

PROJECT	SUGAWARADAI SUKE Information				
SUBJECT	Yutaka Kindergarten ~Active Learning Garden with Variety of Perception~				
PLACE	--	DATE	151019	PAGE	8
CODE	YTK01	PHASE	--	REGISTER	--

■Concept (Short)-----

Yutaka Kindergarten is built on a steady philosophy of play-based education, encouraging children to develop their thinking actively. Space that offer diversity of experiences by stimulating children to explore and develop their thinking was required to practice such education policy. In order to respond to its needs, we traced the word “kindergarten” to its origin - “children’s garden” - and converted the site into mosaic-like collection of gardens for diverse activities of children.

Three approaches were adopted to realize the ‘gardens of learning through play’.

First approach is the design of density. The furniture, walls, and playground equipment are distributed inside and outside, carefully designed to create three different gardens with different densities – ‘Garden of Motion’, ‘Garden of Stillness’, and ‘Garden with a Roof’. The three gardens are developed seamlessly on the site, which allows children of different age and body capabilities to coexist, interact, or be separated.

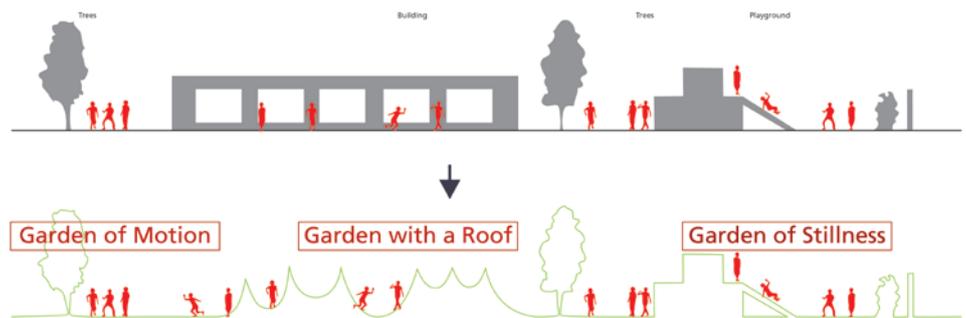
Secondly are the mountain-like walls. The structural walls with openings on the upper half are placed like layers, creating diverse light, colors, spaciousness and relationships between the loosely separated classrooms. The layers are aimed to induce children’s motion by controlling children’s views, where in some places they are blocked, and in some places they are open. Although children’s views range according to its coordinates, the openings on the walls with a certain scale allow the adults’ views to be open at all times as a matter of management.

The last is the gloss finished ceiling. The exterior environment are planned to become a forest of biodiversity to contribute to the education program, and as they change their expression every season and also during the day, the ceiling reflects and absorbs them to the interior. It is essential to perceive the transitions of natural environment as infants generate and expand their perception. Moreover, by observing the motion of others that reflect on the ceiling, children are encouraged to understand the sense of distance between people, establishing their behavior in society.

Variety of gardens expanded indoors and outdoors, stimulates human instincts to search for adequate environment, developing infant perceptions and experiences. The mixture of play that children are provided passively and play that children discover actively, is the very environment to educate infants through experience and creation.

■Concept (Long)-----

Yutaka Kindergarten is built on a steady philosophy of play-based education, encouraging children to develop their thinking actively. Space that offer diversity of experiences by stimulating children to explore and develop their thinking was required to practice this education policy. In order to respond to its needs, we traced the word “kindergarten” to its origin - “children’s garden” - and converted the site into gardens for diverse children’s activities. Three approaches were adopted to realize the ‘gardens of learning through play’.

