NATALIE WALTER, M.S. • natalieannwalter@gmail.com • nataliewalter.com

EDUCATION

MASTER OF SCIENCE IN ARCHITECTURE

Penn State University • University Park, PA

Design Computing Research Cluster

BACHELOR OF ARCHITECTURE

Penn State University • University Park, PA

Geography Minor; Cum Laude

EXPERIENCE

FORMAT LAB; PENN STATE UNIVERSITY

May 2021 - present

Research Assistant

- Cultivated biomaterial samples and assessed their morphological properties, mechanical characteristics, and acoustic performance.
- Ran computer simulations to optimize acoustic panel design for sound absorption performance.
- Validated simulation results by designing and fabricating full-scale prototypes.

GENSLER

June - August 2022

Architectural Intern

- Split time between the Flex Studio, focusing on core and shell projects, and the Work 1 Studio, focusing on workplace interiors.
- Worked primarily in the construction document phase of several corporate interior projects, using Revit to complete project decks.

PUBLICATIONS / PRESENTATIONS

JOURNAL ARTICLES

- Walter, N., Ligler, H., & Gürsoy, B. (2023). From Graphical Treatment of Combinatorics to Tiling Grammars. *Nexus Network Journal*, https://doi.org/10.1007/s00004-023-00715-2
- Walter, N. & Gürsoy, B. (2022). A Study on the Sound Absorption Properties of Mycelium-Based Composites Cultivated on Waste Paper-Based Substrates. *Biomimetics*, 7(3), 100. doi: 10.3390/biomimetics7030100

CONFERENCE PRESENTATIONS

- Walter, N. & G J and Gürsoy, B. (2023, March) Mycelium-Based Composites for Sustainable Architectural Acoustics. *Presented at the 1st International Conference and Scientific Exhibition on Living Materials Systems | Energy Autonomy – Adaptivity – Longevity – Societal Implications in Freiburg, Germany.*

AWARDED RESEARCH GRANTS

AIA UPJOHN RESEARCH INITIATIVE GRANT

October 2022, October 2021

- Co-Principal Investigator of the 2022 AIA UpJohn Research Initiative project, titled “Fungal Biomaterials for Sustainable Architectural Acoustics”, and Collaborator on the 2021 AIA UpJohn Research Initiative project, titled “From Waste to Biodegradable Structures with Local Fungi Species”.

ERICKSON DISCOVERY GRANT

April 2021

- Undergraduate researcher of the 2021 Erickson Discovery Grant project, titled “The Architecture of Decay”.