Scapegoat: Architecture, Landscape, Political Economy

Not Life

Resituating the Place of Living and Non-Living in Contemporary Urban Japan

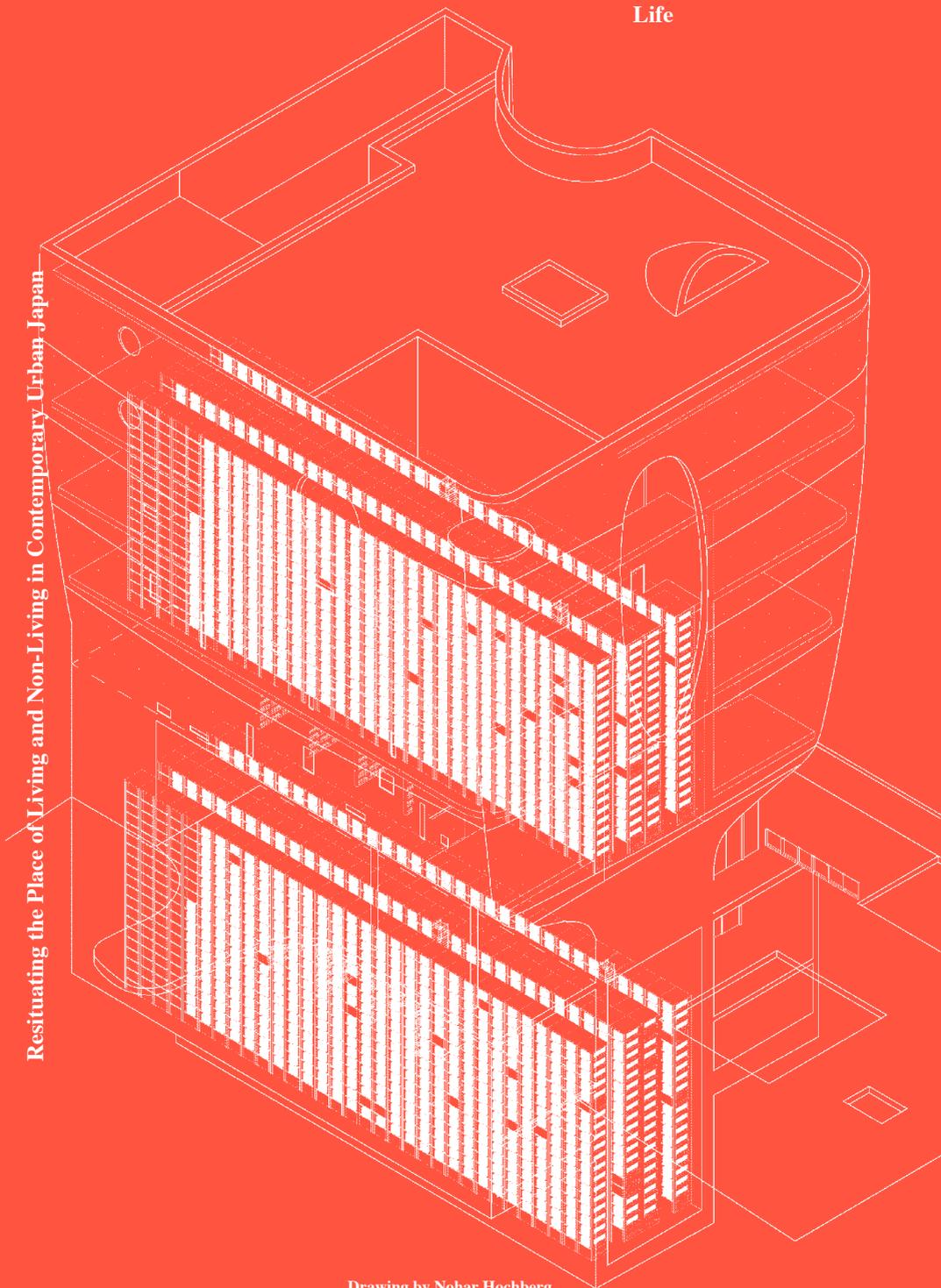## Michael Fisch and Erez Golani Solomon

I have not experienced the miracle of faith but I have often known the miracle of inexpressible space, the apotheosis of plastic emotion.

Le Corbusier, *The Modulor*

Death may be for eternity but rituals of caring, mourning, and memorialization for the dead are compelled to keep pace with the desires, expectations, and tempos of the living. In contemporary Tokyo death has become subject to the ceaseless labor of design. Practices of care, mourning, and memorialization for the dead are being re-designed within novel engineered ecologies that weave together innovative architecture, state-of-the-art automated storage and retrieval systems, precarious economies of the aged, and time-worn spiritual infrastructures of religion into a dynamic fabric of experience within everyday life.

This article explores a specific iteration of the current re-design of places for the dead in Japan through the Buddhist temple '*Ruriko-in byak-urenge-do*,' (hereafter, Ruriko-in) that fuses technology and architecture in an automated cinerarium. Designed by the Kyoto based architect Kiyoshi Sey Takeyama [born 1954, in Osaka], Ruriko-in is tucked behind a busy intersection a mere 170 meters from Shinjuku Station, the most crowded urban commuter rail hub in the world. Like most temples in Japan the Shinjuku Ruriko-in offers a combination of community programs and burial services to the public. But it is primarily a graveyard with space for sale. Construction of Ruriko-in began in 2011 and was completed in April 2014. Rising **26.5 meters above ground and 13.5 meters below ground, the temple's white pigmented and reinforced concrete chalice-shaped form makes for an imposing structure squeezed into a square lot between hotels on the north and south sides, a three-story apartment building on the west side, and a parking lot on the east side. At the core of the temple are two large burial vaults, one above ground and the other below ground. These are charnel houses of eight hundred cubic meters each (5/16/10 meters), where cremation urns are housed in 7,500 containers—or 'graves'. The containers are stacked and retrieved for visitors by a cutting-edge automated system designed, installed, and maintained by Toyota L&F, a global leader in automated distribution center systems. When a visitor to the temple holds his or her IC card at an automated consul located in the entrance hall, it initiates a process whereby a container holding a cremation urn (or urns) is robotically retrieved from the columbarium and delivered to one of the temples "visiting windows" (*sanpaiguchi*). The visiting windows are provisionally customizable graves of black stone (not literal windows) that are located in separate "meeting rooms." There are no actual windows into the system for the visitor. The machinic process involved in the retrieval and delivery of the container to the provisional grave is entirely hidden from the visitor. It is silent, rapid, and smooth, with the container arriving to the designated meeting room within one minute.**