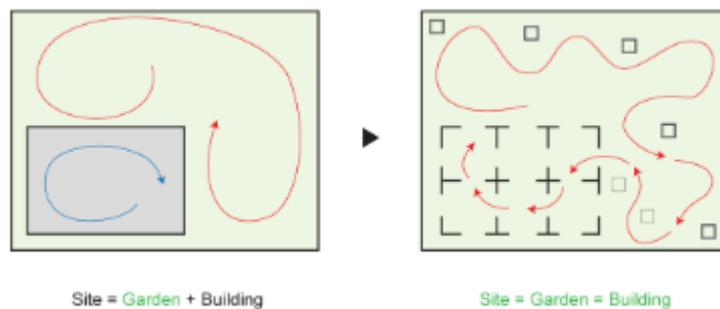


●Site

●Concept

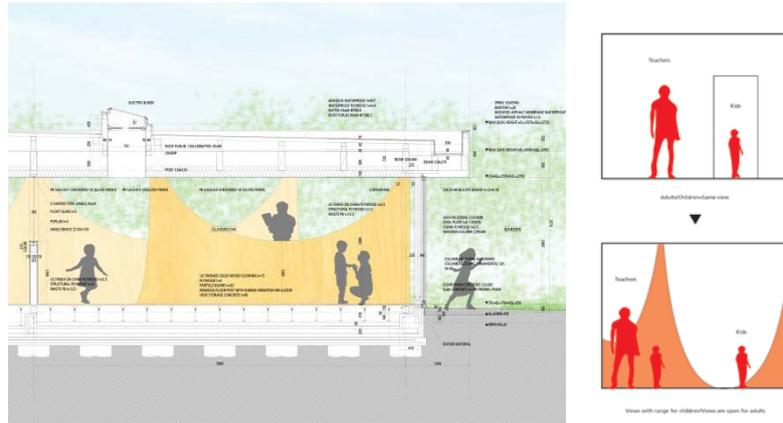
[Approach 01: Designing Density]

In a conventional kindergarten, indoor and outdoor activities are separated, where schoolhouse and the garden are planned individually. In this project, furniture, walls, and playground equipment are distributed inside and outside, carefully designed to create three different gardens with different densities – ‘Garden of Motion’, ‘Garden of Stillness’, and ‘Garden with a Roof’. The three gardens are developed seamlessly on the site, which allows children of different age and body capabilities to coexist, interact, or be separated.



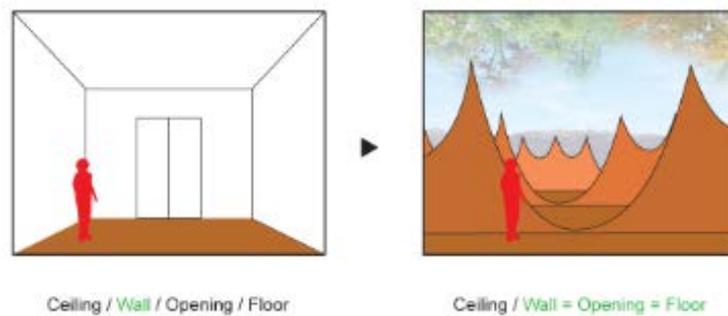
[Approach 02: Mountain-like Walls]

In this project, fundamentals of interior space such as walls, openings, floors are taken apart and reconstructed to create mountain-like walls that emerge from the floor. The mountain-like walls which also could be said as structural walls with openings on the upper half are placed like layers, creating diverse light, colors, spaciousness and relationships between the loosely separated classrooms. The layers are aimed to induce children’s motion by controlling children’s views, where in some places they are blocked, and in some places they are open. Although children’s views range according to its coordinates, the openings on the walls above 1200mm allow the adults’ views to be open at all times as a matter of management.



[Approach 03: Gloss Finished Ceiling that Advances Children’s Behavior]

The exterior environment are planned to become a forest of biodiversity to contribute to the education program, and as they change their expression every season and also during the day, the ceiling reflects and absorbs them to the interior. It is essential to perceive the transitions of natural environment as infants generate and expand their perception. Moreover, by observing the motion of others that reflect on the ceiling, children are granted with choices of where, how, and with whom they play. These opportunities are aimed to encourage children to understand the sense of distance between people and establish their behavior in society.



[Conclusion: A Place to Generate Thinking and Discovery]

Variety of gardens expanded indoors and outdoors, stimulates human instincts to search for adequate environment, developing infant perceptions and experiences. The mixture of play that children are provided passively and play that children discover actively, is the very environment to educate infants through experience and creation.

[Project Details]

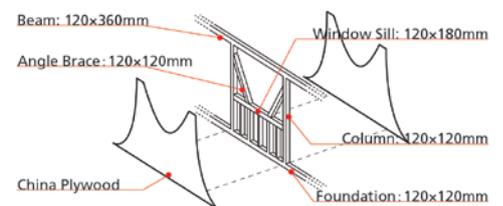
●Floor Planning: Gardens, Classrooms, and a Hall

It is inevitable for kindergarten kids to have a big range of body sizes and capabilities. In order to respond to this, 3 year olds classrooms are faced to the 'Garden of Stillness' and older kids use classrooms that are faced to the 'Garden of Motion', loosely separating each grades by their different speed and quality of play. On the other hand, a hall planned to connect all the classrooms allows interactions between grades. The hall has a span of 14m, which is realized by a 400x400 cross-frame steel beam.



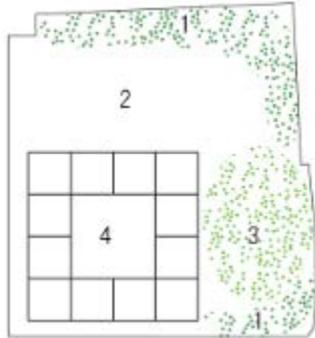
●Structure: Mountain-like Walls by Angle Brace Structure

To realize the mountain-like walls that function as structural walls, traditional angle brace structure is applied. Three types of structural walls are designed according to spans and size of openings and wall lengths, and they are placed well-balanced in order to bear the horizontal force.



