

ASSOCIATION OF COLLEGIATE
SCHOOLS OF ARCHITECTURE
1735 New York Avenue, NW
Washington DC 20006

Douglas Noble, FAIA, Ph.D.

School of Architecture

University of Southern California

Advancing the profession, education and research at the nexus of building science, façade tectonics, design theory and architectural computing

BS in Architecture and B.Arch, Cal Poly Pomona, 1982
M.Arch, University of California at Berkeley, 1983
Licensed Architect, California, C15655, 1985
Ph.D. in Architecture, UC Berkeley, 1991
with Distinguished Teaching Assistant Awards and Ph.D. Committee Prize
ACSA/AIAS New Faculty Teaching Award, 1995
ACSA Service Award (conference service), 2000
ACSA Creative Achievement Award, 2014
ACSA Faculty Councilor, c. 1997 - 2017
Fellow, American Institute of Architects, 2003
NCARB Prize, 2007
Architect magazine, 10 Most Admired Educators, 2009
Design Intelligence, Most Admired Educator, 2015
AIA California Council, Presidential Citation, 2016
AIA Los Angeles, Presidential Citation: Educator of the Year, 2017
Fellow, Center for Excellence in Teaching, University of Southern California, 2018
Design Intelligence, Most Admired Educator, 2019
PCI Community Engagement Award (with Karen Kensek), Precast / Prestressed Concrete Institute, 2020
Design Award, American Institute of Architects, Los Angeles, Carapace Pavilion, 2021
Design Award, Carapace Pavilion, California Chapter of the Society of American Registered Architects
Elected Fellow, Façade Tectonics Institute (national award), 2022
Design Award, Precast Concrete Institute, Carapace Pavilion (national award) 2022
All-Precast Project: Honorable Mention, Precast Concrete Institute, Carapace Pavilion (national award, one of two awards won), 2022
Design Award, Carapace Pavilion, National Society of American Registered Architects (SARA), 2023
Design Award, Carapace Pavilion, New York Chapter of the Society of American Registered Architects, 2023
AIA/ACSA Practice and Leadership Award, 2023

Professor Noble is currently Chair of the Ph.D. program in Architecture and Discipline Head for Building Science at the USC School of Architecture. He is an architect, and has taught at USC for more than 30 years, receiving awards for his teaching, research and service. His work is engaged in three broad and overlapping realms: building science + design theory, design and analytical computation, and architectural education. Each of these themes are expanded upon in the following pages.

SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Building Envelopes + Performance-Based Building Science + Design Theories

DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

Serious Computing + CLIPPER Studio + Information Systems

ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Doctoral Education and Research + Education Processes + Licensing

BIOGRAPHY

Career Highlights Statement

Noble completed a Bachelor of Architecture at Cal Poly Pomona in 1982, and a Master of Architecture from the University of California at Berkeley in 1983. He worked in the architecture profession for several years, becoming licensed in 1985. He returned to UC Berkeley and completed a Ph.D. in Architecture in 1991, focusing on Design Theories and Methods, with minors in the History of American Architecture and Business Administration.

While at UC Berkeley, he served as a teaching assistant for renowned professors Horst WJ Rittel (originator of the concept of “wicked problems”), Jean-Pierre Protzen, Mary Comerio, and Karen M. Kensek. He was awarded the Distinguished Teaching Assistant Award twice and the Ph.D. Committee Prize. He later taught design studios and computing seminars at Berkeley.

In 1991, Noble was appointed assistant professor in the School of Architecture at the University of Southern California (USC). At USC, he has taught design studios at all levels from first year through graduate students. His coursework has included seminars on computing, building science, building enclosures, and design education. He created a number of new courses, including an award-winning course designed to increase the links between the profession and the school. He created the new Ph.D. program at USC and two new graduate certificate programs. He served a term as Associate Dean of the school, and is now the Director of the Graduate Building Science program and the leader of the Ph.D. program. He is currently serving again as the elected Secretary of the Faculty.

He has authored, co-authored, and edited a combined total of nearly 100 papers, chapters, books, journals, and conference presentations.

Noble was elevated to Fellowship in the American Institute of Architects in 2003. He has been selected for five presentations at the AIA National Convention. He has served as chair of AIA committees locally and nationally, and served the Board of the AIA California Council.

Noble is unusually committed to students and student organizations. He has been the faculty advisor to Alpha Rho Chi for almost 25 years. He is also faculty advisor for the Tau Sigma Delta Honor Society and the USC Amateur Radio Club (W6YV).

He serves on the scientific review committees of several important journals and many conferences. He is past-president of the Association for Computer-Aided Design in Architecture.

BIOGRAPHY

Career Highlights

SOME ITEMS SUPPORTING THE CASE FOR “DISTINGUISHED”

Distinguished Teaching Assistant (twice) (1980's)

Ph.D. Committee Prize: Distinguished Doctoral Student (1989)

*Created the multiple award-winning, NotLY Architecture Licensing program
ACSA and AIA Prizes
More than 500 free classes taught to more than 25,000 registrants*

Founded the globally recognized Façade Tectonics Institute for building envelopes research and education.

