

Aalto University's ARTS Summer School Analyses Forest Management And Wood Construction

By lednewsdesk

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The opening symposium consisted of talks with a wide variety of topics around the summer school theme. The presentations discussed forest use, wood construction, human experience in living environments made with wood and regenerative architecture.

The symposium was opened by Antti Asikainen, Executive Vice President for Research at the Natural Resource Institute of Finland with a presentation about the management of Finnish forests. The Finnish context is unique as much of the forest is privately owned. Much of the forest is in economic use and their management is guided by national and European Union regulation.

However, the forests serve other uses than simply harvesting of wood material. Forests provide habitat for other species and serve as vital carbon sinks and storages. Jaana Bäck, professor at the Department of Forest Sciences at the University of Helsinki, spoke about the challenge of balancing economic use of forests with the needs of biodiversity and climate change mitigation. Wood harvesting causes challenges for maintaining the carbon sinks and storages in Finnish forests. The biodiversity of the Finnish forests is threatened by construction, clearings and pollution among other factors. Climate change causes many threats to forest growth as droughts and forest fires increase and different pests and diseases become more common. Balancing the vital environmental functions of forests with the current demand of the forest products industry may prove to be an impossible task.

Alan Organschi, Senior member of the faculty at the Yale University's School of Architecture spoke about the future of wood construction. Wood is a renewable resource and it has many beneficial properties in construction. However, wood construction in itself is not enough to be sustainable, if it is used to construct sprawling cities encouraging unsustainable lifestyles. In addition to the use of wood as a construction material more focus should be placed on what kinds of cities are produced by the construction, how is the material harvested, and are the wooden components reused at the end of their service life in the buildings.

Living side by side with nature

The discussion transitioned from the land use and industry levels to the human experience as Ute Groba, a university lecturer at the Oslo School of Architecture and Design, spoke about the residents' perspective in wooden living environments. The presentation was based on Groba's doctoral dissertation *Timber Tales: A Qualitative Study of Timber Materiality in Housing Projects*. The presentation focused on how architecture where residents can adapt, customize and participate in the maintenance of their living environments tends to be cared for and long lasting. Wood architecture at its best can provide personalized homes that invite residents to engage with the material and create meaningful connections with the spaces they live in.

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Elisa Lähde, assistant professor of landscape planning and ecology at Aalto University, spoke about regenerative architecture and how designers should work in partnership with nature. Humanity should find mutually beneficial ways to coexist with nature as it provides vital ecosystem services. To achieve this, cities have adopted no net loss city policies where the aim is to achieve a no net loss in biodiversity across all impacts of development. Going beyond mitigating harm caused to nature, architecture could aim to support ecosystem services and the wellbeing of other species. Regenerative approach changes the perspective from a one way flow of extracting value from natural processes to societies taking responsibility for the maintenance and management of ecosystems and biodiversity.

In tandem with the presentation, Elina Koivisto, a university teacher at Aalto University, introduced her and Maiju Suomi’s, a doctoral researcher at Aalto, project Alusta pavilion. The pavilion is located on the courtyard between the Architecture and Design Museums in Helsinki. The space is designed to provide habitat for other species, especially pollinators. The structures of the pavilion are built from timber, clay and ceramic blocks. The main feature of the pavilion are the pollinator friendly plants growing in the flower beds all around the structure. The pavilion aims to be an example of architecture for the more-than-human world.

The presentations spurred discussion about the complexities involved with construction even with a renewable material such as wood. Can forests support the current rate of new construction and is the ideal result of architecture always a new building? Is the goal of wood construction to simply replace concrete in current construction practices or should wood architecture provide a meaningfully different approach to building living environments? Can the biobased renewable material open up new perspectives to building a mutually beneficial coexistence with nature as forests need to be cultivated within the parameters set by ecosystem services, carbon cycles and wellbeing of other species?

In August the students of the summer school will take the perspectives and themes of the symposium and apply them to designing living environments using wood and in balance with nature. The summer school is hosting students and faculty from Aalto ARTS, The New School: Parsons School of Design, The Oslo School of Architecture and Design, Singapore University of Technology and Design, Tecnológico de Monterrey, Politecnico di Milano, Royal College of Art, Academy of Fine Arts in Warsaw, Delft University of Technology and École nationale supérieure de paysage.