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The article explores the multiple levels through which Ruriko-in renegotiates the place of the dead in the space and time of the living in contemporary Tokyo. Specifically, we focus on the manner in which by virtue of its unique architectural form and its deployment of automated technologies, Ruriko-in remediates the place of the grave in urban Japan while working to resolve current social and cultural concerns regarding the relationship, or rather lack thereof, with the deceased. In so doing, we treat the location of the temple in Shinjuku and its proximity with Shinjuku Station as more than coincidence. We argue that as an architecturally dense distillation of urbanization, Shinjuku offers a paradoxical provocation: It articulates the urgent need for remediating the relationship between the living and the dead while simultaneously providing various material and immaterial strategies for realizing that remediation.

Our explication of those strategies in the following is divided into two sections. In the first section, we explore Takeyama's attempt to achieve a unique spatiotemporal aesthetics of mourning and care. In this context, we explore how Takeyama deploys disparate registers of time and space, along with institutional regulations toward the realization of an autonomy of form able to counteract forces of urbanization that are perceived as producing a crisis of "relation-lessness" between the dead and living in Japan. We show how Takeyama works in this regard to create a new kind of intimacy between the living and dead and in so doing

transform the status of the deceased into "non-living" partners of the living. The second part of our argument considers the logistical correlations between the container storage and retrieval technology in Ruriko-in and the commuter train network technology of Shinjuku Station. Specifically, we show how the infrastructural ecologies of the living in which bodies are circulated in containers (train cars) in accordance with the rhythms of life, labor, and desire mesh with emergent architectures for the automated storage and retrieval of containers housing the non-living. Shinjuku Station and Ruriko-in, we posit, present not antithetical models but rather analogous schemas of operation that ask us to consider the entangled performance of automated storage and retrieval systems, tropes of urban architecture, and the just-in-time lifestyles of a contemporary global information economy.

We are ultimately concerned with showing how Ruriko-in negotiates tensions as it produces a novel ritual and aesthetics of mourning while deploying logistics from just-in-time contemporary consumer society. While the former is articulated through the temple's state-of-the-art automated storage and retrieval technology, the latter is expressed in its architecturally constituted pauses, gaps, and intervals. Ostensibly, the principles of logistics of contemporary consumer society and the ritual and aesthetics of mourning constitute two radically different kinds of domains in terms of their relation to objects, time, and space. Logistics encompasses strategy, calculation, and

prediction as it aspires to optimize according to a profit motive the circuits of interaction for the production, consumption, and disposal of a commodity. Fluid mobility is its highest value and sedentariness its antithesis. It demands that storage be minimized and retrieval expedited. The aesthetics and rituals of mourning, by contrast, aspire to produce a different time and space, removed from the urgent economies of the living. Its idioms are reflection, pause, stillness, and meditation. In this paper, we are concerned with how the temple negotiates through its material architectural space the tensions and contradictions

Photograph by Erez Golani Solomon

between the disparate modalities of logistics and mourning. We aim to show that through the temple space, these different modalities become not only enmeshed but also mutually reinforcing in a way that suggests a more complex relationship within society at large.

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ETERNAL MEMORIAL GRAVE

Ruriko-in temple belongs to the Jōdo Shinshū (Pure Land) Buddhist Sect, one of the largest and oldest schools of Buddhism in Japan. Anyone, however, regardless of religious belief and or affiliation, can purchase a place in its vaults. In terms of its burial and memorial services, Ruriko-in offers what is known as the Eternal Memorial Grave (*eitai kuyōbo*). Emerging in the late 1980s, the Eternal Memorial Grave provided an alternative to the conventional grave in Japan. Whereas the cremation urn in a conventional graves (*ohaka*) is placed in a crypt under grave stones in an outdoor graveyard, in the Eternal Memorial Grave the cremation urn in deposited in a columbarium or "Burial Hall for Ashes" (*nōkotsudō*). What is more, the Eternal Memorial Grave transformed practices of care and the structure of finance that had developed around graves in Japan over the last century.

Conventional graves in Japan are family graves, meaning that the grave is for successive generations. Typically, the eldest son of each generation enters a central family grave while siblings bearing the family name purchase surrounding plots. Women who marry are also expected to enter the family grave of their husband's household. The underlying assumption is that the graves will be financially maintained and cared for by each generation of descendants. Graveyards in Japan are either publicly managed, privately managed, or managed by a temple. Despite the difference, grave plots are essentially leased rather than purchased.

