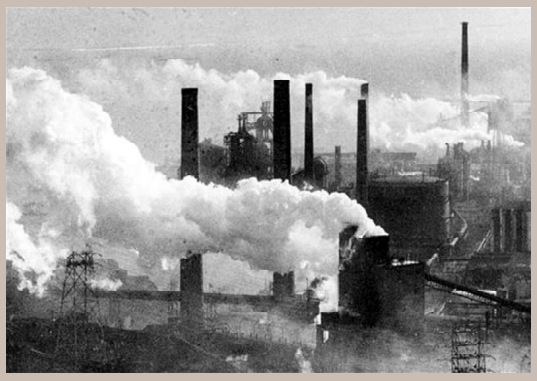

Machi Zukuri in Mano

CASE STUDIES OF COLLECTIVE HOUSING IN ASIAN CITIES SERIES • OCTOBER 2021

Instead of a story about one collective housing project, this one is a story about an entire urban district that collectively transformed itself from a poor and badly-polluted industrial slum in the heart of Kobe, to a clean, healthy, vibrant community where people are happy to live. Their project took the residents almost three decades, and it covered all aspects of their lives, from housing to health to education to the elderly and children and relations with their factory neighbors. They were helped along the way by special government town planning subsidies and some sensitive planning assistance.

- Project: Mano Neighborhood Redevelopment
- Location: Mano District, Nagata Ward, Kobe, Hyogo Prefecture, Japan
- Size: 2,000 households (8,500 people)
- Finished: 2003
- Type: On-site redevelopment of a badly-polluted and run down mixed-use inner-city neighborhood, with support from participatory town planning programs and community planners.

CONTEXT AND PROCESS

Participatory community planning in Japan

For a long time, urban planning in Japan has been highly centralized - first in the laying out of imperial courts, feudal castles and the towns which served them, and later in the developing of big infrastructure to serve the country's growing industrial development. But in the 1970s, growing concern about urban environmental problems like air pollution, fires, earthquake safety and loss of historic neighborhoods began opening up space for greater local involvement in planning.

Machi-zukuri ("participatory town planning" in Japanese) is a concept which emerged from a few seminal redevelopment projects undertaken in the 1970s by poor and marginalized communities who wanted more say in how these problems were dealt with in their neighborhoods. These projects became very well-known and inspired other communities to do participatory plans of their own. Machi-zukuri was gradually incorporated into national town-planning policies through a series of new laws and regulations. First, neighborhood consent-based building control was instituted in 1976, then district-wide planning was introduced in the revised City Planning Law in 1980. This prompted many municipalities to adopt local machi-zukuri bylaws, since rules about how district-wide plans are implemented are made locally. Finally, three machi-zukuri laws were established in 1998.

Real and fake machi-zukuri: Institutional mechanisms to support community-driven redevelopment now exist, and communities in all Japanese cities can take advantage of them. But relatively few do. In fact, a lot of municipal machi-zukuri projects being done these days follow the same old top-down planning style, with only a token "participation" of the people who live there. Real machi-zukuri takes a lot of time and requires strong communities and good professional support. The Mano neighborhood redevelopment process described in this case study is a shining example of the *real* machi-zukuri.

How machi-zukuri works:

Machi-zukuri is a central government policy which provides financial and technical support to communities wanting to redevelop their areas through a collective, participatory planning process. The policy is centralized, but the implementation is decentralized and highly flexible. Local governments can develop their own procedures for how to support communities wishing to do machi-zukuri style planning and how to distribute budgets. The national government often supports two-thirds of the cost and local governments support one-third, but cost-sharing between central and local government is also negotiable, depending on the nature and scale of each project. Machi-zukuri projects are all different, but the policy usually provides:

- funds to support the community design process, including salaries of the planners and architects the people select themselves to provide technical assistance.
- funds to buy land from land-owners in areas being redeveloped, to construct public infrastructure and amenities.
- funds for the construction of public infrastructure and facilities, usually built by private contractors hired by the municipality, following local standards and bylaws, but according to the community's plans.
- subsidies to encourage people to reconstruct their houses using fire-proof materials in which the city "buys" the old structures that are demolished as part of the people's redevelopment plans.

The city:

Back in the 1980s, at the height of Japan's economic bubble years, the city of Kobe became famous for its experiment with a new style of town planning. Usually, municipal governments exist to serve the needs of citizens and are financed by taxes those citizens pay; they are not profit-making institutions. But under the "Kobe method", existing city development plans were torn up and private developers were invited to propose development projects which would not be financed from municipal budgets but by selling shares to investors. The municipality took on the role of corporate developer, attracting and then serving an elite group of private international investors who fully expected high returns on their investments in the city.

As you might guess, priorities for investment in Kobe changed radically. It was no longer a matter of which projects were needed for the public benefit, but which projects would turn the greatest profit. So instead of investing in schools, hospitals, housing, infrastructure, transport, health-care or elderly programs, a series of very big, very expensive speculative real estate projects were undertaken. One of the most outlandish of these, in which an entire mountain was demolished and used as landfill to create an artificial island for commercial purposes in Kobe Harbor, cost billions of dollars and was rumored to be one of the world's most expensive urban infrastructure projects. This notion of "corporatizing" a city's functions has since crept into urban governance around the world, but Kobe's radical experiment in "public-private partnership" came to a

bad end in the 1990s, when the Asian economic crisis left the city with giant debts, angry investors and empty tower blocks with no buyers. Kobe Inc. had gone bust.