*Papers, Books, Conferences, Courses
Intelligent Building Skins
Facade Retrofit
Materials, Systems, Assemblies
Tensile Membrane Building Envelopes*

NCARB Prize in 2017 for new coursework model in building science

Championing Doctoral Education: Founding the PhDiA organization and restarting the USC doctoral program.

National “most-admired educator in architecture” recognition (three times)

AIA California Council, Presidential Citation, 2016

AIA Los Angeles, Presidential Citation: Educator of the Year, 2017

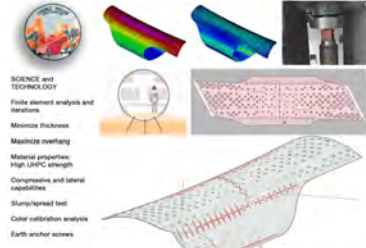
Design Theories and Methods and Architectural Computing Leadership

USC Campus Mellon Mentoring Award (student mentoring)

Superlative student organization support (25 years Alpha Rho Chi, Tau Sigma Delta, National Parks distinguished volunteer, etc.).

ACSA commitment and awards: 20+ years as faculty councilor representative to ACSA; ACSA/AIAS New Faculty Teaching Award, ACSA Creative Achievement Award, ACSA Practice and Leadership Award, and ACSA conference host/organizer.

*Design-Build CARAPACE Pavilion project in Joshua Tree National Park
Has won six significant design awards
Installed in Summer 2022*



SCIENCE and TECHNOLOGY

- Finite element analysis and iterations
- Minimize thickness
- Maximize overhang
- Material properties: High UHPC strength
- Compressive and lateral capabilities
- Stumps/spread test
- Color calibration analysis
- Earth anchor screws



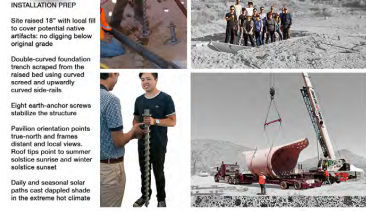
PANEL FINISHING

- Cleaning and slim coating panels (various finish) smoothness of two panels in cover right aligned
- Externally smooth UHPC finish on down facing surface of panel in field
- Interior surface is smooth and exterior surface slightly rougher (lower salt grade) at unreinforced interior attachments
- Foam mold tapers upward and inward at every aperture opening to allow panel to release from mold



ASSEMBLY

- Ultra-thin shell concrete is only two inches thick along the perimeter of each panel
- No construction joint in the National Park. Fully precast and preassembled
- Panel weight: 1000 to 9000 pounds each
- Temporary crane-bracing on temporary piles allows fine tuning of assembly for roof assembly
- Temporary supporting aluminum columns supporting long roof overhang during welding of vector connectors



TRANSPORTATION AND INSTALLATION

- One truck, one trip, one day installation
- Fully precast/preassembled
- Completed position is 12'-0" wide and 42'-0" long
- Welded 7' radius diameter leg-to-leg dimension
- Double-ship low-bed trailer required
- One day: Drive to location, crane into place, install earth anchors, structure fill interior with 14 inches of loose dirt. Celebrate.

SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Design Build: The Carapace Pavilion

THE CARAPACE PAVILION: Joshua Tree National Park
Installed in 2022, the Carapace Pavilion has won six significant design awards, including three national awards.



INSTALLATION PREP

Site raised 18" with local fill to cover potential native artifacts: no digging below original grade

Double-curved foundation trench scraped from the raised bed using curved screed and upwardly curved side-rails

Eight earth-anchor screws stabilize the structure

Pavilion orientation points true-north and frames distant and local views. Roof tips point to summer solstice sunrise and winter solstice sunset

Daily and seasonal solar paths cast dappled shade in the extreme hot climate



INSTALLATION

Installation complete in less than five hours

Native cultures sensitive site: no digging

National Park Service VIP-campground for "Volunteers-In-Parks"

Carefully framed views of nearby rock formations and distant mountains

Backfilled with local earth

Two-inch thick UHPC concrete designed to last 100 years, no rebar

Installed June 30, 2022 in time for summer solstice (the roof shadow points to solstice)



SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Building Envelopes



FAÇADE TECTONICS FOUNDED AT USC in 2007

Co-founder of this international institute with officers and steering committee focused on a full range of building envelope issues. Sustainability • Double-Skin Facades • Architectural Acoustics • Digital Media • Solar Access • Façade Acoustics • Seismic Design • Membrane / Fabric Structures • Façade Systems Integration • Digital Fabrication, CAD/CAM, Rapid Prototyping • Performative Architecture • Materials and Assemblies • Lighting / Daylighting / Glare • Building Information Modeling • Best Practices • Analytical Modeling and Simulation • Historic Structures Technology • Cable-Suspended Glass Skins • Architectural Science Education • Design Methods • Integrated Architectural Technology

10 DOCTORAL STUDENTS STUDYING BUILDING ENVELOPES

Re-started the doctoral program at USC in 2007.

