

Formation Process of the Creative Environment **Responsible for Innovation and Succession:** Art University and Craft Artists in Kanazawa, Japan*

Atsuko MAEDA**

Abstract

This study examines the creation of diverse value by dynamically analyzing the social collaboration activities between education research institutes forming a regional core and affiliated individuals in the field of Japanese crafts today. It considers a case study of the diversity and expertise of an art university that leads the innovation and succession of crafts that symbolize the history and culture of Kanazawa, a city with a population of 460,000 located on the central western coast of Japan's main island. This study elucidates the process by which rich social collaboration contributes to the creative environment of crafts production in the region through artists, works of art with related materials, and education and research programs.

Keywords: creative environment, innovation and succession, art university, craft artist, social collaboration results

Ishikawa-mon Gate of Kanazawa Castle

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1. Introduction

For the arts and culture that symbolize the tradition of a region to contribute to sustainable development, it is necessary to have diverse and specialized human resources, concrete works of art, and systematized knowledge, as well as an education research system that brings out the cultural strengths unique to the local creative environment on the global stage. However, in the context of cultural economics and the creative economy, there has been little discussion on the results of social education and research carried out by local art universities and affiliated individuals, who can be regarded as principal leaders in creating diverse and specialized value that is different from the existing value.

Florida (2002a, 2002b) argued that the creativity¹ of universities is not reflected in the economic development of a region, unless it incorporates diversity and openness into the region's creative environment. However, he also suggests that the social role and methodology of universities in achieving



Photo 1. Ishikawa-mon Gate of Kanazawa Castle Source: Kanazawa City website.

this goal remains unknown.

Given this background, the present study examines the continuous social collaboration activities of a regional core art university and its faculty members, students, and graduates who are craft artists² in Kanazawa, Japan. These craft artists are actively involved with universities, museums, vocational schools, and other regional and global art events and live close to one another because of their interactions of commonality and complementarity in this creative environment. This study considers the cultural-economic and social impact that these social collaboration activities have on the creative environment that includes individuals, organizations, systems, and regional characteristics. That is, this study clarifies the value added to human resources, works of art, knowledge, and education research created from the social research activities of education research institutes and their affiliated individuals (Maeda 2020, 2021).

2. Previous Studies

For creation and the creative environment, the definition of "ba" (場: literally, the "place and time" in Japanese) is not uniformly defined, but this concept is discussed in various ways with respect to creative city theory, the creative economy, and knowledge creation theory.³ The concept is defined by Sasaki (2012) and Hagihara (2014) as the milieu of value creation realized by interactions between cities, regions, and residents. Nonaka et al. (1996) also defined the concept as a space of knowledge creation constructed by corporate organizations and their human resources. In the "ba" of value creation discussed herein, tacit knowledge (Polanyi 1966) such as ingenuity and beliefs shared by continuous interaction between art universities, affiliated artists, and society is absorbed by individual craft artists, works

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^{1.} Kawakita (1993) defined creativity as "to break through the current situation and always bring it to a new state."

^{2.} Florida (2002) defined artists as one of the super creative cores. This paper discusses craft artists as a creative class because they bring creative value to the region in addition to artworks.

^{3.} See Maeda (2021) for details on the definition of the "ba" of creation.

of art and related materials, and education research programs and then transmitted as added value to their surroundings. This process realizes a time and space that foster an innovative and inherited creative environment.

The creative environment is defined in this study as lifelong engagement between an art university and artists who are its students, graduates, and faculty members, and the organizations and systems that are in close proximity and have organic interrelationships involving locality. Close attention is also paid to the relationship between the creative class defined by Florida (2002a, 2002b) and the creative cluster in which the university is the social foundation and the creative community is a comfortable living environment.

In the past, according to industrial cluster theory⁴ defined by Porter (1998) based on industrial agglomeration theory (Marshall 1890), manufacturing companies were organically located close to supporting organizations, such as education research institutes and local governments. Many cases of external economic effects have been analyzed worldwide. However, in the twenty-first century, with the rapid expansion of the creative economy, the theory of creative clusters has emerged in which creative industries (UNCTAD 2010) involving the creative class are concentrated in certain cities and regions, and their cultural life is not limited to economic effects alone but also includes environmental comfort. Although the definition of the creative class and the evaluation index of the agglomeration effect advocated by Florida have been criticized (Pratt 2011; Markusen 2006), the target fields of cluster theory today have been extended to include not only manufacturing and ICT, but also the creative arts (i.e., fields with favorable marketability and work environments).

