

On Landscape and Building Control under the 'Nagasaki Urban Design System'

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Abstract

The most common approach to urban control in Japan consists in setting standards by subdividing items and giving approvals only if they are met. Starting from 2000, a discretionary approach to urban control, which takes account of integrating different items and of overall harmony, has been operated in Nagasaki Prefecture. The framework, which is rare in Japan, only covers localized areas surrounding Nagasaki Port. The controlling authority, organized by Japan's leading professionals, is tasked with screening and giving advice to projects for building structures in the Nagasaki Port areas. Our study has found that architects have benefitted from the framework by gaining access to beneficial advice and being awarded prizes for their works, while at the same time they have also been disadvantaged by complicated procedures and increased labor. Our findings indicate a need for creating opportunities to allow both the urban design experts and the architects to have dialogue on an equal footing and setting the design fees at levels that would justify the efforts on the part of architects in holding talks and negotiations with the advisers.

Keywords: landscape control; discretionary approach; Nagasaki

1. Introduction

Building standards of modern Japan used to assume it was basically free to build anything as long as minimum standards were met, and did not require harmony with the surroundings. No means were therefore available for preventing the emergence of buildings and artifacts that were out of sync with their surroundings. To remedy that situation, a "building agreement" system was introduced in the mid-20th century, followed by the creation of a "district plan" system and the enforcement of the Landscape Act in 2004, to facilitate harmonization of buildings with their surroundings. But most of those approaches are of the "conditions-to-be-cleared" type, whereby minimum standards are set item by subdivided item and approvals are given only if they are met. Urban control of this type takes no account of integrating different items or of overall harmony.

By contrast, the "Nagasaki Urban Design System" (NUDS), an advisory framework being operated in Nagasaki Prefecture, Japan, is characterized by its "discretionary" approach. This framework does not define which items are eligible for regulation, so it

allows advisory comments to be made on everything from basic building design plans to details. The present study aims to elucidate the role and effectiveness of that approach in an urban area, on the basis of the way the NUDS is actually operated and what it has achieved, and present a viewpoint on the potential of discretionary-type urban control in Japan.

2. Methods and Subjects of the Study

The NUDS covers projects of six categories--community development studies, civil engineering design, building design, bridge design, green space design and lighting design—in localized areas that surround Nagasaki Port and fall within the bounds of the city of Nagasaki. Our study focuses on projects of the "building design" category.

Our methods include studying a brochure on the NUDS and proceedings, and interviewing Nagasaki prefectural government officials to gain a grasp of the NUDS' organizational structure and the way the framework is operated. We have also studied magazine articles that featured buildings covered by the NUDS and interviewed some of the architects to find out what the architects of the buildings had to say about the process.

We have studied the cases of the Nagasaki Prefectural Art Museum (NPAM) and the Nagasaki International Cruise Ship Terminal (NICST, also known as the Matsugae wharf) particularly closely, including tours to both sites (Dec. 1, 2013) and interviews with architects who designed one of them

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(Dec. 16, 2013, and Jan. 27, 2014).

3. Outline of the NUDS

An initial plan for the NUDS called for using the name "urban design guidelines," but some urban design (UD) experts argued that "design guidelines" only define a certain set of standards that have to be met and are not likely to serve as effective guidelines for better community development. It was therefore decided that the framework would not be following a guidelines format but instead would take positive measures to appoint competent architects and designers, and would also appoint UD experts to provide appropriate advice to basic plans worked out by them. The NUDS was initiated in 2000.

The UD experts were picked from among leading professionals in the respective fields. In the case of the "building design" category, the UD expert responsible for architecture plays a central role in the process, but expert personnel within the Nagasaki prefectural and city governments, along with UD experts specializing and knowledgeable in fields other than architecture, also take part in the process. This framework setting is intended to prevent the risk of architects and designers indulging themselves in all-out self-assertion.

To ensure that projects are screened objectively at appropriate timing, the framework is designed to involve an "urban design experts council," which is tasked with exchanging views on and screening individual projects; an "urban design council," where the Nagasaki prefectural and city governments make final arrangements on the basis of the output of the UD experts council; and an optional "Nagasaki Prefecture-Nagasaki city coordination council on city development," where the output of the UD council is reported to deputy governors of Nagasaki Prefecture and deputy mayors of Nagasaki city when there is a special need for coordination. The UD experts sit concurrently on multiple councils (Fig.1.).

