



JULIA ANN KRIEGH, PhD, AIA, LEED AP, Passive House Designer
Principal, Kriegh Architecture Studios | Research + Design
Affiliate Faculty, Departments of Construction Management and Architecture
University of Washington, College of Built Environments

Dr. Kriegh brings a to her teaching unique depth and breadth of both professional practice and academic experience. In addition to founding her design firm, Kriegh Architecture Studios | Research + Design, she is affiliate faculty in the College of Built Environments in the department of Construction Management. Dr. Kriegh's research has encompassed collecting and analyzing both qualitative and quantitative data on the motivations that foster proenvironmental action. Her teaching highlights novel/sustainable construction materials, methods, and concepts. As an architect, she is engaged with high-performance design and construction practices as well as community design and engagement. Her design firm is

currently designing a prefabricated Passive House metal artist welding studio, residence and painting studio complex on Bainbridge Island, WA. Dr. Kriegh received her PhD and Master of Architecture from the University of Washington and her undergraduate degree from Duke University.

EDUCATOR, Dr. Kriegh is teaching several classes on Sustainable Construction (CM335 F2022 and CM540 W2023) and Concepts in Sustainability (ARCH 498C W2023). This academic year she is also teaching two studios on Coastal Adaptations with the Shoalwater Bay Tribe (BE405/505 F2022 and ARCH Collab/Fab S2023).

In prior years, Dr. Kriegh developed a new seminar course ARCH 498C Concepts in Sustainability (W2022) and co-instructed CM313 Construction Methods and Materials (F2021). Dr. Kriegh developed and served as lead instructor for two BE studio/seminars -- Mid2Mod: Mid-century to Modern High Performance 21st Century Neighborhood (F2018) and DCD: Launching a Sustainable Data Center Design for the Future (F2020). Students of the Mid2Mod class were invited as keynote speakers at the 10th Passive House Northwest conference in Portland and at the EDRA50 conference in New York City. The DCD studio and studio book was sponsored by Microsoft and Goggle (\$50,000 gift) as well as featured in Fast Company and Metropolis magazines along with an interview podcast by Metropolis Deep Green (2022).

RESEARCH COLLABORATOR, Dr. Kriegh has been invited to join the Earthlab Initiative: Coastal Adaptations of the Shoalwater Bay Tribe (2022-2023) by leads Daniel Abramson, Lynne Manzo, and Rob Corser. She understands the potential impact that a catalyst project, such as identified by the Shoalwater, can have for a community to create an ecosystem of sustainability— economically, technically, socially/culturally — when considering an upland expansion and adaptations necessary due to climate hazards unique to coastal communities.

RESEARCHER, Dr. Kriegh has been invited to join a research team for the NSF IoT grant (pending) with research scientist Laura Osborn on the ethics of "Smart Homes," especially for vulnerable populations. In recent years she has completed two project-based research studies for Microsoft through the UW Carbon Leadership Forum (CLF), collecting data on sustainable materials, analysis of that data for feasibility, and recommendations for low-embodied carbon materials substitutions and materials for pilot proof-of-concept and manufacturing development (2020-2021). Both are posted on the UW's CLF website. This work was the genesis of the 2030 Levers for Change competition – *Building with Biomass*.

ARCHITECT, Dr. Kriegh has over 20 years of experience in building design/detailing and construction observation/ administration. In 2000 she founded Kriegh Architecture Studios | Research + Design (KAS) and has worked on all phases of building projects in a diverse range of high-performance building types and master planning projects. Most recently, her firm is researching and designing with Passive House prefabrication and prefabricated wall assembly strategies (the firm's Vineyard Lane Development is an AARP Award Winning Sustainable 45-unit, multi-family, with 5-Star Built Green prefabricated project). Her firm uses the Passive House PHPP energy modeling and Vectorworks CAD software for project delivery.