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Although the price for a plot varies between these different types, purchasing a grave involves a considerable financial commitment. The initial purchase of a plot can range anywhere between 300,0000 to 500,0000 yen ($27,000–$45,000 dollars) while annual maintenance fees are anywhere between 30,000 to 300,000 yen ($270–$2700).[1] Such purchases and maintenance fees are a main source of revenue for Buddhist temples. The annual maintenance fee is paid by the family, which is expected to maintain payments indefinitely. The family is also expected to visit the grave (*ohaka-mairi*) at least three times annually during national holidays (Obun, vernal equinox, and New Year) in order to perform memorial rites, which involves cleaning (weeding and washing) and placing flowers, rice, and water or alcohol for the dead. If annual fees are not paid and the grave is not maintained, graveyard management can begin a (long) process to remove the ashes and re-sell/re-lease the plot. Removed ashes are collected in a mass ossuary. According to traditional Buddhist practice, the souls of deceased who are not cared for by their descendants become "wandering ghosts."

THE CRISES OF "RELATION-LESSNESS"

In an ethnographically driven historical inquiry into the evolution of funerary traditions and practices of mourning in Japan, Mark Michael

1 But overall the system is follows a protocol that was established itself around the turn of the century based on the idea that family graves would be cared for and financially maintained continuously by descendants of the deceased (Rowe).

Rowe explains the impetus for the Eternal Memorial Grave as an attempt to re-mediate a crisis of "relation-lessness" or *muen* that, while beginning the 1950s, became increasingly severe in recent decades.2 The crisis of relation-lessness re-flects a sense of rupture in the traditional relationship between the living and dead. It can be attributed, in part, to the atomizing effects of urbanization but is related as well to other social factors such as the continuously falling birth rate, the nation's aging population, and new economic pressures on the nuclear family. The result in regard to funerary practices, argues Rowe, have been two-fold, social and financial. Essentially, Japan's elderly population is being left to die alone, either without descendants, or without family who are financially able and or emotionally committed to maintaining a family grave.3 As Rowe puts it, the elderly are dying without bonds to the living while family graves are being left unvisited and uncared for, leaving the dead to become abandoned (*muenbotoke*). Although Eternal Memorial Graves were initially marketed for families without male descendants, they became popular in general for peo-ple whose surviving family were unable or unwilling to take on the responsibil-ity caring and paying for a regular grave. At the same time, Eternal Memorial Graves were a way for Buddhist temples to recover a source of revenue. Eter-nal Memorial Graves are considerably cheaper to purchase and maintain than the conventional outdoor grave.4 A place in the burial vault at Ruriko-in costs between 100,0000 to 200,0000 yen ($9,000–$18,000) depending on the location in the vaults, plus a mere 10,000 to 20,000 yen ($90–$180) annually. Exclusive plans offer better positioning in the building for both the deceased and the de-ceased's relatives, and costs 500,000 yen ($45,000) plus yearly maintenance fees of 50,000 yen ($450).5 The central idea behind Eternal Memorial Graves, writes Rowe, is that a grave can be maintained and memorialized without descen-dants. An Eternal Memorial Grave is purchased for a specific period of time, typically between 30 to 50 years. The annual fee can be paid in advance or set up for automatic payment through an account. During that time, the deceased are individually memorialized, meaning their ashes are kept in a separate urn and made available for family and friends who would like to pay respects. When the set period is up, the ashes are moved to a temple mass ossuary where they are combined with ashes from others. Memorialization is still performed annu-ally, however, by a temple monk over the collection of ashes, thus ensuring that the deceased do not become "abandoned dead." The temple receives no further revenue from this annual memorialization. But it is guaranteed in the custom-er's initial contract.

There are various forms of Eternal Memorial Graves, from indoor plots, to individual lockers, individual mini alters, and vaults with automated storage and retrieval systems. While Ruriko-in falls under this latter category, its dis-tinctiveness derives, in part, from its architecture and the Shinjuku location. Shinjuku, as we will show below, is part of the problem and solution to the cri-sis of relation-lessness. In so doing we will highlight the way in which this ambi-guity produces a dynamic and generative tension between the temple's external

architectural form and its internal technological core.

FORM AND AUTONOMY

Ruriko-in is located a short walk from Shinjuku Station. From the south or west exit of the station, one follows Route 414 south to a narrow street on the right across the first major in-tersection. The journey takes no lon-ger than a couple of minutes and the temple seems to emerge unexpectedly from the confines of the city space; its convex and concave concrete surface arising in seeming complete disasso-ciation with the surrounding urban landscape. With the adjacent park-ing providing a relatively open space, the visitor is afforded a wide view of the building. Projecting a totemic and primitive presence, it is a mono-lithic mass of concrete that rests un-easily on a narrow and short pedestal base. The structure resembles some-thing of a massive stone chalice, with a vertically elongated oblong open-ing cut into its anterior. At odds with the functional, straight-cut structures around it and which typify Tokyo's architectural environment, Ruriko-in realizes an autonomy of form that conveys sensibilities borrowed from different times and different places.6

"I wanted to create some-thing that would seem to float, sepa-rate from the ground, and separate from its surroundings. Something that could be part of this world but also contain another world, another kind of space, a sacred space," said Takeyama when we visited him in his Kyoto office. Seated at a table before an impressive (if not somewhat hap-hazardly stacked) collection of texts

on the life and work of renown ar-chitects, Takeyama offered a detailed account of the thinking and inten-tion behind his design of Ruriko-in. Takeyama is a slender man whose greying black hair accentuates the sense of thoughtfulness in his ex-pression. Dressed in a modest her-ring bone patterned brown wool blazer and a thick shirt to ward off the late-winter Kyoto cold, he spoke in fluent English as he gave us a tour of his firm. Located on the sixth floor of a non-descript building near the Marutamachi Subway Station, the firm occupies a cavernous design-stu-dio like space that has been subdi-vided into smaller workspaces with bookshelves, computer stations, fil-ing cabinets, and desks. Just inside the entrance Takeyama keeps pho-tographs of the various buildings he has designed over his career. Amidst these is a photograph of a young Takeyama, looking confident and sharp in a simple black suit, white shirt and thin black tie, seated on a stool and flanked on either side by a line of his employees.

