# NaturaBuiltVirtual '10

College of Architecture Research Symposium

TEXAS A&M UNIVERSITY

**Natural,Built & Virtual**
College of Architecture
Research Symposium
October 18, 2010

College of Architecture
Texas A&M University
3137 TAMU
College Station, TX 77843-3137

979.845.1222
http://www.arch.tamu.edu

Research Symposium website:
http://researchsymposium.arch.tamu.edu

NaturaBuiltVirtual '10
College of Architecture Research Symposium

# DEAN'S REMARKS

## "Talent + Infrastructure = Capacity for Impact…"

— Strategic Plan of the Texas A&M University College of Architecture

Howdy!

On October 18, 2010, the College of Architecture at Texas A&M University held the 12th Annual College of Architecture Research Symposium — Natural, Built, Virtual. Within this document are the official proceedings of our 2010 symposium, a list of our faculty's scholarly activities from the past academic year and, at the end of the publication, brief descriptions of the college's research centers.

The College Research Symposium is a unique tradition in the college, which for more than a decade has annually featured faculty member presentations showcasing the diversity and breadth of scholarship in the natural, built, and virtual environments, within the college's departments of Architecture, Landscape Architecture and Urban Planning, Construction Science, and Visualization, and within the Center for Health Systems and Design, the Center for Heritage Conservation, the Center for Housing and Urban Development, the CRS Center for Leadership and Management in the Design and Construction Industry and the Hazard Reduction and Recovery Center.

To be eligible for inclusion in the symposium, each presentation had to be an invited lecture, conference paper, exhibit or any other form of research or creative work, presented nationally or internationally during the 2009-10 academic year at technical conferences, scholarly meetings or at academic institutions. This year's symposium featured 56 presentations structured around four sets of five or three concurrent sessions on 14 topics: aesthetics, health, environs, value, modeling, perception, prescience, reflections, process, structures, hazards, history, planning, and pedagogy.

The range of presentation topics demonstrates our college's commitment to an integrated approach to the core pillars of the college's academic mission — learning and teaching, research and creative work, and engagement – within an environment of pluridisciplinary (i.e., multidisciplinary, interdisciplinary, cross-disciplinary, and transdisciplinary) collaboration and practice.

The symposium is also evidence of the respect that our faculty have for one another as researchers and scholars contributing to the improvement of the professions and industries associated with the natural, built and virtual environments, and through them, to the improvement of society at large.

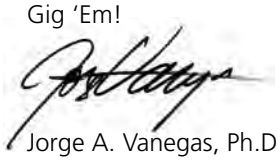
For this year's symposium, Dr. Shannon S. Van Zandt, assistant professor of urban planning and coordinator of the Master of Urban Planning program, was invited to be Chair of the Symposium in recognition of her numerous research and other scholarly accomplishments. In addition, Dr. Jeffrey R. Seemann, vice president for research and graduate studies at Texas A&M University, opened the symposium with a keynote address highlighting the diversity and the quality of the college's research contributions. Also, a daylong poster session of selected scholarly work of graduate students provided a complement to the faculty presentations.

It is now a firm tradition in our college to take a "time out" for one full day each fall semester and cancel our usual schedule of classes, design studios and meetings so students, faculty, staff, former students, and interested guests can hear and see presentations that reflect the diversity, breadth, depth and quality of scholarship currently under way in our college.

With the talent, infrastructure and capacity currently in place throughout the College of Architecture, embodied across our departments and within our research centers, through our faculty, students, staff, former students and partners, the college is uniquely positioned to take our academic mission to higher levels of relevance, significance, excellence, accomplishment and impact.

We hope you enjoy exploring the content of these proceedings.

Gig 'Em!



Jorge A. Vanegas, Ph.D.
Dean

# ABSTRACTS

# College of Architecture's 12th annual symposium spotlights faculty research

NaturaBuiltVirtual '10
College of Architecture Research Symposium

The 12th Annual Texas A&M College of Architecture Research Symposium: Natural, Built, Virtual, held Monday, Oct. 18 at the Langford Architecture Center on the Texas A&M campus, featured a series of faculty presentations previously delivered at scholarly venues around the world. This year's symposium included invited or refereed presentations, papers and creative work from the 2009-10 academic year.

"The individual sessions comprising the symposium displayed a wide range of scholarship with respect to people and place," said Louis G. Tassinary, executive associate dean for the College of Architecture. "Fundamentally, the symposium sessions reflect themes that emerged in the work of the faculty and research staff over the past year."

The symposium featured 56 presentations grouped into 14 diverse categories and delivered in several concurrent sessions.

The faculty research symposium was established a more than a decade go to underscore the influence of research on teaching and practice at the Texas A&M College of Architecture. The event also serves as a catalyst for research-informed teaching in the College of Architecture's six undergraduate and nine graduate degree programs. And, because many of the faculty presentations were originally delivered at scholarly venues abroad, the event also showcases the global influence of research conducted by college faculty.

Providing keynote remarks for the college's 2010 research symposium was Jeffrey R. Seemann, vice president for research and graduate studies at Texas A&M University. An internationally recognized plant biochemist with research interests in photosynthesis and global change, Seemann is listed by Current Contents, a leading database of scholarly journals, as one of the top 250 most cited researchers in the world in the area of plant and animal sciences.

This book of proceedings includes abstracts from the faculty presentations delivered at the 2010 symposium, a list of faculty research activity during the 2009-10 academic year, and brief overviews of the college's five research centers and Visualization Laboratory.

The information within this document is also available online on the symposium website:
http://researchsymposium.arch.tamu.edu/

# Texas A&M research vice president keynotes College of Architecture research symposium

Jeffrey R. Seemann, vice president for research and graduate studies at Texas A&M University, provided an overview of recent Texas A&M College of Architecture research initiatives in his keynote address at the college's 12th annual research symposium, Natural, Built, Virtual, held Oct. 18, 2010 at the Langford Architecture Center on the Texas A&M campus.

Seemann is an internationally recognized plant biochemist with research interests in photosynthesis and global change. He is listed by Current Contents, a leading database of scholarly journals, as one of the top 250 most cited researchers in the world in the area of plant and animal sciences.

As vice president for research and graduate studies, Seemann works with the faculty, staff, and administrators as the university stakes out an ambitious agenda, which includes elevating Texas A&M to be among the top 10 public research universities in the nation by the year 2020. Since joining Texas A&M in 2009, he has led a host of programs and initiatives furthering research, scholarship and creative works at Texas A&M, while overseeing the university's critical research support operations.

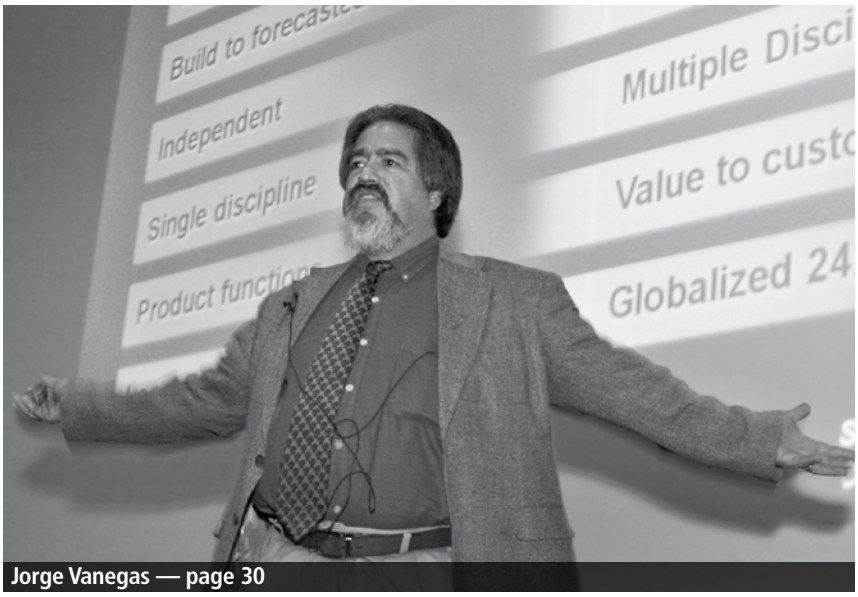
**Jeffrey R. Seemann**

Seemann serves on the Houston Technology Center and Research Valley Partnership Boards of Directors. He earned a bachelor's degree with honors from Oberlin College with a major in biology, and a doctoral degree from Stanford University in biological sciences.

For eight years prior to joining Texas A&M, Seemann served as dean of the University of Rhode Island's College of the Environment and Life Sciences and co-chair of the R.I. Science and Technology Advisory Council. He also served 17 years as a professor and head of the biochemistry department at the University of Nevada, Reno.

A video of the keynote remarks can be viewed online at
http://www.vimeo.com/15999931.

# EVENT PHOTOS



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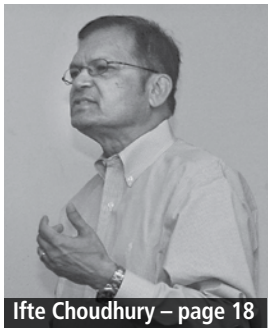
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Joshua Bienko
Assistant Professor
Department of Architecture

M.F.A., Lamar Dodd School of Art, The University of Georgia, 2008; B.F.A. (Painting), State University of New York at Buffalo, 2000.

Joshua's interests are broad ranging. His work antagonizes history, fashion, critical theory, the impossibility of desire, and the value of art in the age of Post-Production. Joshua is involved in challenging solutions, eradicating answers, and encouraging inconsistencies in an effort to calculate meaning.

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## Art, 'Restoring Honor,' and other empty gestures

In the 1992 film, A Few Good Men, Kevin Bacon's character (a lawyer) hands Jack Nicklaus' character (a Colonel in the US Army) a Code of Conduct manual. Jack Nicklaus has been accused of ordering a 'few' soldiers to perform a "Code Red," an illegal act of corporeal punishment. Jack cannot find the term "Code Red" in the manual, proving that he couldn't possibly have ordered a "Code Red." Such a thing doesn't even exist!

Kevin Bacon rests his case and returns to his seat. Tom Cruise, (the Defense Attorney) grabs the Code of Conduct manual from Kevin Bacon as he approaches the bench. He gives the manual back to Jack and asks him to find the words, "Mess Hall." Surely the "Mess Hall" exists, right? Consequently, the "Mess Hall" is not in the book. Perhaps this is one way that we can approach Art. Could Art and meaning exist and yet not be in the manual?

My work obeys similar parameters. It functions simply by masking the emptiness of the space it occupies. In this way, the space of the wall is often emptier with my work on it than without. It is an empty gesture, powerless, meaningless and useless aimed at concealing the fact that it is exactly what it appears to be.

**Bienko, J. (2009, September). Desiring le' Con: Art, 'Restoring Honor,' and other empty gestures. Alfred University, School of Art and Design, Alfred, NY.**

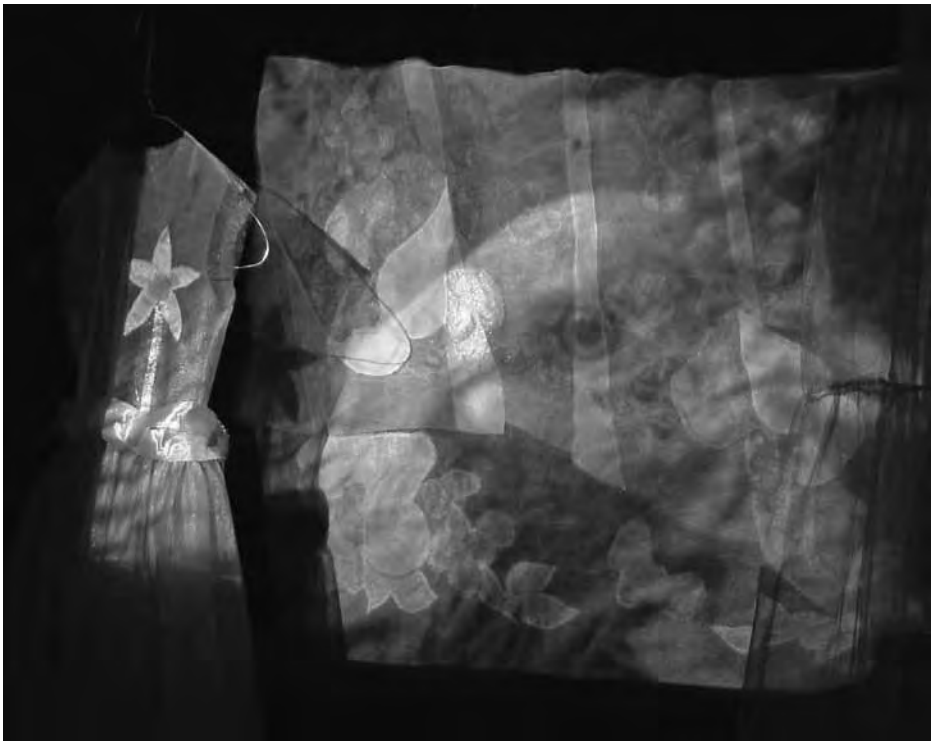
# I Remember

The Weatherspoon Museum of Art at the University of North Carolina at Greensboro launched The Lining of Forgetting February 10, 2008. Curator Xandra Eden collected works from an international pool of artists drawing upon personal memory and the media of remembering as source material for artistic works

I am developing a body of work based upon my own memories of growing up in a small Texas town in the 1950s. My home and the town itself seemed immune to influences from the outside world. It seemed to me that memorization of the place, procedures, and mores was what I could do to comprehend the mysteries of the adult world.

Using drawing, photography, installation, video, sound, and through the construction of garments in ephemeral fabrics such as tulle, I have begun an examination of ordinary household practices. Questions are raised, many in regard to gender imprinting. I remember clearly the loving care given to seemingly mundane domestic tasks, and I celebrate, in this body of work, how effortless this performance seemed to be.

**Hillier, K. (2010, July). I Remember. The American Society of Aesthetics annual meeting, Santa Fe, NM.**



Karen Hillier
Professor
Department of Visualization

M.F.A., University of Illinois, 1971; B.F.A., University of Texas-Austin, 1969.

Professor Hillier's interests as an artist/educator incorporate the combined use of conventional and digital media. She teaches digital multi-media and photography in addition to working closely with graduate students pursuing independent artistic work.

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Phillip J. Tabb
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Architecture Programs
Department of Architecture

Ph.D., The Architectural Association
Graduate School of Architecture, London,
1990;
M.Arch., University of Colorado, 1976;
B.S.Arch., University of Cincinnati, 1969

Dr. Tabb's interest is in the area of community architecture with an emphasis on- climatic, energy and sustainable architectural design and village planning with a special focus on sacred building and place typologies. He is a founding faculty fellow of the Sustainable Urbanism Certificate Program and a board member for Architecture, Culture, and Spirituality. Dr. Tabb is a licensed architect and holds a NCARB certificate.

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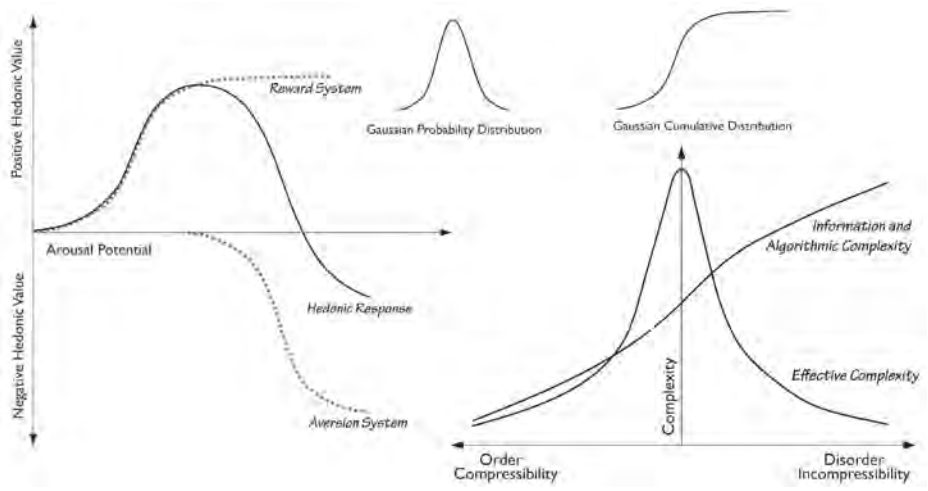
# Place drawing as a sacred practice

Drawing is a form of visual communication that can be a representational, impressionistic, abstract, informational, or even imaginal, yet it can transmit sacred ideas and be part of a transformative experience as well. Drawing can be a process of deepening and of extraordinary discovery. It has the power to enable one to be awake in a place and to really see what is there, contributing to insights, profound deductions, and an eventually enlivened presence. Mythological explorations can be renewing and creative when found in drawing as they become what author J. R. R. Tolkien called "mythopoeia," and a visual narrative of archetypal themes emerging where the myth-making is closely connected to the actual experience of a place. Myths are said to take place before a space becomes a place and this process becomes a sacred narrative, which is attached and gives significance to it. Theologian Belden Lane, in his Axiom for Sacred Place, wrote that a place may be tread upon without being entered. This suggests that the sacred realm may exit, but may not necessarily be readily accessed or initially revealed. To call into being the sacred or mythic realms of a place, seems to require either a quieting process into the ethos of the place, enactment with ritual, or possibly a conscious awakening through a process like drawing. It is this phenomenon, which is the focus of this extended abstract. And to that end, four place-oriented drawing typologies are explored: quick in-situ sketches, extended field drawings, studio enhanced drawings, and mythological landscapes.

**Tabb, P. (2010, June). Place Drawing as a Sacred Practice. Architecture, Culture & Spirituality Symposium, St. John's Abbey, Collegeville, MN.**

**Author Phillip J. Tabb drew this aerial view of Civitella in Val di Chiana, Italy in 2009.**




# Computational aesthetic evaluation: Past and future

Human artistic creativity typically includes a self-critical aspect that guides innovation towards a productive end. It seems likely that truly creative computers will require a similar ability to make aesthetic evaluations. This talk offers a brief history of, and outlook for, computational aesthetic evaluation (CAE) by digital systems as they move towards machine creativity.

A summary of CAE related attempts is offered touching on the use of formulaic and geometric theories; design principles; evolutionary systems, agents endowed with curiosity; artificial neural networks and connectionist models; and complexity models. Also touched upon are possible contributions from evolutionary psychology; models of human esthetics from psychologists such as Arnheim, Berlyne, and Martindale; various findings from empirical studies of human aesthetics; and the nascent field of neuroaesthetics.

Given this background it will be seen that there are likely no short paths to CAE. But the direction of a long path to CAE requiring a highly multidisciplinary research program is suggested.

Galanter, P. (in press). Computational Aesthetic Evaluation: Past and Future. In J. McCormack & M. d'Inverno (Eds.), Creativity and Computers. Springer: Berlin.

Philip Galanter
Assistant Professor
Department of Visualization

M.F.A., (Photography and Related Media), School of Visual Arts, 1999; B.A., (Philosophy), Eastern Illinois University, 1976

Philip's areas of interest include generative art, physical computing, sound art and music, complexity science, and art theory. His work includes the artistic exploration of complex systems, and the development of art theory bridging the gap between the cultures of science and the humanities.

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Mardelle McCuskey Shepley
Professor, Holder of William M. Pena Endowed Professorship in Information Management; Director of Center for Systems Health & Design
Department of Architecture

D.Arch., University of Michigan, 1981; M.A., (Psychology) University of Michigan, 1979; M.Arch., Columbia University, 1974; B.A., (Architecture) Columbia University, 1971.

Dr. Shepley specializes in architectural design, social architecture, health care facility design, applied research, and environmental psychology.

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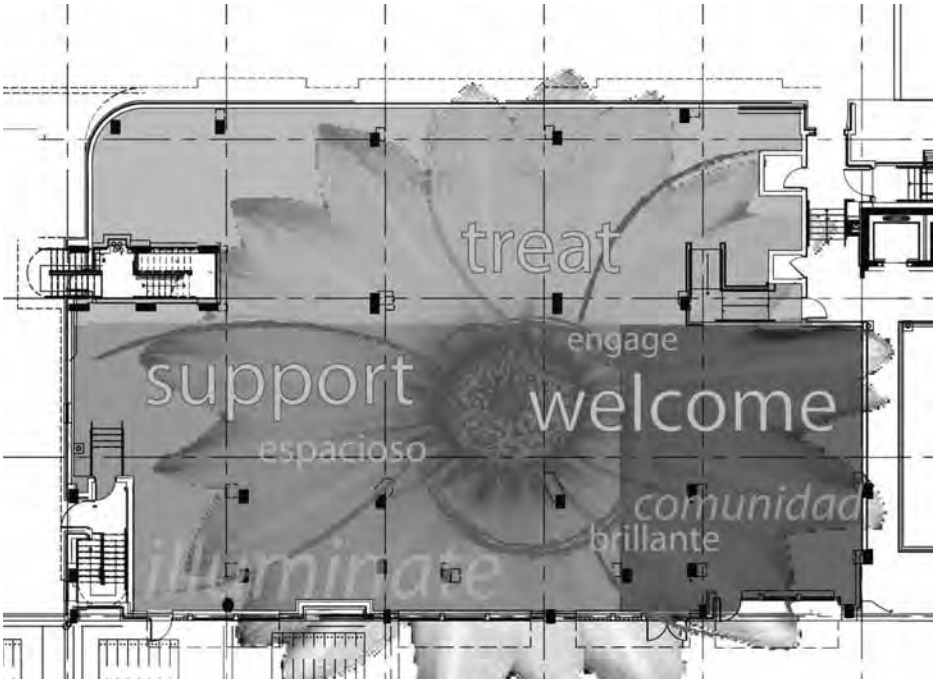


## Pre and post-occupancy evaluation of the Arlington Free Clinic

Healthcare facilities are complex environments that must meet the requirements of a wide range of users. Designers should evaluate the impact of the facilities that they design to confirm that they are meeting these needs.

This research, which was performed as part of a university course in architectural programming, involves two phases of data collection occurring before (pre-occupancy) and after (post-occupancy) redesign of a healthcare clinic. The redesign was implemented to provide more spacious, bright, acoustically-controlled spaces, which create a sense of community, safety and respect. Surveys were used to test satisfaction levels of patients and staff with these design factors as well as general design characteristics of the building. Sixty-four staff (46 in Phase I, 18 in phase II) and 170 patients (91 in phase I, 79 in Phase II) completed surveys. The findings suggest that, in general, the new facility has been successful in meeting design objectives. Information is provided regarding the structure of the survey and responses to individual questions.

In addition to helping the clinic staff and designers understand the implications of design decisions, this research provides a model for an effective, objective evaluation methodology that could be used by other healthcare organizations and design professionals.

**Shepley, M. (2010, September). Pre and post-occupancy evaluation of the Arlington Free Clinic. Healthcare Facilities Symposium & Expo, Chicago, IL.**

# Multimedia educational tool to improve outdoor access in long term care

Access to nature and the outdoors has been found to promote health and well-being in older adults in long term care (LTC) settings, and may be especially critical for those with limited mobility. In spite of recently increased interest in environmental influences on health, many LTC facilities do not employ evidence-based design principles when creating outdoor space for residents. To improve the quality of outdoor access, an interdisciplinary team of architects, gerontologists, landscape architects, and educational psychologists have developed an innovative media-based educational tool, geared toward a broad range of decision-makers in the LTC industry. This multimedia DVD program provides evidence-based guidelines on key issues such as outdoor walkways, shade, accessibility, and connection with the indoors. Psychosocial goals are linked to specific architectural features, and multiple examples show how the central concepts can be applied in diverse situations. Interactive exercises assess user comprehension of important concepts, and provide immediate feedback. The presentation will demonstrate this new educational tool, funded by a National Institute on Aging SBIR Grant, and describe how decision-makers can use design guidelines to improve residential environments for frail older adults.

Rodiek, S. (2009, November). Multimedia Educational Tool to Improve Outdoor Access in Long Term Care. Annual conference of the Gerontological Society of America, Atlanta, GA.

Pictured are examples from assisted living facilities around the country that are effectively creating accessible outdoor environments for their residents.

Susan D. Rodiek
Associate Professor, Holder of the Ronald L. Skaggs Endowed Professorship in Health Facilities Design
Department of Architecture

Ph.D., Cardiff University, 2004; M.Arch., Texas A&M University, 1998; Cert., Texas A&M University (Health Systems and Design), 1998; B.A., (Academic Studies) Western New Mexico University, 1996.

Dr. Rodiek is focused on the professional practice of architecture, especially design for aging and healthcare settings, with an emphasis on human-behavior research. She is a registered architect with NCARB certification.

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Rogers S. Ulrich
Professor, Holder of the Julie and Craig Beale '71 Endowed Professorship in Health Facilities Design
Departments of Architecture and Landscape Architecture and Urban Planning

Ph.D., University of Michigan, 1973; M.A., University of Michigan, 1971; B.A., University of Michigan, 1968.

Dr. Ulrich's interests concern applications of evidence-based design knowledge to healthcare buildings, landscape architecture and urban design. His research has addressed the effects of people's experiences with built and natural environments on psychological well-being, stress and health outcomes.