On the other hand, the craft production system that forms an industrial cluster in a certain area by "flexible specialization" (Piore and Sable, 1984) has led to lively debate about the challenges of human resource shortages, product design development, technology succession, and internationalization in domestic craft clusters (e.g., Yamada 2013; Shigeno 2009). However, little research investigate the creative environment in regions and at art universities as the cornerstone

of sustainable development in the crafts and related industries. This is because crafts related to regional characteristics and the manufacturing industry, however classified as (applied) arts, are underdeveloped in the context of cultural economics and the creative economy, due to the difficulty of uniform evaluation and lack of public materials.⁵ Also, Markusen (2006) pointed out that there are limits to internationalization, employment stability, and research and development capabilities in craft production systems in industrial clusters, and she surveyed the outputs of interaction between social art activities and artists. For the strengths of local culture to be evaluated by the international community and to bring sustainability to the region, local art universities and affiliated individuals must play an important role in the continuous creation of pioneering craft artists, innovative works and related materials, as well as education and research systems. Based on this literature review, this study can be characterized as follows.

First, in the context of cultural economics and the creative economy, this study discusses the contemporary crafts that have become a symbol of local culture and are also related to local industry.

Second, this study highlights non-profit organizational systems and industries that demonstrate commonality and complementarity in the creative environment, formed by organizational and individual social collaborations between an art university, its affiliated individuals, and related organizations.⁶ That is, it analyzes inter-organizational structure that shows mutual complementary and synergistic elements. The results reveal the regional characteristics of the creative environment (spatial axis) and changes in social structure (time axis).

Third, the data sources of this study include official materials, 300 hours of interviews with related organizations over the past 10 years, totaling more than 175 interviews, career path analysis of ceramic artists such as faculty members and graduates (conducted from 2014 to 2017), and a questionnaire survey (conducted in 2016) for exhibitors of craft tourism projects.

^{4.} Porter (1998) proposed the definition and components of a cluster as "a group of companies that belong to a specific field and are closely related to each other, and are networked with commonality and complementarity."

^{5.} It is difficult to accurately extract data from public information that is classified as a "craft artist" because they are often considered full-time faculty members of educational research institutes.

^{6.} University consortium, artist-in-residence (AIR) facility, independence support workshops, nearby educational and research institutes, cultural tourism facilities, public galleries, etc.

Artists and the education research institute that nurtures them are the main elements that lead the creation and creative environment of arts and culture. However, based on observation of changes in social structure at home and abroad, in order to showcase the talent of artists and help them master their creativity, variety of expressions, and specialized skills, there is an urgent need for the following complementary processes to support the creative "ba" of education research institutions: (1) learning and research based on continuous experiences,⁷ (2) production and presentation of artworks, and (3) systematization of related materials. Today's craft artists are expected to spend at least 10 years after graduating from university, procuring specialized studios, tools, and natural materials, refining their specialized skills through experience, and working to secure a livelihood (Maeda 2021). This makes it necessary to create a creative environment that provides continuous and integrated support to talented young individuals. At the same time, their own creative activities should be shared as contributions to cultural, economic, and social value, as advocated by Throsby (2000), and not be limited to individual career development.

3. Research Method and Hypothesis

This study mainly focuses on Kanazawa College of Art (hereafter referred to as "the Art University") in Kanazawa, Japan, with present-day crafts classified as applied arts, and craft artists defined as students, graduates, and teachers of the Art University.

By continuous engagement with art museums and vocational schools, this study investigates the process by which diversified value is created from individual career development, production and presentation of art works, and social collaboration in education research.

In this study, the basic methodology of a knowledge creation model (Nonaka and Takeuchi 1996) is referred to as the value creation of education research institutes and craft artists.



