

SPLENDOUR ON THE ROOF

Green roofs are making a comeback thanks to improved technology, and Vancouver is at the forefront of the movement.

BY GRAEME MCRANOR

There's a buzz at home and abroad about Vancouver's green roofs.

And it is not being generated solely by the 60,000 bees housed in hives amid the six-acre spectacular roof atop the new convention centre.

Improving technology is fuelling developer interest in green roofs, according to Linda Maley, Vancouver-based market development consultant for the worldwide Atlantis Water Management organization.

And this month's issue of *National Geographic* magazine not only mentions the convention centre's mammoth planting – which provides a habitat for plants, grasses, birds and insects – but raves about the 14-year-old, 20,000-square-foot roof garden on the ninth floor of the downtown Vancouver Public Library.

Maley says that while the green roof movement is challenged by the fear of leakage that is changing due to improving technologies and quality-driven installation. "There is increasing interest specific to LEED point-generation and from developers pushing for recognition in sustainable design."

LEED – the acronym for leadership in energy and design – is the certification awarded for buildings that offer and meet stringent design and environmental standards; green roofs are categorized as systems that use vegetation for environmental, economic and social contributions to urban areas.

"The key factor in this greening initiative is it slows down storm water flow and

filters the atmosphere pollutants," says Maley. "It also reduces the atmospheric heat most buildings reflect while providing the building with insulation. We at Atlantis are all about making the green roof accessible so those in the building can benefit from the green space, environmentally and socially."

National Geographic writer Verlyn Klinkenborg, citing among others the work of Maureen Connelly, who heads the B.C. Institute of Technology's green roof research facility, reports that "there is beginning to be a critical mass of green roofs around the world, each one an experiment in itself. Such roofs, she writes, "recapture what is now essentially negative space within the city and turn it into a chain of rooftop islands that connect with the countryside at large."

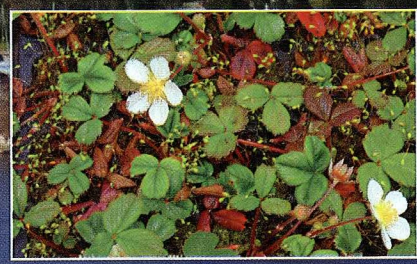
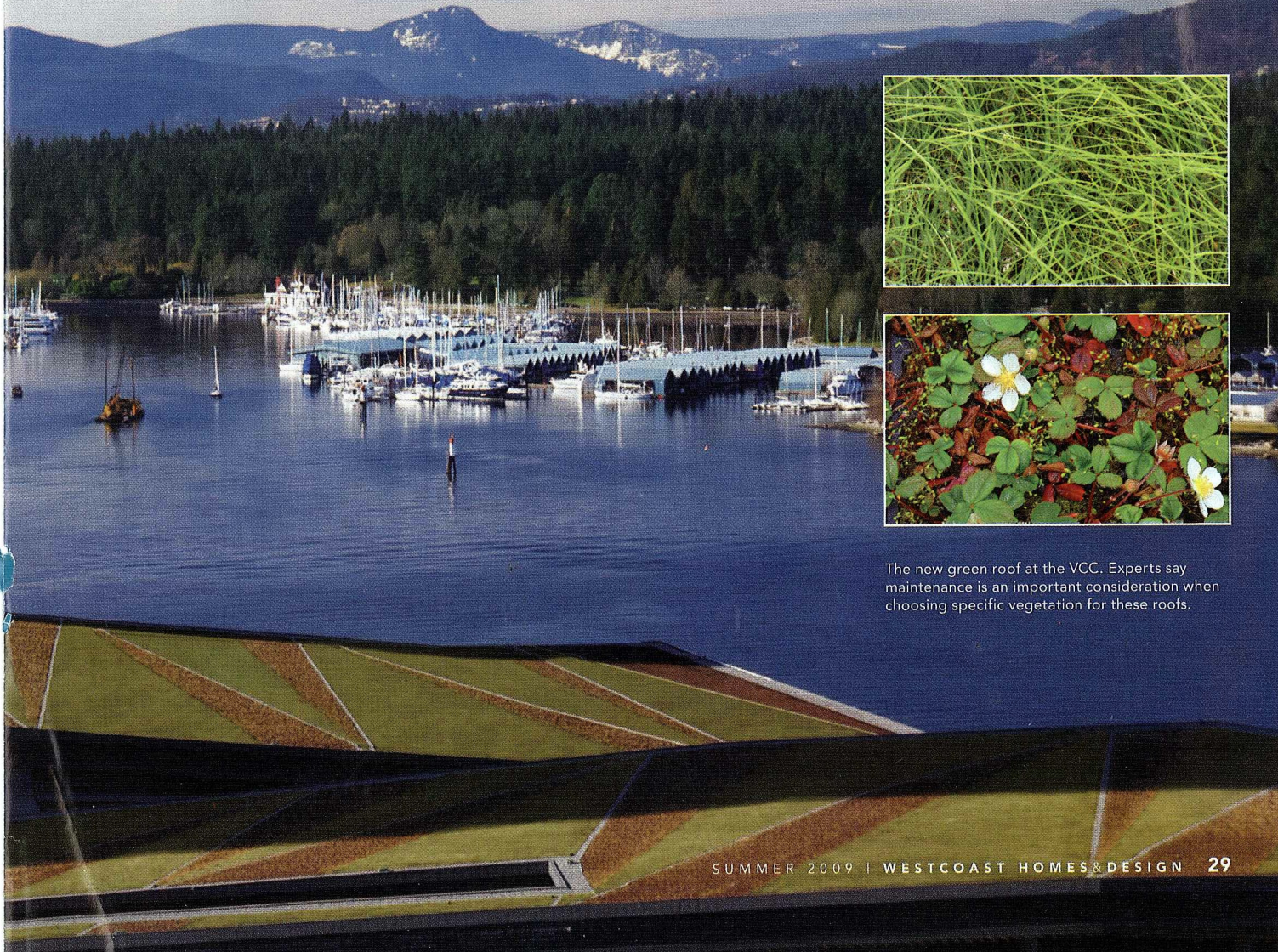
Although green roofs are largely inaccessible – a visual bonus mainly for high-rise dwellers and office workers who overlook such attractions – maintenance is necessary and Maley agrees that such costs have to be considered when choosing the type of vegetation and extent of design.

"Cost cutting is always a factor that hurts the good of the green roof," she says. "Native species are usually chosen in design, which is good in principle but not always the best for long-term survival given weather challenges."

"The beauty is, the supplier can provide immediate visual results to the client, as the product is rolled out like a carpet."

Such a mature carpet is what enamored writer Klinkenborg. Standing in the library's Cornelia Oberlander-designed library garden, she muses on the expanse of convention centre roof, the chef's garden at the Fairmont Waterfront hotel, and green roofs proposed for the Olympic Village.

She concludes: "To stand on a green roof in Vancouver—or Chicago or Stuttgart or Singapore or Tokyo—is to glimpse how different the roofscapes of our cities might look and to wonder: Why haven't we always built this way?" ■



The new green roof at the VCC. Experts say maintenance is an important consideration when choosing specific vegetation for these roofs.