

ARCHITECTURAL SUMMARY

■ NAME.....

Setagaya-ku Fukasawa Symbiotic Housing

■ COMPLETION.....

March, 1997

■ ADDRESS.....

Fukasawa 17-4, Setagaya-ku, Tokyo

■ AREA CLASSIFICATION.....

category1 low-rise (partially medium rise) exclusive residential area

category1 (partially 2) height control district

category2 fire preventive district

off-site shadow control: 4H-2.5H/1.5m 3H-2H/4.0m

■ SITE AREA.....

7,388.08m²

■ TOTAL FLOOR SURFACE AREAS.....

ward-built and owned housing: 5,536.86m²

Day Home for the Elderly: 594.54m²

meeting hall: 69.07m²

total: 6,200.47m²

■ STRUCTURE.....

apartment 1: 3 ~ 5 storied RC framed construction

apartment 2, 3, 4: 3 storied RC wall construction

apartment 5: 3 ~ 4 storied RC wall construction

■ HOUSING UNITS.....

ward-owned housing (including 3 units for the disabled): 43 units

ward-owned housing for the elderly: 17 units

Ward-owned housing for middle-income residents: 10 units
(includes one LSA home)

total: 70 units

■ ADDITIONAL FACILITIES.....

Day Home for the Elderly

meeting hall

public open areas (children's park, pond, brook, etc)

parking lots (25 spaces, of which 3 are for visitors to the public facilities)

■ CALENDAR OF COMPLETION.....

preliminary planning: December 1992-March 1993

preliminary design: October 1993-March 1994

final designs: October 1994-March 1995

construction: September 1995-March 1997

■ PLANNING AND DESIGN.....

Setagaya Ward+Ichiura Planners & Architects/Iwamura Atelier joint venture

■ "Setagaya-ku Fukasawa Symbiotic Housing: a summary of its planning and design"

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Setagaya-ku Fukasawa Symbiotic Housing

A Summary of its Planning and Design



世田谷区

AN OUTLINE OF THE PROJECT

INTRODUCTION

In 1952, 35 municipally-owned wooden bungalows were built in Fukasawa, Setagaya-ku. Forty years later, the site was handed over from the Tokyo municipality to Setagaya Ward, the now dilapidated houses to be replaced with ward-built, ward-owned housing.

At around the same time, Setagaya-ku had begun to set its goals towards ecologically sensitive urban planning, and in 1992 established the "Ecological Town Planning Project". On a national scale, the Ministry of Construction published housing guidelines based upon its R&D concerning the global environment. The Ministry's "Project for the Advancement of Symbiotic Housing" was formed to spread and improve the use of such housing.

The site itself, though located in a highly urbanized residential area, flourished with the trees, grasses and flowers cared for by the residents. The rich greenery provided a home for diverse birds and insects, while self-regulating cleaning teams and shared gardening helped to form a warm, close-knit human community.

We sought to reflect such conditions in the rebuilding of the homes, while at the same time raising the standard of life upon the site and guaranteeing an increase in the number of people it can accommodate. We envisioned a symbiotic housing complex that would interact with and influence its surroundings; one that would enable the coming generations to inherit the rich environment of the Fukasawa site.

The Ward has considered the original residents of the site and the neighborhood in which they lived as essential elements of the planning process, and has encouraged residential participation. When the original buildings were pulled down, reusable components were kept for the new. The trees, earth, wells, and other treasures found in the site were preserved, as much as possible, as an important legacy.

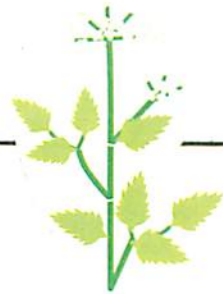
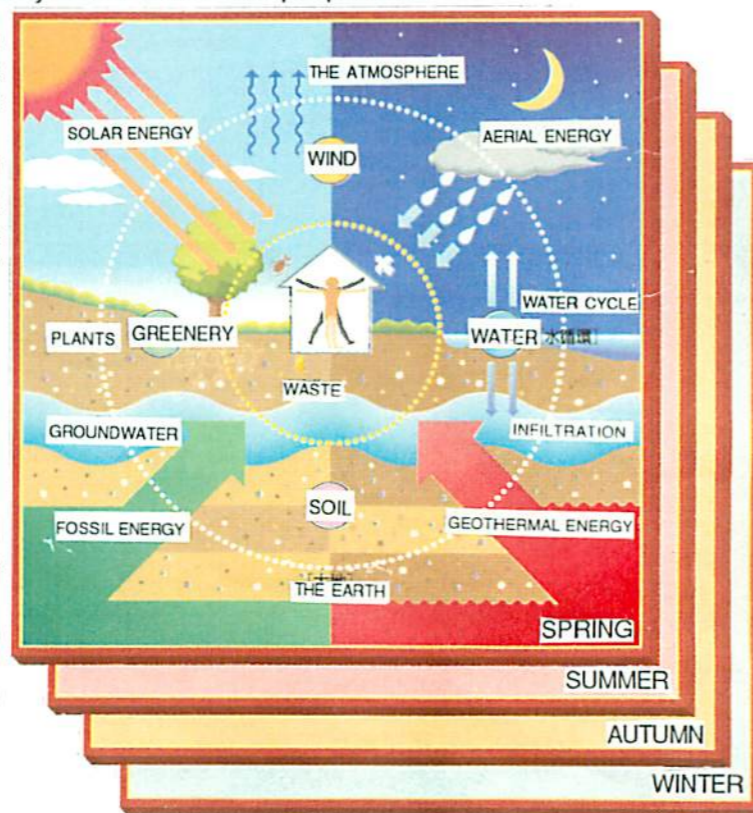
In planning the introduction of new residents, we sought ways in which diverse people could live and communicate with each other, and built altogether 70 units for the elderly, for the handicapped, and for families with children. A day care service center, the Day Home Fukasawa, was included for the local elderly people. We hope that the 'biotope' which preserves the water and greenery of the site will, as in the past, be cultivated and protected over many years by residents and local people alike.

Not only must housing be designed with consideration for the people who live in it; it should exist in harmony with the local environment, and through its construction, maintenance, and supervision, be friendly to the global environment. In this pamphlet we address to the future our beliefs about Symbiotic Housing and Community Building.

WHAT IS SYMBIOTIC HOUSING?

Definition

In Symbiotic Housing, the use and treatment of energy, resources, and waste materials are planned with a view to protect the environment. It is designed to exist in an atmosphere of harmony and beauty within the local ecology, to be run in cooperation by the residents, and to help create a healthy, amenable home within the global environment.



Background

1 The global environmental crisis

Environmental problems of a global scale, such as the greenhouse effect, acid rain, and the depletion of the ozone layer, constitute an urgent international crisis.

2 The energy and resource crisis

Japan imports most of its energy and other resources, and lacks sufficient long-term solutions to its needs.

3 The housing problem

Along with social changes such as demographic ageing and the increase of leisure time, there is a growing demand for better quality housing whose interior and exterior design takes health and amenity seriously, and which exists in harmonious coexistence with nature and the local environment.

