Accomplishments in Scholarship, Creative Activities, and Research
Compiled by Saif Haq, PhD., Associate Dean for Research
While building design is a trans-disciplinary endeavor, the kernel of architecture resides in the expression of a clever idea. Architecture is commonly understood as the ‘art’ and ‘science’ of buildings. Today, it includes applied sciences, social sciences, business, humanities, and the arts, among other disciplinary groups. Thus, research/scholarship in architecture is often collaborative and trans-disciplinary.

Architecture Research and Design Center (ARDC) facilitates and coordinates research, scholarship and design activities within the College of Architecture (CoA). It assists faculty and students in their research/scholarship/creative endeavors, serves as a liaison to other research centers and institutes, and provides architectural/research services to the public.

The ARDC is headed by the Associate Dean for Research of CoA, and has one staff member. Physical resources include a fully equipped conference room and space for four research assistants. It also offers high definition laser scanning equipment, ground penetrating radar, and GPS survey instruments, among others. ARDC showcases faculty research, scholarship, and creative activities and houses a permanent exhibition of faculty productions. A list of faculty expertise is also available.

In the academic year 2012-2013, ARDC hosted a faculty brain-storming session titled ‘Research Dialogues’. CoA faculty have one book contract signed, published 16 full papers, lectured in 32 national and international venues, and displayed their creative work in 31 exhibitions. As a group, CoA faculty members have submitted 11 grant proposals. Additionally, they have organized conferences and workshops nationally, served as peer reviewers of journal articles and books, panelists, nominators and editors. Full details of their research related activities are presented in the following pages.

Saif Haq, PhD. Associate Professor
Associate Dean for Research
College of Architecture
PUBLICATIONS

Books

Book Chapters


Journal Articles


Papers in Conference Proceedings


Abstracts Published


2. **Ajlouni, R.** ‘An Ancient Rule for Constructing Dodecagonal Quasi-Periodic Formations’, in *(ICQ12)*, the 12th International Conference on Quasicrystals, Krakow, Poland in September 1-6, 2013. *(abstract accepted)*


5. Shacklette, B., ‘Redefining Studio Culture: Enhancing Student Learning by Integrating Service Learning with Graduate Architecture Design Studio Curriculum’, in the proceedings of the Eight International Conference on Interdisciplinary Social Sciences, Charles University, 30 July - 1 August 2013, Prague, Czech Republic


8. Shacklette, B., ‘Vernacular Languages of Space and Form in the Built Environment’ in the proceedings of International Organization of Social Sciences and Behavioral Research, Spring Conference, 10-11 April 2013, Atlantic City, New Jersey

Invited Publications


PRESENTATIONS AND EXHIBITIONS

Conference/Symposia Presentations


20. Shacklette, B., (2013) ‘Redefining Studio Culture: Enhancing Student Learning by Integrating Service Learning with Graduate Architecture Design Studio Curriculum’, Eight International Conference on Interdisciplinary Social Sciences, Charles University, Prague, Czech Republic (30 July - 1 August)


24. Torres-MacDonald, M, (2012), ‘Main Street Design Recommendations for the City of Victoria’, Presented paper at the Third Annual International Conference on Architecture, A Reconsideration of History in Main Street America, Athens Institute for Education and Research


Conference Proposals


4. **Park, K.** *Electronic Touch*, 19th International Symposium on Electronic Art, Sydney, Australia, 7-16 June 2013, (accepted)

5. **Perl, R.** *Design Methods in Education*, 9th Annual Advancing Teaching and Learning Conference, Texas Tech University Teaching, Learning, and Professional Development Center, Lubbock, Texas, 15 February 2013


7. **Shacklette, B.** *Integrating Engagement Scholarship into the Advanced Architectural Design Studio, Boundary-Spanning: Engaged Scholarship across Disciplines, Communities & Geography, Engagement Scholarship Consortium, Texas Tech University, October 8-9, 2013*

8. **Shacklette, B.** *Redefining Studio Culture: Enhancing Student Learning by Integrating Service Learning with Graduate Architecture Design Studio Curriculum*, Eighth International Conference on Interdisciplinary Social Sciences, Charles University, Prague, Czech Republic, 30 July - 1 August 2013