●Plantation: Supporting Diversity of Play

Offering experience of natural environment has always been an essential part of Yutaka Kindergarten's educational program. To support this, 'a forest of biodiversity' is proposed, creating transitions of colors and creatures. 45 plant species were planted anew, and they are distributed carefully to design density as well as the playground equipment to create 3 different gardens.



1. 'Garden of Motion'
2. 'Garden of Stillness'
3. 'Garden with a Roof'

Deciduous	Evergreen Plant	Deciduous Shrub	Evergreen Shrub
<ul style="list-style-type: none"> · Fig · Prunus Mume · Nettle Tree · Persimmon · Sawtooth Oak · Sawtooth Oak · Chestnut · Quercus serrata · Crape Mrtle · Pomegranate · Prunus Avium · Prunus Yedoensis · Cercis · Japanese Beautyberry 	<ul style="list-style-type: none"> · Glauca · Camphor Tree · Orange Osmanthus · Ilex Rotunda · Quercus Myrsinaefolia · Neolitsea Sericea · Tarayou · Holly · Loquat · Ternstroemia Gymnanthera · Beddome 	<ul style="list-style-type: none"> · Hydrangea Macrophylla · Jasminum Primulinum · Viburnum Plicatum Var. Plicatum · Spiraea Cantoniensis · Callicarpa Dichotoma · Weigela Coraeensis · Corylopsis Pauciflora · Butterfly Bush · Lespedeza Thunbergii · Barberry · Kerria Japonica · Spiraea Thunbergii · Nankin Cherry 	<ul style="list-style-type: none"> · Abelia · Inutsuge · Rhododendron Pulchrum · Michelia figo · Jasminoides · Rhododendron Kurume Group · Cleyera Japonica · Rhapsiolepis Umbellate · Tobira · Nandina Domestica · Eurya Emarginata · Rhododendron Pulchrum · Rhapsiolepis indica Var. Umbellata

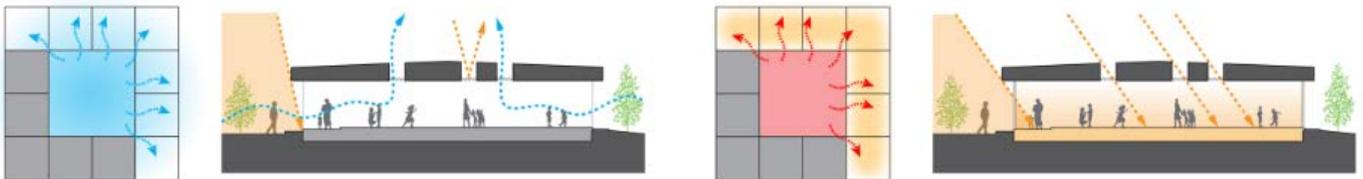
●Environmental Facility: Thermal Environment connecting diversity of play

Thermal environment was designed create no boundary between indoors and outdoors, in order to support diversity of playing activities.

In the intermediate seasons, top-lights, blinds, and eaves are used actively to utilize natural resources such as sunlight and wind, realizing comfortable semi-outdoor space.

In the hottest season, artificial air-conditioning in the central hall is utilized, sending cool air to each class rooms. This is to improve air-conditioning efficiency, as the classrooms are connected to gardens and frequent entrance and exit are inevitable.

In the winter, floor-heating system where concrete foundation performs as thermal storage medium, to provide warmth even with windows opened. Addition to that, air-conditioned central hall sends warm air to each classroom, in order to endure the coldest season.



[Data Sheet]

■Project Outline

Project Name: Yutaka Kindergarten

Place: Saitama, Japan

Principal Use: Kindergarten

Client: Yutaka Kindergarten

Number of Stories: +1

Eaves Height: GL+3250mm

Max Height: GL+3770mm

Site Area: 2650.43sqm

Building Area: 812.117sqm

Floor Area: 802.25sqm

Concept Design/Schematic Design/Design Development:

SUGAWARADAI SUKE

(Daisuke Sugawara, Masayuki Harada, Noriyuki Ueakasaka, Hiroshi Narahara)

Structure Design: OHNO JAPAN

Facility Design: YMO

Planting Design: GA Yamazaki

Scheme of Sign: Masaki Hanahara

Construction: Okaken Koji Co., Ltd.

■Structure + Construction

Structure: Wooden Post and Beam

Foundation: Mat Foundation

■Rooms

Classroom: 50.57sqm

Central Hall: 108.89sqm

■Period

Design: Oct. 2012-Oct. 2013

Construction: Oct. 2013-Aug. 2014



●Plan



●Section