Aims

A. Protecting the Global Environment (Low Impact)

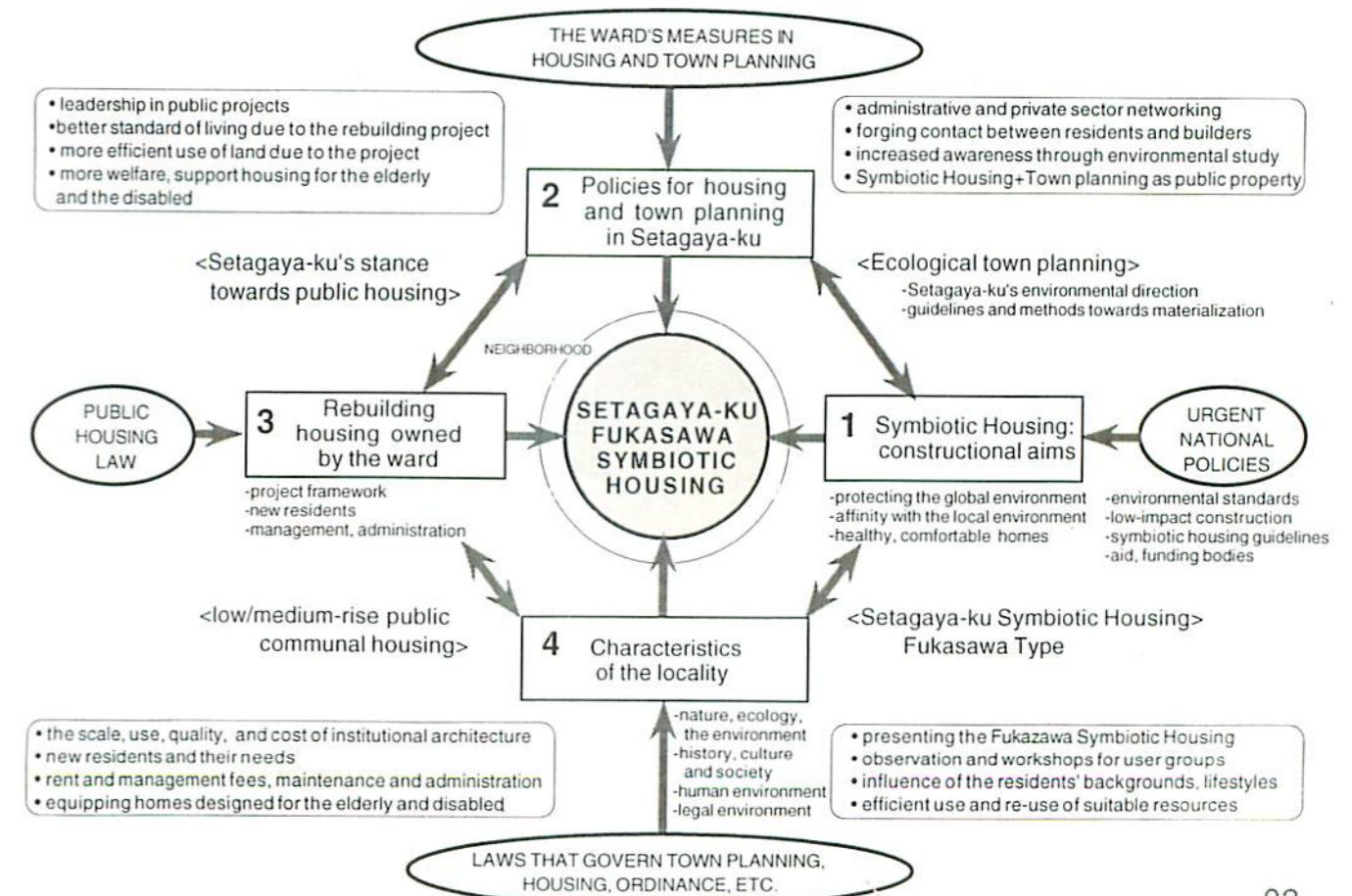
- >Using less energy more efficiently
- >Using natural and alternative energy sources
- >Utilizing resources efficiently
- >Minimizing waste disposal

B. Harmony with the local Environment (High Contact)

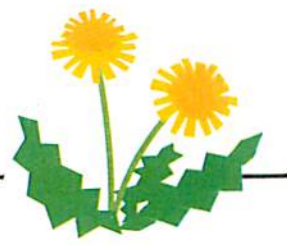
- >Considering the cycles and diversity of living creatures
- >Harmonizing the intra- and extra-architectural elements
- >Being sensitive to local society and culture
- >Supporting the residents's efforts towards Symbiosis

C. Health and Amenity of the Homes (Health and Amenity)

- >Designing what best reflects the natural environment
- >Planning a safe, healthy, and comfortable interior.
- >Creating harmonious and beautiful designs.
- >Working towards a flourishing community.



THE CONCEPTUAL BACKGROUND



The habitat that we share with other animals and with plants, is bounded by the atmosphere above and the earth below. Constantly, we receive the various effects of the ever-changing world around us. From the macroscopic point of view, this setup is the same whether in the city, or in a farming or fishing village: the relationship between the ecological and residential environments is one based primarily upon circulation. The Symbiosis of our homes consists of the reciprocal, organic relationships between environmental elements — wind, water, earth, and greenery — and people. (See the figure on page 1)

The first step in planning the Symbiotic Housing project was to be aware of these relationships, and to make a thorough study of the proposed site and its surroundings. The local environment and the lifestyles and backgrounds of the longtime residents then became the warp into which the prerequisites of the project were woven. The following is the story of how this tapestry, the concept of the project, was created.

A sketch of the "Fukasawa Biotope": a home that nourishes life.

The "Fukasawa Biotope" of Setagaya, Tokyo

- Municipal homes built after the war emerge as ward-owned housing
- The histories of the residents and streets reflect the passage of 45 years
- From our era come birth and change: gazing steadily towards the future

To begin with...

A neighborhood built right after the war, in Setagaya Ward

- The 1964 Tokyo Olympics turned Komazawa Golf Course into a public park
- With the coming of the electric railway system, the area changed rapidly
- The supermarket downhill and the shopping streets uphill flourished

A housing complex and neighborhood that work together

- It's possible to plan housing simply according to our individual needs
- We all live, however, in an ecosystem: all interconnected in a single world
- Plants, animals and human beings--we live as part of an ever-turning cycle

Our aim: housing that exists in symbiosis with the environment

- Home, neighborhood, region, Earth: we must know various environments
- We must use methods that support a balanced, sustainable environment
- Facing the next millenium, we must reconsider our ways of living

Cooperation builds the neighborhood

- A home that exists in regional harmony, not isolation, is our goal
- Communal spaces for the residents, a diverse 'mixed community'¹
- Rules protect the shared areas

Reading the Earth

A home that coexists with the nearby water sources

- The site of 7,400m² lies along the northward sloping Nomi Stream valley
- The new buildings don't disturb the underground water-flow
- Four wells were preserved, one of them supplying the brook and pond

The complex is an ecological lifeline

- It is a link in a chain of greenery and water surfaces, homes for living things
- The water and plants within the complex are vital to the local ecology
- Thus, maintaining greenery and waterways has wide ecological importance
- Our goal is an environment where people, insects, and small animals coexist

A home that is friendly with the wind

- The cold Northern winter winds are softened by evergreens
- The warm, Southern, summer winds are filtered through deciduous trees
- Greenery and the arrangement of the apartments make the winds agreeable

The bounty of the site

The complex is a treasure-house of resources

- Flourishing greenery, fruit trees, and vegetable plots, cared for over 40 years
- The slopes of grass and pampas-grass are a peaceful haven for insects
- All these have been nurtured and protected by the efforts of the residents

Protecting and recycling the resources of the site

- Important trees, greenery and fertile soil must be preserved or transplanted
- Windpower pumps water from the preserved well, supplying the brook and pond
- In recycling these resources, we 'recycle' and revive the history of the site

A courtyard of flower and vegetable gardens

- The fertile soil of the courtyard is used to grow flowers and vegetables
- The brook of rain and well-water winds its way into the pond in the biotope²
- All paths and parking lots let water into the ground, protecting the microclimate³

The bounty of the home

A housing complex arranged in a gentle ring

- The 3-storied (4, 5 in two cases) apartments surround the sloping central garden
- The public facilities can be found on the first floor, facing the central garden
- As in a Japanese village, alleys and open spaces allow breezes through

A home that is symbiotic with the environment

- Durability and renewable facilities make a building resource-efficient
- Good insulation and ventilation are healthy, comfortable, and save energy
- Structural and finishing materials must have minimal ill effect on our health

A housing complex that incorporates new environmental techniques

- Plants on the roof and terrace improve the microclimate as well as the scenery
- Rainwater seeps into the ground, or is collected for the toilet and for the plants⁴
- Garbage is sorted by type, and raw refuse turned into fertilizer in the composter⁴

A home where the elderly and the disabled can live comfortably

- In an aging society, housing must be considerate of the elderly and the disabled
- A helper lives in the "Silver Housing"⁵; 1st floor homes are for wheelchair users
- Steps, handrails, elevators and other equipment have been carefully designed

A complex that supports the community with public facilities

- Neighbors can gather at the Day Home and the educational and meeting rooms
- Maintenance, administration, and environmental education are centered here
- The solar-powered underfloor heating used here is a part of this education

As for the residents...

Self-formed groups make up the community

- The former residents have built a flourishing community over the last forty years
- Through hobbies, volunteer work, and home-lessons, relationships develop
- In such ways the interconnectedness of our community keeps growing

Ward-built and ward-owned, the residents create their home

- The land and facilities belong to everyone: those who use them care for them
- We cooperate in making rules and systems that help us protect the environment
- The Ward can help too

New buildings for the site, new life to the community

- The rebuilding brought newcomers to an already established neighborhood
- Rules for this community should be made gradually and with flexibility
- Individuals and families, throughout the generations: we must coexist

That's why this home is...

...where human life is surrounded by the phenomena of Nature.

