《特稿[1]》

日本第四世代博物館之可能性：
311 後仙台媒體中心之角色

清水有[2]

Possibilities for a Fourth-Generation Museum:
The Role of sendai mediatheque After 3.11

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摘要

本文理梳仙台媒體中心作為文化機構的角色轉移及其持續性的工作推展，以展現 21 世紀新興媒體中心對應於博物館學理論挑戰及發展。仙台媒體中心運用各種媒體支援市民知能活動，並為多元族群辦理範圍廣泛的各式活動，如展覽、放映會（影展）及工作坊。發生於 2011 年 3 月 11 日的關東大地震，此一事件戲劇性地改變了仙台媒體中心的任務與方向。本文檢視仙台媒體中心作為第三世代博物館面對大規模災難時的重大意義，並探索此類博物館的價值與任務，特別是以多重角色平台自詡的仙台媒體中心作為第四世代博物館理論描繪之嶄新觀點。

Abstract

This study represents continued work at sendai mediatheque (smt) and its changing role as cultural institution. It will present theories related to museology in the context of challenges and developments emerging at this 21st century media center. smt supports civic intellectual activities using various media. It hosts a wide range of activities such as exhibitions, screenings and workshops organized by and for diverse groups of people. The Great East Japan Earthquake, which occurred on March 11, 2011, was an event that drastically altered the mission and direction of smt. It is of high significance to investigate the role of a third-generation museum as represented by smt in the face of a large-scale disaster, in terms of exploring the value and mission of this museum. In particular, a three-fold role of smt as platform presents new views towards describing a theory for the fourth-generation museum.

The Role of sendai mediatheque After 3.11

In the 21st century, the developing role of media centers, or third-generation museums, is important but difficult to define, manage or control. Not only do media and technologies continue to advance at increasing rates, but natural phenomena and civic crises are unpredictable at best. This paper will focus on the transitions of a third-generation museum in Sendai (the largest urban centre in Tohoku) during the years since the Great East Japan Earthquake.

What do I mean by "third or fourth-generation museum"? Very simply, each is another kind of museum compared to those which can be identified as belonging to the first and second generations of museum facilities. I will explain this theoretical outline in some detail below, as I begin to develop my point of view.

In concrete terms, the third-generation museum, which I will be discussing, is sendai mediatheque (smt), a public facility (See Fig. 1) of the city of Sendai, Japan. I will argue that smt's developing roles in civic culture have brought me, as head of the curatorial section, to think about how those roles demonstrate smt's opening towards a fourth generation of museums.

The name *mediatheque* combines the terms *media* and *-thèque*, where the latter is taken to mean "shelf" or "container" in French language. From its foundation, smt stands for supporting civic intellectual activities using various types of media. The building has seven stories above ground and two below, and the total floor area is about 21,000 square meters. It contains not only the municipal library but also a *kunsthalle*, as well as an "open square" on the first floor. All these facilities enable smt to host a wide range of activities, such as exhibitions, screenings and workshops, organized by and for diverse groups of

people. For a night view of the upper floors, see Fig. 2.

The Great East Japan Earthquake occurred on March 11, 2011; at that time, smt was celebrating its 10th anniversary. While co-operating with local evacuation centers after the event, smt launched the "center for remembering 3.11" (recorder 311), a dynamic archive that utilizes video media, making the most of the resources sendai mediatheque had accumulated in its ten years of operation. Four years later, Museum Rescue (activities of participating museums to protect cultural properties) is an activity with smt's leadership which is expected to draw attention at the 2015 World Conference on Disaster Risk Reduction, as a model case of inter-museum collaboration.

It is of high significance to investigate the role of a third-generation museum as represented by smt. For some sense of the outline I have in mind, first-generation museums are typically called museums or art museums; second-generation, arts centers; third, media-archive centers like smt. In the face of the large-scale disasters of 3.11, however, smt's response provides a chance to explore new senses of role, value and mission for museums.

Fig. 1 Photograph of sendai mediatheque (Daytime) (Photo by 越後谷出氏)

It was my intention, in a presentation I made in May of 2014 (Shimizu, 2014a) to report the two cases mentioned above: the center for remembering 3.11 and the Museum Rescue which has been organized in the Sendai-Miyagi Museum Alliance (SMMA). My aim in this paper is to extend some further thoughts, in the hope of contributing to the operation and work of museums, in both the present and the future. For now, smt has demonstrated the innovations and leadership that were possible during the disaster crisis. From the experience of facing the new situation of disaster, smt emerged quickly as a platform supporting the city's recovery. In particular, three platforms developed as a direct result of smt's unique position at the time of the disasters: recorder 311, a discussion forum called the thinking table, and the SMMA role in co-ordinating the restoration of a network of museums. How and when each platform developed, across a timeline of events at smt, has provided special focus for this paper.

My question remains much the same as discussed in April 2010 (Shimizu, 2010): after ten or more years of operation, what impact can smt demonstrate in its civic context? By this time, however, it is important for me to ask how smt,

Fig. 2 Photograph of sendai mediatheque (Night-time) (Photo by 越後谷出氏)

a third-generation museum, dealt with 311. What will smt become? What is it becoming? What is the next platform? How did smt begin? These questions can be answered by discussing the recent years' activities at smt.

