Architecture of Sound and Light, Sound and Stage Performance

By Selah Uddin

Recently DCA board member Dr. Saleh Uddin, a professor of Architecture at Southern Polytechnic State University and his second year studio students had fabricated and constructed a stage set at Cobb Galleria Center, in Atlanta, Georgia. The effort of the project was to link effective utilization of CNC fabrication in architectural concept of live stage performances. The primary theme of this stage set system was to have a temporary lightweight construction that would create various lighting effects with activation of stage sound and live performances. Safety of the construction using light-weight material as well as flexibility of moving in different locations within the stage platform was part of design consideration. The scheme was initially perceived through creation of 3DS Max rendering and animation to get an idea of expected lighting effects.

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Upcoming: DCA Conference @ SPSU

By Saleh Uddin and Chris Welty

For those of us who were able to attend, we have great memories of the 2009 DCA conference in Atlanta held at Southern Polytechnic State University's Department of Architecture.

We here at Southern Polytech (SPSU) are excited to announce that we'll be hosting again the 2014 DCA conference from October 01-04, 2014. Our location just about 10 miles north of downtown Atlanta will play a large part in the activities. The weather will be mild and the dogwood trees should be in full bloom.

Hartsfield-Jackson International Airport, where many of you will arrive, is the world's busiest passenger airport. A dynamic place, Atlanta is not only the base for major international design firms, but for young and cutting-edge offices as well. Our alumni, students and faculty are well-connected to them and we will integrate local professionals and their work into our plans.

The work of architects Richard Meier, Renzo Piano and Michael Graves among others abound in Atlanta at the High Museum/Woodruff Center, the King Center, the new Aquarium and many distinguished MARTA (Metropolitan Atlanta Rapid Transit) stations. Nothing stands still in Atlanta and building has been frenetic. If you haven’t been here for a while you’ll see all manner of great changes. If you’ve never been here, Atlanta is arguably the quintessential 21st century American city and not to be missed.

This will be the DCA's second conference hosted by SPSU's architecture program. We have lots in store in the way of events, paper presentations, keynote speakers, design drawing competition and workshops and will do our best to carry on the long tradition of the DCA as a thoughtful, challenging, and supportive organization.

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Taking into account a lighting plan provided by the lighting engineer, six triangulated perforated patterned columns, each 12 feet tall were designed to incorporate lights in various dimensions and intensity. LED sound activated light panels were used with the flexibility of having lights against, inside, bounced, and absorbed by these white surfaced columns. Each column had three surfaces with three different patterns to be rotated for three different patterns to be rotated for three night cultural event.

This international event 'Fobana Convention' attracted +/-3000 participants for a 3-day event (August 30 – September 01, 2013) with seminar, art exhibition, stalls, and cultural program. In addition, there were about 50+ stalls by various vendors.

Panels in the CNC Machine

3D Animation Study
Design Studio Field Trips at Montana State University; Observation Drawing

Henry Sorenson, Montana State University

Montana is a primarily rural State and situated well away from any major urban center. In partial recognition of and compensation for this fact, third-year design studios at Montana State University include a week-long field trip to Portland, Oregon or Seattle, Washington. The idea is to meet with well-established architects in the city, to expose students to excellent urban architecture and planning, and to document a specific site that will serve as the setting for the semester’s major design project.

Arch 363 Architectural Graphics is the third and final required graphics course offering at MSU. Students have spent approximately ¾ of a semester on observation drawing before taking this course and will have focused 1 full semester to this discipline at its conclusion. Arch 363 is a course co-requisite of the Arch 354 Design Studio. The following text is taken directly from the Arch 363 Architectural Graphics Syllabus:

**Studio Observation Drawing - Wednesday Studios:** Observation drawing studio sessions are intended as experientially based, holistically oriented, and primarily portfolio evaluated. These studios often will involve time for review and discussion of homework, introduction of strategies and/or techniques, and a dedicated session of drawing for the portfolio. Studio sessions will be supported by parallel homework drawing assignments that allow students to work at their drawing technique without classroom distractions. Regular practice is important to developing drawing skill; it is intended that through these outside assignments, students will maintain a certain focus and momentum toward their observational drawing goals.

**Design Studio Field Trip:** School of Architecture design studio field trips take place during this portion of the program and conflict with our scheduled meetings. It is required that students of Arch 363 Architectural Graphics make a minimum of two quality field drawings for this course while participating in the field trip experience.

