

## The (changed) roles of physical models in building design practice and education

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### Abstract

Physical models have a long history. They have been used in design practice already in ancient history. Although their role it has changed over time, physical models still aid design decisions as form, geometry and detailing, help determine and verify structural/material behavior, visualize and communicate different stages design projects to different stake-holders. Over the last 20-30 years digital platforms have completely over taken analogue approaches in building practice. Yet, in education, both in engineering and architectural – physical models are utilized more than ever. In parallel to digital tools, physical models are used as a very powerful educational tool.

This paper presents a study of the current status and presents the (changed) role of physical models in building design practice and education. Through examples of different types of models, case studies of working practices in architecture and engineering, as well as educational workshops, the paper will outline the current trends, opportunities and limitations of the physical model as a tool within a digitalized design and educational practice. Parallels will be made between digital and analog workflows with an aim of providing an understanding of what they can offer, as well how they can supplement and support each other. The paper will put forward the hypothesis that physical models are still a very powerful tool, that they have an important role to play both in education and in practice, although that may be a very different one than before digital tools were so readily available and ingrained.



Fig. 1a. Digitally printed concept  
Søren Jensen Water Culture Center



Fig. 1b. Hand-made concept model  
dRMM Kingsdale school

Digitally printed physical models will be discussed as creating a bridge between a physical and digital. In conclusion, the paper will finish with an overview of types of models and how, they can aid both design practice and education.

### References

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