

# FOREST VALUES

## SKOGENS VÄRDEN METSÄN ARVOT

*Conference part 2 at Hanaholmen, March 24 – 25, 2010: Summary*

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## THE FOREST IN OUR HEARTS

The second part of the Forest Values conference was opened by Gunvor Kronman, director of the Hanaholmen centre, Espoo. Bidding all the participants a warm welcome, she said it was important that the Cultural Fund for Sweden and Finland continued to involve itself in projects such as Forest Values – projects where young scientists and their more established colleagues could meet to discuss common themes.

Jyrki Peisa, Special Adviser to Finland's Minister of Economic Affairs, Mauri Pekkarinen, also noted the importance of such collaboration, and sent greetings from his minister. All participants were then invited to partake of a buffet sponsored by the Finnish Government.

During the meal, the participants listened to an interesting programme entitled The Forest in Our Hearts. Artists and ethnologists Riva Kovalainen and Sanni Seppo presented pictures, narrated legends and described historical events associated with "The Finnish Forest". Cultural journalist Johannes Ekman then took over with a presentation of "The Swedish Forest".



*Professor Dan Brändström, Professor Bjarne Holmbom and Anders Lundberg, Chair of the Swedish Federation of Young Scientists, discussed higher education in Sweden and Finland.*

## THE TWIN AIMS FOR THE PROJECT

The Cultural Fund's twin aims for the project and the two conferences were a) to bring established and upcoming young scientists together in networks that examine possible future uses of forest in a multidisciplinary perspective, and b) to initiate the creation of a Finnish equivalent of the Swedish Federation of Young Scientists. During the year, the Swedish Federation has appointed a project leader whose task will be to manage future activities. This person's role involves keeping in touch with and supporting the new Finnish association and organising events such as study visits and conferences. A group of students at Åbo Akademi University have started an association with Professor Bjarne Holmbom as mentor. A first joint meeting was held in March 2010.



*Postgraduate students from Sweden and Finland discussed ways of using the forest as a source of energy.*





*Xsenia Chechet, Project Manager, Swedish Federation of Young Scientists and Professor Dan Brändström*



*Dr Niklas von Weymarn, VTT Technical Research Centre.*

## **HOW SHOULD WE USE OUR NORDIC FORESTS IN THE FUTURE?**

The second day began with a talk by Professor Holmbom during which he discussed the conference objectives and offered guidance to the participants in four thematic groups. The aim of the conference is to create a forum and pave the way for cooperation based on the active involvement of the young scientists – the scientists of the future. Sweden and Finland have more forest than the rest of Europe – how can it be used without using it up?

The two overarching questions that the participants in the thematic groups were asked to consider were: What development opportunities does the forest offer from four different perspectives: Design/Architecture, Medicine/Health, Energy and New materials. How should we use our Nordic forests in the future?

### **Swedish and Finnish higher education systems**

The guest speaker of the day was Professor Dan Brändström, who discussed similarities and dissimilarities between the Swedish and Finnish higher education systems. He explained that research training in Finland is more innovation-oriented, while Sweden focuses more on basic research. The future looks likely to offer greater funding opportunities for researchers in both countries. The Cultural Fund for Sweden and Finland could be an important partner in the educational sphere. It is important to invest in young scientists, Brändström argued, and collaboration between the Nordic countries is becoming increasingly important.

### **Opportunities for processing wood**

The participants then heard Dr Niklas von Weymarn from the VTT Technical Research Centre in Finland, who drew attention to the opportunities available for refining biomass and discussed the new methods being used for the purpose. The areas of application are almost limitless. Future research in this area looks promising, he noted, and if central government is favourably disposed to innovation research in combination with sustainable development, there are endless opportunities for processing wood and forest products.

Following the workshops and their outcome reports, Secretary-General Mats Wallenius thanked the participants for their excellent cooperation during the conference and noted that the Federation of Young Scientists and its Finnish counterpart could apply for funding for study visits and conferences in the future. The Cultural Fund for Sweden and Finland extended its gratitude to the Expert Group and thanked in particular Professor Bjarne Holmbom, Anders Lundberg and the project leaders.

## WORKSHOP OUTCOMES

### Summary of work in the group Forest and health/medicine and cultural experiences

The group was divided into two subgroups: Health/Medicine and Cultural Experiences.

