The direction of upcoming generation's urban planning from a viewpoint of social current shift after '90s

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Summary
The transition of economic society, lead by the economic collapse in the early 90’s, made an impact on the transition of urban civilization like “from industrial-society to post industrial-society”, “from urbanizing society to urbanized society” and “from growing society to matured society”. The purpose of this study is to clarify the influence of the changes and diversification of social current on urban and city planning through analyzing newspaper articles of the years in transition. After the analysis, the evaluation of abstracted keywords by young generation was proceeded.

Keywords
Social Current, Collapse of Bubble Economy, Time Series Analysis, Urban Planning Paradigm,

Introduction
The newspaper article in August 2005 reported that the economic collapse in the early 90’s is recognized as the most historical social event after the war, not the Tokyo Olympic nor high economic growth, which is based on the survey for well-informed people. The economic collapse in the early 90’s is not a simple social event as the economic collapse. It must be attendant on the transition like “from industrial-society to post industrial-society”, “Collapse of the land standard”, overall social transition involving the changes in social system, lifestyles and cultures. In brief, it was attendant on the historical change of social constitution. Indeed, the political structural reform, lead by the economic collapse, still lasts for 15 years, which means the social wave of the crust has been carried out with the turn of the century from 20th to 21st.

Such condition is evident in the events and system revisions, which are in the field of economics, social and politics and the law. It seems that the revolution has been occurred in this short time periods more than what might be done during the half of the century in the late 20th. Behind the economic phenomenon with astonishing speed, the historical change of social constitution that are the
changes in social system, lifestyles and cultures, is expected to proceed in
earnest with taking a lot of time from now on.
In such conditions, urban and city planning have changed and they lost their
direction in 21st century. The purpose of this study is to analyze the factor affecting
recent urban and city planning, who seems to be in a confusion. And then,
relationships between social economic and urban and city planning would be
clarified to examine the direction of urban and city planning in the next generation.

**Research Methods**
To start with, a survey on the literatures and databases on a law has done in
advance to understand the practical relationships between social current and
urban and city planning in the 20 years from 1986 to 2005. Through the survey,
socio-economic phenomenon was arranged in the series of time by classifying
them into a social event, an establishment of law and a report in the council. In
addition to the literature survey, six paradigms, which seem to be a majority in the
present, was defined temporarily. The six paradigms are as follows:
“environmental coexistence”, “participation”, “privatization”, “urban
regeneration”, “decentralized local system”, “space management”. Next to the
survey, frequency of keywords appearance in newspaper articles is arranged into
a series of time with using database of newspaper article to see the changes of
current surrounding the urban and city planning, which is a main topic of this study,
through the analyzing the social economic phenomenon in series of time. Then,
the relationships between general social events and urban and city planning is
clarified. At the same time, the evaluation of abstracted keywords by young
generation is proceeded to examine which paradigms will be a main stem of the
urban and city planning from now on.

**Study on references**
To clarify the trend of urban planning after 90’s qualitatively, the reference
overview, research on the changes in law and the trend of projects are carried out.
Notable trend of law and systems related to urban planning is mentioned as
follows:
In the related law and systems, epoch-making law such as Unified Decentralized
Local Governance Act, Townscape Act, Specialized Urban Regeneration Act and
laws, which concern with environment and disaster prevention, were legislated
influenced by social background. In the Urban Planning Act and Building Standard
Act, revisions, which are influenced by the related law, and big deregulations,
which promote a large-scale redevelopment, were proceeded.
In the projects or politics, two big trends can be recognized, which is a trend with
treating the urban planning as a tool for economic development lasting from the
Bubble Economy Period and a trend that emphasize the publicity such as the scenery and environment. According to the result, the keywords, which seemed to be important, are given; “introduction of private mobilization” or “Urban Regeneration” which contribute revisions of law focused on the deregulations, “Decentralized Local Governance” and “Environmental co-existence” where the epoch-making law were legislated.

