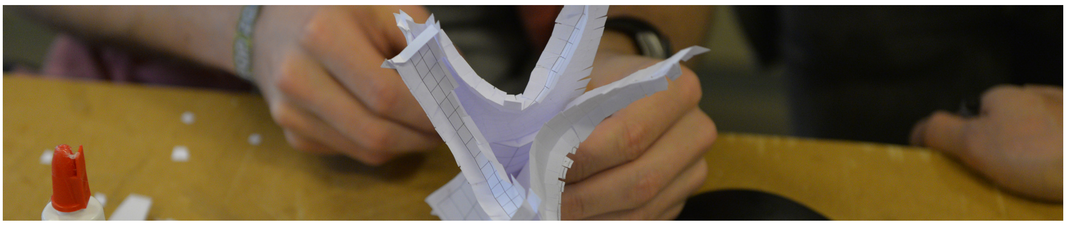
CONCRETE, FABRIC FORMWORK & STRUCTURAL OPTIMIZATION

Investigating ‘hands-on’ innovative formwork techniques and design tools.



Within the concrete industry several trends arise addressing topics related to environmental issues, production optimization and design driven ambitions. In the field of material research and development one can state that laboratory ready inventions are years ahead of what the industry can actually apply at this moment. At the same time one of the main ‘bottlenecks’ in developing new products seems to be the available formwork techniques. Computer driven milling and cutting practices are well-known and necessary to cater to certain formal needs, but are limited in usage due to relative costs and environmental considerations. Recent research into predictability of deformation of fabric formwork seems to open this specific technique to more precise production methods, and therefor promises to become a viable economic alternative. More design driven and production testing is needed to explore this potential. How to design the formwork – patterns, shapes, templates, effects on textures – fabric types & seams, production methods – hanging or spanning the formwork, etcetera.

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