Strangely enough, this same city which is a textbook example of how badly privatizing a city's development can go wrong, is also the site of one of Japan's earliest and most successful experiments in collective, community-led neighborhood redevelopment, in Mano. This case study describes that project.

The community:

Mano is a sprawling industrial district right next to the port, in downtown Kobe. Once upon a time, this area was all rice-fields. Then a century ago, during the Meiji period, the district became a center for leather-tanning and shoe-making. Later, big iron foundries and iron-related industries began to set up in Mano. A lot of the low-level workers in these industries lived in the slums that sprouted up around the factories, while the white-collar workers and managers lived up in the hills farther inland. Later, more factories came up, making rubber tires, matches, auto parts, vinyl shoes and many other things, and the district drew more and more workers. By the 1950s, more than 13,000 people were living in Mano's crowded maze of tumble-down wooden houses and rental rooms. The district was no beauty spot, but it was a lively, thriving place, with cinemas, shops, a bustling market and schools full of the children of factory workers.

By the early 1960s, though, things began to decline. There was little recognition of problems of pollution in industrial areas like Mano back then; everything in Japan was subservient to economic development, and manufacturing was the core of that development. The air in Mano got so bad that clean clothes hung out to dry would turn black with soot within hours, and asthma, bronchitis and tuberculosis were endemic among the district's residents. Then the Hanshin Expressway was built along the northern edge of the district, and exhaust fumes were added to the stink from the badly-polluted Shinminatogawa River on the western edge of the community and the Hyogo Canal on the east.

Housing conditions also deteriorated as the district became more crowded, with four or five children living with their parents and grandparents in two or three rooms, in rickety wooden rowhouses. The situation was especially hard for children, for there were no trees, no parks and no places to play but in the streets, where traffic made their games of tag and *hanetsuki* (badminton) very dangerous - and sometimes fatal. With all these problems, it's no surprise that young people started leaving the district, if they could.

In 1966, the people of Mano began to organize themselves to take action and address these problems. It was the pollution problems that first brought Mano's residents together, and it was the district's mothers, who couldn't stand these conditions any longer, who took the lead. After forming their own community organization, they began negotiating with factories in the neighborhood to reduce their polluting. They went to the factories themselves, with nobody to mediate, and there were lots of fights between the residents, the factory owners and the local government. But some of the companies - a sugar refinery, a chemical warehouse, a steel company and a match manufacturer - began cleaning up their acts.

When their anti-pollution drive began having some successes, they began working on other problems with more confidence. They established a "Children's Circle", which organized camping trips, swimming meets and parties for the children, and launched a greening campaign to plant trees and put up flower boxes along the streets of Mano. They also started bathing and meals programs and social gatherings for seniors. They instituted regular health checks and worked with the city to make the district's first park, on a small empty lot. To learn more about community-based development and welfare, they organized regular public classes and began publishing their own community newsletter, with news about activities, meetings and progress. They also began organizing exchange visits with other districts in Kobe that were organizing to collectively deal with similar problems, like the nearby Maruyama District. These active friendships with community movements in neighboring districts became an important source of ideas and mutual support.

Their struggle to improve environmental conditions in Mano continued for ten years and ultimately led to better relationships with their factory neighbors and with the city. It also built a strong unity among residents, who began to understand that they themselves could set the course of their community's development.

But no matter how much energy they poured into addressing all these problems and needs, overall environmental and living conditions in the district remained bad. By 1975, the resident population had dropped by half, to just 8,500 people, as more young people fled the district, leaving mostly elderly people behind. Instead of tackling problems one by one, in small ways, as they had been doing, there was growing support for the idea of more actively and more fully redeveloping the Mano district, using the machi-zukuri facility. Their idea was supported by the Mayor of that time, Mr. Miyazaki, who said he was ready to formally designate Mano as an urban renewal zone, which would enable the machi-zukuri process to start.

DESIGN AND PLANNING

Design process:

People first started talking to the municipal government about redeveloping Mano in 1971. At that time, the idea of participatory community planning was new in Japan. Some academics had written about the concept, but there wasn't a lot of real experience yet to draw on. But the people were inspired by the redevelopment that had been led by their friends in the nearby Maruyama District, some years earlier.

In 1977, the Mano machi-zukuri committee was formed, to facilitate their community planning. This collaborative committee brought together representatives from all the scattered community and welfare associations in the district, as well as other stakeholders, under one united body. The 35-member committee included 15 representatives from the local community associations in Mano, eight representatives from local shops and factories, four representatives from various social organizations, four academic experts and four municipal officers. The committee's job was to create a vision for Mano's redevelopment, based on the ideas and suggestions which came from the residents.

The idea was that the local residents would draw up a master plan for redeveloping Mano District, with guidance by the machi-zukuri committee and the community's planner, and the municipal government would support the residents to carry out their plan, with substantial project subsidies coming from both the local and national government. The land uses would be readjusted, in a carefully-negotiated, step-by-step approach. And all the improvements in the community would be agreed to by everyone.

The people in Mano asked Mr. Yuji Miyanishi, from the Institute of Regional Issues in Kobe, to be their professional planning partner. Miyanishi was well known and respected in the city for the work he had done to support participatory town planning projects in several other districts. A robust, jolly guy, with a booming voice and a pencil-mustache, Miyanishi soon became a much-loved figure in the neighborhood. He sensed right away that this area had a lot of potential. The people in Mano had successfully struggled against serious pollution problems and organized festivals, health clinics and many other things to make life better for residents in the neighborhood. Without that history of working together, he felt, and the strength that came from it, the people couldn’t have made a plan together.