SUSTAINABILITY CONSULTANT, Dr. Kriegh is currently leading the Sustainability Team (KAS/WSP/Srubar/Magwood) for the 130,000 SF Mount Vernon Library Commons project designed by HKP Architects. This was the only building project to be selected by Governor Inslee to receive a \$4 million award as a part of his Clean Energy Bill. The project will feature EV charging



stations, lower operational energy use through renewable solar PV panels, and Passive House construction strategies, reduced embodied carbon emissions by 30 to 40% through material selections based on WBLCA modeling.

VOLUNTEER, having worked with city stakeholders on comprehensive plans and innovative building codes, Dr Kriegh navigates competing agendas to maximize public benefit. While serving as a Planning Commissioner for the City of Bainbridge Island, Dr. Kriegh served as lead for the Shoreline Master Plan program. She helped to develop the pilot for the City of Bainbridge green building ordinance, Housing Development, and Design Pilot (HDDP). Through her volunteer work with the UW CBE, she was lead author for a book chapter on this work in *Planning the Pacific Northwest*, "On the Road to Smart Green Growth." She co-led projects with the Green Futures Lab with Nancy Rottle (LARCH) and Jill Sterrett (UDP) on several other town center urban designs for the cities of Edmonds, Burlington, and Woodinville. Julie served on the UW College of the Built Environments Strategic Plan, Climate Action Task Group, from 2020-2021.

REVIEWER, Dr. Kriegh has participated in the Scan Design Studio mid-term and final reviews with Nancy Rottle, the Nehemiah Studio reviews with Donald King and two undergraduate architecture beginning design studio reviews at the CBE with Ann Marie Borys and at Cal Poly San Luis Obispo with Alicia Daniels Uhlig.

MENTOR, Dr. Kriegh serves on the thesis advisory committee for UW CBE Master of Architecture candidate, Noor Awad; counseled Ruben Slazar-Izquierdo and Monica Huang with Construction Management and UW CLF respectively; and invited UW CBE students Noor Awad (ARCH), Valerie Milbrath (CM), Hilary Pritchard (ARCH), and Casey James (LARCH) to participate in media interviews and to co-author reports and/or book chapters. Other mentoring activities include support for the students of the Mid2Mod studio as invited keynote speakers for the 10th Passive House Northwest conference in Portland, OR and at the EDRA50 conference in New York City; summer internships with Mithun for students of this studio; and NCARB advisor for architecture graduate student Jesce Waltz.

CONCERNED CITIZEN OF THE ENVIRONMENT AND CLIMATE ACTION, Dr. Kriegh received a PhD from the University of Washington in 2018, where her research focused on building user behavior and environmental psychology among residents of high-performance buildings, exploring motivations behind occupant behaviors. Her research utilized a mixed-methods approach of collecting and analyzing both quantitative and qualitative data over the course of two years. She developed a theory on environmental cues that spur sustainable behavior in general and energy use conservation in specific. Her work received the 2019 EDRA CORE award for Excellence, two AIA Up John awards for research (featured in *Architect Magazine*) and spawned two peer reviewed articles for the ACEEE.

EDUCATOR, RESEARCHER, AND ARCHITECT COMMITTED TO DIVERSITY, Dr. Kriegh is committed to incorporating diverse perspectives across a range of professional and educational settings. Clearly, work is much more innovative, interesting, and unique when it reflects many perspectives. On a deeper level, diversity opens opportunities for reciprocity. As Robin Wall Kimmerer has said, "Each person, human or no, is bound to every other in a reciprocal relationship. Just as all beings have a duty to me, I have a duty to them." I have a duty and a responsibility to understand and support opportunities for all individuals to thrive. I believe that the breadth of my career and the depth of my endeavors (described above and below) are evidence of this commitment.

