

## ***“Embedded Intelligence: Design-Driven Computation”***

April 17, 2009  
12:30 - 2:00pm  
Room 3-133

### **Shane Burger**

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#### *Abstract:*

Associative geometry and performative design have been core drivers in the architecture of Grimshaw well before recent software tools enabled a cleaner integrated modeling process.

Computational tools do not present a paradigm shift so much as enable tighter feedback loops and embedded design processes. From the recently completed Experimental Media and Performing Arts Center, the Museo del Acero, EarthPark, and numerous other projects, the lecture will present the design-driven workflow of Grimshaw’s Computational Design Unit in conceptual and built work. The CDU’s aim is to harness computation tools in a problem-solving capacity, resolving design parameters to a high degree of performance and attention to aesthetic elegance in form and assembly method.

#### *Bio:*

Shane Burger is an Associate in the New York office of Grimshaw Architects. He joined the firm in 2003, working initially on the Experimental Media & Performing Arts Center team. He directed geometric and fabrication development of the project’s primary features: the curving wood-covered performance hall, a sweeping roof structure, custom acoustic panels, and the structural component design of a vast curtain wall. This was followed by early design concepts for the Fulton Street Transit Center, and a continuing role shepherding the Computer Graphics Imaging work in the New York office.

In 2004, he began research in design computation, complex geometric development, and its application in Performative Design. This work manifested in light-reflecting dome studies for the Fulton Street Transit Center, numerous competitions, and the fabrication of a structural steel roof and dynamic louver system at the Museo del Acero. In 2007 he founded the Grimshaw Computational Design Unit, where he directs research and application of environmental analysis, development of form and componentry for fabrication, and embedded design systems.