Early in his career Takeyama designed a number of traditional inns and hotels, earning a name for himself

2 Mark Rowe, *Bonds of the Dead: Tem-ples, Burial, and the Transformation of Con-temporary Japanese Buddhism, Buddhism and Modernity* (Chicago: University of Chicago Press, 2011).

3 Interview with Takahashi Tetsuya, Manager at Toyota L&F. Tokyo, 2017

4 Rowe writes that Eternal Memorial Graves are approximately

one-eighth the cost of a traditional grave, Rowe.

5 Based on an exchange rate of 1$ to 112 Yen. See prices as listed at https://www.byakurengedo.net/plan/.

6 Whether the architect intended or not, Ruriko-in expresses formal associations, somehow fluid and im-plicit, in ways that recall Le Corbusier's Chapel of Notre Dame du Haut in Ronchamp.

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within Japan's highly competitive architectural scene. One of the contractors with whom he had worked closely on those projects eventually joined Toyota to head a division of the company working with temples to develop new infrastructure and spaces for graves. When the Jōdo Shinshū Buddhist Sect commissioned Toyota to build a temple and columbarium in Shinjuku utilizing Toyota's automated storage and retrieval technology, the man turned to Takeyama to design the building. Ruriko-in was not Takeyama's first temple. Several years prior to receiving the commission he designed a smaller Buddhist temple in Asakusa, (*Iko-in*). In that project Takeyama was specifically asked to produce a semblance in form with the famous Nara Buddhist temple, Tōshōdai-ji with its distinct massive sloping roof. In designing Ruriko-in, however, he was given a free hand. The only restrictions (apart from those imposed by the city) were the space that Toyota required for the container vaults and automated infrastructure, and the relatively small plot of land—a mere 800 square meters. In order to realize his vision of a floating form, emancipated from its ordinary surroundings, Takeyama felt the need for the building to articulate a novel autonomy, independent not only from traditional tropes of temple design that had informed his work in Asakusa, but also autonomy from the forces of hyper urbanization that define Tokyo's built landscape, generating a seemingly endless urban sprawl of structural repetition marked by the rapid and constant cycle of construction and reconstruction.

Takeyama's desire to counter the forces of urbanization recalls Pier Vittorio Aureli's argument for an architectural autonomy of form.[7] For Aureli, autonomy of form is a means to politics through architecture, where politics is understood through the philosophy of agonism as demanding a constant process of separation and confrontation between parts. Aureli sees architecture as carrying agonism from a conceptual to material plain. As such, it is about producing a sense of radical architectural difference in order to resist the de-politicizing trends of urbanization under corporate capitalism, which demand that confrontation be smoothed over in the service of an infinitely expandable economic fluidity. Where capitalist urbanization aspires to a "city without difference" in which spaces of private and public, interior and exterior, old and new are collapsed in a seamless consumer flow, architectural agonism seeks "to reestablish the sense of the city as the site of a political confrontation and recomposition of parts" through buildings that express individual or "absolute" form. Confrontation, in this sense, is less about a kind of dialectic process as envisioned by thinkers like Marx or Lefebvre. It does not necessarily call for conflict, whether violent or discursive, between positive and negative forces. Rather, it reads more as a Deleuzian inspired call to embrace processes of emergence realized in the unscripted interaction among heterogeneous parts. Put differently, confrontation is about engendering the disruption of flows in what has become a perverse (capitalist) "Body without Organs" in order to force the creation of spaces of urban difference capable of eliciting critical thought. As such, it is about engendering affordances for progressive political alternatives

to capitalism within the spaces of the architectural in-between.

Granted, Takeyama's aspirations for Ruriko-in were somewhat less politically ambitious. Takeyama never intended to take on the capitalist system. His goal, rather, was to remediate the relationship between the living and the deceased, the latter whom he saw as forced out from the concerns of the everyday by the forces of urbanization. "There was a time when the family grave was always close to the home and visiting the grave was just part of one's everyday routine," explained Takeyama. Visiting the family grave was not merely about honoring the dead but rather about maintaining a living relationship with generations past. Such engagement transformed the role of the dead from mere unchanging memories into seemingly active participants—non-living companions, as it were—in the unfolding present and future. To bridge this divide between the living and dead in contemporary urban Japan, Takeyama wanted to create a space and time for the non-living that is accessible to yet separate from the world of the living, or as the Toyota L&F's promotional video calls Ruriko-in, "another world close at hand"—*chikaku ni aru betsu no sekai*.[8] The location of Ruriko-in is an essential factor in this regard as its proximity to Shinjuku Station re-situates the dead in the heart of the world of the living. Schematizing this relationship, the temple website presents a diagram that places Ruriko-in at the center of Tokyo's expansive commuter train network, less than an hour from every major rail hub—35

minutes from Omiya Station, 14 minutes from Tokyo Station, 35 minutes from Yokohama Station, and 20 minutes from Fuchu Station. Positioning the non-living a mere train ride away transforms the obligation of visiting and caring for the dead from annual ritual into daily routine. As Abe, the temple manager who took us on a tour of the facility put it, "family and friends can just stop by for a visit whenever they please, on their way to or from shopping around Shinjuku Station or on their way to a movie or something."