11. **Shacklette, B.** *Vernacular Languages of Space and Form in the Built Environment*, International Organization of Social Sciences and Behavioral Research, Spring Conference Atlantic City, New Jersey April 10-11, 2013

12. **Shacklette, B.** *Enhancing Graduate Student Learning by Integrating Service-Learning into Advanced Level Architecture Design Studio Courses*, International Organization of Social Sciences and Behavioral Research Spring Conference, Atlantic City, New Jersey April 10-11, 2013

13. **Shacklette, B.** *Contrast and Collaboration through Cultural Exchange: Important Women Architects, Photographers and Artists in Early 20th Century New Mexico and the American Southwest, Women and Global Change: Achieving Peace through Empowering Women Part II, The 29th Annual All-University Conference, Texas Tech University, April 4-5, 2013*

14. **Shacklette, B.** *The habitus of Space: A Study on the Particularity of Plaza Life in the City Center of Seville*, Spain, ARCC/EAAE 2014 International Conference
Exhibitions

1. **Chinn, J**, ‘P3’, Art Show, Buddy Holly Center, January 23rd - March 11th, 2013, Lubbock, Texas
4. **Davis, J**, ‘Red Shirt White Hat and Bonus Burgers Cacti’, 38th Annual Western Federation Watercolor Societies Exhibit, Juror: Mark Mehaffey, June 2013, Dallas, Texas
9. **Davis, J** ‘Bonus Burgers’, ‘Bettye’s Bricks’, and ‘Detrius’, New Mexico Watercolor Association Fall 2013 Open Exhibit, Albuquerque, New Mexico. (Submitted)
12. Davis, J., ‘Bettye’s Steppes and Genesis Wall’, West Texas Watercolor Society Annual Fall Exhibit, Louise Hopkins Underwood Center for the Arts, Juror: Jean Hanes, October 2012, Lubbock, Texas
13. Davis, J., 21 Watercolor Paintings, Urban Tech in conjunction with First Friday Art Trail, October, Lubbock 2012, Texas
17. Jaddo, L., ‘Hope is never silent’, Lubbock LGBT community, Dallas Ilume Gallery, Dallas, Texas
18. Jaddo, L., ‘Hope is never silent’, Lubbock LGBT community, Adams Gallery, Lubbock, Texas, USA
27. Raab, P., ‘Shalom Sukkah’ AIA Austin Exhibition, Novemeber 02 – December 09, 2012,

- “Reflection Series”, Porcelain Tiles, 2013, Multi-fired, with laser cut drawings, 12 inches high, 24 inches wide, photo by Denny Mingus


Publications of Graphic work, Photography, Art etc.

FUNDED RESEARCH

Ongoing Funded Research
1. Davis, J, ‘Explorations of Architectonic Subjects as Fine Art through Watercolor Painting’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant 2012, $10,000
2. Driskill, D, ‘Urban Tech’, Downtown Lubbock redevelopment, $85,000
3. Driskill, D, ‘Homelessness Task Force’, $1,000, December
4. Flueckiger, U, ‘28 Dollars and 12 ½ Cents: A Case Study Book on TTU’s Sustainable Low Cost Cabin and its Predecessors’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant 2012, Awarded $8,580.00
5. Louden, E, ‘Remnants of West Texas Migrant Worker Housing-Recordation and Analysis of Living Conditions 1930-1965’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant 2012, Awarded $19,717.00
6. Perbellini, M, ‘A Textbook on Digital Media’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant 2012, $9976.00
8. Taylor, C, Great Salt Lake exploration Platform, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant 2012, Awarded $19,919.00.