Architects are expected to use the advisory comments, provided during council meetings, as guidelines for creating landscapes of high-quality design that ensure a sense of unity with the rest of the Nagasaki Port areas and also takes account of historical context (Community development promotion office of the Nagasaki Prefectural Government, 2007). The guiding concepts for giving advice are based on a need to draw on and emphasize the characteristic landscape of the city, wherein Nagasaki Port, a spacious inlet port, is surrounded by hills, whose flanks are urbanized almost to their tops. The concepts, of which there are five, can be summarized as follows:

- (1) The existing landscape quality should not be hurt. An emphasis on the quality of a visual axis that is unique to an urbanized area formed around an inlet port (downhill views).
- (2) A need for design that attracts people to the port and induces them to stay there, with a focus on

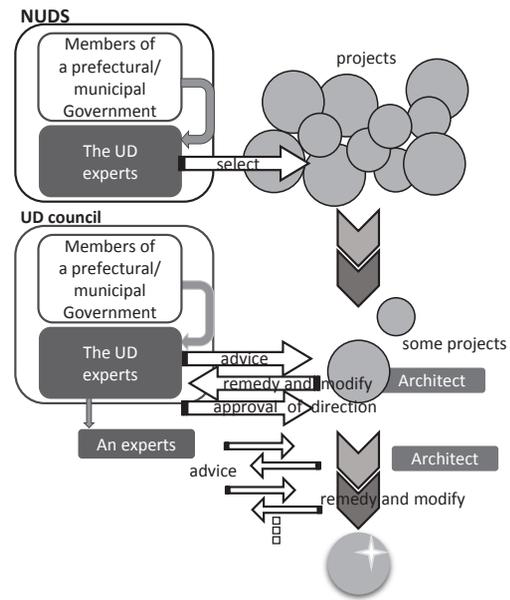


Fig.1. Method of Design Control

stage effects that make the scene look different by day and at night.

- (3) Awareness of continuity with adjacent blocks of urbanized areas, with particular attention to the use of creative potential in linking adjacent blocks in terms of design.
- (4) A need for ingenuity in harmonizing the grand landscape with human-scale landscapes.
- (5) A pursuit of pioneering design that merges the exotic feel of the city with a future-oriented quality.

4. Achievements of the NUDS

Nine buildings covered by the NUDS process had been completed by 2015 (Fig.2., Table 1.). While public buildings account for most of them, private-sector establishments are also subject to the advisory system if they are expected to serve as landmark buildings in the Nagasaki Port areas.

The UD experts provided advisory comments on a broad range of topics, including basic building design plans, green space design and anti-seismic retrofitting. As a result, the NICST, one of the buildings covered by the NUDS, won a Good Design Award of the Japan Institute of Design Promotion and a Civil Engineering Design Prize 2013 of the Japan Society of Civil Engineers. The NPAM, another building that was subject to the process, won both critical acclaim and a number of prizes in Japan and abroad, including a Good Design Award, Italy's Marble Architectural Award, Japan's Building Contractors Society Award, and a JIA Award of the Japan Institute of Architects.

5. Architects' Opinions of the NUDS

Buildings covered by the NUDS have been featured in six magazine articles, including five with architect comments, and four with architect comments on

the NUDS system (Table 2.). This shows that the involvement of the NUDS had a major impact on the designing process.

The articles featuring the NPAM and the Nagasaki Peace Museum contain no negative comments on the NUDS. As we will illustrate in Section 6, collaboration with the NUDS likely had a synergy effect in the case of those buildings.

Another article by green space designers of the NICST also includes a favorable comment: "(One of the UD experts) gave us advice, and she also did much more than that for us. We kept written records of our discussions with the client and contractors. She allowed us to seek her advice on them as the need arose, and we kept her updated" (Ohta *et al.*, 2011).

But a separate article written by architects of the NICST contains negative comments, which say the architects had to obey a near-total leadership of the NUDS and the intentions of the architects were not taken into account (Suehiro *et al.*, 2011).

