Background & Context

- The mismanagement of forest resources has led to the global loss of around 1 billion hectares of forest land in the last 100 years.
- Europe is important in understanding this mismanagement of forest resources because the development of forestry there has been heavily documented and humans have been altering European forests for thousands of years.
- The large transfer of people, ideas, and culture from Europe to the United States is consistent in forestry as well.

Research Question

In what ways has the European origins of American forestry affected forestry in the Pacific Northwest?

Results

- Forestry in the Pacific Northwest has been influenced by Europe’s development of silviculture, which is the theory and practice of controlling forest establishment, composition, and growth.
- Silviculture is significant because it meant the establishment of goals for forest management and making plans for how to maintain a forest resource into the future.
- Silviculture has since been adapted in the PNW to preserve and foster complexity in forests. See Figure 3 for some components of forest complexity considered in silviculture.
- The methods developed for older, less sustainable forms of silviculture are still used today with slight variation in order to meet new ecological goals. Figure 4 shows classic methods such as thinning and clear-cutting, being used to meet the goal of increasing snow accumulation.

Internship/ Methods

- I completed an internship with the Northwest Natural Resource Group (a non-profit that consults on ecological forestry) working on their winter snow monitoring project (Jan-Mar 2023).
- My role included data collection, collate data in usable & shareable forms, a blog post, & to review & analyze data to summarize main trends and findings.
- Conducted online searches of existing scholarly literature, attended forestry talks & conducted informal interviews with NNRG technicians about Forestry

Broader Significance

- Forests are immeasurably valuable and provide many services like clean water and air, wildlife habitat, carbon storage, climate regulation, recreation, and a variety of forest products.
- Forests are being threatened by both human activities and climate change, but maintaining forest complexity makes forests more resistant and resilient to disturbances and therefore more capable of handling human impacts and climate change.
- Understanding the origins of PNW forestry allows us to learn from the mistakes made in the past and gives us a better understanding of where forestry needs to change and adapt for the future.

Acknowledgements

I’d like to thank Rowan Braybrook, and David Montgomery  for their help throughout my capstone experience. Thank you to my PoE professors and classmates for supporting my growth and learning. Lastly, a big thank you to my loved ones for always being by my side.