Research Grants and Fellowship Proposals
2. **Buelinckx, H**, ‘*Lilian Rice’s Design Language for Rancho Santa Fe, San Diego*’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $3,000
4. **Gomez, J.**, (2012), ‘*Life, Culture and Arts in Colonial Mexico*’, TTU Cross-Cultural Academic Advancement Center, September 6, $1,000
6. **Louden, E.**, (2012), ‘*Trinity River Authority*’, TXU Power Plant, 3D Laser Scan Data, Class Drawings and Project Images, $13,964, November (Pending)
7. **Nesbit, J.**, ‘*Activated Urban Infrastructures: Singapore, Shanghai, and Seoul*’ TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $9,970
8. **Park, K.**, ‘*filmicMACHINE*’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $3,000
9. **Pongratz, C.**, ‘*100% Gravity*’ TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $20,000;
10. **Smith, G.**. (2013) *A Comparison of 3-D LiDAR and Photogrammetric Mapping of an Ancient Maya Structure*, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $9,850
11. **White, J.**, ‘*DOCUMENTING A LEGACY-Twenty-Five Years Documenting Historic American Buildings Survey*’, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, $2,850

**RELATED SERVICE**

*Editor / Peer Reviewer / Jury Member / Panelist / Curator / Correspondent etc.*

1. **Al Ajlouni, Rima**, *Peer Reviewer*, Designing the Dynamic, Spatial Information Architecture Laboratory (SIAL), RMIT University, November 2012, Melbourne, Australia, 1 paper
2. **Aranha, Joseph**, *Session Chair*, Culture and Myth in Socio-Spatial Practice, IASTE 2012 Conference
3. **Davis, Jimmy**, *Delegate*, Western Federation of Watercolor Societies Convention, Represented West Texas Watercolor Society, Las Vegas, Nevada, 2012
7. **Haq, S.**, *Associate Editor*, Proceedings of the EDRA 44th Annual Conference, Healthy + Healing Places, Providence, RI
8. **Haq, S.**, *Peer Reviewer* (16 abstracts and 2 full papers), EDRA 44th Annual Conference, Healthy + Healing Places, Providence, RI
9. **Haq, S.**, *Peer Reviewer* (2 full papers), 20th General Assembly and Conference of the Commonwealth Association of Architects, Dhaka, Bangladesh,
10. **Haq, S.**, *Peer Reviewer* (3 full papers), Journal of Environmental Psychology, Elsevier Publications
11. Haq, S., *Peer Reviewer*, (8 abstracts), ARCC-EAAE International Conference, Hawaii
14. Haq, S. *Reviewer*, New Investigator Award, Center for Health Design, CA
17. Neiman, B, *Panelist*, CoA Dialogues, College of Architecture, Texas Tech University, March 2013
22. Pongratz, C, *Peer Reviewer*, TTU Creative Arts, Humanities and Social Sciences (CAHSS) Grant, 2013, Texas Tech University, Lubbock, Texas
25. Pongratz, C, *Grant Reviewer*, Ministry of Education, Universities and Research, MIUR, Government of Italy, Jan 2012-
27. Shacklette, B., *Member*, 2013 Honor Awards Committee, Texas Society of Architects

**Invited Lectures**

2. Flueckiger, U.P. *Donald Judd, Architecture in Marfa*, TX, to students and faculty of the College of Architecture, University of Houston. Marfa TX. Invitation by Professor Joe Mashburn FAIA


**Symposium/Intensives Organized, Exhibitions Curated, Workshops Offered**


**PROFESSIONAL / DESIGN / GRAPHIC / PRODUCTION WORK**

1. Driskill, D., and Gomez, J., *Remote Medical Clinic*, collaboration with Arq. Flores in Guatemala City to facilitate construction, Guayables, Guatemala


7. Peters, M., *Grayson County Administration Building*, Submitted RFQ for the renovation and adaptive reuse of 3-story office building, Sherman, Texas


12. **Pongratz, C.** and **Perbellini, M.**, *Peoria Residence*, 8-apartments complex, Lubbock, TX, contract signed in April 2013, construction starts January 2014;
14. **Pongratz, C.** and **Perbellini, M.**, *Deep Surface*, new designs for façade and interior stone cladding, product design, product development, prototyping with Scuola del Marmo, Verona Italy, exhibited in Marmomacc 47th, Verona, Italy, September 2012
17. **Taylor, C.**, Tyng House upper triangular window redesign, fabrication, and installation, Philadelphia, PA, Spring and summer 2013

**Design Competition Submissions**

1. **Nesbit, J.**, *'Post-Industrial Landscapes as Urban Interventions’*, Detroit by Design 2012 Competition, AIA, December, Detroit, Michigan
HONORS / AWARDS,


2. **Flueckiger, U., ‘Honors Award’,** American Institute of Architects, in Recognition of Outstanding Architectural Design and Achievement for the Charles Adams Studio Project at the LHUCA Campus in Lubbock, Texas, 2013

3. **Jaddo, L., 2nd place award** for ‘Deer’, Lubbock Arts Festival Competition, Lubbock, Texas


5. **Raab, P., Finalist** in ‘Sukkah Austin Design Competition’, JCC/AIA, 30 September, 2012. (Cash award provided to fabricate proposed design.)

