The Four "I"s as Key Concepts in a Re-examination of "Machizukuri" as an Intrinsically Vital Element in Urban Planning for the Post-Urbanization Period

- A Methodological Consideration of the Concept of "Machizukuri"

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This paper discusses the word "machizukuri" and the versatility of its meaning through examining the interplay between "machizukuri" and statutory urban planning over the past sixty years. By tracing the history of the Japanese urban planning system, it can be seen that one role of "machizukuri" has been to compensate for areas of incompleteness in urban planning. As there has also been an institutionalisation process from "machizukuri" to statutory urban planning, the primary role of "machizukuri" has been to provide a constructive arena for collaboration on efforts to improve regional conditions. As "vitalization" has become the definitive issue for urban planning in the post urbanization period, the four "I"s, incrementalism, intentionality, innovative value creation and integrality of regional development, have been abstracted as necessary conditions for a revised and more readily applicable version of "machizukuri."

1. Introduction - the aim of this discussion

"Machizukuri" is a key concept in Japanese urban planning and over sixty years has passed since the word first came into use. The meaning of the word has become diffuse and, as André Sorensen (2002) has stated, "the variety is so great that it is arguable that the term has become a rather vague catch-all that serves more to confuse than to clarify" [1]. The word has come into popular use because of its positive connotations, but denotes no more than any non-specific attempt to improve regional conditions.

At this turning point in urban planning, it is natural to revisit the term and make a critique of its substance; i) what it is, ii) what kind of progression it has taken, iii) what kinds of issues and potential it has. Notwithstanding the opinions noted practitioners and scholars have already expressed with their definitions and historical views, we still require further methodological deliberations and definitions more appropriate to the realities of this period. Professor Shun-ichi Watanabe is a forerunner of this theme and proposed normative dimensions to define the concept based on analyses of prominent planners' definitions [2].

In this paper, I would like to approach the theme through an interpretation based upon the history of city planning institutions in Japan and my own practical experiences [3]. This approach will lead to a conclusion different from preceding explanations. My discussion looks at the reasons why the meaning of the word "machizukuri" has altered over time and why it has become so generalised that it is frequently used to justify any application. I also intend to identify conditions for a practicable "machizukuri" that can be applied to contemporary urban requirements.

2. A review: current trends and a general definition of "Machizukuri"

2-1. Currents and periods

It can be confirmed that the year in which the word "machizukuri" first appeared goes back to 1947, just after WWII [4]. Shun-ichi Watanabe found original uses of the word "machizukuri" in a sampling of journals of various genres concerned with urban matters published between 1945 and 1959. The instances fall within six different domains related to i) a movement for social welfare, ii) democratisation, iii) social organization, iv) administrative merger movement, v) urban planning society, and vi) social science. This shows that the word began to be used simultaneously in random contexts and with a variety of meanings [5].

Professor Shigeru Sato, one of the great promoters of "machizukuri," wrote a history analysing ideological relationships and influences from abroad, and distinguished three phases in the development of "machizukuri." He described the first generation, from the 1970's to the mid-1980's, as a rising period when the ideology became more distinct; the second generation, from those days until the Great Hanshin Earthquake of 1995, as a period of various practical trials when diverse themes were attempted one after another; and, recently, the third generation, as a period of networks forming to achieve a system of regional management [6]. His historical view is persuasive as it reflects the top runners' issues in each period. Historical observations of its application and experience over time help us to understand the more tenable types of "machizukuri."

2-2. Definitions

Professor Shigeru Sato's clear view of history is the obverse of his explicit definition of "machizukuri." He defined it as a sustainable movement, i) based on the resources of a region and its society, ii) diverse subjects cooperate in the creation of its networks, iii) incrementally improving the living environment, iv) enhancing the vitality and attractiveness of the town, and v) increasing the quality of life [7].

Professor Yukio Nishimura, also one of the leading authorities of "machizukuri," interpreted it as a movement encouraging inhabitants to rebuild local communities and commons by overcoming social impoverishment trends caused by modern land-ownership systems. He attached greater importance to practical action than outlining definitions and pointed to confidence, amateurism and voluntarism as prerequisites for promoting "machizukuri" [8].

Although these definitions seem rather idealized, they are persuasive because they represent our perception of the concept of "machizukuri" which has mainly been influenced by successful "machizukuri" movements. The point at issue in these definitions is that they are selective and exclude various incomplete trials.

