



Introduction: Emerging Technology and the Mining of New Object Properties

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Through advances in digital design, fabrication, and computation, we are beginning to understand architectural geometries in a whole new way. Emerging technologies have opened up new methods for creating, modifying, and describing objects. We can understand objects by more than their basic physical properties, such as color, texture, and size. Through new methods of analysis, we have exposed countless additional properties, and not just those of an object in its static state, but even object properties that change over time.

The papers in these proceedings from the inaugural TxA Interactive conference all address a general concern for how we, as designers, engage the complex milieu that is within and around objects. By uncovering a vast new world of object properties, we are better able to understand, simulate, and ultimately control object behavior. Furthermore, we can test how objects react when linked to other objects or when placed in alternative contexts. If an object is incompatible with another object or context, variations of an object's parameters can be adjusted in real-time until some level of stability is reached—objects don't have to be discarded as quickly as they once were, opening a whole new territory for design.

As we begin using the new tools and techniques offered by emerging technology and understanding geometry in ways that are new to the profession, we find ourselves on some ambiguous theoretical ground. Although it seems that Parametricism is the prevail-

ing style of our times, designers have been scattered in their intellectual discourse. A quick look at the emergence and subsequent evolution of digital practices reveals a multitude of pedagogical approaches that range from object-oriented ontology to some lingering postmodern tendencies. In the book "Bergsonism," Deleuze notes: "Dualism is therefore only a moment, which must lead to the re-formation of a monism. This is why, after the broadening out, a final narrowing follows, just as integration follows differentiation."¹ The papers at this conference find themselves nearing the end of this schism, contributing to the synthesis of a common position.

If fabrication plays a role in the application of a theoretical discourse, it does so by actualizing the virtual. Designers no longer have to rely on representation as a means of communication, but can construct their ideas in physical form. By building proposals that were once only ideas, we can better understand and evaluate a project's contribution to architecture and design. Though the papers here do not exclusively present built projects, they all explore emerging technology and its role in design of three-dimensional form, thereby reconnecting intellectual pursuits with the practice of architecture.

1. Gilles Deleuze, *Bergsonism*, trans. Hugh Tomlinson and Barbara Habberjam (New York: Zone Books, 1991), 29.