

# Research on Sustainable Development of Intangible Cultural Handicraft from the Perspective of Social Innovation Design

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**Abstract.** This paper first expounds the definition and development of social innovative design and sorts out several characteristics of social innovative design. Secondly, by analyzing the difficulties and problems encountered by intangible cultural heritage handicraft in contemporary inheritance and innovation, combined with the analysis and induction of cases of intangible cultural heritage handicraft in social innovation design, the experience and prospect of sustainable development of intangible cultural heritage handicraft under social innovation design are summarized.

**Keywords.** Social innovation design, Intangible cultural heritage handicraft, Sustainable development

## 1. Social Innovation Design

China is entering a period of social transformation, with better goals, and will also face many unprecedented opportunities and challenges. The World Economic Forum divides the world economic development into three types: factor-driven, efficiency-driven, and innovation-driven. China's economic achievements now mainly rely on factor-driven and efficiency-driven. In order to enhance global competitiveness and improve development efficiency, China is accelerating the transformation to an innovation-driven ecological economy [1]. Our country has put forward a new development strategy, which has determined the development strategy of ecological civilization, and taken the "Rural Revitalization Strategy" as the carrier of "building ecological civilization", transforming the industrial development mode into the ecological and sustainable development mode from the perspective of development strategy. Moreover, the principal contradiction in Chinese society has become the contradiction between people's growing needs for a better life and unbalanced and inadequate development. In the context of social transformation and the goal of a better life, social innovation design can well contribute to social transformation and sustainable development, and effectively promote the realization of the goal.

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### *1.1. Social Innovation Design Definition*

Social innovation design is a design behavior from the perspective of social innovation. The concept of social innovation was first proposed by Peter F. Drucker, an American management scholar. Then The Young Foundation in the UK defined "social innovation" as: "social innovation is an innovative activity and service mode, aiming to meet social needs and create new ideas of new social relations or cooperation models [2]."

Italian pioneer scholar Ezio Manzini defined "social innovation" as: "social innovation is a process of change, which originates from the creative reorganization of existing assets, with the purpose of achieving the goals recognized by human society in a new way" [3]. The concept of "social innovation" has increasingly become the mainstream of society based on China's current characteristic economic, social environment and historical and cultural background, and has a huge positive impact. At present, in China, the social problems caused by social transformation are gradually complicated, and the government's governance mode needs to be transformed [4]. Under such characteristics of the times, China's social innovation theory has formed its special connotation: "social innovation is transforming from an innovation theory into a social action with wide participation [5]." It is necessary to pay attention to the close combination with China's reality, creatively integrate and use social resources, and build a social innovation model, new value and new path with Chinese characteristics [6]. In short, social innovation is an innovative behavior based on complex social problems and meeting social needs.

Design under social innovation is closely linked. Social innovation design takes social innovation as the goal, while social innovation takes design as an important means and driving force. Ezio Manzini created the discipline research field of "social innovation design" and set the definition: all activities that professional design can implement in order to activate, maintain and guide society towards sustainable development [7]. Social innovation is a breakthrough innovation, a form of innovation for social change; social innovation design is a design activity to realize this new form of innovation, a non-supplementary activity, which brings about innovative solutions based on new social forms and new economic models [6]. In general, social innovation design maintains an ultimate goal of promoting society to develop better in a new direction. Social innovation design promotes society to play the advantages of the design profession towards a sustainable society like an ecosystem.

### *1.2. Characteristics of Social Innovation Design*

Based on the above analysis, the author sorts out the following important characteristics of social innovation design. Firstly, the design object is diversified. The design object is no longer a single party, but stakeholders in all aspects of the problem are included in the design process. This characteristic fits the goal of social innovation because society itself is a complex and changeable overall system, and solving problems only considering a single aspect will not promote the solution of the problem; secondly, the design process tends to multi-party collaboration. The diversification of the design object leads to the design process is no longer a single link, and the consideration of the needs of multiple objects requires the collaborative participation of all parties in the design process.