In order to widen the tolerance, Professor Shun-ichi Watanabe reviewed definitions of "machizukuri," found commonalities among them, and produced a framework for reference that included six variable dimensions, which are: i) actor, ii) activity field, iii) motivation, iv) place, v) time/age, and vi) method, (abstracted from Akira Tamura and Shigeru Sato). In addition, the wide and the narrow (abstracted from the work of Uzo Nishiyama and Akira Sawamura) are variables in each dimension [2].

Though the framework offers practical definitions and is more inclusive of vast trials, the result is still inevitably static since, as with preceding definitions, his purpose was to distinguish "machizukuri" from "non-machizukuri," especially from statutory urban planning.

Generally speaking, such static definitions are useful for encouraging the understanding of "machizukuri" as a specific movement in history. However, if the goal is to move forward with a new version of "machizukuri" by aggregating various contemporary trials, we must take a different approach to interpreting the substance of the concept or the movement.

3. Pragmatic features and meaning of "machizukuri"

3-1. The contradictory definition of "machizukuri" as anti-urban planning

It must be reasonable that Professor Nishimura attached greater importance to practical action than outlining definitions, as I can rocognize specurative difinition will be inevitable to be so idealistic, which tone wither us to have an enterprise of "machizukuri," rather than to be universally applicable.

In part, this is a result of the fact that "machizukuri" started in reaction to urban planning and therefore we need to define it in comparison with or in contrast to urban planning. Shigeru Sato's and Shun-ichi Watanabe's definitions both intended to make a distinction between "machizukuri" and urban planning.

This could turn into pressure to differentiate between "machizukuri" and urban planning, although Yukio Nishimura asserted the need for a practical combination. We can also follow the logic that "machizukuri" may be regarded as elemental urban planning thinking. Both have a common foundation, so planners and academic specialists are able to shift their focus towards practicable "machizukuri" applications.

A constructive redefinition of terms will enable us to better control the direction. We must rethink the relations among the sets of words, as "machizukuri" and "statutory urban planning" are subsets of "urban planning" which is the population set. These subsets are disjointed, since the "machizukuri" subset is a complementary set of "statutory urban planning."

Viewed from a wider perspective that embraces both "machizukuri" and "statutory urban planning," it is possible to understand the dynamism in Japanese "urban planning."

3-2. Defects of statutory urban planning highlighted in each period.

In order to substantiate the above and to gain a broadly systematic understanding of the varied forms of "machizukuri," it seems advisable to enumerate some of the noticeable deficiencies in the statutory urban planning system. Japan experienced rapid urbanization after WWII and the City Planning Law of 1968 was hurriedly established for the expansion of urban areas. Many failures came about due to discrepancies between the statutory urban planning system and conditions in actual cities, including:

i) The lack of an adjustment process between macro and micro scales.

It was natural for the statutory urban planning system to take a rational approach in providing necessary infrastructure and development areas according to estimates of demand. Based on the act of 1968, road networks and land use were laid out rationally, giving consideration to land conditions and the efficiency of the total system. However, even though this was rational on a macro scale, it could not guarantee rationality on a micro scale. Planning has to be communicative in order to establish workable agreements in each district. At the time, there was no feedback process from the district plan to the master plan. Additionally, planners were probably not able to anticipate how infrastructure and land regulations would impact and change each district's environment, including daily life for residents. In places where environmental problems became intolerable, "machizukuri" was prompted [9].

ii) The lack of a conservation process in historic or built-up areas

At its start in 1968, the urban planning system did not have enough tools or procedures for conserving historic districts, even though it was defined as a comprehensive process of adjustment, development and conservation. Positive local governments and communities initiated trials to conserve historic districts even before the establishment of the national conservation system, as the institution of Preservation Districts for Groups of Traditional Buildings (PDGTB) was not established until 1975 by an amendment to the Law for the Protection of Cultural Properties and the City Planning Law. Such local actions have been called historical "machizukuri" [10].

In spite of the fact that the PDGTB system has been applied in over one hundred designated districts [11], we are still making efforts to conserve various local historical elements that, although not protected by law, are necessary for maintaining the historicity of our daily life space.

iii) The lack of a quality control system in forming urban space

Except for density, what was controlled by the 1968 plan was not the quality but the quantity of urban space and its function. It became apparent that a method of quality control covering all types of districts was necessary to improve city amenities. In Japan, there is usually no height control in urban areas, density control is loose, and building roof shape, colour and design are free. The Townscape Law (Keikan-hou), promulgated in 2004, was expected to be the legal backbone of aesthetic control and conservation in our daily life space. But, as it has become apparent that public endorsement is necessary in order to strengthen or enforce regulation, steady efforts to improve our environments by various implementations arrived at by consensus (called "keikan machizukuri,") are expected [12].

iv) The lack of a comprehensive local government management system for urban planning

The master plan for municipalities was established in 1992 through amendments to the City Planning Law and was intended to act as a countermeasure to the Japanese Asset Price Bubble of the mid-1980's to 1991 [13]. It is quite curious that the master plan came decades after the promulgation of the 1968 City Planning Law. Without a master plan, what can justify or guarantee the efficiency of urban planning?

