

A Tree Grows in Portland:

The Amenity Value of Urban Trees and their Relationship to City Shape

To what extent do urban trees create value as an amenity, and what is the relationship between this creation of value and the shape of the city around it?

The Functionalist Fallacy?

*"Form ever follows function.
 This is the law."*

—Louis Sullivan

- Originally architectural, since then applied across disciplines
- To what extent does it apply to urban trees?
- How might the values created by trees shape the city?

Amenities' Contextual Value

"City parks...need the boon of life and appreciation conferred on them."

—Jane Jacobs

- Describes the value of amenities as a product of their use
- Amenity values are activated by context
- e.g Rittenhouse Square: Park's value shaped by the fabric of other amenities surrounding it
- Is this a case of function following form?

Portland's Temporal Forest

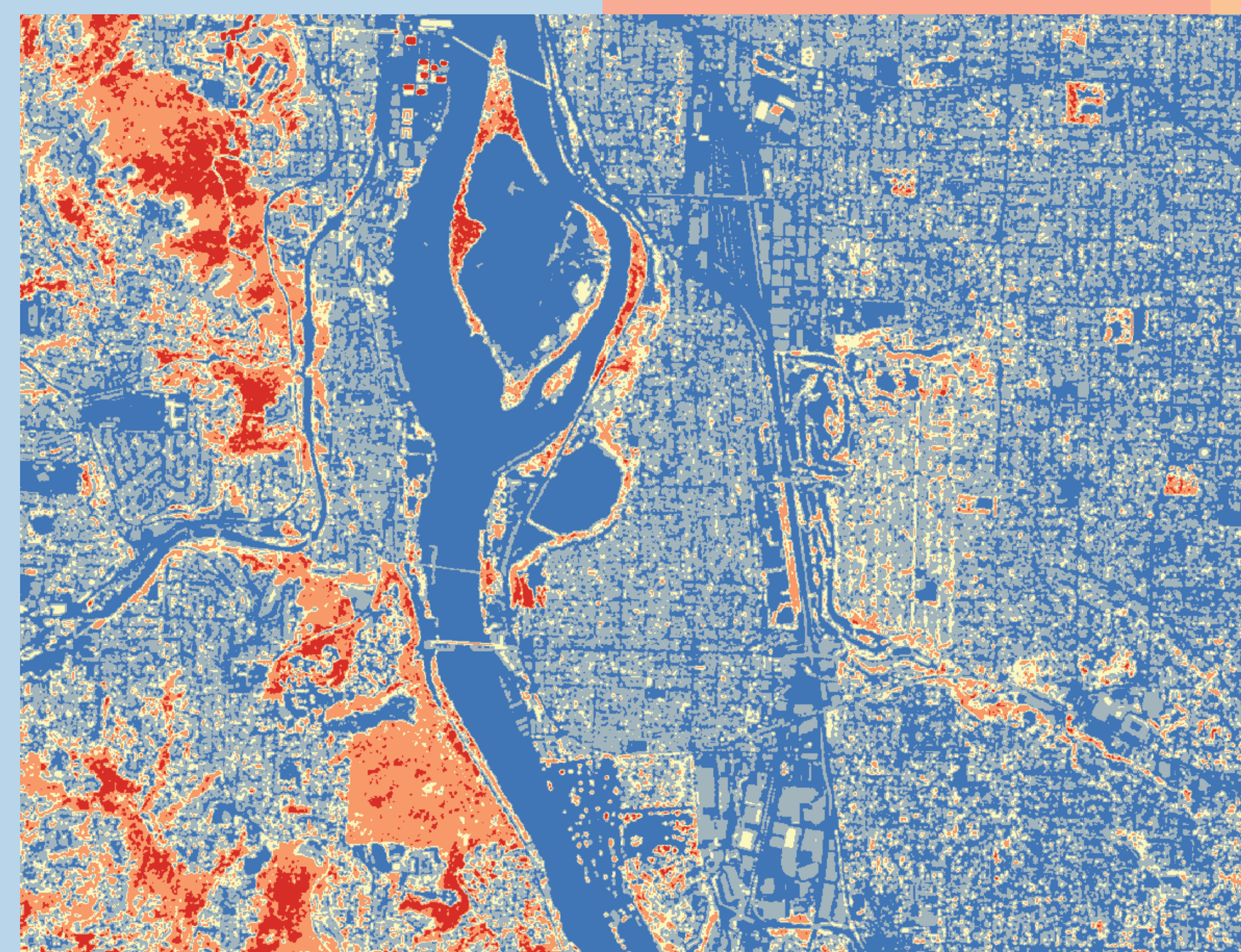


- City grown out of logging industry
- Centennial Exposition of 1905: civilization's emergence from wilderness
- Differential treatment of "civilized" versus "wild" trees indicates value being ascribed to trees by their context
- Emergence of Heritage Tree program ascribes value to trees as individuals based on what they have witnessed

Portland's Spatial Forest

- Spatial Lidar Analysis
- Trends in Tree Distribution
- Height profile regressed against demographic variables
- Trees correlate with affluence and societal standing

For more information, please visit ds.lclark.edu/afellows/thesis or follow this QR Code:



Trees and City Shape

Trees create value in ways that both shape and are shaped by the city around them.

Form does follow function, but function also follows form.

Rather than decide which direction is most appropriate, consider all the implications of the relationship between the two.

Variable	β
Income	0.0477 (0.0117)
Bachelor's Degree	0.153 (0.0235)
Proportion White	0.147 (0.0218)
House Age	-0.00129 (0.000163)
Observations	963
F (4,956)	76.6
P > F	0.00
R ²	0.271

Regression of Tree Canopy Proportion on Neighborhood Demographics showing significant relationships