

# Research on the Spatial Production of Shanghai Red Culture in AI Era

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**Abstract**— *Red culture is a typical representative of Chinese culture, with the temperament of combination of tradition and modernity, and the posture of combination of openness and inclusiveness. With the deeper interaction between AI and cultural communication, new features of cultural space will be promoted. This paper takes Shanghai red culture as an example, from the perspective of space, to examine the issues of red culture communication and space production in the AI era. The production of red cultural space has the trend of "de regionalization" and "de stabilization", which is accompanied by the conflict and instability of different spaces.*

**Keywords**— *AI, spatial production, Shanghai red culture.*

## I. INTRODUCTION

Red culture is a typical representative of Chinese culture, with the temperament of combination of tradition and modernity, and the posture of combination of openness and inclusiveness. Shanghai's red culture also has the characteristics of urban culture, and is developed in the cultural exchange between China and foreign countries. Under the background of urbanization, it has become a realistic and urgent task to refine and develop the character of red culture and promote the construction of urban culture. Shanghai attaches great importance to cultural construction and puts forward the goal of "striving to build a national cultural center" in the cultural reform and development plan. The arrival of AI era changes the background of cultural development, makes the interaction between cultural scene and audience more diverse, breaks the barriers between cultural space and audience's living space, and makes the communication and interaction between the two spaces more frequent and in-depth. With the deeper interaction between AI and cultural communication, new features of cultural space will be promoted.

This paper takes Shanghai as an example, from the perspective of space, to examine the issues of red culture communication and space production in the AI era. Under the background of social transformation, media integration and acceleration of urbanization, it is necessary to think about how red culture can produce new significance in the process of real space and media space change. Then it analyzes the changes and functions of the interaction between red culture, society, media and audience.

## II. BACKGROUND OF RED CULTURAL SPACE PRODUCTION IN AI ERA

Shanghai is the economic and cultural center of modern China, with rich red cultural resources. In the cultural

development plan, Shanghai clearly proposed the construction of the Chinese excellent traditional culture inheritance system, and also put forward the development requirements of red culture. At present, the development of red culture is not only facing the background of social transformation, but also in the period of communication ecological reconstruction. AI has been deeply applied in communication, which has also changed the basic state of cultural communication. Intelligence and mobility have become the basic state of people's information life.

Therefore, we need to think about the development of red culture in combination with the transformation of the AI era. If there is no systematic intelligent and mobile strategy to support it, it is difficult for red culture to be spread in the current urban development process. Therefore, we should pay attention to the influence of the coming of AI era on cultural communication. Based on the analysis of various problems in the inheritance and development of red culture, we should grasp the new characteristics of red cultural space production from the comprehensive background of urban space, media space, cultural space, audience living space and other spatial changes, and then think about how to help the inheritance of red culture more efficiently based on AI.

## III. RESEARCH ON THE PRODUCTION OF RED CULTURAL SPACE

Shanghai red culture is a typical representative of China's urban culture. The development of Shanghai's cultural industry, digital communication and new Internet media is also in the forefront of China, the intersection of Shanghai culture and communication has also become the focus of attention. The research, excavation and inheritance of red culture ontology are the basis of this paper. Many scholars have carried out in-depth discussion on this issue from different aspects, creating conditions for the progress of the subject. Of course, in the face of the huge impact of the Internet, especially AI on cultural communication, red cultural communication itself and its research are beginning to face new difficulties, and the research in this area needs to be deepened and strengthened.

Firstly, the construction of Shanghai's urban culture and its reflection of the production of red cultural space. For example, in China, the formation of Megacity culture is based on the long-term market culture or citizen culture accumulation. Megacity culture embodies the integration of citizen culture and collectivism culture at different levels <sup>[1]</sup>. Cultural

resources are heterogeneous, and different types of cultural resources have different impacts on cities. In terms of comprehensive cultural resources, the abundance of comprehensive cultural resources has a positive impact on the development level of cultural industry, indicating that cultural resources endowment can promote the development of cultural industry in general; in terms of specific types, Intangible cultural heritage resources, cultural intelligence resources and cultural facilities resources have a positive impact on the development level of cultural industry, while material cultural heritage resources have a negative impact<sup>[2]</sup>.

