

Undergraduate Research Symposium May 18, 2018 Mary Gates Hall

Online Proceedings

POSTER SESSION 2

Commons East, Easel 69

1:00 PM to 2:30 PM

Pacific Ave Park Master Plan

Kiana A. Ballo, Senior, Community, Environment, & Planning

Mentor: Caitlin Dean, Urban Design and Planning

This project aims to create a comprehensive park master plan for the transformation of the City of Westport, WA's Pacific Ave property into a functional public park by utilizing principles of ecological restoration and community-based restoration. The City of Westport recently finalized its Comprehensive Park and Recreation Plan. Within the plan, the Pacific Ave property is zoned as a park, but is not currently used as a public park and has no intention of redevelopment by the city in the near future. The underutilized site has served many important uses throughout its history, and is located on the shore of the Elk River with a beautiful panoramic view of the bay and the mountains. The master plan is focused on research regarding site restoration with an assessment of the needs of both the community and the City of Westport. The information gathered through research and community engagement meetings will be synthesized into a master park plan for the Pacific Ave Property that will be presented to the Westport City Council in order to persuade them to pursue funding for the project. This parcel holds historic and aesthetic value, and with restoration, it can be turned into a unique and valuable asset for both the city and the community.

POSTER SESSION 2

Commons East, Easel 67

1:00 PM to 2:30 PM

UW Seattle Campus Assessment for Solar PV Capacity

Yuxuan Chen, Senior, Electrical Engineering

Teresa Wang, Senior, Environmental Science & Resource Management

UW Honors Program

Alexander Michael (Alex) Ratcliff, Senior, Environmental Engineering

UW Honors Program

Christoph Von Strouse, Junior, Community, Environment, & Planning

Kenneth W. Wilhelm, Senior, Electrical Engineering

Mentor: Jan Whittington, Urban Design and Planning

Mentor: Stefanie Young, Urban Design and Planning

Mentor: Hyun Woo Lee, Construction Management

UW Solar is an interdisciplinary student-led organization committed to developing solar infrastructure projects at the University of Washington. Solar arrays on campus not only produce clean renewable energy, but also help the UW meet its carbon neutrality goals of its Climate Action Plan while providing a sustainable return on investment. UW Solar is working with UW Sustainability to maximize solar capacity on campus in support of the first UW Sustainability Plan to achieve the goals of the UW Climate Action Plan. Therefore, UW Solar is proposing a multi-phase plan for solar development at UW Seattle which aims to maximize solar capacity while providing a positive return on investment for Capital projects. UW Solar assessed all buildings on campus, and has identified the top 30 projects to be developed over the next 30 years to meet the UW's 2050 Carbon Neutrality Goals. UW Solar's scope of work for the Campus Plan includes the evaluation of all buildings on campus for potential solar installations and ranking them based on a suite of criteria that takes into consideration the following: energy generated, financial value of energy generated, cost of installation, return on investment, identifying funding options, working with campus stakeholders to develop the solar plan and timeline, assisting with schematic design, selection of contractor, oversight of installations, monitoring of energy generated for research and education. The total solar capacity for the Seattle campus could reach 8,000,000 kWh/year, with an annual energy value savings of \$600,000. UW Solar will continue evaluating buildings on campus and working with all stakeholders to decide the priority of solar installations over the next 30 years.

POSTER SESSION 2

Commons East, Easel 65

1:00 PM to 2:30 PM

Forming Identity through Memory, History, and Place

Maisha Barnett, Senior, Community, Environment, & Planning

Mary Gates Scholar

Mentor: Manish Chalana, Urban Design and Planning

Mentor: Keith Harris, Built Environments

This research explores the questions: How is identity shaped by our built environment? Can storytelling along with physical movement alleviate place attachment? This research also seeks to preserve the historic identity of Seattle's central district neighborhood through the memories of its residents. It is my hope that by understanding the relationship between the built environment and human consciousness, I will learn how to design spaces that nourish the human soul while honoring its physical history. To examine these questions, I conducted an extensive literature review on theories about place and identity, and the human experience of place. I also published an online survey and conducted ten oral interviews of central district residents. A composite walking tour was then created from the physical places in their stories to highlight the overlap in their experiences, values, and identities. Through storytelling, archival research, observation, field research, map making and physical movement in these spaces, I have demonstrated a connection between memory, history, and place. My final product, a narrated walking tour, serves as a mechanism to bring people together, to educate the public about the central district and to highlight the interplay between spatial geography and social identity. The tour conjures lost places and memories into the physical world and diminishes feelings of place attachment. The tour also serves as an urban planning tool to heal displaced communities. As Seattle continues to grow and change, experiences such as this walking tour provide a living, breathing example of our shared history to anchor old residents while inspiring new citizens to honor our natural and built environment.