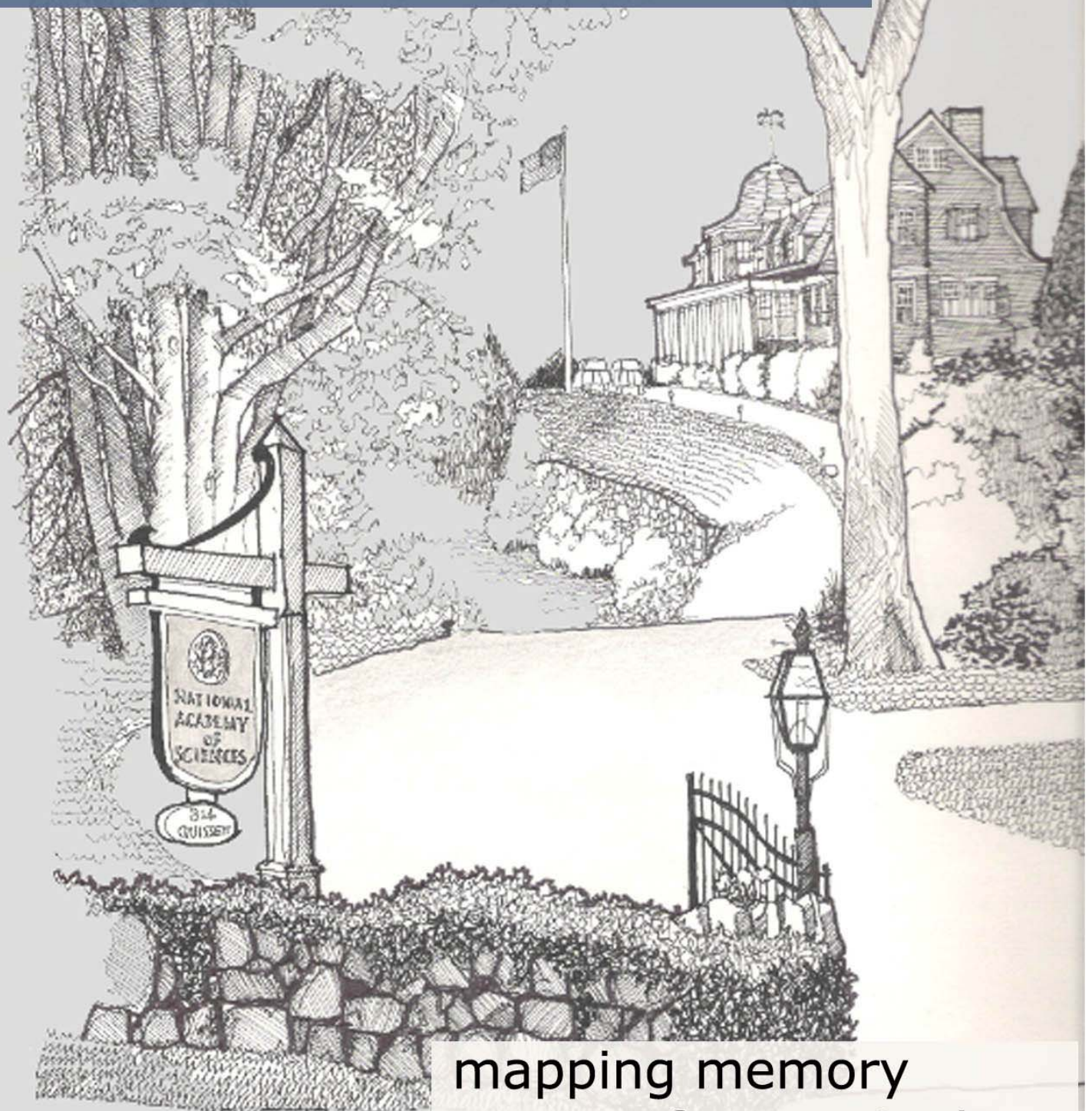


NEUROSCIENCE & HEALTH CARE ARCHITECTURE

WORKSHOP III: AUGUST 15 - 17, 2005



mapping memory
of space & place

MAPPING MEMORY OF SPACE & PLACE

Academy of Neuroscience for Architecture

3rd Annual Woods Hole Workshop,

J. Erik Jonsson Center of the National Academy of Sciences,

Woods Hole, MA

August 15 – 17, 2005

The 2005 Woods Hole Workshop is the third in a series of conferences on health care facilities designed to encourage interdisciplinary dialogue between architects and scientists. The goal is to develop collaborative research that investigates how each variable of the environment affects specific brain processes, which in turn, alter specific outcome measures.¹

In the preceding workshops, a series of hypotheses addressed the relationship between hospital design, patient outcome and hospital staff performance. Five areas of interest were explored: 1) navigation through complex buildings 2) the influence of windows and daylight on the healing process and on cognitive performance 3) the influence of interior layout & function on patient outcome and staff performance 4) the influence of privacy on patient outcomes and emotional responses.²

The 2005 Woods Hole Workshop will focus on 5 design environments and specific neural processes that influence outcomes in order to develop translational research that can be applied to health care design. Working groups of scientists and designers will work together to develop environments that form the bases of experiments, in which the causal relationships between an architectural features, neural function and outcome measures can be assessed.

