IN SEARCH OF AN IDEAL CITY: THE CASE OF THE OSAKA BUSINESS PARK

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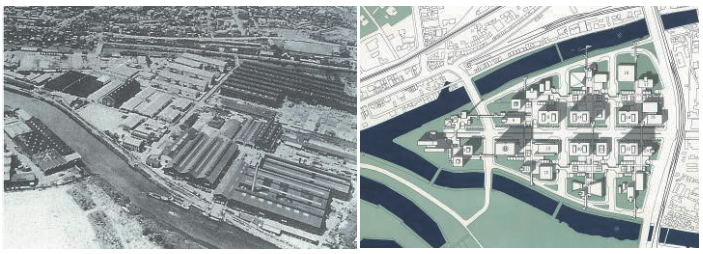
1. Introduction

Since the discovery of the ideal city in "The Ten Books on Architecture" written by Vitruvius, ideal cities mainly based on focal plans have been proposed by many architects , such as Filarete , Cesariano or Vasari in the Renaissance period. Among these, Scamozzi's Palmanova was one of the few cities that were realized at that time. In more recent years, variations of form have become more diversified, with proposals seen from Ledoux, Le Corbusier, Hilberseimer or Costa. Further, unlike those architects, social reformers or philanthropists such as More, Saint-Simon, Fourier or Owen [1] announced concepts based on schematic views one after another, questioning Utopia [2] and the ideal city from more social point of view (Fig.1). Compared to the ideal cities of the past several hundred years that were motivated by a desire for protection from newly invented firearms or to escape from the poor living conditions resulting from industrialization, what should cities be like now? As times change, so does the concept of what is ideal. One attempt to answer this question is to review recent business-oriented redevelopment projects, including the Osaka Business Park (OBP) in which the authors participated (Fig.2).

(a)Palmanova by Scamozzi (b)Royal Saltworks by Ledoux

Fig. 1: Some Ideal Cities



(a) Site in mid 60s (b) Master Plan 1969

Fig. 2: Transition of OBP Development

2. Objective

The ideal city has been developed in various ways between the world of the Mandala described by C.Alexander and the star-shaped fort cities that also serve as defense against foreign enemies. Today, the post-industrialization developed countries are absorbed in the creation of charming city centers for the preparation of efficient business creation spaces as they seek the prosperity of tertiary industries. However, the open space and greenery provided there are not necessarily the first principle for citizens, being different from the era of Owen and Howard. They are mainly due to the recognition that the architectural modalities affect the real estate business today.

We will discuss whether or not today's business-oriented cities are a truly comfortable existence -- whether or not one aspect of the ideal city of the 21st century is present -- for not only the people directly involved in the land and buildings, but also for any of the people that live there, work there, or play there and the surrounding people not directly involved. The

objective of research is to figure out the guidelines of urban development suitable for the citizens of tomorrow in the sense of "The City as an Act of Will" as stated by Edmund N. Bacon in his book [3]. In addition, all of the 4 projects this time are projects that received (local) government support for regulations and surrounding infrastructure development, and in which basically real estate development was performed by private companies. The contradistinction of this situation and the previous "ideological prefigurative" ideal city is kept in mind in our discussions.

3. Method

This study employs methodology to analyze and mutually compare the business districts in 4 metropolises that were realized in the latter half of the 20th century. In order to do this, development projects which are of comparative scales and in addition for which there were clear intentions were selected as the subjects. The business overviews of the projects used as subjects here, OBP [4],[5], Tokyo Midtown [6], Battery Park City [7] and Canary Wharf [8], are shown in Table 1 . The analysis procedure is described below:

3-1 On Execution Background

A more objective evaluation is performed by comprehensively comparing the four projects in terms of the project implementation structure, planning premise policies, handling of the image of the desired city that goes beyond the individual buildings, etc. that form the background of the above outputs. The materials used were mainly publications.

3-2 On Physical Output

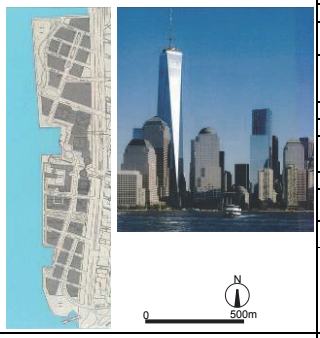
3 concepts to classify Performance Assessment on Spatial Elements were created. The 3 concepts of functionality/usability, perpetuity/adaptability, and amenity/comfortability were listed, and the continuation of the performance of each was studied.

