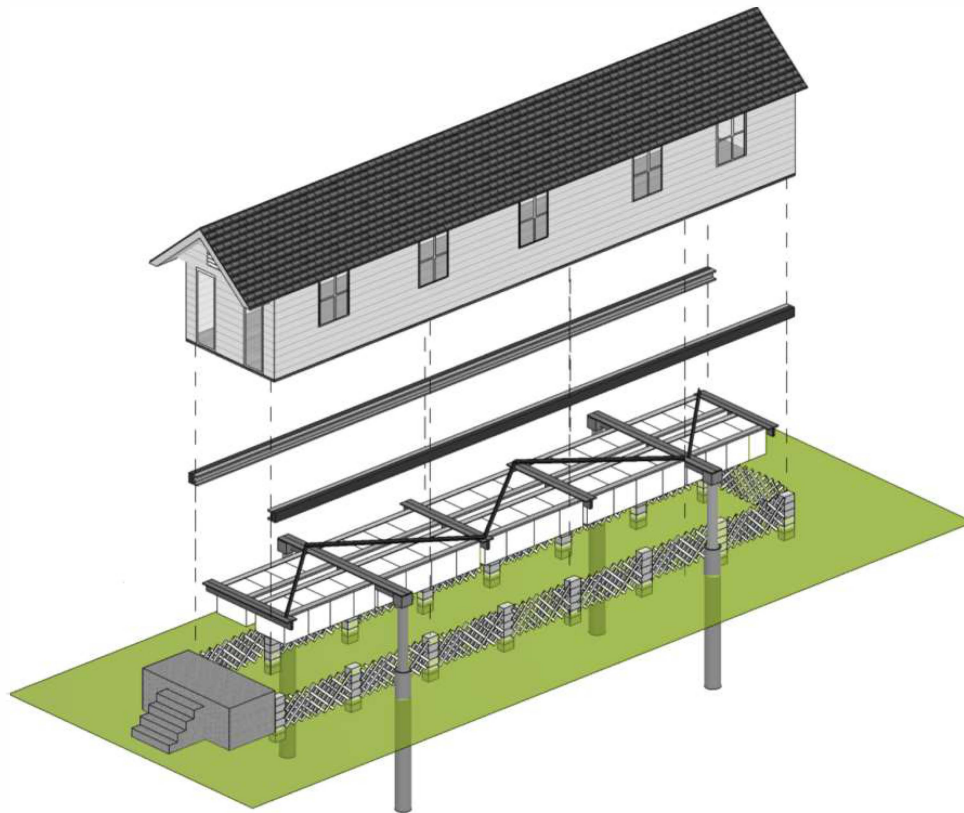


GENERAL

A floating building? Could be the answer to our flooding woes

BY LESLIE GARRETT PUBLISHED: FEBRUARY 13, 2020 UPDATED: JUNE 8, 2022 SHARE [f](#) [t](#) [p](#) [r](#)



COURTESY BUOYANT FOUNDATION PROJECT

An innovative floating building technology could help cottages survive flooding.

In the wake of Hurricane Katrina, Elizabeth English, an architecture professor, travelled the streets of New Orleans, heartbroken at the destruction she saw

there, not only to homes but to communities and lives. And she asked herself a simple question: “What if the houses could get out of the way of the flood?”

That question led her to begin researching whether such a thing—a floating building—was possible and, if so, how to achieve it.

During her investigation, she discovered that in some traditional communities, for hundreds of years people had been floating their homes during flooding, using bamboo, for example, which becomes buoyant, in the construction.



FLOATING BUILDING BEFORE AND AFTER RENDERING. COURTESY BUOYANT FOUNDATION PROJECT

Melding together this older approach with newer materials, English, now a professor of architecture at the University of Waterloo, established the Buoyant Foundation Project to research sustainable strategies for flood-resistant

structures. She believes she's the only person in the world working on retrofit amphibious construction.

“Amphibious houses float by the same simple physics principles that float the rubber duckie in your bathtub,” she says. The buildings work passively, and they include a vertical guidance system so that the houses don't simply float away.

These systems are ideal for cottages that are pier-and-beam construction without a full basement, English says. She also notes that the structure needs to be light enough to become buoyant and that it can't be so large that it can't be lifted.

Flooding is a global concern, says English, which doesn't surprise anyone in Ontario or Quebec whose cottage was affected by last year's historic flooding. Her project's amphibious approach is a much more sustainable way of dealing with flooding than tearing down buildings damaged by water and then having to rebuild from the ground up.

8 things every cottager can do to get ready for the next flood

While amphibious design already exists around the world and in flood-prone Indigenous communities in Canada, it hasn't yet shown up in cottage country. But that might be just a matter of time. English is particularly keen to tackle an amphibious boathouse design.

For more information about the research and to see examples of floating buildings, visit the Buoyant Foundation Project [website](#).