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Social System Design Methodology for Transitioning to a New Social Structure

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Abstract

Social system design in this paper is intended to achieve a comprehensive transition to a new social system, rather than overcoming partial social problems. In Japan, approaches to transforming society, such as elections and social activism, are not fully functional. Transition to a new social structure requires critiques from inside with the presentation of concrete activities. We propose a systematized social system design methodology that aims at a principled transition, based on analysis of recent practices developed in Omuta City, Fukuoka Prefecture.

Keywords

Social System Design Methodology, Sustainability Transition, Urban Living Labs

1. INTRODUCTION

The concept of Sustainable Development Goals (SDGs) aims to integrate the three aspects of society, economy and environment, and to encourage diverse stakeholders, including citizens, governments, and businesses, to transcend sectionalism and work together in a cross-sectional manner toward the meaningful society. As social issues



are worsening and becoming more complex, a holistic approach to resolving the social issues is urgently required.

"Social system design" in this paper is also oriented toward the fundamental elimination of problems through a holistic transformation of the social system itself, rather than the piecewise resolution of local problems. Many of today's social issues are caused by the discrepancy between the existing social system and the reality of our life. Post-event and reactive responses will not lead to a fundamental resolution of the issues or the realization of the future desired. What is important is an approach that perceives society as a system that creates the problems and aims for its transformation.

2. CONTEXT

To begin this paper, we first review the weaknesses of conventional approaches in transforming social systems. The social system design discussed in this paper aims to overcome situations that fatally challenge conventional approaches.

In general, political activities are the most common approach to transforming any existing social system. The goal is to translate social ideals into legislation through civil debate in which representatives of citizens discuss and attempt concordance. However, the representative democracy adopted by many democracies might appear to be stable because the class structure of industrial capitalism is balanced against the corresponding mass parties representing social groups, but in post-industrial capitalism, this balance is being lost (Manin, 1997). It has also been said that the unwritten norms of "mutual tolerance" and "organizational self-control," necessary for democracy to function, are collapsing (Levitsky & Ziblatt, 2018). Thus, the dysfunction of representative democracy is being discussed mainly in developed countries; the same issue has been raised in Japan (Fujii, 2021).

The main alternative to democratic elections is rooted in the diverse needs of citizens. There is a history of citizen movements led by issue groups modifying an existing social system in piecemeal fashion. This alternative raises the possibility of position-oriented politics driven by citizen movements; it lies outside traditional parliamentary politics. Civic movements that pursue ownership with minorities as



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agents emphasize power relations of dominator / dominated and adopt confrontational actions in order to acquire political resources (Melucci, 1989). The assumption is that they can usefully objectify "enemies" external to themselves. However, in the 2000s, in the face of neoliberalism which neutralized political antagonisms (Mouffe, 2005) and left-avoiding populism as a situation unique to Japan, it became impossible to find an easily identifiable enemy, and civic activism is said to have transformed into something that provides a reason for living and a place for people who have difficulty adapting to society (Inaba, 2016)¹.

Both approaches, democratic policy formation and civic activities driven by issue groups, face a situation in which they can no longer establish effective points of contention and clarify the issues in the traditional way, both of which assume a clear-cut adversarial structure, and changes are required given reasonable extrapolation of the current situation.

3. RELATED STUDIES AND RESEARCH ISSUES

In response to this situation, the search is on for a methodology that overcomes the limitations of the conventional approaches and triggers social system transformation; this paper is positioned within this context. Various related studies have attempted to correct the current situation, which has become increasingly pluralistic and complex, and yield an architecture that is appropriate for creating rational social structures, rather than tackling the problems with simple oppositional remedies.

Regarding representation, discussions on the various forms of political participation that make democracy function effectively are calling into question the traditional electoral system (Reybrouck, 2016). Some have long advocated "citizen assemblies" that utilize mini-public forums for citizen participation and deliberation (Smith 2009).

¹ According to Inaba, while social movements such as the Democracy Movement and Occupy Movement were revitalized worldwide in the 2000s, such movements were not so vibrant in Japan and non-protest-oriented movements attracted attention. Inaba acknowledges that social movements have become a place for minorities as described in the body of this paper; she also pointed out the need to find a new political possibilities.