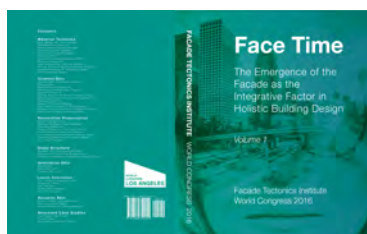
NEARLY THIRTY FACADES CONFERENCES HOSTED

Many hosted in Los Angeles, but we have now branched out and are hosting conferences in other cities and countries.

FACE TIME, Facade Tectonics Conference proceedings editor

THE FAÇADE TECTONICS JOURNAL, Founder and Co-Editor

Two or three issues per year.



FAÇADE RETROFIT DATABASE GRANT FROM THE COUNCIL ON TALL BUILDINGS AND URBAN HABITAT – CTBUH

A global source for case study comparison of hundreds of façade retrofit completed project. Ph.D. student Andrea Arias Martinez

ARC499: POLY SKINS

Taught a building envelopes class at Cal Poly Pomona in 2018

SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Building Envelopes



2016 NATIONAL AIA NATIONAL CONVENTION: "THE NEW BUILDING ENVELOPE"
Coordinated a half-day session for professionals on the subject of the next generation of building envelopes.

RALPH KNOWLES AND THE SOLAR ENVELOPE

Co-taught studio with Ralph Knowles (originator of the Solar Envelope concept). Recently completed an edited collection of the most important writings by and about Knowles and his solar envelope. Supported the solar envelope concept with software development, graduate research, and publication.



FREEMAN HOUSE ARCHIVE (supported by a grant from the Graham Foundation)

The Freeman House is a Frank Lloyd Wright Textile block house owned by the USC School of Architecture. The project was to complete a 3200 page, seven volume collection of all known documentation related to the house, including original drawings and sketches, correspondence, and historic structures reports. The house was photographically documented at a very high level of detail. Archive team members include Ben McAlister, Douglas Noble, Karen M. Kensek, and Celesta Vera. A number of original documents were available only at USC, and many of these documents were uncatalogued or stored hidden in locked cabinets.



PCI FOUNDATION PRECAST ENVELOPES GRANT

Four-year grant to explore the uses of precast concrete envelopes as part of the CLIPPER STUDIO. Studio topic involves responding to extreme climate in a culturally sensitive area within the boundaries of a US National Park, miles away from the nearest services (requiring fully self-sustaining proposals).

FREEMAN HOUSE FACADE REPLACEMENT MOLD 2005 - 2016

The reconstruction of the mold to cast new Freeman House blocks for the building envelope. Five-year effort: techniques involved laser-scanning, CAD-CAM, materials analysis, and physical manufacturing in the school woodshop.



SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Performance-Based Building Science



4th YEAR DESIGN STUDIOS

Design studio sequence over many years focusing on performance-based response to extreme-climate and sensitive areas. Developed partnership with Joshua Tree National Park for students to examine extreme climate (35 degrees F. to 110 degrees F. on the same day, almost no annual rainfall, located on the San Andreas blue-line seismic fault, with not-yet-excavated sensitive Native American cultural artifacts).

CONTRIBUTOR TO BUILDING SCIENCE BOOKS

Cowan and Smith, "Dictionary of Architectural and Building Technology"

Llorens, "Fabric Structures in Architecture."

Dehlinger, "Architecture - Design Methods - Inca Structures"

GRADUATE BUILDING SCIENCE

Current Head of building science program. Undergrad, masters and doctoral students exploring technology in support of architecture. Created, edited and printed the annual "USC Building Science News" yearbook for graduate building science program.



SCIENCES OF DESIGN: BUILDING SCIENCE and DESIGN THEORY

Performance-Based Building Science



“Q-KIT” BUILDING SCIENCE TOOLKIT:

Supporting Performance-Based Architectural Design

Over the course of nearly a decade, Noble developed the building science “Q KIT” of analytical tools. Modeled on the “Q” character of the James Bond 007 books and films, the Q-KIT, includes a range of building science analytical tools and protocols.

BUILDING SCIENCE TEST EQUIPMENT:

Supporting Performance-Based Architectural Design

Led construction and reconstruction projects for the USC shake table, load table, heliodon, wind-tunnel, and mirror-sky as physical tools that compliment modern digital analysis.



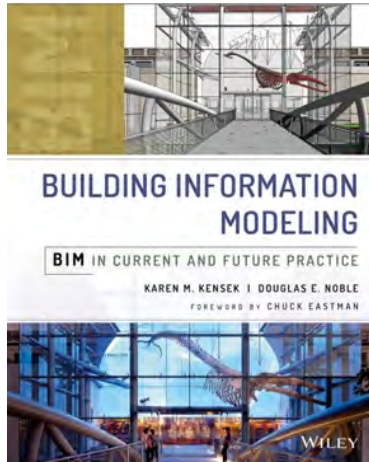
DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

Serious Computing

The computer revolution is over.
(We won).