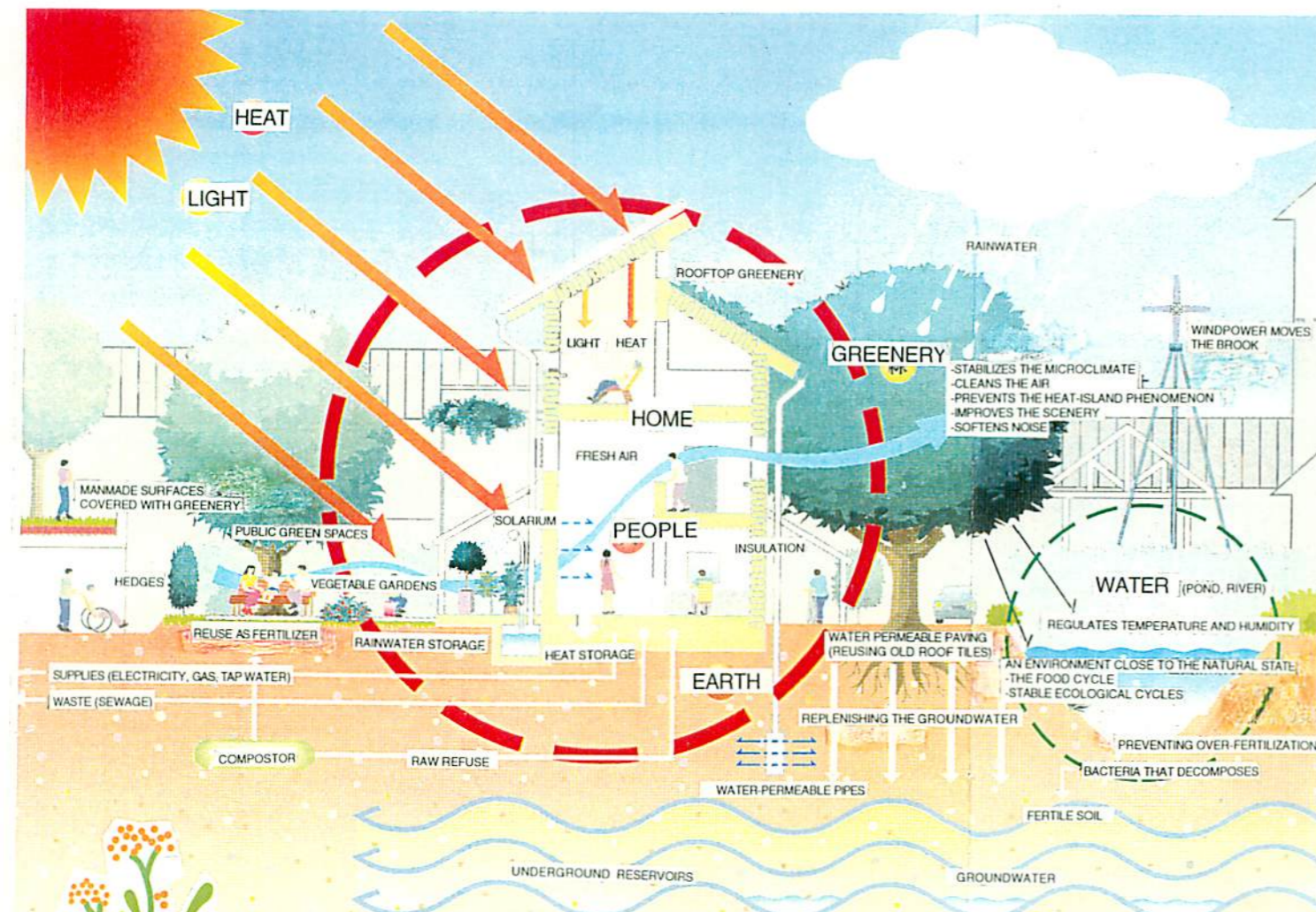
...where all sorts of people and other creatures come together.

...a peaceful place to rest.

...a neighborhood that grows with time.

The Fukasawa Biotope: it is a home and a neighborhood where Life can flourish

- 1) mixed community: a community not segregated according to occupation, class, or politics, but one which embraces and thrives on diversity.
- 2) biotope: an ecologically stable habitat of plants and animals.
- 3) microclimate: the climate of a specific site or section of a site.
- 4) composter: a way to reduce raw waste by allowing soil bacteria to turn it into fertilizer.
- 5) Silver Housing: governmentally supported communal housing designed with care services for the elderly.



IMAGES OF THE FUKASAWA BIOTOPE ENVIRONMENTAL SYMBIOSIS



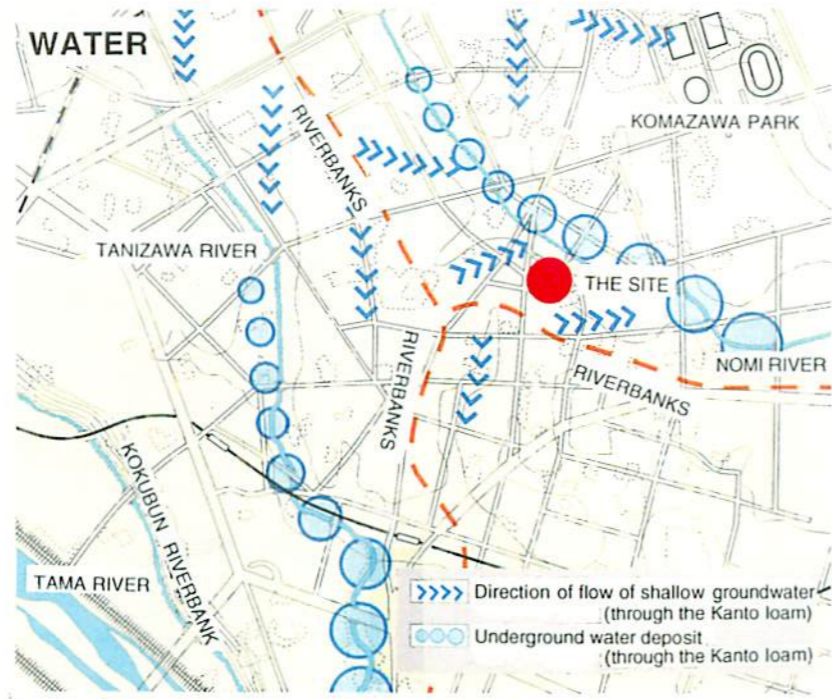
UNDERSTANDING THE LAND



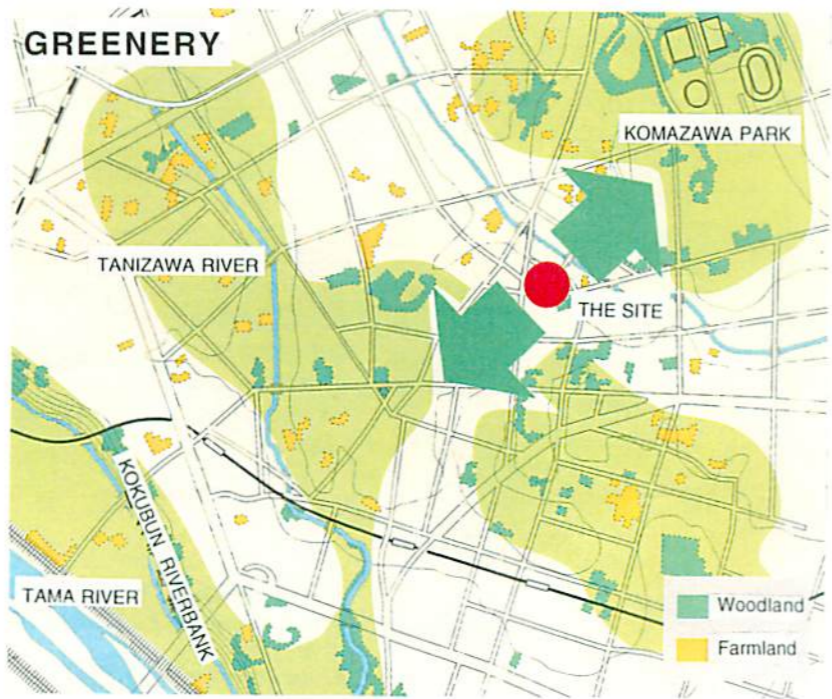
In planning this public housing, the first thing we did was to conduct a careful investigation of the natural, historical, and cultural environments found within and around the site. Gradually, through the repetition of data analysis, group meetings, interviews with the residents, conversations, and fieldwork, our ideas about the project site acquired a three-dimensional quality, while our understanding of the site's role and position within the neighborhood grew clearer.

The graphs and figures on the right make up a summary of the findings we made while studying the site to better understand the important elements of its environment. The figures explain the respective roles of water, wind, greenery, and small animals, and the ways in which they are reflected in the environmental design of the complex.