Point of View

When sendai mediatheque opened in 2001, a number of case studies addressed numerous points of interest around the facilities. For architects, artists, curators, exhibition supervisors, professors and the general public, smt has been a unique space from its beginning. Following the development of each kind of interest around smt will be part of my task in this article. While smt has stood out as an architectural feature of the city, and has attracted notable attention from Chile (Ontiveros and Pascuets, 2013) and also the Pritzger Prize (2013), my position as head of smt's curatorial section affords a unique and convenient view for the main points I mean to present.

Rather than calling, collecting and arranging artworks to a fixed place, and rather than changing the name of an existing building, as we might find belongs to the practice of the Musée du Louvre (an example of the first-generation museum), the third-generation museum I mean to discuss also shows evolution beyond the special design and popular appeal that belong to a second-generation museum. Forms like the "white cube" of an arts center, set in a small town or suburb, are known to highlight environmental and geographical features like the course of the moon and the sun, the sound of the waves at a nearby shore, a passing breeze, and so on. This sense of place and site-specific circumstance has become the main point of thinking around planning the museum and its events. For example, the Chichu Art Museum of Tadao Ando, or Arata Isozaki's Nagi Museum of Contemporary Art, set the stage for what Isozaki, in 1970, identified as the emerging third generation of

museums worldwide. In a sense, this third generation can be seen as the final stage of a development, in which, by now, "*any space*" could potentially be used as a site for exhibition. Any building at all might be the place, any natural setting the environment, for a particular experience to occur.

From the grand palace dedicated to preserving works of art, and beyond the white cube for site-specific experience, what begins to appear is an impressive diversity of interwoven alternative spaces. Add to this the data stream which is increasingly related to the sense of place we each have, in our lives today, and you might find that you feel you are looking beyond the basic possibility of a third-generation museum. Organize experiences of alternative space, or data stream, for specific civic activities, and you will find yourself curating an *engine* that can drive the material which is inherent to city life, city space-material waiting to be exposed. Without the event of presenting a particular focus on the "*inter-local*" processes in which facts and ideas, personality and design are distributed, there would be no meaning ready for discussion in our lives as citizens and residents of a particular place.

I will return to this theory below, in summarizing my main points of discussion. For now, let me set institutional history aside, and pursue geopolitical trends that today hold museums as sites of intersection and interchange. They are places where public discourse can be explored, and democracy fostered (Barrett, 2011). Meanwhile, the future of this type of institution depends on participation and engagement, open to the public, with art and also the museum (Dewdney et al., 2013). The flow of people, information and technology around and through museums (Davidson & Goldberg 2010; Marty 2012) is also worthy of special note in contextualizing the following observations. Through the observations, I mean to develop a kind of case study in which smt's challenges and roles can extend towards a model

for new thinking which may belong to a fourth generation of museums worldwide.

Observations

I. Situated Memories

Let me locate smt for the purposes of developing my study, first by outlining a historical context. The setting for smt is on Jozenji Avenue, Sendai. In the Edo period, this specific location was known as Yagura Cho, meaning "Watchtower Square", because there was on the site now occupied by smt (see Fig. 3). So, from as far back as 200 years ago, it has been a landmark site.
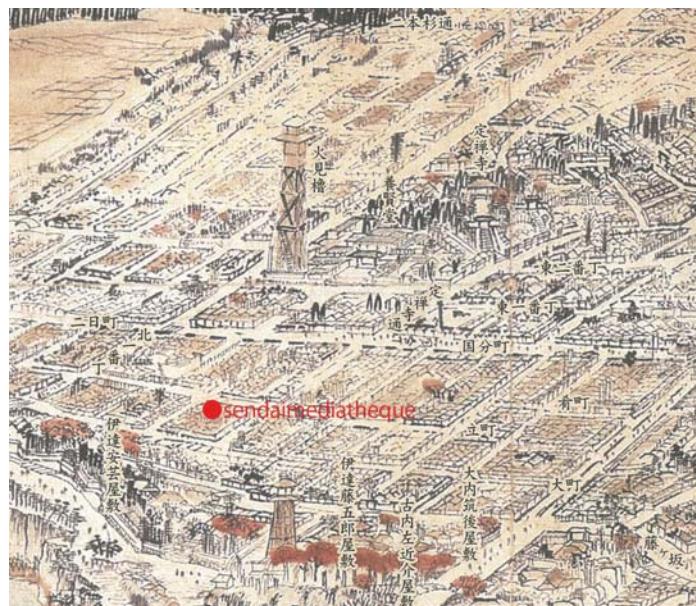

Fig. 3 Drawing of Edo-period Sendai at the turn of the Meiji era (dated year 1, Meiji), with Yagura Cho Featured at Top-left. The site of sendai mediatheque today can be found just to the right (east) of the watchtower pictured at far top-left. (Image courtesy of the Sendai City Museum collection)

The avenue was expanded to its current width during reconstruction after the Sendai bombings of WWII, with four rows of zelkova trees planted, connecting the city parks on each side of the green space created along the length of the avenue (see Fig. 4). In the 1970s, the Miyagi Prefectural Auditorium and Sendai Civic Auditorium were built on Jozenji. They were followed by the opening of the city's subway in 1984, allowing easy access to the Jozenji area from Kotodai Koen station and making this avenue the symbolic road of the city.