DESIGN COMPUTING LEADERSHIP

Committee co-chair for AIA Los Angeles Computer Committee for nearly 20 years. AIA Technology and Architectural Practice Knowledge community for decades. Created the first comprehensive catalog of software in "Software for Architects: Computer Tools for the Architecture Profession" in 1990 (yellow book cover below).

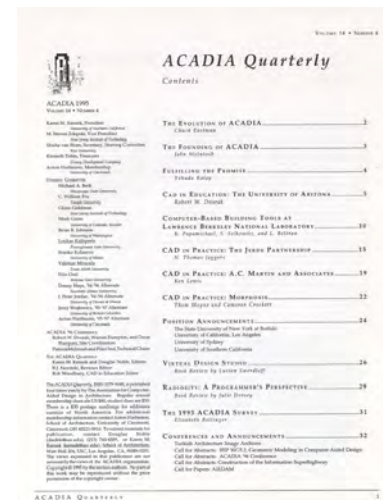
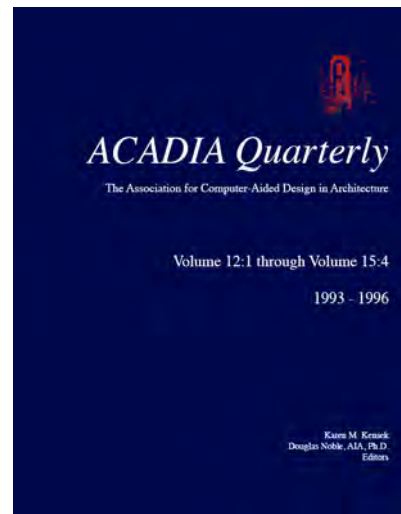


BUILDING INFORMATION MODELING BOOK (Co-Edited with Karen M. Kensek)
Building Information Modeling: BIM in Current and Future Practice, Wiley, 2014

AIA COMPUTER COMMITTEE and AIA TECHNOLOGY in ARCHITECTURAL PRACTICE
With Karen M. Kensek, founded the AIA East Bay Computer Committee (1980's) and the AIA Los Angeles Computer Committee (early 1990's). These committees eventually were transformed and merged with other national AIA units to form the current Technology and Architectural Practice knowledge group. USC received an AIA TAP award for our work integrating computing into the curriculum.



ACADIA: The ASSOCIATION FOR COMPUTER-AIDED DESIGN IN ARCHITECTURE
Served at various times as President, elected Steering Committee member, and even newsletter editor (many years ago). Organized and served as technical chair for the 1993 ACADIA conference with Karen Kensek and Richard Norman.



DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

Serious Computing



CLIPPER^{3d} LAB

Co-founded the CLIPPER^{3d} LAB at USC with dozens of hardware and software grants in support of a teaching and research computing lab in the USC School of Architecture. The CLIPPER^{3d} LAB was designed to support computing and physical tools as a laboratory for knowledge-based building design and analysis.

USC BIM CONFERENCES WITH KAREN KENSEK

Just completed the Tenth Annual USC BIM conference, attracting over 400 people from around the world. Most of these BIM conferences include a printed proceedings. Noble and Kensek are frequent collaborators and have worked together for nearly 30 years.

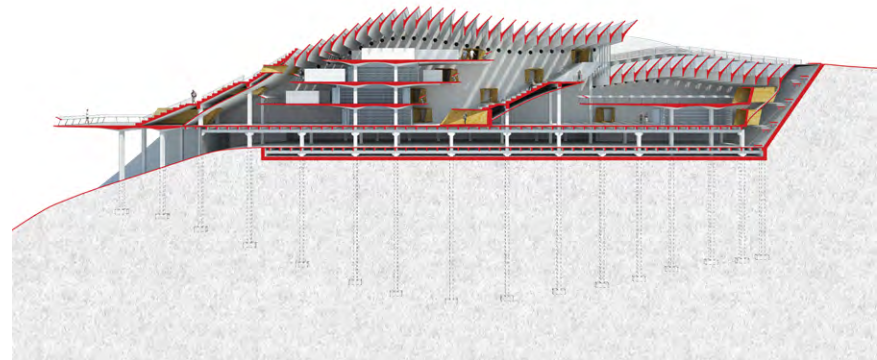


DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

CLIPPER3d Studio

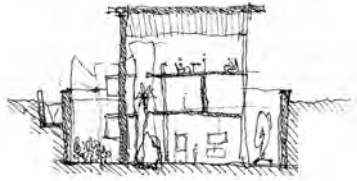
COLLABORATION

The CLIPPER3d Studio is often co-taught (with a variety of instructors over the years). Each student is linked to a volunteer member group in a different professional firm, where they get monthly desk-crits. Each semester starts with a full-day open conference with speakers from the National Park Service and others with unique knowledge of the region. Representatives and Rangers from the National Park Service serve as hypothetical “clients” and require students to follow the guidelines expected for the built environment of the National Park system. Several student work examples are shown.