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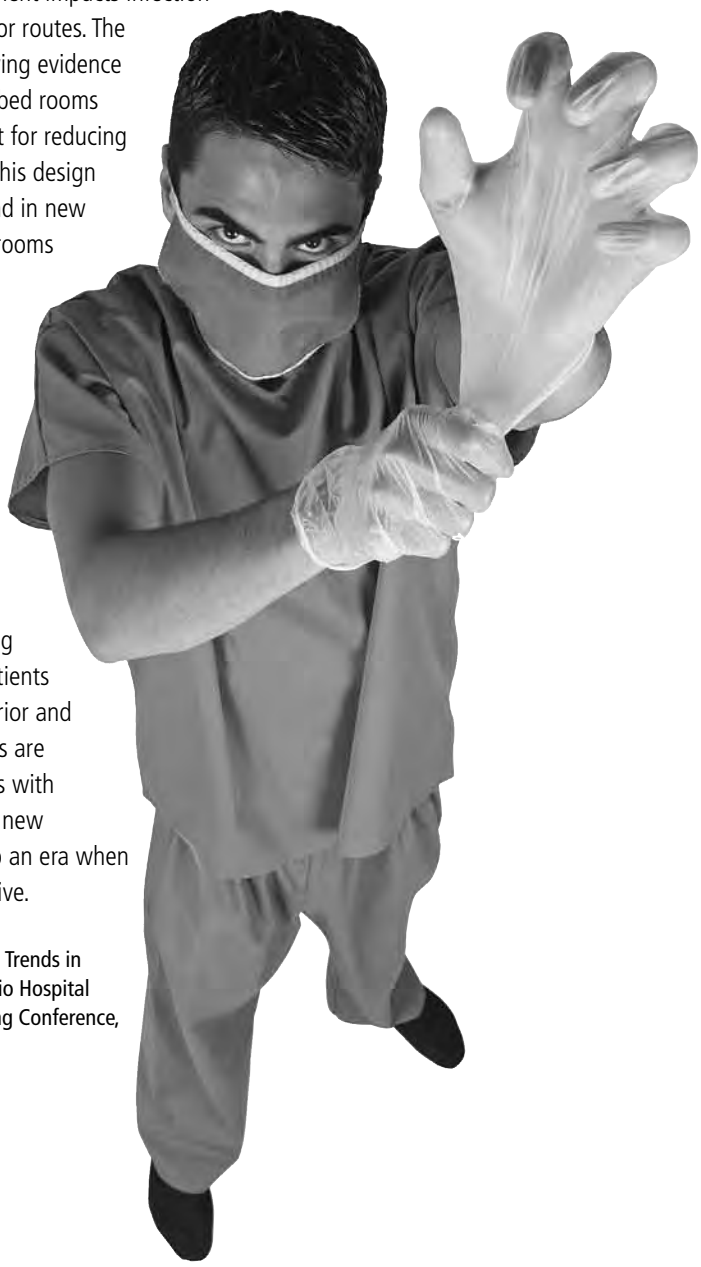
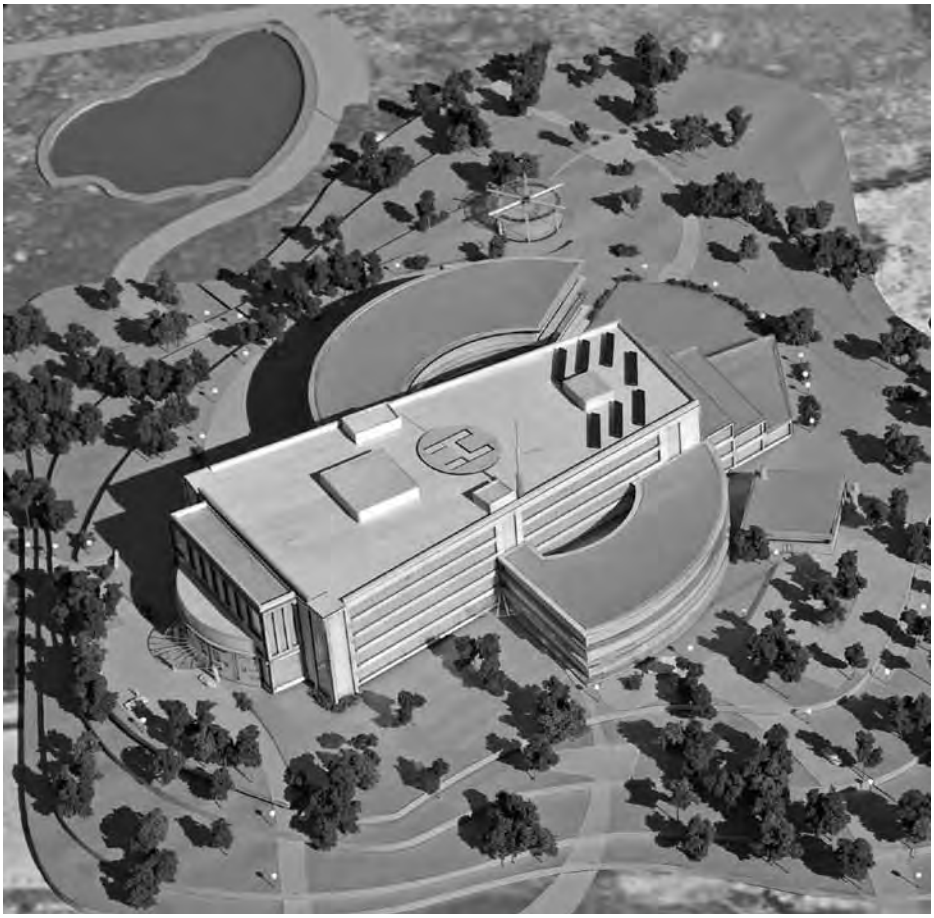
# Evolving trends in healthcare design for infection control

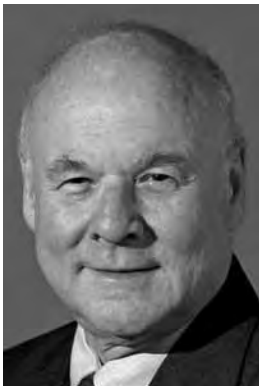
Hospital-acquired infection is one of the leading causes of death in the United States and other countries. The number of associated deaths in the U.S. now exceeds 100,000 annually. A major problem in both advanced and developing nations is that hospital-acquired infections increasingly are multi-drug resistant and therefore difficult and costly to treat and eradicate. Patients are especially vulnerable to these infections when they are immunocompromised or otherwise weakened because of age, underlying disease, or medical or surgical treatments. The international trend for intensity of care and patient acuity to steadily rise, together with the mounting problem of multi-drug resistant infections, portends a future of increasingly formidable challenges in controlling and preventing infection in hospitals and other healthcare facilities.

The presentation will describe recent developments in the rapidly evolving area of evidence-based design for reducing risk from hospital-acquired infections, including multi-drug resistant pathogens. Speaking generally, infection transmission occurs through three major routes: contact, air, and water. A large scientific research literature supports the conclusion that the design of the physical environment impacts infection rates by affecting all three major routes. The discussion will survey the growing evidence showing that providing single-bed rooms with private toilets is important for reducing infection. The effectiveness of this design measure is reflected in the trend in new construction to provide single rooms with private toilets not only in in-patient care wards, but also in emergency departments, outpatient surgery facilities, and other patient care areas. The mounting seriousness and prevalence of multi-drug resistance is beginning to spur revolutionary hospital designs that protect staff and uninfected patients by providing transport paths for infected patients which are on the building exterior and open to fresh air. New hospitals are appearing in different countries with radical design innovations and new cleaning technologies suited to an era when antibiotics no longer are effective.



Ulrich, R. (2009, October). Evolving Trends in Design for Infection Control. Ontario Hospital Association Annual Capital Planning Conference, Toronto, Canada. [Plenary speaker]





George J. Mann
Professor, Ronald L. Skaggs, FAIA & Joseph G. Sprague, FAIA Endowed Chair in Health Facilities Design, R.A., A.I.A
Department of Architecture

M.S. (Architecture for Health Facilities Design), Columbia University, 1962; B.Arch., Columbia University, 1961.

Professor Mann has 49 years experience in the field of architecture for health through his consulting practice, teaching and research. He has established a national and international reputation as a leader in health facilities design, and has taught over 4,000 students and undertaken over 650 architecture for health projects all over the world.

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# The health facilities planning and design program at Texas A&M University

Professor Mann, Dr.McGraw, Mr. Southern Ellis, Mr.Phillip Cedenco and Mr. Salud Sierra will present recent architecture-for-health projects undertaken at Texas A&M University including:

A Rural Hospital for Tanzania, The C. Ray Nagin Hospital, New Orleans and selected other projects.

They will contrast working in developing areas of the world with the developed world.

**Mann, G. J. (2010, March). The Health Facilities Planning and Design Program at Texas A&M University, Franklin Inn, Philadelphia, PA.**

Chanam Lee
Assistant Professor
Department of Landscape Architecture and Urban Planning

Ph.D., University of Washington, 2004; M.L.A., Texas A&M University, 1999; B.A., Kyungpook National University, 1996.

Dr. Lee's interests are in urban design and physical planning, urban form and non-motorized transportation, physical activity and public health.

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## GIS and the built environment for active living research

The pandemics of obesity and sedentary lifestyle are among the major public health challenges in the U.S. Design and planning professionals have an important role in this, because studies show that the designs and characteristics of the built environment, such as land uses, streets and sidewalks, housing density, safety, and visual quality, are associated with walking and other physical activities.

A method to systematically and objective assess the built environment can help identify barriers and facilitators in the environment that can be modified and regulated by policies to encourage physical activities. Toward this end, Geographic Information System (GIS) has served as effective and efficient measurement tools, and continued to evolve for active living research and other studies dealing with the environment-behavior linkage.

The workshop will cover conceptual issues and methods in four areas: 1) data acquisition and development, focusing on fine-grained land use data, parks and recreational facilities, food sources, and physical activity and fitness facilities; 2) respondent sampling approaches that take into account the characteristics of the environment in which people live or work; 3) external data import and analysis strategies, such as GPS and accelerometer data; and 4) geospatial analyses to measure and model the environment or behaviors. The presentation will focus on how to use GIS to "think spatially." Examples from on-going projects will be used to facilitate discussions, and sample protocols will be shared.

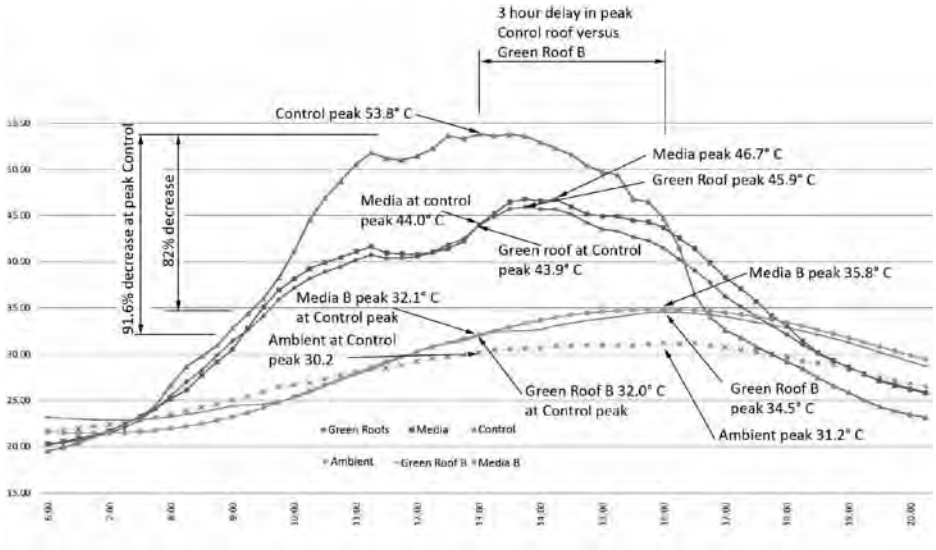
This presentation includes part of the workshop held at the 2010 Active Living Research conference by the Robert Wood Johnson Foundation. The specific learning objectives of the workshop were to: 1) Learn what and how to acquire, develop, and process GIS data for active living and general environment-behavior research; 2) Learn about a spatial sampling approach that considers environmental characteristics during the sampling process; 3) Understand ways to import and analyze data from external devices, such as GPS and accelerometer; and 4) learn and discuss about geospatial analyses to measure and model the environment or behaviors.

Moudon, A., & Lee, C. (2010, February). Using Geographic Information Systems (GIS) for Active Living Research. Active Living Research annual conference, Robert Wood Johnson Foundation, San Diego, CA.

# Rooftop membrane temperature reductions with green roof technology in South-Central Texas

Early green roof cooling and energy reduction research in North America took place in Canada and the northern latitudes of the United States, where green roofs reduced rooftop temperatures by 70% to 90%. Less is known about green roof technology in the southern Untied States; where energy demand for cooling buildings is high, and the urban heat island effect is more pronounced. This paper reports early findings for rooftop membrane temperature reductions from 11.6-cm-deep modular green roof trays, typical of large-scaled, low-maintenance applications. Measurements observed during May, 2010 reveal that temperatures below the modular planted green roof units were 82% to 91.6% cooler compared to the surface temperatures of the control roof membrane. These findings on low-input modular green roof trays reinforce other research findings that indicate green roof technology can dramatically reduce and modify temperatures on roof deck surfaces during peak energy demand periods in hot sunny climates.

Dvorak, B. (2010). Rooftop Temperature Reductions with Green Roof Technology in Central Texas. Symposium on Improving Building Systems in Hot and Humid Climates. College Station, TX: Energy Systems Laboratory, Texas A&M University.




Assisted by students and fellow faculty, the author sets up a green roof experiment atop the Langford Architecture Center.

Bruce Dvorak
Assistant Professor
Department of Landscape Architecture and Urban Planning

M.L.A., University of Illinois, 1994; B.L.A., University of Minnesota, 1988.

Professor Bruce Dvorak teaches undergraduate and graduate courses in Landscape Architecture. His areas of interest include sustainable design, planning, and construction. His area of research interest includes green roof technology. Bruce joined the Texas A&M faculty in the fall of 2007. He received his MLA from the University of Illinois in 1994 and his BLA from the University of Minnesota in 1988.

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Ming-Han Li
Associate Professor
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Ph.D. Urban and Regional Science, Texas A&M University, 2002; M.L.A., Texas A&M University, 1998: M.S., Civil Engineering, The University of Texas-Austin, 1995: B.S., The National Taiwan University, 1990.

Dr. Li is interested in stormwater management, bioretention, soil erosion control, streambank bioengineering, and sustainable landscape construction technology.

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# Performance of bioretention boxes for hot climate, large-scale application

The purpose of this presentation is to introduce an ongoing bioretention research project sponsored by Texas Department of Transportation (TxDOT), particularly the performance results of bioretention pilot testing in attenuating peak discharge and removing pollutants. The overall objective of the research project is to investigate the applicability and identify benefits and drawbacks of bioretention best management practices (BMPs) in Texas, specifically for highway related applications. Major tasks of the overall research include literature review, laboratory pilot testing, and field project implementation.

Bioretention was developed in the late 1980's in Prince George's County, Maryland. This technique uses soil, sand, organic matter, and vegetation-based storage and infiltration facilities for treating runoff from paved surfaces. Up to date, most bioretention research was conducted on residential, commercial and institutional areas that tend to be at the site scale. Few were for large-scale, highway-related applications. Meanwhile, very few bioretention studies were conducted in hot climate areas such as Texas.

For the pilot testing, five 1.8 m (6 ft) (L) × 1.8 m (6 ft) (W) × 1.2 m (4 ft) (D) steel boxes were installed as bioretention cells that contain, from bottom to top, a perforated pipe, gravel layers, soil/compost media and plants. Four of the five boxes were vegetated and one was bare soil as control. For vegetated boxes, one had shrubs and three others were grasses of selected native and non-native species. After one growing season, boxes were tested with synthetic stormwater containing typical pollutants in urban areas, including sediment, nutrients and heavy metals. Results indicate that peak discharge was reduced in all boxes with the most by the bare soil one. Plant roots might have contributed to the increase of soil infiltration rate. Pollutant removal of sediment, nitrate/ammonia, lead and zinc by all boxes was observed. Vegetated boxes appeared to perform better in nutrient removal.

The closing of the presentation will raise challenges either identified or encountered by the research team. These challenges are 1) Can existing detention ponds be converted to bioretention? 2) Are large-scale bioretention applications feasible? 3) Can bioretention be applied to roadsides along highways? 4) South and southeast U.S. are seriously infested by fire ants (Solenopsis invicta Buren) that favor bioretention-like habitats and can dramatically alter soil structure where they reside; how will this affect the water quality performance of bioretention? and 5) how can bioretention BMPs be maintained for effective long-term performance?

**Li, M.-H., Sung, C.Y., Kim, M.-H., Chu, K.-H., & Ligon, S. (2010). Performance of bioretention boxes for hot climate, large-scale application. Landscape Legacy: Landscape Architecture and Planning between Art and Science, 2009-2010 CELA, Council of Educators in Landscape Architecture annual meeting in Maastricht, The Netherlands (pp. 133-134). Wageningen, The Netherlands: International Study Group on Multiple Uses of Land, Wageningen University.**

Bioretention pilot boxes installed at the Hydraulics, Sedimentation and Erosion Control Laboratory on TAMU Riverside Campus.


# Investigating the effect of freeway congestion thresholds on decision-making inputs

The concept of a congestion threshold is embedded in the congestion definition. Two basic approaches exist in current practice for setting the congestion threshold. One common approach uses the "free-flow" or unimpeded conditions. Another approach uses target or "acceptable" conditions. The limited research that has been conducted on the congestion threshold issue focuses on operational problems or policy debates, but relatively little investigation of the effect on decision-making for transportation investment and resource allocation.

This research investigated the differences inherent in the threshold choices using detailed freeway data from seven metropolitan areas. Specifically, this research examined the ranking values of congestion measure for different congestion thresholds under a variety of real-world travel time distributions. Congestion performance measures of delay per mile and Travel Time Index were evaluated.

The research results showed that the rankings of congestion measures for freeway segments hold steady across the congestion thresholds ranging from 60 mph to 30 mph and across the congestion measures. The same sections are ranked as very congested for all possible threshold values. From an investment point of view, therefore, the congestion threshold speed used is not a concern for funding allocation.

**Qu, T., Dumbaugh, E., & Lomax, T. (2010). Investigating the effect of freeway congestion thresholds on decision-making inputs (UTCM 09-12-11). Texas A&M University: University Transportation Center for Mobility, Texas Transportation Institute.**

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## The effect of private outside space quality on the property value of a single family dwelling

The purpose of this study was to ascertain whether the quality of private outside space has any effect on the property value of a single family dwelling. Private outside space in the study was defined as the immediate outdoor environments of single family, detached dwellings.

The quality of private outside space was measured by the level of maintenance of yards and territorial personalization of such spaces. Some known predictors of property value of a single-family dwelling, such as total built-up area, number bed and bathrooms, and lot size were included in the statistical model used for the study.

A sample of 100 single family dwellings from four neighborhoods was randomly selected for the study in a university town in Texas, USA. Data related to all the variables included in the model was collected. Statistical technique used for data analysis was a multiple linear regression. Results indicated that at least one of the aspects of private outside space, territorial markers, has a statistically significant effect on the property value of single family dwellings.

**Choudhury, I. (2010, September). The effect of private outside space quality on the property value of a single family dwelling. COBRA: RICS Construction and Building Research Conference, Paris, France.**

# Leveraging land development returns to finance transportation infrastructure improvements

The United States faces a crisis in transportation finance with a majority of state and federal investment in transportation infrastructure financed via the gas tax. With an increase in the price of fuel driving decreasing consumer demand, in addition to consumer demand for fuel-efficient cars, the reliance on the gas tax to finance a majority of future transportation infrastructure is expected to decrease as transportation demand outpaces construction. At the same time, greater worldwide demand for transportation infrastructure is resulting in higher prices for asphalt, concrete, and steel. Declining tax revenues coupled with higher construction costs lead to financing shortfalls for new transportation infrastructure and the maintenance of existing infrastructure.

The existing funding mechanisms deemed to be innovative in funding transportation infrastructure include roadway privatization, tollways and high-occupancy traffic lanes, and grant anticipated revenue bonds, all of which fail to capitalize on the benefits of transportation infrastructure improvements on surrounding property values. As the property values increase due to the improvements, the public sector reaps the benefits through increased property tax revenue while the private sector benefits from increased business revenue, higher rental prices, visibility, and accessibility. Analyzing the property value impact from these transportation infrastructure improvements provides an opportunity to determine the likely amount of revenue that could be captured by an alternative financing vehicle such as tax increment finance that can be implemented by a regional mobility authority. More importantly, the financial analysis will be used to identify the relative time needed for the tax increment finance vehicle to capture revenue for bond issuance and related transportation infrastructure improvement financing methods.

Texas House Bill 3588 authorized the creation of Regional Mobility Authorities (RMAs), which have the ability to apply tax increment finance to capture land development returns associated with land development improvements. Moreover, Texas Senate Bill 1266 provides for the creation of Transportation Reinvestment Zones, a specialized form of tax increment finance specifically for transportation improvements. This research seeks to identify the magnitude of property value increases associated with transportation infrastructure improvements, the assessment levels and investment horizon needed to recapture the costs of transportation infrastructure improvements, and how these revenue streams may be further leveraged to support local and regional investments in transportation infrastructure using the Dallas-Fort Worth region as a case study to demonstrate the likely impact on transportation finance.

Saginor, J., Dumbaugh, E., & Xu, M. (2010, April). Leveraging Land Development Returns to Finance Transportation Infrastructure Improvements. American Real Estate Society's 2010 Annual Meeting, Naples, FL.

The Dallas Area Rapid Transit (DART) light rail line is just one of the many possible transportation infrastructure improvements that can be financed by leveraging returns to land development.

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# A multiple liner regression model to predict the appraised unit value ($/SF) for raw land in Houston, Texas meeting LEED transportation acceptance criteria

LEED rated buildings and development appear to gain much positive media exposure and are frequently touted as an answer to our many issues with environmental sustainability and its attendant economics. Little academic backing for these claims appears to be based on scientific research possibly because of the difficulty of obtaining objective data regarding existing LEED projects.

The authors of this work attempted to design a research project that would use publicly available data to probe a very small part of the overall LEED program: the relationship between economic value of a land parcel and whether or not it qualifies for one of the LEED site criteria based on proximity to public transportation. One interpretation of a positive link between value and LEED criteria is that the market already accepts the added value of at least this part of the LEED certification process. The authors believe that both the existence of the link and the acceptance by the market of its economic value would both be positive signs for LEED.

Woods, P.K. (accepted for publication). Predicting the Unit Appraisal value of the unimproved and private land by LEED sustainable site credits in the city of Houston, Texas. Journal of Construction engineering and Management, American Society of Civil Engineers.


The authors examine the relationship between land value and proximity to public transportation, such as the Houston Metropolitan Transithy Authority light rail train pictured above.

Minoru Mori's Roppongi Hills redevelopment in Minato, Tokyo, also known as 'Artelligent City, is one Japan's largest integrated property developments that uses environmental science and design solutions to secure a sustainability dividend.

Minoru Mori's Roppongi Hills redevelopment in Minato, Tokyo, also known as 'Artelligent City, is one Japan's largest integrated property developments that uses environmental science and design solutions to secure a sustainability dividend.

# The Sustainability Dividend: Real estate value creation and three emerging trends toward the delivery of built environment sustainability

Real estate value is neither created nor sustained through financial engineering. It is the near perfect alignment of: need in the form of an unsatisfied real estate opportunity; the market's willingness and capacity to pay; and, the sound conceptualization of the real estate product that will cost-effectively bring the two together. This is what creates and sustains real estate value and thereby minimizes property investment risk.

When real estate development and investment come together in a nexus of optimal conceptualization, design, delivery, and on-going management through an integrated design, delivery, and management system, based on transdisciplinary environmental knowledge and evidence-based practice, the result is a financial performance premium referred to in this paper as the sustainability dividend. In essence, the sustainability dividend is derived from the transdisciplinary application of environmental design, delivery, and management solutions which create and enhance real estate asset value.

The sustainability dividend is poised to become a major driver of real estate value creation. Whilst there exists fatigue in the use of the terms 'sustainability' and 'sustainable development', three emerging trends in built environment sustainability: an integrated approach to property asset conceptualization, design, delivery, and management; a transdisciplinary understanding of the built environment; and, the emergence of evidence-based practice, all serve to focus, qualify, quantify, and deliver the potential sustainability dividend from real estate assets and portfolios.

Booth, G. (2010, April). An Integrated, Transdisciplinary, and Evidence Based Approach for Built Environment Sustainability. 4th Ajman International Urban Planning Conference, Ajman, United Arab Emirates.

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Geoffrey's work experience covers a broad range of urban planning, public policy, real estate development and investment projects in both his native Australia and since early 2000, the USA. His research interests are in planning law and development entitlement reform, the definition and measurement of the Sustainability Dividend, and the application of visualization and virtualization technology Sensory Law in the improved design of place and creation of real estate value.

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# Cyclic Twill-Woven Objects

Abstract: Weaving can be an economical way to construct large structures. For this goal, we need to develop algorithms to convert any given surface to a woven object. We have recently shown that any surface can be converted to a plain-woven object. In this work, we study twill as a cyclic weaving structure on general surfaces. Biaxial twill is a textile weave in which the weft (filling) threads pass over and under two consecutive warp threads and each row is obtained from the row above it by a shift of 1 unit to the right or to the left. The shift operation creates the characteristic diagonal pattern that makes the twill fabric visually appealing.

We prove that three mesh conditions are necessary and sufficient to obtain twill weaving from a given mesh. We show that many arbitrary meshes do not satisfy these three conditions. It is, therefore, not possible to obtain exact twill for many meshes. On the other hand, for mostly (4; 4) meshes, i.e. meshes with large areas of quadrilaterals with 4-valent vertices, it is possible to obtain a reasonably good result of twill in most places. Based on this intuition, we have developed a voting algorithm that guarantees to satisfy most of the twill conditions that allow to demonstrate diagonal patterns everywhere.

Akleman, E., Chen, J., Chen, Y.L., & Xing, Q. (2010, July). Cyclic Twill-Weaving. Presentation & poster presented at SIGGRAPH 2010, Los Angeles, CA.

# Reconstructing the music hall and rotunda annex at Vauxhall Pleasure Gardens c. 1764

This paper summarizes work in progress on the digital reconstruction of the structure, space and decorative program of the music hall and annex at Vauxhall Pleasure Gardens c. 1764. The proposed outcome will be a recreation of the space and its contents combining Building Information Modeling in programs such as Revit with panoramic interior views of the larger-than-life modern-subject history paintings of scenes from and allegories based upon England's victories in the Seven Years' War, marble busts of British worthies, light effects and mirrors. The final version of the project will also include a choral and instrumental musical element, as the space was physically connected to the garden's indoor orchestral performance space.

Caffey, S. M., Graf, R.G., Culp, C.H., Wei, Y., Barekati, E., & Marshall, M. (2010). Reconstructing the Music Hall Rotunda and Annex at Vauxhall Pleasure Gardens c. 1764. Electronic Visualization and the Arts (EVA 2010) - Electronic Workshops in Computing (pp. 332-338). London, UK: British Computer Society.

Music hall and annex at Vauxhall Pleasure Gardens c. 1764.

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Dr. Glowacki specializes in Classical and Near Eastern art and archaeology. His current research investigates domestic architecture and household activities in the prehistoric Aegean, especially on the island of Crete. He is the recipient of the 2001 Award of Excellence in Undergraduate Teaching from the Archaeological Institute of America. Dr. Glowacki is also a Faculty Fellow of the Center for Heritage Conservation and a co-editor of Preservation Education and Research, the journal of the National Council for Preservation Education.