Prototype master plans had already been tried out in the Toyama City (1966) and Yamagata City (1968) model planning projects. However, until 1992, apart from ministerial guidelines, we did not have the legal institution of a master plan, and local governments were not obligated to clarify their intentions nor inform or consult with citizens [14].

The series of urban design projects in Yokohama City in the 1970's, led by Mr. Akira Tamura, Chief of the Planning and Coordination Department of the city from 1968, showed a clear intent on the part of the local

government as well as some resistance to guidance from the national government. These resulted in improvements to public space and the image of the city, and became famous as Yokohama City's "machizukuri [15]."

v) The lack of a promotion system for urban functionality

As implementations of the 1968 urban planning system comprise project, regulation and guidance, it is apparent that the system functions within a physical construction process. However, the vitalization of cities, especially the commercial function of downtown areas, turned into a major urban challenge in 1990's Japan. Until that time, small and medium-sized retail stores had been safeguarded by law, but pressure from the U.S. and neo-liberalistic social trends provoked a policy change in 1998. Urban planning was expected to protect and boost commercial functions in such areas, however this has still not proved successful. Without any specific means, commercial managers and landowners have had to take action themselves by referencing management theory, in order to change conditions gradually [16]. This incremental approach to promoting commercial functions in downtown areas is also called "machizukuri."

3-3. Dynamism of the concepts

In all of the above categories, we can recognize a process of institutionalisation, meaning that when impromptu "machizukuri" was initiated in resistance to institutions, the next step was the provision from the national government of a subsidiary framework for model projects or new implementations. Local governments then made efforts to adapt the revised framework to their model projects. This process resulted in the establishment of a new institution due to enforced compliance with the amended laws.

In this dynamic between the two sets, "machizukuri" and "statutory urban planning," the later set would assimilate the former. In consequence, static definitions of "machizukuri" were destined to have limited validity.

This process also brings to the fore the antagonistic relationship between incrementalism and rationalism in planning. I am using these two words as defined by Allan G. Feldt on the clarity of ends and means [17]. Incrementalism is the type of planning we should take when ends and means are not clarified. This also happens to be the normal way of doing things, referred to as "muddling through" by Lindblom [18]. "Machizukuri" must adopt incrementalism as its inherent methodology in struggling with planning issues. In contrast, statutory planning cannot help but adopt rationalism as ends and means must be defined, even if only to satisfy appearances for the official position.

Therefore we can regard "machizukuri" as the inspiring avant-garde of a progressive urban planning system in which highly motivated residents and citizens, productive scholars and planners, flexible minded administrators and others collaborate to create a constructive arena. "Machizukuri" may also be regarded as a consequence of the incompleteness of the hastily-started Japanese urban planning system that was set up to manage rapid urban growth in the post war period.

This structural outline explains why the word "machizukuri" is easily used, even by developers. In so far as we are able to take a realistic look at a region, including its communities, we have to be sensitive to its individuality, which obliges us to feel our way forward cautiously through a process of exploration. In this sense, enterprising planning projects always have a feature of "machizukuri."

Therefore, opposition to the incrementalism of "machizukuri" is not rationalism but methodism, which relies heavily on established institutions and loses any passionate interest in solving local planning issues since it is out of touch with the reality of the region.

This turns out to be the main theme of our discussion. What are the core concepts that promote action-research, practical reasoning and flexible construction in planning? Distinct from methodism, these have typically been demonstrated through "machizukuri." The compelling inheritance of "machizukuri" will shape the most appropriate and applicable approaches to the trials of the coming period.

4. Planning conditions at the beginning of the post-urbanization period

The urban planning system in Japan developed as described above, however, from 2008, the Japanese national population began to decrease [19]. At the same time, while there seems to have been a decline in serious disagreement over urban planning, expectations for urban planning also seem to have faded. Due to the decrease in demand for construction, there is a lessened expectation of the ability of planning to reform present conditions.