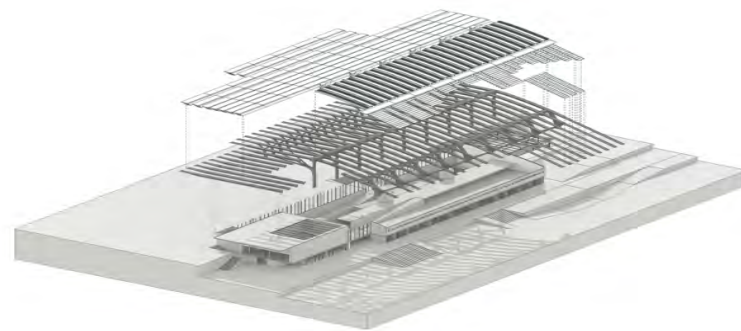
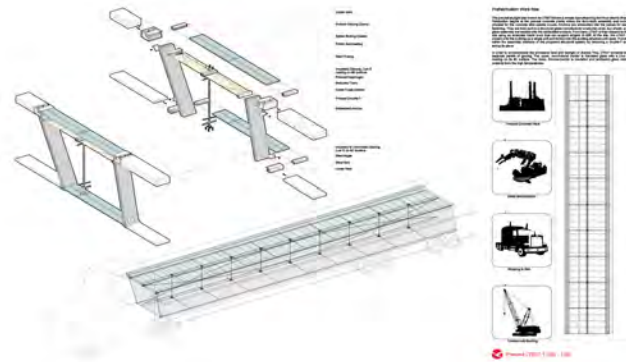
DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

CLIPPER3d Studio



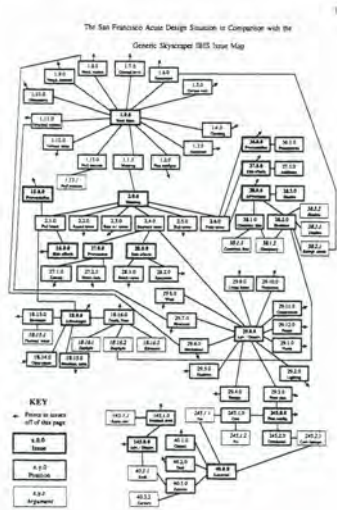
PUSHING THE ENVELOPE IN THE DESIGN STUDIO: OPPOSING MIS-INFORMED FORM

The CLIPPER3d Studio emphasizes building science and architectural computing to tackle wicked problems. Sites are selected in difficult climates, on sensitive sites, with serious problems to resolve. For the past several years, project sites have been located on an earthquake fault-line in a high-desert national park in California (in a partnership with the National Park Service). There are no services of any kind for 30 miles (no water, power, gas, or waste), and rainfall averages under 5 inches a year. Selected sites also include unexcavated native-American artifact, requiring absolute minimal construction site disturbance, and substantial pre-fabrication and off-site preparation. Students are required to use analytical computing for design support. Previous studios have used early-generation super-computers, or have been required to be paperless / virtual throughout the semester.



DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

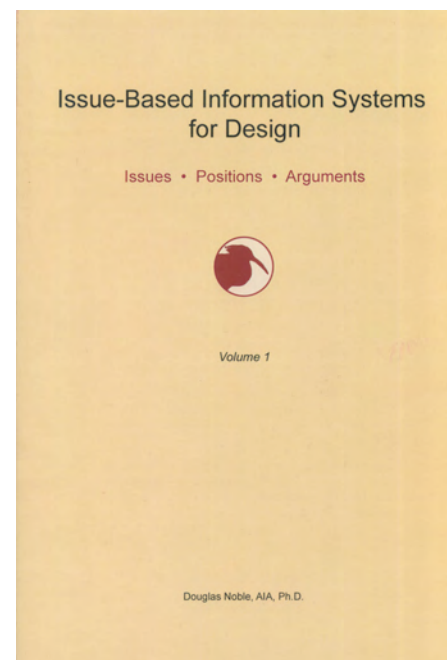
Information Systems



BOOKS: Issue-Based Information Systems for Design

2 Volumes

Horst W.J. Rittel originally developed the concept of the Issue-Based Information System (IBIS) in the 1960's. Collaborations with Jean-Pierre Protzen, Hans Dehlinger, and Thorbjørn Mann expanded the IBIS concept and generated several of the early demonstration implementations. Over the next few decades, the IBIS idea was explored and expanded and several dozen papers were published. Presentations were made at architecture and design conferences around the world, and issue-based systems even became the subject of serious study as a possible structure for computer operating systems. This volume is one of a three-part collection of the seminal papers on Issue-Based Information Systems. The understanding of planning and design as a process of argumentation led to the concept of IBIS. The elements of IBIS are Issues, each of which are associated with alternative positions. These in turn are associated with arguments which support or object to a given position. Issue-Based Information Systems are used as a means of widening the coverage of a problem. By encouraging a greater degree of participation, particularly in the earlier phases of the process, the designer is increasing the opportunity that difficulties of his proposed solution, unseen by him, will be discovered by others. Since the problem observed by a designer can always be treated as merely a symptom of another higher-level problem, the argumentative approach also increases the likelihood that someone will attempt to attack the problem from this point of view. Issue-Based Information System can help to make the design process "transparent" so that participants can trace back the process of decision-making. Images below show the first two volumes of a three-volume set of the seminal papers in Issue-Based Information Systems. Volume Three has not been completed.



