FABrick Beehive

Case Study of the building by the 3D printing and the biological approach

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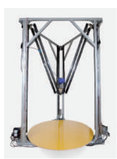
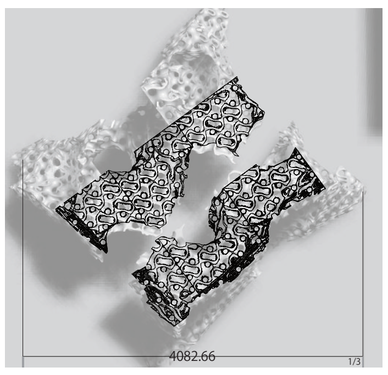
Abstract

It is said that 2/3 of the crop on earth is dependent on bee ecology. We have collaboration with beekeepers to expand the Urban Bee -keeping on the roof of the building, it was exploring the significance of applying the 3D printer to architecture. A complex shape made possible by the 3D printing techniques, it is possible appended built in Brick the tools needed to apiculture maintain the minimum volume and strength. Captures the building as ecosystem, it is expected to be produce an opportunity to bees and the people involved.



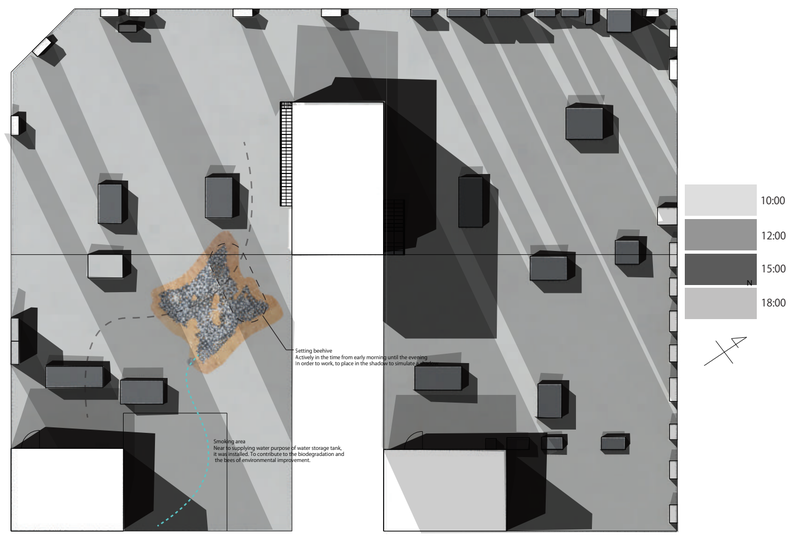
pellets

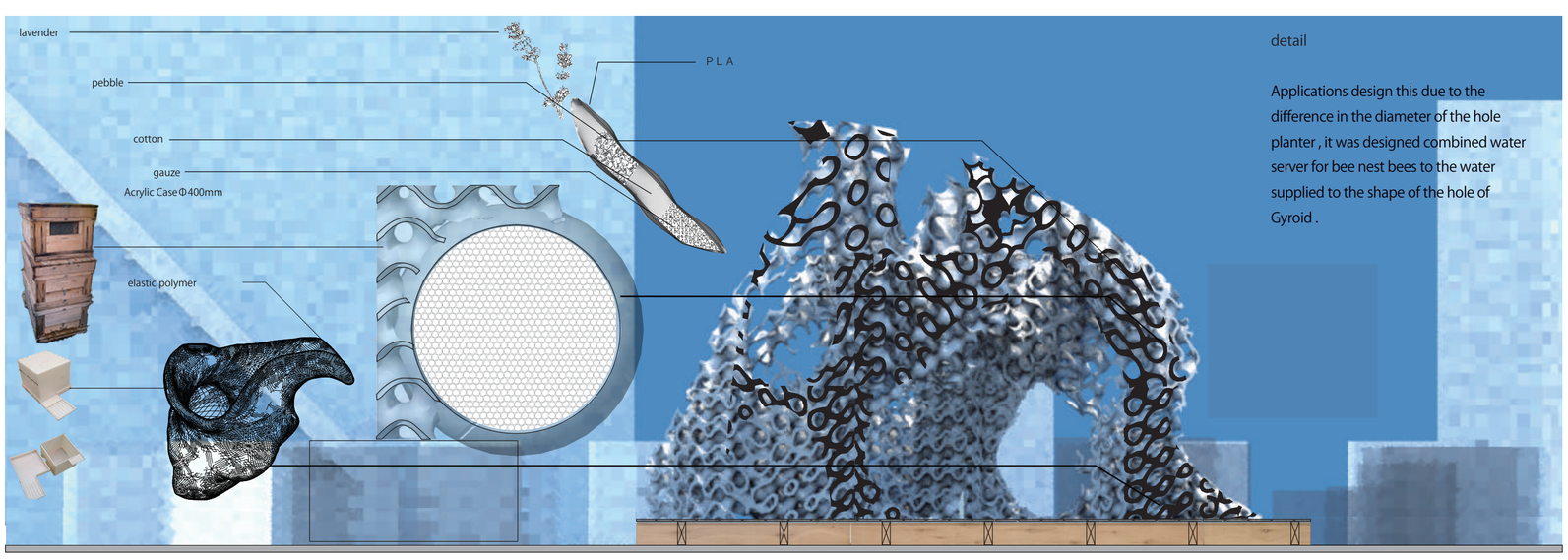
Use a pellet form of the biodegradable plastics, it combines the cost and versatility.



Design process

Pre- design the diameter of the holes corresponding to all applications assigned to the whole final volume .



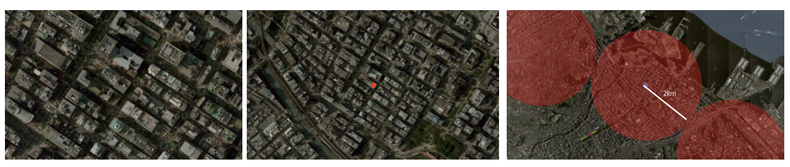


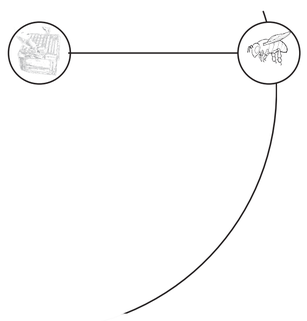
detail

Applications design this due to the difference in the diameter of the hole planter , it was designed combined water server for bee nest bees to the water supplied to the shape of the hole of Gyroid .

assembly

Unify the whole of the model in 300 ㎣ of standard, and outputs the split . It was designed on the assumption that even used alone while maintaining lightness .





Outlook to the city scale

It recognizes the homing route by detecting the heat bees range to move would back the position of the nest before the ovement to be more than 2km radius at a time . Is a constraint of this project the future. becomes a