Julie... "has deep knowledge of high-performance building strategies and brings enthusiasm and passion to ... the topic. High-performance buildings using Passive House principles are not effective unless built properly. Understanding the reasons why, when, and how these details are used is critical to enable construction teams to use installation methods and verification systems for long-term durability and quality construction." ~Client



EDUCATION, LICENSES and ACCREDITATIONS

- University of Washington, Seattle, PhD, Interdisciplinary Built Environments Program, Sustainability Track
- University of Washington, Seattle, Master of Architecture
- Duke University, Bachelor of Arts, Cum Laude
- Duke University, Marine Laboratory Coastal Ecology Studies
- Architect, State of Washington, 5999
- International Passive House Designer | LEED Accredited Professional

MEMBERSHIPS | SERVICE

- City of Bainbridge Island Green Building Task Force (sustainability), 2020-2021
- City of Bainbridge Island Emergency Management Response Volunteer, 2021-present
- American Institute of Architects (AIA) Seattle and National Chapters, AIA Women in Design, current
- Passive House Northwest (PHNW) Board Member and Executive Committee, 2020-present
- UW Carbon Leadership Forum, member, 2020-present
- Environmental Design and Research Association (EDRA) member, 2018-present
- City of Bainbridge Island Planning Commissioner, two-term commissioner, past
- UW College of the Built Environments Strategic Plan, Climate Action Task Group, 2020-2021
- Leadership Tomorrow, City of Seattle, class of 2000

PROFESSIONAL ARCHITECTURAL PRACTICE EXPERIENCE

- Kriegh Architecture Studios | Research + Design, Seattle/Bainbridge, WA, 2000-present
 Founder, owner, principal, architect, sustainable design consultant
 passive house + prefab, custom residential projects, multi-family development, community facilities, master
 planning, research on energy use, and sustainable low embodied carbon/carbon-storing materials
- Weinstein A|U, Seattle, WA, associate architect
 Project architect for Temple De Hirsch East Side Sanctuary, School, Social Hall; SeaTac International Airport Departure
 Lobby renovations; New Holly Hope VI Housing; Olympic Natural Resource Center; and single-family residential projects
- Miller | Hull Partnership, Seattle, WA, project manager
 Project design team/manager for Port Townsend Community Center renovation; Port Orchard, Group Health Cooperative
- NBBJ, Seattle, WA, technical design team
 - Project technical team member for Children's Hospital, San Diego, CA; Everett General Hospital MOB (now Providence); Project technical team member for: Malmstrom Air Force Base Health Clinic MOB

RECENT SELECTED SUSTAINABILITY PROJECTS FOR KRIEGH ARCHITECTURE STUDIOS | RESEARCH + DESIGN

• Sustainability Consulting:

Mount Vernon Library Commons and Parking Garage, PASSIVE HOUSE and WBLCA, Mount Vernon, WA (current)

• Residential and Community Development Projects:

OWL Studios, PASSIVE HOUSE, artists residence and design studios, Bainbridge, WA (current)

Cove Road Cottage Passive, PASSIVE HOUSE, deep green retrofit, in design, Bellingham, WA (current)



NOOTKA ROSE Gig Harbor Residence, PASSIVE HOUSE PREFABRICATION, new construction, Gig Harbor, WA
Magnolia Residence Cottage Passive, PASSIVE HOUSE technology, deep green retrofit, Seattle, WA
The CORK House on Olympus Beach, PASSIVE HOUSE strategies, remodel, Bainbridge Island, WA
Point Monroe BEACH HOUSE, Floodplain Resilience, Passive House technology, new construction, Bainbridge, WA
Sunny Hill Circle Residence, ground source heat pump and green roof technology, new construction, Bainbridge, WA
Vineyard Lane Development AARP Award Winning Sustainable 45-unit, Multi-Family, 5-Star Built Green

• Master Planning and Community Facilitation Projects:

Community Land Trust Master Planning, MEND, Wenatchee, WA

Community Land Trust Master Planning, FERNCLIFF VILLAGE, Bainbridge, WA

City of Bainbridge, Winslow Tomorrow Town Center Visioning Project and Shoreline Master Plan, Bainbridge, WA

