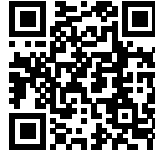




MUKU NURSERY: 360-DEGREE VISIBILITY DESIGN

Posted on April 18, 2019 by martabuges



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The idea behind this project should be called bubbles, rather than a circular plan. In plan, the design looks like bubbles slowly rising into the air, keeping an optimum distance from one another. Each bubble has only one function. There are no walls inside. Like a single-cell organism supported by organelles, mitochondria, ribosomes, etc., each bubble is supported by furniture and low partitions.



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There are always criticisms about a circular plan: it isn't easy to arrange the furniture; the structure is complicated. I have no objection to those points, yet we found that there are significant advantages to circular planning compared to conventional modular planning.

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First of all, the positioning of each function is completely free from geometrical restrictions. Each room can be located as it is analyzed in the diagram. The size of each room can be adjusted freely.

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Second, the visibility is excellent. Visibility is one of the most important requirements for a kindergarten and nursery school. The round shape brings 360-degree visibility naturally. The gap formed between bubbles provides glimpses from one end to the other. The view from the office is much like the view from the bridge of a ship.

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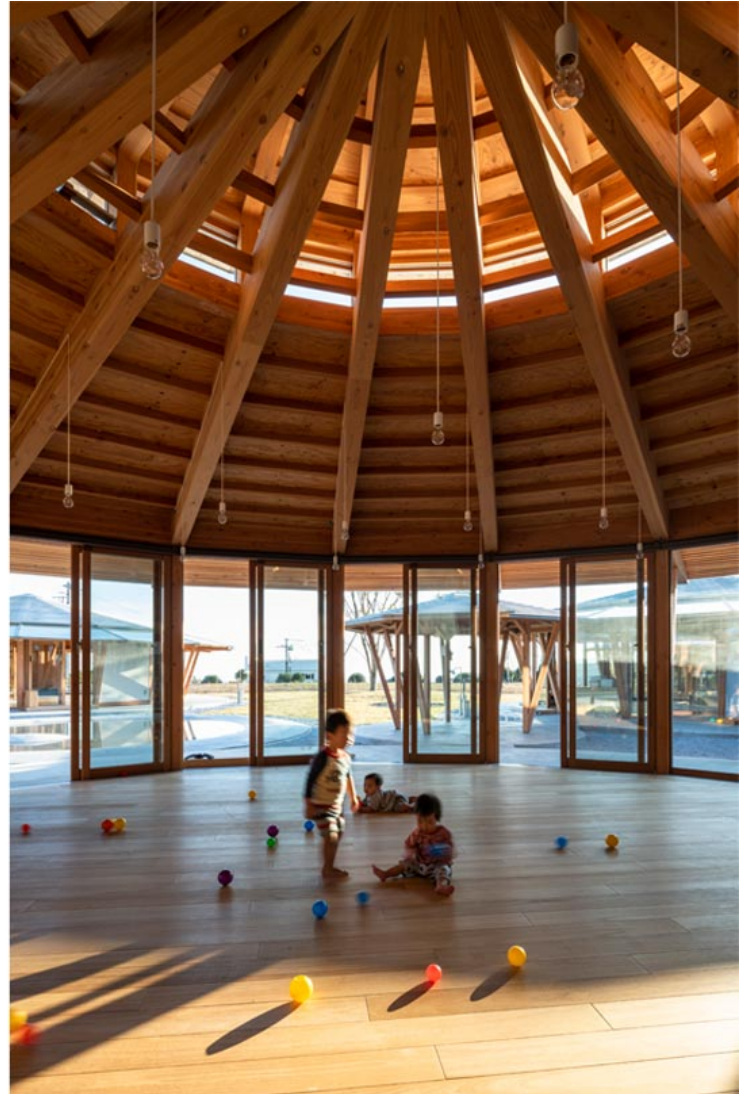


Third, the round shape evokes the endless circular movement of children. It is endless instinctive movement.