DESIGN THINKING: KNOWLEDGE-BASED CRITICAL REASONING OF DESIGNERS

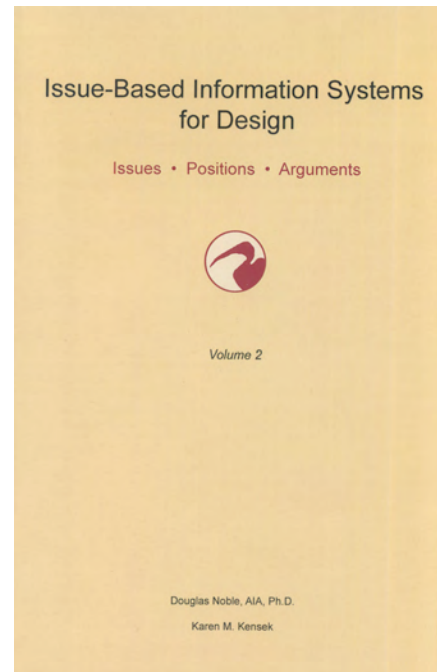
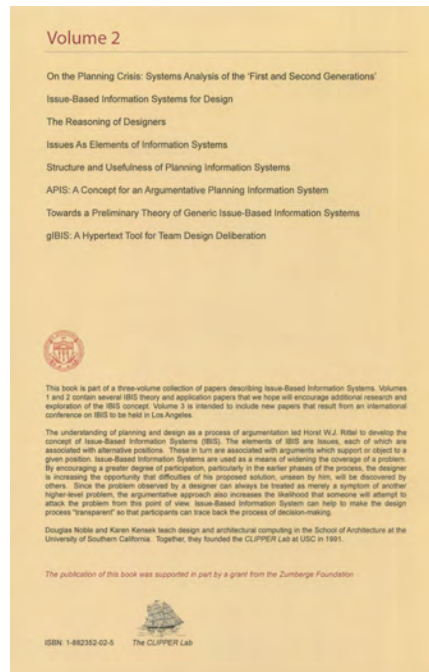
Information Systems

BOOKS: Issue-Based Information Systems for Design

2 Volumes

Volume 1 includes contains IBIS application and implementation research and a detailed bibliography. Papers by Donald Grant, Ray McCall and others describe specific methods and structure for using IBIS. Hans Dehlinger provides 'some considerations' for the design of IBIS-like systems, and Horst W.J. Rittel

Volume 2 includes the early papers defining Issue-Based Information Systems and describing the initial theoretical development. Also included are papers providing an overview of the development of IBIS through time, including a recent paper based on dissertation research at the University of California, Berkeley. IBIS is one example of what Rittel called 'systems approached of the second generation.'" Volume 2 opens with a paper contrasting 1st and 2nd generation systems approaches.



ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Doctoral Education and Research



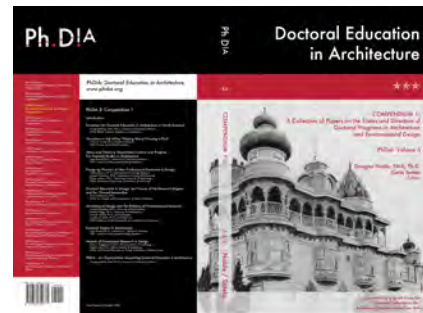
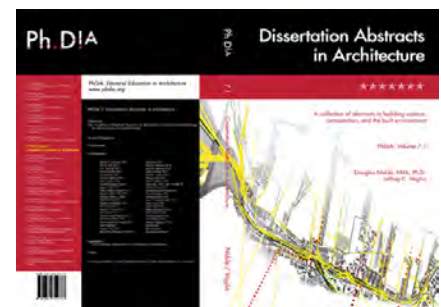
RESTARTED LONG DORMANT DOCTORAL PROGRAM IN THE USC SCHOOL OF ARCHITECTURE

The original program was founded at USC in about 1963. In 1997, Noble led a ten-year campaign to restart the Ph.D. program. Noble was appointed chair of the Ph.D. program in 2007. Successfully re-established the program with ten students. Of the ten students, half are women, half are international, and most are professionally licensed. Some are also licensed engineers.