Photo 2. Library & Gallery of Kanazawa College of Art (photo by the author)

First, it classifies the functions within the organization that cultivate advanced craft artists and other professionals, work materials, and social collaboration research into four processes: (1) learning and research, (2) production and presentation, (3) systematization of materials, and (4) value creation (Fig. 1). Next, it specifies the results of art education research that create diverse value from the main elements comprising the "ba" where each process ((1) through (4)) in the organization is carried out, the external organizational system that complements and synergizes those processes, and their social cooperation.

The hypothesis of this study is that, if a "ba" of creation where internationality and regionality are constantly intermingled is formed by continuous social cooperation between art education research institutes and craft artists, then advanced craft artists who engage in arts and culture that symbolize the region (1) resonate with unknown tacit knowledge (ingenuity and belief), (2) produce excellent works of art and creative presentations (explicit knowledge) through a process of thinking and errors, and (3) systematize works of art and related materials (explicit knowledge). Widespread dissemination of information is assumed to (4) have the effect of promoting human resource development and transmission of systematized

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^{7.} For the analysis of the development process of adults, refer to "Dynamic Skill Theory" (Fischer and Bidell 2007).

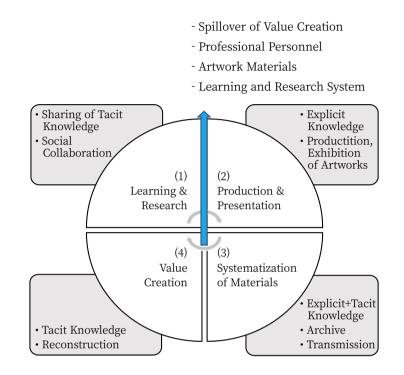


Figure 1. A "ba" of value creation within an art education research institute. *Note*: Refer to the methodology of the socialization, externalization, combination, and internalization (SECI) model (Nonaka and Takeuchi 1996; Maeda 2021).

knowledge in the surrounding environment that is not limited to each organization (Fig. 1). Furthermore, in order to promote the circular flow of "ba" from (1) through (4), a social cooperation system is needed that demonstrates creativity, as well as complementary and synergistic effects.

4. The "Ba" of Creation Formed by the Art University and the Creative Environment

A total of 24 ceramic artists based in Kanazawa participated in career path surveys conducted from 2014 to 2017. The "ba" of their creative presentations

have diversified since the end of the twentieth century and consist of, in chronological order, the Faenza International Ceramics Exhibition in Italy, International Ceramics Exhibition Mino in Japan, Korean International Ceramics Biennale, Taiwan International Ceramics Biennale, and other international open call exhibitions, artist-in-residence (AIR) exhibitions, art festivals, and trade fairs. The number of such events has increased rapidly worldwide.

Japanese ceramic artworks today, which are said to be original expressions using craft materials or traditional methods, have been supported by overseas experts and collectors as an alternative art form to paintings and sculptures. As a result, the aim of graduate school's study program is not limited to white cube exhibitions, but extends to exhibition design, lectures, and workshops at local art festivals and various creative environments in Japan and overseas. Also, at the Art University and vocational schools,⁸ there has been an increase in the number of classes inviting multi-genre experts who are active on the frontlines of the art world. Given the recognition of such changes in the environment, the following is passed on to the local creative environment: added value of human resources, work materials, and education research programs created from the creative "ba" engaged by the Art University, vocational schools, museums, and affiliated various artists in Kanazawa.

This process is characterized by considering local cultural policies, changes in social structure, and the locality. Since the end of the twentieth century, Kanazawa's cultural policy has been integrated with urban policy (Sasaki 2012), with a goal of forging a path for the creative development of the international community based on the artistic culture that symbolizes the traditions of the region. In 1995, Kanazawa City promulgated the "Kanazawa International City Concept" and "World Craft City Declaration" as measures to revitalize the hollowing out of urban areas caused by the relocation of

^{8.} According to the "2021 Kanazawa College of Art Entrance Examination Results," 12% of newly enrolled students are from Ishikawa prefecture (14% are from the three Hokuriku prefectures), and more than half are from the three largest areas in Japan. In recent years, most students in the Craft School are from outside the prefecture (personal correspondence with executives of the school, July 26, 2017).

