

Speculation of The Purpose of Life in 2050 from Kyoto

- Case Study on Transition Design in Japan -

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Abstract

Adolescents' depression in Japan is one of the Wicked Problems unique to Japan. Under the circumstances, we aimed to speculate a humane vision where everyone can live with a purpose (*ikigai*) from the historical city of Kyoto, Japan. Using the theories underpinning Transition Design, this paper reports a case study on the core four processes of Transition Design and prototypes which are place-based and decentralized future visions inspired by Japanese traditional Arts. Finally, from the perspective of Pluriversal Design, we present our reflections and unique findings from the practice of the first Transition Design project in Japan, a country other than Europe and the United States.

Keywords

Local Challenges, Transition Design, Wicked Problems, Speculation, Pluriverse

1. Introduction

Japanese life and career situations have become more opaque due to the collapse of lifetime employment, the aging society with declining birth rate, and the dropdown in GDP as well as international competitiveness. In the Cabinet Office's White Paper on Children and Young People 2019¹, there are statistics that self-confidence of

¹ Cabinet Office, Government of Japan, "White Paper on Children and Young People 2019," accessed March 13, 2020, <https://www8.cao.go.jp/youth/english/whitepaper/2019/pdf/2019.pdf>.

Japanese youths and their hope for the future are significantly lower than those of overseas countries, and their willingness to contribute to changing the nation is also little. The fact that young people have no hope for the future is one of the Wicked Problems² unique to Japan.

Under the circumstances, we aimed to speculate a humane vision where everyone can live with a purpose (*ikigai*) through the theory of Transition Design³. We conducted the core four processes of Transition Design as a self-initiated research project in Kyoto, Japan. Subsequently, we proposed place-based and decentralized future visions through Japanese traditional performance and products. In this paper, we introduce our process, prototypes, insights, and reflections on the Transition Design project undertaken in Japan.

2. Transition Design and The Core Four Processes

The word “design” is currently used beyond its traditional definition and expanding into a more socio-technical context, such as experiences, services, social and environmental innovations⁴. Furthermore, it can be extended to system-level and pluriversal worldviews⁵, such as culture, policy, and society. To design such a large-scale change, the Department of Design at Carnegie Mellon University proposed Transition Design in 2015. However, there are virtually no practical case studies outside of Europe and the United States. Therefore, we applied Transition Design to Wicked Problems unique to Japan and introduced here as the emerging design research practice.

² Australian Public Service Commission, “Tackling Wicked Problems: A Public Policy Perspective,” in Contemporary Government Challenges, Canberra, Australian Public Service Commission (2007), accessed March 13, 2020, <https://www.apsc.gov.au/tackling-wicked-problems-public-policy-perspective>.

³ Terry Irwin, “Transition Design: A Proposal for a New Area of Design, Practice, Study and Research,” *Design and Culture* 7 (2) (2015): 230.

⁴ Richard Buchanan, “Design research and the new learning,” *Design issues* 17 (4) (2001), 12.

⁵ Arturo Escobar, *Design for Transitions*. In *Designs for the Pluriverse: Radical Interdependence, Autonomy and the Making of Worlds*. (Durham, North Carolina: Duke University Press, 2018), 137-164.

Based on the Transition Design seminar⁶, we divided the core process of Transition Design into four steps. First, it tackles Wicked Problems and maps interdependent issues and causes. It enables us to distinguish how people's values and lifestyles are ramified and interrelated in response to societal issues that cannot be entirely solved with a single solution.

The second step is to map Multi-Level Perspectives (MLP)⁷. In this step, we investigate the root cause of problems and correlations in multiple perspectives based on the Holarchy⁸ model that all entities from the molecular/cellular level to the planetary level have one-for-all and all-for-one wholeness.

The third step is to envision future lifestyles. Once the socio-technical system and the values of people behind it are clarified from the MLP, we envision ideal lifestyles in 2050 when wicked problems no longer exist.