Secondly, the accumulation and refinement of red culture in the construction of Shanghai urban culture, this is an important cornerstone of the construction of Shanghai style cultural space. For example, the evolution of Shanghai's early film theory and Its Enlightenment to the construction of urban culture at present<sup>[3]</sup>; the use of spectacle theory paradigm to analyze the emergence of Shanghai school's Qingkou, explore new difficulties in the process of Shanghai school's cultural derivation and integration, and explore solutions<sup>[4]</sup>; the study of Shanghai songs in the 1930s and 1940s from a historical perspective, and the reflection of outstanding Shanghai school's cultural vitality<sup>[5]</sup>. The above provides support and guidance for different individualized research, as well as departments, colleges and periodicals from their respective platforms. For example, exploration and contention focuses on the discussion and development of Shanghai school culture, and selectively publishes articles on different themes related to Shanghai school culture, such as the study of the rise and influence of Shanghai school novels<sup>[6]</sup>.

Thirdly, research on the problems in the process of red culture communication in the context of new media, a few of which have some influence on AI. For example, it analyzes the loss of red culture in the context of network, the lack of understanding of the cultural characteristics of network, the lack of risk prevention and crisis awareness in the process of Red Culture communication<sup>[7]</sup>. Based on the model of information processing in urban image communication, this paper discusses the ways to improve the efficiency of urban cultural communication and the international competitiveness of the city from the aspects of information processing system and communication platform<sup>[8]</sup>. From the planning practice of smart city development and comprehensive renewal of cultural space around old neighborhoods, explore the application of intelligent reconstruction of public cultural space, constantly adjust and improve the function of urban cultural space, and meet the growing spiritual needs of citizens<sup>[9]</sup>.

It can be seen that scholars have paid attention to the role of culture in urban development, and have realized the new problems of cultural space production in the new media era. But in the age of AI, the production of red cultural space has produced new features and influences. Therefore, it is necessary to further analyze the current situation, problems and joint points of red culture inheritance and development in the context of AI, and study how to use the Internet, especially the mobile Internet to inherit red culture.

#### IV. THE PURPOSE AND PROBLEMS OF RED CULTURAL SPACE PRODUCTION IN AI ERA

In the era of AI, the production of red cultural space needs to fully consider the impact of new communication characteristics, refine new objectives, and recognize the problems that will be faced in the development. First of all, red culture is of great significance in the construction of Shanghai's international cultural urban space, which needs to be paid full attention from the management system, policy planning and other aspects; grasp the development trend of AI and the determinants of cultural communication, and recognize that in the key period of mobile and intelligent transformation, intelligent mobile Internet will be the main space of cultural communication in the future. It is a realistic and necessary task to think about the strategy of red culture inheritance based on mobile Internet.

Secondly, red culture has a strong vitality and inclusiveness, and has accumulated excellent cultural property in the historical process. However, it needs to be refined according to the requirements of modern context, so that the development of red culture can become the basic force of the construction of Shanghai's cultural city. On this basis, we should think about how to make modern media system play a role in the development of urban culture in the AI information age, and become a new source and driving force of cultural development. At the same time, the cultural development in the context of AI needs to focus on the growth of the young generation and the evolution of subculture, and consider the information habits of different age groups in the cultural space, so as to promote the spread of culture more effectively.

Thirdly, the production of red cultural space needs the innovation of content production and communication mechanism. Cloud computing, big data, AI and other new technologies have built a new space for the development of red culture, and digital technology has become an inextricable topic for the development of culture in the AI era. In addition, the production of red cultural space cannot be separated from the industrial deployment. Compared with other cities in China, Shanghai has stronger financial and industrial advantages and can help cultural innovation with the help of capital.

On the whole, to examine the spatial production of red culture from the perspective of urban culture and AI development, we need to get rid of the traditional thinking of static research on urban culture, and explore the way of Red Culture Communication Based on the cultural ecology evolution and media ecology iteration. Taking AI as the core, we should grasp the "Internet +red culture", and think about the combination of cloud computing, big data, AI and red cultural content production, channel development and audience interaction.

#### V. CONTENT OF RED CULTURAL SPACE PRODUCTION IN AI ERA

"Intelligent media communication in the context of AI can bring effective advantages to cultural development, and help cultural communicators to clarify the cultural trend of the new

era and the role of intelligent media in it"<sup>[10]</sup>, in this context, we need to start from social transformation, media integration, and urbanization development, and analyze the background and driving factors of Shanghai's red cultural physical space and media space expansion. On the basis of sorting out the current situation and problems of red cultural space production, we should get through the relationship between red culture, urban development and media progress, and make clear that the goal of red cultural space production is the construction of meaning, which is the core of red cultural space production.