**Analysis on newspaper articles**

To understand how the trend of urban and city planning has shifted in this 20 years of time, the changes in contents of newspaper articles is surveyed. The newspaper article in Nihon Keizai Shinbun, contain the keywords of “city planning”, ”MACHIZUKURI”, ” MACHIZUKURI at district level”, ” MACHIZUKURI at city level”, which are concerned with urban and city planning, in their titles are researched to make an analysis on changes in contents of newspaper articles. The change in number of each keyword is shown as below. The tracing curve is applied to make the trend of content in newspaper article clear. According to the graph, it is clear that “MACHIZUKURI at district level” is the most reported keyword at all times through these 20 years especially the time right after the collapse of bubble economy. And also, the frequency that the keyword “MACHIZUKURI” reported has over taken that of “city planning” and it is about to reach the number of “MACHIZUKURI at district level” in recent years.

![Graph showing frequency over time](image)

**Fig.1: Quantity of report on city planning**

Concerning the time after 2000, all four keywords seem to be reported constantly. Then, the analysis has carried out to the newspaper articles, whose headlines contain any of the keywords, and the words in the articles were extracted. The highly reported words are show below.
The results in the trend of number and frequency, that the keywords reported, indicate that there is a shift in the newspaper articles from the topic about HARD such as the large scale urban development to about grass-root scale such as citizen participation.

Tab.1 Main contents of each keyword

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Appeared in high rate (after text-mining)</th>
<th>Trends in contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>City planning (1122 issues)</td>
<td>construction · facility · development · project</td>
<td>Large scale urban development</td>
</tr>
<tr>
<td>MACHIZUKURI (2060 issues)</td>
<td>Residents · citizen · participation</td>
<td>Grass-root scale</td>
</tr>
<tr>
<td>at district level (3528 issues)</td>
<td>Shopping arcade · large-scale shop · activate</td>
<td>City center activation</td>
</tr>
<tr>
<td>MACHIZUKURI at city level (546 issues)</td>
<td>welfare · disaster prevention · union</td>
<td>Technical words</td>
</tr>
</tbody>
</table>

To have more précised analysis of the newspaper articles, the articles, whose title contain any of four keywords, are classified into the keywords dealing with software and the keyword dealing with HRADWARE, and those frequency that the keywords reported is sorted into the series of the time.

![Graph showing frequency of keywords over time](image)

**Fig.2:** Contents of description about hardware of city planning in article
According to the graph “hardware”, it is clear that there are the high reference to space controls and projects such as “maintenance”, “development” and "construction" and the high reference to urban environment such as “environment”, “park”, “urban landscape”, “green” and “a row of houses and streets”. Especially, the reported number of the reference to the space control had suddenly increased after the collapse of bubble economy and decreases slowly in recent years.

According to the graph “software”, it is clear that there are the high reference to “citizen participation” such as “residents”, “citizen”, “participation” and “NPO”, the new subject in urban planning, and “civilian power” such as “enterprise”, “civilian” and “sector”.

Through the analysis on the articles about urban and city planning, it was found that the “space management”, “urban environment”, “citizen participation” and “civilian power innovation” had been treated frequently.

From the analysis of reference overview (especially in changes of law and newspapers, “civilian power innovation”, “urban redevelopment”, “decentralization”, “environment”, “citizen participation” and “space management” are given as leading keywords for urban and city planning in recent years. Each keywords are defined as the present leading paradigm; civilian power innovation as “privatized urban planning”, "urban planning corresponding to urban environment or environmental destruction such as “Environmental co-existence planning ”, urban planning with citizen participation as “Participatory planning ”, urban planning performing maintenance and control to urban space, which is the essence of urban and city planning, as “space management urban planning”, and “decentralized urban planning” and “urban redevelopment” are defined in the
same way.