Name	Kanazawa College of Art (the Art University)	21st Century Museum of Contemporary Art, Kanazawa (the 21 Museum)	Kanazawa Utatsuyama Kogei Kobo (the Craft School)	
Year of establishment	1946	2004	1989	
Art division	fine arts, design, craft	contemporary arts (including design and crafts)	ceramics, <i>urushi</i> (lacquer) work, dyeing, metal work, glass	
Number of persons	722 students, 57 faculty members, 14 staff (as of April 2021)	39 staffs (as of March 2020)	28 trainees, 14 staffs (as of September 2021)	
Annual budget (1 yen = US\$0.01)	1,345 million yen (FY2021)	908 million yen (FY2021)	153 million yen (FY2021) Separately, payment of 33.6 million yen incentives from the city	
Visitors	_	2.3 million (FY2019)	-	

Table 1. Basic Information of Three Education Research Institutes in Kanazawa

Source: Annual reports of each institute and city of Kanazawa.

Kanazawa University and the Ishikawa prefectural government building.

Typical measures were the opening of the 21st Century Museum of Contemporary Art, Kanazawa (hereafter referred to as "the 21 Museum") in 2004, becoming a UNESCO Creative City of Crafts and Folk Art in 2009, and promoting inbound cultural tourism after the opening of the Kanazawa extension of the Hokuriku Shinkansen bullet train service in 2015. These projects were carried out in sequence, and it was inevitable that the system and infrastructure that could support the international creative environment would develop rapidly.

First, measures were promoted to develop facilities and build a support system that would enable the city to secure and train talented young craft artists nationwide. In addition to the Art University (founded in 1946), a key player leading the internationalization of the creative environment of Kanazawa's crafts was Kanazawa Utatsuyama Kogei Kobo 金沢卯辰山工芸工房 (founded in 1989; hereafter referred to as "the Craft School"), which has the philosophy of "nurture," "connect," and "disseminate" to the world. Another is the 21 Museum (founded in 2004), which disseminates present-day crafts internationally in the context of contemporary art. Most of these crafts are created by individuals who are gathered from all over Japan. The Kanazawa Art Creation Foundation runs the Craft School and the 21 Museum, along with several studios and workshops that allow craft artists who have recently graduated from universities or vocational schools to rent professional studios for long periods at low cost and utilize them 24 hours a day. Both facilities were developed by Kanazawa City in order to promote arts, crafts, related industries, and continuous activities internationally by establishing talented young people and leaders locally.

For further discussion on this creative environment in Kanazawa, refer to Figure 2 and its note for understanding the complementary and synergistic elements, as well as the formation process of value creation in the creative environment responsible for innovation and succession.

Figure 2 illustrates a creative environment that facilities the sharing of human resources, work materials, and affiliated education research programs was fostered by structuring a social cooperation system that has complementary and synergistic elements.

The promotion of such measures characterizes the relationship between the creative "ba" created by the Art University, which handles various crafts today, in cooperation with the 21 Museum and the Craft School, and their surrounding creative environment (within the framework of complementary elements and synergistic elements).

First, as shown in Figure 2, the place axis (vertical) and time axis (horizontal) consist of processes (1) to (4), and crossover with the spiral activity path of affiliated individuals. The spatial axis (vertical) denotes collaboration with external organizations where complementary and



Photo 3. Utatsuyama Kogei Kobo, Kanazawa Source: Kanazawa City website.

synergistic elements are demonstrated in the "ba" of in-house creations at the Art University, the 21 Museum, and the Craft School, which create diverse specialized human resources and work materials, and conduct a range of social collaboration research. By promoting such measures, a relationship is fostered between the creative "ba" at the Art University, which handles various frontline crafts, in cooperation with the 21 Museum and vocational schools, and their surrounding creative environments (complementary and synergistic elements that are characterized in Figure 2).