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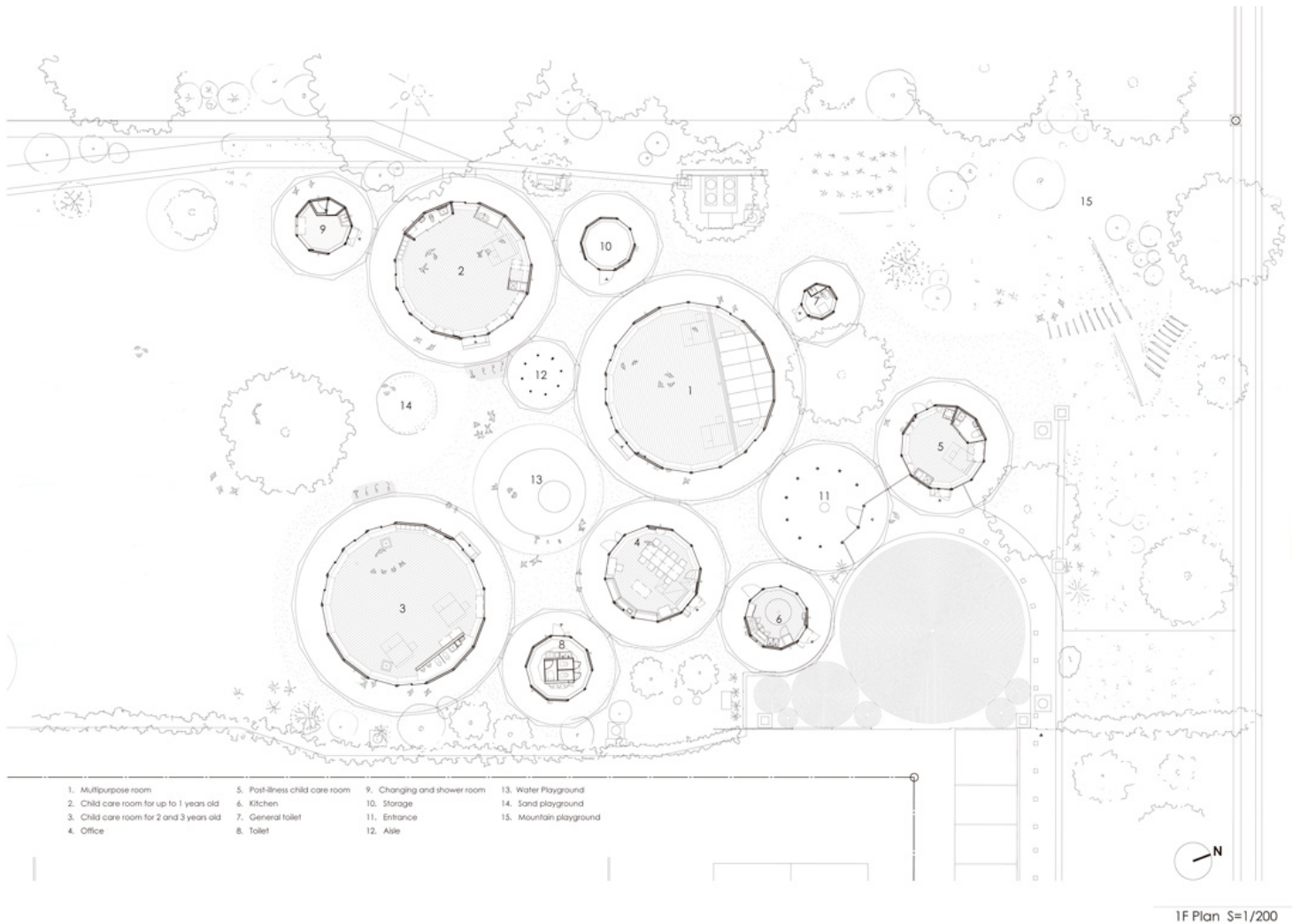
The circles are linked with each other and create infinite combinations.