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Arguments have been made for evaluating the Irish Constitutional Assembly, which experimented with the idea, from the perspective of democratic control over policy making (della Porta, 2020). However, while these arguments for a more fully democratic system through diversification of the electoral system, assume a representative system and rational debates, and there is no inherent guarantee that these assumptions will effectively contribute to positive change of the social system. Indeed they need to be validated empirically. In this respect, this is an argument that awaits further development, and is beyond the scope of this paper, which is concerned with design methodology.

The following study of civic activities centered on group activities is noteworthy from the viewpoint of the issues raised by this paper. This was not a reduction to the old oppositional structure of "damage / perpetration" or "individual / government or corporation," but rather reexamined the civic movements accompanying MINAMATA disease based on the premise that individuals are also embedded in society (Sung, 2003). Based on the interdependency of the individual and society, the perspective of objectifying the cyclically reconstituted social system itself is also emphasized in this paper². However, the subject of this paper is a practical methodology that takes this cyclicity into account and approaches it in a concrete manner. In this regard, there is research on Japanese social education theory that discusses the process by which parties to a social issue structurally perceive the issue and transform the community in a learning process called Community Development (Miyazaki, 2019). This is highly suggestive in terms of the internal change of the people involved and the formation of a collective, but it remains within the framework of civil society theory, and so does not include discussions of policy or economics, and does not have the scope needed for holistic social system transformation.

² "Mutuality and circularity between the individual and society" refers to the way in which our decisions and behaviors constitute the social system, and at the same time, the constituted social system also defines our decisions and behaviors. Such understandings are based on M. Foucault's theory of power (especially the discipline model (Foucault, 1975)). This paper, however, is based on this Foucauldian understanding and explores a design methodology that differs from Foucault's "archaeology" and "genealogy" approaches.



Given this situation, social design³ methodologies such as Sustainability Transition (Kohler et al.,2019) and Urban Living Labs (Cuomo,2022) have attracted attention as concrete practices to ensure the diversity of participation in support of various parties through collaboration. One of the research domain inf Sustainability Transition; Transition Management is a methodology in which citizens, governments, and businesses co-create a holistic agenda for social system transformation, and operate it in a way that connects it to the specific practices of the agents. However, it lacks a methodology to concretely implement the integrated transformation indicated by the agenda (Roorda et al., 2014), and has yet to fully realize a movement toward this transformation (Kohler et al.,2019). On the other hand, Urban Living Labs is a methodology in which citizens themselves take the initiative and co-create with urban stakeholders to solve problems through a design process toward sustainable urban transformation (Baccarne, 2014). However, a methodology to comprehensively and integrally grasp the complex intertwined elements of the entire city, called Urban Dimensions (Steen & van Bueren, 2017) has yet to be elucidated.

Two points are noteworthy in related research: the first is to take into account the circularity nature of individuals and the social systems, in which the individual is defined by society as well as the society is defined by the individual. The second is to ensure the diversity of participation through collaboration. On the other hand, the nature of the entities and methodologies to implement social system transformation in an integrated manner is a research issue that has yet to be adequately addressed. To contribute to social system transformation, this paper focuses on design methodologies that question the nature of subjects and practices in an integrated manner while overcoming social conflict structures inherent in the social system through diverse collaborations based on the circular dependencies of individuals and society (rather than external criticism). As the basis for social system design, this paper

³ Manzini, an expert on social innovation, points out that modern society requires deep and significant systemic change (on the same level as the prior transition from feudal to modern society), and that what does not touch the roots of the system will not help in systemic transformation (Manzini, 2019).



refers to specific practices created in OMUTA City, Fukuoka Prefecture, in Chapter 4, and attempts to systematize a general-purpose methodology in Chapter 5 from the advances made.