While proximity to Shinjuku station renders the dead, "close at hand," Takeyama mobilizes the material and immaterial particularities of the setting in order to distill an autonomy of form able to convey the sense of alterity of "another world." In so doing he is assisted, in part, by Japan's 'City Planning' and 'Building Standard' laws. Privileging the immediate context of the built environment over concerns with history and culture, these building regulations provide, in the broadest sense, measurable, performance-based codes rather than legal stipulations concerning the identity and character of a building. In other words, they insist on the creation of a structure in accordance with the calculation of an area, a relation, and structure and scale. However, they generally disregard the possible cultural and historical characteristics of form. In

7 Pier Vittorio Aureli, *The Possibility of an Absolute Architecture*, Writing Architecture Series (Cambridge, Mass.: MIT Press, 2011)

8 This is how the temple is described in the promotional video for facility produced by Toyota L&F.

addition, they cover the function of everything in a building as far as conformity to codes requiring material non-flammability, malleability or durability, and so on, but tend to have little to say regarding the aesthetic value of a building's appearance. Planning codes such as those that stipulate the relation between building sites and roads, or restrictions on building height, communicate their rules primarily through a received system of metrics. Insofar as these codes directly impact the shape and boundaries of a building, they leave open a certain latitude for architectural expression. Thus despite the proclivity among Japanese corporation to fall back on a functional and recursive building style, Japanese cities are liberated from rigid formal and visual restrictions that one finds in other major cities in the world. As a result, Japanese cities offer an affordance for an autonomy of form through the articulation of non-standardized, non-regulated, idiosyncratic, and sometimes exceptional architectural schemes.[9]

Ruriko-in's autonomy of form is articulated clearly in the building's shell, which emerges in the tension between its contextual enclave—a space constituted within the three-dimensional structural requirements dictated by law—and the three-dimensional formal leeway granted to the architect. Its autonomy takes shape, in this regard, via Takeyama's aesthetic choice to cut, or more exactly in the case of *Ruriko-in*—to curve, the shape of the building into a relation with the surrounding built environment. Accordingly, the building appears to capture a certain space, embedding itself into an urban context while existing within a certain uneasiness or unevenness in relation to the given architectural continuity of its surroundings. This sense of separation is further manifest in the way in which the concrete shell virtually conceals all evidence of all the programs or activities transpiring in the interior. The minimal perforations and openings in the shell convey aesthetic intentions that lure the gaze of the passerby while revealing no knowledge of the building's inside.

Insofar as Japan's building laws provided a certain expressive leeway for autonomy of form, Takeyama drew inspiration as well from disparate and distant places and times in order separate the building from mundane and frenetic bustle of Shinjuku and create feeling reserve consistent with the sense of "another world." Passing through the temple's gate, which is simple chest-high black heavy aluminum structure, one crosses a flat concrete bridge between rectangular shaped black-tiled pools of water. In the simplest sense, the passage over water enacts conventional symbolism of traversing between not only different but incommensurable, worlds. Takeyama accentuates this quality, albeit in ways not immediately evident to the visitor, by drawing water for the pools from an abandoned well that existed on the property and was revived for the temple's use. What Takeyma hoped to realize with this well was not just resource self-sufficiency but, moreover, an allusion to pre-modern times when Shinjuku was the last station (or the first depending one's direction) on the *kōshōkaido,* the pedestrian road connecting the Tokugawa capital in Edo with Osaka. Blessed with an abundance of good well water, Shinjuku was a place to wash and refresh before entering Edo or before embarking on the long trip

to Osaka. As it was on the outskirts of the city, Shinjuku was also a center for prostitution and thus a place where ritual acts of cleansing mixed comfortably with the satisfaction of desire. Access to water allowed for this mixing of "sacred and profane," as Takeyama called it. But it carries other possible potential as well, he feels. "Maybe there is some geographic power in that water from the time before Shinjuku was just skyscrapers" he added.[10] He leverages that power with water flowing down a tall fifteen-meter grooved concrete wall that forms the temple's western boundary, where it sits snuggly up against a mid-range hotel. Visible through a thick glass window that extends the length of the temple's entrance lobby, the flowing of water is a silent and gentle cascade meant to produce a sense of calm in the visitor. Two Mies van der Rohe black leather tufted benches situated in front of the window offer the visitor a place to rest, collect one's thoughts, and put aside for a moment the world outside. The acoustics provided by the thick glass but also the tiled lobby and heavy wooden doors at the entrance play an important in producing the silence necessary to distance oneself from the city. "When you enter the building," suggests Takeyama, "you enter into a silent calm and your mind is washed free of the bustling energy of Shinjuku." Although Takeyama does not say it, such silence and calm recalls the displaced tranquil setting nature of the traditional graveyard.

While Takeyama delineates a spatiotemporal specificity via an appeal to the history of pre-modern

Shinjuku, he also tries to embed Ruriko-in within a temporality antithetical to the constant construction and reconstruction that defines urban Tokyo through an aspiration for the building to last 400 years.[11] Such aspiration is remarkable considering that the 'service life' and average 'lifespan' of reinforced concrete office buildings in Japan is short.[12] The former term refers to building's depreciation period and is currently set by the Ministry of Finance directive to 50 years, while the latter term refers to average number of years a building actually exist and is estimated to be 56 years.[13] Opposing forces influence these numbers and the current lives of buildings in urban Japan. On the one hand, current heightened sensibility to environmental issues, improvements in building materials, decline in demand for new building, and economic instability encourage a move toward allowing buildings to exist

9 Ruriko-in is for Takeyama a meaningful passage from Kyoto, where a stricter aesthetic standard is enforced due to the city's age and historical role, to Tokyo. He uses the opportunity in full.

10 There are of course other parallel histories of Shinjuku and its relation to water. In the Edo era, the western part of Shinjuku (where Ruriko-in is located) was on the path for the conveyance of human excreta to the Musashino plains as fertilizer, which lead to the area being called, 'The Anus of Tokyo'. (See, Seidensticker 1983, 83). After the Edo era, the west side of Shinjuku was the home of Yodobashi water purification facilities, where all the human excreta gathered. (See Waley 1991, 251).

