

ERIN LINSEY HUNT | CV

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I. CANDIDATE INFORMATION

Education

- 2019- 2021 **Master of Design Technology Harvard Graduate School of Design, Cambridge, MA, USA**
- 2012- 2017 **Bachelor of Architecture, Cum Laude, Iowa State University College of Design, Ames, IA, USA**
- Fall 2015 **Architecture Exchange Student, IE University, Segovia, Spain**

Academic Appointments

- Fall 2021- **Assistant Professor of Architecture at Texas Tech University College of Architecture Lubbock, TX, USA**
- Fall 2020 **Teaching Assistant Harvard Graduate School of Design Cambridge, MA, USA Advanced Topics on Embodied Carbon in Buildings (SCI 6372) with Jonathan Grinham**
- Fall 2020 **Teaching Assistant Harvard Graduate School of Design Cambridge, MA, USA Material Systems: Digital Design and Fabrication (SCI 6317) with Nathan King and Zach Seibold**
- Spring 2020 **Research Assistant at the Wyss Institute Cambridge, MA, USA with Professor Jonathan Grinham**
- Fall 2019 **Teaching Assistant Harvard Graduate School of Design Cambridge, MA, USA Material Systems: Digital Design and Fabrication (SCI 6317) with Nathan King**
- 2017- 2019 **Computation + Construction Lab Associate Iowa State University Department of Architecture Ames, IA, USA**
- 2016- 2017 **Undergraduate Research Assistant at the Computation + Construction Lab Iowa State University Department of Architecture Ames, IA, USA**

Professional Experience

- Summer 2020 **Nike Digital NXT Innovation Computational Design Intern Beaverton, OR, USA**
- Summer 2019 **Fellowship with Blackbird Investments Des Moines, IA, USA**

II. SCHOLARSHIP

Conference Proceedings- Peer Reviewed Papers

- 2023** **Forthcoming: Earthen Ecologies: Investigating Circular Concrete Formwork Though Recyclable 3D Printed Formwork of Two Dissimilar Materials** Erin Hunt
Proceedings of the AIA/ACSA Intersections Research Conference Material Economies, October 19-21, 2023, Almhurst, MA
- 2023** **Forthcoming: Earthen Ecologies: Creating micro-climates as a community education tool within a semi-arid landscape** Erin Hunt, Peter Raab, and Terah Maher
Proceedings of the AIA/ACSA Intersections Research Conference Material Economies, October 19-21, 2023, Almhurst, MA
- 2023** **Abstract Accepted: Airforms** Erin Hunt and Mark Eisenmann
Accelerated Landscapes: Proceedings of the 27th Ibero-American Society of Digital Graphics SIGraDi- Paper not submitted
- 2023** **Forthcoming: Hexcrete Modular and Recyclable Paper Clay Formwork** Erin Hunt and Haley Arthur Eisenmann
Proceedings of the 41st Education and Research in Computer Aided ArchitecturCal Design in Europe eCAADe, September 20- 23, 2023, Graz, Austria
- 2023** **Introducing Robotics to Students: Through Novel Architectectual Fabrication** Erin Hunt
Proceedings of the 8th Building Technology Educators' Society BTES, June 1-4, 2023, Mayer, Arizona
- 2023** **Introducing Computational Design and Digital Fabrication to Architecture Students** Erin Hunt
Proceedings of the 38th National Conference of the Beginning Design Student NCBDS, May 18-20, 2023, Fargo, North Dakota
- 2023** **An Investigation into Recyclable Water-Soluble 3D Printed Formwork Informed by Finite Element Analysis** Erin Hunt and Jonathan Grinham
Koh, I., Reinhardt, D., Makki, M., Khakhar, M., Bao, N. (Eds.) HUMAN-CENTRIC: Proceedings of the 28th International Conference of the Association for Computer-Aided Architectural Design Research in Asia CAADRIA Volume II, March 18-24, 2023, Ahmedabad, India (pp. 251-260) https://papers.cumincad.org/cgi-bin/works/paper/caadria2023_108
- 2020** **Melting 2.0** Shelby Doyle and Erin Hunt
Yablonina, M., Marcus, A., Doyle, S., Del Campo, M., Ago, V., Slocum, B. (Eds.) Disrupted Proximities: Paper Proceedings of the 40th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA Volume II, October 24-30, 2020, Online (pp.192-197) https://papers.cumincad.org/cgi-bin/works/Show?acadia20_192p
- 2019** **Dissolvable 3D Printed Formwork: exploring additive manufacturing for reinforced concrete** Shelby Doyle and Erin Hunt
Bieg, K., Briscoe, D., and Odom, C. (Eds.) Ubiquity and Autonomy: Paper Proceedings of the 39th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA, October 24-26, 2019, Austin, Texas (pp. 178-188) <https://doi.org/10.52842/conf.acadia.2019.178>
- 2019** **Melting: Augmenting Concrete Columns with Water Soluble 3D Printed Formwork** Shelby Doyle and Erin Hunt
Bieg, K., Briscoe, D., and Odom, C. (Eds.) Ubiquity and Autonomy: Projects Catalog of the 39th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA, October 24-26, 2019, Austin, Texas (pp. 92-97)
- 2018** **WAFT** Shelby Doyle, Erin Hunt, and Kelly Devitt
Anzalone, P., Del Signore, M., and John Wit, A. (Eds.) Recalibration: On Imprecision and Infidelity: Projects Catalog of the 38th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA, October 18-20, 2018, Mexico City, Mexico (pp. 192-197)
- 2018** **Cyborg Sessions: A Case Study for Gender Equity in Technology** Shelby Doyle, Leslie Forehand, Erin Hunt, Nick Loughrey, Sarah Schneider, and Nick Senske
Fukuda, T., Huang, W., Janssen, P., Crolla, K., and Alhadidi, S. (Eds.) Learning, Prototyping and Adapting: Proceedings of the 23rd International Conference on Computer-Aided Architectural Design Research in Asia. CAADRIA, 2018. Beijing, China. (pp. 71-80) <https://doi.org/10.52842/conf.caadria.2018.1.071>

