

Dancing Trees, Singing Birds



Project Data

1] PROJECT DATA

Designation:	Dancing Trees, Singing Birds
Year [of completion]:	2007
Author:	Hiroshi Nakamura & NAP Architects
Function:	Housing
Structure:	Reinforced Concrete + Steel
Number of floors:	3 [above ground]
Owner:	Private
Environmental Assessment:	.
Rating:	.

2] LOCAL CONTEXT

Country:	Japan
Location:	Tokyo, Meguro
Context:	Urban [medium to high density city districts]
Site [characteristics]	located on the edge of arborized slope (to South), and in the vicinity of steep gradient streets towards Meguro river valley (to South West)

3] PROJECT AREAS

Site area:	770	m2	
Total floor area:	685	m2	
Constructed area:	424	m2	55% [of site area]
Number of users:	~ 14	tenants	

Project Description

“Located in Ebisu, Tokyo, Bird Park is an apartment where people and birds can live in total harmony. We believe that the pleasure of living with nature can be communicated through architecture, and by living face to face with nature can raise the awareness of sustainable living in each individual. Architecture is usually seen to be concerned only with humans, but by expanding the target to plants and animals, we thought it could familiarize more people to architecture. It is an apartment sympathetic to both human and to the environment.

The site is located in the very central district of Tokyo surrounded by trees over 20m high. We felt that such greenery was a precious asset to a crowded city like Tokyo, and wanted to preserve this forest to build with it rather than to build on it. We began the process by measuring the shape and the location of each and every tree with a laser pointer and created a three dimensional computer model from the collected information. Then we consulted a tree doctor and discussed how we could build without damaging the roots. The ‘huts’ were constructed according to the location of the branches, leaving enough room for the trees to sway in the case of tropical rainstorm. Towards the top of the building, we located small birdhouses echoing the shapes of the ‘huts’.

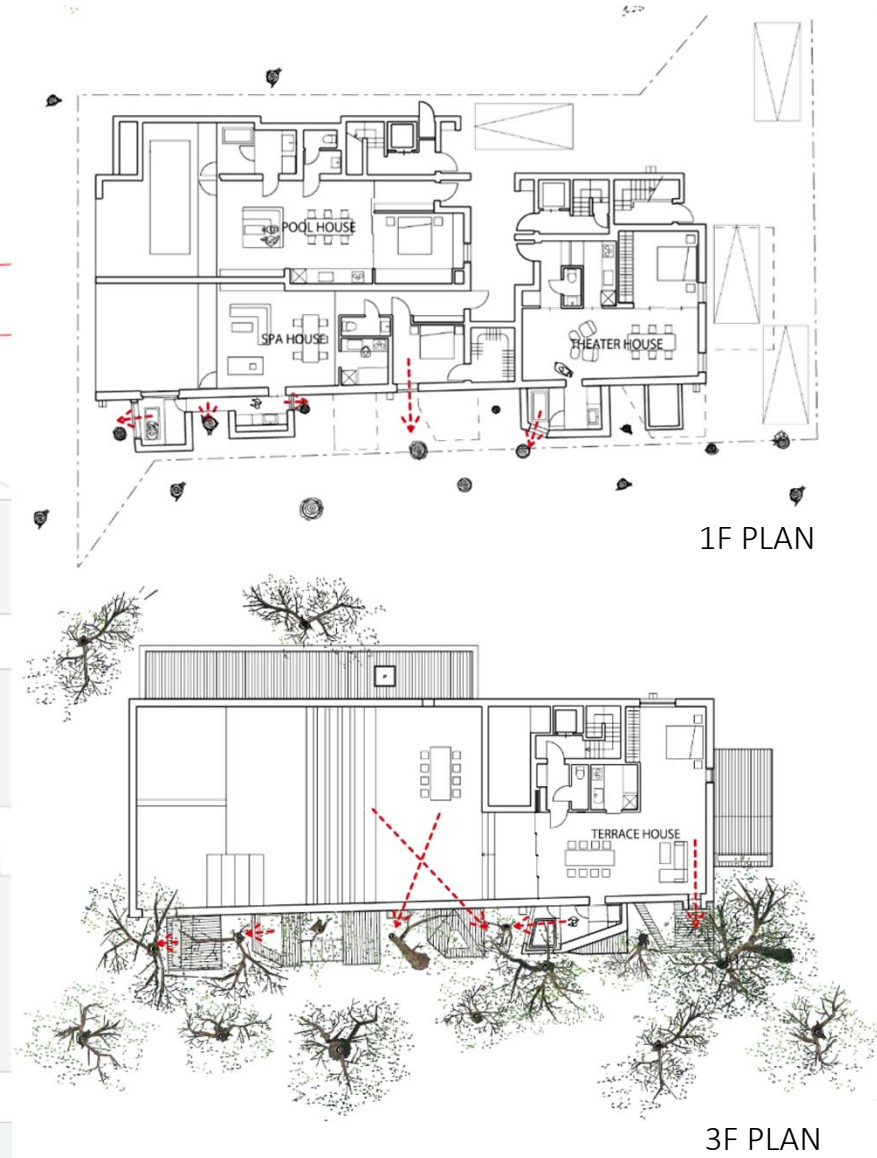
Living with the forest; to be able to smell the flowers, to hear the leaves blowing in the wind, and to be able to listen to the birds sing. Bird Park became a place where people and nature can form a close and intimate relationship with each other, and by forming such relationship, I hope to enhance the quality of life in each individual.”