Finally, Transition Design does not end with envisioning an ideal future but conducts backcasting⁹ to think about what to do now and make an action plan. The theory explains the significance of the continuous cycle of executing the projects from the perspective of the future, monitoring the results, and correcting the vision¹⁰.

3. Practice: Speculation of the purpose of life in 2050 from Kyoto

According to these four processes above, we conducted the Transition Design project in Kyoto. The following processes did not proceed in a fixed chronological order, we went back and forth between respective processes to revisit ideas and materializations (Fig.1).

⁶ Carnegie Mellon University, "Transition Design Seminar 2020," accessed March 13, 2020, <https://transitiondesignseminarcmu.net/>.

⁷ F.W. Geels, "The Dynamics of Transitions in Socio-Technical Systems: A Multi-Level Analysis of the Transition Pathway from Horse-Drawn Carriages to Automobiles (1860-1930)." From *Technology Analysis and Strategic Management*, 17 (4) (2005): 450.

⁸ Arthur Koestler, *The Ghost in the Machine*. (New York: Macmillan, 1967), 61.

⁹ Jaco Quist, "Backcasting for a sustainable future: the impact after 10 years," TU Delft (2007), 68.

¹⁰ Terry Irwin, "The Emerging Transition Design Approach," *DRS 2018: Catalyst*, Volume 3 (2018): 972.

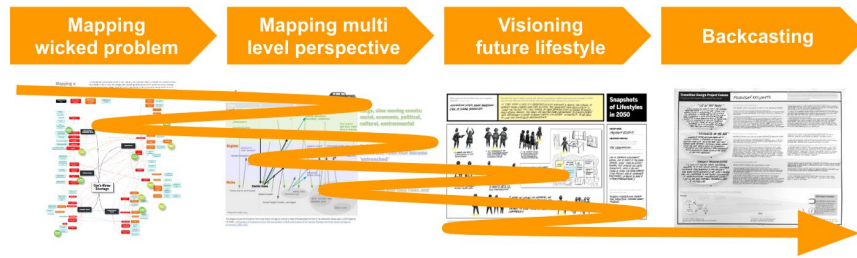


Fig.1: Transition Design Processes in Kyoto

3.1. Mapping Wicked Problems

As the first preliminary research, we interviewed five Japanese young people to conduct secondary research; breaking down the wicked problem of adolescent depression in Japan on the axis of STEEP (Society / Technology / Economy / Environment / Policy) (Fig.2). Finally, we understood that negative causal loops are flowing through multiple levels, such as individuals, cities, and society in Japan (Fig.3):

1. Households have a low financial capacity.
2. Citizens have no hope for the government to change the situation.
3. However they become conservative and seek satisfaction within the current situation.
4. Economic growth stops and the collapse of the existing system worsens.



Fig.2: STEEP Analysis

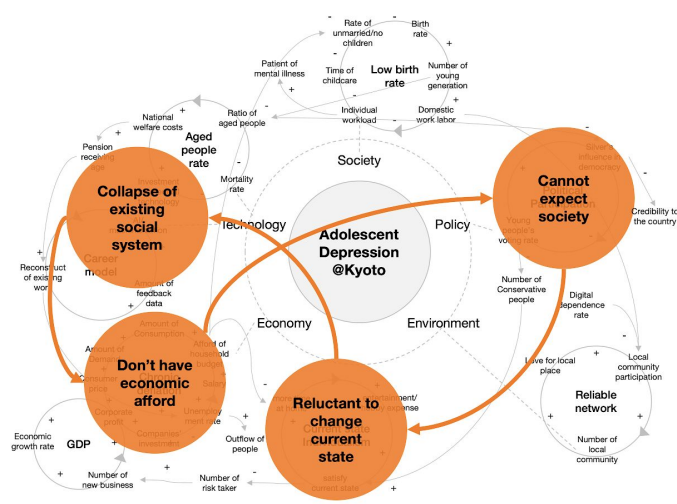


Fig.3: Causal Loop Analysis

3.2. Mapping Multi-Level Perspectives (MLP)

In the next step, we mapped the MLP by setting the timeline as the horizontal axis and the societal layers (individual/city/society) as the vertical axis to identify “leverage points¹¹” that changed the whole system. During the work, the numerous kinds and layers of information made it no longer possible to visualize on 2D paper. Accordingly we visualized the complex problem space in a 3D model: Time(x)/Mental model(y)/Social layers(z). With the mindset of Design through Research¹², we generated a three-dimensional physical frame to map individual elements (sticky notes) and their relationships and dependencies (crocodile clips) (Fig.4).