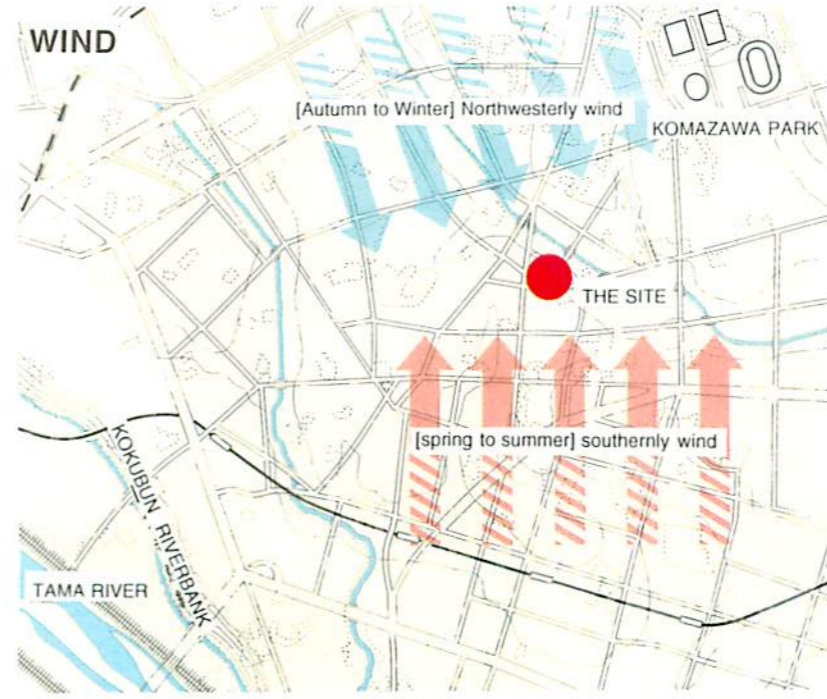
Thus, we did not begin the project by concentrating on a single, fragmentary site, but by discovering a multitude of ways in which the site must harmonize with its environment. In the end, this method helped to create a stable, sustainable environment for the area.



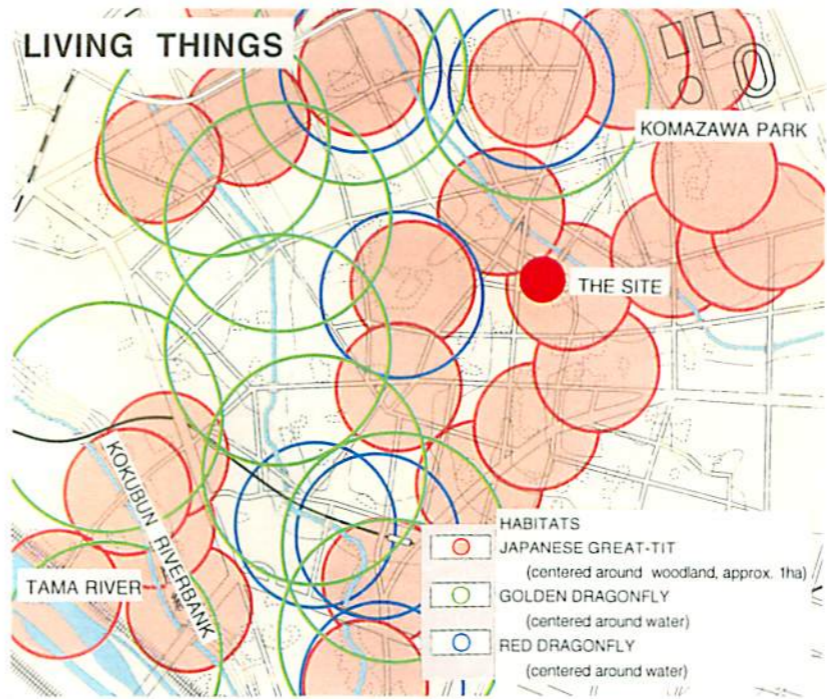
From the fact that the site lies along the valley of the Nomi-stream, the flow of surface and underground water can be assumed to lie as expressed in the figure. By leaving as much soil as possible exposed, using water-permeable paving, collecting rainwater to use for plant watering, and avoiding large-scale underground building, water seepage and puddling within the site are avoided, and the circulation of water ensured.



The plentiful greenery of this housing complex has various fruitful roles to play in the district. In particular, it serves as a vital connection between the nationally protected Tama riverbank greenery and Komazawa Park, acting as a link in the area's network of green. As much as possible, we preserved or transplanted the flourishing trees and soil that have been cultivated over decades, thus protecting one of the most important resources of the area.



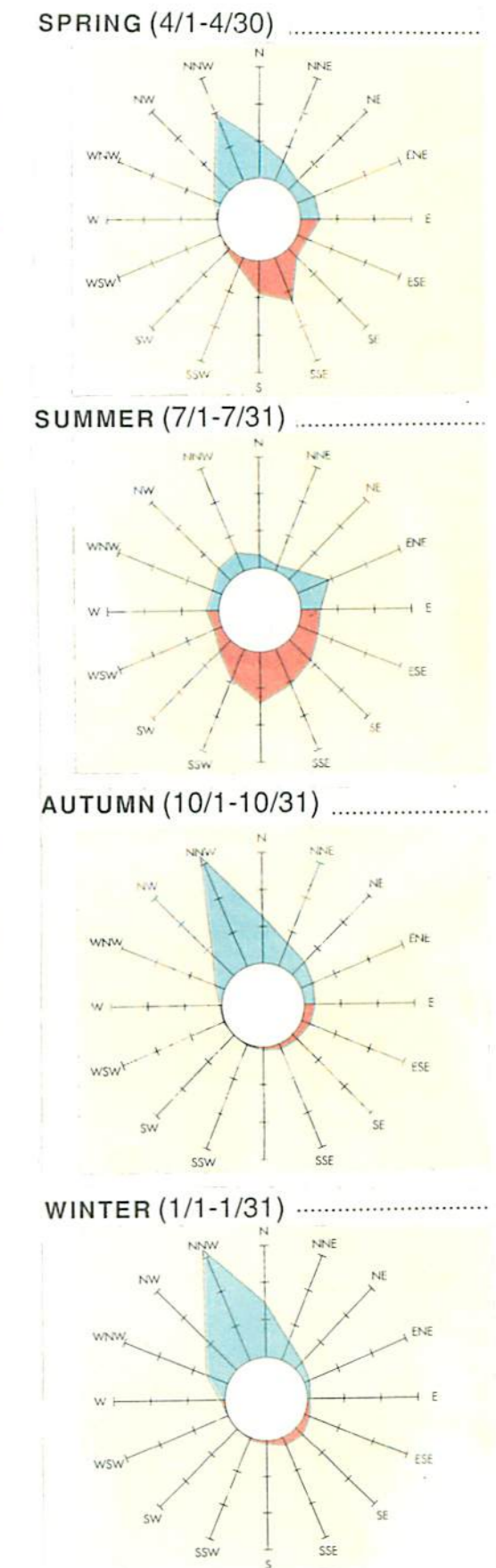
The direction of wind—NNW over autumn to winter, and SSW or South over the spring to summer—lies approximately along the Nomi-stream. Arranging the roofs to slope against the North, and evergreen trees to form a northerly windbreak, protects the site from the severe winter wind. In the summer, the southward-opening gables and deciduous trees send in balmy breezes. Each residential unit, too, was planned to make the most of breezes and natural ventilation.



We guess at the movements of small animals by considering their niches and the local distribution of woodland and water. An analysis of the habitats of Japanese Great-tits and Golden and Red Dragonflies shows the importance of the site's greenery and water, both as places to live and as transit routes to help widen the animals' environment. Thus, we are determined to preserve open water surfaces and orchards, maintaining diversity and perforation in the site.

GRAPHS OF THE REGION'S WINDS

<source: Compilation of Tama River Statistics, 1991>



SHAPING THE HOUSING COMPLEX



In shaping the complex, we defined the kind of environment we aimed to create within the site, and planned the apartments and housing units accordingly. The details of the plan, as expressed in the figure on the right, reflect our environmental ideals as well as the need to balance them with consideration for the elderly, for example. The symbiotic methods used were those that were realizable within the boundaries of this project: the rebuilding of a public housing complex.

