



Next Steps

November 10+11
Workshops in Irreducible Complexity
Next Steps for Architecture and Science

Workshops in Irreducible Complexity *Next Steps for Architecture and Science*

November 10
Thursday 630pm, Meyerson Auditorium

Introduction: Detlef Mertins

Keynote Speaker: Cecil Balmond

Presentations: Ben Aranda Daniel Bosia Philip Ording

Respondents: Margaret Wertheim Ben Nicholson

November 11
Friday 11am, Meyerson Upper Gallery

Moderators: David Ruy Helene Furjan Detlef Mertins

Participants: Hernan Diaz Alonso Marcelyn Gow

Simon Greenwold Jason Johnson Yama Karim

Ferda Kolatan Michael Meredith Fotini Markopoulou

Ciro Najle Ali Rahim Heather Roberge Rhett Russo

Marcelo Spina Mark Yim

Architectural culture continues to value the past and enjoys a diversity of innovative directions. As a phenomenon, the production of architecture is itself demonstrative not only of complexity but of its irreducibility. Architecture cannot be assimilated into a singular unified totality, nor would we wish to do so. The approach advanced in this event aims more modestly to develop one strain of contemporary innovation and recognizes full well its limitations to date. Just as the first wave of enthusiasm and invention in computing has given way to the broader incorporation of digital intelligence into ever-more aspects of human life, so too the emphasis among architects pursuing complexity has shifted towards the pragmatics of implementation, on the one hand, and the integration of cultural, social, and political objectives, on the other. This event is not intended to celebrate what has already been achieved, but to articulate a new agenda for development and take the next steps.

The main topic of this event concerns the evolution of the concept of complexity in the built world. This conference will address core issues concerning the relationship between architecture and our scientific knowledge with a particular focus on the mutual interest between architects and scientists in complex and non-linear models. As contemporary society is starting to recognize that complex phenomena is a fundamental aspect of our world and is debating the future of our institutions relative to it, how can architecture likewise take the next steps in its understanding of complexity, evolving what has to now been an esoteric area of design research? How can scientific models of complex phenomena in mathematics, nature and the universe be most effectively employed in the design and fabrication of structures for human life and enjoyment? How can such models help designers develop an aesthetic and intuition of complexity that will, at the same time, foster social diversity and empowerment?

This event launches the N_LSO at PennDesign. The events of this symposium will serve to articulate the N_LSO's program of research and will be revisited in a follow up event late spring 2006 to evaluate the products of the first year of research.

Announcing the N_LSO

The Non-Linear Systems Organization is a new research group at University of Pennsylvania School of Design directed by internationally renowned engineer and designer, Cecil Balmond. Its mission is to explore ways in which architecture can demonstrate, test and apply insights and theories from mathematics and the sciences – non-linear, algorithmic and complex – in the design of material structures across an open-ended range of scales, materials and design disciplines. By transferring theoretical scientific knowledge into the applied design arts, it seeks to expand the horizons of design and, at the same time, promote a broader appreciation of these theories by the general public. The N_LSO will conduct think tanks and design workshops that bring together researchers in the sciences with architects and other design professionals to identify scientific models that could be developed into new design techniques and processes. It offers research fellowships to support work that advances the mission of the organization. The work of the N_LSO is experimental and treats the activity of design itself as a form of research. The N_LSO seeks to produce new organizations of matter and life that possess extraordinary beauty, diversity and versatility. By exposing scientists and theorists to the opportunities of applied design, the N_LSO also seeks to stimulate the further development of science.

[front image, sketches by Cecil Balmond for OPERA]