City of Bainbridge, Housing Development and Design Pilot green building regulation, Bainbridge, WA

Short listed for Tribal Community residential design development in Moclips and Port Gamble, WA

City of Woodinville 2035 Town Center Visioning Design (Molbak's Garden + Home Center and UW Green Futures Lab)

City of Burlington Town Center Recommendations (ULI and UW Green Futures Lab)

City of Edmonds Special District Form-Based Code (Jill Sterrett and UW Green Futures Lab)

AWARDS AND RECOGNITION FOR DESIGN FOR KRIEGH ARCHITECTURE STUDIOS | RESEARCH + DESIGN

- Vineyard Lane Multi-Family Development AARP Livable Communities Design Award
- Ferncliff Community Land Trust Affordable Housing- AIA recognition: What Makes it Green
- Vineyard Lane Multi-Family Development AIA recognition: What Makes it Green

PROJECTS, AWARDS AND RECOGNITION FOR DESIGN with Seattle Firm Weinstein Copeland Architects (Weinstein A|U)

- Temple de Hirsch Sinai in *Synagogue Architecture in America, Faith Spirit & Identity* by Henry & Daniel Stolzman, Images Publishing, Australia 2004, Temple de Hirsch Sinai- Merit Award for Excellence in Masonry Design, Masonry Institute of WA
- New Holly Hope VI, Redevelopment AIA Bronze Design Award, New Holly Hope VI, Redevelopment WA Council AIA Civic Design award of Merit
- Seattle Tacoma International Airport IES Seattle Chapter Award SeaTac Lighting Master Plan
- University of Washington Olympic Natural Resource Center- Seattle AIA Award of Merit

UNIVERSITY OF WASHINGTON TEACHING | RESEARCH EXPERIENCE

- 2022-2023 Affiliate Instructor, BE Studio / Seminar Coastal Adaptations & Fab Lab (Abramson, Manzo, Corser, Kriegh)
- 2022-2023 Affiliate Instructor, CM335 Sustainable Construction (Kriegh)
- 2022-2023 Affiliate Instructor, ARCH498C Concepts in Sustainability (Kriegh)
- 2022-2023 Affiliate Instructor, CM540 Sustainable Construction (Kriegh)



- 2021-2022 Affiliate Instructor, ARCH498C Concepts in Sustainability (Kriegh)
- 2021-2022 Affiliate Instructor, CM313 Construction Methods and Materials (Aaronson, Migliaccio, & Kriegh)
- 2020-2021 Affiliate Instructor, UW Dean's Interdisciplinary Studio, BE 405/505 Launching a Sustainable Data Center into the Future: Designing a Living Building Data Center and 100% Renewable Energy Community (Kriegh, Lee, & Whittington)
- 2020-2021 UW Research Scientist- Microsoft Carbon Storing Data Centers, with Carbon Leadership Forum, Department of Architecture, Director Kate Simonen, Department of Architecture
- 2018-2019 UW Affiliate Instructor, UW Dean's Interdisciplinary Studio, BE 405/505 co-teaching Creating the 21st Century Neighborhood: Mid-century Modern to High Performance Buildings (Kriegh, Sterrett, & Simonen).
- 2015, 2018, 2019 Invited lecturer Human Experience of Place, L ARCH 361/561, Professor Lynne Manzo, lecture topic-Encouraging Pro-environmental Behavior, CBE, University of Washington.
- 2015-2016 UW Green Futures Lab co-leaders Kriegh and Rottle for the Molbak's Garden and Home Garden Center. A detailed report and analysis that delineates the background research, community process and design recommendations in Woodinville Vision 2035 | Town Center | Volumes 1, 2 and 3.
- 2015 Autumn University of Washington Department of Landscape Architecture co-instructors Kriegh, Rottle, & Heland for an interdisciplinary seminar: "Collaborative Planning and Design Seminar," Larch 498 C/598L, exploring methods in public participation for neighborhood, and urban design projects.
- 2013-2014 UW Center for Integrated Design Research project contracted by Burpee, PI, UW Green SEED Grant, and UW Office of Sustainability— Building User Audit: Capturing Behavior, Energy, and Culture.
- 2013 UW Green Futures Lab Co-leader, Kriegh & Rottle instructed graduate students working with the City of Burlington on an urban planning team producing "Burlington at the Crossroads, Recommendations Report" creating alternatives with the Urban Land Institute for the downtown area of Burlington.