To break the redevelopment project up into smaller, more manageable parts, Miyanishi worked with the residents to divide the district into 16 blocks, each with its own committee. The idea was that each block (and smaller groups within the blocks) would make proposals for redeveloping their blocks, and Mano’s overall redevelopment plan would be a grand patchwork of these 16 smaller block plans. The plans the people proposed for each block included comprehensive improvements to everything: housing, infrastructure, environment, public spaces and public facilities.

Miyanishi worked with groups as small as five and as large as 150 people to help them develop plans for their blocks and smaller areas within the blocks. There were meetings happening almost constantly, many of them held in the evenings, when the residents were home from work and children were home from school and could join. The district would hold big meetings twice a month to look at the smaller plans that were being developed, see how they fit together and make adjustments collectively. Although there were some 8,500 people living in Mano at that time, in about 2,000 households, the biggest and noisiest community meetings would involve at most 300 to 400 people. As Miyanishi later reflected, "That is the reality of this kind of participation - you can't expect to ever get 100% of the people involved."

Miyanishi recalled later that at first, they planned without paying much attention to who owns what land or how it was currently being used - the people only planned according to how they would like their areas to be. It was an exercise in *pure planning*, without being burdened with considerations of reality. It's no surprise, then, that when the first draft of the plan was finished, nobody could agree to anything. So back they went to the drawing board, to adjust and re-shape the plan around the existing patterns of land ownership. It was a very complex planning process because it involved tenants and owners, residents and merchants, single people and families, the poor and better-off people.

It took eleven years to prepare the redevelopment plan for Mano. But the most intense planning, in which people were very much involved and physical plans were actually discussed and worked on, took place in the last four years (1978 - 1982). As Miyanishi reflected, "A people's process takes time."

CONSTRUCTION PROCESS

By 1982, they had a redevelopment plan for Mano which everyone could agree to. The plan was submitted to Kobe City the same year and approved soon afterwards. That meant that the construction of roads, infrastructure, new houses and community facilities could begin right away. But the people in Mano consciously chose to implement the plan slowly, bit by bit, and to consider nothing to be engraved in granite. They wanted to leave lots of room for adjusting, changing, rethinking and renegotiating along the way.

In January 17, 1995, when the redevelopment of Mano was well underway, Kobe was rocked by a devastating earthquake that toppled buildings and flattened expressways. It was Japan's worst earthquake in the 20th Century, and 4,600 of the city's residents lost their lives. 600 old wooden houses in Mano were destroyed by the fires that swept through the city right after the earthquake. There was pressure to rebuild quickly, but the people in Mano decided to stick with their slow pace and rebuild those houses gradually. Their development work continued through the 2000s.

Government support:

The Municipality played a big role in supporting the people's process of transforming a polluted and fire-prone slum into a comfortable, green, safe and well-serviced inner-city neighborhood. Besides buying the land for Mano's roads, parks and public facilities (such as the elderly and collective housing blocks and the community center) from private land-owners, the city paid for the construction of new roads, infrastructure and community facilities - all according to the people's plan, but following the local planning bylaws. The municipality also subsidized the reconstruction of houses, promoting the use of fire-proof materials like brick, tile, concrete and steel. The place where Mano's community center sits now, for example, used to be an iron foundry. As part of the project, the municipality bought that factory from the owner. The building then became public property and was rebuilt according to the community's designs as a community center and day-care facility. A similar process was followed for the new parks and greenways in the district.

A note on crooked roads: When a team of community leaders from Thailand was visiting Mano in November 2003, they came to a small lane which takes a very sharp double turn to go around one house which was clearly in the way of the grid of lanes. Their hosts in Mano told them that negotiations were still going on with this house-owner, to persuade him to relocate and demolish his house, so they could straighten the road. The Thais all protested, *"Why straighten the road, when it's fine the way it is, crooked? And the house is very good, why knock it down!"* The answer from the Mano residents was this: *"Look, the house is in the way, of course it has to go. But we don't want to force him to move. We can wait until he's ready. The Kobe city government will provide the money to buy the house from him, and the city will in turn get the budget from the machi-zukuri subsidies from the central government."*

Lots of innovations in Mano's housing

One of the most interesting aspects of the Mano story is the redevelopment of the many types of housing in the district. By working together, the district's house-owners, landlords, business owners and low-income tenants were able to use the solidarity they had built during their long struggle to make sure everyone in Mano could live in decent, secure, permanent and affordable housing. From the beginning of the planning process, the people set a goal of making sure everyone already living in Mano could stay, and that nobody would be forced out by the redevelopment process. With help from Miyanishi and his team of students and planners, the residents were able to use their creativity and tap various subsidies to develop hundreds of different projects to rebuild - and expand - the district's housing options. A few examples:

- **Collective housing:** This is a building where single people and small families live together and collectively own the building. It's like an apartment house, but there is a common dining room where residents take turns preparing meals for everyone, and other common facilities. A lot of elderly singles live here. (**see 30 on map**)
- **Elderly collective housing:** There are lots of single elderly people in the Mano area. Usually, elderly people are taken care of by their families, but in this place, residents help each other, and the larger community looks after them, with lots of participation from neighbors in the district, to provide a "very high standard of housing and care." Mitsuboshi company contributed the land that was used for this elderly housing, across the street from the community center. The building was designed by the elderly group's own committee and constructed with government subsidies. (**see 27 on map**)
- **Redeveloped rental housing:** Mano was full of cheap rental housing, in a variety of forms, where factory workers and their families had lived for decades. Although this rental housing allowed low-income families to stay in the center of the city, close to their jobs and support systems, the conditions were invariably crowded and dilapidated. *Nagaya*, for example, is a traditional form of rented rooms

arranged in a long row, under a single roof, with shared bathrooms, toilets and water sources, but with each room having its own kitchen. In several cases (**see 5 and 11 on map**), tenants and landlords in Mano's *nagaya* worked together to redesign and rebuild the housing so that everyone could stay, and new units could be added, to add to the district's stock of affordable housing. Some of the nagaya units remained privately-owned rental housing, some were purchased by the city and became public rental housing, and some developments combined both private and public rental housing in ways which allowed the market to cross-subsidize the housing of lower-income families and everyone could stay (**see 23 on map**)

- **Multi-story condominiums:** Many land-owners used the machi-zukuri and post-earthquake subsidies to demolish what had been low-rise owner-occupied or rental housing to redevelop the sites into three, four and five-story blocks of apartments. Some apartments were sold on the market as private condominiums, some were sold at subsidized rates, and some became private and public rental housing units. In some cases, the municipality bought the land and developed the condos for sale or rent. In most of these developments, there was active collaboration between tenants and land-owners, and most buildings include collective facilities like meeting rooms, common kitchens and playgrounds. (**see 6 on map**)
- **Old terraced houses.** After the earthquake, many of the burned-down row-houses were set back and rebuilt, in order to make four-meter lanes, according to the planning bylaws, and were rebuilt as two and three-story units using fire-proof materials and seismic-resistant construction. Many of the privately-owned terraced houses were rebuilt to include additional subsidized rental units or space for extended families.
- **Privately-owned condominiums** included both owner-occupied apartments and apartments rented especially to low-income young couples with government rent subsidies (**see 21 on map**)
- **Mixed rental housing** of different sizes especially developed for earthquake-affected families, singles and elderly people. (**see 8 and 28 on map**)
- **Collective rebuilding of adjacent houses after earthquake**, where groups of house owners got together, pooled their land and designed joint buildings to replace their lost houses. Much of this jointly rebuilt housing both expanded the owners' living space and also added more units of housing within the new buildings. (**see 32 on map**)

Fine-grain community planning: the case of Mano's "Hybrid Coop housing"

Here re is an interesting example of the kind of complex, human micro-scale planning that took place in Mano. In one very low-rent area of Mano, 43 houses were burned to the ground during the earthquake. After the fire, some renters moved away but others wanted to stay and negotiated with their former landlords to be included in that area's redevelopment plan. The house owners agreed, and eventually 18 households (5 house-owners and 13 renters) came together to cooperatively plan and build an 18-unit apartment block.

When they calculated the cost of the new apartments they'd designed, though, the renters realized the market-rate rents they would have to pay would be unaffordable: 60,000 Yen (US$ 600) per month, where most had been paying only 10,000 Yen (US$ 100) before. So instead of continuing as private tenants, they asked the city to buy the apartments and rent them back to the tenants, on long-term leases. Everything seemed to be working out, but the city offered a discounted monthly rent of no less than 30,000 Yen (US$ 300), which was still too costly for the renters. In the end, they got the city to buy their units as public rental housing, which put the rental rates under the control of Japan's national rent-control law, in which rents for low-income public housing are subsidized by the local government and based on each tenant's income.

Miyanishi helped these 18 families to design their shared building, on an extremely cramped piece of land, and that was a story in itself. The beautiful five-story L-shaped building that was finally constructed is organized around a little tree-filled courtyard. The building looks very posh from the outside, but is actually a mixture of five privately-owned condominium units and 13 publicly-owned subsidized rental housing units, with each unit custom-built to a different size and design, to suit the occupants. At the building's opening celebration, families shared specially-prepared dishes, and friendly communication between parts of the building is constant. Once a year, they all meet to discuss what they'd like to do with the landscaping and building maintenance - and to organize a house party. (**see 23 on map**)

"A lot of what is called urban development in Kobe City is really a process of taking away what used to belong to its citizens and selling it for a profit. The main thing we are trying to do in Mano is to not destroy this community. We're just helping people to do what they want to improve their own place. In our version of urban development, Mano's 2,000 families don't have to change their own history." (Miyanishi-san, Mano's planner)

“Communities and light industries can stay together quite nicely if the right management and the right relationships are there. Mano makes a good example of how the long Asian tradition of mixed-use urban neighborhoods can be revived in ways that are healthy for everyone who lives in and uses those neighborhoods.” *(Comments from a Thai visitor to Mano in 2003)*

A cheering note from the good neighbor file: In Mano, as in many other machi-zukuri initiatives around Japan, community people are quick to tell you that it is relationships that make community planning work - relationships within the community, and relationships with neighbors and friends and stakeholders outside the community. One of the biggest factories in the Mano area is run by Mitsuboshi, a giant multinational corporation which manufactures rubber belts for car engines. The factory used to be one of the worst polluters in Mano, but through the long process which began with confrontation and mistrust, and moved gradually to negotiation, dialogue and cooperation, the factory cleaned up its act and become one of Mano’s best industrial neighbors. Over the years, the company has contributed to Mano’s community development process in several ways. Besides building a restaurant for the community, Mitsuboshi donated the land for constructing the community’s elderly collective housing. Mitsuboshi’s CEO, a distinguished-looking older man in a dark-gray suit, is a frequent guest at functions in Mano’s community center, sharing meals, crooning sentimental songs, getting tipsy on sake with the locals - and passing out company brochures.