Next, the exchange between the previously discussed craft artists, and local human resources based at vocational schools and business establishments located in each craft cluster is a multi-lyered and continuous medium brought about by individual procurement of materials and tools, study programs of the vocational schools, and regional collaboration art projects. In particular,⁹ a great complementary effect is exerted between organizations in an art university, vocational schools, and museums by

	Complementary / Synergic Elements	 local universities artisan workshops individual studios low-cost rental studios vocational schools in each production area university consortium AIR Overseas study 	- galleries - general art museums - regional craft museums - craft antenna shops - art NPO • research result exhibitions • regional art projects	 local universities industrial research centingeneral - special muse crafts associations public interest incorportion foundation industrial cooperatives other support groups media ojurnals
	The Art Museum	 lectures at university / school regional art events 	• special / open call exhibitions • university faculty annual exhibition • student / trainee graduation completion exhibition • study results exhibition of university / school	•collection •archives and informat dissemination of artis works
	The Craft School	 invited lecturers from the Art University, locals, nationwide professionals independence support system (exemption from fees for training, workshop usage, payment of incentives) AIR 		 information managen of graduates / lecturer works archives of historical of materials
	The Art University	 research centers for social collaboration, international exchange, art and craft off campus (required / elective) on campus (theory / basic exercises) 	- art & craft research center - gallery on campus - satelite design museum - satelite art studio - satelite art space	 library art and craft research academic papers dissertations stock of art works archives of affiliated individuals
Ļ	Process	(1) Learning & Research	(2) Production & Presentation	(3) Systematization of Mat

Figure 2. Education research institutes and craft artists in the creative environment of Kanazawa.

Note: The horizontal axis (time) consists of the creation place of an organization's four processes, and the vertical axis (space) consists of aspects of collaboration between various education research institutes and external complementary and synergistic elements. Artists actively cross time (horizontal axis) and space (vertical axis) in a spiral form and develop their professional career. Text in red denotes the elements that have been established since the 1980s. ● indicates program or medium and ● indicates outcome. Others mean facilities.



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^{9.} The 21 Museum Exhibition "Kanazawa Art Platform" (2008), "Art Crafting towards the Future" Exhibition (2012), Kanazawa World Craft Triennale (2010-), Kanazawa Toryoe (2010-2015), Kanazawa 21st Century Craft Festival (2016-), Fashionable Messe (2006-2015), 21st Century Takagamine Forum (2017), and East Asian Cultural City 2018 Kanazawa (2018).

the following three factors : (1) an individual creative in-house "ba" for learning and study by external lecturers, social collaboration programs, and incubation systems that develop young talents and lecturers from around Japan with the hope of having them stay, (2) presentation by using the 21 Museum's capability to disseminate information internationally, and (3) continuous systematization of knowledge at the Art University, collections of artworks and archives of artists in museums, and the ability to collect knowledge information unique to vocational schools.¹⁰

The components of social collaboration research based at the Art University are on- and off-campus social education classes (required and elective courses),11 the Research Institute of Arts and Crafts (founded in 1972) and its affiliated gallery (opened in 2017), three research centers for social collaboration, international exchange, and education and research (founded in 2006), and satellite art spaces. The social education and research department and social cooperation system at the Art University are characterized by a project system in which specialized staff serve as contact points and specialized faculty members and students work together across years, majors, and positions.

The results of the project-type social collaboration research project, in which faculty members, students, and local human resources collaborate for an extended period, are creative production and presentation, systematization of materials, and their transmission, which sequentially and effectively develop into the next "ba" (Fig. 2). The circular system of added value has been multi-structured within organizations, between organizations, and in the creative environment and community to which cooperating local human resources belong. Furthermore, the social cooperation system and social education research department (social collaboration, international exchange, and education and research centers) together with University Consortium Ishikawa, Kanazawa University, and local public organizations, are complementary and synergistic elements in Figure 2. In these social collaboration study programs, the participating faculty members and

students learn the abovementioned theory and basic exercises in advance on campus, and conduct fieldwork, creative production, and presentations locally in collaboration with local human resources at each juncture of the study program. The work materials are exhibited at the university campus gallery, the 21 Museum in the city center, and a rental gallery affiliated with an adjacent museum called the "Ishikawa Prefectural Government Memorial Shiinoki Guest House" (founded in 2010). Furthermore, these creative presentations are converted into knowledge information for oral presentations, master's theses, and doctoral dissertations for students, business reports, and university bulletins for faculty members. These digital materials are then widely disseminated through multiple channels, including online websites, etc. In addition, individual awards recognizing the results of these studies are frequently given out. Therefore, the research results produced by the accumulation of such social study programs are not limited to individual career development¹² or the high reputation of education research institutes, but also have culturally, economically, and socially external effects on the creative environment and communities involved.