And so architectural field drawing/painting is built into the itinerary of each of these weeklong field trips. At this point in their graphics curriculum, students have been introduced to monochrome and warm and cool watercolor technique.

These student images were executed as part of the September 2013 design studio field trip to Seattle.
Design Studio Field Trips at Montana State University; Observation Drawing

Reese Christenson

Quinton Gangle

Lesley Fraizer

Allison Ross

Arielle Stoness
Smaeil (Sam) Acel, Southern Polytechnic State University,
• Safety Philosophy and Architectural Design Evolution of American..

Ryadi Adityavarman, Kansas State University,
• Embodied Aesthetic Sensibility in Design Teaching.

Ed Akins, Southern Polytechnic State University,
• Covered / Uncovered: Site research within architecture studios....

Faredah Mohsen alMurahhem, Umm alQura University, Saudi Arabia
• The Artist Inside Me.

Antonieta Angulo, Ball State University,
• Xpanding the Limits of VR Simulation.

Genevieve Baudoin, Kansas State University,
• Visualizing Tectonics: the Heavy and the Light.
• Axonometric: Strategies for the Capstone Studio Setting.

Stephen Belton, Lee-Su Huang, University of Florida,
• Digital Joinery: Representational Techniques in the Absence of Space.

Parantap Bhatt, Synth lab, Mississauga, Canada,
• Jivā: Computing the living.

Mohd Bilbeisi, Oklahoma State University,
• Illuminations: an investigation in the nature of graphic communication.

Aaron Paul Brakke, Universidad Piloto de Colombia,
• The Parametric Palimpsest of the Building Skin.

Jack Breen, TU Delft, The Netherlands,
• Towards Evocative, Thematic Design Dossiers.

Matthew Brehm, University of Idaho,
• Observational Drawing: Creating a Graphic Palimpsest of the Mind.

Mauro Buffa, GA Tech,
• Building Information Modeling - Case Study.

Simon Bussiere, Harry A. Eggink, Ball State University,
• Charrette Graphics: Old and New Schools of Quick Visual thinking.

Michael Carrol, Southern Polytechnic State University,
• Drawings for Thinking/Working and Making.

Tilanka Chandrasekera, Oklahoma State U, So-Yeon Yoon, Cornell U,
• The effect of Virtual Reality and Augmented Reality in the Design.

M Chapin and J Partridge, Savannah College of Art & Design – Atlanta,
• What is Real? A Comparison of the Perception of Photos and .......

Michael Chisamore, University of Memphis,
• Representing Experience: Instantaneous and Continuous Perception.

Ji Young Cho, Moon-Heum Cho, & Nadya Kozinet, Kent State University,
• Collaboration for Visual Oriented Profession: A case study of an interior:....

Susan Sung Eun Chung, So-Yeon Yoon, Cornell University,
• Designing for Creativity: Creative Places (Perception) versus Places.....

Jeffrey Collins and Athanassios Economou, GA Tech,
• 64 Wakefield: Tips on House Design Formalized.

Fobio Colonnese, Sapienza University of Rome,
• “Unorthodox orthographies”: projective deregulation for depicting time....

Rebecca O’Neal Dagg, Auburn University,
• Foodspace: Communicating Physical Traces and Spatial Constructs.

S Daich, S Yacine, Z Noureddine, Science and Technology, Biskra, Algeria,
• Simulation and optimisation of the light shelf system in hot and arid zones

Jon Daniel Davey, Southern Illinois University,
• Tornado’s, Treehouses and the Tropics: The Embodied Cognition of....

Jim Dawkins, The Florida State University,
• Student Sketching Viewed Through the Framework of Expertise Theory:

Lohren Deeg and Rochelle Jansing, Ball State University,
• An Iterative Palimpsest: Testing algorithms as a vehicle for new complexities.

Denis Derycke, Université Libre de Bruxelles (ULB) – Belgium,
• Education in Architectural Analysis through Hybrid Graphical Means:

Danilo Di Mascio, G. d’Annunzio University, Chieti-Pescara, Italy,
• Investigating a Narrative architecture: The Mackintosh’s Glasgow School of Art.

Wei Dong, University of Wisconsin – Madison
• Sketch: Power Tool for a Rapidly Changing Paradigm of Design....

Brian Dougan, American University of Sharjah, United Arab Emirates,
• forward ever_backward never avoiding hesitance to foster confidence.

Bronne Dytoc, Southern Polytechnic State University,
• Learning Solar Geometry by Drawing and Modeling.

