# Introduction Kozo Kadowaki (Architect and construction studies)

This book serves as the catalog for the exhibition *Co-ownership of Action: Trajectories of Elements*, presented at the Japan Pavilion as part of the 17th International Architecture Exhibition of the Venice Biennale.

Held in Italy's Floating City on the Adriatic Sea, the Venice Biennale currently offers an Art Exhibition in odd-numbered years and an Architecture Exhibition in even-numbered years. The Biennale has a long and august history, and its format is fittingly traditional. The unit of participation is the nation, with each country selecting artists to represent their homeland and planning its own exhibition in competition with other countries. The approach is similar to that of a world's fair or the Olympics. In fact, the very first Venice Biennale was held in 1895, the year before the first Summer Olympics took place in Athens.

For the 2020 Architecture Exhibition, I was asked to serve as curator of the exhibition at the Japan Pavilion. Joining me in the planning were architects Jo Nagasaka, Ryoko Iwase, Toshikatsu Kiuchi, Taichi Sunayama, and Daisuke Motogi, designer Rikako Nagashima, and editor Jiro lio. Research for the project was conducted by Norimasa Aoyagi, a historian of Japanese architecture; Aya Hiwatashi, an urban historian; Naoyuki Matsumoto, an expert on wooden structures and construction methods; and Tetsu Makino, a specialist in building preservation and restoration. Architectural curator Kayoko Ota has served as advisor on production of the overall exhibition. Participation not only by those directly engaged in the creative side of the exhibition, but also by researchers, editors and others in supporting roles, is, I believe, a significant feature of the team carrying out this

project. Our plan to dismantle a typical Japanese wooden house, bring the parts to Venice, and exhibit them at the Biennale emerged from the collaboration among these multitalented members.

Bringing a Japanese house to Venice: phrased like that, the point of this project may no doubt elude many, and quite understandably. To be honest, even those of us on the planning team have yet to fully grasp its significance. While preparing for the exhibition we had to contend with daily bouts of self-doubt as we pushed our audacious scheme forward. This compulsion to carry on with a project whose meaning remained unclear felt a bit like putting the cart before the horse. As time went on, we experienced the sensation that we were not pursuing a plan so much as the plan was pursuing us. And yet it is this very reversal of cause and effect that has revealed new creative possibilities to us. The essays and dialogues in this book are our attempts to explore and articulate those possibilities.

### The meaning of movement

So far this may seem like a rather vague accounting of our project. However, I think the most effective way to explain the exhibition is to review how it came to be, rather than try to convey its "meaning." Allow me to go back to its very inception over a year ago.

The project began with the delivery of a letter from the Japan Foundation, the organizer of the Japan Pavilion exhibition at the Venice Biennale, in late February 2019. The exhibition plan is selected through a competition among candidates for the position of curator; this letter

informed me that I had been nominated as one such candidate. Since one of the key criteria in the competition is the composition of the exhibition participants, I had to move quickly to pull a team together. Thus the membership of our team was decided before we had any idea what our project would be about. We held our first meeting only a month after the letter. However, I already had an idea that the exhibition should deal directly with material objects rather than attempt to convey concepts through models and drawings, as at a typical architectural exhibition. The architects and designers I invited to join the team all concurred with this approach.

Jo Nagasaka's diligent way of working with objects in his architectural practice made him one of my most trusted allies in this effort. Each of his works is the product of a singular conversation among the objects, people, and places specific to that project. Nagasaka creates the impression that he is letting the work itself speak about its unique set of circumstances. The first thing he said to me was that it would be a shame if visitors to the exhibition were left unaware of the costs incurred in the transport of objects-whatever they might be-all the way from Japan to Venice. An analysis of public proposals for past competitions showed that shipping and travel costs did indeed make up a large proportion of the total budget. It would be interesting, we thought, to make the transport budget a part of the exhibition.

It further occurred to us that transport and movement in general have become an increasingly frenetic aspect of contemporary society. Not so long ago the arrival of a package was cause for excitement, but today all manner of daily necessities are delivered to our door, and

receiving packages is just a part of our every-day routine. Not only things, but people, too, move about with abandon—whether commuting to work and school or traveling abroad, which is now more commonplace than ever. Without even realizing it, we have become a society of "great migrations," living in a tumultuous world of endless movement. If we can give visible form to this phenomenon, it should provide us with one means of graphically expressing the state of society today. This is the line of thinking that yielded one of the core concepts of our project: making movement itself visible.