Whether during the design research or in the subsequent update of the design, the joint participation of all parties will make the solution of the problem more perfect; thirdly, the design method tends to systematization, localization, and networking. The continuous update of the design object and the design process leads to the change of the selection of the design method. In the design behavior for social innovation, since the complexity and intractability of social problems need to be responded to in an innovative way, it requires the design behavior to have a systematic concept of the whole problem. At the same time, problems come from real social situations, and innovative methods should be able to be practically implemented. In the process of design activities, localization awareness is required, and real and effective responses to problems can be made relying on the ecological nature and human economy of the region. The design method from the perspective of social innovation focuses on the constructive exploration of the network to generate sharing and value connection, focusing on participatory, collaborative design, co-creation, crowd wisdom, etc. [6].

**2. Contemporary dilemmas and problems of intangible cultural heritage handicrafts**

Intangible cultural heritage handicrafts are born and grown in traditional society, invented, and created by people in the region where traditional handicrafts are located. Traditional craftsmen produce important materials for economic circulation, and the manufacturing skills and products of crafts have gradually become important cultural memories and genes in the evolution of time. Intangible cultural heritage handicrafts have continued to exist in society and history, not only as the inheritance of skills, but also as a carrier of the relationship between people and economy, society and culture. Nowadays, society has begun to step into the process of modernization from tradition. In the social transformation with new goals, the sustainable development of intangible cultural heritage handicrafts will face a series of problems and dilemmas.

**Table 1.** Composition of four types of floating population (%)

	The year of 2000	The year of 2005	The year of 2010	The year of 2015	The year of 2020
Rural-urban mobility	52.2	61.4	63.2	48.9	66.3
City - city mobility	20.8	21.2	21.2	37.9	21.8
Rural to rural mobility	18.6	13.7	12.7	7.1	10.3
Urban-rural mobility	8.4	3.7	2.9	6.1	1.6

Data source: Editorial Board and editorial staff of China Census Yearbook 2020, China Census Yearbook 2020 Wang Pingping, Editor-in-Chief, China Census Yearbook, China Statistics Press,2020,4, Yearbook. DOI: 10.44303 / y.c nki. Yzgp. 2022.000001.

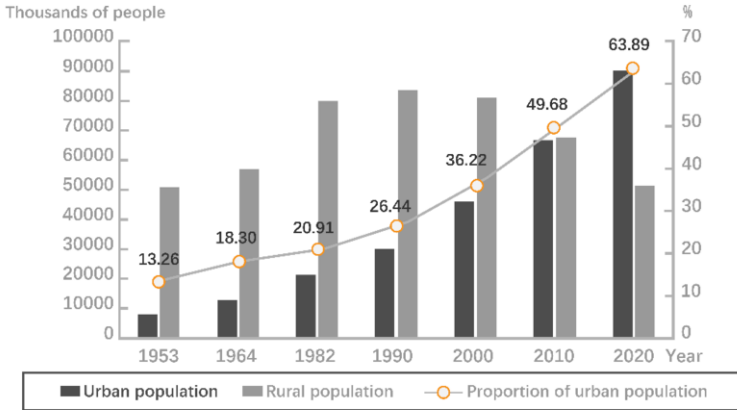


Figure 1. Every census of urban and rural population<sup>2</sup>

The inheritance group of intangible cultural heritage handicrafts is currently facing a critical situation. Intangible cultural heritage handicrafts are produced by specific regional communities, and any changes in these regions can significantly impact the sustainable development of such crafts. Based on data from the China Population Census Yearbook 2020 regarding four types of floating population (Table 1), it is evident that the migration patterns between rural and urban areas experienced substantial shifts between 2000 and 2020. The flow from rural to urban areas consistently increased during this period, with only a minor decline observed in 2015; moreover, it constituted the largest proportion among all four types of floating population. Conversely, the proportion of individuals migrating from urban to rural areas steadily decreased over time (except for 2015) and represented the smallest share among these four categories. This analysis indicates an ongoing trend where more people migrate from rural to urban areas, resulting in significant outflows from rural regions. Consequently, there has been a continuous rise in the proportion of urban populations due to rapid urbanization driving social modernization processes (Figure 1); however, numerous young talents possessing skills related to intangible cultural heritage handicraft inheritance have been compelled to leave their hometowns due to various factors. As a result, there has been an outflow of young talents while fewer craftsmen remain within these regions.