11 Interview with Kiyoshi Sei Takeyama, Kyoto, 2017

12 'Service life' indicate the number of years a building can be used. It is usually referred to for calculating depreciation for income tax or business tax purposes, and for calculating asset value. Average 'life-span', on the other hand, refers to the average number of years a building actually exists.

13 Yukio Komatsu, 'Service Lives of Building and Actual Life-Spans Determined by Factual Investigation', in Waseda Online, The Japan News by The Yomiuri Shinbun.

longer. On the other hand, the demand for entrepreneurial urbanism, along with the insistence on the accumulation and production of buildings, particularly in compliance with the continual introduction of new earthquake protection regulation, encourage shorter building life. Consequently, urban Japan is currently one the world's most accelerated sites of construction as perpetual re-construction. As a structure intended to last 400 years Ruriko-in figures as an anomaly among contemporary reinforced concrete buildings. It becomes part of the 'life span' of shrines and temples, a much slower, as it were, building typology.[14] Takeyams's claim is, however, more radical if we think of the building's 'service life.' A 400 year 'service life' would mean that the building realizes an unprecedented level of resilience on a number of levels. Not only does it claim the capacity to withstand future natural disasters, but also architectural changes imposed by advancements in building regulations, the public's trust in technological solutions, and the impact of the economy on the local real estate market.

CONTAINER LOGIC

Thus far we have underscored the correlation between Ruriko-in and Shinjuku by underscoring the way in which the latter exemplifies the crisis of relation-lessness between the living and the dead in Japan while simultaneously providing means for remediating that crisis. On the one hand, as a bustling city center, Shinjuku distills the forces of urbanization driving the crisis and, on the other hand, its specific material and immaterial qualities offer certain affordances that enable Takeyama to develop an autonomy of form that works to overcome the crisis. In the following, we turn away from the matter of form to consider the technological correspondences between Shinjuku and Ruriko-in. In contrast to the way in which the formal qualities of the building set it apart from Shinjuku's hyper-consumer atmosphere, the technological correspondences between Ruriko-in and nearby Shinjuku Station, we argue, articulate an analogous schema and operational logic. What emerges from these correspondences is a certain intimacy between the living and non-living born of their mutual subjection to similar logistics of contained movement.

Ruriko-in does not give in to a post-structuralist urge to reveal its infrastructural interior—a trend that was exemplified in Apple's decision to wrap the imac G3 in clear plastic so as to allow users a view of its inner technological workings. There are no windows in its interior providing a view of the facility's technical core, and no visible marker or mention of the novel technological system. The technology is entirely concealed from the visitor.[15] No sound of its operation even penetrates the temple space.

If permitted, however, to glimpse the temple's advanced core, what the visitor would discover is a technological schema of operation that is not unlike the movement of bodies through Shinjuku Station. On the simplest level, both Shinjuku Station and Ruriko-in converge in their mobilization of the technology and logic of the standardized container for the systematic organization and conveyance of bodies. After all, what are commuter trains if not

standardized containers. More specifically, the commuter train is a light aluminum rectangular box that has been engineered according to principles borrowed from the aircraft industry to allow rapid acceleration and deceleration of the vehicle between stations. Although commuter comfort has become a consideration in recent decades, capacity has always been the primary concern in the design of the train car. On main commuter lines throughout the city, seating is thus kept to an absolute minimum with some train lines exploiting benches that can be folded up during peak commuter hours to ensure greater container capacity. As with all container driven networks, the dimensions inform every aspect of the system.

The container used in Ruriko-in is a rectangular box measuring approximately 28/28/65 centimeters formed of two-millimeter thick steel plates. Three of the six side-surfaces of the rectangular are accessible and have a particular function in relation to the various actors and systems in the temple: one side is for the temple operator, one is for the internal technological infrastructure, and one to visitors performing memorial rites. From the top, the container can be opened by a priest for the interment of the ash urns by releasing a set of screws and sliding two steel flaps vertically. A single container can accommodate up to three urns, which are provided by the temple. On the lower right side of the container is a barcode, which is meant to be read by the temple's automated storage and retrieval system—about which we

will say more below. Finally, on the opposite end is a small granite plate bearing the name—or names if the container houses more than one cremation urn—of the deceased. This plate, not the container itself, is all that is visible to the visitor standing before a black stone facade of the grave visiting window. Although the visitor never sees the actual container at *Ruriko-in*, each container is painted in a tranquil ocean-blue (lapis lazuli or *ruri* in Japanese) in accordance with the name of the temple. Such attention to aesthetics, even at the level of the temple machinery completely hidden from the visitor, is part of what raises the price of a grave at Ruriko and distinguishes-in from facilities with similar technological systems.[16] On the bottom part of the container, slides allow gripping, mobilizing and releasing the vessel along its journeys.

14 A traditional graveyard tends to raise the value of adjacent property in Tokyo as people know that the open view it provides is not prone to the constant cycle of urban renewal that fuels persistent building in the city.

15 For proprietary reasons, Toyota L&F does not allow access to the temple's internal technology, even by temple personnel. According to the company's representative with whom we spoke, the company is concerned for the safety of temple personnel as well as the operational integrity of the system. In addition, because the technology is unique for its speed, stability, and silence, Toyota L&F is worried that published images will allow other companies to develop similar systems. To the best of our knowledge, all architectural representations of Ruriko-in published [until this one] in professional and commercial publications thus far have excluded drawn or photographed information of the temple's automated storage and retrieval system. In writing this article, Toyota L&F allowed us to see images of the technology and a film concerning its operation. We were also given access to company information con-cerning the technology performance.