6. Control by the NUDS

Two cases are reviewed here to illustrate the process.

The NPAM construction project was brought under the NUDS process in 2001, whereupon talks were held to discuss how architects should be selected (Table 1.). The office of architect Kengo Kuma, a nominee for the 2017 Pritzker Prize, and Nihon Sekkei Inc., a major Japanese architectural design firm, were

appointed through an open competition. Both sides (NUDS and the architects) held talks in 2002 on the basic design plan and the exterior building work (Table 3.). Construction was started in 2003, whereby the UD experts and the architect (Kuma) held discussions on details, such as seawall heights and the colors of stones along a harbor road. Construction was subsequently finished in 2005.

Our interviews found that long-term talks were held on the height of an adjacent seawall, which was finally designed to have a height that both the UD experts and

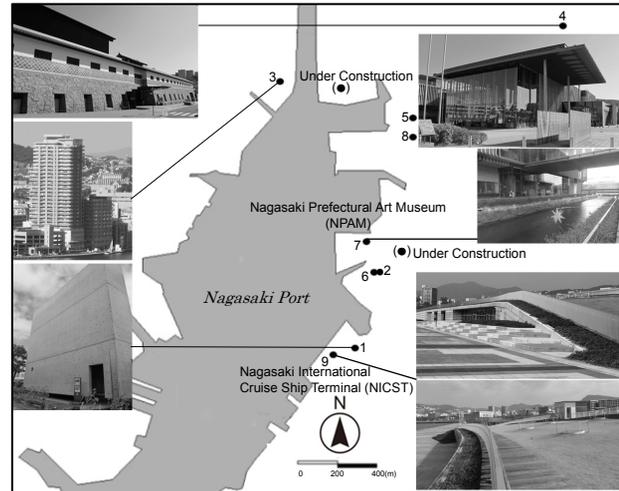


Fig.2. Buildings Advised by NUDS in Nagasaki City

Table 1. Descriptions of the Buildings that Received Advisory Comments under the NUDS Process, and the Topics of Comments According to the Proceedings

No.	1	2	3	4	5	6	7	8	9
Name	Nagasaki Peace Museum	Restaurant in the Nagasaki Seaside Park	Redevelopment building in the Asahimachi-Maruo district	Nagasaki Museum of History and Culture	Dejima Koryu Kaikan	AIG Nagasaki Building	Nagasaki Prefectural Art Museum	Nagasaki Dejima Incubator (D-FLAG)	Nagasaki International Cruise Ship Terminal (a.k.a. Matsugae wharf)
Order placed by	NPO	Nagasaki prefectural government	Urban redevelopment association	Nagasaki prefectural government	Nagasaki prefectural government	American International Group KK	Nagasaki prefectural government	SME Support, Japan	Nagasaki prefectural government
Architectural design by	Tetsuo Furuichi (architect)	Ryoko Ueyama (landscape designer)	Research Institute of Architecture; local architectural design firm	Kisho Kurokawa (architect)	Local architectural design firm	Arup Japan	Nihon Sekkei Inc.; Kengo Kuma (architect)	Ryoko Ueyama (landscape designer)	Local architectural design firms
Chronological table	2002		Building design (façade) Green space design				Basic plan Basic design		
	2003	Layout plan Completed	Completed		Basic plan		Building design		
	2004		Completed			Anti-seismic retrofitting	Facilities plan		
	2005				Completed	Completed	Building design Completed		
	2006					Exterior		2006 Exterior Hosting D-FLAG	
	2007						Completed	Building plan Wall greening Layout plan Completed	Green space development
	2008								Landscape development Wharf development
	2009								Building plan Green space design Wharf development
	2010	Wall greening							Progress of building work Green space design Wharf redevelopment Completed
	2011								Terminal building repairs
2012								Passageway development	
Number of Topics	1	0	2	1	1	4	4	4	11

Table 2. Architect Comments on the NUDS Process that Appeared in Architecture Journals