As described earlier in this study, the project-type social collaboration project in which local art universities cooperate with museums, vocational schools, and the organizational systems that promote their creative activities consists of: (1) human resource development that is rich in diversity and expertise; (2) creative production and presentation; and (3) systematized artworks and related materials, in a broad and complex manner. As evidence of further embodiment of value-added collaboration results, the Art University has worked on the two programs described below over the past 10 years that consist of (1) sharing of heterogeneous tacit knowledge, (2) advanced work materials created by trial and error, (3) systematized knowledge, and (4) inhouse functions that enhance the circular social cooperation system that creates value.

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^{10.} See Maeda (2021).

^{11.} From the 2019 university syllabus.

^{12.} The direct results are as follows: 1) experiences to adapt to diversified art environments; 2) increasing attendance at major domestic and overseas public exhibitions and art events from an early stage; 3) diversification of careers; 4) increasing of the number of awards received at major exhibitions and art events within the context of the entire creative environment; and 5) greater attention to local culture and locals.

1. Collection of valuable and rare craft materials from all over Japan, and the production, preservation, and utilization of sample books in the research project "Heisei no Hyakko-Hisho" (FY2009-2019)

This program is a joint project between the Institute of Arts and Crafts affiliated with the Art University and Kanazawa City. It re-evaluates and provides a modern interpretation of the historical significance of the sample book of craft materials, Hyakko-Hisho 百工比照 produced in the seventeenth century. Since 2009, resources related to materials, techniques, tools, and processes that are popular today have been collected, covering four fields of crafts (dyeing and weaving, lacquer work, metalwork, ceramics) and rare traditional industrial products (Japanese umbrellas, gold leaf, Japanese paper). The purpose is to contribute to the promotion of academic, cultural, manufacturing, and tourism industries. The material collection team consists of university faculty members who are craft artists, curators, craft artisans, and executives who belong to the Kanazawa Chamber of Commerce, the Kanazawa Craftwork Business Creation Agency, vocational schools, and museums. Work is also performed in cooperation with universities, associations, and unions located in production areas nationwide. Because this is a long-term extracurricular project, students have also participated on a part-time basis. Currently, more than 7,000 physical materials have been collected and converted into knowledge information in the forms of physical sample books, digital archive materials, and literature materials. The physical sample books and digital archive materials are permanently exhibited in the on-campus gallery at the university. They also were exhibited in the Citizen's Gallery at the 21 Museum (2013 and 2015) and the Cheongju Craft Biennale in South Korea (2019), and have been used for classes and study groups inside and outside the university.

The above long-term project-type collaboration program between industry, government, and academia that crosses specialties, occupations, and organizations, first provide a "ba" for experimental (1) learning and research, (2) creative presentation, and (3) systematization and transmission of materials in the creative environment. This is done through the implicit knowledge of the personnel involved, physical and digital systematic



Photo 4. "Heisei no Hyakko-Hisho" (photo by the author)

materials, social collaboration systems, sustainable human resource development structures, and research and development that can be utilized for the purpose of (4) diversified value creation.

Second, the feature of these inter-organizational collaborations is the frequent use of free exchange zones as "ba" of creative presentation at the 21 Museum, which handles various artistic expressions today. In other words, the complementary nature of the Art University and vocational schools in terms of information dissemination stems from the collaboration between the 21 Museum and its adjacent gallery in cultural facilities, which disseminates local culture crafts internationally in the context of contemporary art (Fig. 2). The ability of the 21 Museum to attract visitors means the creation of a large-scale art exhibition that is different from existing craft exhibitions, a "ba" for international exchange, and a migratory effect on neighboring cultural facilities (official site of the Art University).