16 Interview with Takahashi Tetsuya, Manager at Toyota L&F. Tokyo, 2017.

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The symbolic as well as material fixity of the ground that is part of the conventional grave is absent in this automated container-grave system. The dead, become mobile, no longer bound to a single space in the ground. This raises new problems. Mobility makes stability a paramount concern as the slightest vibration of the container in the course of its conveyance from storage to visiting window when summoned by a visitor threatens to upset the careful symbolic layering of ashes in the urns. Machinic movement must not disturb the indexical relation created to the living body through the layering of ashes from foot to head in individual urns, nor the mapping of a history of ancestral passing through the layering of ashes in family urns from past to present. The deceased, it seems, can endure far lower thresholds for jolts than living bodies in trains, which are regularly jostled during the commute. A similar concern for and potential (corporeal) disorder caused by earthquakes informed the design of Ruriko-in's cinerarium. Ruriko-in's storage and delivery system boasts a unique proprietary design that promises infrastructural resilience against the frequent seismic activity that disrupts the daily order of the living in Japan. As the representative from Toyota L&F conveyed to us with much satisfaction, none of the containers were dislodged from their berths in vaults of other facilities operated by Toyota L&F during the major earthquake of March 2011, which occurred a month before the construction of Ruriko-in commenced.

LOGISTICAL ARCHITECTURE

Ultimately, Ruriko-in and Shinjuku Station function as nodes within a network, not terminal destinations. Packed into their aluminum containers, Tokyo's commuters pass through Shinjuku Station, switching lines or exiting the system on the way to work or school. Similarly, Ruriko-in is ultimately only a penultimate station on the journey of the deceased, a place of interim layover, before they must eventually move on to their final resting place. The journeys in each network, moreover, incorporate a transformation for which only the vectors of change and their associated worlds are inverted. Whereas Shinjuku Station is a central junction in the Tokyoite's mundane and recursive transformation from private to public domains and subsequently from individual into worker, consumer, and or student, Ruriko-in reverses this process, providing a period for individual memorialization before consignment of the ashes to a mass grave.[17] Until that final moment of mass-ification, however, the body of the deceased in its transformed ash-state is subject to the container and its corollary economic logic.

The container, writes Marc Levinson, is capitalism's "high-efficiency transportation machine."[18] These transportations machines, moreover, are the primary vehicles for the "logistical architecture" that Jesse LeCavalier identifies as the foundational infrastructure of contemporary global capitalism.[19] Logistical architecture, LeCavalier argues, arises in the marriage of logistical concerns for the "abstract principles of prediction, measurement, and strategy" with concrete building design. While LeCavalier's work considers logistical

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architecture mainly through the example of the United States based multinational super-retailer—Walmart, the systems he describes are the backbone for Amazon.com's fulfillment centers throughout the world as well as the automated delivery storage technology behind Toyota's just-in-time production. Moreover, such systems animate Ruriko-in's automated storage and retrieval infrastructure. Logistical architecture makes architecture subject to the container and its imperative for optimized mobility. As modularized transportation vehicles, the container has radically transformed capitalism by allowing for frictionless movement across heterogeneous forms of transport from rail, to ship, and truck, thus accelerating the process from production to consumption by expediting the transformation of raw material into commodity and its delivery to consumers. In the history of the container, explains LeCavalier, the advent of the barcode stands out as a revolutionary moment. Allowing the material object to be treated as information, the barcode permits the container and its contents to be instantly summoned, tracked, and stacked from a single computer terminal, thus providing a material mobility adequate to the one-click consumer demand of contemporary information society.

Central to LeCavalier's argument is the idea that in an era of logistical architecture the warehouse is superseded by the distribution center as the function of the building is transformed from a place of storage into a node within a network whose value rests entirely on its capacity

to facilitate the smooth and rapid transfer of containerized materials. Consequently, logistical architecture enacts a reorganization of the economic logic that has structured the relation between land and capital throughout capitalist modernity. Under logistical architecture, capital is emancipated from the ground as revenue is no longer contingent on "real estate and rental agreements" but rather extracted "through the availability of consumer products, themselves compact ways of transforming materials and bringing them to market."[20] Ruriko-in translates this economic principle of logistical architecture from the real-time imperatives of information economy of the living into the realm of the dead by emancipating the deceased from the ground. If the advent of the elevator, reinforced concrete, and steel frame liberated the modern building from the restrictions of the planet's surface, through its adaptation of technologies of logistical architectures, Ruriko-in liberates the grave from its historical confinement in the ground. Freed from the earth, the container-grave becomes subject to an entirely new value matrix.

17 See James Fujii's discussion of the way in which the commuter train network mediates the individual's daily transformation into commuter James A Fujii, "Intimate Alienation: Japanese Urban Rail and the Commodification of Urban Subjects," *Differences: A Journal of Feminist Cultural Studies* 11, no. 2 (1999).

18 Marc Levinson, *The Box : How the* *Shipping Container Made the World Smaller and the World Economy Bigger* (Princeton, N.J.: Princeton University Press, 2006), 7. Cited in Jesse LeCavalier, *The Rule of Logistics: Walmart and the Architecture of Fulfillment* (Minnesota: University of Minnesota Press, 2016).

19 LeCavalier.

20 Ibid.

Following the social and economic principle of the city high-rise, in which the higher one climbs the more expensive the space, a container berth in the lower (below ground) vault is less expensive than a berth in the upper (above ground) vault. But unlike the high-rise, or even conventional cemetery for that matter, what matters is not the nature and surrounding view of the landscape but rather the guarantee that, when summoned, the correct container will be delivered to a visiting window location in one of the temple's individual memorial spaces not only with speed but without disturbing the contemplative silence befitting a temple. For as the representative of Toyota L&F emphasized, the visitor must not hear the internal operation of the temple infrastructure.[21] As with logistical architecture's distribution center, the barcode affixed to each container-grave plays a critical role. Rendering the grave an information-object, it ensures not only its timely arrival when summoned and subsequent re-stacking but also that one pays rites at the correct grave. Thus the temple's customers receive the guarantee with their purchase of a space in the vault that the information contained in the IC card held by surviving family or friends will always pair correctly with the container holding the urn with their ashes.