Building name	Author(s)	Journal title	Issue	Pages	Reference to NUDS	Comment outline
Nagasaki Peace Museum	Tetsuo Furuichi	Shinkenchiku (The Japan Architect)	July 2003	pp. 124-129	✓	Entrance illumination was changed at the proposal of a UD expert responsible for lighting.
Nagasaki Museum of History and Culture	Kisho Kurokawa	Shinkenchiku (The Japan Architect)	June 2006	pp. 150-156	-	-
Nagasaki Prefectural Art Museum	Kengo Kuma	Shinkenchiku (The Japan Architect)	May 2005	pp. 78-88	✓	Positive proposals were produced under NUDS on the use of canal-side space, which made me realize I was not to oversee everything. We worked on exterior designs of bridges and the canal side under the advice of a UD expert responsible for civil engineering. I had a feel of 'melting' [with others] in the organizational framework for design, which produced an exciting interface.
Nagasaki International Cruise Ship Terminal (building part)	Kaoru Suehiro <i>et al.</i>	GA Japan	No. 109, March 2011	pp. 20-30	✓	We were called on to follow a predetermined perspective of building design. The significance of building design in public architecture was little understood.
Nagasaki International Cruise Ship Terminal (civil engineering part)	Keisuke Ohta <i>et al.</i>	Doboku Gijutsu (Civil Engineering)	Vol. 66, No. 8, August 2011	pp. 28-35	✓	During the engineering work, one UD expert responsible for gardening gave us advice, and she also did much more. We kept written records of our discussions with the client and contractors, and sought her advice on them as the need arose. We also received comments from other UD experts during meetings.

the architect could agree upon. A positive comment by the architect says: "We worked on exterior designs of the bridges and the canal side under the advice of Mr. Osamu Shinohara, an expert in civil engineering landscape who sits on the prefectural government's urban design committee. I again had this feel of 'melting' [with others] in the organizational framework for design as well" (Kuma, 2005).

Few advisory comments were given on architectural design during the meetings, which indicates that Kuma's building design was respected.

A basic design for the NICST, on the other hand, was presented to the UD experts council by UD experts and was approved in 2006 (Table 4.). Small firms of local architects were subsequently selected in a nominated-bidding process. The company that won the contract for green space design was apart from the firms of the winning architects.

The architects worked out their proposal plan, during the bidding process, without being informed of the basic design plan. They said Nagasaki prefectural government officials showed them the basic design plan only after they had signed the contract and told them to design the building in line with the basic design without taking account of their own proposal plan.

The architects also said they were not given enough opportunities during NUDS meetings for exchanging views with the UD experts, and had to begin working on designs without ever being able to share their own proposal design with those UD experts. They said they thought about withdrawing from the project if their job only amounted to mere "design work (of plan-drawing that involves no creative action)."

An October 2008 meeting of the UD experts council, however, decided to review the initial basic design, because a UD expert responsible for lighting said the basic design should be redrawn. The architects took that for a golden opportunity to have their own design taken into account, so they set meetings and had talks with individual UD experts to share their own notions of design and seek to reach a consensus with them. Among other things, the architects held regular dialogues with one of the UD experts, who were responsible for architectural design, in an attempt to make sure they could play a part in "design work (that involves creative action)."

Even after both sides were able to share their perspectives, however, limitations of time and other circumstances made it difficult for questions to be answered on the spot during meetings. Draft answers had to be presented to officials in charge of the matter within the building division of the prefectural government, and they were then passed on to the harbor division, where officials in charge briefed their department head, and only during the next UD council meeting did the head of the harbor division provide the answers. The messages were not always relayed accurately during that complicated procedure. That consumed time and slowed the progress of the designing process.

The architects said that, as a sense of rapport formed between them and the UD experts, they learned how they could solve problems in a friendly climate. They said they accepted advisory comments on their designs, provided to them during meetings, as long as they found those comments acceptable and, if any

Table 3. Records Available on the Nagasaki Prefectural Art Museum and Meeting Participants According to the Proceedings

Year	Month	Description	KK	NS	NP	UD	Out-of-meeting talks, including preliminary talks
2001	April	Draft basic building design released			○		
	May	Discussions on architect selection method			○	○	
2002	January	Discussions on basic design	○	○	○	○	
	October	Discussions on architect proposal on seawall heights			○	○	
2003			○			○	Discussions on seawall heights
	August	Decision on seawall heights			○	○	
	November	Q&A on exterior colors, materials		○	○	○	
2004	December	Plan to change wall design proposed, approved		○	○	○	
2005	February	Progress report (building work completed)			○	○	

KK: Kengo Kuma; NS: Nihon Sekkei Inc.;

NP: Nagasaki prefectural government; UD: Urban design experts

of the advisory comments were unacceptable, they prepared plainly written presentation materials or large architectural models to provide alternative plans and seek understanding.