FOUNDER AND LEADER OF “PhDiA: Doctoral Education in Architecture”

PhDiA was established in 2008 to provide a forum for discussion of issues related to the education of doctoral students in architecture. Membership includes leading voices in academia, the profession and doctoral students. PhDiA sponsors a peer-reviewed journal and supports regular conferences. PhDiA was created to establish a clearinghouse for doctoral program pedagogy and structure, to assist faculty and administrators in doctoral programs, to provide a forum for doctoral students, to encourage inter-university doctoral research and dissertation cooperation, to elevate doctoral studies and the role of research and advanced scholarship and to recognize outstanding achievements and leadership in doctoral research. PhDiA has 1100 members around the world.



ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Doctoral Education and Research

CONSULTANT TO OTHER UNIVERSITIES STARTING NEW DOCTORAL PROGRAMS OR EVALUATING EXISTING ONES

Invited consultant to discuss directions in doctoral education, and to compare curricula, degree requirements, and dissertation processes.

Impacts of Doctoral Education on the Profession¹

Although Ph.D. degrees in architectural history and theory have existed for some time, non-history doctoral programs in architecture only began to proliferate about 50 years ago. The founding of doctoral programs in architecture at a handful of universities commencing in the early-1960's brought about public debates about degree content, structure, curricula, and program purpose. Only about a dozen schools offered doctoral education in the early 1960's (led by U.Penn, Princeton, Carnegie-Mellon, Berkeley, Harvard and Michigan) and a survey thirty years later still found only 15 programs. Suddenly, however, at the end of the 20th century the number of North American universities granting a Ph.D. in Architecture nearly tripled.

A PhDiA survey in 2008 found approximately 600 doctoral students enrolled at that time in more than 40 programs.² Responses from universities in 2011 answering the same questions indicated that there were more than 700 students. The exact count is difficult because there are hybrid programs and interdisciplinary students that are difficult to classify. There are new types of doctoral degrees, and many more subject areas being explored. Ph.D.-granting programs can now be found in about one-quarter of the architecture schools in the United States, covering academic disciplines including technology, computing, design theory, culture, design, architectural history, and media as well as the social sciences of architecture such as environment-behavior studies. The initial impacts of the growth primarily affected schools. More recently, the doctorate is finding its way into the profession.

The first waves of graduates from this expansion fueled the growth of the doctorate as a valued degree among the tenure-track faculty at leading Universities. The Ph.D. has quickly become widely accepted as a valued credential for full-time faculty at major universities. New avenues for research funding are reinforcing the value of scientific research in academia and in the profession. More students from the United States are joining programs that have historically been dominated by international students. Examination of university faculty position advertisements in the ACSA News (Association of Collegiate School Schools of Architecture) showed a significant spike in the number of listings that specifically indicated that the Ph.D. was a recommended credential for tenure-track applicants. While complete data has not been available, our comparative studies of recent faculty lists to those from the late 20th century through today show a doubling and often tripling of the percentage of tenured and tenure-track faculty holding the doctorate.

¹ Reprinted from a longer article originally published in *Design Intelligence*.

² PhDiA is a research group based at the University of Southern California that investigates doctoral education in architecture and related fields. PhDiA has just under 2000 members representing faculty, alumni and students holding architecture doctorates.

ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Education Processes

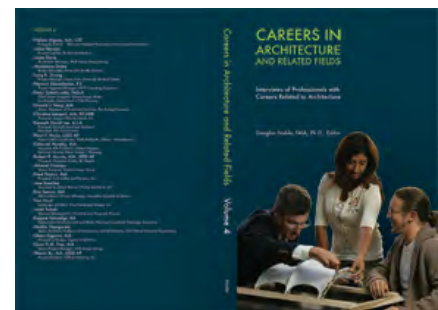
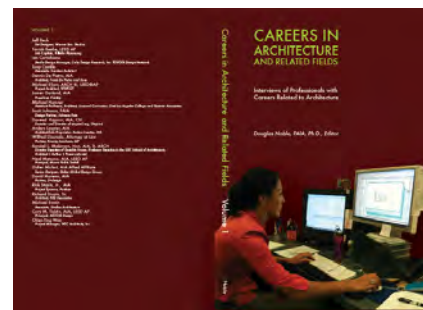


Architecture offers one of the most challenging curricula available in a University setting. In many programs, students are expected to start taking difficult studio and architectural seminar courses from the moment they enter the academy as freshmen, and the work-load for architecture students is legendary, at least in terms of time commitment.

Some students thrive in the design studio environment, and others struggle. Some start out strong, and others become stronger later in their academic and professional careers. Some do well in the seminar courses but struggle with the creative rigor of the studio, while others seem to succeed with the creative aspects of the studio and are less motivated in the seminars. It is not uncommon for an architect to “bloom” and start to truly succeed many years after completing the degree requirements. Design studio reviews can be emotionally and psychologically difficult, especially for those unaccustomed to public speaking. Although the data do not seem to support the claim, some faculty are fond of telling students that only 2 or 3 students out of an entering class of 100 will actually ever become architects.