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# Modeling domestic architecture at Late Minoan IIIC Vronda, Kavousi, Crete

Excavations at the archaeological site of Kavousi Vronda in eastern Crete (1982-1992) brought to light a small rural settlement dating to the Late Minoan IIIC period (12th–early 11th centuries B.C.). These investigations have shown that by the time of abandonment the settlement consisted of 15–20 houses, a large building with storerooms that may have been the ruler's dwelling, a communal temple of the 'goddess with upraised arms,' and a kiln. While abandonment and postabandonment processes have resulted in much disturbance, Vronda has provided a wealth of data for understanding traditional domestic architecture, household activities, religion and society at the end of the Bronze Age. In this study, we present a digital reconstruction of the settlement based upon the 'analog' data recorded at the time of excavation, discuss the process of creation and examine the potential contributions of such models for understanding the built environment and vernacular architecture of ancient Crete. The resulting model 1) complements photographs, traditional two-dimensional plans, sections and elevations, 2) highlights effective and innovative ways of presenting our analysis of architectural morphology (mass, height, form, scale, sequence of construction) of individual buildings and complexes, and 3) allows us to "use vision to think" as we explore spatial relationships within the settlement, paths of access and communication, communal spaces between buildings, hierarchy and function.

Glowacki, K.T. & Dafedar, S. K. (2010, January). Modeling Domestic Architecture at Late Minoan IIIC Vronda, Kavousi, Crete. Poster presented at the Annual Meeting of the Archaeological Institute of America, Anaheim, CA.

The juxtaposition of the archaeological remains and the reconstruction highlights the important distinction between data and interpretation. The virtual room can be populated with restored artifacts and features in the locations where their real-life, often fragmentary, counterparts were actually found.

This image shows a participant navigating a virtual environment on a tiled-display during a single experimental trial.

## Does screen tiling influence navigation time in immersive environments?

3D Immersive visualization systems provide a novel platform to present complex datasets and Virtual Environments (VEs). We compared user-interaction and performance between two immersive displays: a low-cost, tiled, multi-screen immersive visualization system and a more expensive, continuous, immersive visualization facility. The low cost system is designed using off-the-shelf components and constructed by arranging LCD displays in a tiled hemispherical layout. The expensive system, the Immersive Visualization Center (IVC) is a Rockwell-Collins semi-rigid, rear projected, continuous curved screen. With the low cost paradigm, seams are introduced into the image where the displays are tiled. The question we are trying to answer is does the presence of tiling influence the speed of simple navigation in an immersive VE. We hypothesize that the tiled system presents an equivalent visual experience, despite the seams introduced by connecting the screens.

To correctly interact with a spatial immersive display, the user must understand the 3D VE, in particular structure and depth perception. We investigated how navigational skills are affected by the physical separation of the imagery. A model comprised of corridors with offices served as the environment. Participants first examined a 2D map of the floor plan showing their initial and end position in the environment. They were asked to navigate the shortest route from start point to end point through the immersive 3D rendition of this environment. Navigation is controlled using a Nintendo Wii controller. Statistical analysis showed that there were no significant differences across seam level, indicating that the presence of seams did not impact the performance of simple navigation in the immersive environments. To further probe this question several subsequent experiments are planned.

McNamara, A., Parke, F.I., Agana, A., Davalath, M. (2010). The effect of tiled display on performance in multi-screen immersive virtual environments. Virtual Reality Conference (VR), 2010 IEEE (pp.249-250). Piscataway, NJ: IEEE. DOI 10.1109/VR.2010.5444781

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Dr. McNamara's research focuses on the advancement of computer graphics and scientific visualization through novel approaches for optimizing an individual's experience when creating, viewing and interacting with virtual spaces. She investigates new ways to exploit knowledge of human visual perception to produce high quality computer graphics and animations more efficiently. She is also interested in eye-tracking; her current research combines eye-tracking with subtle image-space modulations to involuntarily draw an observer's gaze to specific image locations. Other interests include distance perception, geometric simplification and character design.

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# Facility managers' preferred interior wall finishes in acute-care hospital buildings

Facility managers typically provide a variety of services to their organizations, primarily maintenance, repair and cleaning, as well as managing budgets. The largest portion of the envelope in a hospital is formed by wall surfaces, which are covered by thousands of square meters of wall finishes. The materials used for interior wall finishes and covering are typically selected by architects and interior designers; after construction is completed, the facility manager takes charge of it for the duration of the building's service life. Clearly, facility managers deal with building finishes more than any other building professionals; as a result, it is assumed that they have their own preferences for what finishes they would choose, based on their experience. This study investigates the preferences of facility managers for interior wall finishes used in hospital buildings in the state of Texas, USA. For the purpose of this study, three hospital units were selected: emergency, surgery, and in-patient departments. Three objectives were specified: (1) to identify the preferences of facility managers for interior wall finish materials used in the three hospital units; (2) to study what characteristics facility managers would consider if they could select interior wall finishes; and (3) to compare the facility managers' preferences for interior wall finishes in the three units. A questionnaire was created, and responses from 48 healthcare facility managers were collected and analyzed using descriptive statistics. A comparison of the preferences was also conducted.

The study found that the interior wall finishes most often used in the three hospital departments are vinyl type II (medium-duty vinyl for wall covering), and latex paint. The study also found that the three major characteristics driving the selection of interior wall covering materials are: infection control, gas emission/VOC, and ease of maintenance. The results of this study can be used to enhance the discussion and improve the collaboration between facility managers and designers, in terms of understanding later maintenance needs, in the selection of interior wall finishes.

Lavy, S., & Dixit, M.K. (2010). Facility managers' preferred interior wall finishes in acute-care hospital buildings Proceedings of the 2010 CIB World Congress – Building a Better World (paper553). University of Salford, UK: CIB. [Best paper award winner sponsored by Facilities and W070 Facilities Management and Maintenance]

# Assessment of daylight qualities in sustainable buildings

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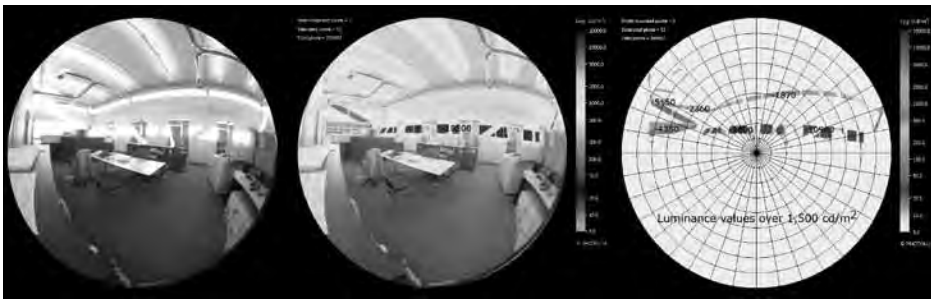
This paper presents the findings of a study that is evaluating the daylight performance of three recently built certified "sustainable buildings" located in a hot and humid climate (Houston, Texas). These buildings are illuminated mainly through sidelighting windows, clerestories, and diffusing skylights. The evaluation consisted of site visits, occupant's surveys, annual computer simulations implemented with new dynamic daylight metrics. The goal of this research project was to demonstrate that the good practice of sustainable daylight design is more complex than what current rating systems require.

Preliminary results of the evaluations have confirmed that the buildings achieved the illuminance levels required by the rating systems. However, simulations of overall annual illuminance levels showed inadequate illuminance levels to offset electric lighting throughout the year, and also identified the presence of glare at several locations throughout the buildings. Occupant's surveys demonstrated that high percentage of occupants enjoy and find visually-attractive the lighting in their workspaces, however, there are occupants that reported problems of glare (about 20% of the surveyed sample). Those occupants seated next to large south- and west-facing windows, unshaded clerestories, and under diffusing skylights reported problems of glare, as was measured onsite and predicted by annual simulation tools. Other occupants reported problems related to uncomfortable temperature, as well as being unable to work with the electric lights off.

Beltrán, L., & Farias, F. (2009). Assessment of Daylight Qualities in Sustainable Buildings. Presented and published in the Proceedings of the ISES Solar World Congress 2009 [CD ROM- ISBN978-1-920017-42-2]. Berlin / Heidelberg: Springer-Verlag.




HDR and luminance map images of central office space at Spawglass 4 p.m. on March 7. Luminance (cd/m2): min. 8, max. 18,500, avg. 520; vertical illuminance at viewpoint: 1,868 lx; UGR 22.3

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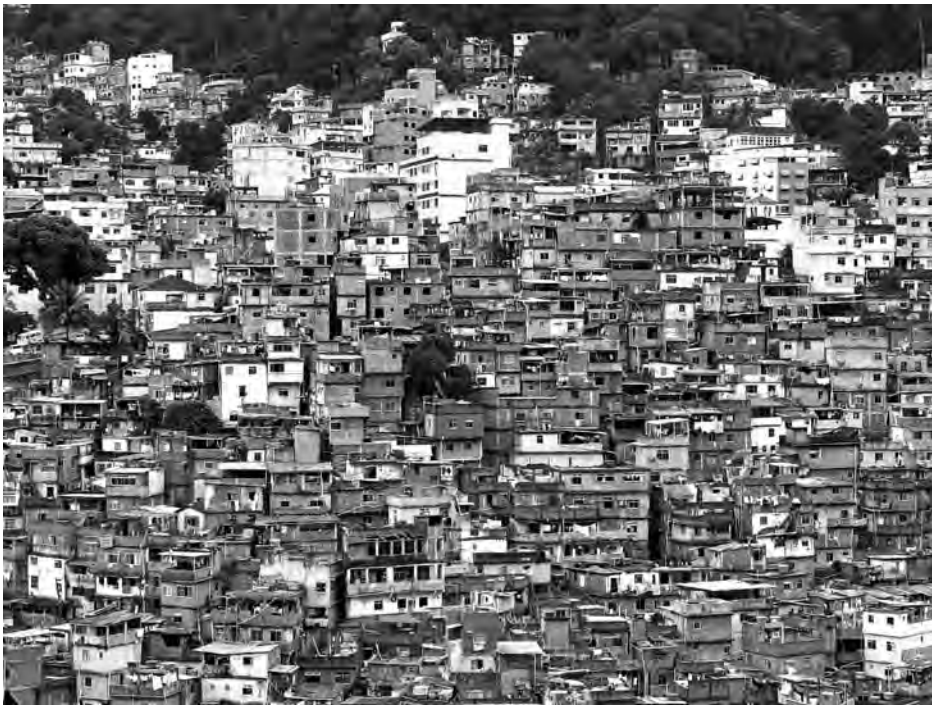
# The Perfect Storm

The past is no longer predicting the future. World population is expected to peak at 9 billion by 2050. Of the three billion that will be added to the world by 2050, only 120 million are expected in the United States and the European Union will be 40 million less than their present population. We are approaching the limit of our food and water supply. Present energy systems cannot meet the demands of future populations.

If you began building 40 cities of 2 million people every year for the next 40 years, you would meet the needs of the population increase by 2050. This is an unprecedented era of accelerating change in human existence. Currently, there exists no system that can feasibly plan & create the infrastructure for those cities or a construction system to build cities at that speed.

Shadow cites contain over a billion people and another billion could by living in shadow cities within 15 years. There is no more water in the world than there was 2000 years ago when the population was 3% of the present. There has been no world surplus of food for nearly two years. Oil supplies are expected to peak in the next 10 years and raw materials will be sought after and in demand more than any time in the history of mankind. Thus….. The Perfect Storm.

Hill, R.C., & Vanegas, J. (2010, July). Sustainable Futures, Strategies, and Technologies-The Perfect Storm. World Future Society Conference 2010, Boston, MA.



**There are more than one billion urban squatters living in shadow cities in countries like India, Kenya, Turkey and this favela in Rio de Janeiro, Brazil.** (Photo by Crystal Davis, World Resources Institute 2007.)


Caudill Rowlett Scott, later known as CRS, was established in College Station, Texas shortly after World War II. Pictured, from the left, are William Wayne Caudill, John Miles Rowlett, Wallie E. Scott, Jr. and William Peña.

## Architectural innovation: Facing challenges the CRS way

Challenges facing the architectural profession today are not dissimilar to those facing the architectural profession in the United States of America after the Second World War. Innovative practices in design process, management and delivery transformed the small-town architecture firm of Caudill, Rowlett & Scott into an international powerhouse leading to the 1972 AIA Firm of the Year award and its co-founder, Bill Caudill, being awarded the 1985 AIA Gold Medal.

This study traces, in detail, innovations in architectural programming, research backed design process, and the team approach over three decades of development. It also analyzes similarities in challenges that faced architectural firms in the 1940's with those prevalent today. Finally, the study proposes that it is relevant to adopt a similar innovative approach in facing present day challenges.

**Miranda, V. (2010, February). Architectural innovation: Facing challenges the CRS way. School of Architecture & Planning, Anna University, Chennai, India.**

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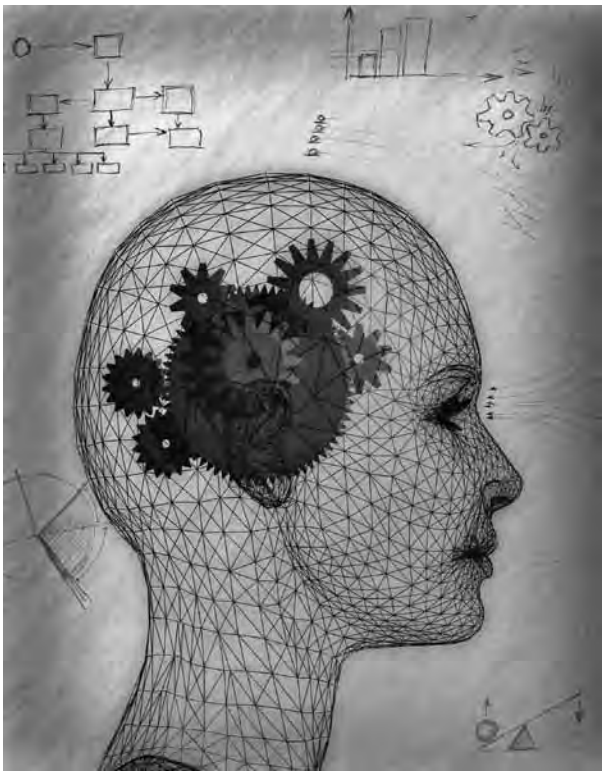
# Managing the creative process for innovation: An interactive workshop



On July 10, 2010, Newsweek magazine reported on "The Creativity Crisis" facing our Nation. For the first time, research shows that American creativity is declining: in our children within our schools, in students within our universities, and in adults within our organizations in the public and private sectors… In addition, the nature of the challenges we face within our cities, our states, our Nation, and the world at large demand solutions that transcend conventional approaches and ways of thinking. Creativity, innovation, and design are the currency of the 21st Century, and the engine for economic growth.

This highly inspiring and interactive workshop will focus on general principles, processes, and mechanisms for creativity that individuals and organizations can use to manage innovation more effectively and efficiently in the development of new products, processes, and services, as well as new business models to deliver them. In this engaging workshop, participants of any age, gender, and background will be able to identify inhibitors, obstacles, and barriers to creativity and innovation, and also, strategies, processes, and tools for overcoming them, from both a professional and a personal points of view... and who knows, someone may leave with the next big idea!

Questions that will be answered in a highly interactive way include:

- What are some current challenges and opportunities for creativity and innovation that organizations and individuals are facing today?
- What are some of the key inhibitors, obstacles, and barriers to creativity and innovation, and what can be done about them?
- What roles do provocative, convergent, divergent, and lateral thinking play in creativity and innovation?
- How do you assemble and develop high performance teams for creativity and innovation?
- What strategies, processes, tools, and resources are available for organizations and individuals in their pursuit of creativity and innovation?

Vanegas, J. (2010, September). Managing the Creative Process for Innovation: An Interactive Workshop. The 42nd Annual ECC Conference – Business as Unusual: Gaining Advantage in a Dynamic Project Landscape, Engineering & Construction Contracting Association (ECC), Orlando, FL.

# The challenges of growth in construction

An Arab proverb states that "He who predicts the future lies, even if he tells the truth." The challenges of growth in construction is not about predicting the future but about analyzing current trends of the forces behind construction (population and affluence) the direct and indirect results of construction (Capital Creation, resource consumption and emission generation), our current economic predicament and trend implications to determine what are the challenges of growth (generating value while minimizing waste), since According to Dr. Seuss: "I meant no harm, I most truly did not; But I had to grow bigger. So bigger I got."

Fernández-Solís, J. L. (2010, June). The Challenges of Growth in Construction. AGC of America Building Contractors Conference, Midway, UT.

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# A manual for urban acupuncture

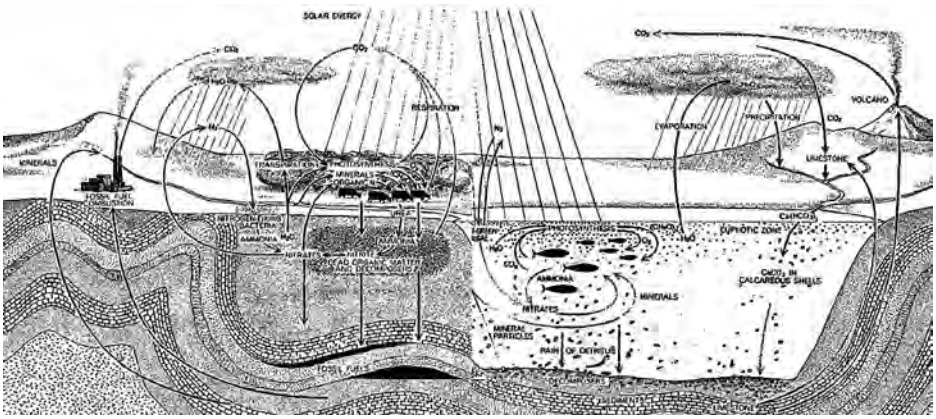
A system is defined by the interrelation of its parts and this property accounts for its particular behavior. Insofar as a system is open and continuously interacts with its environment, it can generate effects that ripple across time and distance in the most unsuspecting ways. The Santa Fe Institute in New Mexico has brought precision and focus to the study of complex adaptive systems and Facebook is an example familiar to us all of the power of parametric networks and bottom-up processes.

System concepts are current, but they are hardly new. Called General Systems Thinking in the 1950s, such concepts were previously allied to the fields of cybernetics and information theory, and were used to explain diverse phenomena, natural and artificial, biological, ecological and urban. And yet, systems thinking suffered an unusual fate, because it raised the specter of the failures of total management and control. In The Postmodern Condition, Jean Francois Lyotard beautifully underscored what was so wrong with systems: The reason why systems fail is not because of a want of data but because a complete picture of a system is a fiction. What is often overlooked in Lyotard's argument, however, is the fact that his critique was ultimately a positive one; for the Achilles heel of every system turns out to be the very feature that accounts for things like paradigm change and creative evolution.

Since Lyotard, system concepts have returned with considerable force, but with a difference. Instead of lamenting the loss of control, we now seem to celebrate it, or at least embrace it, as a potentially positive and constructive force. Systems thinker, Donella Meadows, for example, has written a 12-point manual for how to leverage change in her essay, "Places to Intervene in a System," and Deleuze and Guattari have similarly presented a 6-point mapping strategy for processes of becoming based on the systems idea of a rhizome. Such manuals have in turn become the basis of various informal strategies for bringing about social and urban change.

In this paper, I will explore the paradoxical logic of systems on which these manuals are based and how this logic informs the work of contemporary architects, such as Urban Think Tank and eco-pioneer Pliny Fisk. In the case of Fisk, systems inform a mapping strategy he calls Protoscope (after Buckminster Fuller's Geoscope) for leveraging change from a grey world to a green one, and in the work of Urban Think Tank, it forms the basis of a strategy for intervention or "urban acupuncture" in the barrios of Caracas--a strategy that begins by assessing the lay of the land and its agents (from residents to government officials) in order to propose architectural interventions that can positively change the existing field conditions.

Deyong, S.J. (2010, October). A Manual for Urban Acupuncture. ACSA West Central Fall Conference-"Flip Your Field", University of Illinois, Chicago, IL.




Major cycles of the biosphere.

# The edge of a novel — A journey from academia

Two years ago I took a hiatus from writing academic papers for journals. Somehow, I thought, my voice was getting lost within the confinement of academic circles; what I had to say about "place" was limited to my classrooms, presentations, and journal articles. At the time I was reading more history than I had in the past. I had been to Istanbul when I was much younger so I began to read about its history; I also enjoyed the complex history of southern Spain, the al Andalusia plain specifically during the 1500's and until the Inquisition destroyed the earlier balance of cultures. While reading these histories I was formulating a class that addressed issues of embodiment.

I began to think that I should turn what talent I had towards a different medium—a novel. What better way to spread the information about place and embodiment than to make them characters in a story, embedded as it were within the framework of that art form. In particular I wanted to address the "edge" of place because all systems are more complex at the boundaries. The task of writing the first chapter was fairly straightforward, however I had to stop and design the house in which some of the story unfolds; I had to understand the arrangement before I could resume the task of writing. I continued to write folding the edge of place with the circumstances of embodiment, and with history. I had to stop again and outline when all the lives of the characters converged and where; and after writing a bit more I had to stop again and think more carefully about the story line. I do not know "how" to write a novel, but it is quite different than academic papers—the process is different, the structure is quite different, and the pauses I take to regroup are dissimilar; the flow of a novel to me seems to be hermeneutic; the act necessarily "loops" back as the story and characters are revealed so that progression is not purely linear and quite different from presenting a deductive argument.

Downing, F. (2010, July). The Edge of a Novel: A journey from academia. The American Society of Aesthetics, Rocky Mountain Division, Santa Fe, New Mexico.

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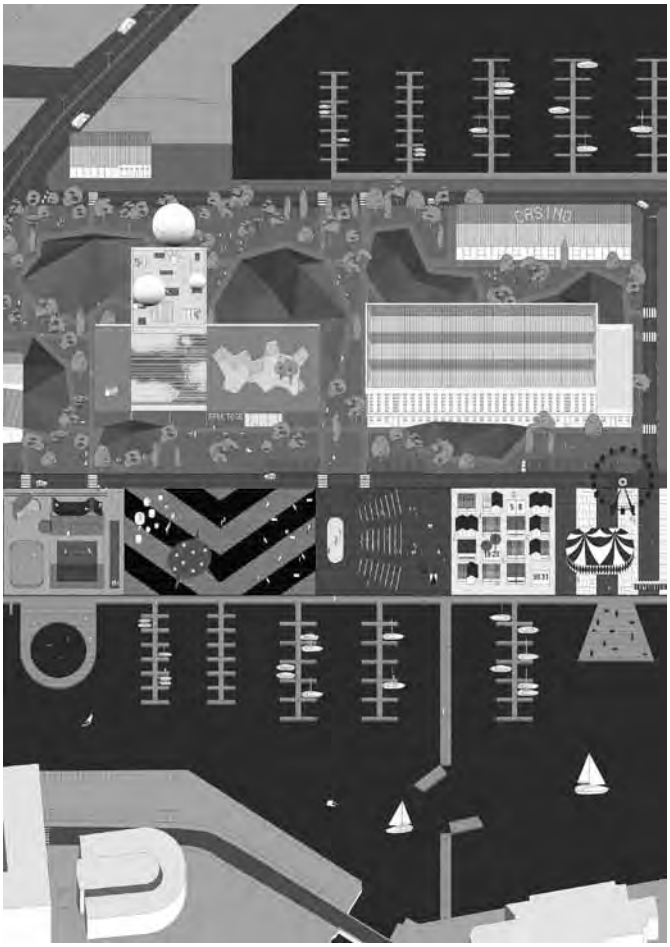


FLOATING CLOUDS is a project developed by 2A+P and Angelo Grasso in 2009 for the Ideas competition "Europan10" to be located in Dunkerque, France. It is about all the unexpressed desires of the city, one next to the other. Pier 1 becomes a fun machine for the citizens. The project represents the voluntary unconsciousness of public space, creating floating spaces for everyday events and happenings.

## The architectural anomaly of 2A+P/A

Peter Lang was invited to curate an exhibition on the architecture studio 2A+P/A at Hyunnart gallery in Rome. The exhibition, titled "The Pop Out Show" was tied to a larger week-long series of exhibitions and conferences on architecture taking place around the capital, the "Festa dell'Architettura" (The Architecture Festival) sponsored and organized by the Casa dell'Architettura and the Ordine dei Architetti—two official bodies representing architects in the city, this year under the directorship of the historian/theorist Francesco Garofalo, Professor in Architecture at the University of Pescara.

The exhibition consisted of a recent survey of projects by Gianfranco Bombaci and Matteo Costanzo co-founders of the group 2A+P/A including "Art Wood," a museum competition designed with Andrea Branzi for Vienna, their winning masterplan "Co-Housing" to be built in Venice-Mestre, and "Floating Clouds" a "fun machine" for residents living in Dunkerque, France. The gallery displayed wall murals, models and video programs. Peter Lang contributed a video commentary played during the exhibition, and wrote the catalogue essay "The Architectural Anomaly of 2A+P/A" later reprinted in the international magazine "Abitare. (July 2010, #504, pages 96-101). This essay, critically positioned the works of 2A+P/A within the larger context of contemporary Italian architecture.

Lang, P. (2010, July). The Architectural Anomaly of 2A+P/A. Abitare, 504, 96-101.

# The designer's emerging role in a knowledge application process: Systems management as the context for landscape change

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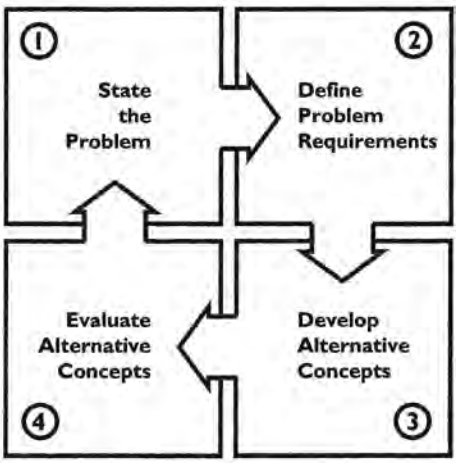
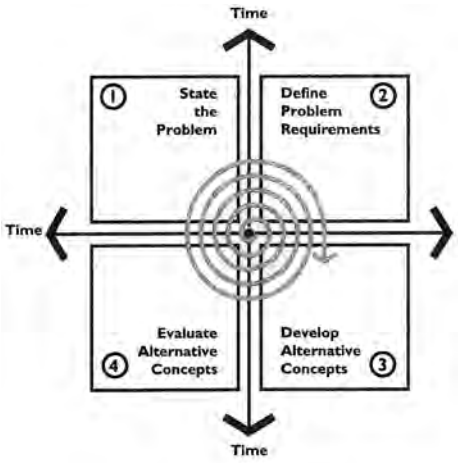
For landscape architects engaged in interdisciplinary collaboration, an emerging aspect of their role is to manage a design delivery process in which interactive learning can take place. Although the traditional role of the designer is that of an individual form maker, in future, the designer will need to exercise leadership in a knowledge-application procedure to guide landscape change as a systems management process. In future the form of the landscape will be the result of the technical, cultural and natural processes managed by interactive teams. Landscape architects are becoming responsible as systems managers rather than independent decision makers. In a collaborative setting, form is no longer seen as the purpose of design but the improvement of relationships that result from a shared knowledge-application process. A critical area of expertise for landscape architecture is becoming knowledge application process and it will require greater emphasis on systems learning to sustain that role in the future.