4. SOCIAL SYSTEM DESIGN PRACTICE IN OMUTA CITY, FUKUOKA PREFECTURE

a. Emerging Social System Design Practices

OMUTA City contributed greatly to the industrial and economic development of Japan through the mining operations of the MIIKE Coal Mine (1873-1997) by MEIJI Government and a flourishing coal-chemical complex. However, the population of the city has almost halved from 210,000 in 1959 (the peak of the coal mining era), and the current aging rate is 37.3% (as of October 1, 2022) which is one of the highest in Japan among cities with more than 100,000 people. It is also widely known as an advanced region in terms of dementia care, because the number of people with dementia is increasing in the community, creating a situation in which many people are involved. In 2005, OMUTA City, together with its citizens, issued the "Declaration for Creating a City to Live with People with Dementia"⁴. The concept of "a town where people can wander around with peace of mind," which was proposed at that time, was a groundbreaking one. This concept aims to create a town where people with dementia can live like everyone else in the community, rather than in nursing homes or in communities isolated by gates. Traditionally the act of wandering and its positioning as a problematic behavior indicated deviation from social customs and triggered treatment and constraint. Overcoming similar situations in Japan, OMUTA's concept is an

⁴ In January 2005, Omuta City issued the "Declaration for Creating a City to Live with People with Dementia" in order to make it known throughout Japan that the entire city will support people with dementia and their families through cooperation among welfare, medical care, nursing agencies, the community, and government.

https://www.city.omuta.lg.jp/hpKiji/pub/detail.aspx?c_id=5&id=6652&class_set_id=1&class_id=136 (accessed Aug. 6, 2022)



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innovative one that aims to create a town where people with dementia, children, adults, or any other kind of person, are accepted into society.

From the perspective of this paper, this concept and the many practices in OMUTA City that have accompanied it, are the seeds of a social system design practice that finds new meaning for and leads the way to a shift in social systems.

b. Establishment of an organization for citizens to think and act for the entire city (2019)

It is clear that the activities traditionally proscribed by the issues of "dementia" and "the elderly" make it difficult to redesign the entire social system. This is because it is impossible to take account of the social issues that arise in various parts of the community. This is due to the fact that the silo structure of local government limited the areas that could be covered by individual policies. Therefore, the OMUTA Center for Future Co-Creation (hereinafter referred to as "PONI PONI") was established in collaboration with the public and private sectors as an "organization that is both independent and embedded" in the existing social system; it crosses vertical divisions in sectors and domains, with a core based on a new deeper concept related to dementia care (Kimura et al. 2019). PONI PONI was established as a public-private partnership. The founding members included those developing businesses within the community, those who had been involved in OMUTA's urban development from outside the community, those who shared the concept and had strengths in policy formation outside the community, and design researchers from companies. It is a team structure that is conscious of the fact that its remit is to design social systems.

c. National Model Project of Health Promotion for the Elderly Health Care (2019)

In parallel with the establishment of our organization, PONI PONI first focused on "care prevention" in response to the situation in OMUTA City, and developed in conjunction with OMUTA City, particularly the "Health Promotion Project for the Elderly Health Care" by the Ministry of Health, Labor and Welfare. This was because we



believed that it was necessary to seek the effective integration of two different policy areas: "community-based comprehensive care," which was being promoted in the medical and long-term care fields, and "regional development," which aimed to correct the concentration of people, money, and resources in Tokyo. The project involved understanding the policy background of each area and engaging in dialogue with practitioners within and outside the region. As a result, we discovered a new transition concept: "from guaranteeing the right to exist (Article 25 of the Constitution) to guaranteeing the right to the pursuit of happiness (Article 13 of the Constitution)". This concept organically connects medical and nursing care with local development. The project report also addressed the Living Labs, which create collaboration between local players and outside companies to solve social issues, and envisions a specific approach for involving companies outside the region.

d. WAKU WAKU Life Salon (2019)

Subsequently, as a specific Living Lab practice project, PONI PONI implemented the "WAKU WAKU (This onomatopoeia means that "One's heart pounded with expectation.") Life Salon. This project responded to both the needs of local residents and the government to solve problems in Omuta City and the need of companies to develop new services. In addition, the project embodied the Omuta's new transition concept which was detailed in the aforementioned "Health Promotion Project for Elderly Health Care. Specifically, participants aged 65 or older living in Omuta City who voluntarily expressed interest in the "WAKU WAKU Life Salon" gathered for a total of five sessions to reflect on their lives to date and their daily lives, and to think about how they could become excited about the remainder of their lives.

For companies, this project was positioned as the search for concepts that would contribute to the development of IoT-based early disease detection services, and to organize UX/UI requirements. The knowledge this acquired would be used to launch new business companies. At the same time, for residents, the project provided an opportunity for elderly residents with limited places to go in the community to regain their motivation. For the government, it was an opportunity to find new measures to

deal with matters that could not be approached through the existing long-term care insurance system. The project was designed and managed as a value-added activity in which the three parties involved in the Living Lab overcame their respective challenges.



