Portland Architecture

Sustainable Building Week and Portland's green progress: a conversation with Webly Bowles and Terry Campbell

Event co-founder Webly Bowles (*Kelly Mooney*)

BY BRIAN LIBBY

Now in its fifth year, the annual Sustainable Building Week begins today and runs through October 15. The week offers a wide variety of free and paid events, in person and online, hosted by experts and organizations that represent the many fields of sustainability, including architecture, design, building, construction, education and community planning. Around 30 events are planned this year — the highest number yet.

Some of this years events include the Homes of Tomorrow Today Tour from the Portland Home Builders Association, a Green Schools Wins Networking Lunch with Oregon Green Schools, a Passive House Rating System 101 Training session and a

Passive House Building Tour from Passive House NW and the Green Champion Summit hosted by the American Institute of Architects Oregon chapter's Committee on the Environment.

Recently while writing about perhaps Portland's greenest building, the PAE Living Building in Old Town, which is the first local structure to meet full Living Building Challenge strictures (for a recent *Portland Tribune* column and an upcoming *Metropolis* magazine article), I got thinking about how for years the city's once-leading role in sustainable design and construction has seemed to fade away, but also that things might be ramping up again.

The 2022 edition of Sustainable Building Week also brings a special opportunity: to further encourage people to come together in person again. Even for the most Covid-cautious such as myself, having my groceries and restaurant meals delivered and still minimizing travel, things seem to have turned a corner. And when it comes to making progress in sustainable design and construction, so much further market transformation is necessary that this must be a collective effort. With that in mind, along with net-zero buildings and solar batteries and mass timber, one of the most noteworthy trends in green building today isn't about materials or energy or technology: it's about equity.

I'm not usually given to writing many preview articles or blog posts, but I decided to have another conversation with the organizers of Sustainable Building Week, Webly Bowles (a senior project manager at the New Buildings Institute) and Terry Campbell (a vice president at Sustainable Northwest Wood), as a way not only to help promote this week's sanctioned events, but to stop and ponder the broader notion of green design and construction in Portland.

Portland Architecture: This year's Sustainable Building Week comes at a time when the pandemic is maybe finally (hopefully) receding and people are starting to go out more again. Is there a special opportunity or energy that can come this year, kind of re-uniting a lot of people who haven't been together in person?

Terry Campbell: Yes, I feel we may have hit a perfect balance between the practical uses of virtual events and the human need to learn and connect with colleagues and others in-person. This is the power of Sustainable Building Week, our model is nimble and meets our attendees where they are at — whether that be in the virtual or in-person realm. That said, we are certainly seeing a big upswing and a return to more in-person events during SBW '22.

Webly Bowles: I've read that 55 percent of communication is reported to be non-verbal. Meeting in-person, even when masked, is a different type of collaboration; one word sparks an idea for someone else and starts an unwavering back and forth of ideas that leads to an innovative scheme.

Event co-founder Terry Campbell (*Cambrae*)

How has the pandemic most changed sustainable design and construction? There's been a lot of disruption—to supply-chains, market demand, energy prices—but sometimes times of crisis can lead to accelerated change.

Bowles: From a design standard, I think there will be more focus on air quality. Not only to address what we've learned from an airborne pandemic but also our recent experiences with outdoor air quality. Climate change has increased the amount of allergens in the air and wildfire smoke is becoming an annual health issue.

Campbell: The pandemic took the building boom we were already experiencing before 2020 and turned it into a monster, all while revealing weaknesses in the manufacturing and supply chain. Predicting the future of market demand and energy costs is a tricky thing but what I am seeing is an interest, at a local and federal level, to initiate policies that address social injustice and climate change. Unlike times in the past, these two challenges are now in lock step with each other.

Looking at the Sustainable Building Week schedule, there are a whole lot of events. Could you highlight just a few specific events that either you're personally excited to attend, or that you think the public will be especially interested in?

Bowles: Two categories of events come to mind: tours and films. There are two films and seven tours this year. *Elemental* is a film about fire resilience and a screening event called Usurped: Housing Injustice & the Fight to Prosper While Black is the *Albina Vision Miniseries* of short films by Dru Holley. Two tours that should be of interest to everyone are Solar Oregon's GO Zero Tour and the Home Builders Association's Homes of Tomorrow Today Tour. There are also two tours happening at the Meyer Memorial Trust HQ, a materials tour at the PAE Living Building, and a shop tour of panelized construction.

