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AN ARCHITECTS' RESPONSE TO NATURAL DISASTERS: SHARED LIVING AND BOTTOM-UP COMMUNITY BUILDING IN JAPAN

CATHELIJNE NUIJSINK

Abstract

The neoliberal restructuring of the labour market in the 1990s, together with the promotion of individual responsibility introduced by the Koizumi administration and the 2008 global financial crisis, caused what anthropologist Anne Allison described in her book Precarious Japan (2013) as a "liquefying" of Japan. Once a close-knit society, by 2011, it had become clear that Japan had changed into a bondless society dominated by a general feeling of "enoughness" and in which strong ties between people were lost. This transformation triggered a societal shift in which materialistic consumption patterns gave way to new forms of ethical consumption. Architecture, in response, changed into a conscious effort to improve society with more sustainable options of that of shared living, DIY of existing housing, and renovations of deprived areas through participatory processes. Starting from theoretical discussions in Japanese printed media and an archive of personal interviews, this article investigates the new social role adopted by some architects at the start of the twenty-first century. By examining recent housing interventions that show a strong commitment to supporting local communities as a form of bottom-up "recovery" of Japanese society, I set out to introduce, by this study, a new form of housing practice. This practice relies on recovering places for "communities" rather than "individuals" by means of shared living, renovation and the revitalization of towns and neighbourhoods.

Keywords: architects' disaster response, 2011 Tōhoku earthquake and tsunami, sustainable approach, shared living, renovation practices, revitalization of towns and neighbourhoods.

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Introduction

As an archipelago located on the meeting points of multiple continental plates, Japan has been prone to natural disasters. The 1828 North Kyūshū Typhoon, the 1896 Sanriku earthquake, 1923 Great Kanto Earthquake and the 1995 Great Hanshin Earthquake are only some of the earthquakes, tsunamis, typhoons, and extensive fires on Japan's long list of historical catastrophes. Wooden houses that could withstand earthquake trembles or could easily be rebuilt were for long wood carpenters' solution to natural disasters. In more recent times, engineers and architects have addressed earthquakes with fireproof measures and earthquake-resistant structures. From the practical reality of a country that is regularly hit by natural disasters emerged a view that older objects and buildings have no great value in themselves as being original and authentic objects.2 Instead, a desire for "things new" have long infiltrated Japanese society. In architecture, this view translated in a disposable attitude to housing in which people preferred to spend money on building anew rather than on retrofitting.

Starting from this historical response to natural disasters in Japan, this article sets out to explore a shift towards a more sustainable circular approach after the 2011 Tōhoku earthquake and tsunami. With a magnitude of 9.0, the Tōhoku earthquake was the strongest earthquake on record in Japan's long history of natural disasters and one of the largest ever documented in the world. The impact of the tragedy – including tsunami waves 10 meters high and a nuclear power plant meltdown – was huge, killing thousands of people and causing significant material damage to buildings and infrastructures. As is intrinsic to the nature of the profession, architects were one of the first to "speak" to society on the road towards recovery. In the aftermath of this disaster, many architects envisioned themselves playing a central role in the realisation of a creative solution for the disaster-hit area (Figure 1). Starting off with

- 1 For an overview of the role of architects, planners and the public in the reconstruction period after the Second World War, and the surprising continuities with prewar Japan, see Hein (2003, p. 236-248).
- 2 Making new in very well-made copies has been a method and a skill that is also supported by the Japanese strong craft tradition, not least in the traditional wood constructions.



Fig 1
Atelier Bow-Wow was one of the first architectural firms to aid in the recovery and reconstruction of the Tōhoku region after an earthquake, tsunami, and nuclear meltdown devastated the area in 2011. Together with students, they work on post-disaster revitalization through making accessible, community-based structures.

WOW WOW

big questions, such as "What is architecture?" and "What can we architects do?", they gradually refined their questions into the larger planning issues of "Where should we head towards, rebuilding the Tohoku area, or all of Japan?" and assigned themselves a new social role with an approach that favoured community building, the revitalization of deprived areas, and the reuse of existing building parts.

While this article highlights an opportunistic architects' response to a recent natural disaster in Japan – based on discussions in Japanese architectural journals, interviews with architects, themed exhibitions and publications, and actual design proposals – it situates this new focus on human bonding and renovation in a much larger international context of climate issues, sustainability and degrowth. This ecological mindset has not only gained currency in Japan but has grown stronger around the world as seen in the rise of sharing, do-it-yourself and renovation practices.