Under such circumstances, vitalization has come to be a dominant theme for many local cities and municipal master plans show some hope for "machizukuri," meaning positive collective action from residents, landowners and local businesses towards implementation. Nonetheless, it is unrealistic to expect "machizukuri" movements to arise spontaneously.

We have to pay more attention to the concept of vitalization. The increasing decline of commercial functions in downtown areas and increasing numbers of vacant lots and houses on a citywide scale are complex issues reflecting macro scale dynamics. Therefore, in confronting these issues on smaller urban and district scales, rather than wistfully looking back to more manageable times, we have to distinguish viable goals as well as effective means. Furthermore, the concept of vitality is not only concerned with objective conditions, but also with the subjectivity that is formed through interaction between subject and object.

It is apparent that urban planning implementations, until now formulated for urbanization, have limited validity. At the very least, we have to become receptive to new actions and new ways of thinking, recognizing evolved market mechanisms and informational networks, as contemporary society is a more loose integration of autonomous individuals than society in earlier decades.

If we planners sincerely seek to address evolving issues of vitalization under such conditions, it must be with a new type of "machizukuri," that resists the methodism which hangs on in traditional statutory urban planning. Now, I have to ask what the new "machizukuri" will inherit from the implementations of "machizukuri" to date.

5. Four "I"s as substantial concepts inherited from "machizukuri"

5-1. Incrementalism

As already noted, "machizukuri" actions necessarily call for incrementalism. This diverges fundamentally from statutory urban planning that often slides into methodism out of which systems then derive their rationalism.

Incrementalism means to advance with heuristics, i.e., experimentation in searching for ends and means. It also means concern with knowledge construction in an on-going process through which participants can discover, become aware, understand, investigate, react and produce while determining courses of action.

Adopting incrementalism also means flexibility in making the most of the nexus of participants' actions. If productive chains are formed as a consequence of constructive action, it can be called "machizukuri."

5-2. Intentionality

In order to do anything while searching for the ends and means, there must be a subject, whether an individual or a group and, at the same time, the subject must be motivated or willing to do something [20].

At this exploratory stage, relations between the subject and the town are not yet clear and the question is open as to whether the intention is to do something for the town, in the town or with the town. Intentionality in this situation is a type of willingness from which springs the power source for a continuing process of trial and error in discovering relationships within the surroundings. As a result, this drive for interrelation promotes "machizukuri."

The intentionality needs to be reciprocal and not something imposed from any direction. Ideally, this mutual intentionality will encourage each participant to contribute according to their various positions, professions, interests and so on, bringing out their best efforts to make the most of their place.

Planners, including the municipal planning bureau, will naturally tend to investigate the underlying structure and construct a persuasive vision closely according the region, as this would be the approach of rationalism. Even so, if their plans are projected hypotheses or tools with the potential of contributing to the region, they will still support incrementalism. Naturally, there is room for further study on ways of proposing hypothetical ideas or plans to the community in order to foster wider intentionality.

5-3. Innovative value creation

Even though one might assume that any "machizukuri" project would be supported by discrete trials, one of the necessary conditions for the successful development of a "machizukuri" movement is value creation. Any kind of value, economic, social, cultural, environmental, psychological, aesthetic, or other will have a positive influence. Without value creation, the movement cannot be sustained. I would like to use the word "innovative" to encompass "creative," "productive," "constructive" and other conditions to reorganize knowledge structures.

These days, innovation is recognized to be a main driver of productivity and an indispensable factor in economic growth.

Concerning urban planning in this post-urbanization period, as demand for and investment in urban development diminishes; other channels to vitalize local economies or improve the quality of life and environment are required. As the unit of each urban project becomes smaller, we have to make more of each project by stimulating the creation of ripple effects and/or leading collaborative actions [21].

5-4. Integrality of regional development

The concept of integrality I would like to discuss here is a feature of development. As the development unit shrinks, the importance of devising sequences of smaller knock-on developments increases. Assuming that the notion of a region is intrinsic wholeness, following the regional organic theory, a development achieved in some part will influence other parts. I would like to call this integrality of regional development.

It is a long-established custom of architecture to think about mutual relationships between building and urban planning. For example, Professor Sachio Ohtani discussed the responsibility of architectural design to reflect urban conditions, and possibilities of the reverse [22]. More recently, the progressive young architect Masataka Baba and his associates have effected practical collaborations between real estate agent, architect, graphic designer and others to bring about effective progress in vitalizing districts [23].