The former comprised three PhDs, a research leader from a forest industry company, and two entrepreneurs. This group discussed ways in which Nordic industry might develop new innovative, health-promoting products from forest trees. Nordic forests are managed and logged in a natural way, and forest products could be described as outright products of nature, where neither fertilisers, biocides or genetically modified plant materials are used. Nordic trees contain high concentrations of natural bioactive protective substances, mainly polyphenylenes and terpenoids.

There is also a traditional understanding in the Nordic area of how forest products can be used medicinally. Examples of health products already being marketed internationally include xylitol from hardwood, Benecol sterol esters from tall oil and HMR lignan from spruce bond heartwood. Last year saw the launch of a new product in Finland: an ointment made from spruce resin. Prior to the meeting, the PhDs had looked into other possibilities, including the use of heat-treated wood for body implants, real 'wooden legs', and the use of aqueous hemicellulose extraction to make healthy soluble roughage out of wood.

The entrepreneurs presented new products under development, including sprig extracts as an additive in anti-dandruff shampoos and skin cream, and antioxidants as protective substances in various types of product. The participants were convinced that new products can be developed, but this presupposes closer cooperation between forest industry companies and companies developing foodstuffs, dietary supplements, medicines and cosmetics. Closer cooperation between Sweden and Finland was also called for, the group agreed.

The second group, comprising three PhDs and two young scientists, had discussed in general terms in Uppsala the linkages between forest and mental health, and found that further research was needed so as to document more clearly the connection between forest and reduced stress. At Hanaholmen, the group focused on 'Urban Forests' and discussed how they might best be planned so as to attract people of different ages and with different interests.



### Summary of work in the group Forest and new materials

The composition of the group was renewed to large extent, only four of the students who participated the conference in Uppsala were able to join the meeting also in Hanaholmen. Fortunately, many new and active members joined us. The group work was begun by Anna-Stiina, who gave a short introduction to the theme of "Forest and New Materials". The group was then divided into two sub-group to work on with different topics.

The first group began the discussions by describing the future in 20, 100 and 1000 years from now, mainly analyzing the basic needs that people have. The discussion evolved into futuristic vision of life in future, however focusing on forest and its value in our basic needs. Many aspects of forest and wood were considered, such as utilizability in constructions and other applications, sustainability, landscaping, wood structural properties, to mention a few.

The second group continued the project that was begun already in Uppsala, namely application of forest-based renewable materials in electronic components. This group made a detailed description on how forest-based materials can be applied in a mobile phone. It was figured out that not only the packaging, but most of the components within the mobile phone could be replaced by renewable materials. Especially nanocellulose was considered as an interesting compound, and one of the students had brought nanocellulose samples with him as demonstrative purposes.

In general, the group discussions were very active, the students enjoyed the group work and presentations. The students got new contacts, not only with their peers, but also with researchers in different stage of their careers.

## WORKSHOP OUTCOME – DESIGN AND ARCHITECTURE

### Most important values of Nordic forest resources

- The forest itself – surroundings to urban areas, mixed landscape
- Mental settings – a special Nordic value where forest connect to Scandinavian tradition (mythology)
- The origin of Scandinavian forest materials, trade marks could be extended and be more beneficial for marketing to customer – a kind of fair trade brand
- Secondary values of the forest and wooden products is an important and increasing area

### Potential for future use and joint research areas

- Innovative use of timber and wood products – existing materials in a more effective way, new combination of materials and add more species for commercial use in different products
- Research collaboration in the field of new materials
- Innovative use and new wooden based materials need new business models
- IPR issues
- Interesting meeting – but too short to discuss collaboration

## YOUNG SCIENTISTS IN SWEDEN AND FINLAND

Young students at Åbo Akademi saw the potential of an organization for young scientists and decided to start a similar organization in Finland. Swedish Federation of Young Scientists will be happy to support this initiative. The Finnish students agreed that the most important thing right now for them was to exchange experiences and to get inspiration. Two of them were present at the Forest Value conference and met Young Scientist active in different parts of the Swedish Federation of Young Scientists. They were also invited to Stockholm where they got to see different parts of the Swedish Federation, as well as meet many people who in their spare time organize activities for the Swedish Federation. In the near future it's our hope that the Finnish organization will grow to other cities than Åbo. These young students have decided to work towards an independent organization, run by young people which will promote science to young people all over Finland.



*Fund Director Mats Wallenius, Fund Coordinator Satumari Hagelberg, Hanaholmen, and Jessica Melin, Project Coordinator, TANDEM.*

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Gemensam historia  
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