Human bonding

Retrospectively, the emergency measures taken immediately after the 2011 Tōhoku earthquake and tsunami seem to be attempts to restore bonds (kizuna) lost in modern society. They revealed that the disaster (also called "3/11") was also a metaphorical problem for Japan, showing that economic, political, and social structures in Japan had already gone off-balance. From an analysis of the evacuation behaviour of people in the disaster zone, planner Eiji Hato discovered that the pattern of evacuation routes within one community took the form of a network based on mutual assistance (Hato, 2011, p. 9). Hubs, produced by several people, were the key to the formation of this network and allowed information to converge and spread on from these nodes. Another form of bonding emerged from people who lost their homes and moved into relief centres. Although housing conditions were unfavourable in quarters, such as gymnasiums, people expressed a preference for staying in the large "common house" of the relief centre and maintaining a sense of community rather than moving into temporary housing and living without any common space among strangers (Ito & Didero, 2020).

Outside the immediate disaster zone, responses similarly showed a growing desire to connect with other people. With telephone lines not working properly, Japan saw an explosive growth in social media, such as Twitter, making the World Wide Web a harbinger for the rise of sharing (J-Cast, 2011).³ Moreover, the aftermath saw a national increase in hunting for a marriage partner (*konkatsu*) as another attempt to create family bonds (Ito, 2011b).⁴ The responses from architects tied into this larger discourse around the importance of bonds (*kizuna*), calling for a humanistic recovery. In the words of the philosopher Yoshiyuki Sato, the behaviour of architects was like "a micro-resistance to neoliberalism" of bottom-up

- 3 For the role of online (social) media in the 3.11 disaster response, see also Slater, Nishimura & Kindstrand (2012, p. 94-108), and Tkach-Kawasaki (2012, p. 109-123).
- 4 The word konkatsu short for kekkon katsudō, which means "marriage-seeking activities" was first used by journalist Shirakawa Tōko and sociologist Yamada Masahiro in 2007. The term popularized to the status of "most popular vocabulary" after their 2008 hit publication The era of marriage-partner hunting (Masahiro & Shirakawa, 2008)

struggles (Sato, 2016, p. 146-147). The Japanese pavilion at the 15th Venice Architecture Biennale would reinstate this shift in interest among Japanese architects from a fashionable and aesthetic standpoint to more fundamental and primitive matters. Under the theme of "En: Art of Nexus", a new generation of architects presented here, to an international audience, the challenges that are interesting Japanese society and its relationship with architecture. Rather than a conceptual contribution, the pavilion displayed examples of built works in models, drawings and photos incorporating ways to foster a novel approach to the relationship among people, and between people and architecture.

While this new attitude towards human bonding was presented as a phenomenon strong among young architects, it was an older generation of architects in Japan who had the credibility to initiate some crucial initiatives. Overlooking the ruins of the disaster-stricken area in the wake of "3.11", master architect Toyo Ito made a public call to fellow architects to break away from introversion and abstraction and instead to create a viable relationship with nature:

The media often uses the phrase "beyond assumption" for the disaster, meaning that its force was beyond structural requirements. But I can't help sensing a more fundamental disruption between our norm and reality. I think we design things in a mechanical manner as a "complete machine," complying with nature defined in quantities or abstract definitions . . . I think our task now is to rethink how we "assume" design conditions, rather than reviewing the conditions. We need to start by questioning the way we relate to nature. The people or community we always argue for in our architecture – aren't they just an abstracted scheme? (Ito, 2011, p. 679)

In Japanese, Ito announced his new post-"3.11" design methodology of an architecture that blends with nature in the book *Ano Hi Kara no Kenchiku* (Architecture from That Day onwards). In here, Ito takes his own projects of Minna-no-le and the Kamaishi Reconstruction Project as examples to demonstrate a new interest in "community" and to proclaim that he himself had already switched to designing buildings with a social character.

Architects debating reconstruction

The problem of reconstruction, and the opportunistic role architects envisioned for themselves in that process were soon featured in architecture journals. As a countermeasure against "inhuman" concrete engineering-like reconstructions, *The Japan Architect*, in its summer 2011 issue, provided 50 groups of architects under the age of 45 the opportunity to present a bold urban vision not just for the disaster-stricken area but also for 21st-century Japanese cities in general. "City planning will

have to undergo major structural changes to survive the 21st century", said editor-in-chief Jun Hashimoto in the editorial. "Only then will meaningful urban renewal and reconstruction be achieved" (Hashimoto, 2011, p. 1). Inspired by the spirit in which Japanese architects in the immediate aftermath of the Second World War started with planning principles rather than with designing buildings, but realising that contemporary Japan needed specific solutions rather than formulae or statistics, the collection of proposals was meant to become a sequel to the famous book Japanese Urban Space (1968). First published as a special feature of the December issue of Kenchiku Bunka magazine in 1963, Japanese Urban Space (Nihon no toshi kūkan) was a collection of research findings by Toshi Dezain Kenkyūtai, a group of graduate students from the University of Tokyo, that included architects Arata Isozaki and Hiroshi Hara. The work demonstrated a pioneering attempt to grasp, through historical analysis, the characteristics of Japanese urban space. 5 By calling on young designers to make equally compelling proposals based on a morphological approach outlined in Nihon no Toshi kūkan 2011, Hashimoto hoped to give a positive impetus to the recovery that included the creativity of architects.6