There is only one circle that the children can cross. It is an exterior dish of water at ground level. There is no step but only a gentle slope, and the depth is just 30 centimeters. In the winter, the water is drained and the pool becomes an empty dish where children can run.

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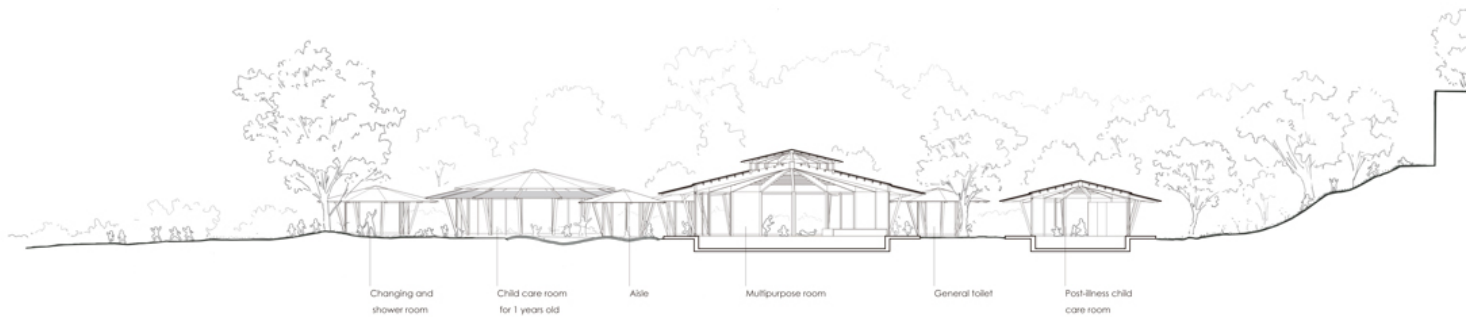
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Section S=1/200

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Architectural cross-section drawing of a building with a steep, gabled roof. The drawing shows the internal structure, including rafters, beams, and insulation. Key components labeled include:

- Roof:** Galvalume steel sheet roofing, Rubber asphalt roofing, Structural plywood $t = 24$ mm, Secondary rafter 60×60 mm @ 455mm, Styrofoam insulation $t = 60$ in between, Structural plywood $t = 15$ mm.
- Ridge Cap:** Galvalume steel sheet roofing, 2 sheets of rubber asphalt roofing, Plywood $t = 15$ mm, Framework, Steel plate sheeting for fire-proofing.
- Hinged Window:** Nytech wood, Rot-resistant coating, Double glazing FL6 + A6 + FL6.
- Ceiling:** Lach plywood $t = 9$ mm.
- Beam:** Laminated Pine 150×330 mm.
- Cross beam:** Laminated Pine 111×180 mm.
- Ceiling:** Structural plywood $t = 24$ mm.
- Lintel:** Nytech wood.
- Sliding doors:** Nytech wood, Double glazing FL6 + A6 + FL6.
- Interior wall:** Structural plywood $t = 9$ mm.
- Floor:** Kiln Flooring $t = 15$ mm, Beeswax finish, Plywood $t = 12$, Batten 45×45 mm @ 303mm, Joist 90×90 mm @ 910, Steel bundle.
- Foundation:** Hiba cypress with rot-resistant coating.
- Air-conditioning chamber box.**
- Built-in air conditioner.**
- Insulation:** Sprayed urethane foam $t = 45$.
- Flexible duct 200 Ø.**
- Raft foundation:** Concrete $t = 150$.
- Duct:** Piping connects each building.
- Berm:** Concrete goldite finish.
- Louver:** Pine 45×60 mm @ 90mm.
- Bracing:** Laminated Pine 120×120 mm.
- Fixed panel:** Nytech wood, Double glazing FL6 + A6 + FL6.
- Pillars:** Laminated Pine 120×120 mm.
- Rainwater collection:** L-shaped galvalume steel plate (installed along the overlapping roof).
- Roof:** Laminated glass FL 10 + FL 10 (Glass receiving hat type hardware (ZAM material) Set on beam).

Dimensions are provided for various components and overall heights.

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