



#### Exterior of UBC Life Sciences Centre

Over 50 percent of the open area of the site has been restored with planting, mostly of native or adapted species.



#### Interior atrium at the UBC Life Sciences Centre

This turns outside courtyards into interior atria supporting academic collaboration. Natural daylight also lights the laboratories and classrooms. A dynamic monitoring system adjusts lighting and ventilation according to the external conditions and occupancy, contributing to an annual energy saving of 28 percent.

# Living-breathing buildings

## Fullfilling a global need

by Teresa Coady, guest author  
and partner of Bunting Coady Architects



In 1983 I had an epiphany. I realized that human architecture follows the philosophical paradigm of its age, and that our age was caught between the death of the mechanistic worldview and the emergence of biomimicry. My theory was that our architecture would evolve toward living-breathing buildings, where the skin of the building might let in the breeze but not the rain, the light but not the burning heat or glare of the sun. I imagined a world where we could live in our buildings, not having to run outside when the power fails because our “systems are down” and we can’t see, breathe, or control the temperature. Though “passive buildings” are still the norm, a massive change is emerging. Within our lifetimes, we will see the construction of living-breathing buildings all over the planet.

Bunting Coady’s architectural practice is characterized by efforts to eliminate mechanical systems, replacing them with permanent passive systems. The buildings are intended to be well lit by natural light and thermally comfortable. To do this we use three strategies. First, we carefully shape the building to take advantage of the natural light, wind, and shade of the site. Second, our integrated team develops a passive, self-balancing building that uses mass and water to heat and cool itself, with chimneys throughout the building to draw in fresh air. Finally, we incorporate in

our design in the use of renewable power sources, such as photovoltaic panels, fuel cells, methane gas, and wind, which provide environmentally impact-free energy for night lighting, fans, boilers, and chillers.

No one has ever produced a perfect building. Architecture is a complex art with a long history. To effect the radical changes needed to create living-breathing buildings, many traditional parameters must be relinquished. Clients must have plans that are longer range than the current four-year payback window. Building occupants must be committed to accommodating the

needs of future users – as well as their own. Jurisdictions must realize that priorities based only on services, road widths, and parking allowances do not support a sustainable future. The shift to protecting urban ecosystems and creating living-breathing buildings has already begun, as individuals champion an “alternate” future. This takes time. Buildings currently consume 40% of the world’s energy and resources and 25% of the world’s water. The current global push towards “modernization” is encouraging the rest of the world to develop as North America has. To realize that goal we would need the resources of four Earths. The precious commodity, time, could be the first resource we run out of, unless we develop an equally enthusiastic global push towards sustainability. 🌱

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*Bunting Coady Architects is an innovative architectural practice based in Vancouver, British Columbia with a reputation for high performance buildings and sustainable development. [www.buntingcoady.com](http://www.buntingcoady.com)*