Shinkenchiku magazine broached the topic of reconstruction by using a stimulating essay titled "White Night, or Guerrilla?" by Tohoku University professor Yasuaki Onoda (Onada, 2012, p. 43-47). In his writings, the professor, living in the disaster-affected city of Sendai, corrected his earlier slightly cynical view on the wide gap between architects marching with catchy ideas around the disaster-stricken sites and civil engineers working hard on construction (Onada, 2011, p. 4-5). He had come to the insight that architects looked at lives more concretely than did engineers, took hidden and invisible values into consideration, were able to present their ideas bravely, and he stressed the architects' potential capacity to look at the overall picture. Encouraging designers to explore these skills and to create ties among different professionals, Onoda called on architects to pursue a humanistic form of recovery that could connect with existing local communities.

The architecture projects that resulted from the aspirations for a bottom-up recovery reflected the larger post-3/11 transformations in Japan and were expressed in two different ways. First, incited by general concepts of sharing, including car-sharing and social media or social networking services (SNS), architects started to explore the concept of "shared living" to replace the emphasis on individuality and anonymity akin to modern urban living. Secondly, awareness among architects that the myth of economic growth had collapsed, turned them to processes of the revitalization of towns and renovation practices of the existing building stock. After the 2011 Tōhoku earthquake and tsunami, it became urgent to plan large empty areas that had previously been built with private residential buildings. 7 "3.11" opened the opportunity to initiate new

- 5 Toshi Dezain Kenkyūtai was made up of the students Teiji Ito, Hiroshi Hara, Mayumi Miyawaki, Arata Isozaki, Kojiro Yuichiro. Architecture historian Ken Tadashi Oshima has traced the role of Japanese Urban Space for the discussions among Japanese architects about city planning (Oshima, 2016).
- 6 The title of *The Japan Architect* issue 82 was translated as "Towards a new cityscape" rather than the more literal translation of "Japanese Urban Space 2011", leaving out all significant references to the original work.

7 Note that city planning processes are complex in Japan because private ownership of land and buildings is strong, and land and buildings must be bought up from many different owners. types of planning processes that involved citizens through participatory processes that focused on the revitalization of empty buildings and deprived neighbourhoods in rural towns and smaller cities in need of a new impulse. In urban areas, "renovation" translated as a new well-thought-out consumption pattern that actively re-uses things rather than buying new ones. It gave, for the first time in Japan, birth to a "second hand" housing market through qualitative renovations as a valuable alternative to building new stock.

Shared living

Driven by a discussion that goes back to architecture historian Takashi Hasegawa's 1961 treatise on the characterisation of "the house as a group of individuals", and to architect Riken Yamamoto's lively debates in the 1990s on the meaning of "shelter", "collective" and "community", architects (from 2010 onwards) went one step further and addressed the problem of "living isolated lives" with the "shared house". The shared house implies a form of collective living in which residents actively built loose relationships with fellow occupants who are not related by blood. In this type of dwelling, emphasis is placed on the relatively large common spaces, such as the kitchen, living room, garden, rooftop, or outdoor kitchen. In stark contrast to the anonymous single-room apartment emblematic of the contemporary urban lifestyles of the 1980s, 1990s, and 2000s, a shared house offers opportunities for communication among people with similar interests. They form selective communities in which people chose to live together and connected with each other while maintaining "an ideal distance" in between (Figure 2). Since the rent of living is relatively moderate, shared homes are a highly economical option for young people and single people of any age who cannot afford to buy a house. This arrangement is also found to be convenient for groups of couples and families who may pool money to set up a communal garden.8

8 The idea of the shared house has an antecedent in Japan in the form of guesthouses for foreigners traveling in Japan, which Japanese residents returning from abroad also began to use. Shared living became a real business when company dormitories in disuse were repurposed as shared houses and were given a proper rental system.



Fig 2
Yokohama Apartments (2012) designed by Ondesign introduced one of the first contemporary models of co-living in Japan. The residential complex consists of four one-room units for young artists configured around a semi-public courtyard that is used as workspace, for cooking and eating meals togethers as well as for exhibiting art works.