Looking at smt today, there is a strong sense of the building in its context. Night views of smt are especially beautiful, as the facade is best viewed from the midst of an avenue lined with zelkova trees. You might hear birds or cicadas in the trees, or you may see the autumn leaves reflected in the glass of the exterior.

II. Construction Features

What about the building we call smt? Its simple structure makes it so original that it has achieved international distinction. We can see no simple posts or beams in the whole building. As you can see in Figures 5-8 especially, smt features 13 "tubes" which assume the structurally essential role of supporting the floors; the floors, in turn, are called "plates". The 13 tubes perform as columns, supporting the weight of the whole building. Each tube has its own additional role, letting air, water, light, people and information up and down throughout the building. The piping, wiring and lines are therefore integrated throughout the whole building. From the beginning, in his proposal, architect Toyo Ito planned to design smt using little more than the tubes and plates; in fact, there is only one other basic element in smt's design, and it is referred to as a "double skin".

Fig. 4 Jozenji Avenue, Post-war/Reconstruction-era (ca 1960). The two central rows of zelkova trees run along the center of the avenue, in front of the current site of smt. (Image courtesy of the Sendai City War Reconstruction Memorial Hall collection)

Fig. 5 View from Interior of Tube Nᵒ· 5 at 1st Floor. The Open Square can be seen through the glass of the tube. (Copyright: sendai mediatheque)
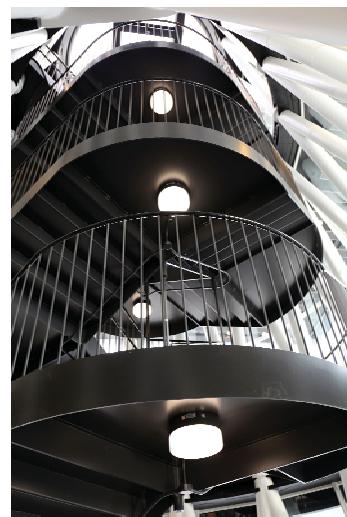
Fig. 6 Emergency Staircase Inside Tube Nᵒ· 5. (Copyright: sendai mediatheque)

Fig. 7 Upward View through Tube N°. 8. Photograph taken at second story below ground.
(Copyright: sendai mediatheque)

Fig. 8 Tube N°. 2, Featuring Elevator Shaft. Note, in this view from inside the Open Square, that the floor is exactly level with the exterior sidewalk.
(Copyright: sendai mediatheque)

"Double skin" refers to the structure consisting of the double-glazed facade, with one meter between the two layers of glass (see Fig. 9), facing Jozenji Avenue and spanning a width of 52 m and a height of 27.7 m. At the top of this facade, there is a device that controls the opening and closing of the skin. In summer, the double skin is opened up to allow an upward air current, ventilating the building; in winter, the double skin is closed for insulation using sun-heated air. These functions reduce air-conditioning costs. As you can just make out in Fig. 10, the double skin facade, with the beauty of a mirror, reflects the zelkovas of Jozenji Avenue through all four seasons.

Fig. 9 Double Skin Structure of South Windows. Photograph taken from between the two layers of glass.

Fig. 10 Double Skin Facade, sendai mediatheque. Note, again, the Open Square's situation at street level.

(Copyright: sendai mediatheque)

All floors above ground function as the plates of smt. As you can see in Fig. 11-12, they feature a sandwich structure, each made of 6.25 mm steel panels enclosing a "slab" of space and amounting to a thickness of 400 mm from the outside of one sandwiching panel to the outside of the other. Concrete, at a thickness between 70 mm and 100 mm, lies on top of each plate, along with composite flooring material providing the finished surface.

Fig. 11 Plate N°· 2, Between 3rd and 4th Floors. Photograph taken from inside tube N°· 5. (Copyright: sendai mediatheque)

Fig. 12 Plate No. 1, Between 1st and 2nd Floors. Open Square can be seen on the 1st-floor level. (Copyright: sendai mediatheque)

The structure of 13 tubes, directly supporting the plates, is similar to the structure of a ship. All joinings of steel plate are welded, and the resulting "box" structure is based on the "honeycomb" reinforcements within each sandwiched slab.

III. Concepts

"Freedom from all barriers" is the most important concept in this architectural design by Toyo Ito. The ground-floor Open Square literally has no boundary with the exterior, let alone any gap in personal status which can so often be seen in other Japanese buildings, nor walls that visually block the viewer's perspective. The open square is used for a variety of events (like Science Café, corporate events, music festivals, exhibitions of gigantic paintings, fashion shows) almost every day, with its characteristically serendipitous effect inviting passers-by to take part in the events. It is safe to say that this institution is literally granted the freedom from all barriers in architectural terms, as may be demonstrated in Fig. 13-16.

Figure 17 represents an early model of smt, derived from the "Sendai Mediatheque Concept Book" (2001). After the four elements were reorganized, having been introduced for the architectural design competition, the institution was named "sendai mediatheque" by architect Arata Isozaki. By definition, smt was to constitute a representation of urban functional space in a new era, presenting art, as sensory media, with library and other holdings as information media, and adding moving images as new media. So, smt was planned as constituting a synthesis of art with information and new media; the three were to be collected and made available, along with support provided, for citizens to be creators and disseminators.