Figure 1. Scene (left) and flyer (right) of Wakuwaku Life Salon

In this way, we have newly discovered the potential of "dialogue that stimulates motivation" in the realization of a new concept through "dialogues" between the elderly and the staff of the WAKU WAKU Life Salon.

e. Questioning the views of humanity (2020)

After the "WAKU WAKU Life Salon," a dialogue was held with leading practitioners and experts from within the region and beyond to identify a new view of human nature that could comprehensively support corporate service implementation, local practice, and policy development. It became clear that the humanistic view of the "modern subject," which is the premise for all institutions and businesses in the modern society and which citizens widely believe should be realized, is no longer compatible with reality and is creating social challenges. The dialogue also suggested that the identity of the foundational human itself is shared with others and the environment. Furthermore, the phase of identity shifts from role (self-identity) to existence (ego-identity), not through discipline, but through release, and through "dialogue," motivation is stimulated from existence (ego-identity). In other words, a new view of the human being, which is necessary for social system design, was found.



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f. Co-creation of OMUTA City Health and Welfare Comprehensive Plan (2021)

In order to redesign the entire social system, PONI PONI and OMUTA City collaborated to develop the OMUTA City Health and Welfare Comprehensive Plan, which is a comprehensive plan for daily life, with the aim of targeting activities in a broader policy area than just long-term care prevention. This plan was developed based on suggestions from projects in the area of long-term care prevention described above, as well as from various projects in other areas. Comprehensive plans of local governments in Japan are generally prepared by combining the plans of various departments as separate chapters into a single plan, but this does not lead to an integrated reappraisal of the community and daily life. Therefore, in this project, we attempted to create a single structure for the nine welfare-related administrative plans, and integrated them holistically into a single comprehensive plan.



Figure 2. Official booklet (left) and booklet for citizens (center, right)

In addition, in order to replace Japan's typical approach to administrative plans, which merely creates a list of "measures that can be implemented at the present time" based on existing administrative resources and past achievements, PONIPONI and OMUTA city decided to include "measures that should be addressed even though no means of implementation have been found at the present time" to create the free space expected to trigger novel co-creation activities.



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g. Entrustment of community comprehensive support centers (2021)

In order to design social systems in a more practical manner, we were entrusted with two Community Comprehensive Support Centers, which are community-based, public interest entities. Community comprehensive support centers are institutions stipulated in the Long-Term Care Insurance Law and established by local governments for the purpose of comprehensively supporting the improvement of the healthcare and welfare of the elderly by providing comprehensive consultation for the elderly in the community, protecting their rights, creating a community support system, and providing necessary assistance for long-term care. In addition, in response to the recent revision of the long-term care insurance system, Omuta City has also established a system to actively engage in "community development. Specifically, the center is the first place to receive so-called "in-between problems (system errors)" that occur in the community, and can be said to be the center of a regional network to solve "in-between problems" and promote long-term care. Therefore, it has a great advantage as a center of practice for designing social systems in that it can detect social system omissions, draw out collaboration through its network, and work beyond its own domain.

h. Sign comprehensive cooperation agreement with Omuta city (2022)

Furthermore, PONI PONI signed a "Collaboration Agreement for the Realization of a Community Coexistence Society" with the city of Omuta. Its subject is the promotion of the comprehensive plan formulated in 2021. This allows PONI PONI to officially support policy formation in a wide range of areas in conjunction with government departments and to collaborate with stakeholders within and outside the community to realize the vision of the policy. This will help turn around the situation that tends to occur in Japan, where "public matters are left to the government". The partnership between Omuta City and PONI PONI, a community-based social system



design organization, has officially paved the way for the integrated implementation of policies that have been stove-piped since PONI PONI's founding by a private intermediary organization. From a different perspective, PONI PONI's assumption of the planning promotion secretariat has made it possible to promote administrative planning through a collective impact approach.

i. National model project on housing (2022)

In addition to the Welfare departments' collaboration, we started collaborating with the housing department of OMUTA City, on the "Model Project on Housing through Cooperation between Welfare and Housing Departments in Local Governments" by the Ministry of Land, Infrastructure, Transport and Tourism. Housing policy is said to be a highly integrated area that is linked to not only welfare but also urban planning and immigration. Naturally, this was one of the themes of the Comprehensive Plan for Health and Welfare, but by focusing on housing, it was possible to gain a detailed understanding of the policy background and conduct a survey of the actual situation in the region. In the process, we further discovered the concept of "substantiating social inclusion"⁵ (miyamoto, 2017), which expands the Omuta's new transition concept.

j. Future Activities (2022)

In order to accelerate social system design, we are beginning to embark on the following activities.