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Fig 3
With the support of owners and volunteers, a three-story multi-tenant building located on a declining shopping street in central Maebashi that stood empty for already 15 years has been transformed into the student shared house Share Flat Babakkawa (2014).
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Fig 4
Share Flat Babakkawa designed by
Toshiaki Ishida Architect & Associates
aims to revitalize a shopping street
through nurturing a new community
business arising from interaction

©TOSHIAKI ISHIDA ARCHITECT & ASSOCIATES

young students.

between shop owners, citizens and

Architects were quick to design forms of shared living that were explicitly related not only to social demands, but equally to speculative commercial real-estate. Shared living was an architects' response to the rising popularity of a community-spirited action and a desire to communicate more with one another. But shared housing was equally a direct consequence of unaffordable housing prizes that brought to the service the contradictions and paradoxes that arises when dealing with the idealistic role of architects within housing market dynamics (Figure 3 and 4). In Japan, the notion of share was fuelled to popularity around the 2011 Tōhoku earthquake and tsunami and reached a broader audience through foreign books translated into Japanese. In architectural circles, it was the two young architects Yuri Naruse (b. 1979) and Jun Inokuma (b. 1977) who introduced the "share" idea – originally a social concept – to the housing debate in Japan. Influenced by Rachel Botsman and Roo

Rogers' book What's mine is yours: The rise of collaborative consumption (2010), which appeared in Japanese translation in the same year, the two architects, exhibited prototypes of shared houses as early as 2010 in an exhibition called "Rethinking Living Together", published thereafter the book Designing share (2013), while also completing the new-build shared house LT Josai in Nagoya (2013). With a large, shared space that interlocked in a three-dimensional way around the private rooms, LT Josai offered a living experience unique to Japan.9

Naruse and Inokuma explain "share" as creating situations in which things are neither privatised nor public but somewhere in between. Through such a spatial approach, they seek to give rise to new forms of human relationships that fit the contemporary situation of an aging society, an increasing number of single households and the collapse of the lifetime employment system. The appeal of "share" lies in the specific encounters (ichigo ichie) between "family members". 10 Since people move in and out according to their interests and life stages, the community in a shared house is very fluid. Sharing, for Naruse and Inokuma, is not about people jointly owning and using a single item but "a way to pool our resources and to create mechanisms for governing that process".11 The role of the architect, in this process, is to design the mechanisms benefitting society. The 2011 Tōhoku earthquake and tsunami only gave Naruse and Inokuma, like other architects, an extra impetus to create centres for community life where people could come together in new kinds of commons.

Another protagonist in the shared living discussion is Riken Yamamoto (b. 1945), who developed his own theoretical model of living "together". As an antithesis to the prototypical house in post-war Japan based on a prototypical nuclear family model – a value system locked up inside the privacy of those houses – Yamamoto developed the Local Community Area Model (2012), a hypothetical "city" of approximately 500 residents in which residents have the flexibility to rent whatever spatial units they need (Figure 5). One housing unit can consist of X number of closed private units ("nema") and X number of glazed open boxes that open up to the outside ("mise"). The priority is on the shared space between the rental units, which contain plenty of toilets, showers, and mini kitchens. In this model, housing is not seen as an instrument of economic growth; it gives priority to the people living there together. According to Yamamoto, "the relationship between areas over which individuals have exclusive rights and shared areas has been completely reconsidered" (Yamamoto et al., 2013).

A critical evaluation of the "share" movement came out in the February 2016 issue of *Shinkenchiku*, which took the form of a round-table discussion between sociologist Ryosuke Nishida and two architectural firms involved in "share", Ondesign and Eureka. ¹² The discussion revealed that

- 9 The first book was a collaborative project (Hagiwara, Inokuma, Naruse, Kadowaki, Nakamura, & Hamada, 2013). Inokuma also published another book that introduced design methods for shared spaces using 49 examples (Inokuma, 2016).
- 10 Interview between author and architect Yuri Naruse. Tokyo, October 2016
- 11 Email-interview between author and architect Yuri Naruse which resulted in the article (Nuijsink, 2016a).

12 The discussion was between Osamu Nishida and Erika Nakagawa from Ondesign, Satashi Sano and Junya Inagaki from Eureka and sociologist Ryosuke Nishida as the facilitator (Nishida, Nakagawa, Inagaki et al., 2016, p. 42-47).



Fig 5
For Riken Yamamoto, revitalization involves an entirely new theoretical model of living "together." As an antithesis to the nuclear family model, he introduced Local Community Area Model (2012), a hypothetical "city" of about 500 people in which residents have the flexibility to rent whatever spatial units they need.

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a quintessential aspect of the understanding of the concept of "share" was the breaking of dichotomies between inside and outside and between design and usage. The first dichotomy was the result of Satoshi Sano's vision that "share" implied an extension of the private into the public and, as such, generated public behaviour in private space. As a positive effect, this breaks up contemporary isolated lives (Figure 6). Ondesign's Osamu Nishida introduced the second dichotomy, which referred to the sharing of space and time independently of the intentions of the designer. This interpretation had the potential to add a certain randomness to contemporary lives, which he reckoned were now based on a planned routine (Figure 7).