- 2017 **IM_RU** Shelby Doyle and Erin Hunt
Lamere, J., and Parreño Alonso, C. (Eds.) Disciplines and Disruption: Projects Catalog of the 37th Annual Conference of the Association for Computer Aided Design in Architecture. ACADIA, November 1-4, 2017, Cambridge, MA. (pp.128-133)

External Grants and Awards for Research

- 2022 **TTU HCoA Alumni Donation for Research Work (\$500)**
- 2021 **Harvard Graduate School of Design Peter Rice Prize (\$4800)** with Yaxuan Liu
- 2021 **Harvard Graduate School of Design Research and Development Award (\$190)**
- 2019 **Emerging Research Award: Project Category for Melting (\$6,000)** with Shelby Doyle
- 2019 **ACADIA Conference Student Travel Scholarship Award (\$300)**
- 2019 **Iowa State University Professional & Scientific Council Cytation Award**
- 2018 **Joan B. Calambokidis Innovation in Masonry Design Competition Young Architect/Engineer Category Winner (\$10,000)** with Shelby Doyle, Leslie Forehand, and Nick Senske
- 2017 **ACADIA Conference Student Travel Scholarship Award (\$180)**
- 2016 **Iowa State University Focus Grant (\$500)** with Rahul Attraya

Internal Awards for Teaching

- 2023 **Texas Tech University Alumni Association New Faculty Award**

External Invited Lectures

- 2023 **Reusable 3D Printed Formwork**
Presentation for Dsn 546 Interdisciplinary Design-Build Option Studio, Invited by Rob Whitehead and Nick Senske, Iowa State University, Ames, IA. (Virtual)
- 2022 **Autodesk Emerging Research Award Presentation** Shelby Doyle and Erin Hunt
Award Presentation at Hybrids & Haecceities: 42nd Annual Conference of the Association for Computer Aided Design in Architecture ACADIA. October 27-29, 2022, Philadelphia, PA
- 2020 **Additive Manufacturing Applications in Architecture**
Presentation for ARCH 2044: Building Materials, Invited by Dr. Nathan King, Virginia Tech, Blacksburg, VA. (Virtual)
- 2020 **Additive Manufacturing Applications**
The Designery Program- Youth Boston with Harvard Graduate School of Design Fabrication Lab (Virtual)
- 2018 **Introduction to Ceramic 3D Printing in Architecture** Shelby Doyle and Erin Hunt
AIA Iowa Conference: Movement. Invited Presentation.
https://cdn.ymaws.com/www.aiaiowa.org/resource/resmgr/convention_2018/Registration_Brochure_2018.pdf

Internal Invited Lectures

- 2023** **Modules, Scaling, And Fabrication**
Presentation for ARCH 1302: Design Studio VIII Invited by Coordinator, Professor Pratana Klieopatinon
- 2023** **Computational Design + Digital Fabrication in Architecture**
Presentation for ARCH 4602: Design Studio VIII Invited by Coordinator, Dr. Hendrika Buelinckx
- 2022** **Parametric Design and Digital Fabrication**
Presentation for ARCH 5304: Architectural Technology Integration: Survey with Dr. Hazem Rashed-Ali