Despite negative comments made by one of the architects in a magazine article, another architect presented a positive viewpoint during our interview. "The process was time-consuming, but there were things that could not have been done without the NUDS process," he said.

The design fees were set per area, and did not include the expenses for making documents and materials to be brought to UD council meetings and for making written answers. "Our work load was 120 to 150 percent of the assigned amount of work," one of the architects said.

7. Conclusions

The NUDS framework for discretionary-type urban control in Nagasaki Prefecture has generated positive effects in many respects by making concrete insights and advisory comments available from leading UD experts, who are both knowledgeable and experienced. The effectiveness of that approach is demonstrated by the architectural prizes that have been awarded to establishments covered by the NUDS.

To compare the cases of the NPAM and the NICST, the architect's "design work (that involves creative action)" was respected during the process of the NPAM project, partly because it was designed by an architect of world renown and the basic design was worked out only after he was appointed to the job. The UD experts and the architect shared their perspectives, which generated complementary and synergetic effects in some respects. The same thing is indicated by architect comments in magazine articles on other cases, except the NICST.

In the NICST project, by contrast, the UD expert's council had already worked out a basic design at an earlier stage, so their design perspective was different from that of the architects. The UD expert's council

subsequently made light of the proposed design of the architects, which presented a major problem. The architects came forward with a variety of plans, modified them over and over, and finally worked them out into something acceptable because they were eager to make sure they were taking part in "design work (that involves creative action)."

But that was only possible because the architects insisted on being able to play a part in "design work (that involves creative action)." The architects could otherwise have chosen, for profitability or other reasons, to uncritically accept the plans agreed to, or any advice given, during meetings of the UD experts council and contented themselves with mere "design work (of plan-drawing that involves no creative action)." Such a system is therefore not likely to help enhance design quality.

The above considerations indicate a need for changing awareness in order to flesh out a discretionary approach to urban control into a system that allows architects to make the most of their creative potential. More specifically, (1) it should be understood that the UD experts and the architects are equal, and (2) it should be assumed that they are different.

To make that happen, (3) the UD experts and the architects should be given an opportunity to have dialogue on an equal footing without loss of time or stress. (4) The design fees should be set so that they justify the hard work on the part of architects in holding talks and negotiations with the NUDS advisers.

There was yet another factor for the time-consuming process. Architects said that, when UD experts raised questions or misunderstood matters, prefectural government officials simply passed on their remarks to architects without even answering questions that they could have answered, although they were specialists in architecture. (5) Individuals who can play the role of moderators by explaining architects' intentions or fixing views that are off the mark should be appointed as mediators between the two parties.

Table 4. Records Available on the Nagasaki International Cruise Ship Terminal and Meeting Participants According to the Proceedings

Year	Month	Description	KK	NS	NP	UD	Out-of-meeting talks, including preliminary talks
2006	September	Basic design, architect selection method			○	○	
2007	February	Decision on the policy for use			○	○	
2008	June	Progress report (results of a nominated-bidding process released)			○		
	July	Decision on basic design			○	○	
	September		○			○	Discussions on differences between basic design, proposal plan
	October		○		○		Discussions on the scope of design
	October	Architects present proposals A UD expert presents negative view on basic design	△	○	○	○	
	October		○			○	Agreement on the image of a hill
2009			○			○	Fine-tuning on balustrade shapes, etc.
2010	March	Progress report (building work completed)			○	○	

DF: Local architectural design firm(s); GC: Consultancy in charge of green space design;
 NP: Nagasaki prefectural government; UD: Urban design experts
 △: Attendance as observer(s)

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