The reason "share" had become so popular in Japan in recent times – in ways different from those in other countries influenced by the global phenomenon of the Internet and Social Networking Services (SNS) – was that the term nicely resonated with an ambiguous way of gathering on private territory that could not be called "public space" in the Western sense. Using "share" as an alternative and more familiar term, Sano made



Fig 6
A project that elucidates Satoshi Sano's interests in developing new forms of (suburban) shared living is Dragon Court Village (2014), an apartment building for 9 families in which exposed structural wooden frames also function as exterior furniture as a means to connect residential life to the community.

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Fig 7
Cooperative Garden (2015) is a collaborative project by Osamu Nishida + Osamu Iwasaki / Ondesign + Erika Nakagawa that explores a cooperative housing model for central Tokyo in which distinctive outdoor spaces enhance different lifestyles.

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a nostalgic reference to traditional community life that took place within the narrow alleyways (*roji*) between houses: a way of living that had rapidly disappeared in contemporary Japan but could be restored with "share". The recent upsurge in shared living in Japan did not happen in isolation. Rising experiences on community living have been the object of several exhibitions and recent publications in other parts of the world, including the Vitra exhibition *Together! The New Architecture of the Collective* (2017) and books like the edited volume *Bauen und Wohnen in Gemeinschaft* (2015). These forms of shared living are explicitly related not only to social demands, but also to real-estate dynamics. Shared living promoted from speculatory premises has produced controversial episodes. The Japanese variant of shared living was undeniable related to unaffordable homeownership prices that were the result of a neoliberal restructuring of the labour market, the resulting job insecurity

and therefore the impossibility to climb the housing ladder. While architects in Japan readily accepted the focus on this new kind of commissions, the "shared housing" philosophy in Japan brought a new mindset to residents that was not accepted in common urban lifestyles even yesterday.

Shared knowledge was another way architects became involved in the "share" movement. Sixteen days after the 2011 Tōhoku earthquake and tsunami, architects born in the 1960s and 1970s, such as Hitoshi Abe and Yoshiharu Tsukamoto, joined forces and formed a Relief and Recovery Network to overcome the limitations of an architect's individual endeavours (Igarashi, 2012, p. 4, 6). ArchiAid, as the initiators named the support platform, was a network linking professionals who possess various architectural skills that could form a bridge between architects' creative ideas and civil engineering reconstruction works. Unlike at the start of their career when this generation of architects (also called "Unit School") united in pairs or small groups, ArchiAid engaged an entirely new way of collaboration. For the very first time, architects not only collaborated with one another *en masse*; they also joined forces with (international) professionals, local experts, and students. The brand-new selective community made it its aim to join the reconstruction process, to revitalise the affected regions, and to explore new ways of architecture education.13

Another support platform with a social agenda that set up practice in the wake of the disaster was an initiative by five of Japan's top architects, that is, Kengo Kuma, Toyo Ito, Kazuyo Sejima, Riken Yamamoto, and Hiroshi Naito, hence the name KISYN no kai. 14 Through his role as commissioner of the Kumamoto Art Polis – an innovative program launched in 1988 to develop new communities throughout Kumamoto Prefecture, which adopts new architectural concepts - Ito initiated the collaborative project Home-for-All (Minna no ie), public gathering places for the victims of the recent earthquake. Based on a bottom-up research process in which the Pritzker Prize laureate interviewed victims himself, his proposal was for small public living rooms that he found were lacking in temporary shelters. To date, 14 Homes-for-All have been realised in collaboration with the other four KISYN no kai members, among others, all with the idea of providing a space for people "to get back on their feet again" and recover a new life (Figure 8).15_After Home-for-All, Ito was given the rare opportunity, for an independent architect in Japan, to work as a master planner for the reconstruction of Kamaishi, a regional town destroyed by the tsunami. Ito approached the job (usually assigned to an engineer working for the local government) with a bottom-up "humanistic" master plan and invited individual architects to propose suitable buildings in a similar way.

- 13 ArchiAid has published a yearly report since 2011 and has launched several books.
- 14 "KISYN no kai" refers to a meeting between Kuma, Ito, Sejima, Yamamoto, and Naito.
- 15 http://www.home-for-all.org. While the very first Home-for-All is an almost every day, archetypical wooden house, the later ones take more the form of artistic interventions. Another attempt to make a common space was the project of Riku Café, a collaborative effort between planning professor Hideki Koizumi and Naruse-Inokuma Architects. The projects started from one man who opened his (undamaged) home to the community in the aftermath of 3.11 to distribute relief support. Koizumi and Naruse-Inokuma Architects managed to build a temporary community café in Rikuzentakata in 2012 with several funding sources and made into a permanent building in 2014.