Fig. 13 "External" View of sendai mediatheque's Southeast Corner. Photograph taken at street level. (Copyright: sendai mediatheque)
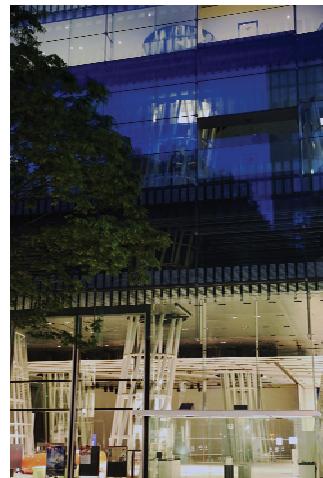

Fig. 14. View Through Jozenji Avenue Entrance Into Lower Floors of sendai mediatheque. The 1st-floor Open Square is brightly lit. This main "portal" to the building is marked with nothing but a flat white cover. (Copyright: sendai mediatheque)

Fig. 15 Main Entrance to sendai mediatheque, Jozenji Avenue. Tube N[o.] 5 appears clearly in foreground, with a neighboring building reflected on smt's exterior at bottom-right of photograph. (Copyright: sendai mediatheque)
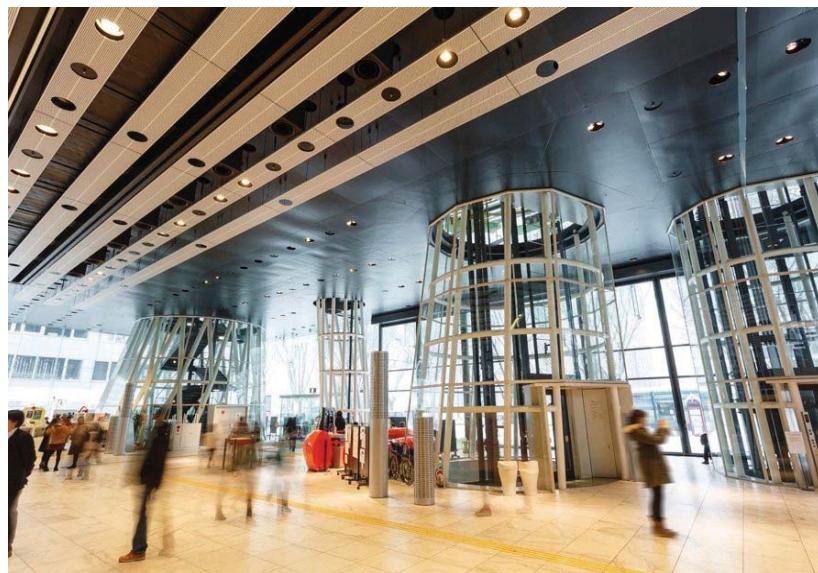
Fig. 16 View from "Inside" the Open Square, Facing Southeast Towards Jozenji Avenue: Tubes, left-right: N°s. 5, 4, 3, 2. (Copyright: sendai mediatheque)
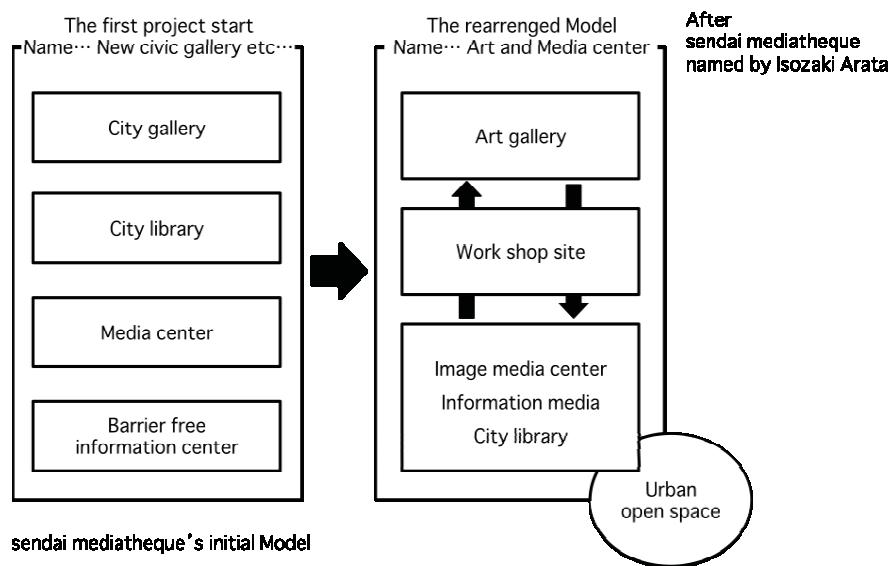

Fig.17 Schematic Model of Design Concepts for sendai mediatheque.

In Europe, culture institutions can be classified according to their research in the development of art and digital technology, as well as facilitating media artists (a "German" model represented in ZKM), or according to the centrality of their *biliothèque* holdings, attempting to unify art and information (a "French" model). In the case of Sendai city, these two models were to be synthesized (at the beginning, a little bit closer to the French model) to bring about an smt belonging to neither of these pre-existing models, of "art museum" and of "community centre".