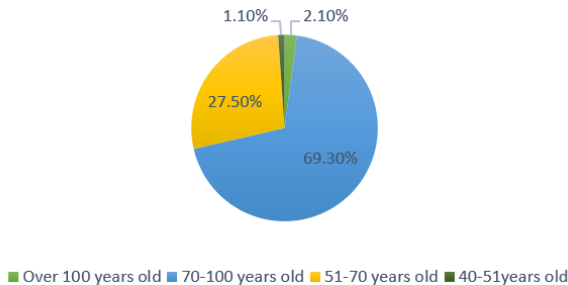


Figure 2. Age Distribution of Intangible Cultural Heritage Inheritor

Data source: China Intangible Cultural Heritage Network (<https://www.ihchina.cn/>)

<sup>2</sup>Bulletin of the Seventh National Population Census (No. 7) -- Urban and Rural population and Floating population [J]. China Statistics,2021(05):13.

At the same time, the loss of talents accelerates the shrinking and aging of the inheritance group. The "aging" of the intangible cultural heritage inheritors is hindering the sustainable development of intangible cultural heritage handicrafts. As of November 2022, 69.3% of the 1,882 known age intangible cultural heritage inheritors are aged 70 to 100, accounting for the largest proportion and serious aging (Figure 2) . People are the key factors for sustainable development, and the loss of population and the aging of inheritors are important dilemmas for the inheritance and innovation of intangible cultural heritage handicrafts.

The economic plight of intangible cultural heritage handicrafts needs to be activated. Regional brain drain makes the economy lack of power and self-renewal capacity. Intangible cultural heritage handicrafts are local creations made by people combining realistic needs and natural factors. The loss of regional population leads to the decline of regional economy, so the demand for handicrafts will decline. Gradually, when the economic cycle approaches to stop, a lifestyle and industrial form represented by handicrafts will lose vitality. The most regrettable result is that they will be like animal and plant specimens in the museum window, which we can only imagine their once vivid existence through the glass showcase. Lack of economic vitality and self-renewal capacity are problems that cannot be ignored in contemporary intangible cultural heritage handicrafts.

Balanced development of culture and economy is the key factor for sustainable development. Intangible cultural heritage handicrafts form our lifestyle and cultural memory from eating, clothing, housing and transportation, and weave excellent traditional Chinese culture. But in the process of globalization dominated by industrialization and Western aesthetics, traditional skills cannot compete with the fast and efficient pace of life, and are gradually marginalized, making it difficult to produce dynamic economic power. This leads to the continuous decline of people's cultural identity of intangible cultural heritage handicrafts, which sets obstacles to the development of excellent traditional culture and skills at the level of consciousness, causing difficulties. In the changes of population, economy and culture, the social living space of intangible cultural heritage handicrafts is constantly squeezed. Social innovation design needs to give full play to its strengths and create new living space for the sustainable development of intangible cultural heritage handicrafts.

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### 3. Contemporary Sustainable Development of Intangible Cultural Heritage Crafts from the Perspective of Social Innovation Design

#### 3.1. Analysis of Practical Cases

Although the development and application of social innovation design in China has not been long, some domestic scholars have carried out some practical exploration on traditional handicrafts from the perspective of social innovation design. The author selected four representative cases in the case study to analyze the current situation of social innovation design in the sustainable development of intangible cultural heritage handicrafts (Table 2).

**Table 2.** Representative design practice of traditional handicraft from the perspective of social innovation design

Year	Team	Project name
2016	Zhang Duoduo and Ji Tietuan of Hunan University	the Xintongdao · Huayao Flower Project
2017	Zhang Jianping's team of Chongqing University of Posts and Telecommunications	the Ya'an Social Innovation Design of the Porcelain Making Device
2022	Li Yanxin of Yunnan Academy of Arts	the practice of Zharan handicrafts in Dali Zhoucheng
2023	Xu Shanshan's team of Hefei University	the Social Innovation Design Research on the Living Inheritance of Hui Carving Skills

They are the Xintongdao · Huayao Flower Project in 2016, which was responsible for by Zhang Duoduo and Ji Tietuan of Hunan University; the Ya'an Social Innovation Design of the Porcelain Making Device in 2017, which was responsible for by Zhang Jianping's team of Chongqing University of Posts and Telecommunications; the practice of Zharan handicrafts in Dali Zhoucheng in 2022, which was completed by Li Yanxin of Yunnan Academy of Arts; and the Social Innovation Design Research on the Living Inheritance of Hui Carving Skills in 2023, which was responsible for by Xu Shanshan's team of Hefei University.