4. Analysis and Findings

Table 2 (showing only OBP here) indicates the performances of the projects organized into 3

Table 1: Four Development Projects

S=1:40,000

Osaka Business Park , Osaka Nikken Sekkei , Takenaka Komuten et al.   	Location: CBD between the river and the Castle Project Area: 26ha Floor Area: 1,000,000 ㎡ Major Function: Office , Commercial , Hotel , Auditorium Shared Function: None Population: 50,000(daytime working) Due Developer: Individual Land/Building Owner Land Status: Individual Landownership Building Status: Individual Ownership Legal Measure: Land Rejustment and Infrastructure Development Project Period: 1968-on going
Buttery Park City , New York Cooper&Eckstut , Cesar Pelli et al.  	Location: Lower Manhattan along the Hudson River Project Area: 37ha Floor Area: 700,000 ㎡(not including residential) Major Function: Office , Commercial , Residential Shared Function: Underground Parking , Building Services System Population: 30,000(daytime working) Due Developer: O&Y of Canada Land Status: UDC(owner)→BPCA(leaseholder) →O&Y et al.(sublease holders) Building Status: O&Y et al.(owners) Legal Measure: Legislation of UDC Project Period: 1979 – 2000
Tokyo Midtown , Tokyo SOM , Nikken Sekkei et al.   	Location: CBD , near Roppongi District Project Area: 10ha Floor Area: 560,000 ㎡ Major Function: Office , Commercial , Hotel , Residential , Museum Shared Function: Underground Parking , Building Services System(for3Towers) Population: 1,200 (nighttime resident) Due Developer: Consortium of 6 companies Land Status: Landownership by the Consortium Building Status: Ownership by the Consortium Legal Measure: Legislation of District Redevelopment Project Period: 2001-2006
Canary Wharf , London SOM , Ceser Pelli et al.   	Location: Else of Dogs , Locklands , along the River Thames Project Area: 40ha Floor Area: 1,500,000 (as of 2015) Major Function: Office , Commercial , Hotel , Railway Station Shared Function: Underground Parking , Building Services System , Population: 110,000(daytime working) Due Developer: O&Y→individual developers Land Status: CWL(leaseholder) → individual owners (sub-leaseholder) Building Status: CWL(owner) → Individual leaseholder Legal Measure: Legislation of LDDC and Enterprize Zone. Project Period: 1985 – on going

categories and evaluated. The individual buildings themselves are not evaluated. In Table 3, the elements (a, b, c) of Table 2 are included in item y and the project execution system is shown as item x and the comprehensive evaluation factors are newly added together with item z. In the following, analysis is performed mainly based on Table 3.

4-1 Project Execution System (x-1, x-2, x-3)

Except for the initial Land Readjustment Project, since the OBP project was not carried out by a single legal body (steering committee system), professionals such as a master architect, construction manager, etc. were not introduced and the formation of specific compulsory rules by them was not performed. On the other hand, for the other 3 projects, the leaseholders and developers formed a unified legal body and executed the project.

4-2 Performance of Spatial Elements（y-1, y-2, y-3）

The integrated development by the same legal body like that mentioned in 4-1 above offers the advantage of being able to require consistency in development of infrastructure other than the individual buildings, and the master planner or master architect provide support for this. Furthermore, this legal body can carry out various kinds of infrastructural development including precedent investment to achieve optimization of the entire district. The differences in decision-making and implementation procedures contrast with those of OBP.

4-3 Comprehensive Factors（z-1, z-1', z-2, z-2'）

One of the fundamental factors in planning is how to handle vehicles, which is a major theme in the creation of a modern city. Specific measures include introduction of transit systems, installation of bypass routes for through traffic, measures to reduce (surface) traffic volume within the district, etc. These involve the understanding and cooperation of the (local) government. For OBP, it was theoretically possible to make the entire east-west trunk line underground, but unfortunately this was done only with the intersection with the JR Line.

Due to the absence of a master architect to plan design rules for OBP, and due to the overall ultra-high density and the adjacent residential area on the west side for TMT, the visual image of the entire district in both cases is thin. The combined use of the two north-south axes of Lower Manhattan and the semiotic expression of the top of the 4 buildings by BPC and the (asymmetric) axis configuration of CW unify the respective whole of each project. In addition, by ensuring waterfront space as a method for mitigation with surrounding existing districts could be effectively introduced for projects other than TMT.

What was found through these analyses is that a system of a single legal body having strong authority and responsibility is necessary. This legal body is the (initial) leaseholder of the land or a consortium. They will also hire a variety of experts in order to make rules for urban development from land utilization to codification of individual building designs and implement them. The selection of the designers for each building and coordination with them is also the work of the legal body, and this body is also involved with the unification of the image and the harmonization with the townscape.

