

Elias Brulin & Daniel Nolkrantz

Tutor: Gediminas Kirkdeikis

Examiner: Per-Johan Dahl

The Digital Friend - A conversation between the architect and its digital tools.

The constant development of digital tools is changing the way architects work. Our thesis explores the possibilities of new technology in general and generative design in particular. Generative design allows for a feedback-based methodology where the software acts as a collaborator, instead of just a tool. The architect constructs algorithms with specified objectives and constraints, the computer manipulates the geometry based on these settings and provides the architect with endless iterations to evaluate.

After a thorough investigation, we implemented this methodology on a competition entry for a volcano museum in Iceland. The competitions program and context established challenges that could be solved with generative design. We did not set out to discover the ideal methodology but merely considered the thesis as an experimental study in the subject matter. Striving for simplicity, we limited the set of objectives to the most relevant: interior light conditions, the exterior microclimate and visual connectivity towards the local volcano.

The process raised several questions regarding our relationship with digital tools: Will the architect go from being a creator to curator? How do you represent simulations in the process? What is the relationship between optimization and immeasurable values?

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