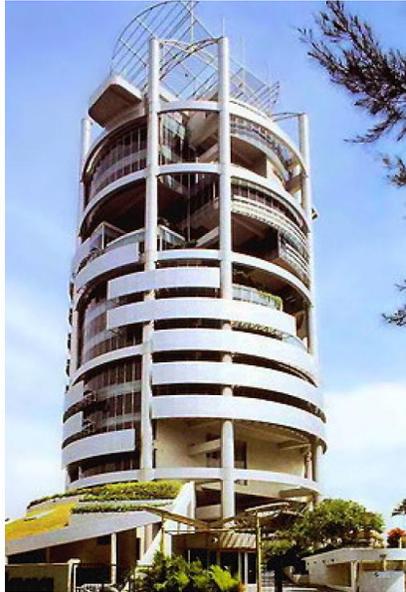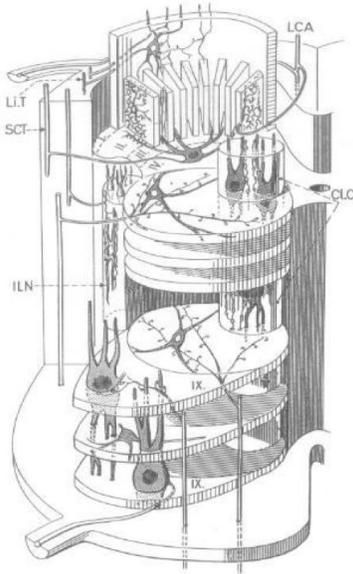# Academy of Neuroscience for Architecture

**in partnership with UC San Diego, the Salk Institute &
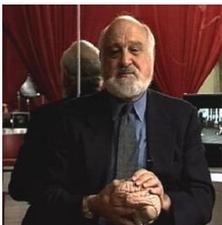the NewSchool of Architecture & Design presents**

ANFA INTERFACES

**A series of discussions about emerging research at the intersection of
Neuroscience and Architecture**

Brains, Machines and Buildings
Presented by: Michael Arbib, PhD

The talk will introduce **Neuromorphic Architecture**, exploring ways to incorporate "brains" into buildings, developing the view that future buildings are to be constructed as perceiving, acting and adapting entities. The discussion is grounded in an exposition of ***Ada - the intelligent space***, a pavilion visited by over 550,000 guests at the Swiss National Exhibition of 2002. She had a "brain" based (in part) on neural networks, had "emotions" and "wanted" to play with her visitors. Dramatic new developments will emerge as we explore the lessons from neuroscience on how the brain supports an animal's interactions with its physical and social world to develop brain operating principles that lead to new algorithms for a neuromorphic architecture which supports the "social interaction" of rooms with people and other rooms to constantly adapt buildings to the needs of their inhabitants and enhance interactions between the people who use them and their environment.

Michael Arbib, PhD is a University Professor, Professor of Neuroscience and the Fletcher Jones Professor of Computer Science at the University of Southern California. The scope of his career was defined in the title of his first book *Brains, Machines, and Mathematics.* The ANFA talk will turn from mathematics to buildings, seeking to understand the implications for architecture of his work on computational modeling of brain mechanisms and mirror neurons, relating vision to action, emotion and language.

Commentary by: Gilbert Cooke, AIA

Gilbert Cooke managed an architectural firm in Maryland for 31 years. He was honored with numerous design awards and held leadership roles at several professional organizations including: AIA, NCARB and NAAB. Next, Cooke transitioned into the role of educator, working at Morgan State University; Cal Poly, San Luis Obispo; and most recently as Dean at NewSchool of Architecture + Design. A founding member of ANFA, he is currently working with past president Eduardo Macagno as a visiting scholar at UCSD on trans-disciplinary courses that define the ANFA cornerstones.

The mission of the Academy of Neuroscience for Architecture is to promote and advance knowledge that links neuroscience research to a growing understanding of human responses to the built environment.

ANFA
ACADEMY OF NEUROSCIENCE
FOR ARCHITECTURE

**March 2, 2011
6:00pm**

**Museum of Contemporary
Art San Diego – Downtown
Copley Building
Berglund Room
1100 Kettner Boulevard
San Diego, CA 92101**

Free Admission
*Reservations Recommended
RSVP to: anfarch@gmail.com*

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