Houssem Eddine MNEJJA, Temy TIDAFI, Université de Montréal,
• Architectural Knowledge Management and Digital Tools

Michael Everts, Montana State University,
• Inductive Programming: Designing Activities and Space with 4D.....

Ameen Farooq, Southern Polytechnic State University,
• Case-base reasoning and Design Communication in Foundation Studios.

David Fox, University of Tennessee, Knoxville,
• Seeing to Begin.
• Time-less Time.

Margaret Fletcher, Auburn University,
• Word | Image.

Tim Frank, Mississippi State University,
• Slowing Down ‘High-Speed’ Digital Drawing Tools.

P Gomez, M Swarts, A Pramanik, P Soza, JShaw, GA Tech.
• Campus Landscape Information Model: Towards a Quantitative and......

Michael Gonzales & Meg Jackson, University of Houston,
• Pattern Literacy.

J Goulette and S Marques, École Nationale Supérieure d’Architecture (ENSA) de Toulouse, France,
• Digital Palimpsest in Parametric Design Environment: A Pedagogical Experiment.

Onur Yuce Gun, Massachusetts Institute of Technology,
• Hybrid Palimpsest: Drawing with Computation and Visual Calculation
D C A 2 0 1 4 C O N F E R E N C E P A P E R B Y A U T H O R S ’ L A S T N A M E

Dustin Headley, Kansas State University,
• Rule-Based Palimpsests.

Rebecca Heavenly, University of Colorado, Denver,
• My Body: My Temple, an Augmented Reality Design Process.

Allison Hennie, University of Memphis,
• Exploring Architectural Grammar.

Richard Hoag, David Smit, Kansas State University,
• Making Multimodal Arguments: Strategies for Matching Text and Image.

Jeannette Homer, Oklahoma State University,
• Revist as a Creative Medium?

Lisa Huang, University of Florida,
• Interrogating Spatial Perceptions.

Amy Huber, Florida State University,
• Embracing the Pictorial Turn: Time-based Explorations in Communication

Sumaya Islam, American International University-Bangladesh,
• Language of Wall in Urban Dhaka.
• Idiom of Music in Visual Art: A Proposition Base Experiment.

Eric Inglert, University of Cincinnati,
• Drawing Formal Massing Studies as *archiMedia* in AFConline

Meg Jackson, University of Houston,
• The Potential of Drawing as Performance.

Meg Jackson & Michael Gonzales, University of Houston,
• Collage as a Method of Analysis and Investigation.

Timothy P. Johnson, Penn State,
• Beyond Photo-realism: The Art and Science of Digital Rendering with Vue.

Aaron Jones, Lawrence Technological University,
• The Implications of Digital Media on Contemporary Architectural Practice.

Kathe Julin, University of Wisconsin – Stevens Point,
• Travel in Dialogue – Sketch Journals and the Internet.

Zuzanna Karczewksa, Montana State University,
• Place and Its Discovery Through Embodied Representation.

Robert Krikac, Dana Vaux, Kathleen Ryan, Washington State University,
• Perspective as a Method of Engaging Critical Thinking.

Joern Langhorst, University of Colorado Denver,
• Lost in Translation or Mediating the Medium: Axioms for New Visual...

Amanda Lee Krueger, Florida State University,
• Exploring Safe Haitian Orphanage Design: Trace Observations as Palimpsests.

Dave Lee, Clemson University,
• Computation and Composition

A Leifeste, K Pemberton, M Scara and J White, Clemson University,
• Laser Scanning the Aiken-Rhett Historic Parlors for Multi-Modal ..... 

Thomas Lesko, Wentworth Institute of Technology,
• Architectural Perception and Communication: A drawing to design sequence.
• Creativity and Idea Generation for the Design Communication Process.

Mark McGlothlin, University of Florida,
• Smudges, Erasures and the Impermanence of Line.

Wang Li, Mingxue Huang, Jin Feng, Lawrence Technological University,
• Generate Spatial Form from Visualization and Analysis.

Jiang Lu, Eastern Michigan University,
• Helping students to regain the sense of space and scale in 3D visualization.

Mi McGlynn, Kansas State U/M Stellingwerff, TU Delft, The Netherlands,
• The Sailor, his Anchor, and the Beacons: Teaching Distinct Notions of...

Pavan Miadati and Jon A Preston, Southern Polytechnic State University,
• 3D Simulation Game for Concrete Formwork.