One is to utilize "Comprehensive Project C," a type of long-term care prevention and daily life support service, as a "base for strategically restructuring and developing a new concept" in long-term care prevention. PONI PONI will, in collaboration with the

⁵ Miyamoto cites the criticism of J. Young (Young, 1999), author of "Bulimic Society," that "repeatedly promoting social inclusion while society remains exclusionary will ultimately promote exclusion. He then points out that while it is good to include all excluded people as members of society, it is a logical contradiction to include people in an exclusionary or self-help society, and that social inclusion cannot be practically realized unless society itself changes.



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Regional Comprehensive Support Center and other players in and outside the community, work on this project as an official initiative backed by a partnership agreement. PONI PONI will then proceed with a model project to structurally rethink and redesign the existing social system based on the principles it has discovered so far: moving "from guaranteeing the right to exist (Article 25 of the Constitution) to guaranteeing the right to the pursuit of happiness (Article 13 of the Constitution)" and "substantiating social inclusion.

Moreover, we are tackling the Future Prediction Project, the Incubation Project, and the creation of opportunities for collaboration with a wide range of citizens. The Future Project will work to design social systems based on objective forecast data and narrative visions of the future, in addition to dialogue with practitioners and experts that we have been engaging with. The incubation project will work to create new problem-solving and value-creating entities in the region, create workplaces, and show children and young people new technologies and ways of appreciating their own existence. The creation of opportunities for collaboration with a wide range of citizens will be undertaken with the aim of fostering a culture of "society can be changed" so that each citizen can play a leading role in creating new social systems and continuing to bring about change.

5. SOCIAL SYSTEM DESIGN METHODOLOGY

In this chapter, we attempt to systematize our proposal as a general-purpose methodology, using the social system design practice in OMTA City as a starting point.

a. Grasping the views of social systems

Formal social systems such as laws and norms do not unilaterally influence people, but function as substantive social system only when people within the system behave in conformity with them (internalization of the system related to footnote No.2), see Figure. 3 (A). Design practitioners are strongly urged to first grasp social systems from the perspective that social systems are cyclically structured.