Fig 8
In his role of Commissioner of the Japanese Pavilion for the Venice Architecture Biennale in 2012, Toyo Ito invited three younger architects - Kumiko Inui, Sou Fujiimoto and Akihisa Hirata— to design and build one Home-for-All community space in Rikuzentakata and exhibit the entire design process at the Japanese Pavilion.

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Urban renovation

The social backdrop of the changes in Japan uncovered by the 2011 Tōhoku earthquake and tsunami was the 2008 global financial crisis, the 1995 Great Hanshin Earthquake, the 2011 Tōhoku earthquake and tsunami, the recession, and employment instability. Sociologist Atsushi Miura has described the social changes from a consumption perspective by explaining that around 2005, Japan gradually moved into a "Fourth Stage" of consumer society as measured from its victory in the Russo-Japanese war in 1905 (Miura, 2012). What people came to value, Miura argued, was no longer personal consumption in which the individual came first but rather a sharing of goods in which society was given priority. The new consumption patterns were demonstrated in a preference for non-brand, simple, casual, local products rather than big international name brands, and a one-per-multiple-people rather than a one-per-person attitude. The new primary consumer was the all-generation single

person instead of the working-age single or "parasite single" of the previous consumption stage.

During the period of Japan's high economic growth, between the 1950s and the burst of the economic asset bubble in the early 1990s, Japanese consumer behaviour had emphasised possession and valued things as symbolised by the three sacred treasures of the refrigerator, washing machine, and vacuum cleaner, and at a later stage, the "3 Cs" for car, cooler (air conditioning), and colour television. Yet with the new income stability in the 1990s, consumption patterns started to focus not just on materialistic satisfaction but also on a sense that there is a greater meaning to life. The 2011 Tōhoku earthquake and tsunami only further reinforced this phenomenon and made evident the shift in consumption pattern from materialistic (mono) consumption to non-materialistic (koto) consumption. People started to prefer quality time and human experiences, such as hobbies, sports, or concerts to buying new things. The move away from things to people and then to non-materialistic consumption (koto shōhi) also played out at the level of furniture and buildings, with a new focus on borrowing and sharing things, including tools, and adjusting space by oneself in a do-it-yourself (DIY) fashion. 16 As readily as the popular Japanese lifestyle magazine Casa Brutus had introduced the "big promise" of architecture as a new form of fashion in 2000, it eagerly started to promote renovation from 2009 onwards in response to the value change of its readers (Matsubara, 2012). "Star architects" were gradually replaced by "geniuses in renovation" and "masters in DIY" while house guidebooks started to include renovation examples and were accompanied by issues on storage management. 17 DIY, renovation, and home downsizing turned into examples of ethical consumption in which things were bought with consideration for the environment and society. This reflected an interest in spending little money on items but a large amount on things of interest, and in simple efforts to reorganise one's house to make it fit one's very own style.18

The renovation movement in Japan thrived owing to an oversupply of buildings that, in combination with the sluggish economy, caused a waning interest in the new-build house. Unlike in the 20th century when real estate operated on the premise of a lack of buildings, the Japanese market on the advent of the 21st century was characterised by an excess of buildings. At the same time, the growing number of abandoned houses (akiya) became a social problem for residential neighbourhoods (Brasor & Tsubuku, 2016). In 2008, the growth rate of new-build homes reached its apex, with an increasing number of people buying a previously owned house for renovation. Although DIY was already a full-fledged design assignment in other parts of the world – think of well-known international practices in countries like the Netherlands, what made renovation a fresh topic of discussion in Japan was that it replaced the commonly used word "remodelling" or "refurbishment". Refurbishment of houses

- 16 The theme of non-materialistic consumption was also picked up in, for example, Shinkenchiku (2009).
- 17 Issue 9 of 2003 carried the theme of "The 100 big promises of architecture x fashion" (Kenchiku x fashion no dai yogen 100). From issue 6 of 2010, the focus shifted to a thematic issue about "Renovation versus the small house (Renobe vs. Chisana ie). In issue 9 of 2013, Casa Brutus introduced "The geniuses of renovation The masters of DIY" (Rinobe no tensai, DIY no tatsujin).
- 18 Email-interview between the author and Jo Nagasaka. May 2016. Talking about his recent house renovation of House in Tsutsujigaoka, Nagasaka explained how renovating a 35-yearold house - usually considered "worthless" in terms of Japanese real estate evaluation - enhanced the property value. In case of new construction, the floor area of the house would have to be substantially reduced conform the new building regulations with strict setback rules. By keeping the existing floor area, Nagasaka generated value to the site with practically almost no extra costs.