5. Conclusion

OBP has a history of having had the master plan change several times. In the 1972 edition, 2 blocks were developed jointly and the precedent concept such as the aggregation of underground parking again came up. However, due to the system of separate ownership of the land, the project proceeded without being completely in step, including the individual development periods. Also, at the time the fact that there were member companies who were not involved with investment businesses - and who did not consider the need - there was also no initiative to create a consortium to lead to favorable finances. For this early private sector project, there were no such thoughts or systems.

Today, when the shift from the traditional ownership standard to the leasehold standard is often seen in advanced countries, the concept of shared property and term leaseholds is

gradually penetrating land and building projects. In modern times when dictators have become defunct and there is no ideology as pointed out by M.Tafuri, are modern times cities, which advocate functional separation and high efficiency based on capital rationalism, what is considered ideal? Or is the emergence of concepts which surpass modern times first necessary? [9]

Table 2: Performance of Spatial Elements: OBP

Performance		Spatial Elements	Overall : 26ha	Block				
				A: 3.2ha	B: 5.6ha	C: 4.8ha	D: 2.4ha	E: 1.3ha
(a) Functionality/ Usability	Smooth / Safe	Vehicular Road	+ Including East-West Underpass	+ All Peripheral	+ All Peripheral	+ All Peripheral	+ All Peripheral	+ All Peripheral
	Smooth / Safe	Ground level Pedestrian Sidewalk	+ Particularly on the Park Avenue	+ Particularly on the Park Avenue	+ Particularly on the Park Avenue	+ Particularly on the Park Avenue	+ Particularly on the Park Avenue	± Not Well Planned to the West
	Smooth / Safe	Elevated Pedestrian Walkway Network	± Only 2 Networks	+ 2 Walkways but both partially Indoor	- Nil	± intra-Block only	± Walkway but partially Indoor	– Nil
	Enough Capacity and Closer to Workplace	Car Park / Unloading Deck	± Individually laid out Car Park System	- Ugly Above-Grade Car Park Bldg.	- A Ground Level Car Park	± Well Planned System	± Rampways Covered by Bldg.	± Combined with Sunken Drop -Off
(b) Perpetuity/ Adaptability	Underground / Inter-Block Connection	Driveway	– Nil	– Nil	– Nil	– Nil	– Nil	– Nil
	Underground / Intra-Block Connection	Driveway	– Practically No Installation	– Nil	– Nil	± Partially	– Nil	– Nil
	Shared / Underground	Shared Car Park System	– Nil	– Nil	– Nil	– Nil	– Nil	– Under ground
	Centralized / Semi-Centralized	District Shared Services System	– Centralization Planned but not Executed	– Nil	– Nil	– Planned but not Introduced	– Nil	– Nil
(c) Amenity/ Comfortability	Easy to Access	Public Park	– Hard to Access to the West End	– Hard to Access to the West End	– Hard to Access to the West End	– Hard to Access to the West End	– Hard to Access to the West End	± Acceptable Distance but not So Close
	Bigger / Continuous	Roadside Trees	+ Big Trees Well Combined	+ Particularly along the Park Avenue	+ Particularly along the Park Avenue	+ Particularly along the Park Avenue	+ Particularly along the Park Avenue	± Less Attractive on the West Side
	Closer to the Water	Riverside Promenade	+ Continuous 2- Level System	± Less Connected on the North Side	+ Connected to its Central Plaza	+ Connected to its Central Axis	+ Connected to its Axis	± Not Well Connected
	Open to Public	Onsite Greenery / Open Space	+ Introducing "Overall Building Design System"	+ Introducing "Overall Building Design System"	+ Introducing "Overall Building Design System"	+ Introducing "Overall Building Design System"	+ Introducing "Overall Building Design System"	+ Introducing "Overall Building Design System"
	Easy to Access	Commercial / Shops	± Not All the Buildings even those along the Park Avenue	+ Well Planned Ground Floor	± Not Continuous	± Not Continuous to the Hotel at the End	+ Well Planned Ground Floor	- Less Accessive

Table 3: Over-All Summary of Performance

		OBP	TMT	BPC	LCW
x-1	Disposition of Master Planner	1	1	0.5	1
x-2	Disposition of Master Architect	0	1	1	1
x-3	Disposition of Construction Manager	0.5	1	0.5	1
y-1	(a):F/U Safer Pedestrian Walkway	0.5	1	1	1
y-2	(b):P/A Shared Infra-Structure System	0	1	1	1
y-3	(c):A/C Proximity to the Amenity	1	1	1	0.5
z-1	Less On-Site Through Traffic	0	1	1	1
z-1'	Less (Ground-Level)Vehicular Circulation	0	0.5	1	1
z-2	Integrated Visual Image	0.5	0.5	1	1
z-2'	Accordance with Surrounding Townscape	1	0.5	1	1
(Total)		(4.5)	(8.5)	(9)	(9.5)

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