**Murphy, M.D. (2010, March). The designer's emerging role in a knowledge application process: Systems Management as the Context for Landscape Change. 2010 Annual meeting of the Texas Chapter of the ASLA, San Antonio, TX.**




Cyclical programming and design process.




Multiple iterations of the cyclical process.

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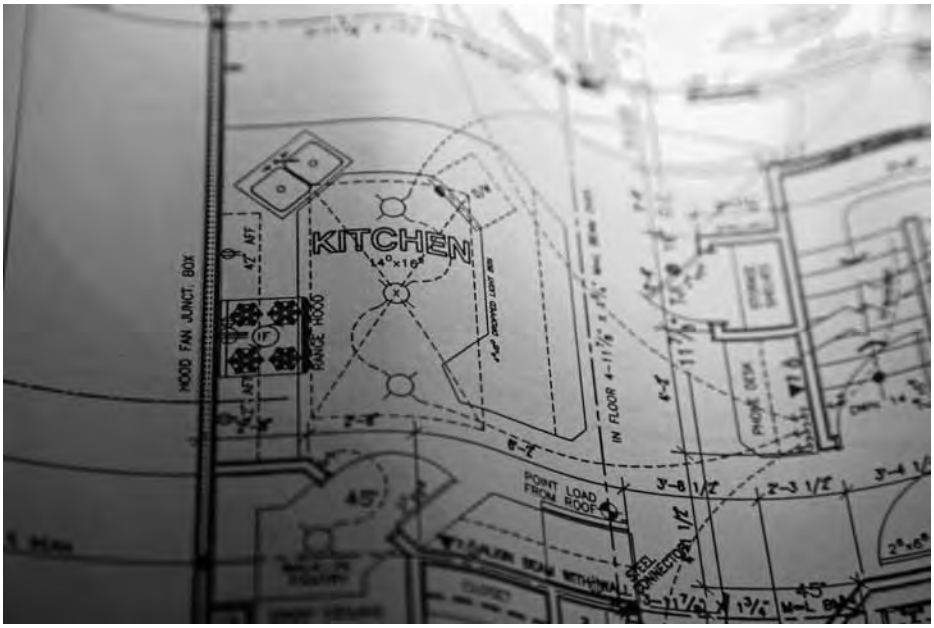
# Web-based construction project specification system

Due to discrepancies and multiple ownerships of construction specifications in Korea, writing a project specification is very challenging. This paper presents a framework and architecture of a Web-based construction specification system (aka SPEC WRITER). Its database includes 15 standard specifications, 13 specialty specifications, national design guidelines, technical standards, standard drawings, over 45,000 construction materials, and more than 600 lists of manufacturers. This system is linked to national construction laws, regulations, and decrees through the internet. A functional framework and system architecture is proposed and construction information breakdown structure is used to reorganize the specifications and construction materials because of different numbering systems and formats. SPEC WRITER enables specification writers to write or edit a project specification in accordance with the national guideline and allows them to find all the related sections using a few keywords. Specification writers can also review, edit, and generate complex specifications with minimum efforts by using premade templates. This paper also presents a method to update and validate the SPEC WRITER through the internet.

**Ryoo, B.Y., Skibniewski, M.J., Kwak, Y.H. (2010). Web-based Construction Project Specification System. Journal of Computing in Civil Engineering, 24(2), 212-221.**



# Empirical application of GPS fleet tracking technology to a soil excavation process

The unpredictable traffic condition around the construction site and individual operator's uneven productivity often make it difficult to identify an optimum number of hauling units for a soil excavation process at once. The balance between hauling units for a soil excavation process, for example, has to be updated repetitively until it reaches an optimum stage. Speeding up this process increases productivity especially at the beginning of the soil excavation process. One of the challenges in figuring out the optimum balance between hauling units, however, is to monitor the hauling units' operation accurately. This paper presents a real-time GPS fleet tracking system integrated with a stochastic construction simulation. It also presents our investigation to figure out whether this system could facilitate the process of identifying the optimum number of hauling units for a soil excavation process.

Kang, J. & Ahn, S.-M. (2010, May). Empirical Application of GPS Fleet Tracking Technology to a Soil Excavation Process. CIB World Congress (paper 918). University of Salford, UK: CIB.

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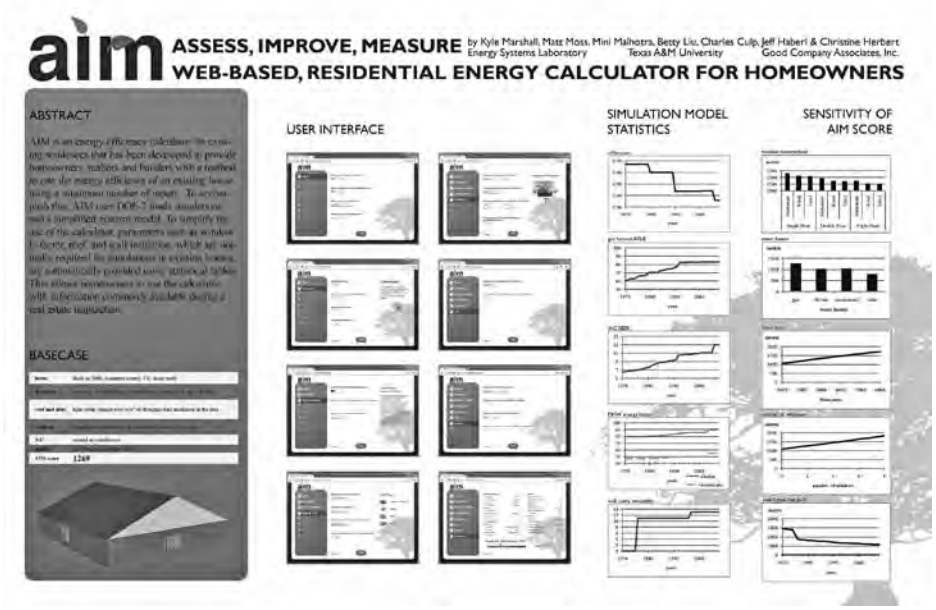


# AIM: Web-based, residential energy calculator for homeowners

This paper discusses AIM, or Assess, Improve, Measure. AIM is an energy efficiency calculator for existing residences that has been developed to provide homeowners, realtors and builders with a method to rate the energy efficiency of an existing house using a minimum number of inputs. To accomplish this, AIM uses DOE-2 loads simulations and a simplified systems model. To simplify the use of the calculator, parameters such as window U-factor, roof and wall insulation, which are normally required for simulations in existing homes, are automatically provided using statistical tables. This allows homeowners to use the calculator with information commonly available during a real estate transaction.

Marshall, K, Moss, M., Malhotra, M., Haberl, J.S., Culp, C.H., & Yazdani, B. (2010). AIM: A Web-based, Homeowner Usable Energy Calculator for Existing Residential Homes. Proceedings of the SIMBUILD 2010 - Fourth National IBPSA-USA Conference. London, England: Taylor & Francis.

# Energy management and control systems

Energy Management and Control Systems (EMCSs) are required to achieve reasonable energy efficiency and comfort in today's buildings. Often the low cost feature wins out and the occupants experience higher cost and discomfort than would have occurred with a well designed system. Approaches that can be used to achieve low energy cost and high comfort include optimizing the EMCS "time clock" functions, economizers, resets, demand control and timely reporting. In addition, measurement and verification (M&V) is also a very useful tool to sustain the high performance functions that buildings should have. Sustainable buildings have sustainable control systems. Examples will be discussed on how to achieve high performance, sustainable systems.

Culp, C. H., & T. Bou-Saada. (2010, August). Energy Management and Control Systems. GovEnergy 2010, Dallas, TX.

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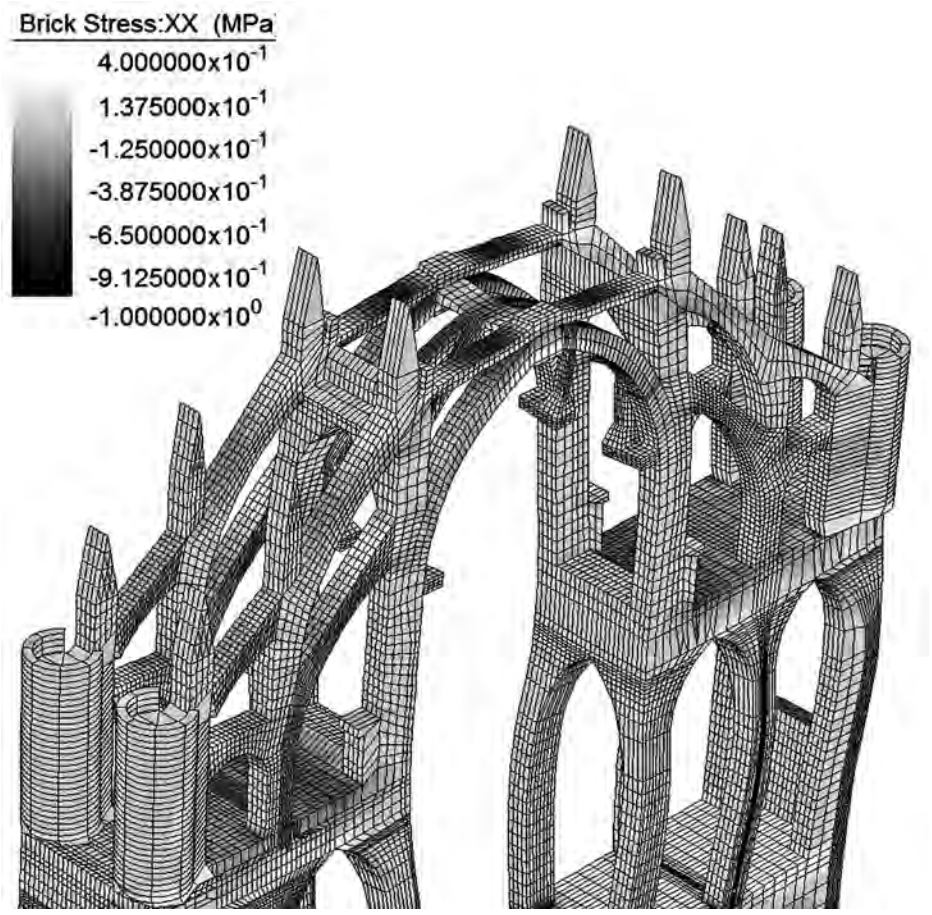
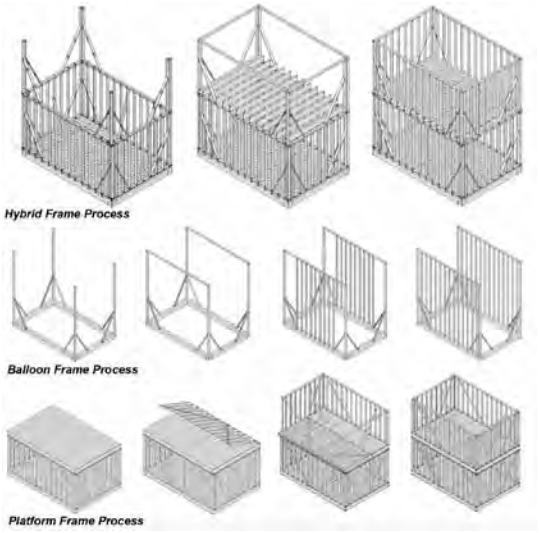
# The intent of the buttresses of Narbonne Cathedral

The design of Narbonne Cathedral constructed in the 13th century followed the rayonnant gothic style of cathedrals in the north of France, rather than the regional style of south-central France. The structure has been carefully measured and recorded in order to identify the design issues and decisions made by the builders from the characteristic details. One unusual detail is the arrangement of the buttressing, including an arched horizontal flyer for the inner rank to the exterior piers of the choir. This investigation models the structural behaviour of the buttressing system with consideration of the high coastal wind effects, the presence of a western wall constructed at the transept of the uncompleted structure, and an unusual exterior pier construction, among other details, while considering the properties of the masonry material and elements. The static and dynamic finite element analysis is evaluated with respect to the measured deformations, and the probable intentions of the builder for the design and corresponding design changes are presented.

**Nichols, A.B., Paul, V.L., & Nichols, J.M. (2010). The Intent of the Buttresses of Narbonne Cathedral. Proceedings of the 8th International Masonry Conference (pp. 2081-2090). Surrey, UK: International Masonry Society.**






# Hybrids on the way to the western platform frame

The historical origins and development of the "balloon frame" have been widely discussed by such prominent researchers as Giedion (1963), Peterson (1992), Sprague (1983), and more recently Cavanaugh (1997). Details and drawings of the balloon method had been widely disseminated in agricultural and trade journals popular in the 1860s. Bell (1858) and Fair(1909) led the field since the mid 1850s with their trade publications Carpentry Made Easy and Practical House Framing, respectively. The federal government's "Committee on Wood Utilization" (1931) was still extolling the virtues of the balloon frame almost a century after its assumed invention.

Even though the platform frame was the dominant method of light wood construction in post-war America, this dominance gets little mention while the balloon frame method lives-on as an equal in the professional reference books. As late as 1970 Architectural Graphic Standards was describing the platform frame with an equal emphasis to the balloon frame and the braced frame.

Solon Robinson is associated with the first descriptions of the platform frame in 1855 based on his observations of the California gold fields; but he gave little information and virtually no illustrations.

(Elliott 1994) concludes that the balloon frame was dominant to the turn of the century when it was slowly replaced by Western platform framing. But what were the in the platform frame's development? Did it emerge in full form as we know it today, or were there hybrid forms?

This paper traces the development of the platform frame across early pre-cut, prefabricated and site-fabricated methods and compares balloon, platform and a hybrid platform frame. It presents a process-based rationale and images from case-studies in western Virginia, which represent a significant step between the full balloon frame and the western platform frame. Preservation issues (identification, conservation, utilization) related to the utilitarian buildings using these framing methods are also considered.

O'Brien, M. (in press). Hybrids on the way to the Western Platform Frame. Preservation, Education, and Research Journal, 2.

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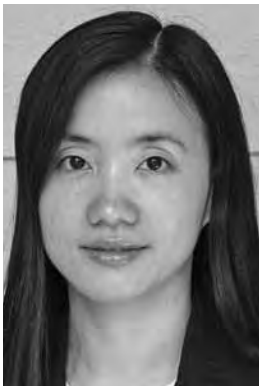

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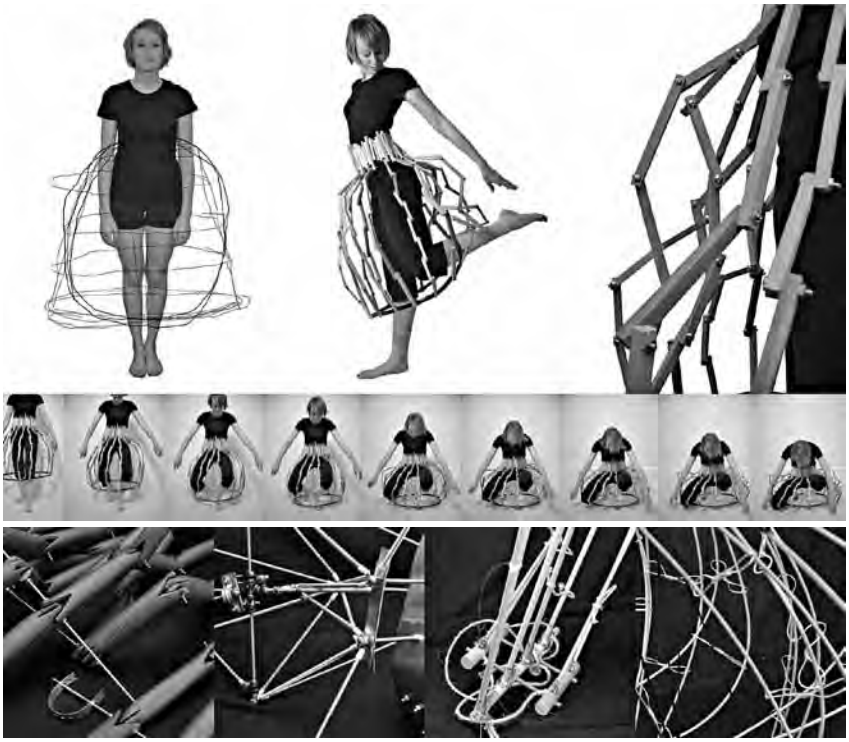


# The Visual, the Corporeal, the Temporal, and the Tectonic: When architecture meets fashion in space

Architecture and fashion can be the literal and metaphorical references to each other. The intersections between architecture and fashion include identity, site, body, movement, structure, skin, and construction. Drawn by the fascination of fashion, the author conducted a second year studio in the fall semester of 2009, Wearable and Movable Architecture. The objective of the project was to examine architectural concepts on the close-to-body scale and through the lens of fashion. The intended inquiries in this project were four folds: the visual, the corporeal, the temporal, and the tectonic.

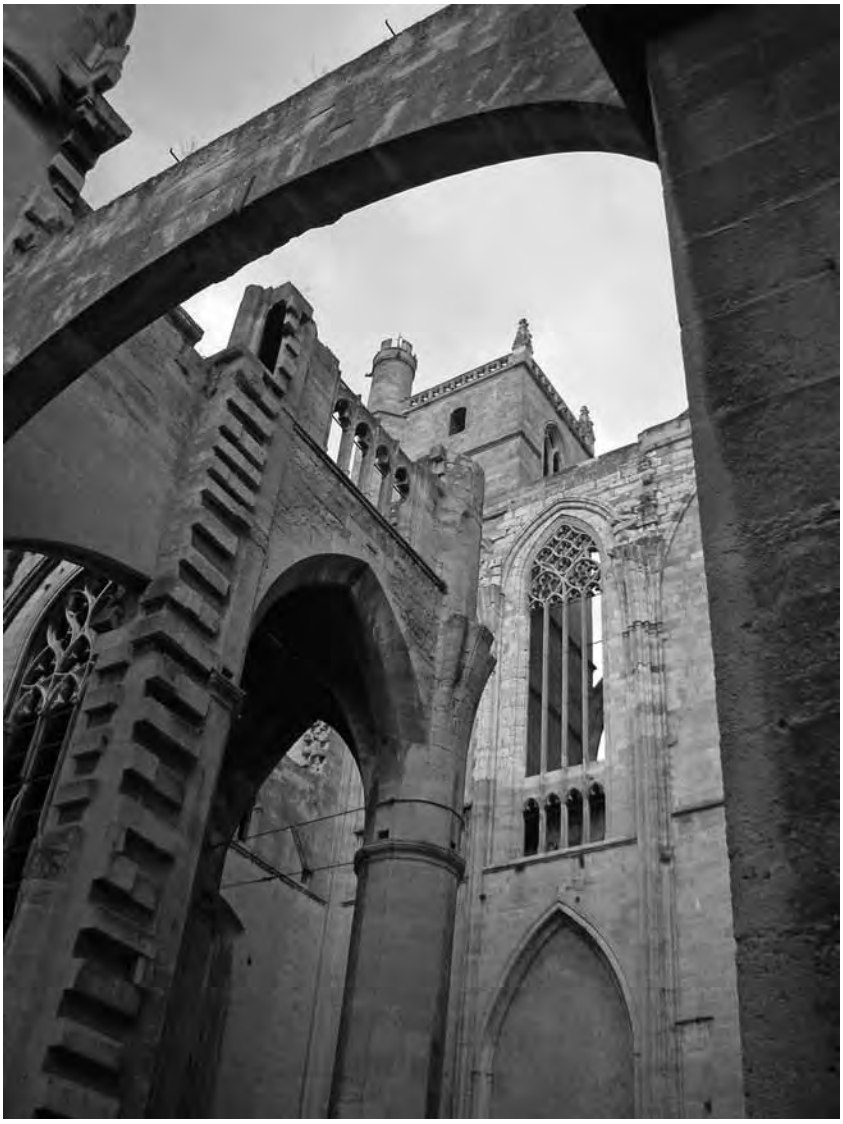
The site of the project was a breezeway connecting the three buildings at our architecture school. Each student picked an electronic sound piece to map the spatial characteristics of the breezeway. Body movements were used to express the rhythms of sound pieces and the spatial characteristics of the site. Students experimented with individual movements, such as extending, contracting, bending, squatting, falling and swirling, as well as the flow of movements, such as progression, climax, continuity and interruption. Through choreographing movements, students identified spaces in between their bodies and the site. These spaces determined the volumes and possible transformations of garments to be designed. Looking for moveable structures to realize the initial thoughts of garments, students researched biomorphic examples, such as wings, human spines, and snake skeletons. These structures were elaborated in materials and construction. At the end, the project concluded in a runway performance at the breezeway. The inquiries of the Wearable and Movable Architecture project will be extended towards broader discourses both in fashion and in architecture.

He, W. (2010, June). When Architecture Meets Fashion in Space. The 1st Annual International Conference on Fine and Performing Arts, Athens Institute for Education and Research, Athens, Greece.

# An experimental investigation of the shear properties of limestone masonry

Limestone blocks are used in a significant number of Old World structures, such as the Narbonne Cathedral in France. Limestone is now one of the major building materials for the south western regions of the USA, with producers in the state of Texas leading US production from an estimated 2,000 quarries. The purposes of this paper are to review the current state of knowledge on the shear properties of limestone masonry and to outline current research on the shear properties of various assemblages of limestone masonry, including ones made from cement lime-based mortar. The experimental results will be used to refine the structural finite element models of the Narbonne Cathedral.

**Holland, N., Paul, V.L., & Nichols, J.M. (2010). An experimental investigation of the shear properties of limestone masonry. 8th International Masonry Conference (pp. 753-762). Surrey, UK: International Masonry Society.**



Narbonne Cathedral, Narboone, France.

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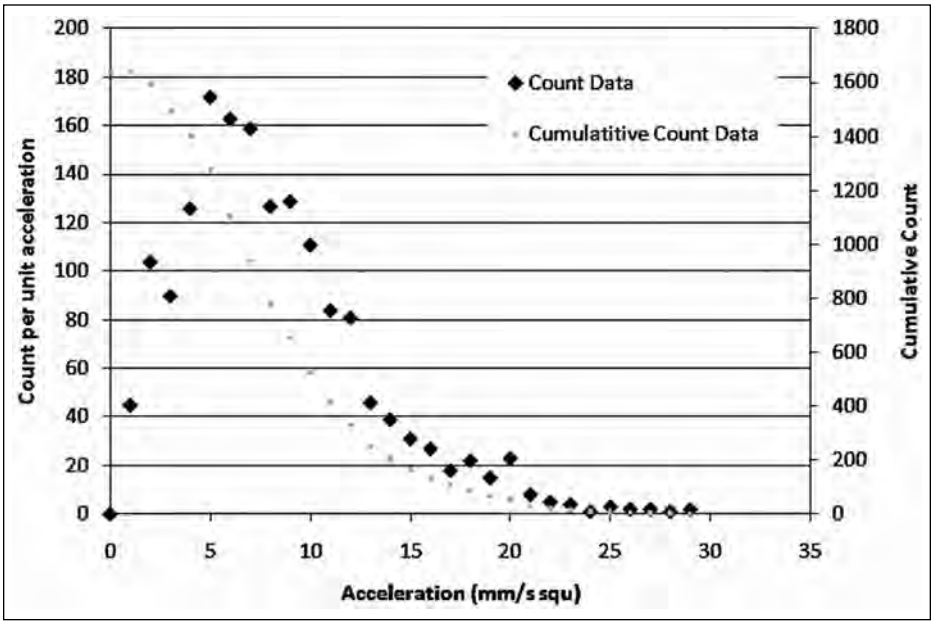
# Housing Inequalities and Social Vulnerability to Natural Disasters: Findings from 2008's Hurricane Ike

Community resilience can be defined as the ability of a community to resist or absorb the social and physical impacts of natural hazards and to rapidly recover from those impacts. Characteristics of the built, natural, and social environment may exacerbate or mitigate such vulnerability and impede or facilitate the ability of residents and businesses to recover. The same forces that expose populations to hazards also lead to spatial inequities, exposing the most vulnerable populations to the most hazardous conditions. Social vulnerability refers to the variation by person or group in their ability to "anticipate, cope with, resist, and recover from the impacts of a natural hazard" (Blaikie, et al., 1994, p. 9). Although work over the past ten years has made great strides in understanding and assessing social vulnerability, less is known about the variation in household responses to disaster, particularly as they are related to household dislocation and decisions to return and rebuild. A better understanding of household exposure and decision-making is critical to systems for responding to and recovering from disasters. Analysis of primary data collected during the aftermath of Hurricane Ike, which struck the Texas Coast on September 12, 2008, allow us to assess how social vulnerability factors—including the spatial distribution of housing—facilitated or impeded decision-making with regard to dislocation and early repair/rebuilding.

Image: VanZandt_HQ_Ike_Aftermath-Galveston-179.jpg

**Van Zandt, S., Peacock, W.G., Highfield, W., & Xiao, Y. (2009, October). Housing Inequalities and Social Vulnerability: Findings from 2008's Hurricane Ike. Association of Collegiate Schools of Planning, Crystal City, VA.**

Researchers from the Hazard Research and Recovery Center at Texas A&M's College of Architecture encountered snow, giant mosquitoes and a devastated gulf coast landscape while investigating Hurricane Ike recovery efforts in the Galveston area.




# A review of the dynamic test loading patterns for in-plane masonry experiments

This experimental project focuses on the evolution of the damage mechanic properties for un-reinforced masonry panels, which are subjected to dynamic in-plane shear. A statistical determination of the evolution of the damage parameter for a ceramic material requires firstly, the development of a repeatable time varying load pattern. Secondly, the pattern should resemble the essential characteristics of relevant earthquake loading on realistic masonry buildings, preferably from earthquakes recorded in both interplate and intraplate regions. This paper sets out the development of the analytical criteria for a dynamic loading pattern for masonry that meets the two stated criteria.

Nichols, J.M., and Totoev, Y.Z. (2010). A review of the dynamic test loading patterns for in-plane masonry experiments. 8th International Masonry Conference (pp. 723-732). Surrey, UK: International Masonry Society.

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Tropical Storm Allison hit Houston, Texas in June 2001 dropping more than 40 inches of rain and leaving in its wake 30,000 homeless, 70,000 flooded homes and 2,744 homes destroyed.