An innovative workshop design will use architecture's "charrette" process in which images and plans of a proposed environment will be developed during group interaction. Designers will provide expertise in analyzing and illustrating the behavior and needs of users within the site relative to function, structure and code or regulation limitations. Unusual to this process, will be the use of neuro-scientific principles to analyze human needs and function within the designed environment, with consideration of the means to measure physiological, neural and healing responses associated with design proposals.

The following neuro-physiological responses will be considered within several design contexts:

- 1) Stress & Calming environments in women's health units
- 2) Memory and learning strategies in navigation of complex hospital environments
- 3) Cognitive performance in translational research facilities (neuroscience laboratories)
- 4) Cognitive performance and overload in intensive care units
- 5) Measurement of neuro-physiological responses in ambulatory & emergency care

Participants will contribute abstracts and articles to be cited in a white paper and review articles that will be produced from the workshop, describing the scope of existing knowledge within this emerging discipline, what is missing, and what research needs to be done to address issues of importance. Strategies for moving this research forward to enhance health care provision and architectural practice will be developed and described.

¹ Neuroscience and Architecture of Health Care Facilities: 2nd Annual Woods Hole Workshop Report. Academy of Neuroscience for Architecture. Aug 25 – 27, 2004, Woods Hole MA.

² Neuroscience and Architecture of Health Care Facilities: 1st Woods Hole Workshop Report. Academy of Neuroscience for Architecture, Aug, 2002, Woods Hole MA

MAPPING MEMORY OF SPACE AND PLACE

Academy of Neuroscience for Architecture

3rd Annual Woods Hole Workshop

AGENDA (draft 071205)

MONDAY, AUGUST 15, 2005

5:00pm WINE RECEPTION & POSTER SESSION

in Main House

Poster Session

Health Care Architecture & Neuroscience

6:00pm OPENING REMARKS

6:00pm Origins of a New Discipline

John Eberhard, F-AIA

Founding President, Academy Neuroscience Architecture

6:25pm Neuro-Architecture in Practice

James L Olds, PhD

Director, Krasnow Institute, George Mason Univ

6:45pm Introductions

Participants

7:30pm CONFERENCE DINNER

in Main House

TUESDAY, AUGUST 16, 2005

7:00am BREAKFAST

in Main House

8:00am INTRODUCTION

in Carriage House Meeting Rooms

8:00am Translational Research

Esther Sternberg, MD

Director, Integrative Neural Immune Program, NIH

8:10am NEUROSCIENCE: MAPPING HUMAN RESPONSE TO SPACE & PLACE

8:10am Mapping Memory

Lynn Nadel, PhD

Regents Professor, University of Arizona

8:30am Measuring Human Responses

Gert Cauwenberghs, PhD

Professor, Johns Hopkins University

8:50am Imaging Human Memory of Place

Russell A Epstein, PhD

Asst Professor, University Pennsylvania

9:10am Translational Design

Eve A Edelstein, PhD

Academy of Neuroscience for Architecture

9:30am COFFEE BREAK

10:00am THE DESIGN PROCESS

The Charrette Process
Issues and Outcomes

Pam Milner, RID

Vice President / Principal, The Smith Group

10:20am Annotating Design

John Zeisel, PhD

Academy of Neuroscience for Architecture

10:30 – 12:30 HEALTH CARE CHARRETTES

Working Groups

TUESDAY, AUGUST 16, 2005 (Continued)

12:30pm LUNCH in Main House

1:30pm HEALTH CARE CHARRETTES (continued) in Carriage House

5:00pm WORKSHOP DISCUSSION

from 6:30pm INFORMAL DINING IN WOODS HOLE

WEDNESDAY, AUGUST 17, 2005

7:30am BREAKFAST in Main House

8:30am REPORT PREPARATION in Carriage House

Working Groups finalize reports

9:30am GROUP REPORTS

Neuroscience Laboratories
Intensive Care Units
Women's Care Centers
Ambulatory / Emergency Care
Navigation Systems
Human Measurement Systems

10: 30am COFFEE

11:00am ROUND TABLE DISCUSSION

Next Steps and Deliverables

Panel
Gordon Chong, FAIA
Founder, Chong Partners Architecture, Pres. ANFA
Scott Rawlings, AIA, ACHA, President AAH
Vice President, RTKL Associates, Inc.
Eduardo R Macagno, PhD,
Dean, Division Biology, Univ. California, San Diego
Esther M Sternberg, MD
Director, Integrative Neural Immune Program, NIH

12:30pm LUNCH in Main House

1:30pm COLLABORATIVE VENTURES in Carriage House

Discussions of future collaborations

All Attendees

3:00pm CLOSE SESSION

John P Eberhard, FAIA
Founding President, Academy Neuroscience for Architecture