A pulsing paradigm is regarded as general for all scales of ecosystems. The pulsing succession view insists that a resource-dependent system will approach its peak through intensive consumption of resources, then move towards recession and get ready for the next cycle. All systems prevail by regular pulsing. One of the pulsing patterns operating in the universe is the system of humanity and its Earth basis. The past several centuries of growth of our civilization on the previous accumulations of fuels and other resource reserves is recognized as one of four stages in the pulsing cycle of global civilization. Whereas a steady state is not possible, our human system will persist in the long run if we learn to adapt to the appropriate stage in the alternating sequence of growth and descent. We are presently in the stage of transition, and descent will be next. By developing policies and plans now for making descent prosperous, we can be ready when the shocks of change galvanize the attention of society. Our forests, and humanity’s relationship with them, is perhaps our best pedagogy for how to manage the pulses that we are facing in this century.

*Forest-Building*, a transdisciplinary framework developed by researchers and designers in southeastern Canada, is a comprehensive and flexible approach towards the management and design of forests and buildings as coupled complex adaptive systems. This coupled approach towards the management of forests and buildings aims to better prepare our forests and built environments to face future challenges under rapidly changing economic, environmental and social conditions. This approach enables architects to move beyond the fetishization of wood products and false narratives about the role of carbon in building and engage more fully in the complex interconnected relationship between forests and wood-building. This two-term Advanced Design Studio will build upon this Forest-Building framework while applying it to local challenges and needs. Students will imagine architecture for new forms of labor, new understandings of resources, and new notions of economic organization and ecological stewardship. This studio will apply and combine an array of methods for analysis and synthesis throughout the duration of our study. Together in this studio, we will critically explore the development of design solutions that balance environmental and economic considerations, allowing us to prioritize design alternatives that maximize real wealth, the whole economy, and the public benefit.

**Project:**

The vehicle for our design exploration will be the conception, design and development of the *Oregon Forest-Building Institute*. This institute will serve as a hub of *Forest-Building* research and design activities. It will house a state-of-the-art design-build production facility consisting of workshops, research labs for assembling and testing new building technologies at full scale, as well as meeting rooms, classroom spaces and offices. The facility will bring together researchers and practitioners in architecture, energy, ecology, landscape, forestry, and construction. The more nuanced program for this Facility will be developed in the Winter term as part of a collective studio planning study and will typically consist of approximately 20,000 - 40,000 square feet of space.
Site:

The spatial and temporal boundaries of our design explorations will also pulse throughout our project study. These boundaries will focus generally on the Tillamook region of Oregon, with a focus on examining the workings of the Tillamook State Forest and on development of the Oregon Forest-Building Institute facility at the Port of Tillamook Bay. Stories of first nations describing the fertile lands, grassy meadows, hills rich with timber and game, and waters abounding with fish attracted Oregon immigrant families to the Coast Ranges of the Tillamook region during the era of westward expansion. The lands currently occupied and operated by Tillamook State Forest and the Port of Tillamook Bay have experienced massive dynamic pulses of matter, energy and information throughout their histories. These transformations have been particularly concentrated in the past century and continue to the present. While the current state of these sites will be our starting point, we will also consider how these sites will continue to evolve into the future.

The land that makes up the Tillamook State Forest consists of 364,000-acre publicly owned forest managed by the Oregon Department of Forestry. The area was extensively burned in a series of forest fires between 1933 and 1951. In the years since the fires, foresters, professional tree planters and volunteers have worked to reestablish the forest and its many resources. Oregon voters passed a constitutional amendment in 1948 authorizing $12 million in bonds to rehabilitate the land. In 1973 Oregon governor Tom McCall officially designated "The Burn" a State Forest. Today, the Tillamook State Forest continues to provide a wide range of resources and experiences, from clean water to wildlife habitat, from timber and revenues to recreation.

The Port of Tillamook Bay (POTB), the largest full-service industrial park on the Oregon Coast, is located on 1,600 acres of land that was formerly occupied by Naval Air Station (NAS) Tillamook, which was the home of a blimp squadron during World War II. NAS Tillamook was decommissioned in 1948. With the departure of the Navy, the former base came under the jurisdiction of the Tillamook County Airport Commission, a precursor to the POTB. The site included two timber blimp hangars (one which has since burnt down), the airport, and other buildings and infrastructure. Today, the Port manages the airport, accommodates an array of businesses, including a lumber mill, government agencies, utility services and offers tourists oriented attractions and services with the Airport Museum and RV Park.

Studio:

This research-intensive design studio will build upon existing forestry and building research, as well as POTB planning documents and analysis. Building upon this information, students will work in large teams for the Winter term to generate comprehensive planning for a 17-acre development parcel on the Port. Design guidelines, consistent with the Forest-Building framework, will also be developed to help inform design decisions. This studio will follow a collaborative model, where students will work in groups for site analysis, planning, and the development of specific building programs. Students will also have the opportunity to form teams around a shared focus for the design and development of their facility. The expectation is that all students will develop a comprehensive building design process that considers everything from the molecular to the territorial. This will be an intensive design studio and will be organized with several focused ‘workshops’ intended to help students to develop and deploy a design process leading to a forward-thinking comprehensive building design that maximizes positive feedback to its larger environment. While we will inevitably be considering the economic factors related to development, of far greater interest will be the ecological value of these facilities and how they contribute to the way we might best live together in this century. An optional seminar course will also be offered in the Fall term, Building Systems | Building Ecology. This course is focused on exploring a variety of theories, tools, and techniques that will serve as a strong foundation for the work of the Studio. While involvement in this seminar course is encouraged, enrollment is not required to be successful in the Studio.