# Evaluating the effectiveness of mitigation strategies for flood reduction: How much can we save?

Flooding is the most ubiquitous and costly natural hazard in the U.S., averaging approximately $5.2 billion in property damages per year. Among all states in the U.S., Texas has ranked among the top for per capita flood damage and human casualties from floods every year for the last decade. Since Hurricane Ike, much attention has been paid to reducing the vulnerability of coastal communities from damaging flood events and pursuing policies that enhance local resiliency. While both structural and non-structural flood mitigation techniques are being proposed there is little, if any, empirical evidence on the effectiveness of these strategies.

We address this lack of research through a representative survey of Texas communities along the coast on the extent to which they implement an array of flood mitigation techniques. Specifically, we statistically identify the flood damage-reducing effect of multiple mitigation strategies implemented at the local level while controlling for various geophysical and socioeconomic factors. Results demonstrate which strategies may be most effective in reducing the adverse impacts of storm events and provide direct guidance to decision makers on how best to craft flood mitigation programs that will facilitate the development of resilient communities over the long term.

Brody, S.D. (2010, May). Evaluating the Effectiveness of Mitigation Strategies for Flood Reduction: How Much Can We Save? Coastal Resilience Symposium, Rice University, Houston, TX.

# The protective action decision model: Theoretical, methodological, and practical implications for crisis research

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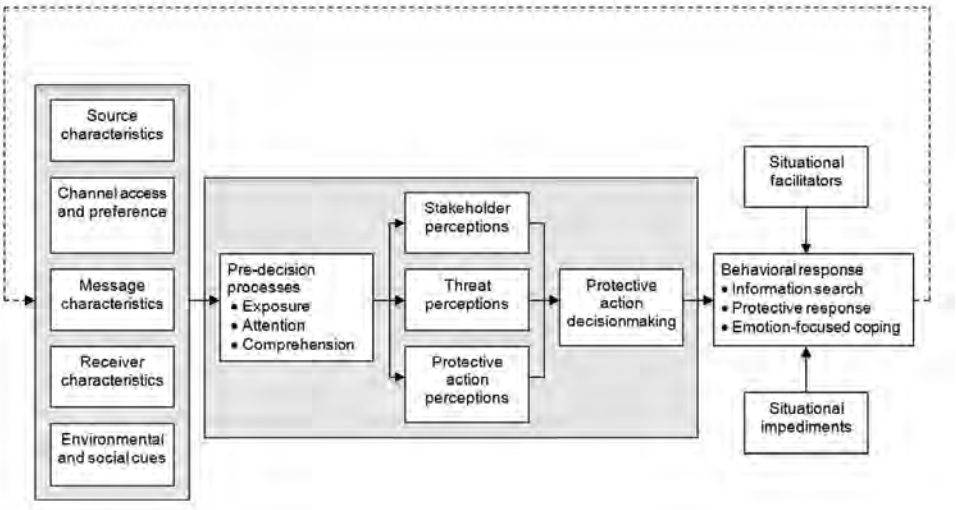
The Protective Action Decision Model (PADM) is a multistage model that is based on findings from research on people's responses to environmental hazards and disasters. The PADM integrates the processing of information derived from social and environmental cues with messages that social sources transmit through communication channels to those at risk. The PADM identifies three critical predecision processes (reception, attention, and comprehension of warnings or exposure, attention, and interpretation of environmental/social cues)—that precede all further processing. It also identifies three important classes of perceptions—threat perceptions, protective action perceptions, and stakeholder perceptions—that form the basis for decisions about how to respond to an imminent or long-term threat. The PADM describes the decision making process in terms eight questions people tend to ask themselves about the information they have regarding the threat, protective actions, and social stakeholders. The outcome of the protective action decision making process, in conjunction with situational facilitators and impediments, produces a behavioral response. In addition to describing the PADM and the research on which it is based, this article identifies a number of the model's practical implications and theoretical directions for future research.

Lindell, M.K. (2010, March). The Protective Action Decision Model: Theoretical, methodological, and practical implications for crisis research. CREATE Homeland Security Center Workshop on Risk Perception and Risk-Related Behaviors: Anticipating and Responding to Crisis, University of Southern California, Los Angeles, CA.



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# Sustainable regionalism: Promise for mitigating effects of adverse climate change

Addressing the effects of adverse climate change is problematic. It is at the forefront of public debate and policy, worldwide. Human activities, and in particular, combustion of fossil fuels, urbanization, land consumptive agricultural practices, and de-forestation, collectively, lead to increased concentration of green house gases and aerosols in the atmosphere. These green house gases trap and reflect long infra-red radiation, creating an ozone-enriched atmosphere and increased warming of the earth surface. The documented evidence on the resultant effects of these changes in the atmosphere has grown substantially in the past two decades [1]. The adverse climate change phenomena, including mitigation and adaptation strategies, have been the subject of many international summits and scientific investigations [2].

The paper investigates the promise of sustainable regionalism as one strategy for adapting and mitigating the effects of adverse climate change. Sustainable regionalism seeks to create, revitalize, and restore the ecological region in metropolitan areas through the physical design and planning of neighborhoods, villages, and cities within a region from a regionally-based sustainable perspective. [3]. It fuses specific ideas from Geddes-Mackaye-Mumford-McHarg concept of natural regionalism, Kenneth Frampton's notion of critical regionalism, and the sustainable development paradigm, but adapted to contemporary social, cultural, political, and environmental forces shaping the metropolitan landscape.

First, the paper examines selected effects of adverse climate change such as shifts in geographical distribution of plants species and increased extreme weather events, to illustrate the risks communities face if these effects intensify. Second, building upon the growing body of mitigation and adaptation efforts; in particular, those proposed by the Cities for Climate Protection (CCP), the paper prescribes a number of urban design and planning criteria and principles for dealing with specific effects of adverse climate change. [4] Third, it explores how these criteria can be integrated into the sustainable regional spatial framework. The paper concludes by evaluating the promise of sustainable regionalism for dealing with extreme climate change phenomena.

**Citations**

[1] Rosenzweig, C. et al. (eds). 2008. Intergovernmental Panel on Climate Change (IPCC) Observed Climate Change Database Version 1.0. Palisades, NY.
[2] United Nations Framework Convention on Climate Change (2000, 2007, 2009) [http://ufcc.int/2860].
[3] Ndubisi, F. 2008 "Sustainable Regionalism: Prospects for Shaping the Future of the Metropolis." Landscape Journal. Vol. 27, No. 1. 51-68.
[4] International Council for Local Environmental Initiatives (ICLEI). [http://www.iclei.org].

Ndubisi, F. (2010, May). Sustainable regionalism: Promise for mitigating effects of adverse climate change. Council of Educators in Landscape Architecture Annual Conference, Maasterich, the Netherlands.

Central Piracicaba is located on the right bank of Piracicaba River, in Piracicaba, Brazil. Since 1980, renowned architects, including Oscar Niemeyer, Carlos Bratke, Paulo Mendes da Rocha and Brasil Arquitetura, submitted proposals for adaptive reuse of this former sugar complex.

# Bitter/Sweet: Case studies in transformation of sugar space in Brazil

Sugar production, as a sector of agro-industry, bore substantial influence on territorial planning and occupation in Brazil from the seventeenth century through the middle of the twentieth century. The space of the sugar mills incorporated aspects of both agricultural and industrial order characterized by an urban-rural hybrid. Sugar villages are examples of small-scale urbanization, which connect two key areas: industrial and residential. The sugar industry constructed within its over 200 Brazilian settlements an assortment of dwellings and equipment targeted to specific, collective uses. Since the 1960s, however, in the context of overall modernization of the country, the condition for the existence of some settlements was changing profoundly. The study interrogates the influence of the sugar industry's action on the construction and planning of the territory and investigates the spatial organization – plan, architecture and collective spaces – of several sites located in traditional sugar-producing regions of Brazil. The research plan was based in two activities: documentary search and a program of visiting 24 sugar mills. This paper addresses the consequences of the more recent history of sugar mills' reduction and elimination of residential provision and investigates the transformations of these spaces after the deactivation of the factory, through the analysis of some examples of adaptive reuse, abandonment, and initiatives towards the preservation of this focus of industrial heritage.

Campagnol, G. (2010, August). Bitter/Sweet: Case Studies in Transformation of Sugar Space in Brazil . Reusing the Industrial Past. First joint conference of ICOHTEC – The International Committee for the History of Technology History and TICCIH – The International Committee for the Conservation of the Industrial Heritage, Tampere, Finland.

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**Viewed from the west , the Propylaia, Nike Temple and Parthenon on the Athenian Acropolis.** (Photo by Kevin Glowacki).

# Building B and the Mnesiklean Propylaia on the Athenian Acropolis

In 1884, excavation within the northwest wing (Pinakotheke) of the Classical Propylaia built by Mnesikles on the Athenian Acropolis revealed that the foundations of the east wall and those of a planned extension to the north were built using poros architectural elements from several older buildings. The reused blocks include column drums, wall blocks, tryiglyphs and metope backers, and curved and straight Doric geison blocks. In 1904, Theodor Wiegand published drawings of the west and east faces and assigned the Doric elements to two buildings, B (tristyle in antis, apsidal plan) and C (distyle in antis), built in the third quarter of the sixth century. Dörpfeld later proposed that Building B stood in the same location as the Pinakotheke and was the inspiration for the latter's unusual façade.

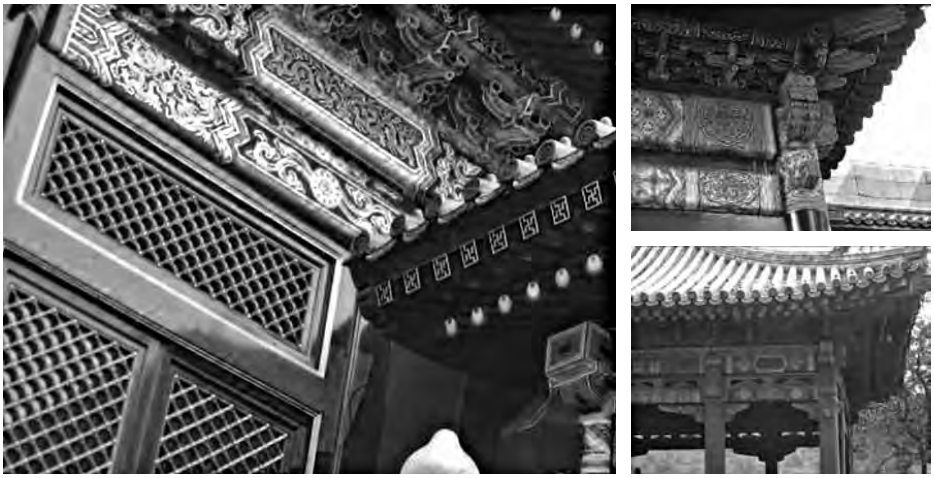
While the design and construction of Mnesikles's Propylaia have been thoroughly researched, a complete study of the reused architectural elements is lacking. This paper considers the relationship between Building B and the design of the Pinakotheke. I present a summary of the blocks that were reused in the classical Propylaia and discuss the grounds for assigning them to different structures. Further attention to the number and type of architectural elements preserved from each one, their state of preservation, and their placement within the Classical Propylaia allows me to consider the process of dismantling and reuse. Finally, I examine the evidence for the reconstruction of Building B, its apsidal plan, and its possible location on the Acropolis.

**Klein, N.L. (2010, January). Building B and the Mnesiklean Propylaia on the Athenian Acropolis. Annual Meeting of the Archaeological Institute of America, Anaheim, CA.**

# Recording and Documenting the Chromatic Information of Architectural Heritage

One essential approach in preserving architectural heritage is the documentation of 3D geometries and surface textures of historic buildings. For example, precise colour information, excluding lighting effects, is an intrinsic property of the surface materials of building interiors and exteriors. However, while colour information has been recorded for small sample areas, it has not been accurately documented on the scale of entire building surfaces. This is critical, because building materials decay and their colours fade with time. The goal of this project is to develop a method to assist in recording and documenting the chromatic information of interiors and exteriors of historic buildings with low cost and high efficiency. The method takes advantage of emerging high dynamic range imaging (HDRI) technology, which can store rich information about colour and illumination through digital photography. By recording the colour information, in addition to the geometry and texture information obtained through other existing technologies, we can achieve more complete documentation for architectural heritage. In this paper, we discuss an overview of the problem and present our algorithms for utilizing computer vision techniques to retrieve chromatic information of historic buildings. We also present and discuss our experiments and results of applying our method to studies of lab objects and the Hall of Supreme Harmony in the Forbidden City, Beijing.

Yan, W., Behera, A., & Rajan, P. (2010). Recording and Documenting the Chromatic Information of Architectural Heritage. Journal of Cultural Heritage, 11(4), 438-451. France: Elsevier.



Three photos showing 'color decay' on historical buildings in the Forbidden City, Beijing: at left, a recent repainting during a major renovation of the Forbidden City before the 2008 Beijing Olympics.; top right, colors starting to decay; and below right, significant color degrading.

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# European origins of the urban grid layout implemented by the Spanish in the New World

Mesoamerican settlements were based in ceremonial centers. These centers were characterized by a series of open urban spaces whose form was shaped by the architectural groupings consisting of temple platforms, pyramid temples and elite palaces. After the Discovery of America and the subsequent Conquest of the Aztec Capital of Tenochtitlan, Mendicant friars began re-founding existing Native communities and implanting urban design concepts that were in vogue and rediscovered during Renaissance Europe, in particular urban design ideas expressed by Alberti, and other urban theorists. This paper pretends to enumerate the probable influences and physical examples friars might have known from their European antecedents. Of particular interest is the example implemented under the orders of Pope Pius III and his architect/urban designer who had designed and built Piensa, Italy.

**Wagner, E.L. (2010, August). European Origins of the Urban Grid Layout implemented by the Spanish in the New World. Horse Shoe Bay International Group, Horse Shoe Bay, TX.**

A snowy morning in Piensa, Italy, above, with a view of plaza, beyond, the Cathedral, and on the right, the Piccolomino Palace as seen from the loggia of Palazo Comunale.

At left, an aerial view in Piensa, Italy, the First Renaissance City by Rosselini on commission by Pope Pius II.

Susette Kelo's little pink house in New London, Conn. was made famous in the U.S. Supreme Court eminent domain decision in Kelo v. City of New London, which allowed governments to condemn private property for economic development projects. The city eventually agreed to move Kelo's house to a new location and to pay substantial additional compensation to other homeowners. The redeveloper was unable to obtain financing and had to abandon the redevelopment project, leaving the land as an empty lot.

# Equal protection and aesthetic zoning: A possible crack and a preemptive repair

Equal protection issues arise in zoning decisions when property owners believe they have received differential treatment due to the interpretation of local land use regulations. This is particularly true in cases where municipalities regulate intangible factors like aesthetics. Although such regulation has been considered an appropriate public purpose since the Supreme Court's decision in Berman v. Parker, it is unclear what type of evidence may be necessary for such regulations to survive equal protection challenges as a result of high court's ruling in Willowbrook v. Olech. This article reviews the similarly situated standard proffered in Olech using means ends analysis. The authors offer a model to assist courts reviewing equal protection challenges of aesthetics regulations in establishing equivalent congeners. The proposed model is based on the construct validation process and seeks to encourage the consideration of empirical findings as a basis for justifying the regulation of aesthetics.

Tassinary, L.G., Jordan, D., & Parsons, R. (2010). Equal Protection and Aesthetic Zoning: A Possible Crack and a Preemptive Repair. The Urban Lawyer, 42(2), 375-94.

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# Milestones in urban revitalization: East Athens, Georgia (1994-2009)

This paper reviews the effectiveness of the strategies employed and the outcomes of the revitalization plan for the East Athens neighborhood in Athens-Clarke County, Georgia, USA. Located about 60 miles east of Atlanta, Georgia, Athens-Clarke County is a city with an estimated population of 110,490 in 2007. The East Athens neighborhood with a population of approximately 8,600 in 2000, has long displayed many of the typical indicators of communities in distress: High rates of crime, poverty, unemployment, teenage pregnancies, female-headed households, low educational attainment levels, as well as severe physical deterioration of many homes and commercial establishments.

From 1992-1994, a multidisciplinary team of researchers, planners, and landscape architects from the University of Georgia worked with the city and East Athens residents to develop and implement a revitalization plan for East Athens. The team's approach was grounded on two premises: First, effective community participation was essential to any viable revitalization efforts; and second, physical redevelopment is intricately linked t o social and economic viability of neighborhoods [1]. The team implemented a model of participation----collaboration decision making---involving a strategy through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible [2]. Working with community members, the team developed an urban design plan for the commercial district, as well as housing, economic development, and social services plans, with special emphasis on how components of these plans were linked together and reinforce each other. Many components of the plan were approved and have been implemented over the years by the Athens-Clarke County government and non-profit agencies.

Using data from the US Census Bureau, Bureau of Economic Analyses, as well as other sources, this paper examines critically whether or not the outcomes of the intervention efforts have made a difference in the lives of the residents after 15 years---physically, socially, and economically; how, and why. Drawing on the lessons learned, this paper prescribes principles and strategies that can inform the design and implementation of revitalization efforts in similarly distressed communities in the United States.

Martin, J., & Ndubisi, F. (2020, May). Milestones in Urban Revitalization: East Athens, Georgia (1994-2009). Council of Educators in Landscape Architecture Annual Conference, Maastricht, the Netherlands.

# The Need for Resiliency and Vulnerability Observatory Network: RAVON

Despite advancements in hazards and disaster research in large measure because of the investments in scientific research by the National Science Foundation through programs such as the National Earthquake Hazard Reduction Program (NEHRP), there is a growing sense in the scientific community that current programs and approaches are inadequate for tackling the most fundamental and critical knowledge gaps in resiliency and vulnerability science. The ability to systematically expand the knowledge base is increasingly constrained by a number of major obstacles. This paper duscusses these obstacles and a potential solution for overcoming them through the creation of a Resiliency and Vulnerability Observatory Network: RAVON.

**Peacock, W.G. (2009, July). The Need for Resiliency and Vulnerability Observatory Network: RAVON. International Research Committee on Disasters Researchers' Meeting, Omni Interlocken Resort, Broomfield, CO.**


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# Regulatory plan implementation: A comparative international view

This presentation will focus on the discoveries made so far in connection with the author's recently completed sabbatical. The research question: What, if anything, can we learn from plan implementation practices in other nations that might be applicable in the USA as we attempt to find ways to create more livable places? The quick answer: A lot!

Bright, E. (2010, March). Regulatory plan implementation: A comparative international view. Urban Affairs Association conference, Honolulu HI.

Many other nations have a plethora of what Americans would call "liveable communities" — communities offering a mix of land uses and housing types; many transport options including pedestrian and bicycle; and public spaces inviting social interaction and leisure. What tools do other nations use to create and sustain these communities, and might any of them be useful in the U.S.?

Texas A&M students are introduced to lean construction principles by playing the Airplane Game.

## Last planner and its role as conceptual kanban

Lean construction developed as a response to challenges within the construction industry—an industry known for budget and schedule overruns and an adversarial, litigious culture.

Adoption of lean thinking requires a dedicated cultural shift within an organization. Because of this, advocates of lean construction utilize simulation games developed for the lean manufacturing industry to introduce lean to newcomers. Lean simulation games may be viewed as miniature controlled experiments that quantitatively demonstrate beneficial outcomes from lean (experimental) versus non-lean (control) plays of the game. The games are intended to provide convincing evidence that lean is more than a trendy philosophy demanding leaps of faith. Lean is a science; it works.

One lean simulation game is popularly called the Airplane Game, from Visionary Products, Inc. The Airplane Game introduces newcomers to the importance of cell design, small batch size, pull scheduling and a flexible workforce—all which have been demonstrated to enhance flow.

Historically, the Last Planner™ System of Production Control has been coupled with the body of Lean Construction literature. However, the mechanism of the Last Planner and how it fits within accepted lean thinking has not always been apparent. This paper addresses this uncertainty. It examines simulated results from a lean simulation game and argues that the Last Planner serves the role of a Just-In-Time conceptual kanban, among its functions—and therefore sits squarely within the domain of Lean theory. This is good news for Lean Construction, because it strengthens the argument that productivity gains observed during application of lean theory are real, and not due to enhancements from a Hawthorne or placebo effect.

Rybkowski, Z. K. (2010). Last Planner and Its Role as Conceptual Kanban. 18th Annual Conference of the International Group for Lean Construction (pp. 63-72). Halifa, Israel: International Group for Lean Construction.

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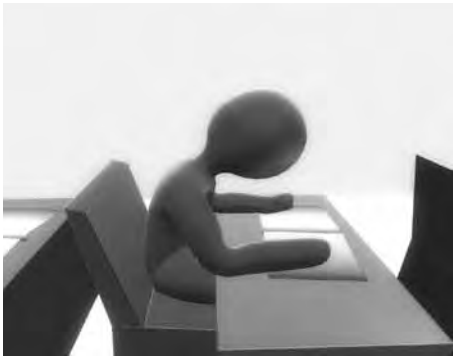
Screen captured images from a prototype video game used to provide pre-service teachers with experience recognizing classroom situations. The situations are presented in two forms varying in complexity of shapes and surface materials.



## A framework for evidence based visual style development for serious games

This presentation will describe a framework for connecting computer graphics techniques and visual style in video game design with targeted learning outcomes for students. The relationship is organized on a table depicting Bloom's taxonomy of the cognitive domain and categories of computer graphics imagery from simplified to realistic. This framework is presented as a useful way to economize design development efforts and incorporate visual development in addition to player immersion as an indicator of expected effectiveness for serious games.

McLaughlin, T., Smith, D., & Brown, I. A. (2010). A Framework for Evidence Based Visual Style Development for Serious Games. Foundations of Digital Games Conference 2010 (pp. 132-138). New York, NY: ACM.

# Multi-dimensional construction visualizations with examples: Suggested topics for graduate course

Construction industry in today's world is becoming enormously complex as project sizes are increasing and project duration are decreasing. At the same time designers are conceptualizing ever-complex designs, which no longer can easily be comprehended by 2D drawings. Classroom use of Information Technology (IT) for teaching science, engineering and technology has increased dramatically in recent years and has proved to be very effective in various situations. Using multidimensional (n-D) visualizations, animations, virtual reality and walkthrough of various structures in virtual environment students receive the understanding that is absent from the traditional "chalk-board" approach. The purpose of this paper is to demonstrate with examples various design and construction visualization techniques including image visualization, virtual reality, design animation, walk-through, time-space relationship visualization in 4D (3D+Schedule), time-space-cost relationship visualization in 5D (3D+Schedule+Cost), and Time-Space-Activity Conflict Detection using 4D Visualization in Multi-Storied Construction Project. The techniques demonstrated through virtual models can potentially be valuable course contents for graduate course for construction education and research.

Haque, M.E. (2010, June). Multi-dimensional Construction Visualizations with Examples: Suggested Topics for Graduate Course. Proceedings of 2010 American Society for Engineering Education (ASEE) Annual Conference (AC 2010-640). Washington, DC: ASEE.

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Graduate Diploma, The Architectural Association Graduate School of Architecture, London, 1973; B. Arch., Auburn University, 1964.

Design education, design methodology and campus planning are the major areas of Regan's research. He has served as dean at three major universities before becoming dean at Texas A&M, served as national president of the Association of Collegiate Schools of Architecture, and is Executive Director of the Architecture + Construction Alliance, which he co-founded. Regan was Dean of the TAMU College of Architecture from 1998-2008, and TAMU University Campus Planner from 2005-08.

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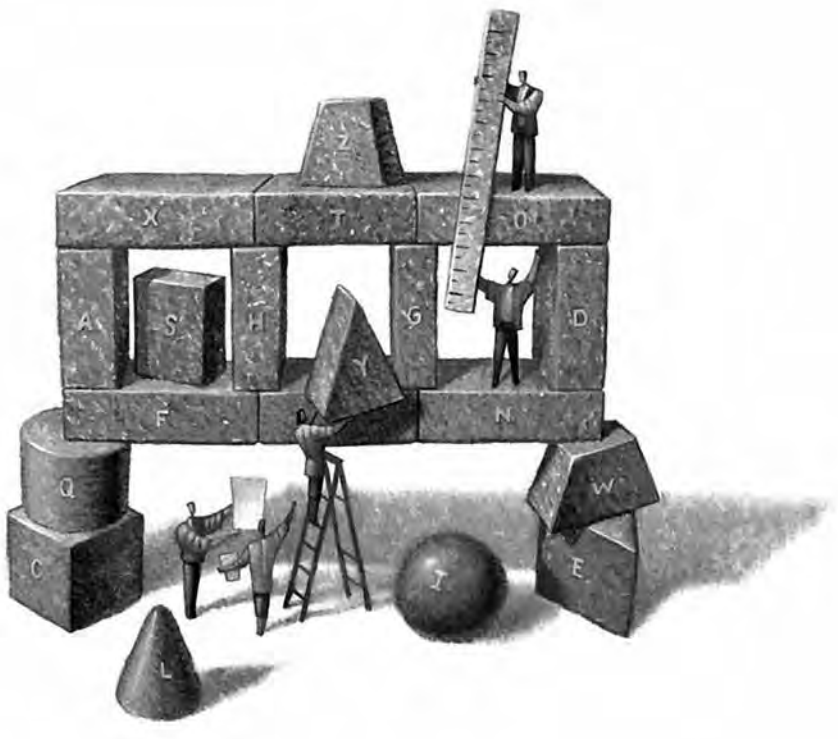
# The Architecture + Construction Alliance: A new organization

Deans of the colleges of architecture in the United States housing degree programs in both architecture and construction began meeting in 2006 to discuss strategies by which the academic community could respond to the increasing collaboration of architects and constructors in the built-environment professions and industries. Of the more than 100 US architecture schools, only fourteen have degree programs in these two fields, and several of these deans decided that cooperation among the fourteen schools would be the most effective avenue to develop best academic practices to give faculty members, undergraduate and graduate students the opportunity to understand and prepare for the growing integration of design and construction.

After frequent meetings, thirteen schools formed the Architecture+Construction Alliance in 2008. The A+CA Board of Directors is composed of the deans of the thirteen schools and an appointed executive director. In 2009 the Board elected Dean Jack Davis of Virginia Tech A+CA President; Dean Tom Jones of Cal Poly San Luis Obispo as Vice President-President Elect; and Dean Chris Silver of the University of Florida as Secretary-Treasurer. The Executive Committee of the Board appointed Tom Regan, Former Dean at Texas A&M, as Executive Director.

The A+CA is developing best practices that will encourage collaboration in research and educational programs between faculty members in departments of architecture and construction throughout the A+CA member schools. Research Units that are national in scope are being formed. An Industry / Profession Advisory Council will be formed, composed of leaders in the construction and architecture industries and profession. An inventory of existing educational programs at member schools is underway; the inventory will provide the basis for faculty initiated A+CA short courses, undergraduate minors, certificates, and special degree options that will enhance the cross-disciplinary education of next generation architects and constructors.

