

Designing for Humans and Bees

The mutual relationships between pollinators and people.

Photos and text by Maya Broeke. April 2016.

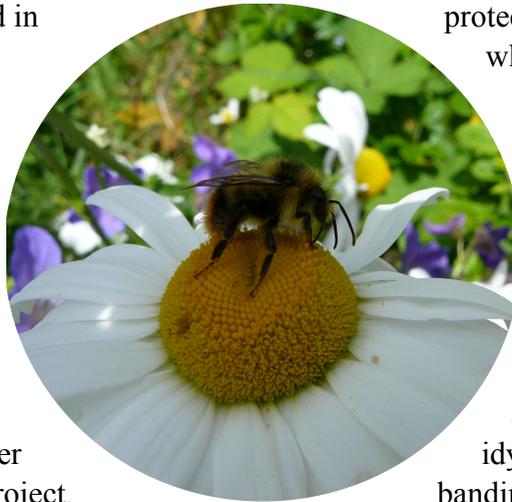
Perhaps you have strolled along a sidewalk in a busy city before. As your feet stepped along in time to everybody else's, you looked down and saw something unexpected. Between the polished shoes and the pieces of gum, there, in a little crack in the sidewalk, was a small plant. Grass, weed, flower — whatever it was, it was growing there, in a place where there seemed very little hope for a plant to grow. Perhaps you smiled a bit, surprised at the tenacity of life. This little shrub seemed in some way misplaced, stuck between concrete and car exhaust and other things quite inhospitable to life.

“There’s a name being proposed for this era, and it’s the anthropocene, or the age of human kind,” Sarah Bergmann stated in a TedX talk. Bergmann is the founder of the Pollinator Pathway Project, an initiative in Seattle which connects downtown parks with gardens that line the boulevards in front of private homes, and she’s well versed in speaking about the divide between urban design and nature. “[Anthropocene] is a term that signifies that we’ve reached a stage in our planetary history where human beings are a dominant ecological presence in every ecosystem across the globe. So basically, we are in nature. It’s not over there anymore. And that means that all of our systems — our cities, our highways — are ecological.”

Bergmann’s project addresses the need to incorporate green spaces for pollinators in cities. Her idea is to increase

connectivity — so instead of confining nature to small, fragmented parks, she wants to see gardens interlaced throughout the city, providing corridors for pollinators and seeds to travel along. But why protect pollinators above the myriad other causes that require attention? “Pollinators are effectively pollinating everything we see. They are basically the reproductive strategy for plant life, and therefore for ecosystems,” she said.

Conserving pollinators essentially protects the basis of everything which ecosystems are built on.



The misplaced plant that grows in the cracks on the sidewalk is perhaps an optimistic symbol of things to come. Bergmann’s ideology of harmony between humans and nature is steeped in idyllic scenes of communities banding together to create pollinator corridors, and creating a beautiful sense of community pride in the process. Her ideology is well founded, for it seems as if her Seattle Pollinator Pathway project is the embodiment of much of what she stands for. But how do we start to design cities for both humans and bees? What does it take to design a space which bees and other pollinators can comfortably call home — and how will redesigning urban spaces for pollinators affect the humans who inhabit these spaces?

My queries led me to two young women with impressive resumés and inspiring amounts of ambition. Michi Hunter

is a graduate of Quest University Canada, and a woman who exudes the sort of patient kindness that working with bees requires. She started the Pollinator Enhancement project at Quest, which established pollinator friendly plants and educational signage on campus, and is now managing her own beehives and working on various pollinator enhancement projects around Squamish.



Sarah Common is a young woman with considerable spirit. Common started Hives for Humanity with her mother in 2012. Their vision: for healthy communities connected through the culture of the hive. Hives for Humanity is about therapeutic beekeeping, which works on the premise that beehives can provide a kind of foundation on which to build community pride, foster relationships, and inspire individuals. Hives for Humanity's main location is in the Downtown Eastside, where it occupies an undeveloped lot on Powell St and has seen considerable success, both in achieving its goals and in gaining the public's attention.

Both Hunter and Common have slightly different perspectives on how to integrate bees into a community, and their projects each have different goals. Hunter's work is about education and bee habitat, whereas Common's focus is more on therapy and the human aspect of beekeeping. Their shared passion along with their disparate goals created the perfect mix of interests and

skill sets to answer the two questions that I most wanted to ask: how can we design cities for bees, and how can that design process benefit humans as well?