RECOGNITIONS/PUBLICITY

1. **Al Ajlouni, R.** ‘The sequence of constructing the cartwheel pattern of the first-level hierarchy of the quasi-periodic pattern on the interior walls of the courtyard of the Madrasa of al-‘Attarin (1323)’, featured on 5 covers of *Acta Crystallographica A: Foundations of Crystallography* 2012

2. **Flueckiger, U.** Architectural work featured in the cover of *Texas Architect*, 62 (6), 2012

3. **Flueckiger, U.** “Charles Adams Gallery and Residence”, “CASP studios”, and “Talkington Studios @ 5th and J” were featured in *The Happening on the South Plains* by Brantley Hightower, *Texas Architect*, 62 (6) 2012, pp. 34-51


5. **Flueckiger, U.** Interview published in *SNAP the Magazine of Sweets*, by Ingrid Spencer, pg. 29, 2012 (photographs of author also published)


11. **Pongratz C.** and **Perbellini M.**, professional work featured in Materialdesign.it (online magazine), and in MD Material Design Post-it, (ISSN 2239-6063), Unife, Ferrara, Italy, edited by Alfonso Acocella, 16 November 2012

12. **Pongratz, C.** and **Perbellini, M.**, Hyperwave Series featured in 70 websites
EQUIPMENT AVAILABLE IN THE ARDC

3D Laser Scanner(s)

Leica HDS 3000 is a high definition laser scanner for the documentation of communities, historical architecture and archaeology. Uses include the collection of 3D point cloud data for historical structures documentation such as the Statue of Liberty and high definition documentation of archaeological sites such as Mesa Verde National Park.

Leica Scan Station C10 is an upgrade to the HDS 3000. This equipment includes the functionality of an optical total station which allows users to traverse, resection or use scan targets for maximum flexibility in dealing with site logistics. It also conducts general 360° and focused areas scans faster, can be setup & moved faster, lets users locate targets, register & geo-reference faster, and lets users check scan results faster.

http://today.ttu.edu/2012/11/school-of-architecture-acquires-state-of-the-art-equipment/

Global Positioning System (GPS) Survey Equipment

Trimble survey grade GPS is for site and structure documentation. Uses include positioning data set for inclusion into Geographical Information Systems (GIS) and surveying of architectural and archaeological sites. This is usually used in conjunction with the 3D laser scanner (Leica HDS 3000) on documentation projects to give survey co-ordinates to the point cloud data gathered by the scanner.

Optical Total Station (Survey Equipment)

This Leica survey instrument is for the documentation of architecture and communities. Uses include establishing control grids for the documentation of architecture, communities and archaeology. This is typically used in conjunction with the GPS survey equipment in our historical documentation projects.

Creaform Handheld 3D Scanner

The Creaform handheld 3D Scanner is a portable, high resolution (sub-millimeter) scanner. Uses include 3D scanning of existing objects, 3D archiving, complex shape acquisition, measurements archiving, digital models and mock-ups and rapid prototyping.

FLIR Infrared Camera

The FLIR Infrared Camera captures images in the infrared spectrum allowing the user to detect the difference in temperature between an area and its surroundings. The FLIR infrared camera is an excellent, non-contact, tool for Building Diagnostics, Energy Audits, Moisture Detection, and Restoration & Remediation.