OPERATION BEYOND CAPACITY

Logistical architecture, argues LeCavalier, deploys the science of logistics in order to "exceed the limits of infrastructural systems while simultaneously relying on them (and being defined by them)."[22] In other words, the logistical architecture that animates the contemporary automated storage and retrieval systems is about realizing operation beyond capacity—a degree of functioning that surpasses the given infrastructural limits of a system.[23] By virtue of this modality of operation beyond capacity, such logistical architectures shares a deep affinity with Tokyo's commuter train network, which must limit headway between commuter trains to an absolute minimum while packing in two to three times the maximum capacity in each train car daily in order to accommodate the city's commuter population. Nevertheless, the mechanics of operation beyond capacity in the logistical systems described by LeCavalier and Tokyo's commuter train network could not be more dissimilar. In LeCavalier's analysis, distribution centers for companies like Walmart and Amazon.com realize operation beyond capacity by achieving an unprecedented level of hyper-efficiency in the transmission of containers and information across heterogeneous systems of scale distributed in time and space. Moving from trains, to ships, and then trucks, raw materials and commodities flow in a frictionless circuit from production to consumption propelled by a constant stream data and demand. What LeCavalier depicts is a radically optimized system that has succeeded in eliminating all forms of excess in the way of spatial and temporal gaps. Updating and adapting Taylorism for 21st century systems of supply and demand, logistical architecture becomes thus a tangible instantiation of the modernist dream for hyper rationalization. In Tokyo's commuter train network, by contrast, operation beyond capacity is realized not by eliminating

spatial and temporal gaps but rather by producing and finessing of a certain systemic "margin of indeterminacy."[24] Operation beyond capacity in Tokyo's commuter train network involves the scripting of a managed divergence from an idealized and perfect order.[25] It is only by enabling such divergence that the system is able to accommodate the city's massive commuter population.

Operation beyond capacity is fundamental to the modality of *Ruriko-in*. It is only by virtue of the temple's advanced Toyota L&F storage and retrieval system that it is able to pack 7,500 graves into a relatively small lot in the heart of Tokyo's densely populated and tightly managed built landscape. Not only is the temple's economic model contingent on its ability to supply such immense capacity under such spatially restricted conditions, but the temple must also be able to accommodate anticipated surges in visitor demand during annual holidays in which Japanese traditionally care for the dead—Obon Festival, Vernal Equinox, and New Year. The waiting time for visitors on these occasions must be brought to an absolute minimum such that there is no perceived delay in the summoning and delivery of containers to designated memorial rooms. If on such occasions, Ruriko-in embodies the hyper-rationality of logistical architecture to ensure the visitor's seamless interface with the temple infrastructure, it must at the same time evoke spatiotemporal gaps so as to separate care for the dead from the rationalized order of the everyday. Whereas Tokyo's commuter

train network challenges principles of rationalization through its incorporation of informally scripted delays into its regular order, Ruriko-in pushes back against the rationalized order of the everyday via the aesthetic pauses, stillness, and alternative temporalities that Takeyama realizes in his design. As discussed earlier, such pauses take shape through Takeyama's efforts to counter forces of urbanization through an autonomy of form in order to remediate the relationship between the living and the dead. This strategy is continued deeper in the temple interior, most notably in the building's spiral staircase, which amplifies the sound of dripping water. It is similarly manifest in the concert hall where Takeyama incorporates the celestial order, choreographing a performance for the vernal equinox in which a ray of light enters an aperture in the temple shell to illuminate the gesturing hand of statue of Buddha. Finally, this tactic of designed pauses culminates in the temple's cavernous and specious meditation room, which sits just above the building's upper-level vault. Here, two adjacent openings in the ceiling, eagerly referencing the Pantheon and the refurbished Canova Museum and Cast Gallery, allow natural light to flood

21 Takahashi Interview: The silent and rapid operation of the machinery is Toyota L&F's trademark quality and part of the reason why they do not permit people access to the system.
22 LeCavalier.
23 Michael Fisch, *Anthropology of the Machine: Tokyo's Commuter Train Network*.

University of Chicago Press, Forthcoming June 2018.
24 Fisch, note on *Margin of Indeterminacy* as borrowed from Gilbert Simondon. See Gilbert Simondon, *On the Mode of Existence of Technical Objects* (London, Ontario: University of Western Ontario, 1980).
25 Fisch, *Anthropology of the Machine*.

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the monumental textured concrete wall, refined polished wood surfaces, and beckoning black cushions.

IN CLOSING

As Japan faces the challenges of low birth rate and aging population, the focus of its industries and services is shifting from managing life and growth to accommodating the dead and dying postwar baby boomer generation. As with every historical shift, this transformation is a transition in which existing cultural practices and design concepts are being re-conceptualized and refashioned in accordance not only with the new demands but also novel technological systems. Ruriko-in is operates within this context of cultural and technological transition. Via the architectural dialogue it establishes with its milieu and its adoption of advanced automated systems it remediates the place of and relationship with the deceased for the living within Tokyo. In so doing if forges a novel set of practices and conventions within the city's architecture, economy, and culture that resist—in part—forces of urbanization while working in a seemingly contradictory manner to subject care for the deceased to the just-in-time logic of contemporary consumer culture.

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