Hiroshi Nakamura

The rear of the site has a grove of trees 40 meters wide that are growing on a slope. We decided to formulate a design that provided maximum volume while cutting as few of these trees as possible. We first investigated the location of the roots with the help of an arborist, and placed the structural walls at a location as close as possible to the trees where the thick roots would not have to be cut. We snaked the underground beams to avoid coming into contact with large roots. Next, we measured all branches measuring 15cm or more in diameter with a unique methodology that we developed, and created a three dimensional computer image from this data. We then simulated the growth of the trees and the swaying of the branches during typhoons to determine the spaces where there would be no branches, and located rooms in these spaces. This did result in rooms that have irregular external shapes, but it was a result of accepting the natural environment as it is. All of the rooms are located close to the trees, enabling the green foliage that is reflected and amplified by basins and mirrors to be seen from virtually all locations inside the building. Desks, bookshelves, bathtubs and washbasins are provided near the windows to create space where the people get the feeling that they are living together with the trees. This gives people the opportunity to look at squirrels in the trees and the leaves, smell the fragrance of flowers and hear the warbling of small birds. When people live in interior space that is created in response to the behavior of the trees and other elements of nature, the behavior of people tends to evolve, people gradually integrate nature into themselves, and it becomes part of them.

in Archdaily (adapted)

Technical Drawings: Plans, Sections and Elevations



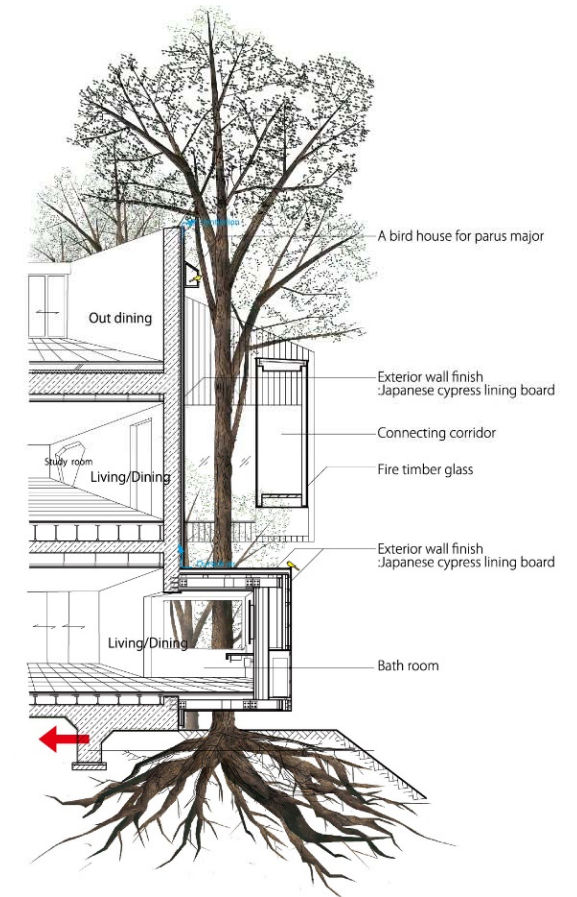
Technical Drawings: Plans, Sections and Elevations



NORTH SECTION



SOUTH ELEVATION



FAÇADE SECTION

Photos

access to housing complex ↵

south view ↵



birdhouses ↵

south views: "huts" ↵

Photos

views of library house ↵



“exterior” bathtubs and washbasins ↵



view of pool house ↵



view of tea house ↵



huts, trees and birdhouses ↵

Ecosystem interpretation options [digest]

- 1 Preservation and proximity to the existent tree grove [with more than 20m high], inside and outside the site area
- 2 Allocation of 6 birdhouses [for *parus major*] on the wooden façade
- 3 Structure and circulation design attending to roots of trees and to branch movement in case of strong winds
- 4 Landscape influence on volume shape [interplay with trees], visual mimic between birdhouses and huts
- 5 Immersion in nature, for users: protruding "huts" close to the trees, semi-outdoor spaces, and landscape views from the interior
- 6 Knowledge and environmental education opportunities
- 7 Architecture concept of cohabitation of habitat species [trees, humans, birds]
- 8 Water features [outdoor pool and pond] on ground and first floor: reflections and cooling breeze to apartments
- 9 Patch of balcony greenery on rooftop
- 10 Semi-pervious pavement on access areas
- ...

