

# The Design of the 'Mountain' Slide: Reviving Play

The Architecture and Design Firm, [Jakuetsu Co., Ltd](#), a company that plans, develops, and manufactures childcare teaching materials, approached [Shinichi Sumikawa](#) with a unique request: to create a slide that would not only excite children but also serve as a symbol of modern playgrounds. The project was inspired by Japan's traditional "octopus slides," which were once prominent in parks but had largely disappeared due to deterioration. The goal was to design an iconic replacement that would captivate children's imagination while addressing modern fabrication and transportation constraints.

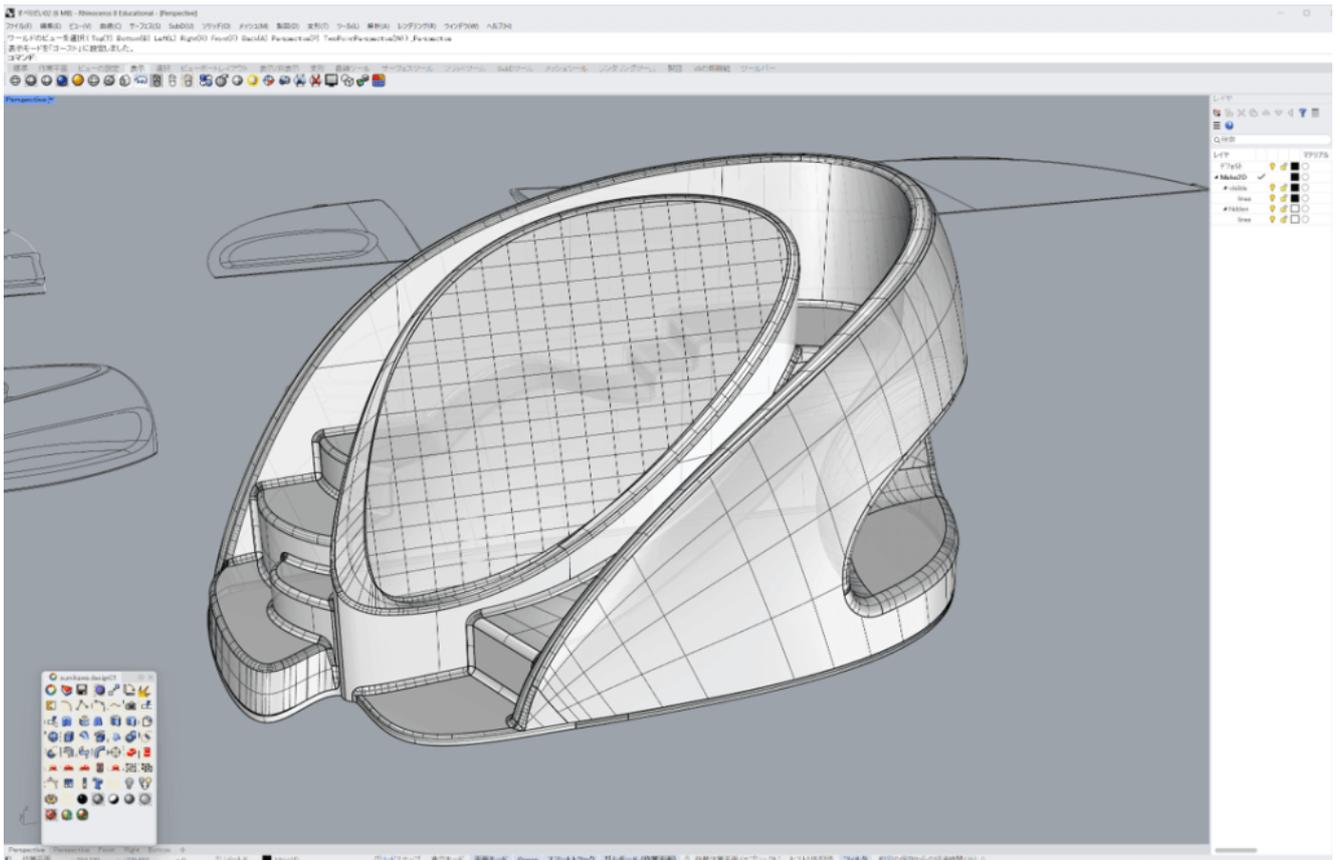


## DESIGN & PROTOTYPING

The design process began with extensive research into existing playground structures, followed by an open-ended modeling phase in [Rhino](#). Numerous variations were generated, leveraging the software's flexibility in handling organic forms. These models were then translated into physical prototypes using 3D printing, allowing for rapid iteration and refinement. Throughout this phase, renderings produced in [KeyShot](#) helped communicate design concepts to

stakeholders.

A major challenge during the project was transporting such a large structure efficiently. To solve this, the team revised the design based on the maximum volume that could fit onto a 4-ton truck. Rhino was instrumental in fine-tuning these adjustments, ensuring the structure remained visually compelling and logistically feasible. The final result was a large-scale playground feature that could be easily transported while retaining its intended impact.

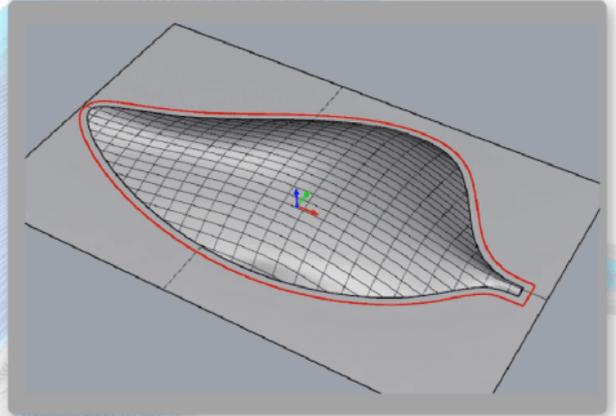


## PARAMETRIC CURVES & PLAYFUL FORMS

The core design concept was centered around dynamic movement. Function curves played a crucial role in shaping the slide, echoing past projects by Sumikawa; such as the official table tennis table for the Rio Olympics, which used parabolic curves to capture the energy of the game. For the 'Mountain' slide, the team incorporated a spiral curve inspired by the form of a snail, creating a continuous loop of play for children. This curvilinear approach was key to fostering an engaging, never-ending cycle of movement.

Additionally, the transition to the peak of the slide was designed as





RhinoCAM

RhinoFabStudio

[See Also](#)

[RHINOCAM 2 1/2 & 3 AXIS](#)

## IMPACT & RECOGNITION

The 'Mountain' slide quickly became a favorite among children, drawing long queues at playgrounds and surprising even kindergarten teachers with the level of engagement it inspired. Its organic shape—reminiscent of a sea snail—ensured that every viewpoint offered a different visual experience, further stimulating children's curiosity and imagination. This successful fusion of design and play earned the project the prestigious [German iF Design Award](#), solidifying its status as a benchmark in playground innovation.



The 'Mountain' slide's success highlights the power of computational design in shaping physical structures and the experiences and memories of those who interact with them. By blending mathematical precision with creative exploration, the project stands as a testament to the evolving role of Rhino in contemporary design.