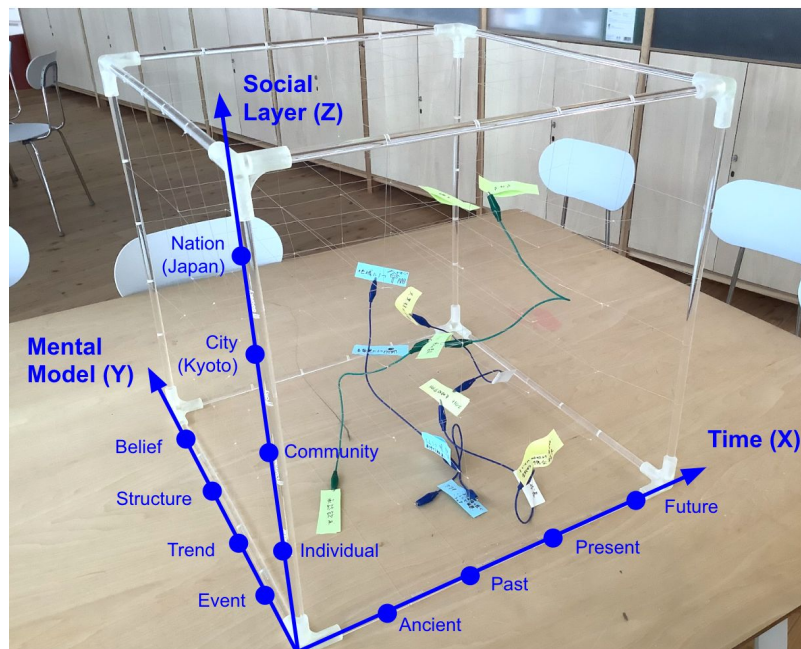


Fig.4: Mapping Multi-Level Perspectives

3.3. Envisioning Future Lifestyles

We identified that many factors of adolescent depression in Japan came from economic reasons, and witnessed how modern society is dominated by money. Based on this insight, we started to create a vision of an ideal society where capitalism was over, and money was no longer needed. We generated several ideas, however they

¹¹ Donella Meadows, *Leverage Points: Places to Intervene in a System*, (Hartland VT: The Sustainability Institute, 1999), 3.

¹² Wolfgang Jonas, “Research through DESIGN through research: A cybernetic model of designing design foundations,” *Kybernetes* 36(9) (2006):1377.

were similar to the existing worldviews of post-capitalism indicated by many economists. In order to approach from a different aspect, we contextualized insights from the past, which is also a significant mindset in Transition Design. It cherishes the idea of Slow Knowledge¹³ that has accumulated over hundreds of years in human beings and also envisions the place-based way of life for the future.

Inspired by this concept, we reached a hypothetical vision that “the life of the nobility in the *Heian* era (A.D. 794–1185)” will be again the future utopian lifestyle (Fig.5). One thousand years ago in Kyoto, the Heian nobilities were not worried about money, lived in a big house, and were satisfied with the richness of goods. Like us today, they had sophisticated desires such as desires for approval, self-fulfillment, and mental gratification in Maslow’s desire model. In front of beautiful scenery, Heian nobilities expressed their feelings using poems called *Waka* to receive social credibility. There is an intriguing synchronization with current people’s behavior to post beautiful pictures to collect “Likes” on social media. In this way, we projected Kyoto’s 1000-years history into the future.