**Study of the tendency in contents of newspaper articles**

To clarify the tendency in contents of newspaper articles, the frequency of words reported are researched. The keywords are chosen from dictionary for urban planning, who are reported more than 20 times in the 20 years. Cluster Analysis for each keyword was applied to categorize the tendency in amounts of the words reported. Giving specific coefficient for each keyword by adopting the amounts of news for each keyword and the amounts of all object keywords, the Cluster Analysis was done with the specific coefficient as variable. The adopted formula is shown below:

The cluster (i) is a group of keywords that had a peak during the years from 2000 to 2002. And, there are the peaks in (ii), (iii) and (iv) at the year of around 2003, 2005 and after the collapse of bubble economy for each. (v) is a group of keywords that had been reported constantly. For the (vi) and (vii), their peaks appear before 1990 and around 1990 for each, and their keywords have not reported anymore.

The results indicate that the grass-root level report such as “decentralization”, “citizen participation” and “privatization” have been reported for the long time. And also, the law for managing urban space such as “urban planning law” and “constructional standard law” has been reported constantly.

The keyword “urban redevelopment” appeared suddenly in recent years and its reported amount increased at one time.

| Table 2: Contents of description about hardware of city planning in article |
|---|---|---|---|---|---|---|
| 項目 | 環境共生 | 参加 | 民営化 | 地方分権 | 都市再生 | 空間管理 |
| 2000~2002年 | 地域環境共生推進法 | NIPO化 | PFI推進法 | 財地方分権促進法 | タウンマネジメント都市再生 | 中心市街地活性化法 |
| 2002年 | 参与市民参与法 | PI | 高い改革都市再生 | 都市再生特別視察法 |
| 2005年 | | | | | | |
| ③ | | | | | | |
| ハイブリッド制度 | | | | | | |
| ④ | 環境共生 | 参加 | 民営化 | 地方分権 | 都市再生 | 空間管理 |
| ⑤ | 鳥栖法 | 住民参加 | | | | |
| ⑥ | 自然環境促進法 | | | | | |
| ⑦ | | | | | | |

Fig.2: Contents of description about hardware of city planning in article
The keywords, which have exponential trend are shown below. From the graph, it is found that the keywords “decentralized local governance” and “citizen participation” had reported constantly for a long time and the keywords, which correspond to “urban regeneration”, appeared suddenly and then disappeared.

Survey on the students consciousness
Through the research, the paradigms of urban and city planning, which seem to be a majority in the present, are defined as six keywords such as “environmental coexistence”, “participation”, “privatization”, “urban regeneration”, “decentralization” and “space management”. For the next, the evaluation of abstracted keywords by young generation is proceeded to know the students’ consciousness and evaluation among students, who study urban and city planning, and to examine which paradigms will be a main stem of the urban and city planning from now on.

The contents of surveys:
First survey (survey A):
Question 1: the perception of the present and the future conditions about city
Question 2: the understanding of the present issues of urban and city planning
Question 3: the keywords, which will be a main stem of the urban and city planning from now on.
For each questions, three keywords are selected and one keyword are selected
for which the most attention is paid by the students

Object of survey: Students in Keio University, who take the classes of “urban space organization” or “environmental design” or belong to Hibata laboratory. Students in The Tokyo Institute of Science, who take the classes of “the theory of urban planning”

Data of survey are as follows:

Results: Number of students, who take the classes: 101 students, number of answers collected: 89 students, number of imperfection in answering: 8, effective number of answers: 81 students, effective rate of response: 80% (details: faculty students: 52, master students 29, unknown: 1)

Second survey (survey B): In this research, the understandings about urban and city planning as a result of taking the classes for half a year are examined and then one paradigm are chosen, which seems to be a main stem of the urban and city planning from now on.

Contents of the survey: Three paradigms out of six, which seems to be a main stem of the urban and city planning from now on, are chosen in order and then the reasons for the answer are explained concretely, Object of survey: The students who took the classes and answered the first survey data: 8th of February 2005, 12th of May 2006 for The Tokyo Institute of Science

Results: Number of students, who take the classes: 82 students (details: faculty students: 55, master students: 27), number of answers collected: 63, number of imperfection in answering: 13, number of effective rate of response: 50 (details: 31 bachelor students, 19 master students), effective rate of response: 61%.

Note: For the second survey, the students who answered the first survey were objected to see the changes in perceptions on urban and city planning. Therefore, population for the first survey and that of the second survey are changed.