Related to the feeling of "enough" is the phenomenon of 断捨離 (dan sha ri), which takes the meaning of "reducing unnecessary things and bring back harmony to one's life". An advocate of this lifestyle is organizing consultant Marie Kondō. Kondō developed the KonMarieMethod of re-arranging one's interior, and with that one's inner self. Her books have become bestsellers worldwide, reflecting the global nature of the problem (Kondō, 2011).

had been an age-old concept, implying restoring a house to its original state. For centuries, master wood carpenters had worked on this method. However, the renovation movement that started around 2000 in Japan was different in the sense that it implied bringing new value to existing houses and the creation of a new space that could not be realised by building anew. For many architects born in the 1980s, renovation rather than the single-family house formed their debut work. It was a job they had to share with newly established "niche" real estate companies that also started renovating and transforming vacant buildings into houses or other forms of accommodations for new work styles, such as flex time and working at home in a home office (SoHo). What made the work of architects different from real estate were their attempts to improve the neighbourhood and increase the value of real estate through the house.

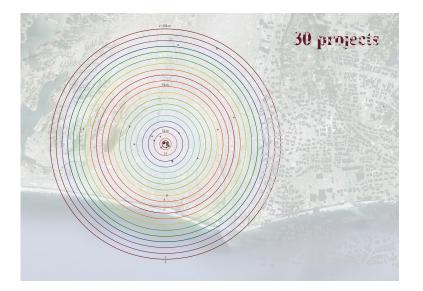
The "genius" of architects in renovation projects formed a new topic of discussion in architecture journals, boosting self-confidence in what became a competitive world of independent architects, real-estate companies, and non-specialised individuals. Koichi Sato, a Tokyo Polytechnic University professor specialising in conversion, pointed out that there is no professional, other than an architect, who can discover potential architectural resources in an ordinary empty building and exert imaginative power with it (Sato, 2009, p. 116). In his article "The conceptual ability of usage in the recycling of architecture", published in the November 2009 issue of Shinkenchiku, he pointed out that renovation required an "imagination of use" of abandoned buildings. A successful renovation depended on whether one had a critical architectural idea, the skills to imagine how a building would look after renovation and the ability to make even the reduction of floor area - a nightmare for real estate - invisible. Another opinion that explained how to make sound use of the existing housing stock came from Masakuni Tamura, director of Ark Brain, Inc., a company that specialised in the regeneration of aged apartment buildings. What made renovation quintessentially different from remodelling was the expectation of increasing the value of the building through the improvement of functions and performance and that this implied a significant change in the lifestyle of residents (Tamura, 2014, p. 132). He encouraged architects to expand the renovation market further, which would mean a general change of mind-set about the hitherto held belief that a house is an already completed project. In a stock-based society where the price of land was no longer increasing but the price of a house could, Tamura saw the need for architects to join hands with real-estate companies. Architects possess indispensable social qualities as restorers of relations among people, organisations, places, and society.

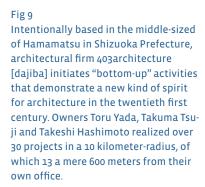
Regional revitalization

The disaster-stricken area after the 2011 Tōhoku earthquake and tsunami, made apparent that new problems and opportunities existed in local areas and that Tokyo was no longer at the forefront. Architecture, long considered the realm of progressive people living in central areas. in particular Tokyo, had for this reason turned into something artistic. The new problems brought to light by the recent disaster made clear that buildings with a great focus on aesthetics could not solve these serious problems. In response to a much larger fundamental change among people in Japan towards rediscovering local core values rather than lamenting about economic stagnation, the ageing population, and declining youth population, architects shifted to a new architectural language. This language was based on raw, local and recycled materials leading to new specific expressions, and a concern for how to contribute to local life found expression in it. As a result, the post-3/11 architectural style became hard to define, and architectural magazines started to look complicated, were no longer featuring "white houses" but instead a colourful spectrum of architectural works that focused on concrete elements, such as beams and pillars.

Architecture 403 [dajiba] is a young architecture collective that came up out of thinking about a new concept of richness for local cities and that made "the flux of materials" and the connection to the local production systems their preoccupation. A three-man enterprise that started in 2011 as a spinoff of an informal group of six students at Yokohama National University, Toru Yada (b. 1985), Takumi Tsuji (b. 1986), and Takeshi Hashimoto (b. 1984) deliberately set up practice in the regional city of Hamamatsu to confront with the challenges of an aging population, a low birth rate and depopulation. They considered architecture not as an object but rather as a network in which materials are constantly rearranged, moved and repurposed (Figure 9 and 10). In the 50 projects of their portfolio of on-site works, they dismantled building parts piece by piece, collected, and rearranged them before reusing them as flooring, beams or columns. In the renovation The Floor by Atsumi (2011), to name one of their first projects, Architecture 403 [dajiba] created a new floor by dismantling the wood previously used for the ceiling of the same apartment. Cut into pieces, and moved to another location, the wood took on an entirely new meaning and revealed the idea that ceilings are also potential floors. Since each project is envisioned as a flux of materials and, as such, gains new meaning, there is no distinction made between a new-build work, a dismantling and a renovation (Nuijsink, 2016b).¹⁹

19 Architect Jun Aoki has made the interesting observation that what the youngest generation of architects in Japan (born in the 1980s) have in common is that they all select a kind of "soil" of architecture to nurture their talent. (Aoki, 2012, p. 8).