In the face of these daunting conditions, architecture students sometimes wonder if they have selected the right major. While I believe that most have selected wisely, I encourage all students to devote special attention to the selection of a career. It is appropriate to continue to think about the choices, especially in a workplace environment with so many compelling choices. An architectural education is an extraordinary way to enter many types of careers. Architecture alumni have been successful car designers, set designers, real estate tycoons, urban planners, contractors and more. The list of possible careers is both deep and broad.

This series of self-published books has been created as an aid to students who are considering architecture as a career, or who are wondering what other careers might be possible with a degree in architecture. Each volume of this series contains 25 or 30 “career reports” documenting the career of an individual in a profession related to their architectural education.



ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Education Processes



COMMITMENT TO EDUCATION

With Karen Kensek, more than a dozen AIA National Convention programs have been conducted, including programs at the most recent three Conventions.

The New Building Envelope
The Forefront of Facade Research and Practice

HOLISTIC / INTEGRATIVE:

- SUSTAINABILITY
- HUMAN COMFORT
- HEALTH & WELLBEING
- ANALYTIC COMPUTATION
- SOLAR ACCESS
- DISASTER MITIGATION
- RISKS AND HAZARDS
- DISASTER RESPONSE
- INTELLIGENT SKINS
- RESILIENT MATERIALITY
- DAYLIGHTING & GLARE
- FAÇADE RETROFIT
- HERITAGE ENVELOPES
- LIVING / GREEN WALLS
- GREEN ROOFS
- PARETO-OPTIMIZATION

AMERICAN INSTITUTE OF ARCHITECTS: NATIONAL CONVENTION 2016 6 of 36

PART 2: NotLY

- "We" really do want you to succeed
 - NotLY means "Not Licensed Yet"
 - NotLY is one element of support
 - NotLY is an all-volunteer organization that has:
 - the "NotLY" number
 - lectures
 - study groups
 - digital materials
 - polite badgering and email hints
 - everything is always free

CHICAGO! AIA Convention 2014
June 26-28, Chicago

ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Licensing and Bridges to the Profession

As I look at cities today, I do not see that the problem is 'too many architects.'



TEACHING ARCHITECTURE AT ALL LEVELS

Noble has taught architecture to 5th graders, high-school students (in the USC Summer program), ACE students, undergraduates (including non-majors), masters and doctoral students, unlicensed interns, and professionals. Creating or transforming several courses at USC.

ARCH370: Expanding the Profession

Transformed course: A special course designed to help undergraduates think about their careers in architecture and related fields. This course comforts architecture students who are not great in studio by showing them they can have important roles in a firm. The course expands the breadth of career options for those majoring in architecture.

ARCH517: Special Topics in Building Science

New Course: A course invented by Noble and Kensek that connects six professionals to students in a five-week, one-unit, course exposure to a detailed building science topic. Winner of an NCARB prize.

ARCH518: The Building Enclosure

Transformed Course. This course was created and taught once about a decade ago, and then languished unoffered until Noble recreated it into a fundamentally new course.

ARCH790, 791, 794: Doctoral Education

New courses: Dissertation coursework and research methods

USC XED

Summer Executive Education program at USC. Coordinated building envelopes courses and events (several years)



ACE HIGH SCHOOL and ELEMENTARY SCHOOL Lectures

Presented architecture as a career to high school and elementary school children at many events each year. Coordinated an "Architecture Day" event for 5th grade students, and have hosted in on campus for several years.

BOY SCOUTS: Architecture Merit Badge Counselor

Merit Badge Counselor to dozens of scouts over many years. Volunteer for Master Plan and graphic branding for Fire Mountain Boy Scout Camp.





Table listing NotLY classes for Fall 2017, including dates, topics, and instructors.



Table listing NotLY classes for Summer 2014 Architecture Licensing Classes at USC.



ARCHITECTURE EDUCATION: LIFE-LONG-LEARNING, LICENSING, MENTORSHIP

Licensing and Bridges to the Profession

AIA California Council, Presidential Citation, 2016

"In recognition of your efforts as a team to create three outstanding programs that support and encourage AIA participation and membership: The NotLY licensing program, the Facade Tectonics Institute, and the annual USC BIM Symposia."

AIA Los Angeles, Presidential Citation: Educator Award, 2017

Conferred by the AIA|LA Board of Directors, the AIA|LA Presidential Honorees program recognizes excellence in design, and individuals whose advocacy or support of the profession make a lasting contribution to the field and to Los Angeles.

NotLY: Not Licensed Yet

NotLY seeks to help young people in architecture successfully transition from the university to the profession. This all-volunteer group founded by Noble and Kensek has coordinated nearly 500 classes to more than 20,000 attendees. Always free-of-charge and open to everyone. The primary focus is on organizing architecture licensing study sessions and programs. As of summer 2016, there are just over 2200 members of NotLY in the southern California region. NotLY has received awards from the ACSA, the Academy of Emerging Professionals, and the AIA California Council.

