

Synthetic Dissemination

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Synthetic Dissemination, within the context of architecture and information culture, offers seemingly contradictory possibilities. The ends of dissemination and synthesis are at odds. The purpose of the former being diffusion and distribution, and the byproduct of the latter being quite the opposite - namely the combination and association of information into a coherent whole. The conjoining of dissemination and synthesis implies these two contradictory operations can operate in a symbiotic or complementary manner.

Relative to architecture and design the combination of dissemination and synthesis is potentially profound. The marriage of synthesis and dissemination presents a possibility that the method of distributing information could be, or have embedded within it, a synthetic process. In the simplest sense synthetic dissemination implies that the tools for design and synthesis could be the same as tools for documentation and dissemination; or more specifically that the fluidity and creativity of design software could be coupled

with the practicality and meticulousness of building information modelers (BIM). More abstractly synthetic dissemination implies that the means of encoding and distributing information could propagate design. Architects have readily adopted digital tools for encoding and presenting their ideas, but have not fully recognized how the informational structures of these applications promote or hinder design. Developments in the information architecture of 3D software, such as the shift from geometrically based data structures to procedurally based directed action graphs (DAG) as seen in Maya and 3DMax, have opened up innovative methods of architectural design. Each new change in the information architecture of design software ushers in new approaches to design, raising the question - how does the production and storage of information affect design? More broadly, how can the tools of dissemination facilitate synthesis?

The papers for the first and second Digital Dissemination sections of the conference address these issues

through a range of practical and theoretical discussions. The first session *Reconsidering Dissemination* is more introspective, almost self-referential when framed through the lens of dissemination, providing a context for reconsidering the role of information within design. Brian Lonsway's "The Argument for the Argument: Revisiting the Architecture Machine" thoughtfully redraws the history of the computational argument and its relationship to structuralist semantics in order to provide new alignments with architecture, urbanism, and design. Similarly, in "Going Past the Golem: The Emergence of Smart Architecture", Mahesh Senagala provides a historical context for smart architecture by tracing its technical and conceptual development. This section is rounded out by "Self-Organizing Map and Axial Spatial Arrangement: Topological Mapping of Alternative Designs" by Yoshihiro Kobayashi. In this paper the relationship between models of information and methods of design are interrogated through an experiment using the topology of a self-organizing map as a conceptual framework for design.

This last paper acts as segue into the second session, *Dissemination and Representation*, where new models of structuring and presenting information are explored as a means of facilitating new methods of design. The papers in this section are closely related in that they all present hybridizations of immersive 'real-world' architectural experiences and data rich informational constructs. "A Tablet Based Immersive Architectural Design Tool" by Ross Tredinnick describes the results of an in-depth experiment mixing an off-the-shelf two-dimensional architectural design application with

an three-dimensional virtual reality environment. The goal of the experiment is to merge the immersive representational benefits of virtual reality with the ease of formal manipulation provided by a two-dimensional design interface. A similar goal, providing a fluid means of sketching and design within a three-dimensional virtual reality environment, is explored in the second paper "Immersive Drafted Virtual Reality: a new approach for ideation within virtual reality" by Tomas Dorta. This section of the conference is rounded out by a third perspective on the mix of representation, interface, and augmented reality in the paper "Context Aware Paper-Based Review Instrument: A Tangible User Interface for Architecture Design Review" by Eunsoo Lee. In this final paper the author presents a model for an interface that enhances traditional paper-based review methods with an informational and interactive layer.

Read as a collective the papers for both sections of the *Synthetic Dissemination* node thoroughly engage the seeming dichotomy of 'synthesis' and 'dissemination'. The sequence of papers deconstructs the conceptual underpinnings of architectural information, or more specifically architectural information architecture, while simultaneously opening a myriad of paths to pursue new tools and approaches in the architectural design process.