Conference Workshops

- 2021** **SimAUD Workshop Welcome Machine: workflows for the at home fabricator** with Nathan King and Zach Seibold

Conference Presentations- Peer Reviewed

- 2023** **Forthcoming: Earthen Ecologies: Investigating Circular Concrete Formwork Though Recyclable 3D Printed Formwork of Two Dissimilar Materials** Erin Hunt
Proceedings of the AIA/ACSA Intersections Research Conference Material Economies, October 19-21, 2023, Almherst, MA
- 2023** **Forthcoming: Hexcrete Modular and Recyclable Paper Clay Formwork** Erin Hunt
Proceedings of the 41st Education and Research in Computer Aided Architectural Design in Europe eCAADe. September 20- 23 Sep 2023, Graz, Austria.
- 2023** **Introducing Robotics to Students: Through Novel Architectectual Fabrication** Erin Hunt
Proceedings of the 8th Building Technology Educators' Society BTES. 1-4 June 2023, Mayer, AZ.
- 2023** **Introducing Computational Design and Digital Fabrication to Architecture Students** Erin Hunt
Proceedings of the 38th National Conference of the Beginning Design Student NCBDS. 18-20, 2023, Fargo, ND.
- 2023** **An Investigation into Recyclable Water-Soluble 3D Printed Formwork Informed by Finite Element Analysis** Erin Hunt
Proceedings of the 28th International Conference of the Association for Computer-Aided Architectural Design Research in Asia CAADRIA. 18-24 Mar 2023, Virtual.
- 2019** **Dissolvable 3D Printed Formwork: exploring additive manufacturing for reinforced concrete**
Shelby Doyle and Erin Hunt
Project presentation at Ubiquity and Autonomy: 39th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA. 24-26 Oct 2019, Austin, TX.
- 2017** **IM_RU** Shelby Doyle and Erin Hunt
Project presentation at Disciplines and Disruption: 36th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA. 1-4 Nov 2017, Cambridge, MA.

Peer-Reviewed Exhibitions

- 2020** **Melting 2.0** Shelby Doyle and Erin Hunt
Distributed Proximities: 40th Annual Conference of the Association for Computer Aided Design in Architecture Virtual. October 24-30, 2020, Online
- 2019** **Melting: Augmenting Concrete Columns with Water Soluble 3D Printed Formwork** Shelby Doyle and Erin Hunt
Ubiquity and Autonomy: 39th Annual Conference of the Association for Computer Aided Design in Architecture. 24-26 Oct 2019, Austin, TX.

- 2018** **WAFT** Shelby Doyle, Erin Hunt, and Kelly Devitt
Recalibration: On Imprecision and Infidelity: Projects Catalog of the 38th Annual Conference of the Association for Computer Aided Design in Architecture ACADIA, October 18-20, 2018, Mexico City, Mexico.
- 2017** **IM_RU** Shelby Doyle and Erin Hunt
Disciplines and Disruption: Projects Catalog of the 37th Annual Conference of the Association for Computer Aided Design in Architecture. ACADIA, November 1-4, 2017, Cambridge, MA.

Currated Exhibitions

- 2023** **Huckabee College of Architecture Student Show. Architectural Research Centers Consortium ARCC 2023 Conference: The Research-Design Interface, Curator: Lior Galili. Dallas, TX.**
Student work featured in the exhibition.
- 2023** **Connection Via Computation, Community and Creativity: Texas Tech University, College of Architecture Students Exhibition in the TSA 83rd Annual Conference & Design Expo**
Student work featured in the exhibition.
- 2019** **Braille 3D Printed Vases for the 2019 National Council on Education for the Ceramic Arts Conference**
Ingrid Lilligren, Chair of Art and Visual Culture at Iowa State University commissioned me to map Braille text to a series of 3D printed porcelain cylinders. The text will relay information regarding the melting of the polar ice.
- 2018** **3D Printed Ceramic Vases for the Iowa State University President Installation** with Shelby Doyle, Erin Hunt, Ingrid Lilligren, and Kelly Devitt
80 unique 3D printed ceramic vases were designed and fabricated for the installation of ISU's president Wendy Wintersteen. These vases were then given out as gifts to those who attended her Inaugural Ball.
- 2018** **IM_RU 2.0 at the Iowa State Fair for Iowa State University's Booth**
The Computation + Construction Lab was chosen to represent Iowa State University at their booth at the Iowa State Fair. I helped design and fabricated the pavilion as well as oversaw a team of students who reconstructed the new iteration of the IM_RU pavilion.

