>[89]</sup>, and lacks study on social cultural space. Although Zhang Xiaolin and Li Hongbo have discussed the rural space system to some extent, such research on the rural space system is rare. Next, efforts should be made to the power and cultural turn in rural areas and the research on “the neglected” in rural areas, such as class and gender, intergenerational relations, poverty and exploitation in rural space.

(3) Express more concern about the practical problems in rural areas and guide the practice of rural space reconstruction with advanced ideas. Foreign frontier theories such as “rural”, “post rural”, “triple model of rural space”, post productive rural theory, social constructivism perspective, post-modern and post structuralist methods provide a rich theoretical base and serve as a great source for China’s rural space reconstruction.

First, follow the “human logic” and restore the subjective status of farmers. In the process of China’s rural space capitalization, the countryside has become a tool for capital profit. Farmers are in a weak position in the discourse competition with politics and capital. They have been reduced from the main body of rural society to a marginalized role. They can only passively accept the discipline and

transformation of rural areas by cities based on their own needs and imagination. Farmers' production and living space is marginalized and their sense of relative deprivation is enhanced. Farmers are the main body of rural "daily life practice", and their main position should be respected. In the process of rural revitalization, we should not only cater to the logic of capital, but also respect the voice and decision-making power of farmers for their production and living space, promote the return of rural humanism and restore rural warmth and care.

Second, emphasize the multi-function of rural space and create a rural space with the integration of "production, life and ecology". The emphasis of post productive rural theory on rural "versatility" enlightens us that rural space is not only production space, but also living space and ecological space. Rural space has multiple meanings and values. The unique regional landscape, cultural landscape and characteristic agricultural products in rural areas provide rich resources for the development of a large agricultural system integrating primary, secondary and tertiary industries in rural areas; the tranquility, leisure and ease of the countryside make it a place for urban residents to escape modernity, and the whole set of life ethics, life significance and social attitude developed by rural farming civilization allow the countryside "healing value". Therefore, both of the "rural gentrification" in the West or the "new return movement" in China can be regarded as the performance of rediscovering "rural life". The simple judgment that "green water and green mountains are golden mountains and silver mountains" is undoubtedly the best footnote to the rural "ecological function"<sup>[91]</sup>. However, in the process of China's rural space reconstruction, many villages with good industrial and economic development emerge, but their ecological environment, public services, life and leisure and other functions have not been followed up in time, and even the phenomenon of "anti-left behind" in rural development emerges, indicating that the elderly and children stay in the city, and the young and middle-aged labor force "go to the village to work". Hence, in the process of rural revitalization, full attention should be paid to the multi-function of the

countryside and create a rural space with production development, happy life and ecological livability.

Third, respect the "regionality" and "difference" of rural space and realize the integration of tradition and modernity. The emphasis on rural diversity and diversity in the western "post rural theory" has important enlightenment for explaining the diverse and violent reconstruction of China's rural space and understanding China's rural nature<sup>[92]</sup>. The "regionality" and "difference" of China's rural space are reflected in that the Chinese nation is a comprehensive civilization with vast territory, multi-ethnic coexistence, and great differences in the natural environment such as geography, climate and ecology among all ethnic groups. On this basis, a variety of production and life styles, values and life significance have been derived. The localization, locality and difference of rural space can effectively "hedge" the high standardization, formatting and homogenization of modern society and iron out the "scar of modernity"<sup>[91]</sup>. However, in the process of China's rural space reconstruction, in order to meet the consumer demand, the rural landscape and rural culture tend to dissolve, and the non-native culture and life are transplanted or symbolically misappropriated, resulting in the disappearance of the original rural nature. Therefore, only by fully respecting the rural tradition can we make "the countryside more like the countryside", so as to maintain the unique value of the countryside.

Fourth, pay attention to the "social cultural" turn of the countryside and restore the meaning production function of the countryside. In the process of China's rural space reconstruction, there are some problems, such as the loss of rural cultural landscape and tradition, the rupture of social relationship network and ethical decline, the alienation of rural space and the lack of spatial justice. Definitely, some villages, such as Dashan Village, Yaxi Town, Gaochun, Nanjing, are no longer passive followers and blood losers in the process of urbanization, but actively undertake "reverse cultural output" to the city based on their "rural" basis. In some concentrated communities, we can also see that the traditional culture characterized by blood, geography, beliefs and customs still plays an important role in maintaining

the close human land relationship after de-agriculturalization. The cultural significance and production function of the countryside are the “root” of the countryside. Only the rural modernization based on this foundation can be viable and sustainable.

## Conflict of interest

The authors declare that they have no conflict of interest.

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