We have tended to regard spatial, historical and cultural knowledge as the basis for our understanding about the region to be formed. However, such thinking assumes a rationalism by which relations between these constitute the object's context. Rather, as we contribute features to the subjective power of invention, we may find many suggestions for innovations from the spatial (in part or whole), temporal (past and present) and phaseal (economic, social, cultural, environmental and other) relations in order to accomplish the development as a whole.

6. Conclusion

Through this brief review of the history of Japanese urban planning since 1968, I have attempted a reinterpretation of the relationship between "machizukuri" and statutory urban planning, both subsets of urban planning, and the dynamics of the relationship between these that have resulted in the evolution of the urban planning system.

The Japanese statutory urban planning system had its inchoate start in 1968 driven by urgent necessity. For the system to adjust to altered realities, an enterprising and exploratory approach to unprecedented urban issues was necessary, and this became known as "machizukuri."

As the statutory systems were designed to perform under a rationalistic approach, passive municipalities were neither able to make much of the system nor add original devices towards an effective response to changing realities, and they therefore fell easily into methodism. Compounding this misalignment, urban conditions began to change with the onset of the post-urbanization period.

Under such circumstances, it is worth emphasising the recognisable concepts of urban planning that have been distinctly demonstrated in various types of "machizukuri" whose four basic concepts, the four "I"s, are set out here. These may not be limited to four, and the methods and tools developed in these "machizukuri" movements also constitute our planning inheritance, so the discussion is open.

At the very least, we are confronting unprecedented conditions. In order to maximise realities, it is surely helpful to reconfirm the methods or principles we adopt in formulating planning decisions appropriate to each region within its own individual and dynamic conditions.

Notes

[1] André Sorensen (2002) introduced the district plan, land use control and historical protection as the main types of machizukuri from the early 1980's.

[2] Watanabe,S.J. and Suzuki,C. (2009); Watanabe,Shun-ichi J. (2011)

[3] The author traced a history of Japanese city planning institutions (cf. Kobayashi, K. (2017))

[4] Shun-ichi Watanabe (2011) made reference to the first incidence of the word of "machizukuri" in 1947, quoted from Nakajima (2006).

[5] Shun-ichi Watanabe and et al. (1997)

[6] Shigeru Sato explained his view of "machizukuri" history in the 2nd chapter of AIJ ed. (2004), Sato,S. and et al. (2017).

[7] Shigeru Sato explained his definition of "machizukuri" in the 1st chapter of AIJ ed. (2004), Sato,S. and et al. (2017) p.10.

[8] Yukio Nishimura ed. (2007) pp.1-11

[9] In spite of much discussion and practical trials toward the establishment of a district plan in 1980, the final statutory planning system does not seem to adequately reflect the results of these preparations. cf. Kobayashi,K. (2017) pp.154-162

[10] The history of conservation planning in Japan delineated by Nishimura,Yukio (2004).

[11] 117 districts in 97 municipalities were classified as Important Preservation Districts on Nov. 28, 2017 by the HP of the Agency for Cultural Affairs (http://www.bunka.go.jp/seisaku/bunkazai/shokai/hozonchiku/judenken_ichiran.html)

[12] The author and associates made a review of the institution of "keikan" (townscape) planning. AIJ ed. (2013) "Keikan Saiko (Re-thinking Keikan,"

[13] It was the outcome of discussions in the search for stability in the bubble economy. As expected, the master plan's response to the bubble economy was indirect and vague. Its aim was consensus-based land use, stimulating the supply of plots for housing and, in some places, protecting residential function from commercial and business functions.

[14] Kobayashi,K. (2017) pp.2-34

[15] Various publications concerning Tamura, Akira's urban design in Yokohama City. cf. Tamura,A. (1983)

[16] Kobayashi,K. (2017) pp.48-57

[17] Feldt, Allan G.（1979）

[18] Lindblom, Charles E.（1959）

[19] Home Page of Statistics Bureau published a discussion on the onset of population decline in Japan by Tino, Masato http://www.stat.go.jp/info/ today/009.htm

[20] Subjectivity is commonly pointed out as a necessary condition for "machizukuri" according to the preceding definitions. But subjectivity of a district will vary with the type of organization. Intentionality is regarded here as the underlying state that produces subjectivity.

[21] Recently local economies and business administrations have become concerned with "machizukuri." cf. Iida,Y. et al. (2016)

[22] Prof. Sachio Ohtani was an architect who developed discussions on the interplay between architecture and the city. Ohtani, S. (1986)

[23] Baba,M. +Open A (2016)

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