Campbell: I am still always excited about the diversity of topics that SBW brings together. Where else can you go to an event about sustainable design and construction and rub elbows with architects, designers, energy engineers, carbon experts, solar

advocates, home builders, material specialists, mass timber academics, wildfire movie-makers, BIPOC community groups, Latino builders, general contractors, etc.

Scenes from one of the Albina Vision Miniseries short films (*Dru Holley*)

In the last two years we've seen equity become a bigger part of the conversation about what it means to be sustainable. We're used to talking about physical stuff to do with green building and energy efficiency, but how does a commitment to cultural inclusiveness change the goals and how we measure success?

Bowles: The outcome of a building project is strongly impacted by who is engaged and when they're engaged. We know that greater team diversity leads to better solutions and that the sooner communities are heard, the more successful the project will be. If future residents are involved, they can feel more ownership in the project and likely live in the building longer. If it's a commercial building, community members feel connected to the building and may likely support the commercial businesses within the building.

When the modern sustainable building movement was first gaining steam in the early 2000s, Portland seemed to be viewed as a leader, with some of the first LEED-rated buildings and a lot of interest from the local building industry. Has the city lost some of that momentum, or perhaps lost and regained it?

Bowles: PAE. PAE. PAE. The PAE Living Building is ALL THE RAGE. PAE brought a new vision for what's possible, not just for Portland, but for market-rate high-performance buildings. The need for sustainable buildings has never been more important. Portland – and the greater Pacific Northwest – has always shown what's possible with sustainable design. Look at the airport expansion project, the Portland Low Carbon Concrete Initiative, and developers like Anyeley Hallova at Adre. Then, we have Solar Oregon organizing a two-day tour of net zero homes! We'll take that crown back now, thanks!

When people ask me what I'm most excited about in terms of positive green-architecture trends, I have two answers: solar batteries and mass timber. The ability to not just generate more PV power than ever before but store that energy can help take net-zero energy use mainstream, reduce fossil-fuel consumption and decentralize our electrical grid seems like a tipping point of sorts. The proliferation of carbon-sequestering timber buildings and even a new generation of tall wood architecture seems like a win-win for everyone, especially since we all prefer looking at timber to drywall and drop ceilings. But what gets you most excited about the future and positive trends or technologies?

Bowles: I'm excited about general material manufacturers considering the carbon emissions of their products (either on their own or through requirements) and refrigerants. Those are two invisible things that have huge impacts on climate change.

Embodied carbon from construction products is somewhere between 11-20 percent of global emissions. At home, I had a portion of my sidewalk replaced and my contractor knew what an environmental product declaration (EPD) was. Portland's low-carbon concrete requirements have far-reaching impacts and it's changing what's normal.

While refrigerants only clock in at 2 percent of global emissions, the use of refrigerants is on the rise with high-efficiency electric heat pumps for heating, cooling, and water heating. If we don't manage these highly volatile gasses, they can quickly get out of hand. Leak detection is easy to spot if you're trained to look for it, but the average homeowner doesn't know what to look for. Couldn't we make refrigerants smell bad, like fossil gas, or add a colorative? I'm not a chemist, so I'm not sure of that answer, but I do know we need to pay more attention to invisible gases that are quickening climate change.

Campbell: I would add that I'm fired up about the potential role forest products, including mass timber, can play in a low-carbon, built environment when the forests are managed with respect for the vital ecosystem services they provide to all living things. Just specifying mass timber is not going to solve all of the problems and could cascade into more problems if we damage our ecosystems. However, projects, like PDXNext, are demonstrating ways we can deep dive into the supply stream of the wood products and celebrate, and even reward, landowners (tribal, public and private), manufacturers, and suppliers who balance the need to build with low-carbon forest products and the stewardship required to safeguard our ecosystem services. I also get fired up when I hear about projects that are trying to track, trace and reward good land stewardship. And, I'm even more fired up about the potential use of biochar in building materials!