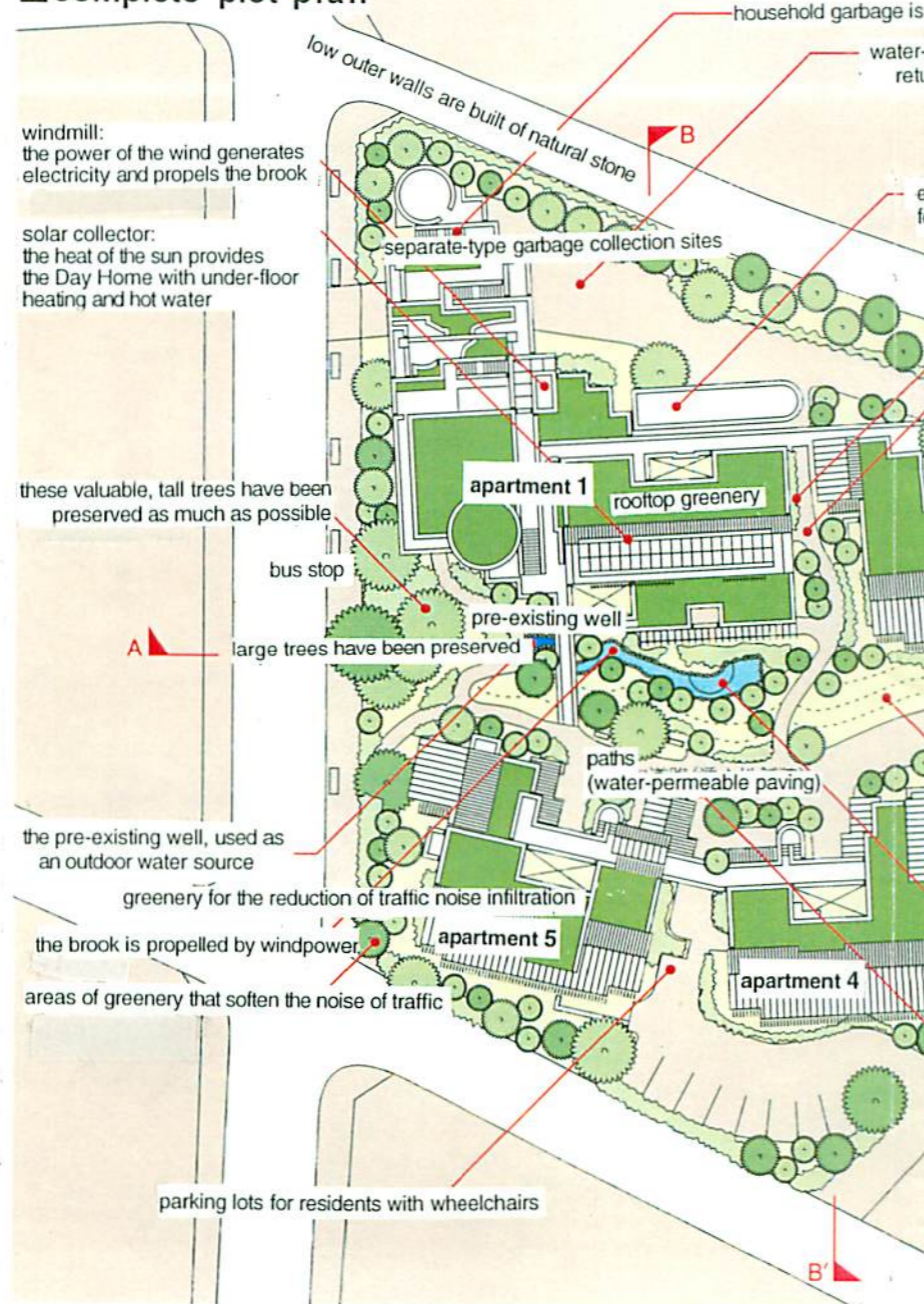


preserved well and tall trees

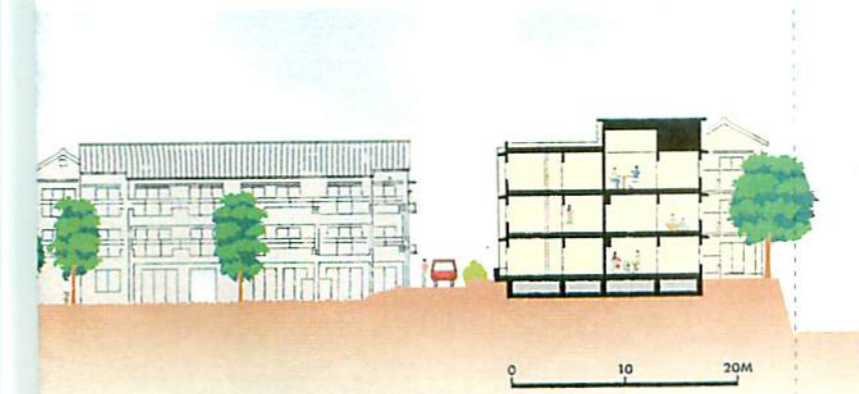
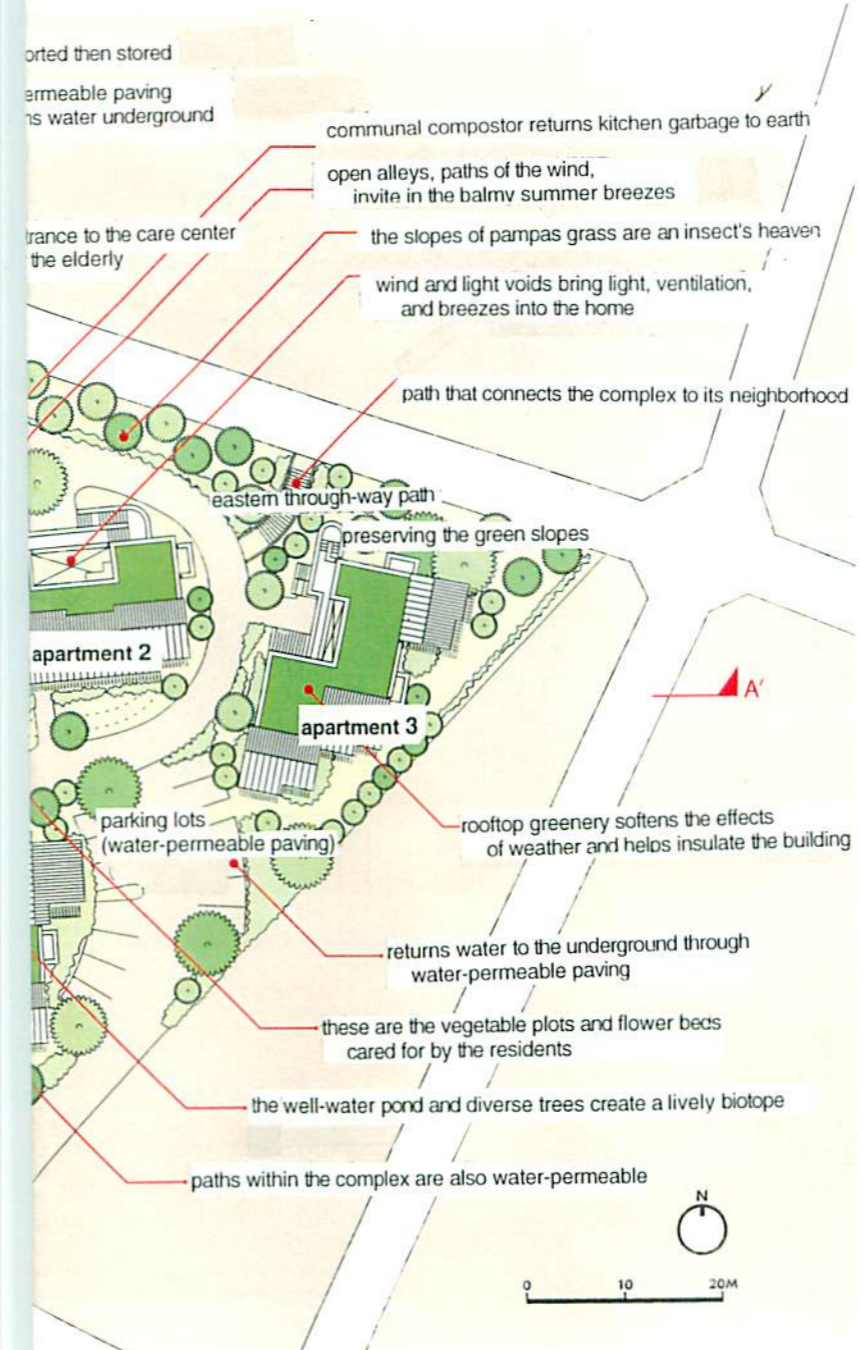
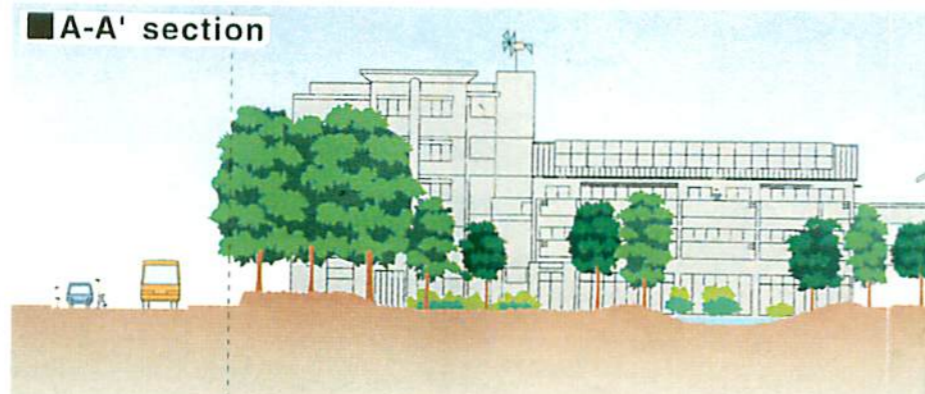