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2. "Suzu Ware Reconstruction Project" by Social Collaboration Center (FY2009-2012), volunteer "Oku-Noto Satoumi/Satoyama Art Project" (FY2013-2015), and University Consortium Ishikawa support of the "Oku-Noto International Art Festival Preparation Project" (FY2016-2018)¹³

This program is founded as project-type research commissioned to the University Social Collaboration Center by the Suzu Ware Museum in Suzu City, 110 km north of Kanazawa. The production of Suzu ware was initially stopped at the end of the fifteenth century, but has been reconstructed in recent decades. On the 30th anniversary of this reconstruction, modern Suzu ware was molded, fired in an experimental model of an old kiln, and exhibited in the hall and on the grounds of the museum in Suzu by teachers and students who majored in ceramics. Works selected by visitors were exhibited as a collection. The Suzu ware research project has been continued, and the work materials from the results of the research were made available at affiliated satellite art spaces and at an art non-profit organization in central Kanazawa. Since then, volunteering university faculty, students majoring in art, design, and crafts, and overseas artists have stayed long and developed the "Oku-Noto Satoumi/Satoyama Art Project" in collaboration with the locals (Sakamoto et al. 2016). A long-term survey of rice terraces and old traditional houses was conducted, and they were designed and used as exhibition venues, rather than conventional exhibition facilities that can handle craft materials which require careful humidity control (2013). Since 2016, the project has developed into a University Consortium Ishikawa "Regional Research Support Seminar," and an interdisciplinary research team "Suzupro," consisting of faculty members and students majoring in contemporary art, design, crafts, and theory, was established. The aforementioned on-campus course consisted of theory and basic exercises, and locally conducted fieldwork. A total of 94 students exhibited four items at an old traditional house as invited artists at the Oku-Noto International Art Festival in 2017. In addition to the second-

ever largest number of visitors to the art festival across 36 venues, one work was selected for permanent exhibition. Since then, fieldwork surveys have continued for the next art festival in 2021.

Information dissemination will be continued in collaboration with local human resources through means such as experimental creative exhibitions, workshops, and survey materials. Exhibitions will range from conventional white cube exhibitions consisting of works made with natural materials such as soil, lacquer, and Japanese paint, to outdoor exhibitions, terraced rice fields, and old traditional houses.

Participating individuals will be given the opportunity to diversify and internationalize their career based on their different social experiences. The Art University has been highly regarded by social collaboration research programs, and the verification of new possibilities through the revival of the Suzu ware. In addition to the Art University providing space for experiments to consider new cultural and industrial projects, and human resource development that aimed to innovate and inherit traditions in the existing environment, intercultural implicit knowledge was shared through exchanges between experts and young people.

5. Creative Environment and Craft Cluster Formed by **Education Research Institutes**

The career path of craft artists (Maeda 2021), focusing on the field of ceramic art, is based on a spatial axis, which is the creative environment and living environment in which the local core comprising the Art University, vocational schools, and museums are the creative foundation, and related organizations are located close to each other. Although there are individual differences, the time axes of involvement as students (trainees), teachers (lecturers and/or researchers), artists (craft artists and/or designers), and locals are represented by a crossover of time and space (Fig. 2).

In Figure 3, the creative "ba" at the Art University, the 21 Museum, and the Craft School complement each other and form a triangle, and related organizations and facilities are organically clustered around each institution.

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^{13.} Data from the Institute of Arts and Crafts "Institute Bulletin" (23-31), university business report and interviews with persons in charge (October 9, 2014, November 16, 2016, and July 5, 2018, respectively).

The social collaboration of organic aggregates consisting of universities (Florida 2002a; Martel 2006), museums (Lazzeretti 2008), and vocational schools (Piore and Sable 1984) is a shared "ba" of creation in which the internationality of art and the regionality of culture are continuously intermingled, leading to diversification of creative activities.

The research results above are recognized as contributing culturally, socially, and economically to internationalization and regional contributions of education research institutes. In other words, when the regional core art university activates the "ba" of creation in intra-organizational collaboration with museums and vocational schools, the results are circulated inside the creative environment by tacit knowledge of each artist, artworks with related materials, and social cooperation programs (inside the boxes in Figure 3). That is, this creative environment includes organically interacting organizations by complementary and synergistic elements, conventional craft clusters, and cultural tourism facilities.