Regan, T.J. (2009, October). The Architecture + Construction Alliance: A New Organization. CIB International Board of Directors Meeting, Brussels, Belgium.




The author, right, reviews a student's work in a master's level design studio.

## Survey of design competencies and skills

Review of a survey conducted to determine the opinions of students, recent graduates, experienced professionals, and design studio faculty as to the skills which can be taught in the graduate design studio. It covered 21 skills in 7 domains of competency and has produced a model featuring 23 skills.

Hamilton, D.K. (2010, July). Survey of Design Competencies & Skills. AAH Educator Summit, Chicago, IL.

D. Kirk Hamilton
Associate Professor, FAIA, FACHA
Department of Architecture

M.S. (Organization Development), Pepperdine University; B.Arch., University of Texas.

Mr. Hamilton is interested in evidence based design for healthcare, and the relationship of facility design to organizational performance.

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# NaturaBuiltVirtual '10

## College of Architecture Research Symposium

A invited and/or refereed presentations, papers and exhibits from the 2009-10 academic year, presented or published by faculty from the College of Architecture at Texas A&M University. ▸ Green bullets denote research also presented at the college's 2010 research symposium.

### Presentations

- **Akleman, E.**, Chen, J., Chen, Y.L., & Xing, Q. (2010, July). *Cyclic Twill-Weaving.* Presentation & poster presented at SIGGRAPH 2010, Los Angeles, CA.
- **Akleman, E.**, Chen, J., & Gross, J. (2010, June). *Paper Strip Sculptures.* Shape Modeling International, SMI 2010.
- **Baltazar, J.C.,** & **Haberl, J.S.** (2010, August). *Development of a Dashboard for a Class A Solar Test Bench.* The Seventeenth Symposium on Improving Building Systems in Hot and Humid Climates, Austin, TX.
- **Bame, S.** (2010, April). *Unmet needs during disasters: 2-1-1 Demand in Texas, Katrina-Rita, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- **Bame, S.** (2010, February). *2-1-1 Disaster Data Management for Nationwide Development and Implementation*. United Way Worldwide & International Alliance for Information & Referral Systems, Chicago, IL.
- **Bame, S.**, et al. (2010, October) Patterns of unmet disaster needs: Texas hurricanes, 2005 vs. 2008. *Proceedings of the annual American Collegiate Schools of Planning conference*, Minneapolis, MN.
- **Bame, S.** (2010, October). *Unmet needs in Texas during Katrina-Rita by disaster phase, Fall 2005.* United Way Worldwide, Washington, DC.
- **Bame, S.** (2009, September). *Patterns of 2-1-1 disaster response.* San Diego County Health & Human Services, San Diego, CA.
- **Bame, S.** (2009, August). *Lessons from Katrina-Rita for 2-1-1 disaster management in Texas.* Texas Health & Human Services Commission, Austin, TX.
- **Bame, S.**, Bell, R., Davis, T., Desai, A., Dunn, R., Finley, D., et al. (2009, October). Community planning for special needs during disasters: Number and types of evacuee special needs in Texas during Katrina-Rita, 2005. *Proceedings of the American Collegiate Schools of Planning Annual conference*, Crystal City, VA.
- **Bame, S.**, & Daily, L. (2010, October). *Using 2-1-1 data for disaster management of unmet health and social support needs.* Dept. Homeland Security – Science & Technology Division, Washington, DC.
- **Bame, S.**, Daily, L., & Dunaway, M. (2010, October). *2-1-1 roles in disaster management.* FEMA, Washington, DC.
- **Bame, S.,** & Parker K. (2009, June). *Demand for 2-1-1 Services During Disaster: Timing and Location of 2-1-1 Callers in Texas During Katrina-Rita, 2005.* Alliance for Information & Referral Systems (AIRS), Reno, NV.
- **Bame, S.**, Parker, K., Bell, R., Davis, T., Desai, A., Dunn, R., et al. (2009, June). Demand for 2-1-1 services during disaster: 2-1-1 in Texas during Katrina-Rita, 2005. *Proceedings for the Association for Information & Referral Systems International conference*, Reno, NV.
- **Bame, S.**, Parker, K., Jobe, D., Ray, S., Irby, A., Mhatre, P., & Lee, J.Y. (2010, May). *2-1-1 Call Patterns During Disasters: Texas Hurricanes, 2005 vs. 2008.* The annual AIRS International Conference, Rochester, NY.
- **Beltrán, L.** (2010, May). *An Overview of Intelligent Building Facades*. Illuminating Engineering Society-Dallas Section, May Monthly Luncheon, Dallas, TX.
- **Beltrán, L.** (2010, April). *Daylight Harvesting using an Optical Daylighting System.* Green Public Forum, 2010 National Sustainable Design Expo, Washington DC.
- **Beltrán, L.** (2009, November). *Tools for Daylighting Design and Analysis.* 2009 Texas Society of Architects Convention, Houston, TX.
- **Benyamin, J.** (2009, April). *Shaping the Canon: Sigfried Giedion and Walter Gropius in Wort und Bild.* Cambridge Talks III conference, Harvard University, Graduate School of Design, Cambridge, MA.
- **Bienko, J.** (2010, June). *Apples, Aufhebung, and Alan Turing: Subversive Manifesto for Underground Technology.* The Stafford, Bryan, TX.
- **Bienko, J.** (2010, June). *Genuine Fakes*. Texas Governor's School in Arts and Humanities for Urban Leadership, Texas A&M University, College Station, TX.
- **Bienko, J.** (2010, April). *Desiring le' Con.* Chapman University, Orange, CA.
- **Bienko, J.** (2010, April). *My Work Resembles Real Contemporary Art*. Chapman University, Orange, CA.
- **Bienko, J.** (2010, February). *Post Duchamp, Post-Production: Delineations of Media in Art Theory and Pedagogy.* College Art Association, Chicago, IL.
- **Bienko, J.** (2009, September). *Desiring le' Con: Art, 'Restoring Honor,' and other empty gestures.* Alfred University, School of Art and Design, Alfred, NY.
- **Booth, G.** (2010, March). *Creating Real Estate Value in the Post Meltdown Economy.* American Society of Landscape Architects Conference, San Antonio, TX.
- **Booth, G**. (2010, April). *An Integrated, Transdisciplinary, and Evidence Based Approach for Built Environment Sustainability*. 4th Ajman International Urban Planning Conference, Ajman, United Arab Emirates.
- **Booth, G**., & **Vanegas, J**. (2010, March). *The Sustainability Dividend – Real Estate Value Creation and Three Emerging Trends Toward the Delivery of Built Environment Sustainability*. Proceedings of the 4th International Annual Conference Ajman Municipality, Emirates of Ajman, United Arab Emirates, and the University of Wolverhampton, UK.
- Bou-Saada, T., & **Culp, C.H.** (2010, August). *Ensuring Long-Term Energy Savings for a Major Texas State Agency Performance Contracting Initiative.* GovEnergy 2010, Dallas, TX.
- **Bright, E.M.** (2010, January). Presentation of work to members of the Qatar Ministry for the Environment, Doha, Qatar.
- **Brody, S.D.** (2010, May). *Evaluating the Effectiveness of Mitigation Strategies for Flood Reduction: How Much Can We Save?* Coastal Resilience Symposium, Rice University, Houston, TX.
- **Brody, S.D.** (2009, October). *A Coastal Communities Planning Atlas for Decision Makers and Local Residents.* TX APA Conference, Galveston, TX.

- **Brody, S.D.** (2009, October). *Examining the Effectiveness of Flood Reduction Strategies.* TX APA Conference, Galveston, TX.
- **Brody, S.D.** (2009, October). *Examining the Willingness of Americans to Alter Behavior to Mitigate Climate Change.* ACSP Annual Conference, Crystal City, VA.
- **Brody, S.D.** (2009, October). *Flood Damage in Florida.* Environmental Sciences Institute, Florida A&M University, Tallahassee, FL.
- **Brody, S.D.** (2009, September). *Applications of the Texas Coastal Communities Planning Atlas: Proactive Decision Making in a Web GIS Environment.* 8th Annual Sea Grant Researchers Conference, Texas A&M-Galveston, Galveston, TX.
- **Brody, S.D.** (2009, September). *Does Mitigation Work? Examining the Effectiveness of Flood Reduction Strategies.* Hurricane Ike Revisited Symposium, Rice University, Houston TX.
- **Bryant, J.A.**, Davis, M.A., & O'Neal, D.L. (2010, June). *Energy Use Comparison for Series vs. Parallel Fan Powered Terminal Units in a Single Duct Variable Air Volume System.* ASHRAE Summer Technical Conference, Albuquerque, New Mexico.
- **Bryant, J.A.**, O'Neal, D.L., & Davis, M.A. (2010, June). *Performance of VAV Fan Powered Terminal Units: An Evaluation of Operational Control Strategies for Series vs. Parallel Units.* ASHRAE Summer Technical Conference, Albuquerque, New Mexico.
- **Caffey, S.** (2010, August). *Artist in Residence: A Case Study in Strategic Applications of Industrial Heritage & Adaptive Reuse.* ICOHTEC+TICCIH Reusing the Industrial Past Conference, University of Tampere.
- **Caffey, S.** (2010, June). *Is Art History Global?* Paris American Art 10th Anniversary Symposium, Musée des Impressionismes, Giverny, and Institut National d'Histoire de l'Art, Paris.
- **Caffey, S.** (2010, April). *'Taken on the Spot': Imaginative Proximity and Progressive Remoteness in Anglophone Representations of South Asia.* Encounters along the Journey: An Interdisciplinary Symposium, Melbern G. Glasscock Center for Humanities Research, Texas A&M University.
- **Caffey, S.** (2010, April). *'The Howl of the Americans': The Aural and the Haptic in a 1764 Painting by Benjamin West.* Art Historians Association Annual Conference, University of Glasgow.
- **Caffey, S.** (2010, February). *Exempla Virtutis Imperialis: The Paintings of Benjamin West, 1764-1774.* 1763 and All That: Temptations of Empire in the Decade after the Seven Years' War, Institute for Historical Studies, University of Texas at Austin.
- **Campagnol, G.** (2010, August). *Bitter/Sweet: Case Studies in Transformation of Sugar Space in Brazil* . Reusing the Industrial Past. First joint conference of ICOHTEC – The International Committee for the History of Technology History and TICCIH – The International Committee for the Conservation of the Industrial Heritage, Tampere, Finland.
- Chen, Y.L., **Akleman, E.**, Chen, J., & Xing, Q. (2010, June). *Biaxial Textile Weaving Structure.* ISAMA 2010– Art and Math Conference, Chicago, IL.
- **Choudhury, I.** (2010, September). *The effect of private outside space quality on the property value of a single family dwelling.* COBRA: RICS Construction and Building Research Conference, Paris, France.
- **Clayton, M.J**., Ozener, O., & Nome, C. (2009, October). *BIM to CAFM: An Investigation of Adapting a Building Information Model to a Legacy Computer Aided Facility Management System.* CIB W078 Managing IT in Construction, Istanbul.
- Conkey, A., & **Bryant, J.A.** (2009, October). *Interactive Freshmen Engineering Project at Texas A&M at Qatar.* Annual ASEE Global Colloquium on Engineering Education, Budapest, Hungary.
- **Culp, C. H.**, & T. Bou-Saada. (2010, August). *Energy Management and Control Systems.* GovEnergy 2010, Dallas, TX.
- Desai, A., **Bame, S.,** et al. (2010, April). *Unmet housing needs for disabled and ill, Katrina-Rita disasters, Texas, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Desai, A., Garza, A., **Bame, S**., et al. (2010, April). *Analyzing Community Unmet Health Needs in Texas, Katrina-Rita, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- **Deyong, S.J.** (2010, October). *A Manual for Urban Acupuncture.* ACSA West Central Fall Conference-"Flip Your Field", University of Illinois, Chicago, IL.
- **Downing, F.** (2010, July). *The Edge of a Novel: A journey from academia*. The American Society of Aesthetics, Rocky Mountain Division, Santa Fe, New Mexico.
- **Dumbaugh, E.** (2010, March). *How Urbanism Advances Mobility and Safety Goals… While Building Healthier, More Livable Communities at the Same Time!* Houston Tomorrow/Congress for the New Urbanism, Houston, TX.
- **Dumbaugh, E.** (2009, November). *Transportation, Traffic Safety, and Community Design*. Georgia Urban Forest Council 2009 Annual Conference, Stockbridge, GA. [Keynote]
- **Dumbaugh, E.** (2009, November). *Urban Trees and Traffic Safety: Why Urban Trees Aren't the Threat the Traffic Engineer Thinks They Are!* Georgia Urban Forest Council 2009 Annual Conference, Stockbridge, GA. [Keynote]
- **Dumbaugh, E.** (2009, October). *Design for Context: Addressing Safety and Mobility through Urban Design.* Portland Metro, Portland, OR.
- **Dumbaugh, E.** (2009, October). *Urban Form and Traffic Safety. Urban Form and Traffic Safety: Examining the Design and Developmental Factors that Influence Crash Incidence.* Oregon Transportation Research Educational Consortium [OTREC]/Portland State University Transportation Center for Transportation Studies, Portland, OR.
- **Dumbaugh, E.** & Raw, R. (2009, September). *Safe Urban Form: Revisiting the Relationship between Community Design and Traffic Safety.* Association of Collegiate Schools of Planning 50th Anniversary Conference. Crystal City, VA.
- **Dumbaugh, E.,** Sperry, B., & Burris, M.(2010, January). *A Case Study of Induced Travel at Mixed-Use Developments*. 89th Annual Meeting of the Transportation Research Board.
- **Dvorak, B.** (2010, March). *Understanding Elements of Green Roof Design*. Emerging Green Builders Lecture Series, Texas A&M University, College Station, TX.
- **Dvorak, B.** (2010, March). *Verde Roof: Understanding Elements of Green Roof Design.* 2010 Texas ASLA Annual Conference—Mission Verde, San Antonio, TX.
- **Dvorak, B.** (2009, August). The Mechanics and Construction of Geosynthetic Technology. Industrial Fabrics Association International, Green Roofs and Landscape Workshop, San Diego, CA.
- **Fernández-Solís, J. L.** (2010, June). The Challenges of Growth in Construction. *AGC of America Building Contractors Conference*, Midway, UT.
- Finley, D., **Bame, S.,** et al. (2010, April). *Unmet housing needs: Housing Rehabilitation & Household Goods, Texas, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Garza, A., **Bame, S.,** et al. (2010, April). *Analyzing Community Unmet Needs in Texas during Hurricanes Katrina and Rita, 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Ge, Y., **Peacock, W.G.**, & **Lindell, M.K.** (2009, October). *Designing Hazard Mitigation Incentives for Local Residents: Florida Single Family Household Responses to Hurricane Mitigation Incentives.* The 50th American Collegiate Schools of Planning Conference, Crystal City, Virginia.
- **Giusti, C.** (2010, March). *Texas Border Communities: challenges and community building.* Urban Affairs Association 40th Annual Meeting, Honolulu, HI.

- **Giusti, C.** (2010, April). Latino Outreach: Helping planners reach out to Latino communities by organizing a Dialogue (Dialogo). American Planning Association National Conference, New Orleans, LA.
- **Giusti, C., Lee, C**., & Wieters, M. (2009, October). *Community Development and Physical Infrastructure in Underserved Communities: A Case Study.* ACSP Association of Collegiate Schools of Planning Conference "Reinvesting in America: The New Metropolitan Planning Agenda", Crystal City, VA.
- **Glowacki, K.T.** (2010, February). *Peripatos and Pelargikon: The Topography of Cult on the Slopes of the Acropolis.* Melbern G. Glassock Center for Humanities Research Faculty Symposium, Texas A&M University, College Station, TX.
- **Glowacki, K.T.** (2009, September). *The Creative Photograph in Archaeology: Opening Remarks," Exhibition Opening of "The Creative Photograph in Archaeology: From the Traveling Photographers of the 19th Century to the Creative Photography of the 20th.* Wright Gallery, Texas A&M University, College Station, TX.
- Grover, A., Xue, M., **Bame, S.**, et al. (2010, April). *Unmet Food Needs in Texas, Hurricanes Katrina & Rita, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- **Hamilton, D.K.** (2010, July). *Survey of Design Competencies & Skills.* AAH Educator Summit, Chicago, IL.
- **Hamilton, D.K.** (2010, June). *The Current State of Healthcare Architecture and Evidence-Based Design.* Wolfsonian Museum, Florida International University, Miami, FL.
- **Hamilton, D.K.**, Peavey, E., & Pentecost, R. (2010, May). *Examining Barriers to Adoption of an Evidence-Based Practice Model.* Environmental Design Research Association (EDRA 41), Washington, DC.
- **Hamilton, D.K.** (2010, June). *Design and Research for Healthcare Architecture.* Healthcare Planning & Design: European Congress, Rotterdam, The Netherlands. [Plenary speaker]
- **Hamilton, D.K.** (2010, April). *What is Evidence-Based Design Practice?* Future of Hospitals Conference, Copenhagen, Denmark. [Plenary speaker]
- **Hamilton, D.K.** (2010, April). *Use of Rigorous Evidence in the Design Practice.* Future of Hospitals Conference, Copenhagen, Denmark. [Plenary speaker]
- **Hamilton, D.K.** (2010, April). *Creating Evidence: Applied Research in Practice.* Future of Hospitals Conference, Copenhagen, Denmark. [Plenary speaker]
- **Hamilton, D.K.** (2010, March). *The Science and Art of Designing with Evidence.* Herberger Schools of Design, Arizona State University.
- **Hamilton, D.K.** (2010, February). *State of Evidence-Based Design.* BKM Systems, Dallas, TX.
- **Hamilton, D.K.** (2010, February). *Strategic Design.* BKM Systems, Dallas, TX.
- **Hamilton, D.K.** (2010, January). *45 Years of Knowledge-Based Practice: What, When, and How I've Learned*. WHR Architects, Houston, TX.
- **Hamilton, D.K**., & McKahan, D., Pitts, F. (2009, November). Mega Hospitals with Major Dreams: How the ICONS Have Fared. HealthCare Design '09, Orlando, FL.
- **Hamilton, D.K.,** Reno, K., Goetz, P., & Taylor, E. (2009, November). *Preparing for the EDAC Exam.* HealthCare Design '09, Orlando, FL.
- **Hamilton, D.K.** (2009, September). *An Evidence-Based Method for Design of Critical Care Units.* World Federation of Societies of Intensive and Critical Care Medicine, Florence, Italy. [Plenary speaker]
- **Hamilton, D.K.** (2009, July). *Integrating Evidence-Based Design into the Design Process.* HealthCare Design and Infection Prevention & Control, Toronto, Ontario, Canada. [Plenary speaker]
- **Hamilton, D.K.** (2009, June). *Designing Environments for a Greying Nation: Can Research Help?* Greying Nation Conference, Edmonton, Alberta, Canada. [Plenary speaker]
- **He, W.** (2010, June). *When Architecture Meets Fashion in Space.* The 1st Annual International Conference on Fine and Performing Arts, Athens Institute for Education and Research, Athens, Greece.
- **He, W.** (2010, March). *A 'Fashion' Design Project: Wearable and Moveable Architecture.* MADE: Design Education and the Art of Making, Proceedings of the 26th National Conference on the Beginning Design Student, The University of North Carolina at Charlotte, Charlotte, NC.
- **Hill, R.C.** (2010, November). *Accelerating Futures.* Lecture to the Graduate Teaching Academy, Texas A&M University, College Station, TX.
- **Hill, R.C.** (2010, October). *What the Global Future will mean for Architects.* Prairie View A&M University, Prairie View, TX. [Featured Lecturer]
- **Hill, R.C.** (2010, April). *Fusing Physiological & Psychological Factors for Sparking Individual/Group Trans-Disciplinary Creativity.* 21st International Conference on College Teaching and Learning, Jacksonville, FL.
- **Hill, R.C.** (2010, May). *Facilitating the Act of Creation in the Student*. 15th International Conference on Education, Bandar Seri Begawan.
- **Hill, R.C.** (2010, February). *Using Flow to Maximize Creativity.* Freshman Leadership Conference - "Education and the Future", Engineers without Borders, College of Engineering, Texas A&M University, College Station, TX.
- **Hill, R.C.** (2010, February). *Scotty's House playground design* (Playground subcommittee presentation). Engineers without Borders, College of Engineering, Texas A&M University, College Station, TX.
- **Hill, R.C.,** & **Vanegas, J.**(2010, September). *A Futurist View: What's On The Horizon?* 41st Engineering and Construction Contracting Association, Orlando, FL. [Featured Speakers]
- **Hill, R.C.,** & **Vanegas, J.** (2010, July). *Sustainable Futures, Strategies, and Technologies-The Perfect Storm.* World Future Society Conference 2010, Boston, MA.
- **Hillier, K.** (2010, July). *I Remember*. The American Society of Aesthetics annual meeting, Santa Fe, NM.
- **Horlen, J**., & **Lavy, S**. (2010, April). *Teaching and research in facility management (FM).* Interlink Vision 2020: Building Leaders in Healthcare, the 2010 Texas Association of Healthcare Facilities Management Annual Meeting, Dallas, TX.
- **Joh, K.** (2010, January). *Comparing Transport Policies and Travel Behavior in the U.S. and Europe.* International Affairs Colloquium, College of Social Sciences, Florida State University.
- **Joh, K.** (2009, October). *Can Built and Social Environmental Factors Encourage Walking among Individuals with Negative Walking Attitudes?* Doctoral Research Colloquium, Department of Urban and Regional Planning, Florida State University.
- **Joh, K.**, Marlon, G.B., & Nguyen, M.T. (2009, October). *Can Built and Social Environmental Factors Encourage Walking among Individuals with Negative Walking Attitudes?* 2009 Association of Collegiate Schools of Planning Conference, Crystal City, VA.
- Jourdan, D., & **Giusti, C.** (2010, October). *The relocation effects of expedited HOPE VI revitalization processes.* ACSP Association of Collegiate Schools of Planning Conference, Minneapolis, MN.
- Kim, J., **Lee, C.** & Ellis, C. (2010, May). Landscape Spatial Patterns, Physical Activity and Obesity among Hispanic Children. Council of Educator in Landscape Architecture, Maastricht, The Netherlands.
- Kim, H., Liu, Z., **Baltazar, J.C.,** Mukhopadhyay, J, **Haberl, J.S**., Do, S.L., **Culp, C**.,& Yazdani, B. (2010, August). *Energy Efficiency/ Renewable Energy (EE/RE) Projects in Texas Public Schools.* The Seventeenth Symposium on Improving Building Systems in Hot and Humid Climates, Austin, TX.
- **Klein, N.L.** (2010, January). *Building B and the Mnesiklean Propylaia on the Athenian Acropolis.* Annual Meeting of the Archaeological Institute of America, Anaheim, CA.

- **LaFayette, C.**, **Parke, F.I.**, **Galanter,P.** (2010, April). *Immersive Experiences for Museums.* Proc. Museums and the Web 2010 Conference, Denver, CO.
- **Lang, P.** (2010, July). *Fundamental Acts*. IUAV, School of Architecture, Venice, Italy.
- **Lee, C.** (2010, April). Current Research and Reflection. Interdisciplinary PhD Program in Urban Design and Planning Annual Symposium, University of Washington, Seattle, WA.
- **Lee, C.** (2009, November). *Active Living Environments.* Scott & White Annual Retreat, Temple, TX.
- **Lee, C.** (2009, October). *Active Living Environments.* Healthcare Design, Orlando, FL.
- **Lee, C.** (2009, July). *Obesity and the Built Environment.* UT Southwestern Obesity Outreach Seminar Series. College Station & Dallas, TX.
- **Lee, C.** (2009, July). *Obesity and the Built Environment: Impacts of policy and environment on obesity prevention*. Center for Community Health Development and the Brazos Valley Obesity Prevention Network, College Station, TX.
- **Lee, C.,** Wieters, M., **Giusti, C.**, & Lord, D. (2010, July). *The Environment and Obesity among Latino Adults: A case study exploring the roles of environments in promoting physical activity and reducing obesity among colonia residents*. The Inter-University Program for Latino Research -Obesity Research Workshop, The University of Notre Dame, Notre Dame, IN.
- Lee, J.Y., **Bame, S**., et al. (2010, April). *Unmet housing needs: Hurricanes Katrina-Rita in Texas, 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Lee, J.Y., **Bame, S,** & **Van Zandt, S.** (2009, October). *Unmet housing needs during Hurricanes Katrina and Rita evacuation.* The American Collegiate Schools of Planning Annual conference, Crystal City, VA.
- **Li, M.-H.** (2010, May). *Performance of bioretention boxes for hot climate, large-scale application.* Landscape Legacy: Landscape Architecture and Planning between Art and Science, 2009-2010 CELA, Council of Educators in Landscape Architecture annual meeting in Maastricht, The Netherlands.
- Lin, Y.-S., & **Peacock, W.G.** (2009, July). Development of Algorithms to Estimate Post-Disaster Population Dislocation – A Research Based Approach. International Research Committee on Disasters Researchers Meeting. Omni Interlocken Resort Broomfield, CO.
- **Lindell, M.K.** (2010, April). *What do we already know about processes by which individuals and organizations respond to hazards?* National Academy of Sciences/National Research Council Workshop on Public Responses to Alerts and Warnings on Mobile Devices, Washington, DC.
- **Lindell, M.K.** (2010, March). *Communicating hurricane information*. National Hurricane Conference, Orlando, FL.
- **Lindell, M.K.** (2010, March). *The Protective Action Decision Model: Theoretical, methodological, and practical implications for crisis research*. CREATE Homeland Security Center Workshop on Risk Perception and Risk-Related Behaviors: Anticipating and Responding to Crisis, University of Southern California, Los Angeles, CA.
- **Lindell, M.K.** (2010, February). *What we know about evacuation and what we still need to learn.* National Evacuation Conference, New Orleans, LA.
- **Lindell, M.K., Prater, C.S.,** & Wu, J.Y. (2009, December). *Post-disaster housing recovery: Comparison of the Northridge and Chi-Chi earthquakes.* Central U.S. Earthquake Consortium Board of Directors Meeting, Gatlinburg, TN.
- Liu, J., **Baltazar, J.C.**, & Claridge, D. (2010, August). *Development of the Potential Energy Savings Estimation (PESE) Toolki.* The Seventeenth Symposium on Improving Building Systems in Hot and Humid Climates, Austin, TX.
- Liu, Z., Mukhopadhyay, J., Milholtra, M., **Baltazar, J.C.**, **Haberl, J.S., Culp, C**., & Yazdani,B. (2010, August). *A Comparative Analysis of Residential Energy Use for 2009 IECC Code Compliance with 2006 NAECA Appliance Standards for Selected Climate Zones in Texas.* The Seventeenth Symposium on Improving Building Systems in Hot and Humid Climates, Austin, TX.
- **Mann, G. J.** (2010, March). *The Health Facilities Planning and Design Program at Texas A&M University*, Franklin Inn, Philadelphia, PA.
- **Mann, G. J.** ( 2009 July ). *GUPHA - Global University Programs in Healthcare Architecture.* Architectural Educators Summit, Merchandise Mart Holiday Inn, Chicago, IL.
- **Mann, G. J.** ( 2009, July ). *Report of AIA Liaison to the UIA / PHG (International Union of Architects Public Health Group ) to the Leadership Forum of the AIA / AAH - Academy of Architecture for Health.* Merchandise Mart Holiday Inn, Chicago, IL.
- **Mann, G.J.** (2009, July). *The Unique Program in Architecture for Health at Texas A&M University.* Executive Committee of Array Healthcare Facilities Solutions, King of Prussia, PA.
- **Mann, G. J.,** & **Okamoto, K.** (2009, November). *Megatrends in Health Facility Design.* 36th World
- Congress of the IHF- International Hospital Federation, Hotel Windsor Barra, Rio de Janeiro, Brazil.
- **Mann, G. J.,** & **Okamoto, K.** (2009, November). *Toward Sustainable Design in Health Facilities.* 29th
- Annual Meeting of the UIA / PHG - International Union of Architects - Public Health Group, University of Buenos Aires, Argentina.
- **Mann, G. J.,** & **Okamoto, K.** (2009, June). *Challenges of Designing for the Elderly in the Context of a Continuum of Care.* Design & Health, 6th World Congress & Exhibition, International Academy for Design & Health, The Ritz Carlton Millenia, Singapore.
- **Mann, G. J.,** Schneider, R., & Border, C. (2009, October). *Health For All.* Lions Club, College Station, TX.
- Marquez de Chacín, N., & **Giusti, C**. (2009, January). *Residential enclaves as boundary establishers of social and spatial segregation in Latin-American cities: The case of Maracaibo, Venezuela.* The Urban Divide in Latin America: Challenges and Strategies for Social Inclusion, Gainesville, FL.
- **Martin, J.,** & **Ndubisi, F.** (2020, May). *Milestones in Urban Revitalization: East Athens, Georgia (1994-2009)*. Council of Educators in Landscape Architecture Annual Conference, Maastricht, the Netherlands.
- **McLaughlin, T.** (2010, July). *Educator's Panel Discussion.* DreamWorks Animation 7th Annual Educators' Symposium, Glendale, CA. [Panelist]
- **McLaughlin, T.** (2010, June). *Digital Media –Preparing Kids for Their Future, Not Our Past.* STEM Education Excellence for a 21st Century Workforce: Texas Regional Collaboratives 16th Annual Meeting, Austin, TX. [Panelist]
- **McLaughlin, T.** (2010, April). *Post-Secondary Game Development Education.* Game On! Texas symposium, Austin, TX. [Panelist]
- **McLaughlin, T.** (2010, March). *Watch the Visual Arts to See the Future of Technology Development.* Corning Patent Awards Ceremony, Corning, NY. [Featured Speaker]
- **McLaughlin, T.** (2010, March). *Shaping Society Through Visual Technology*. High School Education Program at the George Bush Library and Museum, College Station, TX. [Featured Speaker]
- **Mills, G.,** & Zadeh, R. (2010). *From morphology to policy to urban design: Creating sustainable 21st century cities.* 41st Annual Conference of the Environmental Design Research Association (EDRA 41: Policy and the Environment), Washington DC.
- **Miranda, V**. (2010, February). *Architectural innovation: Facing challenges the CRS way*. School of Architecture & Planning, Anna University, Chennai, India.