Firstly, the integration of red cultural resources from the perspective of space. Shanghai's urban space resources are in the process of optimization and adjustment. In this process, the "material" red culture begins to have the significance of media space, and the relationship between the "non-material" red culture and the media has also changed. Based on this, red culture can be divided into two categories: "material" (historical sites, buildings, cultural relics, etc.) and "non-material" (literature, songs, opera, etc.) to integrate the two categories of red culture in Shanghai.

Secondly, the production mode of red cultural space in the era of traditional media. The nature and form of traditional red culture space are relatively single, limited to the concept of "red". Its spatial attribute and function are the embodiment of "red" gene, not only physical space, but also the media space of red culture. However, with the continuous deepening of social transformation, media integration and urbanization, the production of red cultural space has shown different characteristics from the traditional red cultural space. Before exploring the production of red cultural space in AI era, it is necessary to analyze the production mode and characteristics of red cultural space in traditional media era, study the changes of cultural space, media space and meaning space in the process of communication background transformation, and the role of various forms of media in the production of cultural space, so as to lay a foundation for the comparative study of red cultural space production in AI era.

Thirdly, the level of red cultural space production. Red cultural space production can be divided into cultural space, media space, meaning space and other different levels. First of all, the concrete and physical cultural space, whether material or non-material, is no longer isolated and single in nature, but becomes a node of interaction between various social activities and cultural consumption. The second is media space. The production of media space has greatly promoted the development of the form and scope of red culture space. Taking the regionalization and de regionalization of space as an example, for example, many red culture venues can achieve nationwide communication based on intelligent mobile media. It realizes the de regionalization of the production of red culture space, and can build new communication methods and generate new significance in the media space. Thirdly, meaning space. Driven by multiple factors, new meaning is formed in the production process of red culture space. Red culture, excellent traditional culture and regional culture will participate in the construction of meaning. Political, economic and social development will be reflected in the construction of

meaning. Government, media and the public are all participants in the construction of meaning, meaning space is the direction of red cultural space production.

Fourthly, the way AI participates in the production of red cultural space. "Ai, with its unique technical advantages, has helped cultural communication and improved its validity, strength and breadth. Combining VR, AR, in-depth learning and precise push, AI can play a greater role in cultural communication, and explore the ways of cultural communication in the context of AI, It is conducive to promoting the creative transformation and development of traditional culture "<sup>[11]</sup>. AI has different ways of acting on the space production of two categories of red culture. Generally speaking, AI has broken the physical space of material red culture and started to build digital space nodes based on meaning. For the non-material red culture, AI creates a new way of interaction between them and the material red culture, on the one hand, it creates conditions for them to participate in the construction of broader cultural space significance. According to the above classification and logic, combined with the urban development planning and cultural development goals of Shanghai, we need to master the role of AI in the production of different red cultural spaces for representative red cultural content.

Fifthly, the relationship between AI and multi-level red culture spatial form. AI makes the fusion of "presence" and "Absence" of various cultural subjects appear anytime and anywhere, and complex spatial relations such as real space and virtual space, personal space and public space, political space and cultural space can be generated. These spaces are not binary opposites, but interactive symbiosis. Based on AI, a node of cultural space structure is formed. Through these nodes, a dynamic network communication schema of red cultural space is constructed.

Sixthly, the characteristics of reproduction of red culture space based on AI. There are internal relations between the production characteristics of red cultural space and the way AI participates in the production of red cultural space. Because of the influence of AI, the production of red cultural space presents a dynamic feature facing the modern transformation. The generation of cultural meaning relies on the key nodes based on AI. Cultural meaning space and information communication network based on media space are closely connected and interact. The production of red cultural space has the trend of "de regionalization" and "de stabilization", which is accompanied by the conflict and instability of different spaces.

To sum up, little attention has been paid to the spatial issues of red culture in the previous research, but the theoretical perspective, methods and existing achievements of cultural spatial research can bring us a lot of inspiration and reference. With the development of AI, the use of intelligent terminals has more and more influence on the inheritance of red culture. The research in this area also shows a growing trend, and the perspective is relatively rich. However, it focuses more on strategic and applied research, and the thinking on the spatial change, new meaning construction and interaction mode of AI and red culture is still weak. With the

continuous expansion of the influence of space theory, the future research on cultural space and cultural intelligent communication will increase. Therefore, under the background of significant changes in the social and media background of red culture communication and the renewal and development of discipline research theories and perspectives, the use of space production as a perspective and based on AI has strong current significance in the study of the nature of red culture space, the identity of production subject, the relationship between red culture space and other cities, societies and cultural spaces.

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