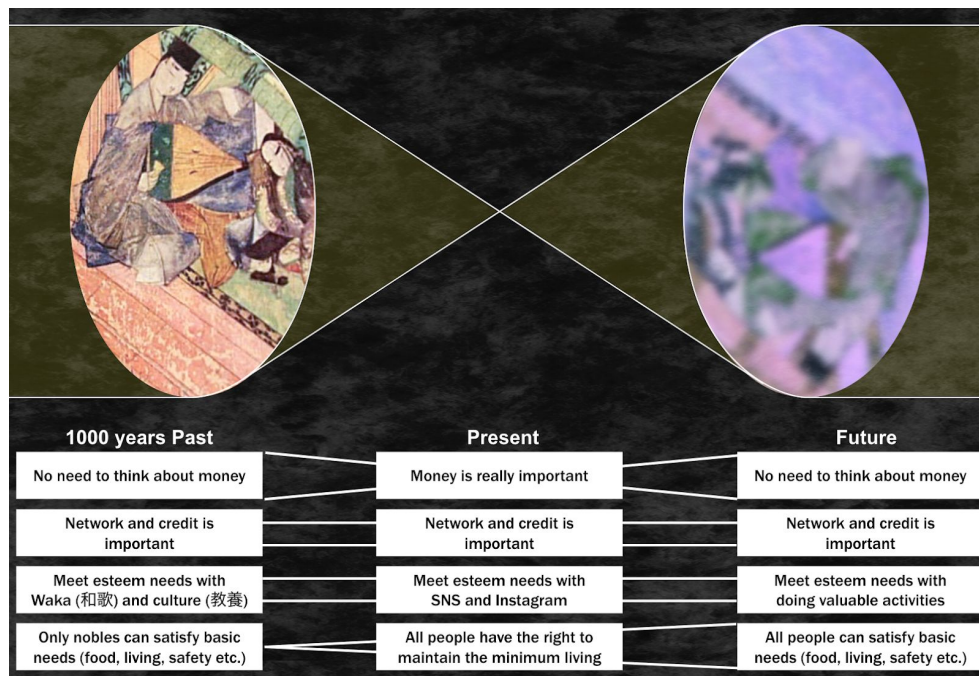


Fig.5: Projecting Kyoto's History into the Future

¹³ D.W. Orr, “Slow Knowledge,” *Conservation Biology*, 10 (1996): 699.

Finally, using the idea of Speculative Design¹⁴, we materialized the following three future lifestyles and created a speculative history program in 2050 that could be broadcasted in Japan (<https://vimeo.com/354785447>). First, in 2050, people who were deprived of work by AI and machines started to preserve the history of human labor in the form of traditional Japanese dances such as *Noh* and created a new value called Labor Dance (Fig.6). Second, XR and 3D printing technology enabled traditional artisans to inherit their skills to remote locations, and skillful decentralized experts overseas attained Japanese traditional craft techniques to reverse import to the Japanese people (Fig.7). Third, in 2050, when a value is measured by social contribution, it is required to train not only the creators but also the recipients of culture and aesthetics. The theory of Design-Driven Innovation was incorporated into education, and school-age children were taught critical thinking at school (Fig.8).



Fig.6: Labor Dance



Fig.7: Kiyomizu Ware Kit



Fig.8: Critical Drill

3.4. Backcasting to the Present

The above three scenarios, “Labor Dance,” “Kiyomizu Ware Kit,” and “Critical Drill” depict new decentralized value systems in a world where social trust is more important than money. Finally, we reassembled the elements of this vision and clarified the immediate actions and attitudes we need now (Fig.9). It is the activity of backcasting to reality from the vision.

¹⁴ Anthony Dunne and Fiona Raby, *Speculative Everything: design, fiction, and social dreaming*, (Cambridge, Massachusetts ; London : The MIT Press, 2013).

