
BLOGS

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Tending the garden of “generative space”

How do you design a space that not only fulfills its purpose but also continues to improve the user’s experience?

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Generative space design is a relatively new way of thinking in the design world. For the second year in a row, Stantec has captured a Generative Space Award from [The CARITAS Project](#). This year’s award is for [Bridgepoint Active Healthcare](#) in Toronto, Canada.

But what exactly *is* generative space? Stantec’s [Bruce Raber](#) and [Stuart Elgie](#) sat down with us to explain.

Q: How do you define generative space?

Raber: Generative space is a concept that can be applied to any aspect of your life, including design. Generative space is an environment or a place—both physical and social—that not only meets the functional requirements of a space, but also materially

improves the quality of life for those in that space. A generative space progressively and tangibly improves over time.

Q: Can you give us an example?

Raber: Think of it this way: If you have a nice garden in your backyard, and if you look after it, it creates a space you like to be in. The garden flourishes and every year it improves. If you move into a new house, what the garden looks like on day one, versus 10 years later, is going to be drastically improved as you continue to tend to the space. That's a generative space.

Elgie: I like Bruce's garden analogy. A garden takes work – watering, weeding; one needs to invest into it in order to continually see the benefit over time. With generative space, it requires effort on the part of the institution, a hospital in this case. The effort is in watching how people use the space, talking to them to understand what they think about how they use the space and recognizing the potential. At Bridgepoint, the space as it exists now provides many places for patients and their family to interact with nature and the community. But there is incredible potential for it to occur in more ways and maybe more meaningful ways – but it requires work. It's the work of shaping and re-shaping how spaces are programmed. For example: the civic court at the main entry will offer a great outdoor urban space for a farmer's market on the weekends. It will actively draw the community into the site and allow patients to mingle and interact with people. One of the goals of Bridgepoint is to support a patient's quality of life by demonstrating how they can function in their communities and homes.

At both **Bridgepoint Active Healthcare** (2015 Generative Space Award) and **Nanaimo Regional General Hospital** (2014 Generative Space Award), the environment today improves the quality of life for the people in it. Both are examples where the project was an impetus for the organizations to look at how they operate and perform, and to

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improve that aspect of their organization as well. So it's not just about the building, it's about how the organization works organically to improve the quality of life of their clients.

Q: How does generative space apply in a healthcare setting?

Raber: Generative space within a healthcare setting needs to touch upon five aspects: How it impacts the patient or consumer; how it impacts the family member or the companion; how it impacts the staff that work within the space; how it impacts the wider community; and how it impacts visitors.

Take the quality of the space at Nanaimo, for instance. The space is filled with seven courtyards and care spaces. When you're there as a patient or a staff member right now, you have this relaxing environment that takes away your stress. If you're a staff member, you can see outside and go outside during your work day. Because Nanaimo has been opened for three years, the quality of that experience continues to improve, and the results that it's having are continuing to improve. Their staff retention is way up and their performance is up—it's now the top performing emergency department in Western Canada.

Elgie: As a rehabilitation facility, Bridgepoint's patients have an average stay of three months. So there was a strong desire to create programs and physical space that facilitate recovery and create a sense of wellness. Throughout the facility, patients, family and staff are continuously re-connected to their community and the beautiful ravine setting. Now open two years, Bridgepoint is seeing dramatic results – stroke patient stays are down an average of 12 days. Ninety percent of staff rate the facility as a great place to work and 98.5 percent of patients would recommend the facility to others. Bridgepoint is now the number-one referral hospital in the Greater Toronto Area.

Q: When we design generative space, how is that different from the way design would have been done in the past?

Raber: When I first started designing healthcare, close to 30 years ago, architects were just trying to create functional buildings. They were using floorplans and ways of doing things that have been done since the Second World War, when modern hospitals were created. In the late 1970s, the concept of the healing environment emerged. Patient-focused design became a concept that a lot of architects and interior designers talked about. Then, in the early to mid-2000s, people were realizing that not only is the patient important, but the staff are really important. So now design is patient and staff focused. The next leap saw organizations trying to find ways to be way more effective, and the concept of LEAN—how to do things more efficiently—came into being. Generative space looks at the quality of the space and the environment and creates a care standard model based on quality of life, and it looks at all participants: the patient, the staff, the family member, the larger community, the visitor, everyone.

Q: How can we measure the quality of space and its impact on human beings?

Elgie: One of the interesting aspects of Bridgepoint’s design was the inclusion of a full-blown scientific pre- and post-occupancy survey of patients and staff. Through interviews and surveys, Bridgepoint’s Collaboratory evaluated the building’s performance against the original design objectives. While there were many expected results, there were also some misses. Part of being a generative space is how the programming of the facility evolves over time to adapt to change – in this case, some changes in programmed therapy are improving the patient perceptions in some underperforming spaces. Even more important, the study results are being shared with other facilities and are now influencing the design of future hospitals in Ontario and beyond – now that is generative thinking!

Q: What does the future hold for us in designing generative spaces?

Raber: We still tend to design only working with the clinical staff as our user group.

Occasionally we may consult with a family member or a community member. But if we want our projects to be really generative spaces and really community-minded, we will need to get all five of those participants actively engaged in the design of the project.

Elgie: Up until this point, the design community has connected generative space with hospitals and healing, but we challenge others to think of it more broadly. In reality, generative design thinking applies to all typologies – workplace, education, research. It’s about engaging a project and pushing it just beyond the project brief and asking what other opportunities might exist. Buildings are the fabric of our cities, but people are our lifeblood. Our culture and community health depend on spaces that are designed to consider human experience, first and foremost.

**Bridgepoint Active Healthcare was designed by: Stantec Architecture / KPMB Architects, Planning, Design and Compliance Architect and HDR Architecture / Diamond Schmitt Architects, Design, Build, Finance and Maintain Architect.*

Bruce, based in Vancouver, is a vice president and leader of our **healthcare** practice.

Stuart is an architect and principal based in Toronto.



Bridgepoint Active Healthcare

(Stantec/KPMB & HDR/DSA)

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