George J. Schafer, Ph.D., RA LEED AP BD+C

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EDUCATION

Ph.D., Planning Design & the Built Environment
Clemson University School of Architecture, Clemson SC
August, 2015
Concentration: Technology, Materials & Construction

Dissertation Title: *The LIT Room: The Design, Implementation and Evaluation of a Multi-Media, Architectural-Robotics Embedded Installation in a Public Library for Augmenting Children's Interactive Picturebook Read-Alouds*

Description: The LIT Room installation aims to cultivate children's literacy and creativity in an environment that is digital, physical and evocative of a picturebook. This exemplar of research-through design features an interactive, interdisciplinary process involving architects, engineers, educators and librarians. During a two-year, participatory design process, children and librarians were engaged as co-designers in the creation of a technologically sophisticated, robotic environment that fosters literacy in an increasingly digital society. A summative evaluation of the full-scale, working prototype engaged librarians and two classrooms of second grade children in an experiment to determine the overall usability of the system as well as its impact on children's meaning-making when compared to read-alouds in a traditional setting. The LIT ROOM concept won funding from the National Science Foundation, and will be used by Richland Library over the next year to facilitate innovative programming and outreach opportunities for children, teens and adults in this one-of-a-kind, technology-enhanced space for literacy acquisition and creativity support.

Master of Architecture
Harvard University Graduate School of Design, Cambridge, MA
Class of 1996
Thesis: *Language of the Architect: Descriptions of Architectural Discourse*

Bachelor of Arts in Architecture
Clemson University School of Architecture, Clemson, SC
Class of 1992
Clemson Architectural Center, Charleston SC, Fall 1991
Honors: Pella Design Award for Senior Thesis Project

TEACHING

Full-time Lecturer
Clemson University School of Architecture, Clemson SC
2018 – present

ARCH 879 – User-Centered Design of Interactive Artifacts and Environments
Graduate seminar in the digital ecologies certificate track. Focuses on understanding, developing and testing interactive, robotics and technology-embedded systems for the built environment. The course exposes designers to the history of user-centered design methods in the context of interaction environments, and prepares students, through hands-on experience with the user-centered techniques and methods, for the design of complex spatial environments.

ARCH 350 – Introduction to Urban Contexts
Junior undergraduate studio. Addresses architectural problems related to urban contexts, and studies architectural resolutions that explore the interface between buildings and the public realm for particular sites. Introduces urban design fundamentals, building egress codes, and zoning, and promotes continued development of architectural, graphic and oral communication skills. Design problems vary every semester according to current issues.

ARCH 452 – Synthesis Studio
Senior undergraduate comprehensive studio. Integrates acquired skills, abilities, and interests from previous architecture studios. Projects emphasize the accumulation of architectural experiences and knowledge.

ARCH 401 – Architectural Portfolio
Senior undergraduate seminar cultivating graphic communication skills and the development a cohesive design identity. Students develop an architectural brand through a suite of portfolios (physical and digital, academic and professional, info-graphic and three-dimensional), and are guided to develop a practice of indexing, communicating and evaluating their design artifacts.

Professor-in-Residence / Co-Director
Charles E. Daniel Center for Urban Studies, Genoa, Italy
Clemson University School of Architecture, Clemson SC
Fall 2015 – Spring 2016

ARCH 353/857 / LARCH 452 – Studio Genoa
Interdisciplinary, "fluid" vertical studio comprised of architecture and landscape architecture students, undergraduate and graduate levels. ARCH 353 - Addresses architectural problems with varied scales and programs in the context of Genoa, Italy, and historic Europe. Emphasizes the relationship between architecture and context. Projects include analysis, conceptual development, and architectonic resolutions. Design problems vary every semester according to current issues. ARCH 857 - Design studio for increasingly comprehensive design projects, with varied scales and programs, with an emphasis on pre-design, site design, sustainability, and collaborative processes. Emphasizes the relationship between architecture, site and context. LARCH 452 - Off-campus landscape architecture studio in Genoa. Students participate in an interdisciplinary project linked to one of the focus areas in the department: restoration (environmental or cultural/historical), growth and change.

ARCH 416/616 / LARCH 419 – Field Studies in Architecture and Related Arts
Intensive study of place in an off-campus setting as context for design. Documentation and analysis of architectural structures observed during European travels in graphic and written form.

Lecturer (Teaching Assistantship)
Clemson University School of Architecture, Clemson SC
2011 – 2015

ARCH 351/452 – Studio Clemson / Synthesis Studio / Fluid Studio
Senior undergraduate vertical studio. ARCH 351 - Addresses architectural problems with varied scales, programs and locations. Emphasizes the relationship between architecture and context. Projects include analysis, conceptual development, and architectonic resolutions. ARCH 452 - Continued development of graphic and oral communication skills. Design problems vary every semester according to current issues. Integrates acquired skills, abilities, and interests from previous architecture studios. Projects emphasize the accumulation of architectural experiences and knowledge.

ARCH 151 – Architecture Communication
Introduction to the principles of architectural design. Collaborative foundation studio offering instruction in the specific skills of formal composition, visual communication, oral presentation, and computer literacy.