Celebrations and Crises

I. Tenth anniversary

The 10th anniversary of operations at smt were celebrated with events focused on the topic of barriers, using the organising title – "How Barrier Is*"* (smt curators, 2011). Organizers at smt had considered the reality of various barriers (corporeal, linguistic, gendering, ethnic, spatial and so on) in the form of art for the next generation. The participating artists were Toru Koyamada, Hikaru Fujii, Takayoshi Kitagawa, Chihiro Minato, Takayuki Mitsushima and the Forumant Brothers, among others. The project used the whole smt building, also collaborating with citizens and many interns. A couple of examples are presented in Figures 18-19.

In this way, smt celebrated its 10th anniversary with events beginning on January 26, 2011. Numerous exhibitions, workshops, screenings and talk-sessions were held at this time, the last of which was a discussion to be held on March 12th . The topic of this talk-session was imagining the next 10 years of smt's development, highlighting the concept of freedom from barriers.

Fig. 18 Double Skin Landscape Project, Takayoshi Kitagawa (Photograph ©Izuru Echigoya)

Fig. 19 Bookmark Project, Chihiro Minato (Photograph ©Izuru Echigoya)

This talk session was to be especially significant in the sense that it would constitute an opportunity to look back and question whether or not smt could grasp, face and respond to the changes that had occurred in the years from 2001 to 2011 - the years since its foundation. With this project, a large-scale questionnaire was conducted, and the results were exhibited on the 7th floor - a project that was truly characteristic of smt. A very interesting element in the results was that, in response to the question - "what do you (dis-)like about smt?" there was a polarization of responses, between "I can casually enjoy contemporary art" and "appreciating works exhibited in smt's curatorial projects is too difficult".

Also, it is speculated that, had this talk session been realized, it would have referred to topics such as 1. relationships between local public institutions and citizens; 2. the future development of media and their relationships to art and libraries; 3. trends in transition from barrier-free design to inclusive design, and smt's position; 4. smt's autonomous administration. It was precisely in preparation for this talk session that the 3.11 disasters began. This final session was planned in celebration of smt's award from the 2011 Regional Art-Activities Gold Prize. The topic for the talk-session was "the future from mediatheque". It is remarkable that such a topic on the table when the disasters struck.

II. Disaster

A video was taken by a cameraman friend of mine, who happened to be on the seventh floor of sendai mediatheque when the earthquakes began. Two related images appear in Figures 20 - 21. Uploaded as soon as possible after the event, the video has since got more than 600,000 hits. This video has been seen all around the world. Fortunately, in the blur of tables and confusion, all 150

people, members of staff and users alike, were able to evacuate the building safely. For reference, please see http://recorder311.smt.jp/movie/203/.

To the building, the worst damage was on the 7th floor: one third of the ceiling collapsed. Meanwhile, large plates of glass had fallen from the double skin at the level of the third floor library.

So, how should we respond? This was the first question on our minds at the talk-session which we went ahead and held on March 12th . We had evacuated the building the day before, but we discussed the chosen topic, of our cultural institution as platform for the city. We felt that the city, and our foundation, had been shaken into a new, unexpected situation. This discussion was the fortuitous beginning for smt's engagement in post-311 experience.

Fig. 20 7th Floor, sendai mediatheque, 11 March 2011. This photograph was taken before the earthquake had wrought its worst effects. (Photograph ©Izuru Echigoya)

III. Process and platform

Even as the aftershocks continued,[3] electricity, water and gas were restored to downtown Sendai much earlier than surrounding areas. The tsunami had completely devastated areas along the Pacific coast, and areas around the Fukushima nuclear power plant will remain uninhabited for many, many years to come. In the midst of it all, smt was chosen as a base for restoration efforts. Accordingly, smt's own in-house restoration was hurried, with direction from the Sendai city office. In this way, smt's restoration project had started before we knew it.

Fig. 21 7th Floor, sendai mediatheque, 11 March 2011. Later stages of the same earthquake, from nearly the same point of view. (Image ©Izuru Echigoya)

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[3] For further information on the following narrative, please see http://www.smt.jp/en/smt311/timeline.html. You will find a sequence of events recorded around smt, beginning on March 11, 2011. There are photos and videos presented along with a record of significant moments. This timeline is an example of the arrangements we can make from the raw data housed in recorder 311: all of the materials you see on the page have been drawn from the recorder 311 archive.

We avoided broken glass and the ceiling where it had collapsed. After electricity was restored, we cleaned up and planned one step at a time, beginning from what we were able to do.

In order to avoid despair, we kept ourselves occupied with six things.

● Using our hands.

● Learning as we went.

● Measuring and recording the damage.

● Listening to all the people we could meet and speak to.

● Seeking out evidence.

● Archiving pieces of evidence, calling them records.

Starting on May 3, less than two months' time after the onset of the disasters, smt held a re-opening event. All repairs having been carried out for all floors up to the fourth, these spaces were opened to the public once more. In the first-floor open square, individual citizens gathered to sort out, speak out and listen amongst each-other, or simply to find a quiet corner, sit down and read a book. While few could honestly say they had come to grips with the situation, many were able to find information that, we hoped, could be of service. In particular, during this time when trains, planes and highways had been mostly shut down, Kiyokazu WASHIDA was able to arrive from his position as President of Osaka University, with a message of kindness for people in Sendai.