The outlines of analysis for the result

1. A perception for the urban in the recent time and the future
The most concerned issue about the urban is “disorder in landscapes and absence of a row of houses and streets”. For the next, “fear of disaster” is mentioned, and these two are the salient topics in the selections. It is clear that destruction of the city landscape is bothering topic for the students. In addition, the topic of “Absence of nature” is in the majority and same as “fear of waste disposal and water and air pollution”. In short, the urban environment in a broad sense, which includes urban landscape, is the most anxious subject for the young generations.

2. The present issue on the urban and city planning
The most concerned issue on the urban and city planning is “urban environmental destruction” such as heat-island effect” and “limits to citizen participation” for the next, where these two are the salient topics in the selection. In particular, 75% of students selected the topics on urban environment problems. This result is related to the one that the urban landscape and environment are the most anxious subjects for the young generations. And also, the “urban development relying on the private company” and "distrust of government” is concerned strongly by the students next to the topic limitation in citizen participation”.

(3) Upcoming paradigms for urban and city planning
In this question the paradigms, which expected to be a main stem of the urban and city planning from now on, is mentioned. The majority of observation for it is “environmental coexistence planning”, who is the most salient topic in the selections. Then, the order of selections is as follows: “urban regeneration”, "space management planning", " participatory planning” for the second group, “urban regeneration” and " privatization planning” for the third. The most interested combination of topics are “environmental coexistence planning” -> “urban regeneration” ->“participatory planning”.

The relationship among question (i) to (iii) is analyzed as follows: students, who chose “disorder in landscapes and absence of a row of housing and streets” or “urban environmental problem such as heat-island effect” are likely to think “environmental coexistence planning” as a main stem of the urban and city planning from now on.

(4) Shift in the interest and consciousness on urban and city planning
Comparing survey A and survey, it is clear that the interest in urban and city planning is changed widely. Although “environmental coexistence planning” is a common topic in survey A and survey B in the meaning of the most interested topic, there is a big difference in the number of vote. And also, there is a change in orders for the other paradigms. The number of vote for “participatory planning”, “urban regeneration”, “privatization” and “decentralized local governance”, the urban planning by corporation of civil and private company, is increased and urban space management, covered by government, is decreased in contrast.
In survey A, “environmental coexistence planning” get high points as the most expected thesis for urban planning, and “participatory planning” and “urban regeneration” for the second and the third. In addition, “space management planning” and “privatization planning” follow the next position and “decentralized local governance” for the last. “environmental coexistence planning” outstands from the others.

In survey B, thesis of the urban and city planning, which expect to be the main stem of from now on, are examined. As a result, “environmental coexistence
planning”, “participatory planning” and “urban regeneration” are mentioned in order, which means these three paradigms are the one with being recognized the most. As well as survey A, “environmental coexistence planning” outstands from the others and gets a big interval among the others even more. That is to say, there are high consciousness for “environmental coexistence planning” “participatory planning”, “urban regeneration” and less consciousness for “privatization planning”, “decentralized local governance”. For the “space management planning”, a perception on it decreases through study.

Fig3-1 Cognition for present and future city

Fig3-2 The Problems of existing city planning and “MACHIZUKURI”
Conclusion
Through reference overview, system of row and analysis of newspaper articles, it is clear that role sharing and a transfer are heavily mentioned such as from public to private enterprise or civic groups or citizens and from the government to the region. Especially, the rate, that articles on “civil participation” and “decentralization” were reported, increases constantly.
In the survey on the students’ evaluation, it is cleared that the students have a big attention to “environmental coexistence planning” where 70% students mentioned so. That is to say, there is a gap on consciousness between the newspaper and the students.
The consciousness on the urban planning in general and the students is shifting contrasting to the time before the collapse of bubble economy where the space management has the most attention. This suggest that the urban planning is getting consist of the plural sides due to the diversification and complexity on the recent urban planning problems. In other words, it is getting plural faces. Therefore, it can be expected that there will be new paradigm corresponds the upcoming urban and social issues, (e.g. demographic changes, less child and more ageing people, district gap) and they will be coexisting.