

# MONOLITHIC

2009 2010

## EXPLORING VERSATILITY

curated by

**Valerio Olgiati**

[www.concretedesigncompetition.com](http://www.concretedesigncompetition.com)

## GERMAN JURY REPORT

Award Winner

**AK344 - GSA**

Lukas Stopczynski, Stuttgart State Academy of Art and Design

The design is based on the consideration that the production process of concrete exerts a stronger influence on the manifest monolithic appearance of concrete than its actual material characteristics do. Concrete is – correctly – understood as a ductile, malleable basic material only part of whose physical characteristics are predetermined. It is the manner in which such characteristics are processed that is paramount in shaping the final architectural outcome. Building on this perception, this work interprets the theme of formwork for which it proposes the use of latex. The novel and innovative approach of using a ductile basic material for the formwork facing was singled out for special commendation and praise. The search for an assured means of controlling the production process was also presented in a coherent and credible manner. The presentation of the technology-based research into the materials deployed is plausible. Overall, the project develops a seemingly practical solution to the shaping and production of complex geometries for monolithic structural elements with multi-layered surfaces.

The proposed design solution is understood as a prototype which sheds light on the procedure developed and reviews its workings. In design terms, however, the specific application does not, in its present form, carry complete conviction and requires further development. Even so, these proposals have the merit of revealing a further innovative aspect of the work, by creating generative derivations within a simple system. Thus the “MONOLITHIC” theme is enriched by key aspects from the discussion on serial or modular-based forms of construction, inspiring new impulses for the investigation of a wide diversity of application opportunities for spatially complex structural elements and buildings. At the same time the forms manufactured by the proposed system can be dynamically adapted to the force curve so that the work also offers a compelling monolithic approach to complex power-flow-oriented structural elements.

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### LY012 - folding pattern

Ljuba Tascheva, University of Kassel

This work explores a key theme of practical relevance that is somewhat on the margins of the issues of usual concern to architecture. Engagement with the theme shows an awareness of the responsibility involved in the design of the built-up environment in all its manifold diversity. The work is concerned with the development of sound-absorbing and noise-protecting structural elements. Hereby an investigation of "MONOLITHIC" theme on the theoretical level is combined with a highly specific application and ushered to a solution of merit. The design deploys parametric methods without ever being constrained by their limitations. This is particularly apparent in the presented variations. Even though at first sight these seem to be pure geometric forms, they also reflect processes of thought which have been triggered by issues the author herself has chosen.

The proposed design exploits the malleable potential of concrete building material in a manner that seems feasible for real world application. It masterfully seizes on one of the key characteristics of the building material and evolves it to a holistic, monolithic overall picture. The proposed structural element can be site-cast both in its pre-production state and as a flexible sound-absorbent system. Both of these aspects could be given further development. The idea of using modular sound-absorbent elements to develop buildings and structural elements as monoliths that can also be built by a flexible mode of production was understood as an innovative interpretation of the set theme. However, the proposal to produce a variety of modules from different qualities of concrete begs a number of questions. Even though, the approaches when taken on their own are indeed plausible, they could well cancel one another out when taken in combination. Compelling realisation in terms of design might be questionable. Even so, here too the seriousness and depth of the investigation of the manifold possibilities offered by concrete is very much in evidence and is particularly apparent in the experimental prototypes produced which were singled out for special commendation as proof of a well-founded design process.

Overall the work presents an exciting and thought-provoking interpretation of the set theme. At the same time it offers a ground-breaking contribution to the development of the design of landscapes and transport routes and also illuminates the roles they play in an urban and architectural context.

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### Award Winners

#### QE598 - The Monolithic

Moritz Nicklaus and Simon Scheithauer, Bauhaus-Universität Weimar

The concept of "MONOLITHIC" is first discussed from a theoretical perspective in an exceptionally deep and serious-minded investigation of the architectural theory and cultural historical background underpinning the set theme. In its differentiation of "monolithic expression" and "structured construction" the work impinges on one of the most central issues of architecture. The proposed object is the material embodiment of this flow of discourse and the execution of its design shows both maturity and a high degree of virtuosity.

A clear basic idea delineates a set domain for the theoretical and historical themes touched on. Inside a simple cube a sculptural microcosm positively resonant with mythical overtones is unfolded whose form and impact eloquently conveys the complexity of the theoretical background. One of its distinctive features is the impressive manner in which the sweeping arc from 'massive' to 'filigree' is exemplified in a single sculpture. The developed form can only be realised in concrete so that the work has a highly individual way of linking the specific theme it treats of with the basic tenet of investigating properties of the building material. The lack of scale displayed by the presentation gives the work an additional degree of ambivalence and in the best sense provokes viewers to make their own interpretations.

This competition entry is not merely focused on the execution of the sculpture. It also highlights the variability of concrete material in terms of its surface texture. Possible random effects occurring during the production process and the natural ageing of the material are skilfully used to accentuate the thought process behind the design. Herewith a degree of homogeneity is reached which in turn leads back to the "MONOLITHIC" starting point of the chain of thought. Potential for architectural expression is extrapolated and realised far beyond the confines of the immediate production process. Such an approach means that there is also here a deliberate attempt to engage with a further dimension of perception in terms of an on-going process of viewing and interpretation over a long period of time.

Taken as a whole, this work is impressive in the astonishing level of maturity it displays. With great power and an acute sensitivity for design and the nuances of intellectual discourse, an aesthetic has been fashioned whose complexity could shine far into the future as a symbol of our times.

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Honourable Mention

**MT164**

Franz von Wietersheim, Technical University of Berlin

The design adopts a minimalist abstract approach to the topic of the “house”. The landscaped context in which it is presented apparently plays no part in the development of the design concept and is rather at odds with the inward-looking, abstract approach that characterises the work. The way the design is concerned with conferring on the house a literally monolithic expression was especially commended by the jury. That this aim has been achieved with an exceptional degree of success is shown in the outer look-and-feel of the house, the arrangement of transitions between its structural elements and in the details. Sensitive and skilful use is made here of the vocabulary of architecture. Yet the qualities of the interiors are not uniformly of such a high standard. And there are questions yet to be answered in terms of the materialisation and its construction realisation. The concept of monolithic is not illuminated here. And as at the same time the level of theoretical abstraction is abandoned in favour of architectural realisation, it would have been beneficial if further-reaching lines of thought had been presented at this juncture.

Honourable Mention

**RO720 - 720°**

Boris Koch, University of Kassel

This work develops an innovative production method for concrete parts from one block derived from the well-known spun concrete production technique. It enables production of seamless “monolithic” yet hollow concrete parts. The real world practicality of the method is demonstrated with a prototype. This shows that the method might also be applied to the production of more complex types of forms although further development is needed in this regard. The work here is nothing more than a technological approach. An architectural realisation or further interpretations of a context in the sense given by the set theme would have been desirable.