

GAM.12 — CALL FOR PAPERS

Structural Affairs

Architectural structures are created through a synthesis of services rendered by the various players involved in planning and building. Their collaboration is essential for the quality of the result. Innovative and interdisciplinary forms of interaction evolve in the field of structural design in particular. GAM.12 is thus dedicated to such structural design, which is an elementary, integral, and formative facet of architecture, while simultaneously offering the potential for highly creative developments. Due to current tendencies and profound changes, those involved in this context are presented with new challenges.

A steady stream of software innovations and more efficient programs impact not only design but also implementation planning and production. The integration of design, planning, and fabrication into one and the same platform for instance enables the individual planning steps within architectural practice to be interactively and collaboratively carried out. Thanks to the consistent application of these digital tools, it is moreover possible to analyze and control very large and complex amounts of data in an expedient way, and also to use this data as a foundation for making planning-related decisions. What is more, the upgrading of the materials commonly used in structural design to include innovative hybrids or related joining techniques likewise necessitates new forms of collaboration among all involved design parties. Carbon concrete, load-bearing structures made of ceramics, or fiberglass-reinforced plastic, as well as the systematic use of adhesive technology, are just a few examples cited from the advanced developmental segment within the fields of architecture and engineering that demand high interdisciplinarity. New innovations in production engineering and logistics have a synergetic effect, demonstrating a need for receiving input from various specializations in order to take full advantage of the efficiency of digital production methods. It is obvious at present that aspects of production can increasingly be incorporated into earlier stages of the design process, which facilitates the related development of useful and technically feasible planning solutions.

Contributors to research, planning, and building processes each draw different conclusions from the changes touched upon above. It is here that the new issue of GAM starts exploring the creative measures and solutions adopted by the individual players who bear, experience, and further elaborate this fundamental shift in the architectural profession. Which transformations embody the greatest potential for change? Which scenarios evolve from this shift in terms of architectural development? Remarkably, in this realm of networked planning processes used by engineers, architects, and others in the building industry, there is presently little room for reflecting on the current changes, or for discussing the ramifications, consequences, and potentialities of these developments. GAM.12 is thus focused on practice and research in the strategies, projects, and future scenarios that evolve through new cooperative relationships between architects, structural engineers, and the contracting companies. GAM.12 fields questions about new collaborative forms and development objectives, introduces interdisciplinary experiments and production methods, and discusses opportunities for innovation. Finally, also highly topical in the view of GAM.12 are issues that deal with the suitability of technical possibilities or the untapped potential of lightweight construction, with the aim of soon being able to define through architecture the desired goals of this progression in architectural practice.

GAM invites you to submit an abstract (max. 500 words) on the topic “Structural Affairs” along with a short biography by **May 11, 2015** to gam@tugraz.at. We look forward to receiving proposals from the areas of engineering science, structural engineering, design and theory of architecture, cultural studies, and technological research. The submission deadline for finalized contributions is **August 31, 2015**.