IV. Three platforms

While we thought through the emerging event, there were three platforms developing at smt from the basis of the 10th anniversary project.

● Archive platform.

● Civic activities platform.

● Museum network platform.

These platforms were the main objects in my presentation in May (Shimizu, 2014a).

After the earthquakes of 3.11, smt found and acted on three platforms, in three roles as a cultural institution in contemporary society. These are leading roles and, hopefully, may become world standards. Because of the profound social impact of the Great East Japan Earthquake disasters, we are still discovering our position subject to the event.

What kind of society is now emerging with the processes of reconstruction? Disasters always pose a question to cultural institutions about our social values. Therefore, we are called on to respond with wisdom and practical solutions. In the case of smt, these three platforms emerged immediately after 311.

Archive platform: recorder311.

Regarding the archive platform first, we organized the "center for remembering 311", or recorder 311. Recorder 311 is a public archive of the earthquakes, disasters and recoveries since 2011. It developed as we discussed these 4 points of smt's policy, and under the banner you can see in Fig. 22.

● Agreeing on our policy of life-long learning.

● Pressing the municipal government regarding the disasters, in order to manage on a low budget.

● Ensuring that smt staff understood the operating scheme in general, and that there was as little confusion as possible.

● Accepting affected citizens.

As you can see in Fig. 23 below, recorder 311 is based on studio activity. However, resourceful participants and collaborators from across the whole country also join in various activities where know-how is shared. And it is not an archive of anonymous records: above all, the point which should be mentioned is that the archive is made from each person's thoughts, aims, and messages. These images were recorded and embedded with first-person accounts.

Fig. 22 Logo of recorder311. The pencil, grasped tightly and forcibly, is an expression of grass-roots recording with a strong citizen's resolution.

Civic activities platform: thinking table.

The thinking table concept, pictured in action through Fig. 24 - 25 below, was developed for civic activities including collaboration with artists; it is, itself, a work of art. Smt provides a place in which to consider life after the disasters, focusing on dialog and position. It is a space in which points of view can be exchanged, adjusted, confronted, debated and so on.

The civic activity programs supported by the thinking table are the "philo-café" and "artist's talk". There was also an open conference held around one table, where anybody could participate. All ages joined in.
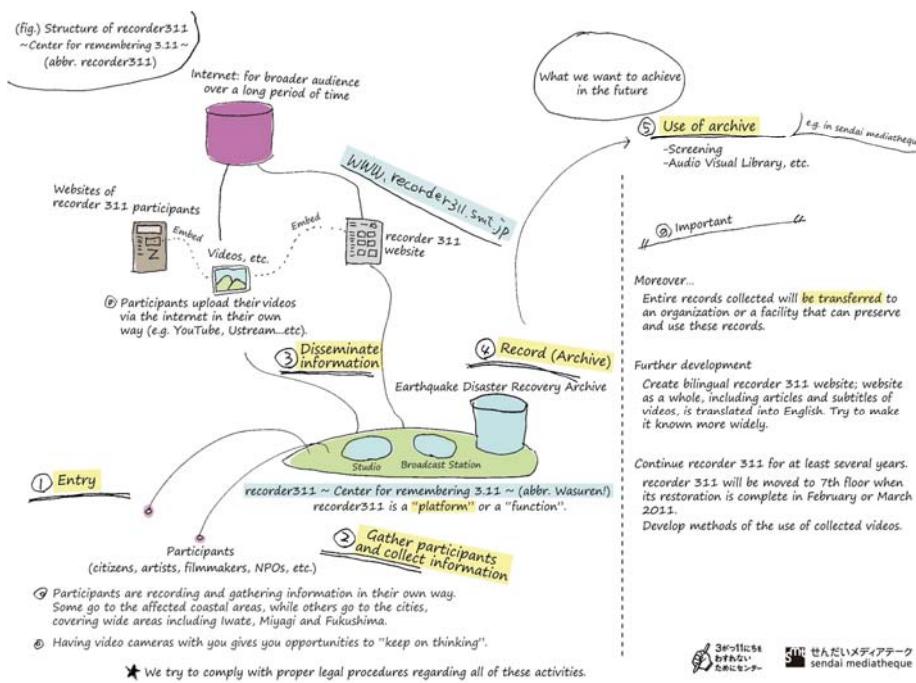

Fig. 23   Illustration of Studio Activity for recorder311. Place is given for every acceptable flow of data.

Fig. 24　Photograph of Thinking Table Session. (Photo by 越後谷出氏)

Fig. 25　Photograph of Philosophy Café Meeting. (Photo by 越後谷出氏)

Museum network platform: SMMA.

The third platform for discussion is the Sendai-Miyagi Museum Alliance, a collaborative unit composed of 12 museums. It is a network for museum staff of all kinds. So far, we have found that it would be impossible to imagine one museum system for Sendai and its prefectural setting of Miyagi, but there is an alliance which has developed for a website (see Fig. 26), publishing a free paper, cross-talks and cross-sessions, as well as cross-exhibitions, co-hosted by any of the following institutions.

- 3M Sendai City Science Museum.

- Sendai City Jomon Site Park.

- Sendai Astronomical Observatory.

- Sendai City Tomizawa Site Museum.

- Sendai City Museum.

- Sendai Yagiyama Zoological Park.

- Sendai City Museum of History and Folklore.