From the perspective of social innovation design, the four groups of teams all took handicrafts as nodes, respectively designed unique platform projects, and built new social interaction relationships. The Hui carve team created a social collaboration co-creation mode of lively art. This mode makes full use of the advantages of online and offline and relies on modern technology to create a platform for digital services. The main goal is to promote Hui carve art and related culture, strengthen the connection between stakeholders, and realize the full life cycle development of Hui carve art. At the same time, this mode emphasizes the role of human in the process of the inheritance of the lively art. Specifically, the digital service system promotes the interconnection of stakeholders through the spread of Hui carve art and related culture, and realizes the full life cycle development; while the practical experience activities are mainly committed to

promoting the collaborative co-creation relationship among stakeholders, so as to promote the sustainable development of Hui carve art [8]. From the discovery of Hui carve, the exploration of Hui carve, to the co-creation of Hui carve, the platform carries out the connection and service of the whole link, injecting strong vitality into the activation of the art. The tie-dye team in Zhoucheng, Dali, established a platform for the construction of community culture in Zhoucheng, taking the traditional tie-dye handicraft as a new social relationship intermediary. Since the establishment of the Blue Heritage Platform, more than 20 young people from the village have joined the Blue Heritage family full-time, which is extremely rare in other dyehouses in Zhoucheng. The participation of new forces is the key to the inheritance and development of a traditional craft and a traditional culture. On the one hand, they can bring new ideas and concepts to traditional crafts and traditional culture, and on the other hand, they can influence the peers around to feel the charm, thus enhancing cultural identity and cultural confidence [9]. The Ya'an team carried out a social innovation project for the social reconstruction after the disaster. The Ya'an post-disaster reconstruction project is a social innovation practice to solve the poverty alleviation and employment, industrial renaissance, social relationship reconstruction and many other social problems caused by the Ya'an earthquake. With the support of the Mango V Fund of Hunan TV, the design force of the School of Design of Hunan University, the School of Fine Arts of Tsinghua University and the Sichuan Academy of Fine Arts, taking the Ya'an sand instrument as the object of the renaissance of the local traditional handicraft, through the cooperation with the government, mass organizations, representative enterprises, workshops, local craftsmen and The Ya'an post-disaster reconstruction project is a social innovation practice to solve the poverty alleviation and employment, industrial renaissance, social relationship reconstruction and many other social problems caused by the Ya'an earthquake. With the support of the Mango V Fund of Hunan TV, the design force of the School of Design of Hunan University, the School of Fine Arts of Tsinghua University and the Sichuan Academy of Fine Arts, taking the Ya'an sand instrument as the object of the renaissance of the local traditional handicraft, through the cooperation with the government, mass organizations, representative enterprises, workshops, local craftsmen and interdisciplinary experts, jointly build a network-based information display platform, spread local knowledge while introducing local craftsmen and workers into the whole industry, so as to gradually build a sand instrument innovation design service platform of "design, collection, cooperative production and brand promotion" [10]. The team in Hunan launched the "Huayao Flower" project for the minority Huayao in the poor mountainous areas of Longhui County, Hunan Province. The project is a typical case of "touching" the renaissance of the traditional community through the collaborative design method of social innovation based on the local intangible cultural heritage and other characteristic traditional culture and natural resources. The three-year "Huayao Flower" project has received strong support from the Ministry of Education, local government, social enterprises, and local residents. The project team has established an interdisciplinary joint design and social innovation network with the Hong Kong Polytechnic University, Queen Mary University of London, Milan Polytechnic University, Sichuan Fine Arts Institute, Tsinghua University Fine Arts Institute, Xinjiang Normal University, and other institutions [11].