transplanted plum tree in bloom

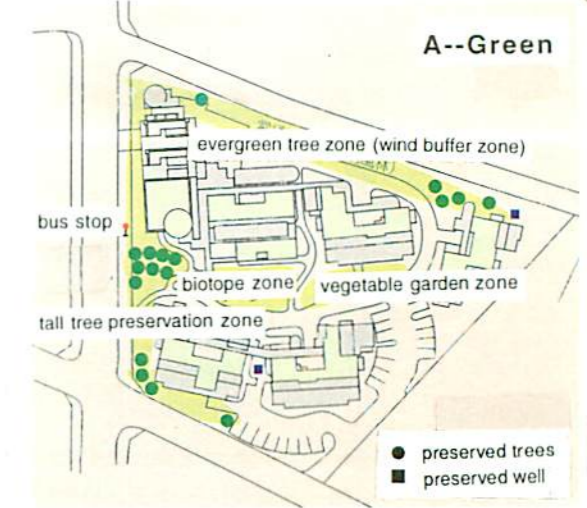
complete plot plan



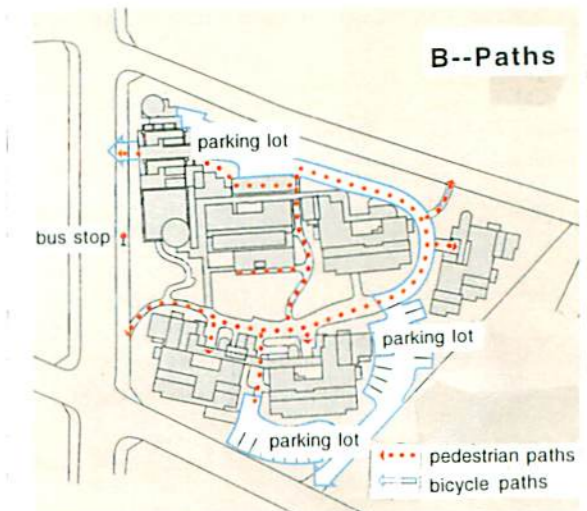
A-A' section



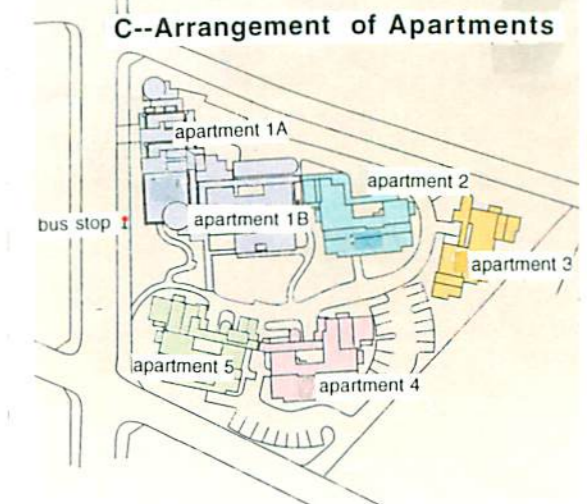
A--Green



B--Paths



C--Arrangement of Apartments



- apartment 1 (A)- housing for the elderly:17unit
LSA residence:1unit
assembly, education, and community rooms
- apartment 1 (B)- public lease housing: 6units, Day Home
- apartment 2-public lease housing:11 units
- apartment 3-special public lease housing:9 units
- apartment 4-public lease housing:12 units
- apartment 5-public lease housing:14 units

SHAPING THE LIVING SPACES

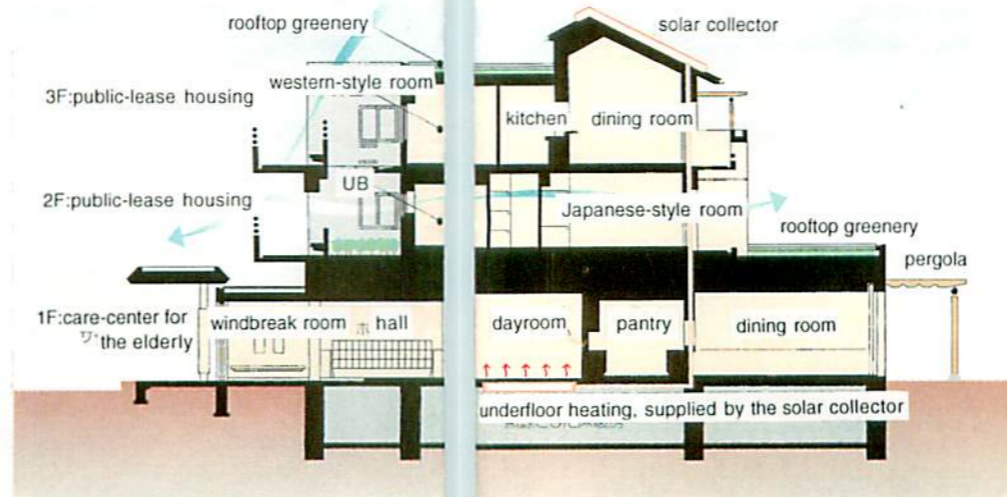


To answer the needs of an aging society, the housing units in this complex were designed with consideration for the elderly and for the disabled. For instance, we designed housing units for elderly people who live alone (17 units in apartment 1), with a home for the LSA (Life-Support Advisor) attached. Units were also planned for residents who use wheelchairs (three units in apartments 4 and 5). In addition, the units for public lease were equipped with an elevator and a skywalk, making access and moving around the complex easy. In such ways, we worked to build a housing complex that includes all the generations, and that encourages a fruitful coexistence of different kinds of people.

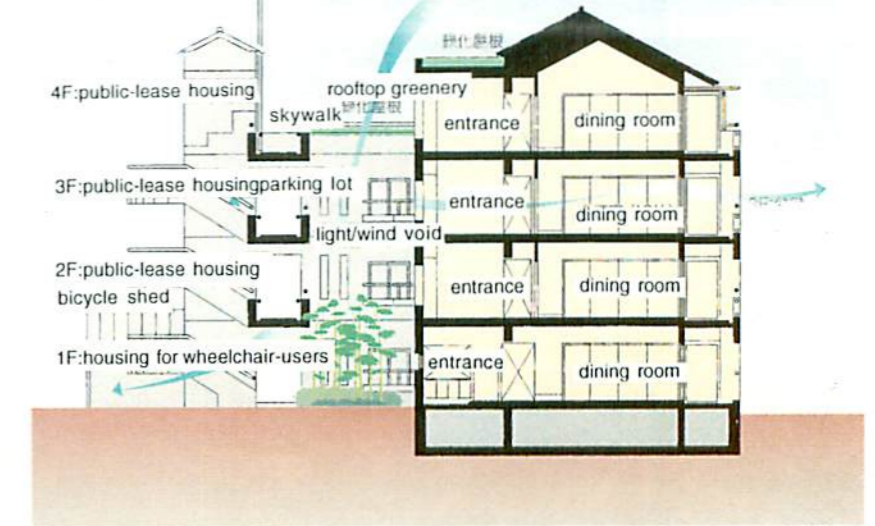
We made sure each home unit was supplied with natural light, ventilation, and air, grouping the apartments around the northern light court, the 'light and wind void', to make this possible. Such an arrangement does increase the area of the outer wall, but it allows each unit to be opened in two or even three directions. This creates a variable atmosphere and a home that is not dependent upon machinery to maintain health and comfort (upper right-hand figure). In this we have followed the "New Energy-saving Technology" national building guidelines.