RESEARCH GRANTS and AWARDS ON SUSTAINABILITY

- 2022 EARTHLAB INNOVATION GRANT- Dr. Kriegh invited to join initiative: Coastal Adaptations of the Shoalwater Bay Tribe (2022-2023), PI Daniel Abramson with Lynne Manzo and Rob Corser (\$75,000 awarded)
- 2022-21 Launch a More Sustainable Data Center, sponsored by Google and Microsoft with the UW College of Built Environments instructors Kriegh, Lee, Whittington, Awad; UPenn collaborator Aviv, and UA collaborator Ida (\$50,000 gift)
- 2021 Team Finalist- 2030 Lever for Change with the UW Carbon Leadership Forum proposal: Building with Biomass
- 2019 EDRA Certificate of Research Excellence Award. Life Building Exchange: Investigating the Intersection of Pro-Environmental Behavior, Place Meaning, and High-Performance Design
- 2015 Precourt Fellow: Offered by Stanford's Precourt Energy Efficiency Center through the generosity of the Alfred P. Sloan Foundation, Behavior, Energy, Climate Change Conference (BECC), Sacramento, CA
- 2015 University of Washington Office of Sustainability | Campus Sustainability Fund, Encouraging Pro-Environmental Behavior Visiting lecturer Dr. Linda Steg, University of Groningen Department of Environmental Psychology research lab, Groningen, The Netherlands (\$5,000 including private gifts)
- 2014 UW SEED Research Grant on Sustainable Energy- Building User Audit Procedures (\$5,000 grant)
- 2014 and 2015 The AIA Upjohn Scholars Initiative Research Grants (\$45,000 grant) Principal Investigator



BOOK CHAPTERS | BLIND PEER REVIEWED PAPERS

- LIFEBUILDINGX, Life Building Exchange: Investigating the Intersection of Pro-environmental Behavior, Place Meaning, and High-performance Design (2020).
 - o American Council for an Energy-Efficient Economy (ACEEE) Summer Study, Pacific Grove, CA, Aug. 2020
 - o 2019 EDRA Certificate of Research Excellence Award, on-line CORE publication https://www.edra.org/page/2019 core recipients/
- "On the Road to Smart Green Growth," authors Julie Kriegh, Nancy Rottle, Hillary Pritchett, and Cayce James. <u>Planning the Pacific Northwest</u>, Eds. Jill Sterrett, et al, APA Planners Press, Washington DC, 2015-2016
- Heather Burpee, Julie Kriegh, Aliresa Borhani, Carrie Sturts Dossick, Gina Neff, Building User Audit: Capturing Behavior, Energy & Culture, American Council for an Energy-Efficient Economy (ACEEE) Summer Study, Pacific Grove, CA, Aug. 2016
- Michael Gilbride, Joel Loveland, Heather Burpee, Julie Kriegh, and Chris Meek, Occupant-Behavior-Driven Energy Savings at the Bullitt Center in Seattle, WA," ACEEE Summer Study, Pacific Grove, CA, Aug. 2016