Timeline:

1955	Mano's "good old days"; community is lively and thriving; population reaches 13,000.
1960s	Pollution problems worsen; 40% residents develop asthma; housing conditions deteriorate.
1966	Community forms "Welfare Protection Zone" and starts negotiating with polluting factories.
1970	Community starts programs for children, elderly, greening; Machi zukuri school starts.
1973	Kobe's mayor, Mr. Miyazaki, suggests machi-zukuri redevelopment for Mano.
1975	Mano's population declines to 8,500 people as young people flee district.
1977	Mano Machi Zukuri committee is established. Yuji Miyanishi is hired to help plan redevelopment.
1982	Redevelopment plan for Mano is finalized and work starts (slowly).
1984	Mano residents visit nearby Maruyama District for redevelopment ideas and solidarity.
1995	Great Hanshin Earthquake hits Kobe; 600 houses in Mano are destroyed. Work continues.
2003	Mano's redevelopment is more-or-less complete. Some individual rebuilding continues.

FOR MORE INFORMATION ABOUT THE PROJECT

In November 2003, a group of Thai community leaders and a small team from ACHR and CODI visited Mano and spent a day with the community people and with their planner, Yuji Miyanishi, to learn about their long redevelopment process and to compare notes on the subject of collective, community-driven housing. This case study was written by Thomas Kerr at ACHR, using materials from presentations given and notes taken during that visit to Mano, with help translating some of the Japanese-language maps and documents from Shoko Sakuma.

An academic case study on Mano's redevelopment was written by Professor Patsy Healey in 2009: *"Developing Neighbourhood Management Capacity in Kobe, Japan: Interactions between civil society and formal planning institutions."* The case study was prepared for UN-Habitat, for *Planning Sustainable Cities: Global Report on Human Settlements 2009*. This report can downloaded from this link: https://unhabitat.org/sites/default/files/2010/07/GRHS2009CaseStudyChapter04Kobe.pdf

For more information about the redevelopment of the Mano neighborhood, or other collective housing projects in Asia, please contact ACHR.

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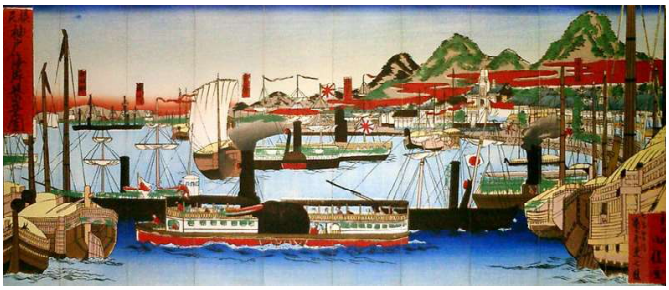
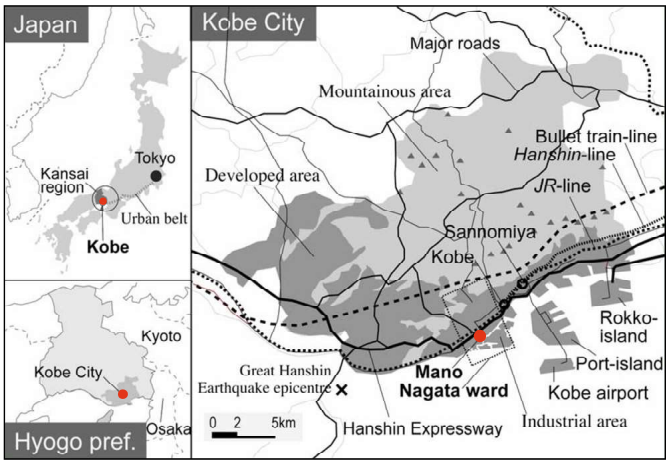
PHOTOS

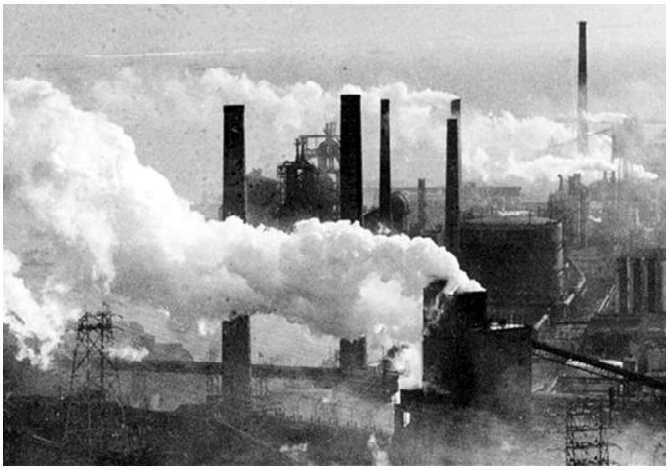


Kobe was one of the first cities in Japan to open for trade with the Western world in 1868, and as such, it has long been known as a cosmopolitan port city. This 19th Century colored woodcut shows the port area in the days when Mano District was still a patchwork of rice paddies.

That's what Kobe looks like today, with some of the spectacularly expensive developments in the port and along the waterfront.