# Working with wooden houses

Our resolve to "make movement visible" not-withstanding, we found it difficult to decide just what it was we should be moving. Our break-through came with a challenge from Rikako Nagashima: "Buildings generate huge amounts of waste. As architects, what do you propose to do about that?" Exhibitions, too, produce waste, of course—all the more so when the exhibition purports to deal with objects, as ours does. If we wanted to face Nagashima's challenge squarely, we needed to recycle things we'd normally discard and make this an exhibition that wouldn't become trash itself once it was over. That was when a wooden Japanese house emerged as our object of movement.

Receiving the full brunt of bombing attacks during World War II, Japanese cities sustained devastating damage that produced a housing crisis after the war ended. Moreover, the government's economic recovery policy focused on the development of smokestack industries, and the ensuing transformation of Japan's industrial

structure affected the entire nation, causing a sudden population flow from the countryside to the cities and sparking a housing construction boom in urban and suburban areas. The first responders to this surge in housing demand were artisans, particularly carpenters, with roots in traditional building crafts. Consequently most houses built after the war were made of wood. After the "oil shock" of 1973, however, Japan's birth rate went into decline, and in the first decade of the 21st century the population itself began to fall. Now there was a surplus of housing, and by 2018 there were nearly 8.5 million vacant units nationwide. Today the country is awash in houses that have outlived their usefulness and simply sit there awaiting dismantling. Why don't we acquire one of those houses, we thought, and move it to Venice?

From an architectural standpoint, the wooden Japanese house is an extremely unique phenomenon characterized by a high degree of flexibility. Additions and renovations are a normal occurrence for traditional wooden houses, which can be modified at will according to circumstances. Hence such structures were eminently suited to the changes in the building production system that occurred after the war. From the mid-1950s on, Japanese architecture became increasingly industrialized, with cement replacing fired clay for roof tiles, aluminum sashes replacing wooden window frames, and plastic drainpipes replacing tin ones. In short, all kinds of building components were transformed into the products of heavy industries, but wooden houses accepted them without complaint. From the 1960s on, by which time building construction had become fully industrialized, wooden housing acquired the look of a bricolage of

handicrafts and heavy industries—or, one might say, a chimera-like composite of industries of disparate eras.

Postwar wooden houses acquired their distinctive characteristics precisely because they underwent dramatic changes of this sort. In that case, we felt, transporting one such house to Venice and reconstructing it in a variety of ways for exhibit should provide insights into that reality. Fortuitously, the exhibition venue is the Japan Pavilion of the Venice Biennale, which has a large garden where we can assemble the structures derived from the house. Venice and its environs have their own culture of wooden architecture, so it may be feasible to have the wood recycled locally after the exhibition is over. Judging by the trial images we drew of the site, it may be hard to tell if the structures that appear there are a product of creation or dismantling, which is part of the fun. In any event we managed to put a proposal together, and emerged victorious from the screening held at the end of May 2019.

# Encountering, dismantling, and digitizing Takamizawa House

Once we were selected, we had to hurry to find a wooden house to ship to Venice. Based on our estimates of the time and cost of transport by sea, we would have to acquire a house for free and begin dismantling it in August. But we could hardly expect a house to fall into our laps, so once again we were in a quandary.

Our encounter with Takamizawa House came about quite unexpectedly. I happened to be chatting with the owner of the house across the street from mine, and told him about our trou-

bles finding the right candidate for our project. My neighbor thought hard for a moment, then said, "I'm planning to demolish my house and build a new one. You can have the materials from the old house. Feel free to help yourself." He may have thought it would be a little awkward to go ahead and demolish the house without a word after having heard my story. I was stunned by this stroke of luck. We decided to refer to the house as Takamizawa House in honor of its owner.

Takamizawa House was a wooden house built in 1954 that underwent several expansions and renovations between then and the 1980s. It was exactly what we were looking for. I had actually gazed out on Takamizawa House from my desk while drawing up the proposal for the competition. I had always liked the house, and of all the buildings in the neighborhood it had offered the greatest inspiration when I designed my own home.