Outreach

- 2022** **Texas Tech Anthem | From Here, It's Possible**
Featuring research work and me working with the robotic arm. <https://youtu.be/M24ZbLcK2X8>
- 2022** **Centennial | Institutional Commercial**
Featuring a student working on their studio project. The team recorded the robotics and clay 3D printing projects occurring during the Spring 2022 ARCH 5604 studio. <https://youtu.be/YSJn1DHNL1c?t=11>
- 2022** **Women's History Month 2022: Erin Hunt**
A series of videos featuring outstanding female faculty and researchers for Women's History Month by the Office of Communication and Marketing. <https://youtu.be/5xh8hJUuiCg>
- 2017 + 2018** **Investigate Your Future with Pete Evans**
A workshop to introduce eighth grade girls to digital fabrication, computation and architecture.
- 2017 + 2018** **4-H Ujima/AAPI Retreat**
A workshop introducing high school students to design. During which a tour of the CCL, its work and some of the possible applications of computation and digital fabrication are presented.
- 2017** **Cyborg Sessions- Robotics Workshop**
A six week workshop for ISU students to introduce them to basic coding using a small 'turtle' drawing robot and an Arduino Braccio Arm to paint.

III. TEACHING

Design, Computation, and Fabrication Studios/Seminars

- Fall 2023** **ARCH 4341: Media Elective**, Investigating Recyclable Paper Clay Formwork, 3 Credits, 6 Students
This course will investigate creating custom, zero-waste, reusable formwork using paper clay. The projects will build on prior research, which combines 3D printing and conventional hand-building of unfired clay to fabricate more complex clay formwork. No previous experience with clay, 3D printing, or robotics is needed. The course will introduce the history of clay 3D printing within architecture and review current research into more sustainable formworks that use computational design and digital fabrication methods. Students will be asked to create multiple formwork iterations using clay, 3D printing, and robotic fabrication. All clay, tools, and casting materials will be provided to the students.
- Summer 2023** **ARCH 3362/5302: Product Design**, Co-Taught with Neal Lucas Hitch, 3 credits, 12 students
Architecture IRL (in real life) will function as a design-build focused course and will result in the designing, planning, fabrication, and installation of a single piece of constructed architecture. Participants will gain practical knowledge working through the struggles of real budgets, complex spatial problem solving, and on-site decision-making. Ultimately the class will act as a preformative manifesto showcasing the power of design, not only as a means to generate drawings and discussions but also as a mechanism to aid in the physical production of experimental and testable solutions in real life.
- Spring 2023** **ARCH 5334: Advanced Architectural Technology II**, 3 credits, 35 students
Required seminar that provides a conceptual and historical lineage of tools, technologies, and techniques and explores a spectrum of practices in assembly, prototyping, fabrication, and manufacturing in recent development of the area.
- Spring 2022** **ARCH 5604: Architectural Design and Research III**, Advanced Architectural Representation, 6 credits, 8 students
Option studio that explores design processes with theoretical and/or technological foundation that enables contemporary architectural discourse and practice.
- Spring 2022** **ARCH 5334: Advanced Architectural Technology II**, 3 credits, 28 students
Required seminar that provides a conceptual and historical lineage of tools, technologies, and techniques and explores a spectrum of practices in assembly, prototyping, fabrication, and manufacturing in recent development of the area.
- Fall 2021** **ARCH 5304: Advanced Architectural Representation**, 3 credits, 40 students
Required seminar that explores and examines emerging methods of computation as generative tools of the design process, in which design intent is captured through algorithmic processes and parametric ideas.

Architectural Design Studios

- Fall 2023** **ARCH 4601: Design Studio VII**, 6 credits, 16 students, (Coordinated)
Provides instruction in advanced architectural design projects. Students develop integrated design skills as they negotiate the complex issues of program, site, and form in a specific cultural context. Integrates aspects of architectural theory, building technology, and computation into the design process.
- Spring 2023** **ARCH 4602: Design Studio VIII, On Social Responsibility of Architecture**, 6 credits, 16 students, (Coordinated)
Provides instruction in advanced architectural design projects. Students develop integrated design skills as they negotiate the complex issues of program, site, and form in a specific cultural context. Integrates aspects of architectural theory, building technology, and computation into the design process.
- Fall 2022** **ARCH 3601: Closer Than One Thinks**, 6 Credits, 14 Students (Coordinated)
Architectural Design Studio V builds on the foundational skills through a series of complex constraints and contexts, while emphasizing social, cultural, or civic roles of architectural design.
- Fall 2021** **ARCH 5601: MArch Year 1 Studio, Design Downtown Lubbock for its Next Chapter**, 6 credits, 15 students (Coordinator)
Required comprehensive architectural project based on a building program and site that includes understanding of structural and environmental systems, building assemblies, and principles of sustainability.