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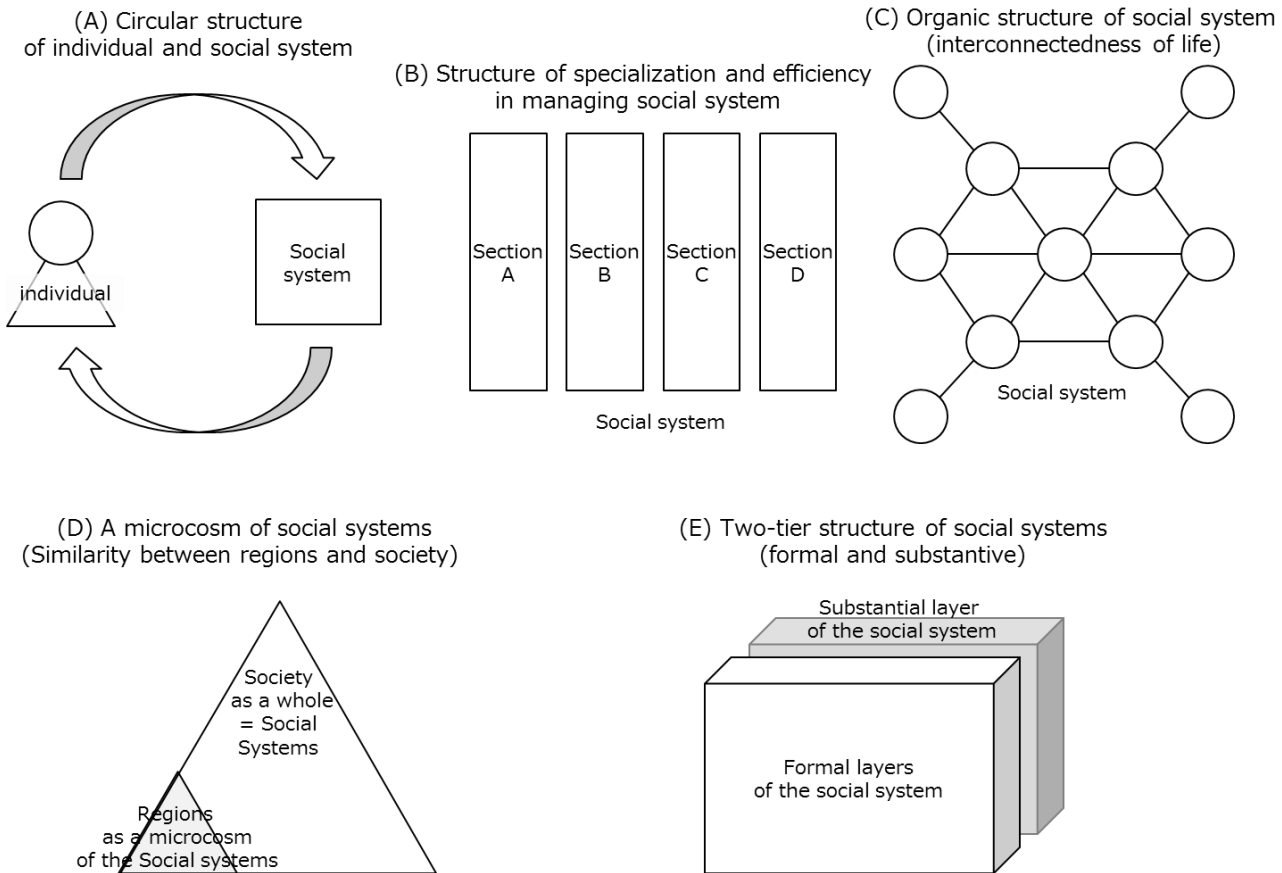


Figure. 3. Views of Social System Structure

This makes it necessary to grasp the point that each area of the existing social system has become vertically divided due to specialization to increase efficiency (Figure. 3 (B)). On the other hand, people exist as an integrated entity, and each element of daily life is inseparably linked as a network (interrelationship) like an organism (Figure. 3(C)). The discrepancy between the two is often exposed by social issues.

In order to specifically design a social system as a design object, it is necessary to limit the object and make it tangible. Therefore, one option is to target a specific "region" with fixed scope as a microcosm of the social system (Figure. 3(D)).

It is also useful to use "policy" as a pathway to understand and work on the basic framework of the social systems in that region. However, it is important to note the two-layered structure (formal and substantive) of the social systems. For example, the formal policies can be changed through official procedures, but this alone will not



reach the concrete change of social systems. The approach at the "substantive" level, which is the actual implementation of the plan's principles, requires building relationships and working with government officials and local stakeholders to collaborate in a substantive manner. In most cases, either a formal or substantive approach is taken, but in order to approach both sides (formal and substantive) of a mutually embedded structure for social system transformation, it is essential to obtain formal ostensible standing as well as to implement concrete practices for the substantive level (Figure. 3(E)).

b. Social system design practitioners

As mentioned in the previous section, the principles of a social system must function both in the environment and people's internal aspects like thoughts and behaviors, as both constitute the system in a circulatory manner. Therefore, any entity that seeks to design a social system must internalize and incorporate a new concept into the existing system in a way that functions while escaping from this circulatory structure, by reconfiguring the entire system. As described before, this is the situation; "organization that is both independent and embedded". Herein lies the basic position and approach of the social system design practitioner.

This is true whether the practitioner is an individual or an organization. In both cases, it is first necessary to free oneself from the functional roles defined by the existing social system. This means creating a situation in which one feels uncomfortable in one's surroundings as an undefined and contradictory entity. When the people around them try to understand the practitioner in an existing role, if the practitioner behaves accordingly, they will become incorporated into the existing system. It is necessary to continue to avoid this while retaining a certain influence on the existing social system. Influence must be both formal and substantive. Formality acts to create an environment conducive to broad-based movement, while substance contributes to individual, concrete conceptual practices.