P Miadati and M J Sathick, Southern Polytechnic State University,
• Smart Lab Using BIM and QR Code.

Román Montoto, University of Idaho,
• FaceSpace: Social Media’s Influence on Public Art & Design.

Darby Morris, University of Michigan at Ann Arbor,
• Bridging the Gap: Achieving a Better Understanding of Architectural.

Elizabeth Pober, University of Oklahoma,
• Changing Scales: Spatial Design Visualization and Experiential .....

J Partridge and M Chapin, Savannah College of Art & Design – Atlanta
• Impacts of Photo-realistic Renderings on the Design Process.

B. Piga, E. Morello, V. Signorelli, Politecnico di Milano, Italy
• The Urban Model as the Hub Towards the Sustainable University Campus.

Elisabeth van Overbeek, University of Waterloo, Canada
• Atlas*: Deconstructing the digital mapping interface.

Rashidah Ab. Rahman, Universiti Teknologi MARA (UiTM), Malaysia,
• Nature to Architecture: from literal representation to abstract derivation.

Habibur Rahman, Claflin University,
• A 3D Virtual Art Museum to Showcase Prominent and Promising Artists’.

M Rahman, C Wu, G Rosenthal, W Yan, Texas A&M University,
• A Method for Accurate Head-coupled Perspective in Real-time

Rhett Russo, New Jersey Institute of Technology,
• Drawing Objects and the Object of Drawing.

Murat Şahnin, Özyeğin University, Istanbul, Turkey
• Development of an Introductory Course in an Architecture Program.

Lisa Sauvé, University of Michigan,
• Producing Erasure.

Mark Schimmenti, University of Tennessee, Knoxville,
• The Transformation of Urban Fabric in Relation to Political Agendas.

Arief Setiawan, Southern Polytechnic State University,
• On Process Drawings: studying sketches of Mario Botta.
• On Translations: notes on the use of drawings and models in the......

Alyson Silva, University of Florida
• Urbanlinguistics: Creation of the City Codex.

R Snyder, Bentley Systems, M O’Bryan, University of Kentucky, and Hugo Mulder, IT University Copenhagen,
• Focus Events in Spatial Media.

Henry E. Sorenson, Jr., Montana State University,
• Ticked in Tecoluta—Image and Story.

Jerry L. Stivers, Oklahoma State University,
• Drawing from Experience: The Value of Study Abroad to Design.

Stephen Temple, University of Texas San Antonio,
• A Logic of Learning to Draw.

L Treyer, A Koltsova, E Tapias, Information Architecture, ETH Zurich,
• Communicating Urban Design Knowledge With Animations.

Carrie Vielle, Washington State University,
• Immersive Installation Communicates the Design Drawing.

Bradley Walters , University of Florida,
• Here be Dragons: On the Value of Incompleteness in Drawing.

Peili Wang, Savannah College of Art and Design-Atlanta,
• Freehand Visual Presentation - Ink Watercolor.

Christopher Welty, Southern Polytechnic State University,
• Archi-gaming, Techniques of Representation.

M Wójcik, J Strumillo, The Oslo School of Architecture and Design, Norway,
• BackToBack: An analogue-digital convergence for production of solid.....

S Yacine, D Safa, Z Noureddine, Dept of Architecture, Science and Technology, Biskra, Algeria,
• Development and Validation of Tools for the Design of Day lighting Indoor Space.
DCA 2014 Conference
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Workshops: Leading authors like Frank Ching, Steve Oles, Tim White and Michael Doyle have agreed to create workshops that promise stimulating learning experiences. They are open to conference participants with full registration. Students and practitioners can also participate for a nominal fee of $25 per workshop.

Juried Design Drawing Exhibition: Practitioners, educators, and students involved with design, communication, or media are encouraged to submit visual work that will stimulate formal and informal discussion and explorations of problems and potentials in the evolving dynamic context of design communication. There will be two main categories for the competition: The Design Image Category and Observational Image Category. Both categories will be evaluated in separate sections of Faculty/Staff images, Undergraduate Student Images and Graduate Student Images. The primary content of design images must be unbuilt at the time the image was created, may be any media or format, and may include animations or interactive media. Image examples include design sketches, renderings, presentations or diagrams. The primary content of observational drawings must be in existence at the time the image was created. Drawings may be in any media and format. Examples include travel sketches, measured drawings, building portraits or detail studies. Entries must be received by May 12th.

More information can be found at http://www.dcaconference2014.org/Index.html

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