Independent Studies in Design, Computation, and Digital Fabrication

- Spring 2023** **ARCH 7000: Independent Study**, Kinetic Fabric Facade Design, 3 credits, 1 student, Co-taught with Kuhn Park
The student expanded and refined his work from the fall 2022 of a fabric, kinetic installation controlled by Arduino.
- Spring 2023** **ARCH 7000: Independent Study**, Clay 3D Printed Arid Ecosystem, 3 credits, 1 student, Co-taught with Terah Maher
The student designed and fabricated clay 3D printed blocks that house an ecosystem. The blocks will have three typologies: passive cooling through evaporation and the housing of various flora and fauna.
- Fall 2022** **ARCH 7000: Independent Study**, Kinetic Fabric Facade Design, 3 credits, 1 student, Co-taught with Kuhn Park
The student expanded and refined his final project from ARCH 5334 (Spring 2022) for a fabric, kinetic facade that control daylighting.

Service Related to Teaching- Invited Juries

- Fall 2022** **Invited Juror** Pratt, Final Review (Online)
Fall 2022 **Invited Juror** University of Detroit Mercy, Midreview (Online)

IV. RESEARCH / CREATIVE ACTIVITIES

Ongoing Research / Creative Activities

The following describes ongoing research / creative activities. The scholarship resulting from these projects can be found in CV Section II Scholarship. | [LINK](#)

Water Soluble Formwork- Polyvinyl Alcohol

As concrete is the most widely used material in the world this work aims to reduce material use and labor in the production of complex concrete forms. It also explores the structural viability of off-the-shelf rebar to replace or supplement steel reinforcement for concrete, allowing for specific placement in complex forms and the reduction of both concrete and rebar material use.

Recycling 3D Printed Polyvinyl Alcohol

This research is investigating the potentials of reusing 3D printed, water soluble Polyvinyl Alcohol (PVA). The process was proven possible in fall 2022. It will be further investigated to test its limitations and potentials in spring 2023.

Reusable Water Soluble 3D Printed Formwork- Paper Clay

This research combines 3D printing and conventional hand-building of unfired clay to leverage each strength in creating custom, reusable formwork. The fabrication method relies on the plasticity and water-solubility of clay in an unfired state to permit the production of larger, more complex clay formwork. This is achieved through the aggregation of 3D printed units with hand joinery. Since unfired clay possesses limited strength and struggles to hold its weight, shredded paper was introduced. This paper clay can be removed, rehydrated, and recycled to create additional 3D printed formwork.

3D Printed Clay Blocks to House an Arid Ecosystem

This project will explore the opportunities of clay 3D printing for fabricating a system that can support an ecosystem and cool a semi-arid environment. Initial work will focus on the design of 3 block typologies: evaporative cooling, the support of flora, and housing of fauna. The goal is to create a ten cubic foot shade structure for the 3D printed units. This research will test the viability of this system so it could inform the creation of a system that could be deployed at a larger scale.

3D Printed Clay System Housing Micro Greens + Integrating Passive Cooling

This project will explore the opportunities of clay 3D printing for housing micro greens and passively cooling a space. The viability of ceramics housing microgreens on tiles and vases was tested in fall 2022 it will be further explored in spring 2023 through the development of a window shading device using a small mock up. This will test the viability of the system being deployed at a larger scale.

Invited Peer Reviewer

2023 **Abstract Reviewer** National Conference of the Beginning Design Student (NCBDS)

2023 **Abstract Reviewer** AIA/ACSA Intersections: Material Economies

Big XII Faculty Fellowship

Fall 2022 **Shelby Doyle, Associate Professor Iowa State University**

Visited TTU HCoA for a week to further our collaborative research relating to water soluble formwork.

V. INSTITUTIONAL SERVICE

Fa 2021- Sp2023	Member Architecture Facility Committee
Fall 2021-	Member M.S. Program Committee Design, Computation, and Fabrication
Fall 2021-	Faculty Representative Graduate Comprehensive Exam (GCE)
Spring 2023	Member Search Committee- Advanced Building Technology
Fall 2023-	Member Curriculum Committee
Fall 2023-	Faculty Representative Graduate Admissions MArch
Spring 2024	Member Search Committee- Design