A map showing where Kobe is in Japan, and where Mano District is located, in the city's industrial area right next to the port.



A photo of Kobe from the 1960s, with factories in and around Mano District belching all kinds of pollution into the air. At that time, everything in Japan was subservient to economic development.

Here is an aerial photo of Mano District taken in the 2000s, after the redevelopment. The district is very sharply defined by the Hanshin Expressway to the North, the Shinminatogawa River to the West, the Hyogo Canal to the East, and the Port facilities to the South.

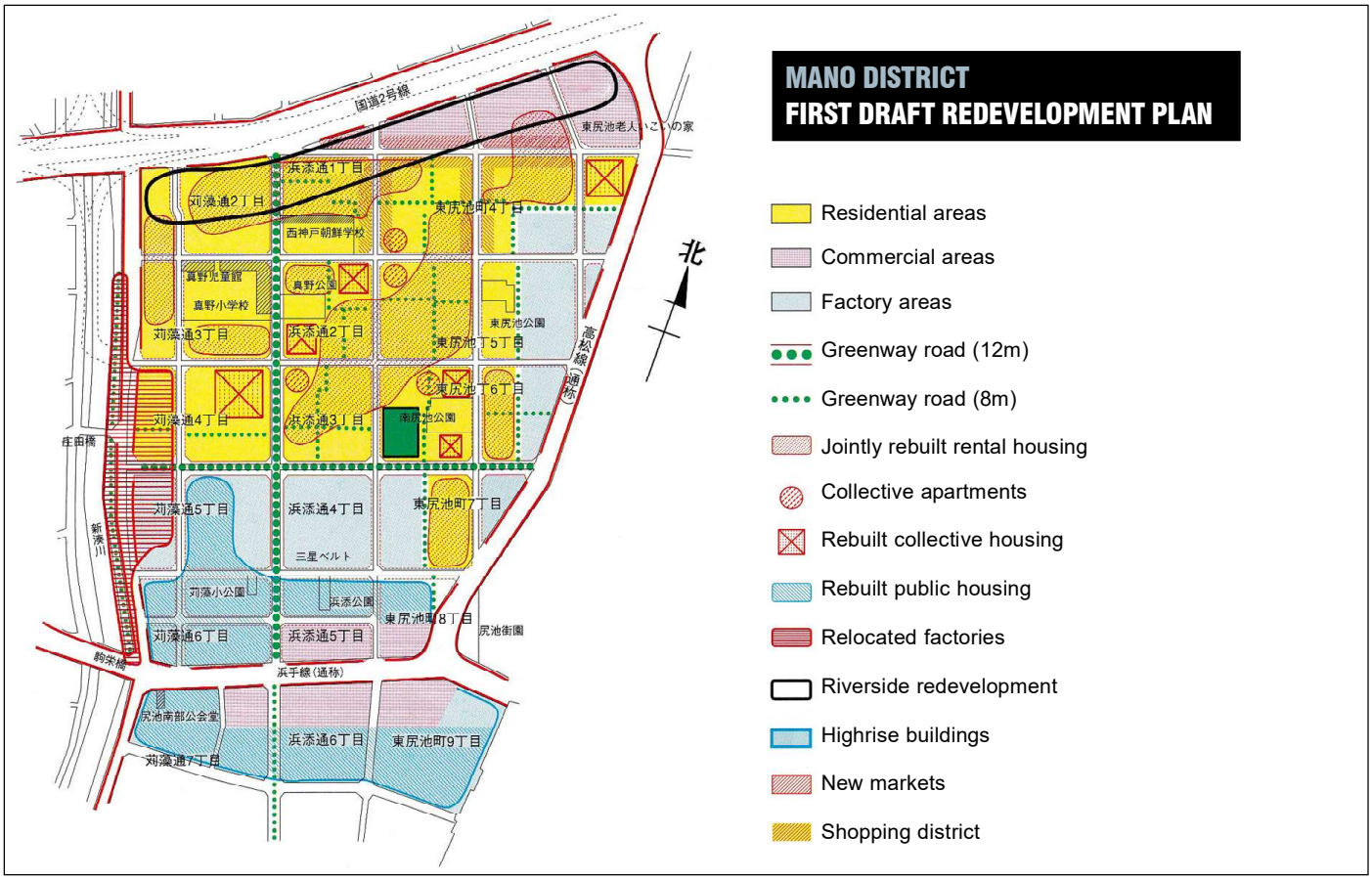
There are many factories in Mano District, which make steel and rubber products, vinyl slippers, sugar, matches and lots of other things.

This is a row of “nagaya” in Mano - a traditional form of worker’s rental housing in Japanese cities, in which rooms are built in a row under a common roof, with shared toilets, bath and water supply but separate kitchens.