REPORTS and BOOKLETS

- Launch a More Sustainable Data Center: sponsored by Google (\$50,000) with the UW College of Built Environments (
 Kriegh, Lee, Whittington, Awad, Aviv, & Ida, 2021), https://research.be.uw.edu/2021/10/29/julie-kriegh-and-collaborators-launch-studio-booklet-based-on-their-work-with-google/
- Transformative Carbon-Storing Materials: Accelerating an Ecosystem: sponsored by Microsoft with the Carbon Leadership Forum, UW College of Built Environments (Kriegh, Magwood, Srubar, Lewis, & Simonen, 2021), https://carbonleadershipforum.org/transformative-materials/
- Carbon-Storing Materials: sponsored by Microsoft with the Carbon Leadership Forum, UW College of Built Environments (Kriegh, Magwood, Srubar, 2021), https://carbonleadershipforum.org/carbon-storing-materials/
- Mid 2 Mod: Creating the 21st Century Neighborhood: Mid-century Modern to High Performance Buildings with the UW College of Built Environments, (Kriegh, Sterrett, & Simonen, 2019).
- Woodinville Vision 2035 | Town Center | Volumes 1, 2 and 3: Green Futures Lab UW, (Rottle, Kriegh, Aug. 2016)
- Building User Audit: Capturing Behavior, Energy, and Culture: Center for Integrated Design UW (Burpee, Kriegh, Borhani, Dossick, & Neff, 2015)
- HOPE VI Redevelopment of Westpark Evaluation: Year IV. (Manzo, Kleit, Dugdal, & Kriegh, Foster, 2013)
- Burlington at the Crossroads, Final Recommendations: Green Futures Lab UW (Rottle, Kriegh, et. al, Aug. 2013)
- City of Edmonds REVISIONING Westgate: A District Plan, Form-Based Code: Green Futures Lab UW (Sterrett, Rottle, Kriegh, et. al 2012)



INTERVIEWS AND PODCASTS

- Metropolis Magazine PODCAST: The Carbon Footprint of the Metaverse.
 <a href="https://metropolismag.com/deep-green-podcast/?hss_channel=lcp-468812&utm_campaign=ME_DeepGreenPodcast&utm_content=200006730&utm_medium=social&utm_source=linkedin, March 1, 2022
- Metropolis Magazine ARTICLE: An online world that doesn't destroy the real one. https://metropolismag.com/projects/uw-data-centers-student/, February 17, 2022
- Fast Company Magazine INTERVIEW: The internet is killing the environment. These students came up with a brilliant design fix. To reduce the carbon footprint of the internet, students partner with Google and Microsoft to rethink the world's data centers. https://www.fastcompany.com/90693099/the-internet-is-killing-the-environment-these-students-came-up-with-a-brilliant-design-fix, November, 4, 2021
- Microsoft Blog: Supporting our customers on the path to Net Zero: The Microsoft cloud and decarbonization The Official Microsoft Blog, October 27, 2021
- Architecture Magazine INTERVIEW: The Behaviorist: How buildings are used is as important as why. By William Richards for AIA Voices. http://www.architectmagazine.com/search?q=Julie+Kriegh, June 19, 2015
- Architecture Magazine ARTICLE: : Flexing Forms: A focus on a user's agency in altering and shaping his or her environment defines the 2014 AIA Upjohn Research Initiative grant recipients, by Kim A. O'Connell for AIA Feature. http://www.architectmagazine.com/aia-architect/aiafeature/flexing-forms o, June 15, 2015

RECENT PRESENTATIONS | INVITED TALKS/WEBINARS

- Panel presenter- Passive House Pre-fab, Passive House Northwest, Olympia (May 2022), Conference
- Presenter- Biogenic Materials Carbon Leadership Forum, UW College of Built Environments (June 2021), Webinar
- Presenter- Carbon Storing Materials, Carbon Leadership Forum, UW College of Built Environments (May & June 2021)
- Presenter- Current Research: Passive House Prefab, Carbon-Storing Materials, Transformative Materials, and Beyond Reciprocity | A Longhouse (2021). UW College of Built Environments, All College Meeting.
- Presenter- LIFEBUILDINGX, Life Building Exchange: Investigating the Intersection of Pro-environmental Behavior, Place Meaning, and High-performance Design (2020). American Council for an Energy-Efficient Economy (ACEEE) Summer Study, Pacific Grove, CA, Aug. 2020