

# ARTISTS SPACE

## PRESS RELEASE



MAIN SPACE  
ARCHITECTURE & DESIGN  
PROJECT SERIES

September 14 to October 28, 2006

Opening Reception: September 14, 6-8PM

### H\_edge

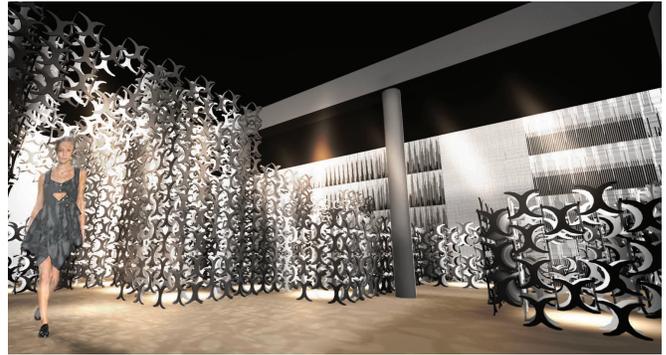
ARUP Advanced Geometry Unit

Design Team: Cecil Balmond, Daniel Bosia, Jenny E. Sabin,  
Charles Walker, Francis Archer

Assembly Team: Jenny E. Sabin and PennDesign students

Curated by Christian Rattermeyer

An illustrated catalogue with an essay by David Ruy will be  
published for the exhibition.



Arup AGU: *H\_edge*, digital rendering, interior view, 2006

“The project exists on three levels: the mathematical-geometric, the architectural-spatial and the structural-tectonic. *H\_edge* is based on a cubic fractal tiling of space known as the *Menger Sponge*. The geometric matrix of this sponge is modular and self-similar, offering positive and negative space at embedded scales. This binary tiling is deployed at three different scales, which create spatial conditions that relate to the scale of the human body. These are named *cave*, *trench*, and *path*. Tectonically, the tiling is achieved through the use of two modular units: the *leaf* and the *chain-link*, which interlock to form a suspended network of reciprocal load-paths. The staggering of the plates along the chain in four directions ensures that no plate touches another and that the chain is pre-stressed to form a rigid load-path. *H\_edge* and the *Fourier Carpet* are binary systems, understandable as ordered series of 0 and 1 digits in three- and two-dimensional mathematical space. They both demonstrate how number systems can be used to describe, control and inform geometric complexity.” –ARUP AGU

This fall, Artists Space presents *H\_edge*, a new project created by Cecil Balmond and ARUP Advanced Geometry Unit, a think tank dedicated to researching complex structural geometry in support of new architectural visions and solutions. AGU’s installation at Artists Space will function as an enclosure within the gallery, allowing visitors the opportunity to experience, interact with, and compartmentalize physical space in new and exciting ways. *H\_edge* is an experiment in the use of geometry and matter to create organizations of space. Constructed solely of aluminum panels and stainless steel chain, *H\_edge* is an application of advanced mathematics and engineering to form a modular structure capable of many shapes and configurations, surprisingly simple and elegant in its construction, yet ever-changing in its appearance. In addition to the three-dimensional installation *H\_edge*, the exhibition also includes the wall piece *Fourier Carpet*, for which a computational design was woven into a wallhanging on a Jacquard loom. *H\_edge* has been designed in London and constructed in Philadelphia with the help of Penn Design students. It consists of 5200 laser-cut aluminum plates and almost 5000ft of stainless steel chain. *Fourier Carpet* has been digitally generated and designed by Jenny E. Sabin in Philadelphia and woven on a digitized Jacquard Loom by Keystone Weaving in Lebanon, Pennsylvania. It is 36ft by 5ft and is composed of interlaced black and white wool threads.

*H\_edge* is supported, in part, by ARUP, the Graham Foundation for Advanced Studies in the Fine Arts, Elise Jaffe + Jeffrey Brown, and PennDesign. For Press inquiries, please contact Hillary Wiedemann at 212.226.3070 x 302 or [press@artistspace.org](mailto:press@artistspace.org).

38 GREENE STREET NEW YORK NY 10013 T 212 226 3970 [WWW.ARTISTSSPACE.ORG](http://WWW.ARTISTSSPACE.ORG) TUE-SAT 11AM-6PM