ARCH 401 – Architectural Portfolio

TEACHING (continued)	**Adjunct Lecturer** University of Colorado College of Architecture and Planning, Boulder CO 2009 – 2010 *ENVD 4510 - Studio 3* Senior undergraduate architectural studio emphasizing an iterative, exploratory design process, the development of design concepts, and critical evaluation and discourse. Exploration through precedent research, site mapping / analysis, programming and conceptual development culminating in a complex architectural proposal in an urban context. *ENVD 1004 – Introduction to Environmental Design* Interdisciplinary, foundation design studio introducing the complexity of forces that interact to shape the physical environment. A lecture sequence and parallel set of design exercises integrates environmental design theory and practice, elucidating seminal issues guiding the work of architects, landscape architects, urban designers and urban planners. **Student Instructor** Harvard University Graduate School of Design, Cambridge MA Summer 1996 *Career Discovery Design Studio* Six week intensive design studio for high school and college students interested in exposure to design education. Projects focused on analysis of urban conditions and conceptual development of short, intensive design interventions. Using portfolios consisting primarily of work from the six-week program, students from my studio were accepted into graduate programs in architecture at Harvard, MIT, UC Berkeley and RISD.
AWARDS	**Best Paper** Designing Interactive Systems Conference, Hong Kong June 2018 Awarded best paper for the DIS 2018 Conference for "Words Become Worlds: The LIT ROOM, a Literacy Support Tool at Room Scale." **Excellence in Teaching** Clemson University College of Architecture, Arts & Humanities Academic Year 2014 Student-nominated award for demonstrated excellence in teaching at the undergraduate and/or graduate level in the College of Architecture, Arts and Humanities. Recipient exhibits excellence in promotion of the subject, classroom activities and involvement and provides an environment that holds true to the college mission that includes focusing on transformative education, knowledge development and creative expression to anticipate and meet the needs of rapidly changing local, regional, national and global environment.
LECTURES / WORKSHOPS	**Career Expo Prep Courses** Clemson University School of Architecture, Clemson SC Spring 2014 - present *Portfolio 101 / Portfolio Workshops* Two separate courses, one a lecture focusing on tricks and tips for making professional resumes and portfolios, another a workshop offering one-on-one intensive review and critique of individual student portfolios in an atelier setting.

LECTURES / WORKSHOPS (continued)	**AP Peers Lunch Lecture Series** University of Colorado College of Architecture and Planning, Boulder CO Spring 2010 *Everything You Need To Know About Architecture You Can Learn From Lady Gaga* Lecture on the way that verbal and visual language function within architectural discourse.
	AP Peers Portfolio Design Series Lecture / Workshop University of Colorado College of Architecture and Planning, Boulder CO Spring 2010.
STUDENT SUPERVISION	**Senior Thesis Practitioner Advisor** University of North Carolina College of Arts + Architecture, Charlotte NC Spring 2006 *Claiming Space* – Chrissy Burton Practitioner supervision of senior thesis adaptive-reuse project for the historic Morgan School in Charlotte, NC including programming, project development and documentation.
PROFESSIONAL	**George Schafer, Architect** Columbia SC, Boulder CO, Charlotte NC 2008 - present Project Manager / Project Architect / Designer *Lamar / Weimer House*, Boulder CO *Grissom Residence,* McAdenville NC *Schafer Residence,* Shelby NC
	The Preston Partnership, LLC Charlotte NC 2006 - 2008 Project Manager / Project Architect *Post Wade Mixed Use*, Raleigh NC
	SchenkelShultz Architects Charlotte NC 2002 - 2006 Project Manager / Designer *Mecklenburg County Courthouse*, Charlotte NC *Sara Collins Elementary School,* Greenville SC *Washington Center School,* Greenville SC *Asheville Regional Airport Terminal Renovation,* Asheville NC
	Burgess Design Studio Davidson NC 2000 - 2002 Project Manager / Designer *WDAV Headquarters*, Davidson NC *Eleven Eleven Central Adaptive Reuse,* Charlotte NC

PROFESSIONAL
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Middleton McMillan / SchenkelShultz Architects
Charlotte NC
1997 - 2000
Project Manager / Designer
Phillip O. Berry Academy of Technology, Charlotte NC
Sara Collins Elementary School, Greenville SC
Western Carolina University Fine & Performing Arts Center, Cullowhee NC

REGISTRATION

Licensed Architect
North Carolina #10567
2008 – present

PUBLICATIONS

Academic Journals

Fullerton, S. K., Schafer. G. J., Hubbard, K., McClure, E. L., Salley, L. & Ross, R. **"Considering Quality and Diversity: An Analysis of Read-Aloud Recommendations and Rationales from Children's Literature Experts."** *New Review of Children's Literature and Librarianship*, in press.

Peer-Reviewed Papers & Posters

Schafer. G, Fullerton, S. K., Green, K. E., Walker, I. D. & Vijaykumar, A. **"*Words Become Worlds*: The LIT ROOM, a Literacy Support Tool and Room Scale."** *In Proceedings of DIS 2018, the ACM conference on Designing Interactive Systems*, June 9-13, Hong Kong, pp. 511-522.