The project has built a local knowledge platform to help the sustainable development of handicraft knowledge andThe project team has established an interdisciplinary joint design and social innovation network with the Hong Kong Polytechnic University, Queen Mary University of London, Milan Polytechnic University, Sichuan Fine Arts

Institute, Tsinghua University Fine Arts Institute, Xinjiang Normal University, and other institutions [11]. The project has built a local knowledge platform to help the sustainable development of handicraft knowledge and culture. The local brand created by the project helps the sustainable development of handicraft resources in terms of economy.

Integrating multiple active subjects into social innovation design is an important factor for the sustainable development of handicrafts. The four groups of cases actively link all parties involved in the design process and innovate and activate the social relations of handicrafts. Hui sculpture team analyzed the stakeholder structure of Hui sculpture culture, listed artists and craftsmen, the public, cultural and creative tourism enterprises, universities, government and cultural departments; tie-dye team took designers as a link to drive the linkage between craftsmen and local residents and tourists; Ya'an team mainly through the design force of colleges and universities, unite the government, enterprises, workshops, local craftsmen, cross-field experts, and cooperate to build an innovative design service platform; in the process of the project, scholars solved problems with the internal vision of cultural holders, and then formed effective interaction with community residents, combined with the power of the government, universities, enterprises and the public, to activate the endogenous power of the traditional handicraft community.

### *3.2. Summary and Prospect of Sustainable Development*

The sustainable development of intangible cultural heritage handicraft from the perspective of social innovation takes handicraft as a positive node, and accordingly compiles an innovative social relationship network. In the practice process, design skills such as collaborative design, participatory design and service design in the design concept are used to meet the demand for innovation in social transformation.

There is an idea called the capability approach, which rather than seeing people as objects with needs waiting to be met (by someone or something), sees them as active subjects, capable of actively pursuing their own happiness. [7] From this perspective, it can be considered that intangible cultural heritage handicraft itself is a member of social innovation. It does not limit the subjective initiative of intangible cultural heritage handicraft in self-development, allows it to become a part of modern lifestyle, and actively establishes intangible cultural heritage handicraft as an active party in modern life. In the design practice, intangible crafts are used as nodes to actively build a network of relations between stakeholders. Although designers cannot stipulate people's positive attention to intangible crafts, a close social network can help people form close connections with intangible crafts. Professor Mancini proposed in the book *Design in the Age of Design by Everyone* that social innovative design is the answer to these questions, which affects the "empowering ecosystem" at different levels in a timely manner through various interventions. The same goal of all interventions is to create a new infrastructure: a complex, structured platform that provides support for various independent and related projects. In the author's opinion, the compilation of an innovative social network of relations for intangible crafts in modern society is like the important condition of "infrastructure". An infrastructure, like a railway or the Internet, is not to be reinvented every time (new things), but to "infiltrate" into other social material structures. By introducing the traditional concept of infrastructure into the design process, we can make design go beyond the concept of "design project" and become an open long-term process where all parties can innovate together [7].



The term infrastructure was first coined by Leigh Sreear and further developed by Pelle Ehn and his Faculty of Arts and Media at the University of Malmo. In Ehn's words, "an infrastructure, like a railroad track or the Internet, is not reinvented every time, but" seeps "into other social material structures." We bring the traditional concept of infrastructure into the design process, allowing us to move design beyond the concept of "design projects" and into an open, long-term process where people can innovate together. For Professor Mancini, the concept of "infrastructure" illustrates the nature of design processes that aim to make social projects and collaborative organizations more conditional. In fact, it requires a series of design actions [7].

As the author thinks that in the future, the sustainable development of intangible cultural heritage handicrafts under social innovative design should build a carrying infrastructure for development. It is necessary to improve different types of digital platforms, not only the existing webpage and mobile phone program platform, but also the digital platforms such as meta universe and digital twin. Create comfortable and convenient physical space to provide participants with face-to-face communication. Establish developed logistics services to pave the way for the circulation of handicrafts. Provide information services, establish a rich experience base, and dig more tacit knowledge of intangible cultural heritage craftsmen. Establish perfect evaluation services. At present, the innovation results of intangible cultural heritage handicrafts lack a set of achievement evaluation mechanism, which makes it difficult to respond in time to adjust in design activities. Activate cultural resources with design, link the development of industry and life, build a new meaning of traditional culture for modern life, and make intangible cultural heritage handicrafts form a sustainable development cycle in social innovation activities.

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