The first thing to remember when designing urban pollinator spaces is that it can, and is, being done — and while there are unique problems with incorporating elements of the natural environment into urban spaces, these problems aren't necessarily greater than problems faced in more rural areas. "People often don't realize that it's not all that easy for the bees in rural areas either," Common told me. "There's still habitat fragmentation, and in areas with a lot of farming there are often pesticides and huge monocultures that prevent the bees from finding all the nutrients which they need."

Having enough forage is a key component of designing healthy pollinator ecosystems, and this can sometimes be a problem in urban spaces. "Lack of food resources is definitely a concern," Hunter told me. "There's not always a lot of flowers, and when there are they're often ornamental

flowers which aren't necessarily nectar and pollen rich."

But as far as cities go, Vancouver is doing well at being pollinator friendly. Vancouver's park board started a pollinator and honey bee education program in 2014, which is working to make the city a sanctuary for pollinators.

Common is excited about what already exists in here. "Green spaces exist. It's a common misconception that urban environments are devoid of plant life, whereas in reality, there are lots of things like community gardens, rooftop gardens, and planter boxes — especially in a city like Vancouver."

But when planning new corridors, and improving existing ones, Hunter stressed the importance of interconnectivity — an idea that's echoed in Bergmann's work. "In an ideal world, all forage rich areas would be interconnected by pollinator corridors," Hunter said, emphasizing how important it is to prevent habitat fragmentation and allow pollinators opportunity to spread out around the city.

Yet although urban design which incorporates pollinators is important, it seems as if education and community outreach may be even more important.

"A fear of bees is definitely one of the biggest things standing in the way of establishing things like pollinator gardens,"

Hunter said. "It's sometimes difficult to explain that the pre-conceived notions people have about bees being dangerous creatures who are out to sting you is false — although I find that when presented with the proper education, people are usually pretty reasonable."

And beyond initial support, ongoing community involvement is crucial to the longterm success of the project. Hunter stressed how important it is to have people who can help keep the gardens alive after everything has been planted, and how difficult it sometimes is to find that support amidst budget and resource constraints.

Budget and resource constraints

is another common theme when designing bee friendly cities — but creative solutions are possible. Partnering with the city's landscaping team is one way of getting pollinator plants included into pre-existing garden beds, and engaging homeowners to transform their gardens into swaths of flowers and bushes is another way to spread the nectar around.

But why should humans even care to develop pollinator habitats in the city? Perhaps because of the many social benefits which are possible. Bergmann's Pollinator Pathway project brought together whole neighborhoods in an effort to populate their

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-Sarah Common

boulevards with arrays of colorful plants, Common's Hives for Humanity project brings people together through the act of beekeeping itself, and Hunter's Pollinator Enhancement project is now one of the examples often cited by the Quest University Admissions Team, who use it as an example of student work done well.

"Beekeeping builds community pride," Common told me. "Whether people are actually beekeeping, or whether they're in the gardens or just passing by or even if they just hear that there are bees in their community, that is a piece of community pride."

The bees have certainly done their job in the DTES. The magic of the hive has drawn people to connect with themselves, with others, and with the bees, providing hope and promise. "There's something very hopeful about speaking about 'next year' and making plans for that," Common said. The bees are a constant, which is something that doesn't exist in the lives of many people in the DTES location.

Besides keeping honey bees, the actual gardening process is another way to bring together community, and provide habitat for wild pollinators as well. Hives for Humanity's space in the DTES exists on a vacant lot that currently is home to a community garden. The garden is a way for people to get involve who maybe aren't as interested in actual beekeeping, and having it so close to the hive makes it so the bees don't have to fly far in order to find the forage. And besides the domestic honey bee hives, the lot also provides spaces for wild pollinators to make their nests, contributing to the biological diversity of the area.

Lastly, more bees means more plants which means more beautiful and healthy

cities — another point of community pride, and community effort.

We still have a ways to go before the tiny shrub which grows in the cracks of the pavement bursts into full gardens along all of the city streets. However, Hunter, Common, and Bergmann represent an inspired group of community leaders who have the ambition and ability to move things forward. We know what needs to be done in order to provide healthy pollinator spaces in urban areas, and the social benefit of such spaces is also clear. Now we just need to make it happen.