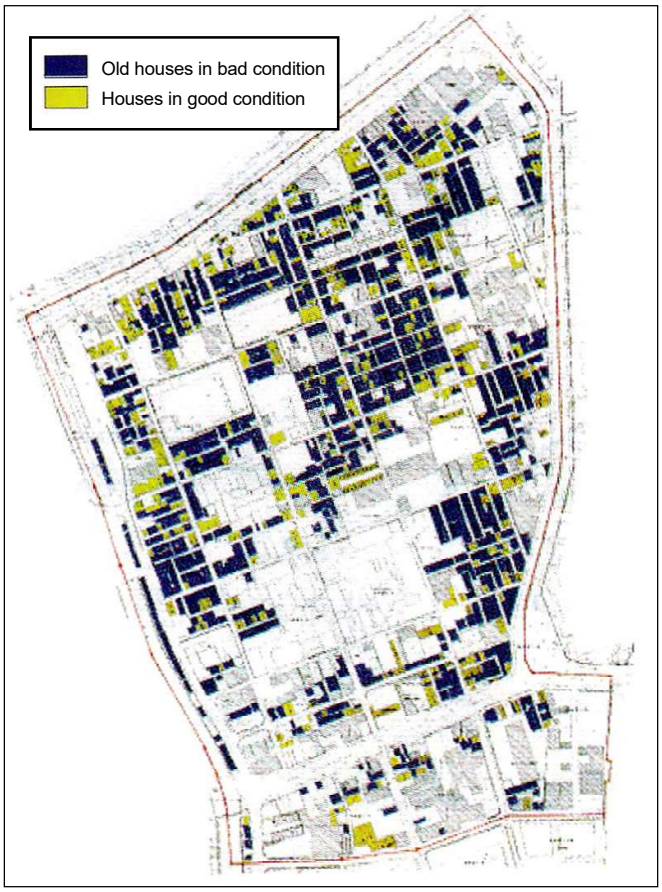
The great earthquake that hit Kobe on January 17, 1995, killed 4,600 people in the city. Here the Hanshin Expressway, at the north of Mano District, has collapsed.

Some 600 old wooden houses in Mano were destroyed by the fires that swept through the city right after the earthquake.

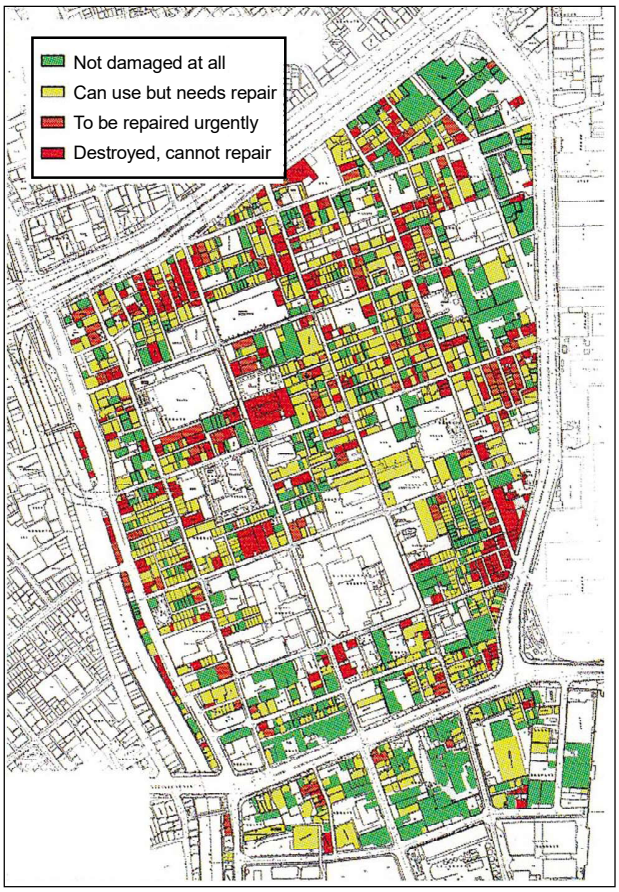
This photo shows what parts of Mano looked like immediatly after the earthqake and fires had destroyed great swathes of the district.



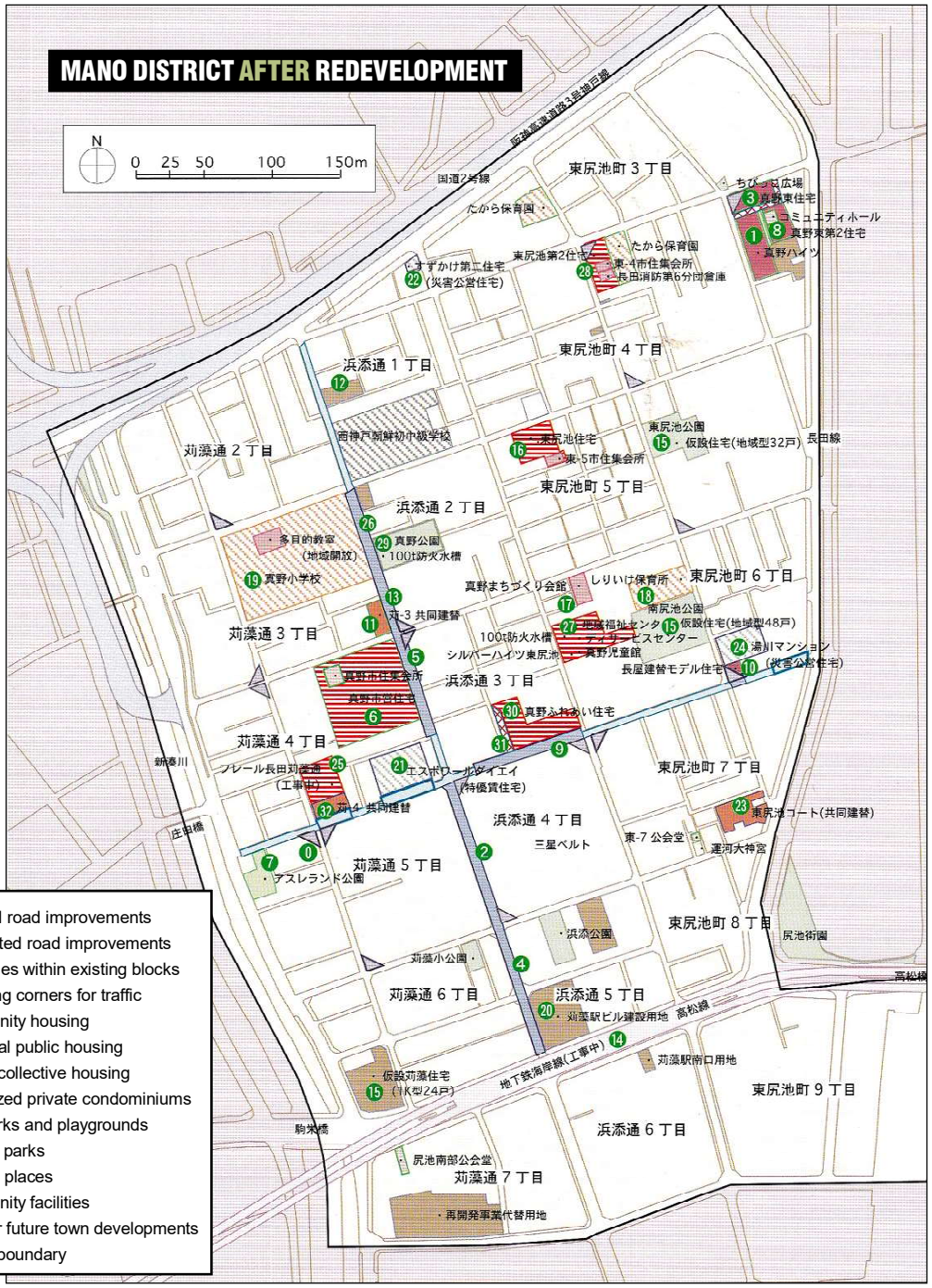
Here is the Mano community's first crack and "pure planning", in which they imagined completely redesigning their district, with a clear separation between residential (yellow) and factory (blue) areas.