- Sendai Literature Museum.

- sendai mediatheque.

- The Tohoku University Museum.[4]

- Tohoku Fukushi University Serizawa Keisuke Art and Craft Museum.

- The Miyagi Museum of Art.

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[4] The Tohoku University Museum provided us with documents.

There have been museum bus tours, including an Ishinomaki disaster-area bus tour and a Sendai-historical bus tour of the Zuihouden site.

The MU Pass (Fig. 27) was a special passport allowing anyone to visit 3 of the 12 museums on a flat admission fee. But it is difficult for us to regulate it with the Miyagi prefecture office, the Sendai city office and Tohoku University, because these different organizations have different scopes, rules and roles as prefectural, municipal and national entities. We need to make an effort across these different organizations.

In fact, the administration of each museum was so different that it exposed the "ego" of each participating museum. Collaboration among, or between, museums is so much more difficult compared to the operation each museum is accustomed to—that is, working in vertical administrative relationship with the organisation to which it belongs. So, managing an organisation that consists of such diverse museums, in a sense resembling the United Nations, will be a highly important clue to how museums should be in the future.

Fig. 26. SMMA Website.

Discussion

I. Third-Generation Museum

Despite being able, today, to describe three platforms emerging in our process, I believe our greatest lesson has been that we must be ready at any time for an emergency that demands our greatest wisdom and practice. As I reflect on each sense I can find, of wisdom and practice, I am guided by a theory presented by Isozaki in 1970. Museums are known as a place where artifacts are presented, but in Isozaki's view, a museum is a kind of institution, with rules and assumptions regarding the institutional practices and permitted knowledge. Isozaki's idea of a museum is also to be described in three stages of its own.

Fig. 27.   MU Pass. The pass was developed through the co-operation of member museums of the Sendai-Miyagi Museum Alliance.

The first-generation museum, representing a gathering place for the public to view the aristocracy's objects of wealth, was in use at least as early as the opening of the Musée du Louvre. As of the mid-20th century, the Guggenheim Museum in New York represented a practical solution, permitting not only the public encounter with private holdings, but also the circulation of "greatest hits" and "blockbuster" exhibitions of art from a wide range of sources - and this, in Isozaki's view, represents a second-generation of museums. Turning to the third-generation museum, the key idea is the "site-specific" experience, which may include a breeze passing through, natural light of morning and evening - overall, a unique experience to be offered along with the artifacts on display. Isozaki's own Nagi Museum of Contemporary Art (1994) is a good example of the third-generation museum.

In this evolution, the site has come to take the place—has assumed the centrality, in a new way - of the exhibition. In my view (Shimizu, 2014b), reading smt as a third-generation museum has been a matter of some importance, owing to its construction at the turn of the millennium. Taking this view, and understanding the roles, functions and facilities of this particular site, I have thought of smt as housing a site-specific third-generation museum within the setting of a massive, digital public archive.

However, this thinking takes me only so far, and a new chapter appears to have emerged in the new situation of a post-311 world. The event, as I have traced its meaning for the site, has proven smt's capacities for outreach in the interest of public wellness. This networked, global or cosmopolitan function now calls for a new description, and I would propose that smt has moved beyond the third-generation conception of the museum, which can be characterized by its dissemination of state-approved information, and into a fourth generation. For a few notes on each generation of institutional history, see Fig. 28.

II. Fourth-Generation Museum

As you can see in Fig. 29 above, the data flow in the case of a third-generation museum would appear to be unidirectional, like those attributed to first- and second-generation museums: from "out there" or "up there" to "the public". The data-flow that I observe in smt (illustrated in Figure 30, below) is now operating as a space for collaboration and equal exchange amongst citizens, not only conversationally or for local events, but also in a way that informs countless conversations, held not only within smt but also around smt and around the world. If smt can be a locus for so much conversation, then I believe it will be important to view the increasingly interactive roles of a fourth-generation museum closely, and to understand the implications and capacities that appear new to us at this moment.

The process of the 4th generation Museum

No.	institution	times/Ex	collection/contents	merit/Demerit
1	Museum	AD 1789~ Ex. Musée de Louvre	Treasures art works masterpieces	...
2	Museum or Art-center	AD 1977~ Guggenheime Museum Museum of modern Art	collections Art project documents Artist Lists	...
3	Art-center or Art site	21 century~ Nagi Museum of contemporary Art Chichu Art museum	site-specific Art works	...
4	Media-center Data center	AD 2011.3.11~ Ex. Sendai mediateque	civic archives Activity-documents web-site data	...

Fig. 28　Stages Leading to the Fourth-Generation Museum. Historical characteristics of museology, developing through three previous generations, provide the basis for exploring new potential in facilities like those of sendai mediatheque.