- **Murphy, M.D.** (2010, March). *The designer's emerging role in a knowledge application process: Systems Management as the Context for Landscape Change.* 2010 Annual meeting of the Texas Chapter of the ASLA, San Antonio, TX.
- Mukhopadhyay, J., **Baltazar, J.C.**, **Haberl, J.S**., Liu, Z., **Culp, C.**, & Yazdani, B. (2010, August). *Energy Consumption Analysis of the Habitat for Humanity Homes at Frazier Court, Dallas, Texas.* The Seventeenth Symposium on Improving Building Systems in Hot and Humid Climates, Austin, TX.
- **Ndubisi, F**. (2010, May). *Sustainable regionalism: Promise for mitigating effects of adverse climate change*. Council of Educators in Landscape Architecture Annual Conference, Maastricht, The Netherlands.
- Norman, A., Payne, C., **Bame, S**., et al. (2010, April). *Needs for access to emergency organizations during disaster: Red Cross, Salvation Army & FEMA during Katrina-Rita, 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Oda, K., & **Zhu, X.** (2010, July). *GIS analysis of the distance and safety for school transportation.* ESRI Education User Conference, San Diego, CA.
- Payne, C., **Bame, S.**, et al. (2010, April). *Unmet housing needs during disaster and recovery: Texas 2-1-1 response to Katrina-Rita, Fall 2005.* The annual American Planning Association conference, New Orleans, LA.
- Payne, C., **Bame, S.**, et al. (2010, April). *Unmet Shelter Needs: Katrina-Rita in Texas, Fall 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- Payne, C., **Bame, S.**, et al. (2010, February). *Demand for 2-1-1 services during disasters: Texas 2-1-1 during Katrina-Rita, Fall 2005.* Conference hosted by Dept. of Homeland Security, Science & Technology Division, Los Alamos, NM.
- **Peacock, W.G.** (2010, March). *Hazard Mitigation, Social Vulnerability and the Texas Coast: Planning for Resilient Coastal Communities.* Texas VISTA annual meeting, Austin, TX.
- **Peacock, W.G.** (2010, May). *An interactive GIS Based Planning Atlas for Hazard Planning*. The National Center for Disaster Reduction, Taipei, Taiwan.
- **Peacock, W.G.** (2010, May). *Social Vulnerability and the Texas Coast: Extending the Notion of Vulnerability to Promote Resilient Coastal Communities.* 2010 Coastal Resiliency Symposium Agenda, Rice University, Houston, TX.
- **Peacock, W.G.** (2009, September). *Toward Sustainable Urban Systems: Natural Hazards, Vulnerability, and Resiliency.* National Academies' of Science, Second Sustainability Research and Development Forum, National Academies Headquarters, Washington DC.
- **Peacock, W.G.** (2009, July). *Advancing Coastal Community Resiliency.* Resiliency Workshop, Omni Interlocken Resort, Broomfield, CO.
- **Peacock, W.G.** (2009, July). *The Need for Resiliency and Vulnerability Observatory Network: RAVON*. International Research Committee on Disasters Researchers' Meeting, Omni Interlocken Resort, Broomfield, CO.
- **Peacock, W.G.** (2009, July). *Some Considerations on the Notion of Community Resilience.* Honorary lecture given at the presentation of the E.L. Quarantelli Award for Social Science Disaster Theory at the International Research Committee of Disasters Researchers' Meeting Omni Interlocken Resort, Broomfield, CO.
- **Peacock, W.G.** (2009, June). *Toward a Resiliency and Vulnerability Observatory Network: RAVON.* Presentation at the United States Geological Survey Headquarters, Reston, VA.
- **Peacock, W.G.** & Berke, P. (2010, April). *Toward a Resiliency and Vulnerability Observatory Network*. Subcommittee for Disaster Reduction (SDR), President's National Science and Technology Council, White House Conference Center, Lincoln Room.
- **Peacock, W.G.**, & **Xiao, Y.** (2009, October). *Lessons on Disaster Impact and Recovery: Housing and Business.* Texas APA Annual Meeting, Galveston, TX.
- **Regan, T.J.** (2009, October). *The Architecture + Construction Alliance: A New Organization.* CIB International Board of Directors Meeting, Brussels, Belgium.
- **Regan, T.J.** (2009, October). *U.S. Trends in Construction and Building Research.* Presentation made in collaboration with Dr. S. Shyam Sunder, Director, Building and Fire Research Laboratory, National Institute of Standards and Technology, CIB Research Managers, Gent, Belgium.
- **Regan, T.J.** (2009, April). *Architecture + Construction Alliance Initiatives.* A+CA Board of Directors at the Associated Schools of Construction Annual Meeting, Gainesville, FL.
- **Rodiek, S.** (2010, June). *Environmental Features that Increase outdoor Usage at Assisted Living Facilities.* Environmental Design Research Association annual conference, Washington, DC.
- **Rodiek, S.** (2010, June). *A New Multimedia Tool to Improve Access to Nature for Older Adults.* Environmental Design Research Association annual conference, Washington, DC.
- **Rodiek, S.** (2009, November). *Multimedia Educational Tool to Improve Outdoor Access in Long Term Care.* Annual conference of the Gerontological Society of America, Atlanta, GA.
- **Rodiek, S.** (2009, June). *Environmental Influences on Outdoor Usage in Facilities for the Elderly.* 6th World Congress on Design and Health (WCDH), Singapore.
- **Rodiek, S.** (2010, March). *Outdoor Space for Aging: Using Multimedia to Teach Environmental Design Principles.* Annual conference of the Association for Gerontology in Higher Education, San Antonio, TX.
- **Rodiek, S.**, **Lee, C.,** & Panter, A. (2010, March). *An Innovative Educational Tool Translates Research to Practice.* Annual conference of the Association for Gerontology in Higher Education, San Antonio, TX.
- **Saginor, J., Dumbaugh, E.,** & Xu, M. (2010, April). *Leveraging Land Development Returns to Finance Transportation Infrastructure Improvements.* American Real Estate Society's 2010 Annual Meeting, Naples, FL.
- **Segner, R.O.** (2010, July). *Career Opportunities in Construction Through Construction Higher Education*. Texas Industrial Vocational Association annual state convention, Houston, TX.
- Shaw, A., Bell, R., Shaw, F., **Bame, S.,** et al. (2010, April). *Unmet Transportation Needs: Hurricanes Katrina and Rita,Texas 2005.* 2-1-1 & Disaster Management Conference hosted by TAMU Hazards Center, College Station, TX.
- **Shepley, M.** (2010, September). *Pre and post-occupancy evaluation of the Arlington Free Clinic*. Healthcare Facilities Symposium & Expo, Chicago, IL.
- **Shepley, M.** (2009, October). *Eco-effective and evidence-based healthcare design: Synergy and conflict.* Health Design 09, Orlando, FL.
- **Shepley, M.** (2009, October). *A practitioner's guide to evidence-based design.* Health Design 09, Orlando, FL. [Panelist]
- **Shepley, M.** (2009, June). *ICUs and windows.* World Health Design, Singapore.
- **Shepley, M.** (2009, May). *Eco-effective and evidence-based design.* CleanMed, Chicago, IL.
- **Shepley, M.** (2009, May). *Lighting in healthcare facilities.* CleanMed, Chicago, IL.
- **Shepley, M.** (2009, April). *A collaborative research project on evidence-based and eco-effective design.* Architectural Research Centers Consortium, San Antonio, TX.
- **Tabb, P.** (2010, June). *Place Drawing as a Sacred Practice.* Architecture, Culture & Spirituality Symposium, St. John's Abbey, Collegeville, MN.
- Tai, T., & **Bame, S.** (2010, June). Organizational Differences for Magnet Status of Hospitals in the U.S. *Proceedings of the annual Academy for Health Services Research and Policy*, Boston, MA.
- Tai, T., & **Bame, S.** (2010, June). Organizational Factors Related to Quality of Patient Care: Case of Hospital Quality of Care for Heart Attack Patients in the U.S. *Proceedings of the annual Academy for Health Services Research and Policy*, Boston, MA.

- Tai, T., & **Bame, S.** (2009, November). *Cost-benefit analysis of childhood asthma management through school-based clinic programs.* American Public Health Association, Philadelphia, PA.
- Terpstra, T., & **Lindell, M.K.** (2009, December). *Citizens' perceptions of flood hazard adjustments: An application of the Protective Action Decision Model.* Society for Risk Analysis Annual Meeting, Baltimore, MD.
- **Ulrich, R.** (2010, August). *Evidence-Based Healthcare Design with Nature.* Natur, Trädgård, Hälsa och Livstil (Nature, Health, and Lifestyle) International Conference, Gothenburg, Sweden. [Keynote]
- **Ulrich, R.** (2010, August). *Methods for Researching the Effects of Healthcare Environments on Patient Outcomes.* Series of two lectures for Ph.D. students, medical researchers, and nurse researchers from Sweden, Finland, and Norway, Gothenburg, Sweden.
- **Ulrich, R.** (2010, June). *Emerging Design Trends for Three Priority Issues: Wayfinding, Falls, and Staff Injuries.* Ontario Hospital Association Annual Capital Planning Conference, Toronto, Canada. [Plenary speaker]
- **Ulrich, R.** (2010, June). *Evidence-Based Design.* Public lecture, The Royal Institute for Technology, Stockholm, Sweden.
- **Ulrich, R.** (2010, June). *Evidence-Based Design and the New Borås Hospital.* Public lecture, Borås, Sweden.
- **Ulrich, R.** (2010, May). *Evidence-Based Priorities for Designing New Hospitals.* Lund University Hospital and Malmo University Hospital, Malmo, Sweden.
- **Ulrich, R.** (2010, May). *New Developments in Evidence-Based Design.* Lecture for faculty and students, School of Architecture, Chalmers University, Gothenburg, Sweden.
- **Ulrich, R.** (2010, May). *Review of Research on Healthcare Gardens.* Chicago Botanic Garden Healthcare Garden Design Program, Chicago, IL.
- **Ulrich, R.** (2010, April). *Evidence-Based Design: Overview and Current Research.* The Children's Hospital, Denver, CO.
- **Ulrich, R.** (2010, March). *Theory and Practice of Evidence-Based Design.* Public lecture, Aalborg University, Aalborg, Denmark.
- **Ulrich, R.** (2010, March). *Research Methods in Evidence-Based Design.* Lecture and seminar for faculty and graduate students, Aalborg University, Aalborg, Denmark.
- **Ulrich, R.** (2010, March). *Why Evidence-Based Design Is Influencing Major Healthcare Projects Internationally.* Lecture for Danish architecture firms, Copenhagen, Denmark.
- **Ulrich, R.** (2010, February). Evidence-Based Art Selection for Healthcare. Lecture for hospital CEOS and other senior administrators and clinical department heads, Toronto, Canada.
- **Ulrich, R.** (2010, February). *Designing the Patient Environment to Improve Health.* Architectures, Therapeutics, Aesthetics Conference, Toronto, Canada. [Plenary speaker]
- **Ulrich, R.** (2010, February). *Effects of Healthcare Facilities on Medical Outcomes: What the Research Shows.* Hospitals for the 21st Century: Achieving Patient-Focused Outcomes through Evidence-Based Design, National Academy, Washington DC.
- **Ulrich, R.** (2010, January). *Measuring Quality Improvements Linked to Evidence-Based Hospital Design.* Series of lectures for Vancouver Island Health Authority administrators and healthcare staff, Victoria, BC, Canada.
- **Ulrich, R.** (2009, November). *Biophilic Design for Healthcare Buildings.* Healthcare Design 09 Conference, Orlando, FL.
- **Ulrich, R.** (2009, November). *Design, Art, and the Healthcare Environment: Better Outcomes.* International Congress on the Arts, Culture, and Health, Toronto, Canada. [Keynote]
- **Ulrich, R.** (2009, November). *Sick Buildings.* Public lecture, University of Toronto, Canada.
- **Ulrich, R.** (2009, October). *Creating an Outstanding Hospital with Evidence-Based Design.* Annual St. Michael's Hospital Management Day, Toronto, Canada. [Keynote]
- **Ulrich, R.** (2009, October). *Evolving Trends in Design for Infection Control. Ontario Hospital Association Annual Capital Planning Conference,* Toronto, Canada. [Plenary speaker]
- **Ulrich, R.** (2009, September). *Evidence-Based Design for Creating the Best Possible Hospitals*. Building High Quality Hospitals Symposium, Copenhagen, Denmark. [Keynote]
- **Ulrich, R.** (2009, September*). Evidence-Based Design*. Series of lectures and seminars for clinicians and administrators for the British Columbia Health Authority, Vancouver, Canada.
- **Ulrich, R.** (2009, September). *Evidence-Based Design for Improving Outcomes and Reducing Costs.* Danish Capital Region Government Authority, Hillerod, Denmark.
- **Ulrich, R.** (2009, August). *Developing a Healthcare Design and Research Program at Aalborg University.* School of Architecture, Aalborg University, Aalborg, Denmark.
- **Ulrich, R.** (2009, July). *Design to Reduce Obesity*. Public lecture, St. Michael's Hospital and the University of Toronto, Toronto, Canada.
- **Ulrich, R.** (2009, July). *Evidence-Based Design for Infection Control.* Health Care Design and Infection Prevention and Control, University of Toronto, Toronto, Canada. [Plenary speaker]
- **Ulrich, R.** (2009, July). The *Importance of Design for Healthy Hospitals and Communities.* Canadian Summer Institute for Ph.D. Students and Post-Doctoral Researchers in Health-Related Sciences, McMaster University, Hamilton, Ontario, Canada. [Keynote]
- **Ulrich, R.** (2009, June). *Evidence-Based Design for Psychiatric Hospitals. Psykiatriska Vårdbyggnader 2009* (Scandinavian conference on mental health hospital design), Stockholm, Sweden. [Keynote]
- **Ulrich, R.** (2009, June). *Mistakes to Avoid in the Program to Rebuild Danish Hospitals.* The National Program to Rebuild Danish Hospitals, Copenhagen, Denmark. [Keynote]
- **Ulrich, R.,** & Stockton, K. (2009, October). *Evidence-Based Design for Patient Safety.* Annual Conference of the International Society for Quality in Healthcare (ISQUA), Dublin, Ireland. [Keynote]
- **Vanegas, J.** (2010, September). *Managing the Creative Process for Innovation: An Interactive Workshop.* The 42nd Annual ECC Conference – Business as Unusual: Gaining Advantage in a Dynamic Project Landscape, Engineering & Construction Contracting Association (ECC), Orlando, FL.
- **Vanegas, J**. (2009, September). *Is the Capital Projects Industry Observant? Is it prepared?* Breakout Forum on "A Futurist View: What's on the Horizon?" at the 41st Annual ECC Conference – The Perfect Storm: Navigating through the Turbulence of Risk and Change, Engineering & Construction Contracting Association (ECC), Bastrop, TX.
- **Vanegas, J**. (2009, April). *A Transdisciplinary, Transinstitutional, and Transnational Approach to Urban, Civil Infrastructure Systems, and Facilities Sustainability.* 1st International Congress on Sustainability Science and Engineering (ICOSSE): Where science and engineered technologies meet the needs of society, University of Kentucky, AIChE Sustainable Engineering Forum, Cincinnati, OH. [Plenary Speaker]
- **Vanegas, J.** & **Hill, R**. (2010, July). *The Present and Perfect Storm: New Paradigms for a Sustainable Built Environment*. World Future 2010 Conference: Sustainable Futures, Strategies, and Technologies, World Future Society, Boston, MA.
- **Van Zandt, S**., **Peacock, W.G.**, Highfield, W., **Xiao, Y**. (2009). *Housing Inequalities and Social Vulnerability to Natural Disasters: Findings from 2008's Hurricane Ike.* Association of Collegiate Schools of Planning 50th Anniversary Conference, Crystal City, VA.
- **Van Zandt, S.** (2009, October). *Galveston as a Living Laboratory for the Study of Community Resilience and Recovery.* Beijing University, China.

- **Van Zandt S.**, Henry, D., & **Peacock, W.G.** (2009, October). *Housing Recovery After Hurricane Ike: Dislocation and Early Rebuilding.* Texas Chapter of the American Planning Association Annual Conference, Galveston, TX.
- **Van Zandt, S., Peacock, W.G.**, Highfield, W., & **Xiao, Y.** (2009, October). *Housing Inequalities and Social Vulnerability: Findings from 2008's Hurricane Ike.* Association of Collegiate Schools of Planning, Crystal City, VA.
- **Volkman, N.** (2010, August). *Islamic Design Influence in American Landscape Architecture.* World Horticulture Conference, Lisbon, Portugal.
- **Volkman, N.** (2010, May). *Agriculture in the City: Three Models of Urban Gardening.* Council of Educators in Landscape Architecture Conference, Maastricht, The Netherlands.
- **Volkman, N.** (2010, May). *Transition of Traditional Chinese Landscapes in Contemporary Society: Chinese and American Viewpoints.* Council of Educators in Landscape Architecture Conference, Maastricht, The Netherlands.
- **Wagner, E.L.** (2010, August). *European Origins of the Urban Grid Layout implemented by the Spanish in the New World.* Horse Shoe Bay International Group, Horse Shoe Bay, TX.
- **Wang, Z.** (2010, June). *Ecology and Aesthetics in Landscape Architecture.* Beijing University, China.
- **Wang, Z.,** & Li, Y. (2010, April). *Strategies to overcome social constraints to integrate native habitats in urban areas for biodiversity.* Annual Conference of Association of American Geographers, Washington, D.C.
- **Wang, Z**., Li, Y., & Sun, P. (2010, August). *Designing for Ecological Aesthetics.* World Aesthetic Congress, Beijing, China.
- **Warden, R.** (2010, April). *New Approaches to the Archaeology of Blue Creek and Northwestern Belize.* Society of American Archaeology, St. Louis MO.
- **Warden, R.** (2009, October). *Digital Tools in Documenting Maya Architecture*. American Institute of Architecture, Brazos Chapter, College Station Convention Center, College Station, TX.
- **Warden, R.** (2009, July). *Heritage Documentation and Maya Architecture*. Maya Research Program, Blue Creek, Belize.
- **Woodfin, T.M.** (2010, October*). An alternative atlas dataset for early modern European cartographic production*. International Cartographic Association Commission on Maps and Society 3rd International Symposium, Arlington, TX.
- **Xiao, Y.** (2010, March). *Economic Impacts of Hurricanes: Understanding Labor Market Adjustment When Facing the Unexpected.* Regional Research Institute Seminars, West Virginia University, VA.
- **Xiao, Y.** (2010, February). *Hurricanes and the Louisiana Economy.* 49th Western Regional Science Association Conference, Sedona, AZ.
- **Xiao, Y**. (2009, October). *Role of Businesses in Hazard Reduction and Recovery.* Hazard Reduction and Recovery—Social Science and Policy Making in the United States, Beijing University, Bejing, China.
- **Xiao, Y**. (2009, July). *Economic Impact of Hurricanes: A Comparative Study of Katrina/Rita and Ike.* International Research Committee on Disasters Researchers Meeting, at Broomfield, CO.
- **Xiao, Y.,** & **Van Zandt, S**. (2010, April). *Building Community Resiliency: Spatial Links between Households and Businesses in Post-Disaster Recovery.* Association of American Geographers Annual Meeting, special session on Building Regional and Local Resilience, Washington, DC.
- **Xiao, Y.**, **Van Zandt, S**., Highfield, W., **Peacock, W.G.**, & **Brody, S.** (2010, April). *Community Recovery and Resilience after Disaster: Links between Jobs and Household Recovery.* 2010 Association of American Geographers Annual Meeting at Washington, DC.
- **Xiao, Y.**, Wan, J., & Hewings, G. (2009, November). *Flooding and the Midwest Economy: Assessing the Midwest Floods of 1993 and 2008.* 56th North American Regional Science Association International Conference, at San Francisco, CA.
- Xing, Q., & **Akleman, E.** (2010, June). *Creating Abstract Paintings with Functional Interpolation.* ISAMA 2010– Art and Math Conference, Chicago, IL.
- Xing, Q. , **Akleman, E.**, Chen, J., & Gross, J. (2010, June). *Single-Cycle Plain Woven Objects.* Shape Modeling International, SMI 2010, Aix-en-Provence, France.
- **Zhu, X.** (2010, February). *Context-specific correlates of walking to school: Do they vary by neighborhoods and populations?* Active Living Research 2010 Annual Conference, San Diego, CA.
- **Zhu, X.** (2009, June). *Study Community Environment and Walking to School in Austin, TX.* City of Austin Safe Routes to School Coalition Meeting, Austin, TX.
- **Zhu, X.,** & **Lee, C.** (2009, February). *Predicting Parents' Perceived Walkability for Children's Utilitarian Walking: Differences between Walkers and Non-Walkers.* Presented at the Active Living Research 2009 Annual Conference, San Diego, CA.

- **Journal Articles**

- Aitkenhead-Peterson, J. A., **Dvorak, B.**, Volder, A., & Stanley, N. (2010, August). Chemistry of growth medium and leachate from green roof systems in south-central Texas, *Urban Ecosystems, 13*. DOI 10.1007/s11252-010-0137-4.
- Al-Nammari, F.M. & **Lindell, M.K.** (2009). Earthquake recovery of historic buildings: Exploring cost and time needs. *Disasters, 33,* 457-481.
- Alonso, E.M., Limbers, C.A., Neighbors, K., Martz, K., Bucuvalas, J.C., Webb, T., & **Varni, J.W.** (2010). Cross-sectional analysis of health-related quality of life in pediatric liver transplant recipients. *Journal of Pediatrics, 156*, 270-276.
- Amdentt, H., **Brody, S.D.**, Cash, S., & Zilberman, D. (2010). Invasive Species, Border Enforcement, and Firm Behavior. *Agricultural and Resource Economics Update, 13(3),* 1-4.
- Arlikatti, S., **Peacock, W.G., Prater, C.S.,** Grover, H., & Arul, G.S. (2010). Assessing the impact of the Indian Ocean Tsunami on households: The domestic assets approach. *Disasters: The Journal of Disaster Studies, Policy and Management, 34(3)*, 705-731.
- Askins, M.A., Sahler, O.J., Sherman, S.A., Fairclough, D.L., Butler, R.W., Katz, E.R., Dolgin, M.J., **Varni, J.W.**, et al. (2009). Report from a multi-institutional randomized clinical trial examining computer-assisted problem-solving skills training for English- and Spanish-speaking mothers of children with newly-diagnosed cancer. *Journal of Pediatric Psychology, 34*, 551-563.
- Banthia, R., Malcarne, V.L., Ko, C. M., **Varni, J.W.**, & Sadler, G.R. (2009). Fatigued breast cancer survivors: The role of sleep quality, depressed mood, stage and age. *Psychology and Health, 24*, 965-980.
- Berkes, A., Pataki, I., Kiss, M., Kemény, C., Kardos, L., **Varni, J.W.,** & Mogyorósy, G. (2010). Measuring health-related quality of life in Hungarian children with heart disease: Psychometric properties of the Hungarian version of the Pediatric Quality of Life Inventory™ 4.0 Generic Core Scales and the Cardiac Module. *Health and Quality of Life Outcomes, 8:14*, 1-12.
- Berkes, A., **Varni, J.W**., Pataki, I., Kardos, L., Kemény, C., & Mogyorósy, G. (2010). Measuring health-related quality of life in Hungarian children attending a cardiology clinic with the Pediatric Quality of Life Inventory. *European Journal of Pediatrics, 169*, 333–347.
- Beville, K., **Smith, J.C.,** & Peterson, J.R. (2009). Preferences for Specific Project Delivery Systems Utilized by Texas Public Universities. *The American Professional Constructor*, 33(2), 48-52.