This map shows the results of one district-wide survey the community people made to identify houses that were in good condition (yellow) and houses that needed to be rebuilt (blue).



This analytical map was prepared right after the 1995 earthquake, to identify the conditions of buildings and to develop plans for repairing or rebuilding the damaged ones.



This map shows many of the important new buildings, social facilities and new housing after the redevelopment. The green numbers correspond with some of the photos on these pages.

5 *This three-story apartment building for low-income subsidized tenants was built on the site of a 10-unit “nagaya”, the traditional rental row-housing with individual rooms but shared toilets, bathrooms and water supply.*

6 *This municipal block of flats provides subsidized public rental housing to 107 households, including those whose houses were on the site before.*

8 *This building provides subsidized rental housing for those affected by the earthquake, including 12 units for the elderly, with a meeting room and a children's playground.*

27 *This block of housing was developed especially for the elderly, on land donated by the Mitsuboshi company. The building also contains a welfare center and community hall.*

30 *This collectively-owned housing is where both single people and small families live together, with common meals and many common facilities.*

21 *This private condominium was specially designed for young families with rent subsidies.*

23 *This extraordinarily "hybrid" collective apartment building includes both public rental apartments and privately-owned condominiums.*

32 *The owners of six adjacent houses that were destroyed by the earthquake got together to design this mixed-used block, and live on the top.*

BEFORE and AFTER: In the upper right photo you can see a typical run-down row of rental row-houses for workers, with shared bathrooms, toilets and water sources, called in Japan "nagaya." In the upper right photo, a row of 6 nagaya was reborn as a 3-story concrete condominium, subsidized by a special community environmental improvement project. All the original tenants still live there.

Many individual house owners in Mano used the machi-zukuri subsidies to rebuild their houses, including very modest houses (above), a row of larger terraced houses (right), and a small trash recycling business with dwelling above (below).

On a few of Mano's inside lanes, you can still find some old, traditional wooden houses that survived the earthquake and have been restored.

This little urban park may look very humble, but it offered Mano's children their first-ever experience of having a shady, safe place to play.

Some of Mano's small inner lanes have been left more-less as before, but with much improved drainage, paving and infrastructure.

Bags of discounted rice for sale at the Mano community's cooperatively-managed provisions store, right in the middle of the district.

On several of Mano's streets, the redevelopment plans included decorative paving, nice lighting and tree-planting to bring a little green into the district.

Most of Mano's factories are still producing, but they have taken steps to reduce their noise and air pollution and be good neighbors.

The fine grained community planning in Mano allowed families living along quiet inner lanes to restore and retain little Shinto shrines like this one.

Some photos from the November 2003 visit by a big group of community leaders from Thailand, as they are being shown around Mano by community members.

That's Miyanishi, Mano's urban planning partner, in the white trousers, taking the Thai group inside one of the district's smaller lanes.

At the end of the tour of the district, the Mano community organized a welcome feast for their Thai visitors, which included the joining of hands and singing tipsy songs together, in Thai and Japanese.

You can see in this photo why Miyanishi is so popular in the district, with his booming voice, good nature and long friendship with the people.

This distinguished gentleman in the suit is the CEO of the Mitsuboshi Company, which has factories in Mano District. Here he is welcoming the Thai visitors and affirming his company's commitment to being a good neighbor.

After the party in the Mano community center, the Thai visitors were making their way back to the hotel, and found this banner in the subway station, which reads "Mitsuboshi: The community and the company together in Mano."