The highly skilled building firm TANK accepted the task of dismantling Takamizawa House and reassembling it in Venice. First, however, we had to conduct an exhaustive survey of the house's pre-dismantled state, or it would be impossible to reassemble later. This was a precious opportunity to study a postwar wooden house in detail, so we wanted to approach the task scientifically. While the survey would be conducted by a team led by Norimasa Aoyagi, it was Taichi Sunayama, an architect whose research and practice examines the contemporary relationship between art and technology, who urged us to make optimum use of digital technology to record the survey data. Under Sunayama's quidance, Takamizawa House was digitized via a whole range of methods, from 3D scanning of the entire house and subsequently of its individual elements, to computer modeling based on drawings and measurements.

If we intended to reuse the elements of Takamizawa House, we would have to remove them by hand, one at a time—the house could not simply be demolished with heavy equipment. As soon as we removed the elements we would transport them, in frequent truckloads, to a warehouse where Sunayama and his team had set up a special jig they had devised to carry out a 3D scan of each element as it arrived from the dismantling site. The process did not, however, go smoothly.

A single wooden element might take 30 minutes to scan, but we were limited both in our budget for scanning and in the personnel and time available to carry it out. Scanning a single pillar might yield more than 15 GB of data, but our computer capacity was limited too. As elements were unloaded one after another, the warehouse's capacity rapidly reached its limit as well. Soon we found ourselves having to dispose of some elements at the site. Hampered by constraints of time, budget, personnel, computer data capacity, and warehouse space, we were ultimately able to scan only one-tenth of the total of some 4,000 elements. Nonetheless we managed to compile a list of elements large and small, complete customs clearance procedures, and load the elements into two 30-foot containers. They departed from Japan in January 2020. As I write this introduction in February, Takamizawa House is afloat on the high seas and scheduled to dock in Venice sometime in March.

## Rebirth in Venice

Our plan is to use Takamizawa House to create an exhibit at the Japan Pavilion on the history of the period the house lived through. Built at the very outset of a long-term economic boom and subject to repeated additions and renovations over the next three decades, Takamizawa House physically embodies the dramatic changes Japanese society underwent during the postwar years. The elements used in the house vary just as dramatically according to the era when they were installed. By exhibiting these elements, we should be able to see how our society and its architecture changed over the years.

We also developed plans to utilize Takamizawa House to exhibit its own history. We will reconstruct some sections of the house, but we will use other parts to build screens, benches, even display panels—in other words, the house itself will become part of the installation. With the reassembly in Venice of a portion of the scattered pieces of Takamizawa House, each of those elements will gain new life. However, the house has lost many more elements in the process of being dismantled and moved: nor were we able to save data about every part. In other words. Takamizawa House has sustained significant losses in both the physical and digital realms. To restore the house we must therefore compensate for the missing elements with new materials or those obtained locally, and for the missing data with new creations. For this purpose our team of architects and artisans plan to leave Japan for Venice. Though the architects will be supervising the reconstruction work, their authority will be anything but absolute. Rather,

they will be sharing ideas with the artisans and with TANK in its role as site manager, and the emphasis will be on improvisation, with decisions made literally on the spot. The end product will be, in effect, a composite of old and new materials, a chimera-like hybrid of the creative efforts of architects, artisans, and other participants.

This hybrid entity should also provide a vivid demonstration that our actions never belong to ourselves alone. The creations of the architects will be a result of the history through which Takamizawa House lived and the fact that it was shipped to Venice; they will also be linked to the actions of the artisans and the experiences of visitors. These mobile elements will showcase not just our actions, but those of countless people linked by the trajectory taken by the elements. That is why we have titled this exhibition "Co-ownership of Action: Trajectories of Elements."

Takamizawa House floats within a vast expanse of time and space. But that is certainly not true of Takamizawa House alone. Every building is nothing more or less than an accumulation of elements that have undergone repeated meetings and partings. Architecture by definition lives within just such a time-space continuum. A work of architecture is not something that one person can lay claim to as their own. It is precisely within the expanse of time and space occupied by a house that we may discover the foundation for coexistence among a diversity of actors.