Till The 4ᵗʰ generation Museum

The docile vector

research　　　Exhibition　　　collection　　　cultural assets (wealth)
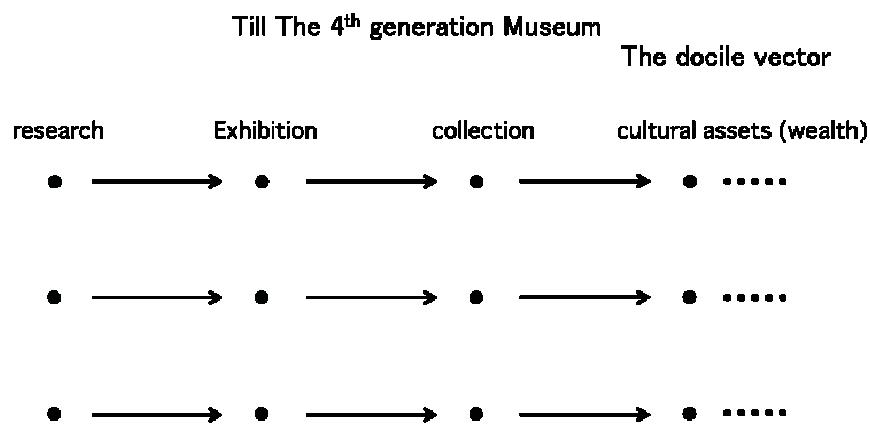
Fig. 29 Vector Demonstrating Flow of Ideas Preceding a Theory of Fourth-Generation
　　　Museums. Each of the three rows may represent first-, second- and third-generation
　　　museums, and how they assist the distribution of cultural assets.

About the 4ᵗʰ generation Museum

Interactive vector

Archive data　　　representation　　　action
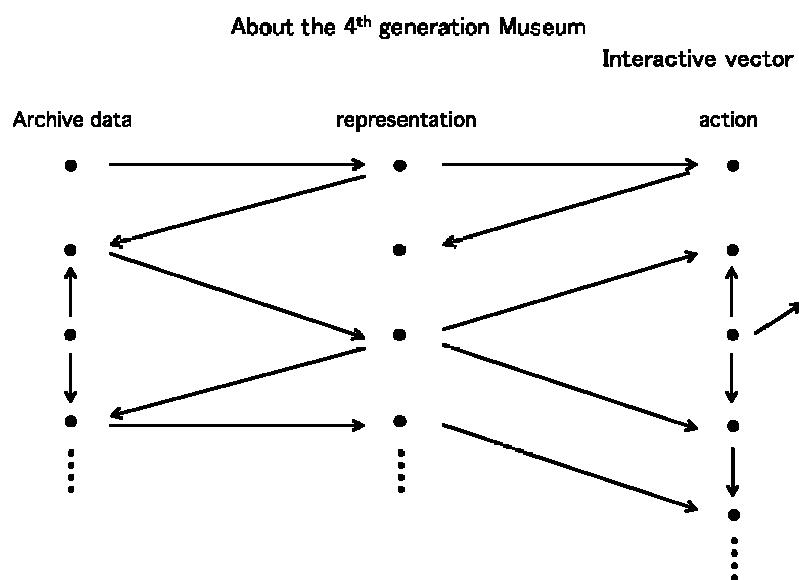
Fig. 30　Data Flows in Fourth-Generation Museums. Illustration from example of recorder
　　　311. Fourth generation shows complex diversity of possible applications.

The data flowing from the locally-grounded public sources, especially taking the extreme case of tsunami and related disasters, reaches not only the city offices where policy is affirmed, but also the surrounding world. It would appear that Sendai needed a new kind of city hall, one that could be shared with all the citizens of the world today. Recorder 311 may be only a first move, but the potential capacities of a fourth-generation museum remain unmeasured and as practically unlimited as the data flow developing in recorder 311 itself.

As I observe the first leaf and its growth on a tree that I have now described as the imaginary of a fourth-generation museum, I offer this report with a challenge to other researchers and curators. From this article alone, there is a lot of learning generated for an institution like smt; and, to be sure, smt is not the only institution of its kind. Further studies like this one may generate more and more theory, and I welcome every conversation towards the fullest possible understanding of the roles our institutions can play in interaction with the current world of cosmopolitan citizenship.

Conclusion: Current Affairs at smt

As manifested in the *Concept Book* (smt project team, 2001), smt was planned as a synthesis of art with information and new media; collections and availability were meant to meet with citizens, empowering citizens to become creators and disseminators. Ironically, the earthquake and tsunami, and the development of recorder311, granted smt a role as a sort of media centre, further promoting its position as a next-generation museum.

As the chart above illustrates, museums, up to the third-generation model, had been confined to the linear flow of research, exhibition, collection and education, regarded as four main jobs for staff members at museums. In this

linear flow, the process is unilateral and homogeneous, not leading to new movements, only resulting in the accumulation of assets in one region, in one direction. On the other hand, in a fourth-generation museum of the 21st century (such as smt), this flow appears to be free, nonlinear. Human beings, information, assets: anything can move in any direction, just like human thoughts move in the virtual space of the Internet, constituting a model of interactive vector.

Actually, this spatial recognition was already a part of the model for smt from the time of its construction; it only surfaced in the event of the Great East Japan Earthquake, coincident as it was with the institution's 10th anniversary. So, while facing the events of 311, smt has received Kiyokazu Washida, one of the most influential philosophers in Japan, as its new director in order to communicate directly with citizens, creating and collaborating for their autonomous dissemination of information.

This takes place not as any pre-existing form of enlightenment, but as something to be discovered in a process that goes side-by-side with the lives of citizens, as something that is truly needed on-site. Thus, we have a reason to believe that, in this post-3.11 world, we are in the front line of model cultural institutions, rightly questioned and urged to change throughout the world.

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