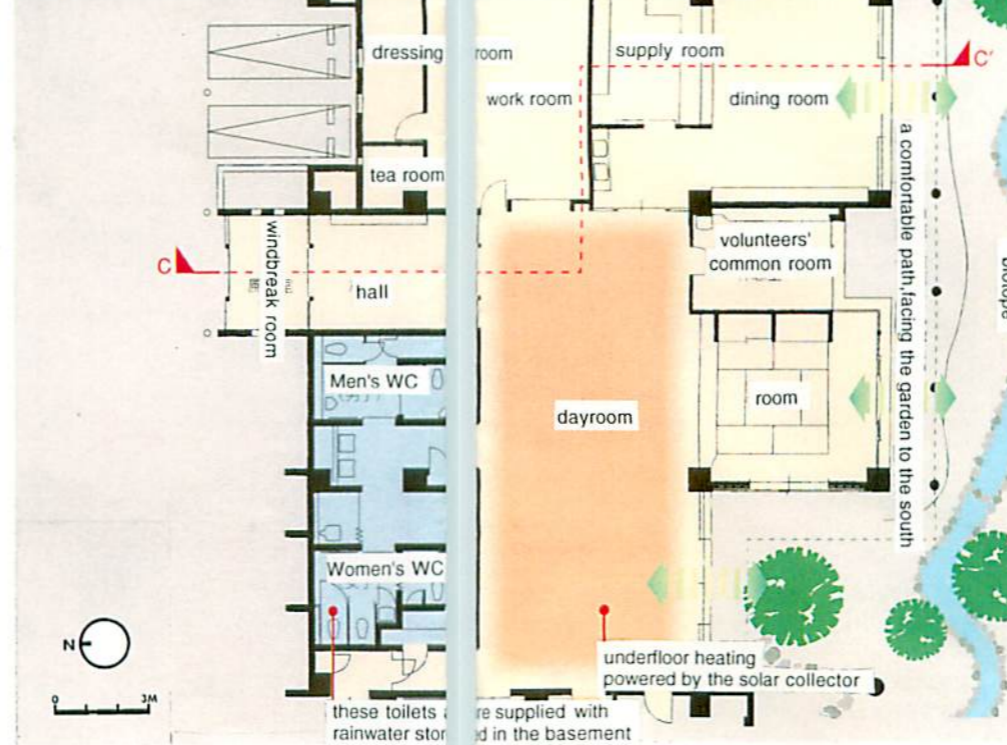
Apartment 1 ■ C-C' cross-sectional plan



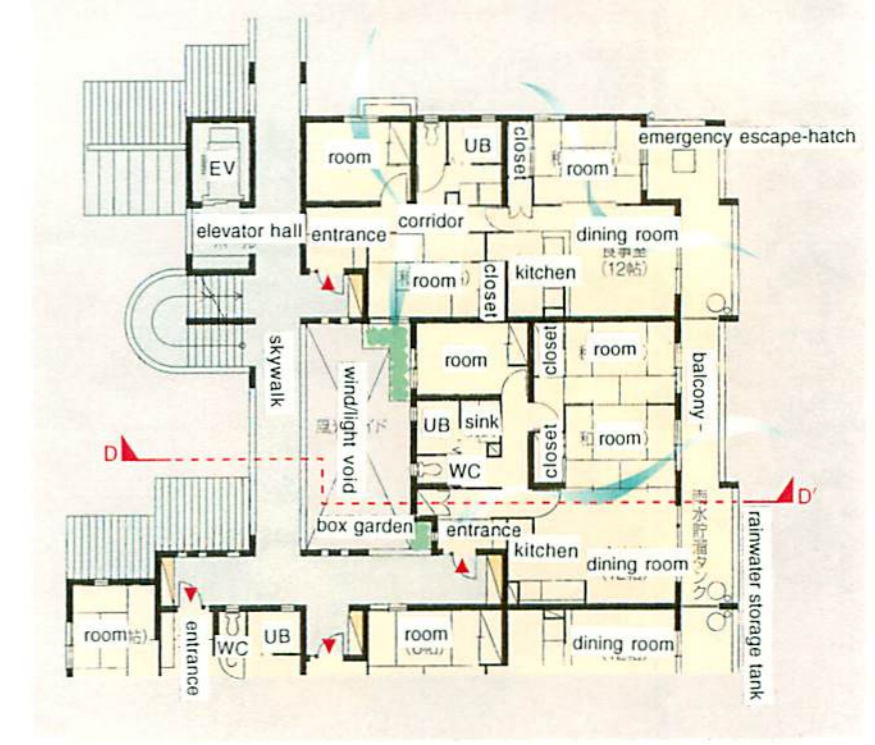
Apartment 5 ■ D-D' cross-sectional plan



■ first floor Day Home floor plan



■ second floor housing unit floor plan



■ B-B' cross-sectional plan



METHODS AND TECHNOLOGIES



In this housing complex, much emphasis has been placed upon those methods and technologies that support a symbiotic lifestyle. These enable low energy and resource consumption, as well as aiding such wide-ranging concerns as waste disposal, water circulation, the increase of greenery, and waterside spaces. The housing complex as a whole was designed to create the minimum of environmental damage, and to realize a sustainable, comfortable, communal living environment. Sketched below are some basic goals.

I Protecting the earth's environment

1 Reducing energy and using it more efficiently

- a High levels of insulation
- we used 25mm polystyrene foam for insulation (A,H)
 - rooftop greenery improves wintertime insulation (A)
- b Adjusting the intake of sunlight
- balconies, pergolas, and canopies adjust sunlight during summer(A)



Pergolas shade the uppermost floors

- c Other energy-saving systems and mechanical equipment
- the public facilities are air conditioned by a gas-absorbing water cooler/heater and fan-coil unit (F)
- d Energy-saving electrical equipment for the home
- inverter-type fluorescent lights are used (A,H)
 - the residents are informed about and encouraged to use these(F)

2 Efficient use of natural or untapped energy sources.

- a Solar-powered electrical generator
- eleven solar-powered outdoor lights illuminate the complex (O)
 - the entrance near the bus stop sports a solar-powered clock
- b Using the heat of the sun
- the solar collector supplies hot water and underfloor heating to the Day Home (F)



Solar Collectors

- c Using the power of the wind
- two windmills generate the electricity that powers the brook (O)

3 Efficient use of resources and the disposal of waste products (Water circulation, waste recycling)

- a The use of rainwater
- rainwater is collected in the basement of Block 1, for use in the Day Home (F)
 - every home (excluding Silver Homes), has a rainwater-collection tank on the veranda (H)
- b The use of groundwater
- water from the well is used in the brook, and for the plants and trees (O)



Rainwater-storage tanks

C Water-saving equipment

- water saving toilets and water faucets are used in every unit (A,H)

d Building methods that reduce the amount of excess soil

- the original contours of the site were preserved, and excess soil re-used within the site instead of disposed of elsewhere (O,A)

e Recycled resources and building materials

- gravel of recycled concrete is used in the buildings' foundations (O,A)
- roof tiles from the original houses were re-used to line the outer walls(O)
- bordering the vegetable garden are other 'secondhand' materials (O)



Materials from the original buildings

f An alternative method of forming the structural framework

- to minimize the use of plywood from South Pacific forests, we (A) :

- used a mesh frame for underground supports etc
- used dry construction methods for divisional walls



Mesh-molded foundations

g Recycling and sorting garbage

- a sorted-garbage collection site and a re-usable-goods stockyard encourage proper garbage disposal and recycling (O,F)

h Recycling kitchen garbage

- the Day Home compostor makes fertilizer for the vegetable plots (F)

4 Remembering the stages of disuse and disposal

a Safe disposal

- we used 'olefin' wallpaper that decomposes organically, and doesn't produce toxic wastes when burnt (H)

II Being friendly to the local environment

1 Protecting ecological diversity and circulation

- a Construction methods that help rain filter into the ground
- uncovered ground surfaces and water-permeable paving returns rainwater to the soil, thus discouraging the depletion of groundwater and the heat-island phenomenon (O)
 - water-permeable trenches and rainwater receptacles help prevent the depletion of groundwater and the heat-island phenomenon (O,A)



How water-permeable paving works

b Biotope

- we hope the complex, with its greenery and brook, will be a fertile biotope for environmental education (O)

C Greening the buildings

- greenery grows on more than half of the combined ground and roof surface area, improving the complex's environment and microclimate (A)
- the western faces of the apartments are covered in climbing plants, to decrease the buildup of heat in the summer, and to provide a pleasing view
- the balcony of each home has spaces for planters, so that residents can raise their own gardens (H)



Rooftop greenery

d Preservation of greenery

- by preserving or else trans-planting existing trees, we helped to protect the animal and plant life of the area (O)



A preserved Spirea tree

- we preserved the site's fertile soil as much as possible, and re-used its woods and vegetable gardens

e Revitalizing the greenery

- useful green areas were planned in order to replace and revitalize the trees and other plants that had to be cut (O,F)
- a forest of indigenous trees
- a local and regional network of greenery
- sharing the duty to protect animal and insect habitats within the city
- creating environmental-education spaces
- windbreaks and green buffer zones

2 Improving the buildings' relation with the outdoors

a Arrangement of the apartment blocks

- having studied the wind directions of the area, we arranged the apartments to allow breezes to pass through the complex (O,A)

b Flourishing intermediate indoor/outdoor spaces

- because the first floor lies only 30cm above ground level, there is a smooth transition from terrace to outdoors(O,A)
- rooftop greenery covers the roof of the first-floor Day Home (F,A)
- the southern side of the Day Home is fitted with a pergola, which creates an attractive intermediate area (O,F)
- each home has a balcony, in places as wide as 1.8m, providing a healthy, useful intermediate space

3 Regional culture, harmony with our resources

a Choosing building methods according to the land

- we kept changes to the natural contours of the land minimal, thus preserving as much fertile land as possible, and reducing the amount of excess soil produced during the building process (O)



Topsoil that has been kept for re-use

b Preserving existing routes and paths

- the public spaces and through-ways of the complex integrate it with Hachiman-yama Shrine, the green paths along Nomi-stream, and other focal points of the neighborhood heritage(O)

4 Supporting the residents' efforts to live in cooperation

a Residents participated in the planning and designing stages

- from the basic planning stages onwards, group interviews and meetings have provided a forum for the residents' participation and cooperation in the building of their home (F)

b Public facilities that encourage communication among residents.