- **Bilbo, D.L., Fernandez-Solis, J.,** Bohne, N., & Waseem, M. (2010). The Impacts of Undergraduate Construction Internships on Recruitment, Training, and Retention of Entry-Level Employees of the Construction Industry. *The American Professional Constructor*, *33(3),* 76- 85.
- **Bilbo, D.L., Fernandez-Solis, J.,** & Ramsey-Souder, K.M. (2010). Construction Education at Texas A&M University: A Comparative Longitudinal Study of Graduates. *The American Professional Constructor*, *33(3),* 86-99.
- **Bilbo, D.L., Lavy, S.,** Myers, D., Waseem, M. (2009). Sources of high school juniors and seniors perceptions of the construction industry. *The American Professional Constructor*, *33(2),* 3-10.
- **Bilbo, D.L.**, **Lavy, S.,** & Waseem, M. (2009). Guidance counselors' knowledge and perception of careers in the construction industry. *The American Professional Constructor, 33(2),* 11-17.
- **Brody, S.D.**, Grover, H., Vedlitz, A., & Lindquist, E. (2010). Examining Climate Change Mitigation and Adaptation Behaviors among State and Local Public Sector Organizations in the United States. *Local Environment, 15(6),* 591-603.
- **Caffey, S.** (2009). Privileging the Text, Subordinating the Image. *Reviews in American History, 37(4),* 521-528.
- **Choudhury, I.** (2009). The effect of political unrest on construction time for food grain warehouses in Bangladesh. *Construction Management and Economics*, *27(7)*, 617-618. New York: Routledge.
- **Choudhury, I.,** & Sanampudi (2009). Effect of construction cost and change orders for industrial and commercial projects in India. *International Journal for Construction Project Management*, *1(2)*, 163-174. New York, NY: Nova Science Publishers.
- Davis, S.E., Hynan, L.S., Limbers, C.A., Andersen, C.M., Greene, M.C., **Varni, J.W.,** & Iannaccone, S.T. (2010). The PedsQL™ in pediatric patients with Duchenne Muscular Dystrophy: Feasibility, reliability, and validity of the Pediatric Quality of Life Inventory™ Neuromuscular Module and Generic Core Scales. *Journal of Clinical Neuromuscular Disease, 11*, 97-109.
- Dixit, M. K., **Fernández-Solís, J. L., Lavy, S.,** & **Culp, C.H.** (2009). Protocol for the Embodied Energy Measurement in Building Materials: A Literature Review. *Energy and Buildings Journal, (42),* 1238-1247.
- Dixit, M. K., **Fernández-Solís, J. L., Lavy, S.,** & **Culp, C.H.** (2009). Identification of Parameters for Embodied Energy Measurement: A Literature Review. *Energy and Buildings Journal,*42(8), 1238-1247.
- **Dumbaugh, E.** & R. Rae. (2009). Safe Urban Form: Revisiting the Relationship between Community Design and Traffic Safety. *Journal of the American Planning Association,* 75(3), 309-329. Recipient of the 2009 Award for Best Paper.
- **Dvorak, B.** & Volder, A. (2010, June). Green roof vegetation findings for North American ecoregions: A literature review, *Landscape and Urban Planning, 96(4),* 197-213.
- Edwards, Mary M. & **Xiao, Y.** (2009). Annexation, Local Government Spending and the Complicating Role of Density. *Urban Affairs Review, 45(2),* 147-165.
- Ewing, R. & **Dumbaugh, E**. (2009). The Built Environment and Traffic Safety: A Review of Empirical Evidence. *Journal of Planning Literature, 23(4),* 347-367.
- **Fernández-Solís, J. L.** (2009). An Application of Popper's Method of Conjectures and Refutations to the Critique of Emerging Construction Theories. Lean Construction Journal, 37-60.
- **Galanter, P.** (2010). Against Reductionism: Complexity Science, Complexity Art, and Complexity Studies. *PhysicaPlus – Online Magazine of the Israel Physical Society, 2010*(13).
- **Geva, A.** (2010, June). *The 'Holy' Light of Unity Temple, Oak Park, Illinois (1906).* Architecture, Culture and Spirituality Forum Second Symposium, St. John's, Minnesota.
- **Geva, A.** (2009, October). *The Question of Origin Across Locations and Environmental Conditions: Historic Wendish Churches in Germany and Texas.* South East chapter of the Society of Architectural Historian (SESAH) Annual Conference Abstracts, Jackson, MI.
- Gladwin, H., Lazo, J.K., Morrow, B.H., **Peacock, W.G.**, & Willoughby, H.E. (2009). Social Science Research Needs for the Hurricane Forecast and Warning System. *Bulletin of the American Meteorological Society,* January, 25-29.
- **Giusti, C.** (2010). Border Communities: The Case of Colonias in Texas. *Development ISSues 12(1), 21-22*.
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- **Shohet, I.M.,** & **Lavy, S.** (2010). Hard facilities and performance management in hospitals. In M. Kagioglou & P. Tzortzopoulos (Eds.), *Improving Healthcare through Built Environment Infrastructure* (pp. 229-248). Oxford, UK: Wiley-Blackwell Publications.

## Book Reviews

- **Bame, S.** (2009). [Review of the book *Pandemic Influenza: Emergency Planning and Community Preparedness*]. *International Journal of Mass Emergencies & Disasters*, 27(2 (Aug)), 181- 185.
- **Giusti, C.** (2009). [Review of the book *Resolana: emerging Chicano dialogues on community and globalization* by Miguel Montiel, Tomás Atencio, & E.A. "Tony" Mares]. *Community Development Journal* 45 (1), 133-135.
- **Shepley, M.** (2010). [Review of the book *Developing evidence for sustainable healthcare]. Building Research & Information, 38* (3), 359-361.
- **Wang, Z.** (2009). Bridging Ecology and Urban Planning. [Review of the book *Urban Regions: Ecology and Planning beyond the City* by Richard T.T. Forman]. *Landscape and Urban Planning 92(3-4),* 348-350.

## Workshops

- **Lee, C.** (2009, June). GIS and the Built Environment. *GIS in Public Health Short Course,* Texas A&M Health Science Center, College Station, TX.
- Moudon, A., & **Lee, C.** (2010, February). Using Geographic Information Systems (GIS) for Active Living Research. Active Living Research annual conference, Robert Wood Johnson Foundation, San Diego, CA.
- **Rodiek, S.,** Barnes, M., & Smith, P. (2010, March). Access to Nature – An Affordable Way to Upgrade Quality of Life. Two-hour preconference workshop presented at *Environments for Aging annual conference*, March 21, 2010, San Diego, CA.
- **Segner, R.O.** (2010, June). Project Management. *National Electrical Contractors Association*, Napa, CA.
- **Segner, R.O.** (2010, May). Project Management. *National Electrical Contractors Association*, Billings, MT.
- **Segner, R.O.** (2010, May). Project Management. *National Electrical Contractors Association*, Long Island, NY.
- **Segner, R.O.** (2010, March). Project Management. *National Electrical Contractors Association*, Minneapolis, MN.
- **Segner, R.O. ,** & Rounds, J. (2010, March). Electrical Project Supervision Level 1. *National Electrical Contractors Association*, Dallas, TX.

- **Segner, R.O. ,** & Rounds, J. (2010, March). Electrical Project Supervision Level 1. *National Electrical Contractors Association*, Phoenix, AZ.
- **Segner, R.O.** (2010, March). Project Management. College Station, TX.
- **Segner, R.O.** (2010, February). Project Management. *National Electrical Contractors Association*, Girad, OH.
- **Segner, R.O. ,** & Rounds, J. (2010, January). Electrical Project Supervision Level 2. *National Electrical Contractors Association*, Phoenix, AZ.
- **Segner, R.O.** (2009, December). Project Management. *National Electrical Contractors Association*, Indianapolis, IN.
- **Segner, R.O.** (2009, October). Project Management. *National Electrical Contractors Association*, Washington, DC.
- **Segner, R.O.** (2009, September). Project Management. *National Electrical Contractors Association*, Long Island, NY.
- **Segner, R.O.** (2009, September). Project Management. *National Electrical Contractors Association- Washington, DC Chapter*, Washington, DC.
- **Segner, R.O.** (2009, August). Basics of Construction Estimating. *Associated General Contractors of America- Austin Chapter*, Austin, TX.
- **Tabb, P.,** Brian, D., Dunham-Jones, E. (2009, June). *Serenbe Community Workshop*, Selborne Hamlet, Serenbe, GA.
- **Vanegas, J**. (2010, May). *Advanced Project Management in the Capital Projects Industry: New Paradigms for Challenging Times, Best Practices, and Value Improvement Practices.* Departamento de Ingeniería Industrial, Programa Especial de Maestría para ECOPETROL, Universidad de los Andes, Bogotá, Colombia.

## Sundry Works

- **Benyamin, J.** (2009, October). *Bernard Tschumi in Conversation with Jasmine Benyamin*. California College of the Arts (CCA), San Francisco, CA.
- **Culp, C. H.** (2009). *Residential Duct Systems, Manual D (ANSI Standard).* Arlington, VA: Air conditioning Contractors of America.
- **Culp, C. H.,** Claridge, D.E., **Haberl, J.S.**, & Turner, W.D. (2009, June). *System and Method for Diagnostically Evaluating Energy Consumption Systems and Components of a Facility.* US Patent No. 7,552,033.
- **Deyong, S.J.** (2009, October). *Formulating a Design Philosophy: Lessons of Histories and Theories.* ACSA Southwest Regional Conference on "Architecture is a Thing of Art", Savannah College of Art and Architecture, Savannah, GA. [Panel session chair]
- **Geva, A.** (2009). Light and Darkness in Sacred Settings. *2A – Architecture and Art Magazine*, 12(Autumn), 56-59.
- Gilman, D., Marshal, K., Liu, Z., **Baltazar, J.C.**, **Haberl, J.**, **Culp, C.**, & Yazdani, B. (2009). Code Compliant Calculator IC3, Single-family residential calculator (Version 3.6.1.) [Software]. Texas A&M University: Energy Systems Laboratory. Available from http://ic3.tamu.edu
- **Giusti, C.** (2009, June). *Immigrants and the Use of the Urban Space.* The European Urban Research Association (EURA) and the Urban Affairs Association (UAA) second Joint Conference City Futures in a Globalizing World, Madrid, Spain. [Panel organizer and moderator]
- **Hamilton, D.K**., & McKahan, D., Pitts, F. (2010, February). *Mega Hospitals with Major Dreams: How the ICONS Have Fared.* [Webinar]
- **Lang, P.** (2010, August). Peter T. Lang's point of view on the Italian Pavilion Ailati [Magazine Interview]. *Ymag* on line magazine. http://www.ymag.it/schede.asp?id=9109
- **Lang, P.** (2010, August). Peter T. Lang's point of view on the Italian Pavilion Ailati [Magazine Interview]. *Ymag* on line magazine. http://www.ymag.it/schede.asp?id=9109
- **Lang, P.** (2010, July). The Architectural Anomaly of 2A+P/*A. Abitare,* 504, 96-101.
- **Lang, P.** (2010, June). *Pop Out Show Rome, 2A+P.* Gallery Hyunnart Studio, Rome, Italy. [Talkshow]
- **Lang, P.** (2010, October). *Matrix City.* Impakt Video Festival, Utrecht, The Netherlands. [Moderator and Curatorial Advisor]
- **Lang, P.** (2010, October). *The Metropolitan Dreams of Ugo La Pietra*. Matrix City Newspaper-Impakt Festival 2010 edition, 18.
- **Lang, P.**, Molinari, L., & Wasiuta, M. (2010, March-June). *Environments Counter Environments*: *Experimental Media in 'Italy: the New Domestic Landscape, MoMA 1972'*(2nd edition). Swiss Architecture Museum (S AM), Basel, Switzerland. [Curator]
- **Lavy, S.** (2010, June). Potential collaboration between TAHFM and Texas A&M University. *Texas Association of Healthcare Facilities Management Newsletter.* http://www.tahfm.org/displaycommon.cfm?an=1&subarticlenbr=199
- **Lavy, S.,** & **Fernandez-Solis, J. L.** (2010). Complex Healthcare Facility Management and Lean Construction. *Health Environments Research and Design Journal*, 3(2), 3-6.
- **Mann, G. J.** (2009, July). A Dose of Dialogue: It is Critical That We Address the Broader Health Issues Facing Our Finite Planet [Magazine Interview]. *World Health and Design*, July 2009, 19.
- **Mann, G. J.** (2010, August 25). *The Fall 2010 "Architecture for Health" Visiting Lecture Series*, radio interview with Penny Zendt, KAMU / FM.
- **Mann, G. J.,** & Briscoe, B.D. (2010, August). *National & International Architecture for Health Events* (Electronic Web Presentation). AIA / AAH - Academy of Architecture for Health Summit Leadership Meeting, Chicago, IL.
- **Mann, G. J.,** & **Okamoto, K.** (2010). "Megatrends" Driving Health Facility Design- A Look at Major Trends Driving Health Facility Design, World Hospitals. *Journal of the IHF - International Hospital Federation, 43(1),* 13 -17.
- **Mann, G. J.**, & Ufer, N. (2009). An Integrated Experience: Furniture is a Crucial Design Tool. *Medical Construction and Design, 5(3),* 22-25.
- **Mann, G. J.,** Skaggs, R.L., & Sprague, J.G. (2010 ). Focusing on Key Issues in Designing Health Facilities. *Medical Construction and Design, 6(5),* 48 – 51.
- **Mann, G. J.,** Skaggs, R.L., & Sprague**,** J.G. (2010). 2010 Summer Leadership Summit: The Healthcare Economy: New Game...New Rules. *Medical Construction and Design, 6(5)*, 12.
- **Mann, G. J.,** Skaggs, R.L., & Sprague, J.G. (2010). Toward Sustainable and Green Design of Health Care and Hospital Facilities. *Urbanism & Architecture, Harbin, China*, 70, 36 – 38.
- **Mann, G.J.** (2009, November). Today's Trends: A Quick Overview A Dialogue between Jain Mailkin, President Jain Mailkin & Associates and George J. Mann, The Skaggs Sprague Endowed Chair of Health Facilities Design, College of Architecture, Texas A&M University [Magazine Interview]. *Healthcare Design Magazine*, 9(11), 25-29.
- Marshal, K., Culp, C., **Haberl, J**. (2009, December). Assess, Improve, Measure – AIM, Home Energy Calculator (Version 1.0) [Computer Software]. Texas A&M University: Energy Systems Laboratory. Available from http://aimhome.tamu.edu
- **Rodiek, S.** (2009). *Access to Nature for Older Adults*. Educational program with three published DVDs and accompanying interactive web resources. Total running time: 93 minutes. DVD-1: *The Value of Nature for Older Adults (28 min)*; DVD-2: *Improving Outdoor Access for Older Adults (31 min);* and DVD-3: *Safe and Usable Outdoor Spaces for Older Adults (34 min)*. College Station, TX: Texas A&M University, Center for Health Systems & Design.
- **Rodiek, S.** (2010, March). *Creating Home: Access to Nature.* Developed series of three one-hour webinars for The Pioneer Network, a national non-profit organization. [Webinar]
- **Rybkowski, Z. K.** (2009). Letter to the Editor. *Health Environments Research & Design* (HERD) 2010 Winter, 3(2), 126-130.

- **Tabb, P.** (2010, April). *Sense and Sustainability.* In Theory Talk Show, TAMU Architecture, College Station, TX. http://www.vimeo.com/11426620.
- **Woodcock, D.G.** (2009) Association for Preservation Technology International's APT Bulletin: the Journal of Preservation Technology (40th Anniversary Issue). [Guest Editor]

## Exhibitions

- **Bienko, J.** (2010, July-August). VOX VI. *Vox Populi Gallery*, Philadelphia, PA.
- **Bienko, J.** (2010, July-August). The Big Show. *Lawndale Art Center*, Houston, TX.
- **Bienko, J.** (2010, April). The Wall of Sound (apologies to Phil Spector) + VOICEMAIL. *SNO Contemporary Art Projects*, Marricksville, Sydney, NSW, Australia.
- **Bienko, J.** (2010, April). Large Graphite Drawings**.** *Mary Washington University*, Fredericksburg, VA.
- **Bienko, J.** (2010, March-April). 23rd Annual McNesse Works on Paper Exhibition**.** *Abercrombie Gallery*, McNeese State University, Lake Charles, LA. [Juror's Mention Award]
- **Bienko, J.** (2010, January-February). Drawing Discourse - A National Exhibition of Contemporary Drawings. *S. Tucker Cooke Gallery,* University of North Carolina Asheville, Asheville, NC.
- **Bienko, J.** (2009, December). Screen Burns. *JCIA VIDEO,* Brooklyn, NY.
- **Bienko, J.** (2009, November-December). A-B(O)MB II: The Fallout presented by ArtoConecto. *DWNTWN Basel/Miami*, Miami, FL.
- **Bienko, J.** (2009, October). Frieze Projects Open Call. Impossible Exchange- 2009 Frieze Art Fair, London, UK.
- **Galanter, P.** (2010, June). Digital Intelligence / Analogous Interactions- International Computer Music Conference, group show. *Devotion Gallery*, Williamsburg, New York City, NY.
- **Galanter, P.** (2010, May-June). *Artware5: the International Biennial of Digital Art.* North American Peruvian Cultural Institute (ICPNA), Lima, Peru.

  **Galanter, P.** (2010, May). Scrapcycle (group show). *Devotion Gallery*, Williamsburg, New York City, NY.
- **LaFayette, C.** (2010, October). Immersive Experiences for Museums. *"Museums and the Web," Annual Conference*, Archive & Museum Informatics, Denver CO.
- **LaFayette, C., Parke, F.I., Galanter, P.,** & **McNamara, A.** (2009, August). I'm Not There: Extending the Range of Human Senses to Benefit Wildlife Corridors. *"Information Aesthetics Gallery," SIGGRAPH Special Interest Group on Graphics and Interactive Techniques*, New Orleans, LA.
- **Mann, G. J., McGraw, J.J., Okamoto, K., Okamoto, R.K**., et al. (2009 October). Health for All and United Way, A Sustainable Health Facility Serving Those in Need in the Brazos Valley. *Hilton Hotel,* College Station, TX.
- **O'Brien, M**. (2010, July-August). Above and Within the Karst. [16x20 inch watercolor]. *Selected for exhibition by the Houston Watercolor Society,* Houston, TX.
- **O'Brien, M**. (2010, June-July). Weeping Lilac. [16x20 inch watercolor]. *Selected for exhibition by the Houston Watercolor Society,* Houston, TX.
- **O'Brien, M**. (2010, May-June). Homage to Margaret McDonald Mackintosh. [16x20 inch watercolor]. *Selected for exhibition by the Houston Watercolor Society,* Houston, TX.

### Books & Monographs

- **Benyamin, J.** (2009). *Jean Tschumi: Architecture at Full Scale* by Jacques Gubler. Milan:Skira. [Translator] (Original work done in 2008)
- **Hamilton, D.K.** & **Shepley, M.** (2009). *Design for Critical Care: An Evidence-Based Approach*. New York: Architectural Press (Elsevier).
- **Hamilton, D.K.** & Watkins, D.H. (2009). *Evidence-Based Design for Multiple Building Types.* Hoboken, NJ: Wiley & Sons.

## Posters

- Bardenhagen, E., **Rogers, G.O.,** & Borrelli, M. (2009, March). *The Cape Lookout National Seashore Storm Recovery Plan.* Poster presented at the George Wright Society Biennial Conference, Portland, OR.
- **Beltrán, L.**, Diaz, O., & Wang, J. (2010, April). *Horizontal Hybrid Solar Light Pipe: an Integrated System of Daylight and Electric Light.* Poster presented at the National Sustainable Design Expo, Washington, DC.
- Davalath, M., Sanford, M., Agana, A., **McNamara, A**., & **Parke, F.I.** (2010, July). *Evaluating performance in immersive displays.* Poster presented at ACM SIGGRAPH 2010 Posters, Los Angeles, CA.
- **Glowacki, K.T.** & Dafedar, S. K. (2010, January). *Modeling Domestic Architecture at Late Minoan IIIC Vronda, Kavousi, Crete.* Poster presented at the Annual Meeting of the Archaeological Institute of America, Anaheim, CA.
- McLendon, M., **McNamara, A., McLaughlin, T.**, & Dwivedi, R. (2010, July). *Lions and tigers and bears: investigating cues for expressive creature motion.* Poster presented at ACM SIGGRAPH 2010 Posters, Los Angeles, CA. DOI http://doi.acm.org/10.1145/1836845.1836856
- McLendon, M., **McNamara, A., McLaughlin, T**., & Dwivedi, R. (2010, March). *Investigating important visual cues for representative creature motion.* Poster presented at Eye Tracking Research & Applications 2010, Austin, TX.

## Center for Housing and Urban Development

The Center for Housing and Urban Development is an integrated practice, outreach, service, education, and research center dedicated to improving the quality of life of people and the quality of the place in which they live, particularly, in rural and disadvantaged communities, such as the informal low income settlements that lack critical infrastructure along the Texas/Mexico border (also known as the colonias). Major programs in CHUD for improving the quality of life of people include: (1) Health and Human Services for individuals, families, and communities; (2) Education and Workforce Development programs, from young women and men to the elderly; (3) Economic Development programs. Major programs in CHUD for improving the quality of the place in which people live include:(1) Urban Planning and Design from rural to urban environments; (2) Critical Civil Infrastructure Systems for water, energy, transportation, sewage and stormwater, and communications; and (3) Housing and Critical Community Facilities, including affordable housing and community resource/self help centers.

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▸ Sustainable Urbanism Certificate

## Center for Health Systems & Design

The Center for Health Systems & Design operates under the auspices of the Colleges of Architecture and Medicine to promote research, teaching, and communication in an interdisciplinary program that focuses on health facility planning and design. Research interests of faculty associates range from the effects of environmental stress on patients' well-being and health to evidence-based design of hospitals, nursing homes, neighborhood clinics, healing gardens, accessible communities, and healthy cities. The Center supports an annual research colloquium, weekly lecture series, and biannual newsletter. CHSD also helps support to fund graduate student research and travel, and manages the interdisciplinary Certificate in Health Systems and Design. The Center is supported by the Health Industry Advisory Council, a group of professional organizations, founded in 2002 to support the activities of the Center for Health Systems & Design and Texas A&M students with an interest in health design and research.

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▸ Health Systems & Design Certificate

## CRS Center for Leadership and Management in the Design and Construction Industry

The CRS Center for Leadership and Management in the Design and Construction Industry was approved by the Board of Regents of the Texas A&M University System in 1990. The purpose of the CRS Center is to advance innovation and leadership in the design and construction industry. The Center is also the repository of the business archives, slide archives, publications and architectural program library of CRS, the architecture engineering and planning firm and its successor firm CRSS. The Center also manages the Rowlett Lecture Series and sponsors the following annual awards: The CRS Archive Scholar, the CRS Center PhD Scholar and the Jonathan King Student Research Awards. The center also administers the graduate certificate program in facility management. Current research interests include the impact of information technology on facility management and other issues related to leadership and management in the design and construction industry.

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▸ Facility Management Certificate

## Hazard Reduction & Recovery Center

The Hazard Reduction & Recovery Center has the distinction of having been designated a Collaborative Centre by the United Nations Office for the Coordination of Humanitarian Affairs - being one of only two such centers worldwide. The HRRC also supports other international agencies such as the International Atomic Energy Agency and the Organization of American States and is the only university-based institution in the United States to have performed statewide hurricane hazard analysis and evacuation planning. The HRRC hosts two research units: Environmental Planning & Sustainability and Sustainable Housing. HRRC faculty is currently involved in externally funded research projects totally over $4 million. Funding comes from a variety of sources, including the National Science Foundation, Department of Homeland Security, the National Oceanic and Atmospheric Association, and the National Park Service. The Center also sponsors the College of Architecture's Certificates in Environmental Hazards Management and Transportation Planning.

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- Environmental Hazards Management Certificate
- Transportation Planning Certificate

## Center for Heritage Conservation

Center for Heritage Conservation was established in 2005 to build upon a 20-year tradition of documenting historic and cultural resources to the standards of the Historic American Buildings Survey. It now acts as the focus for historic preservation teaching, research and service at Texas A&M University. Faculty Fellows represent disciplines in six colleges across the university who support graduate teaching and research. Professional Fellows are practicing professionals in architecture, landscape architecture, planning and engineering who support the academic programs by visiting lectures, internships and financial assistance. Activities include studies of WWII heritage resources in Normandy, and Medieval structures in southern France, Mayan cities in Belize, Native American dwellings, vernacular buildings, and National Historic Landmarks; analysis of historic buildings for reuse; preservation planning; interpretation for heritage tourism; preservation of cultural landscapes; and understanding the relationship between historic buildings and sustainable design and new construction. The Certificate in Historic Preservation was established in 1995 and provides graduates with an understanding of the field and specialized knowledge applicable to their discipline. An annual Historic Preservation Symposium brings international and national experts to examine aspects of preservation theory and practice.

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- Historical Preservation Certificate

## Visualization Laboratory

The Visualization Laboratory supports the research activities of the Visualization Sciences graduate program as well as other related research activities of the college. Activities of the laboratory are centered around the digital computer as a tool for visual communication. Areas of research include 3D modeling, animation, image synthesis, visual effects, visual communication, digital photography and videography, and visualization software. The laboratory houses a hetrogeneous array of visual workstations, sophisticated visual software, video production facilities, and specialized devices for data capture, interaction, and image input and output.

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## Natural, Built, Virtual

The 12th annual Texas A&M College of Architecture Research Symposium: Natural, Built, Virtual was held Monday, Oct. 18, 2010 at the Langford Architecture Center on the Texas A&M campus. The daylong research showcase featured a series of faculty presentations previously delivered at scholarly venues around the world. This year's symposium included invited or refereed presentations and papers from the 2009-10 academic year. ¶ "The individual sessions comprising the symposium displayed a wide range of scholarship with respect to people and place," said Lou Tassinary, executive associate dean for the College of Architecture. "Fundamentally, the sessions reflected themes that have emerged in the work of the faculty and research staff over the past year."

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