As regards concrete practices, the scope of involvement should be unconstrained as much as possible in order to avoid stove-piping (specialization), which is one of the weaknesses of existing social systems. Rather, it is necessary to



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reconfigure (rearrange) each element of the social system so that new principles can be realized through interaction across a wide range of areas. This also coincides with the breadth of collaboration partners. Social system design practitioners are expected to have a common language and interest in a wide range of areas and sectors, and to take the lead in design.

Financial independence is also important. Receiving compensation for "being of value in the existing social system" can mean being captured by the existing system. In addition, when obtaining funding from a subcontractor's standpoint, the direction of the design may be strongly constrained by existing philosophies and ideas. In light of these considerations, it is important that funding be indirect, that fair relationships be established as much as possible when making contracts, and that the independent organization should not become too dependent on funds from a specific entity.

c. Process Model of Social System Design

This section outlines the process as obtained through practice (Figure. 4). These proceed in an iterated and expanding manner.

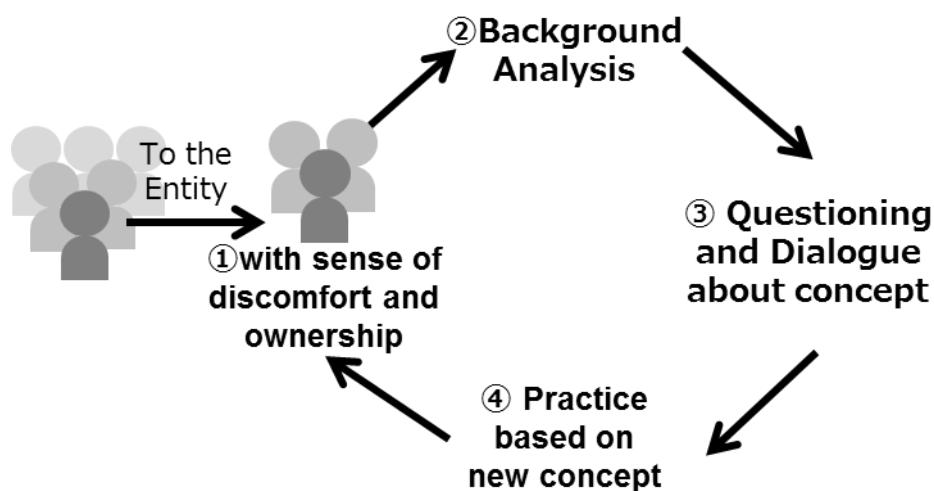


Figure. 4. Process of Social System Design

Figure. 5 shows the relationship between this process and the practices described in the previous section.



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	Process 1	Process 2	Process 3	Process 4
Establishment of the OMTA Center for Future Co-Creation (PONI PONI) (2019)	●			
Health Promotion Project for the Elderly Health Care (2019)		●	●	
WAKU WAKU Life Salon (2019)				●
Questioning the views of humanity (2020)		●	●	
Co-creation of OMTA City Health and Welfare Comprehensive Plan (2021)		●	●	
Entrustment of community comprehensive support centers (2021)	●			●
Sign comprehensive cooperation agreement with OMTA city (2022)				●
National model project on housing (2022)		●	●	
Future Activities (2022)				●

Figure. 5. Relationship between process and practices

Process 1: Creation of Subjects with sense of discomfort and ownership

First, it is necessary to create a position in which the "subject (individual or team) can be embedded while remaining independent" from the interrelated social system. In this case, the driver for design is the designer's own sense of discomfort with the existing social system, as well as the individual's sense of ownership based on personal experience. However, it is difficult to cover the wide range of areas involved in designing a social system from just the direct experience of the individuals themselves. Therefore, when working as a team, it is necessary to ensure the diversity of experiences of the members and to take the experiences and positions of others as one's own. The position of being able to constantly perceive flaws in existing social systems is also the foundation of good design practice.



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Process 2: Background analysis

The social system in front of us exists as if it were self-evident and invisible. However, in many cases, it was implemented at some point. As a clue to this, it is necessary to grasp how the policies were formed, find the structures and principles that created the problems beyond the events in front of us, and objectify them. It is important to note that policy intentions can easily change from positive to negative depending on changes in reality. Policy intentions cannot be judged on their content alone. It is necessary to understand the current situation in relation to reality.