- we designed public open spaces, a vegetable garden, a play area, through-ways, a skywalk, alcoves, and other facilities and constructions within the grounds of the complex (O)
- areas open to the neighborhood, such as the public meeting room, are placed in sunny, convenient positions(A,F)

c Kleingarten

- land in the middle of the complex has been set aside for the residents' own use as a vegetable garden (O)

III A healthy, comfortable living environment

1 Receiving the bounty of nature

a Building planning methods

- the apartment blocks are built and arranged so that each housing unit opens to the outdoors on three or else two sides. This enables a healthy, comfortable, and natural light and ventilation system (A)

- in potentially humid areas such as the bathroom, moisture expulsion systems have been put in place, with the ventilation and condensation expulsion ducts made shorter (H)



A north-facing light-and -wind void

2 A safe, healthy, comfortable indoor environment

a Considering the temperature of things we touch

- the Day Home is made warm, healthy, and comfortable by underfloor water radiator heating, powered by low-grade solar collectors (H)

b Remembering invisible environmental factors

- the living rooms were finished with floorboards, which discourages tick and bacterial infestation (H)

c Construction materials chosen with care for health and environment

- we did not use building materials containing asbestos (A,H)
- we used non-formaldehyde adhesive for applying the wallpaper (H)

d Healthy and environmental facilities

- the building's facilities are non-fluorocarbon, low-ozone, and low-NO₂ producing models(F,A)
- we encourage residents to choose similarly benign equipment (H,F)
- soundproofing or noise-reducing building methods were used (A)

e Consideration for the elderly and the disabled

- apartment one contains Silver Housing, which includes an LSA (A)
- the first floor of Building 1 is a Day Home for the elderly (F)
- the first floors of Buildings 4 and 5 contain homes and parking spaces customized for wheelchair users (O,A)
- we chose adaptable elevators, with trunks for stretchers and wheelchairs
- we avoided steps as much as possible along the paths of the complex, and fitted comfortable slopes and handrails where they were necessary (O)
- there are no steps within the public facilities and in the homes (A,H)
- the public facilities are fitted with handrails, and the walls of each home are made especially strong to enable rails to be attached as needed (F,H)

3 Building a flourishing communal life

a Effective public facilities

- we have built a pleasant waiting area for bus users.
- the complex includes public open areas, a children's park, a vegetable garden and other public areas (O)
- convenient, sunny, healthy meeting halls and public open areas (A,F)

b Easy access to the apartment blocks

- alleyways, a skywalk, and alcoves have been built (A)

c Individuals, families, and the elderly: creating a mixed community

- 'Silver Housing', housing for the LSA, the disabled, families, and for special public lease combine to form a diverse residential complex (A)

d Development, maintenance, and the administration of the complex

- duties should be shared between the government and the residents, rules formulated according to the abilities and conditions of the residents(F)

KEY

site of application

- O: Housing complex
- A: Residential apartments
- F: Public facilities
- H: Housing units
- R: Residents

evaluation of the technical element

- : a practical element of central importance, expected to have a widespread effect
- O: a practical element expected to have a local effect
- △: an element without great practical effect, but with a symbiotic role

LIVING TOGETHER AS A COMMUNITY

And so, Symbiotic Housing has become a reality in Fukasawa, Setagaya Ward. However, if this housing complex is to become a comfortable home and a focal point of the neighborhood, it is important that the goals of symbiosis with the environment are shared and sustainably integrated into the residents' daily lives. It is not only a matter of building a place to live; one of the aims of symbiotic housing is to spread and nurture environmental thinking.

People of different generations and different viewpoints living together: this housing complex was designed and built with such a community in mind. Now that the building itself is completed, it is for the residents to take the central role in nurturing the housing community.

The figure on the lower right hand side outlines a structure of maintenance and development. With discussion and cooperation, we hope that it will help to build a rich communal environment within the ever-changing conditions of this world.

In the Past



A view of the site in 1950

Before Rebuilding



Overview of the houses just before demolition: a site overflowing with greenery



Housing sheltered by carefully grown trees (1994)

Planning



Vegetable gardens within the site

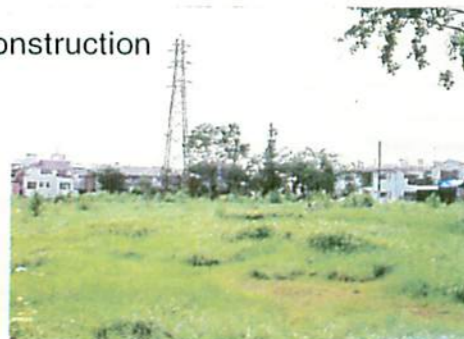


Residents join in the planning process

Towards Construction



Residents witness the first steps (blessing the well)



The site spends one summer as an open field



Construction starting at last



Briskly, the building process continues



Complete view (architectural model)

And from now...



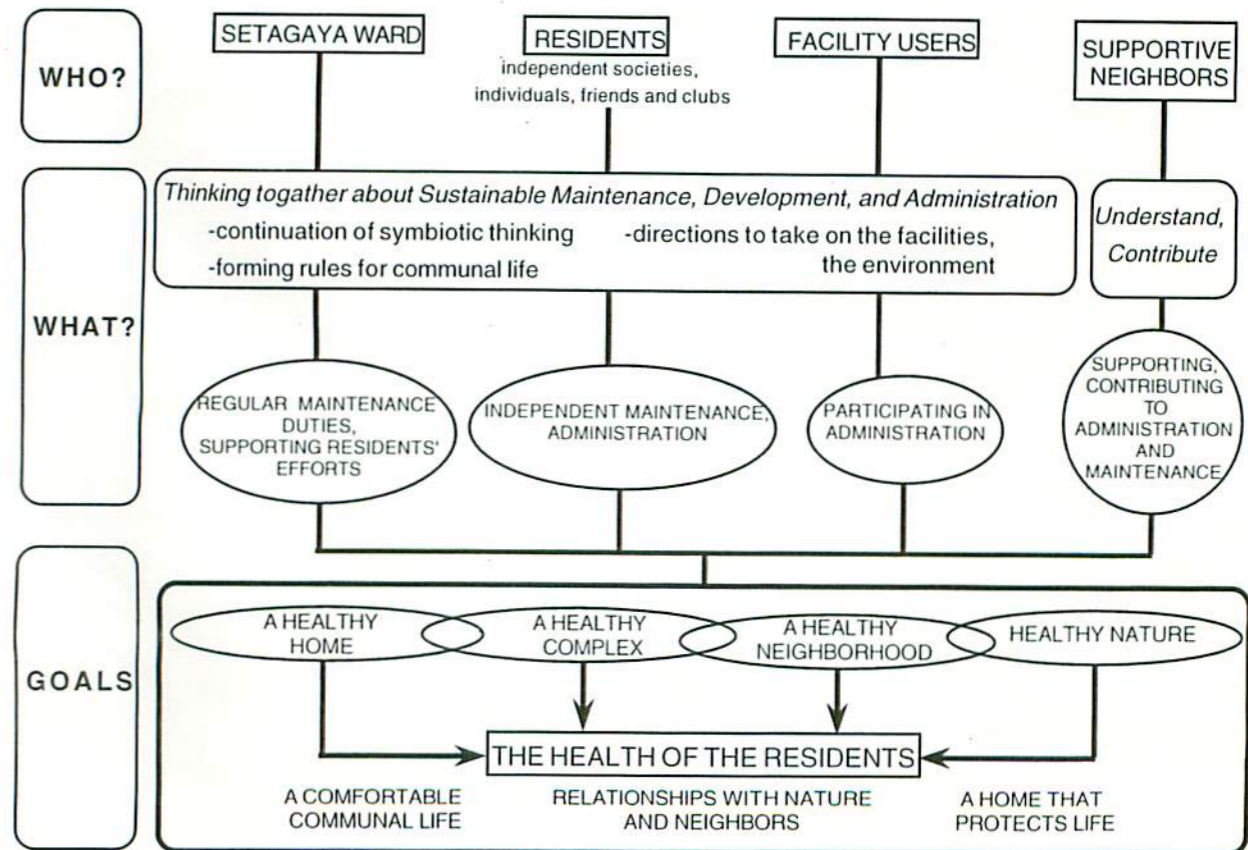
The Biotope will flourish with life (Iwaki Windmill Village)



Children and adults will cultivate it together



Towards a peaceful and pleasant home



A Structure for Maintenance, Development, and Administration