



GREEN ROOFS ON THE CURVE

April 2008

Hello green roof enthusiasts!

If you're coming to Baltimore, for the 6th annual *Greening Rooftops for Sustainable Communities Conference, Awards and Trade Show*, please stop by the Greenroofs.com booth (#108) to say hello! In the meantime, I'd like to share with you a little bit about what I've been up to and what this conference holds.

I've been very busy the last few months organizing North America's first green roof tours to Europe: **Green Roof Safari!** This 6 day tour runs from Frankfurt to Zürich and features a diversity of green roof projects and conversations with local policy-makers, designers and researchers. Offered from **Sept. 8 – 13** and **Sept. 21 – 28th**, the tours sandwich the **World Green Roof Congress (Sept. 17 – 18) in London UK**. Visit www.greenroofsafari.com.



Municipal, residential, commercial, industrial, institutional green roofs (left); Hundertwasser; Vetsch Earth Houses (above); Living roofs: Big and small, we will visit them all!

At the GRHC trade show, you can find postcards and brochures about **Green Roof Safari** at the Greenroofs.com booth (#108). My colleague and co-founder of the tours, Jörg Breuning, can tell you more, too, at the Green Roof Service booth (#318).

During the conference, I'm on the panel discussion, "**Future Directions for Green Roof Research**" (Thurs. May 1, 10:15, Session 4.2, Room 303). Fellow panelists include Dr. Brad Bass (Environment Canada), Patrick Carey (Hadj Design; Greenroofs.com *Architecture*

Editor), and Reuben Freed (Green Screen). Amongst this honourable group, I'll represent urban ecology and biodiversity, and will refer to my recent work in Vancouver, B.C.

Since coming to Vancouver in 2006, I've been intrigued by the extensive moss communities that dominate this bioregion. The mossy roofscape seems to me to embody everything that extensive green roofs are meant to be. Resilient, regenerative, and self sustaining, these spontaneous communities do not require human inputs, remaining green and functional year round.

If we relieve ourselves of aesthetic conditioning (i.e. "unwanted plants are weeds"), might these moss roofs have lessons for us? Do they express a *genius loci* – spirit of the place – in a way that we've never considered? From a plant ecological perspective, what can we take from the patterns of colonization, the conditions for establishment, and the processes of natural succession? From an economic point of view, what place do mosses truly hold within the chronology of roof degradation? Do these diminutive organisms (which lack roots and vascular tissue) really cause roofing products to deteriorate? Or are mosses just indicators that the roof is degrading, as they take advantage of pre-existing puddles and cracks?

The old tar & gravel roofs of Granville Island are extensively covered with moss, as seen from the Granville St. Bridge (Fig. 3). With a couple roofs in mind, I tracked down the property manager and was granted access for a vegetation survey. With the help of a maintenance personnel (and a scissor lift) and bryologist colleagues (people who know their mosses), two inventories of 3 roofs were conducted in 2007 and 2008.

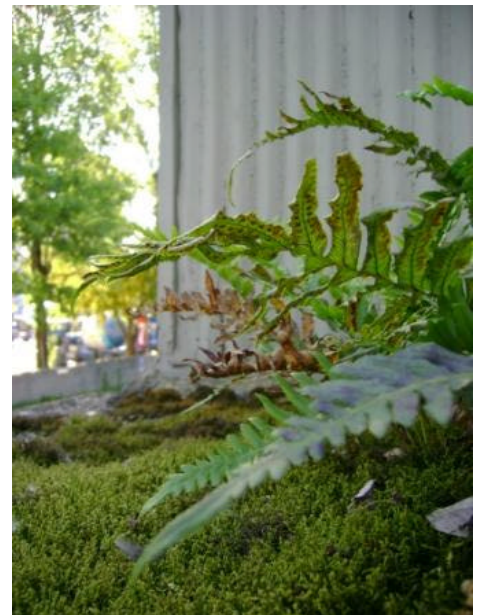


Fig. 3 If Granville Island's green roofscape were intentional, this part of Vancouver could rival European cities for surface area covered by green roofs.

Fig. 4 Licorice fern (*Polypodium glycerhiza*) is a native fern which occurs in protected corners of mossy communities, whether the crotch of a tree or the protected corner of a roof.

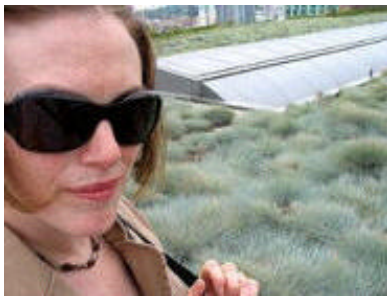
The diversity on some of the roofs we surveyed was variable, depending on location, microclimate or other factors we are attempting to determine. For example, the roof of Waterfront Theatre supports 3 species (2 mosses and one grass), while the roof of the Parking Garage supports over 30 species, including both native and non-native grasses, ferns, herbs and Sedums.

As Granville Island begins a major renovation project for its infrastructure and many of the buildings, green roofs will likely be included in the plans. When initially approached, the property manager wondered if it would be possible to transplant these well-established moss communities onto “intentional” green roofs. Hurrah! This could represent the next phase for this study.

If you have any thoughts, ideas or opinion, please email me.

Hope to see you in Baltimore!

Truly,



On Vancouver Public Library

Christine E. Thuring, Greenroofs.com Student Editor

studenteditor@greenroofs.com

MSc 2005, Centre for Green Roof Research, Penn State University