Schafer. G, Green, K. E., Walker, I. D., Fullerton, S. & Lewis, E. **"An Interactive, Cyber-Physical Read-Aloud Environment: Results and Lessons from an Evaluation Activity with Children and their Teachers."** *In Proceedings of DIS 2014, the ACM conference on Designing Interactive Systems*, June 21-25, Vancouver, B.C., pp. 865-874.

Schafer. G, Green, K. E., Walker, I. D., Lewis, E., Fullerton, S., Soleimani, A., Norris, M., Fumagali, K., Zhao, J., Allport, R., Zheng, X., Gift, R. & Padmakumar, A. **"Designing the LIT KIT, an Interactive, Environmental, Cyber-Physical Artifact Enhancing Children's Picture-book Reading."** *Proceedings of IDC 2013: the 12th International Conference on Interaction Design and Children*, June 24-27, New York, pp. 281-284.

Schafer. G, Green, K. E., Walker, I. D., Lewis, E. & Fullerton, S. **"The LIT ROOM: Advancing Literacy in Children Through a Networked Suite of Architectural Robotic Artifacts."** *Proceedings of IDC 2013: the 12th International Conference on Interaction Design and Children*, June 24-27, New York, pp. 643-646.

Schafer. G, Green, K. E., Walker, I. D. & Lewis, E. **"A Networked Suite of Mixed-Technology Robotic Artifacts for Advancing Literacy in Children."** *Proceedings of IDC 2012: the 11th International Conference on Interaction Design and Children*, June 12-15, Bremen, Germany, pp. 168-171.

OCLC Annual Meeting
Baltimore, MD (October 2017)
"**The LIT Room: Reading Reinvented**"
Co-Presenter: Tony Tallent, Richland Library

American Library Association
Chicago, IL (June 2017)
"**The Necessary Library: User-Centered Design Solutions for Public Libraries**"
Co-Presenter: Tony Tallent, Richland Library

Orlando, FL (June 2016)
"**Libraries: The Space to Be**"
Co-Presenter: Tony Tallent, Richland Library

Literacy Research Association
Carlsbad, CA (December 2015)
"**Initial Findings from the Design, Implementation, and Evaluation of the LIT ROOM: A Mixed-Technology Architectural-Robotic Embedded Environment for Augmenting Interactive Picturebook Read-Alouds.**"
Co-Presenter: Dr. Susan King Fullerton

"**Do Experts' Book Selections Promote Literacy, Equity, and Imagination?: An Analysis of Read-Aloud Recommendations and Rationales From Children's Librarians and Children's Literature Professors.**"
Co-Presenters: Dr. Susan King Fullerton, Erin L. McCLure, Koti Hubbard, Rachel Huber & Leslie Salley

The European Conference on Literacy
Klagenfurt, Austria (July 2015)
"**Interactive Read-Alouds of Picturebooks within Multi-modal Environments: Implications for Interdisciplinary Design and Research.**"
Co-Presenter: Dr. Susan King Fullerton

American Reading Forum
Sanibel Island, FL (December 2014)
"**The LIT KIT: How Interactive-Read Alouds Within a Cyber-Physical, Multisensory Environment Impact Children's Responses to Picturebooks.**"
Co-Presenter: Dr. Susan King Fullerton

Literacy Research Association
Marco Island, FL (December 2014)
"**A Review of Research in the Design of Technology-Enhanced Literacy Tools and Texts: Implications for the Dialogic Construction of Literacy.**"
Co-Presenter: Dr. Susan King Fullerton

American Reading Forum
Sanibel Island, FL (December 2013)
"**Looking Back to Envision What Lies Ahead: A Comparative Review of Research in Interactive Read-Alouds and Technology-Enhanced Literacy Texts and Tools.**"
Co-Presenter: Dr. Susan King Fullerton

SERVICE

Board of Zoning Appeals, City of Columbia, SC (2018-present)

Digital Ecologies Committee (2017-present)

PR Task Force, Clemson University School of Architecture (2017-present)

Faculty and Student Advisory Committee, Clemson University School of Architecture (2016-present)

Design Teaching Stream Committee, Clemson University School of Architecture (2016-present)

Peer Reviewer, IDC (International Conference on Interaction Design and Children (2013-present)

Board Treasurer, Out Boulder, Boulder CO (2009-2010)

Member, Boulder Public Library Arts Selection Committee, Boulder CO (2009)

Board Secretary, Jacob's Ladder Job Center, Charlotte NC (2005-2008)

Mentor, Charlotte-Mecklenburg Schools Academic Internship Program,

Charlotte NC (1988-2006)

Tutor, Charlotte-Mecklenburg Schools Community Partnership Program, Charlotte NC (1998-2006)

Program Director, Seigle Avenue Partners Afterschool Program, Charlotte NC (2002-2004)

Board Member, The Lesbian & Gay Community Center of Charlotte, Charlotte NC (2000-2002)

Member, Charlotte Chamber of Commerce Educational Partnerships Committee, Charlotte NC (2001)

Committee Chair, Southpark Educational Campus Revitalization Project, Charlotte NC (2000-2001)