Process 3: Questioning and Dialogue about concept

In order to develop a new social concept for an existing social system, it is necessary to ask questions about the concept and deepen the dialogue. In doing so, we will actively collaborate with experts and practitioners who are challenging society with advanced questions. It is important to open a forum for dialogue and questioning, as this will enhance the public nature of our practice and help us find collaborators who are uncomfortable with the existing social system. Furthermore, it is essential to create a circuit that connects these questions to implementation approaches. It is necessary to reflect the questions in the efforts of design practitioners themselves, as well as to have mechanisms to create new players in the field.

Process 4: Practice based on new concept

It is necessary to create practices based on the new principles found, embed them in the existing system, connect them to the existing network, and make them fully functional. Implementing and linking these practices can concretely infuse the existing social system with the new concept and transform the system into a different structure. It is also important to ensure a network that can permeate the existing social system and expand its functions in a continuous, interrelated, and chain-like manner. It is necessary to pursue not only local prototyping, but also practices that serve as a pump to spread the concept, so to speak.



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6. SUMMARY

This paper theoretically provided a view of the difficulties posed by social system transformation and a design logic to overcome these difficulties. It also presented concrete examples and processes to elucidate the practice of the approach, from which a general-purpose social system design methodology was derived.

First, this paper in-theory has shown that the conventional approaches to social system transformation (representative democracy and civil movements) assume a clear conflict structure, but this assumption makes it impossible to identify effective issues. In order to overcome this difficulty, it is necessary to approach the multifaceted structure of the social system, rather than reducing the pluralistic and complex society to an antagonistic structure (Chapter 2).

From this perspective, the theories of party movements based on the cyclical structure of individuals and society and the theory of social education, which deals with the process of local transformation by the parties involved, have attracted attention, but both of these theories lack practicality and integration. Although social designs such as Transition Management and Urban Living Labs have attracted attention as practices that ensure a diversity of participation to support various parties, they have not yet been established as methodologies for achieving integrated social transformation. Based on these theoretical considerations, this paper concludes that the design of social system transformation requires design practices and methodologies that realize both of the following: 1) the design of social system transformation should be internal in the social system based on the cyclical nature of individuals and society, and 2) these should be realized in an integrated manner while overcoming social conflict structures through diverse collaborations (Chapter 3).

The paper then presented a concrete case study and process from 2019 to 2022 in Omuta City, Fukuoka Prefecture (Chapter 4) to illuminate such practices and methodologies, and at the same time derived a methodology for social system design from these practices (Chapter 5).

The following is a more concrete description of the practical aspects of the project. Regarding the entities inherent in the social system based on the cyclical



nature of the individual and society, we presented concrete examples such as the establishment of the Omuta Future Co-creation Center (Section 4.2) and the commissioning of the Regional Comprehensive Support Center (Section 4.7). Regarding the practice of driving an integrated social system transformation within the existing social system through diverse collaborations, specific examples were presented, such as the Wakuwaku Life Salon (Section 4.4), the formulation of the Omuta City Health and Welfare Comprehensive Plan (Section 4.6). Of course, these individual cases do not have meaning in isolation, but rather are instances of design practices that realize integrated and comprehensive social system transformation through their interconnection in the series of processes described in Chapter 4.

The methodology derived from the characteristics and processes of these practices was described in detail in this paper, which presented five views to better understand multifaceted social systems (Section 5.1). The nature of the subject of design, which has tended to be overlooked by conventional design methodologies, especially in terms of its relationship to the circulatory structure of society (Section 5.2) was described. In addition, the process of social system design was modeled in four stages, and the specific practices in Omuta City were depicted within the process model (Section 5.3).

In order to develop this methodology into becoming more versatile and useful, it is necessary to further elaborate its contents and clarify the leadership required of designers and the nature of actual environments. Furthermore, this methodology should never be seen as ever complete. It is important that the methodology offer "continuous change" in order to respond to major shifts in new values such as the SDGs, based on the fact that modern social systems have characteristics that tend to move away from an integrated way of being and living, as discussed in Section 4.1.

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