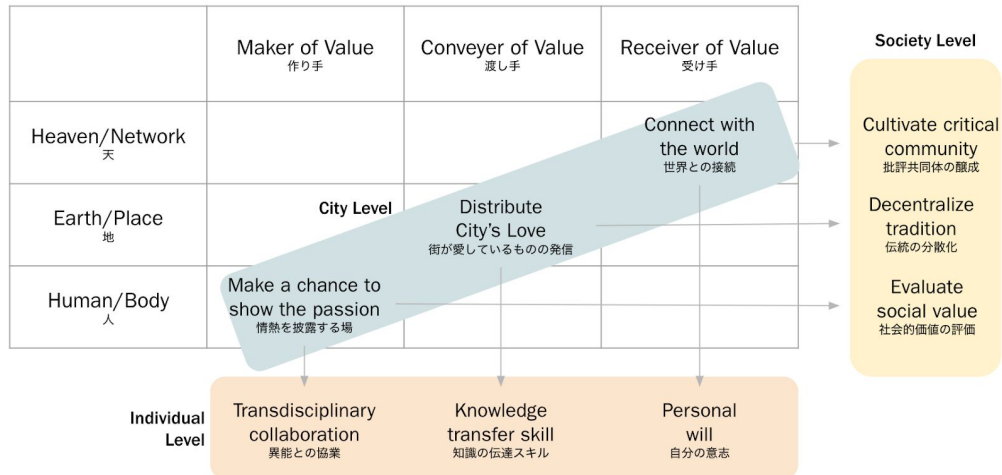


Fig.9: Backcasting to the present

4. Reflection on what knowledge was gained by Research through Design

4.1. Design research method to visualize complex problems in three dimensions

In the final phase of the project, we held a three-hour academic symposium on August 8, 2019 to discuss the applicabilities of Transition Design in Japan, attended by approximately 20 general participants of different genders, ages and occupations (Fig. 10). We openly shared our process, concept, deliverables, and also conducted a participatory workshop to try out steps of Transition Design and tools that we generated, such as MLP and the 3D model.



Fig.10: Participatory symposium at the Kyoto Institute of Technology

In this project, it was difficult to map complex problems on a paper, so we developed the 3D model to visualize problems, share ideas on the table, and find solutions through co-creation. In the workshop, participants with different backgrounds and skills can easily map and associate abstract problems with each other in a three-dimensional model, making it easy to discuss with complex systems in mind. We will conduct a separate evaluation experiment on the usefulness of this tool.

4.2. Ideation from Place-based Indigenous Culture

From the perspective of Pluriversal Design, which challenges One-World World, we discussed the value of implementing transition design in Japan, a country other than Europe and the United States. In particular, we discussed with the participants the idea of projecting the indigenous culture into the future. We created this idea by researching the unique local culture of Kyoto with over 1000-years of history as the ancient capital of Japan. We argue that the word “indigenous culture” refers not only to the knowledge of the original inhabitants but also to the wisdom of all “predecessors.” We believe in the possibility of generating ideas and solutions rooted in local culture, tradition, and history rather than science and technology.

4.3. Capabilities of Transition Designers

We also reflected on the capabilities of transition designers after the first practice in Japan. Transition Design is a super-comprehensive design that believes in human dreams and the future. It requires the understanding of various academic disciplines in addition to logical decision making, a passionate will, and leadership. While these comprehensive skills will inevitably be necessary, the ability to envision and materialize people-centered scenarios is a universal skill for a designer, regardless of what we design. Designers are always required to contextualize and convey lively scenarios of how people’s experiences and values can change. This capability has to remain as the core skill of designers, even when the definition of the design expands.

5. Conclusion and Future Work

In this paper, we presented our Transition Design approach to tackling wicked problems unique in Japan. We introduced our process, tools, prototypes, insights, and reflections on Transition Design. Based on keywords such as the asset of credibility, traditional craftsmanship/culture of Kyoto, and mental gratification, we materialized several artifacts to convey the future worldview using speculative design.

Future work will develop a scheme that can involve more stakeholders such as citizens, municipalities, and governments and co-create a vision design project based on our experience of this time within a given timeframe. Additionally, designing a method of evaluating outcomes of Transition Design is significant because Transition Design projects may take decades to implement to see a long-term transition of human value. Furthermore, as the definition of design extends to these socio-technical and trans-disciplinary realms, we need to develop a cross-domain design education to foster transition designers who address wicked issues of the 21st century.

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