Ground Penetrating Radar

The ground penetrating radar system uses radar pulses to image the subsurface. GPR can be used in a variety of media, including rock, soil, ice, fresh water, pavements and structures. It can detect objects, changes in material, and voids and cracks. Applications include nondestructive testing (NDT) of structures and pavements, locating buried structures and utility lines, and studying soils and bedrock. In environmental remediation, GPR is used to define landfills, contaminant plumes, and other remediation sites.
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<th>FACULTY EXPERTISE</th>
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<td><strong>College of Architecture, Texas Tech University</strong></td>
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<tr>
<th>Name</th>
<th>Expertise</th>
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<tbody>
<tr>
<td>Ajlouni, Rima</td>
<td>Historic Preservation, Photogrammetry, Digital methods and Computation, Islamic Art and Architecture, Patterns and geometry</td>
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<tr>
<td>Aranha, Joseph</td>
<td>Vernacular architecture, Non-Western Architecture, Climate responsive architecture, Meaning and symbolism in architecture</td>
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<tr>
<td>Buelinckx, Hendrika</td>
<td>Formal design theory and methods, Visual spatial literacy, Shape algebra's and grammars, Women in architecture, Architectural theory</td>
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<tr>
<td>Crites, Mary</td>
<td>Practice, Codes</td>
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<tr>
<td>Davis, Jimmy</td>
<td>Architectural Rendering/delineation/illustration, Watercolor, Art, Exhibition, Photography</td>
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<tr>
<td>Driskill, David</td>
<td>Urban Design, Sustainability, Programming, Architecture for High School Students, Community Design</td>
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<td>Ellis, Clifton</td>
<td>Cultural Design, Antebellum South, Slavery, Domesticy, Renaissance &amp; Enlightenment</td>
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<td>Flueckiger, Urs Peter</td>
<td>Architectural Design, Sustainable Design, Design Build, Architectural Drawing</td>
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<td>Gomez, Javier</td>
<td>Architectural Design, New Architecture in Historical Buildings or Sites, XVI-XVIII Spanish Colonial Architecture</td>
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<td>Gonzales, Manuel</td>
<td>Drawing/Painting, Digital Media, Mixed Media, Alternative Print Making, Photo Process</td>
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<td>Gonzales, Robert</td>
<td>American History, Latin American Architecture, Border Architecture, Design, American Studies</td>
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<td>Haq, Saif</td>
<td>Spatial Cognition, Space Syntax, Architecture and Urban Theory, Non Western Architecture, Health Care Facilities Design</td>
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<td>Jaddo, Lahib</td>
<td>Art and Architecture, Beginning Design</td>
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<td>Louden, Elizabeth</td>
<td>Historic Preservation, Architectural Documentation, Large Format, 3-D Laser Scanning, Historic Building Materials, Cultural Sites and Building Assessment</td>
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<td>Martin, Michael</td>
<td>Furniture, Sustainability, Affordable Housing</td>
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<td>McReynolds, Victoria</td>
<td>Installations, Terrain vague, Memory space, Design pedagogy, Steps and stairs</td>
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<td>Neiman, Bennett</td>
<td>Design, Process, Improvisation, Imagination, Creativity</td>
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<td>Nesbit, Jeff</td>
<td>Design, Fields, Urbanism, Decay, Theory</td>
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<td>Park, Kuhn</td>
<td>Computational Design, Building Information Modeling, Information Envisioning, Digital Media Arts, Physical Computing</td>
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<tr>
<td>Perbellini, Maria</td>
<td>Design process, Design strategies for digital constructs, Parametric surface structures, Digital craft and fabrication, Material systems innovation</td>
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<td>Perl, Robert</td>
<td>Architecture, Design Methods, Sustainability, Design Thinking, Visualization</td>
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<tr>
<td>Peters, Michael</td>
<td>Urban design, Professional practice, Graphic communication, Lighting</td>
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<td>Architecture &amp; Design</td>
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<tr>
<td>Raab, Peter</td>
<td>Architectural Design + Fabrication</td>
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<td>Shacklette, Ben</td>
<td>Architectural design</td>
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<td>Smith, Gary</td>
<td>Historic Preservation</td>
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<td>Embodied fieldwork</td>
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<td>Torres, MaryAlice</td>
<td>Community Design</td>
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<td>Wade, Derrick</td>
<td>Sensory design</td>
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<td>Zugay, Brian</td>
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