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Fig 10
403architecture [dajiba] responds to
Japanese cities in decline with small
interventions that organically connect
people and places. The renovation
project The Ceiling of Santen is one of
multiple interventions in Hamamatsu
city that takes the flux of materials and
its connection to the local production
systems as its main preoccupation.

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Ryo Yamazaki (b. 1973) is another architect who started his practice from the belief that communities are important in a time when people tend to ignore human relationships. A professor at the Kyoto University of Art and Design and representative of the design firm Studio-L, Yamazaki calls himself a "community designer" who tries to solve regional problems. Using workshops as a form of "design project", he mediates between local citizens and local bureaucrats to get both parties involved in the revitalisation of the locally deprived areas. He advocates the importance of "community design", which he defines as the empowerment of locals through design that will make them happy again. Believing that local citizens cannot raise their voices on their own, he offers support to create planning decisions that can revitalise local areas also from the user's perspective. Yamazaki's work ranges from the revitalisation of city centres to park management, to the promotion of local specialties, to human resource development, and he shares his experiences widely in writings and public lectures.

The Japan Architect covered the growing involvement of architects in local cities with a thematic issue entitled "Beginning of the Town" (The Japan Architect, 2016). Contrary to the monographic issues with professional photographs of the 1990s, the content showed a collage of amateur snapshots accompanied by texts that describe in detail the design process and the intense collaboration with local people. What the magazine pointed out is that architects nowadays are not just making architecture but rather fully involve themselves in the neighbourhoods and rural cities. They do not simply want to renovate a building but have an incentive to change the entire community in a certain way. For example, to conduct her project, architect Kumiko Inui set up an open satellite office in an abandoned shopping street near her project site (Figure 11 and 12). Residents found it so interesting that they made a similar glazed space opened to the outside to create a new public space for

20 Interview with editor Mitsue Nakamura in Tokyo, October 2016 who was the editor in charge of making *The Japan Architect* 103 "The beginning of the town".



Fig 11
Citizen workshops at the core of the redevelopment project of Nobeoka
Station Area. Through research, Inui
Architects learned that attractive facilities have the will of the citizens to use the space freely. As such, they proposed the public space around the station as a generous framework that accepts

this will while leaving enough room for

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chance encounters.



Fig 12
In 2013, architect Kumiko Inui set up satellite branch of her Tokyo office in Nobeoka town while working on the redevelopment of the area surrounding Nobeoka Station. Ekimachi Office (2013) was set up in a vacant store as an open place in which the office's activities could be seen from the outside as a first step towards restoring the town's original energy.

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local activities. Since then, the city has got back some of its former vibes. Works featured in the thematic issue ranged from cafés in renovated buildings that hoped "to connect to the charm of the town" – to the creation of mechanisms that required the participating locals in order to revitalise an area. The key to all architects' projects featured in this issue was the interaction with local residents.

Conclusion

The 2011 Tohoku earthquake and tsunami that hit northeastern Japan on 11 March 2011 brought to light that Japan had become a relation-less society. Set in motion by a series of events, ranging from a lingering recession, irregular labor, and structural reforms in the concepts of home and family, people started to realize that they were fundamentally "disconnected" from other. Following the tragedy of "3.11", an overall new mindset of ethical consumption emerged in Japan in which people cared for non-materialistic, human experiences. In response, architects in Japan introduced the concept of shared living, and community building through renovation practices. Shared houses were the answer to create stronger human bonds again; the renovation of existing building stock and reuse of building materials served as ecological alternatives to consumption while recognising that opportunities for change lay in the local areas rather than in central Tokyo placed a focus on revitalising deprived rural areas. While this turn towards a more sustainable approach resonates with ecological initiatives in consumption-oriented societies elsewhere, the case of Japan demonstrates some particularities. More than a set of new building regulations that pushed architects to build more sustainable, it was the feeling of "enough-ness" penetrating Japanese society that stirred architects towards new design approaches. Following these new societal demands, Japanese architects accepted commissions in which they could demonstrate not only their creative but above all their social skills. Influenced by sociological debates that pointed out the deficiency of human relations, architects around 2011 no longer presented themselves of a maker of forms but rather as a designer of human relationships with the goal to improve the bondless society that was contemporary Japan.

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