The creative environment formed by the education research institutes in Kanazawa is a complex structure of industry, government, and academia collaboration that crosses occupational areas and fields between individuals, departments, and organizations, and extends beyond Kanazawa to neighboring cities. At the Craft School run by the Kanazawa Art Creation Foundation and other vocational schools in the existing clusters, there is a mutual exchange of teachers and lecturers, graduates, forming a different management structure compared to that of the vocational schools and local industries. The results of social collaboration between education research institutes and affiliated human resources that cooperate in the crafts discussed herein have established a "ba" of creation where international (universality and diversity) and regional (uniqueness and expertise) characteristics intersect and fuse after considerable friction through individual tacit knowledge, artworks and related materials, and learning and research programs.

The challenge is to maintain facilities and support systems (Fig. 2) that will enable Kanazawa to secure and train talented young craft artists from across Japan in order to lay the foundation of a creative environment in which the superiority of the local culture can be demonstrated in the international

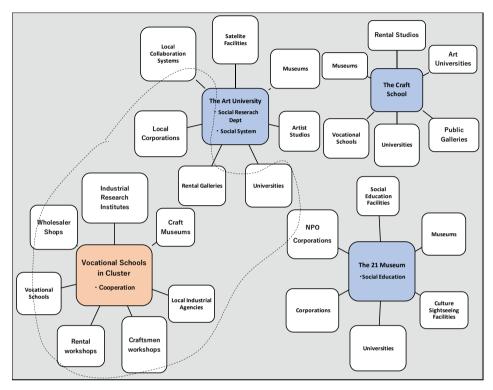


Figure 3. Creative environment and creative cluster in the wide area of Kanazawa, Japan

Note: Dashed line, existing industrial cluster of crafts; solid line (boxes), creative environment of crafts; outer frame, creative cluster

community. The city's local government has taken the initiative in developing sustainable financial resources and human resources to support these craft artists.

6. Conclusion

Through the cooperation of artists affiliated with the Art University, museums, and vocational schools that play a social role in the innovation

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and succession of arts and culture that symbolizes the region, we can create a "ba" where internationality and regionality intersect. This encourages the formation of a creative environment that produces added value where human resources, artworks and related materials, and learning and research methods are transmitted, bringing attention to the strengths of the arts and culture that symbolize the region in the international community.

Social cooperation research that aims to reconstruct, enlighten, and disseminate Suzu ware, which symbolizes the traditions of the region, as discussed above, will serve as the foundation for new art projects and regional sustainable development. Social collaboration research that creates, stores, and utilizes the modern version of Hyakko-Hisho for 10 years will also create economic value that contributes to the succession of technology as a tourism resource or in traditional industries. In addition, in order to efficiently transmit such added value in the creative environment, it is necessary to have four organizational functions that are open and exert various complementary and synergistic effects (Figs. 1 and 2). The challenge is to broaden and deepen interactions through individuals, organizations, and social collaboration systems.

Additionally, the Art University, museums, vocational schools, and craft artists who bring innovation to the arts and culture that symbolize the traditions of the region and contribute to sustainable development are components that differ from the traditional industrial clusters (Porter 1998) and creative clusters (Florida 2002a) defined above. This is because they can transmit both knowledge and materialized artworks, which have mixed cultural, social, and economic values, and accumulate cultural assets (human resources, artworks, and related materials) that symbolize local traditions. It is also because the social infrastructure that sustainably produces (education and research) is used as a creative environment, and the community cultivates attachment and pride in the region through re-evaluation, enlightenment, and promotion of the local culture. In other words, the creation of value that can be creatively utilized by systematically transmitting individual tacit knowledge, related materials, and artworks discussed herein depends on the surrounding creative environment and living environment (community). As a result, creative clusters and communities that innovate

and inherit the traditions of local culture are fostered.

This study also showed that it is important to secure artists (teachers, lecturers, graduates, and other craft artists) who will be creative and active in the international sphere and who will maintain lifelong interactions with education research institutes. It is also important to develop talented young human resources. To realize these goals, an adequate support system and sufficient time are needed.

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