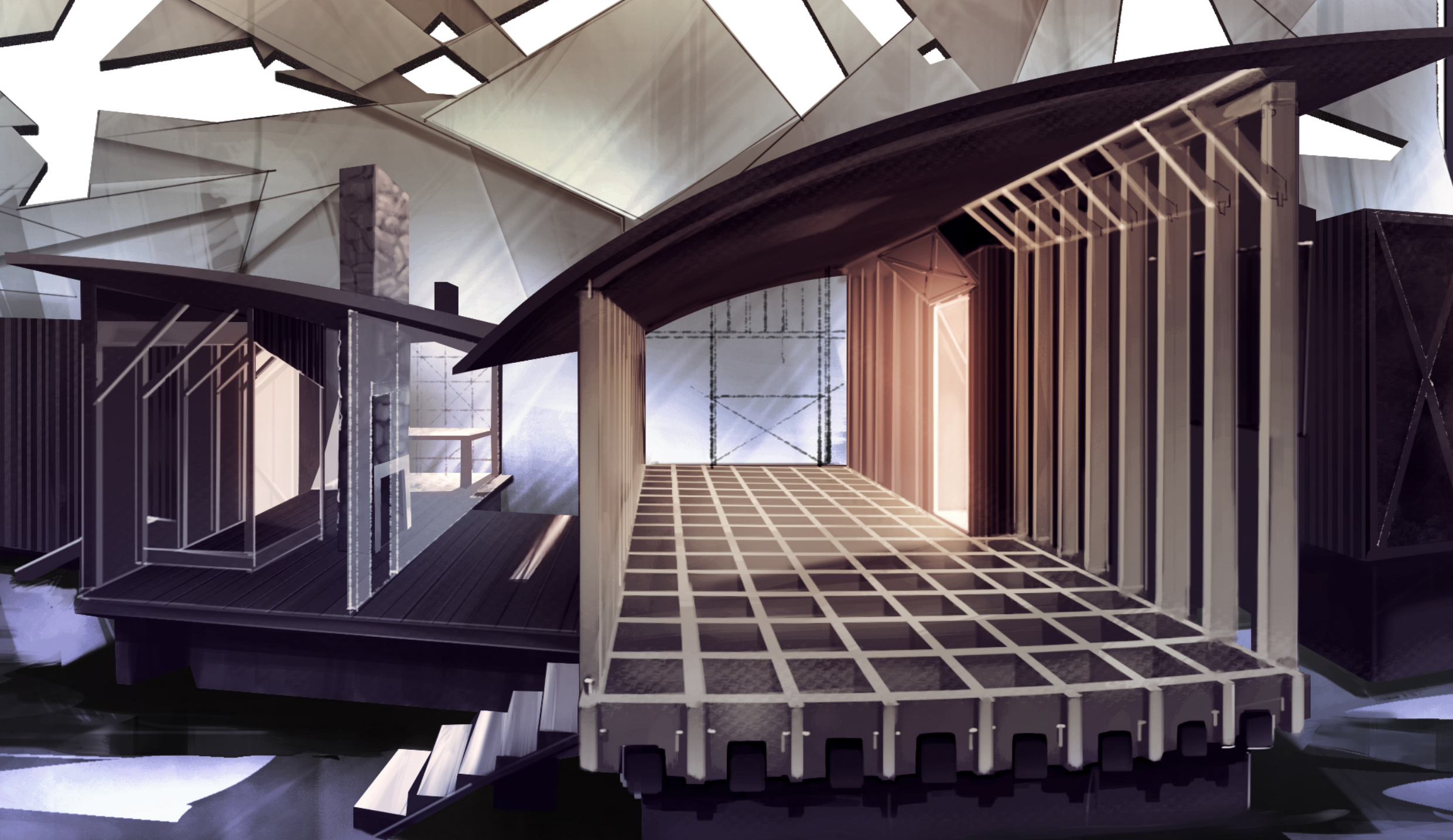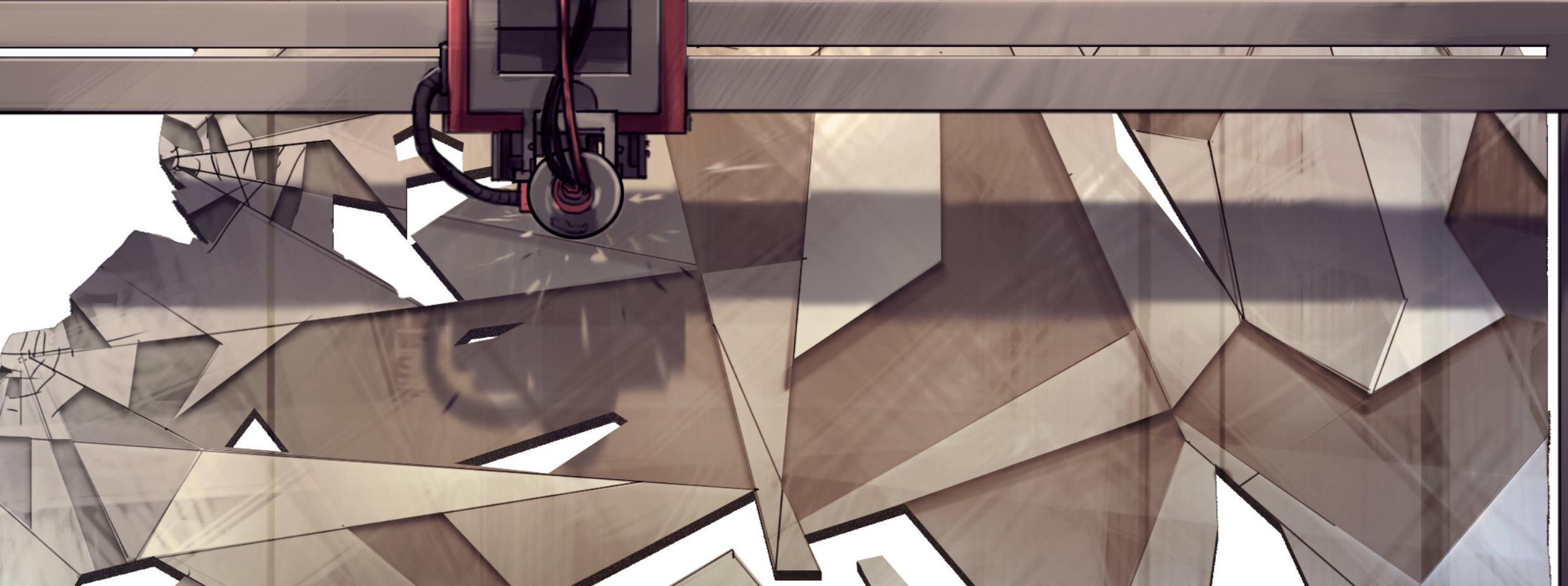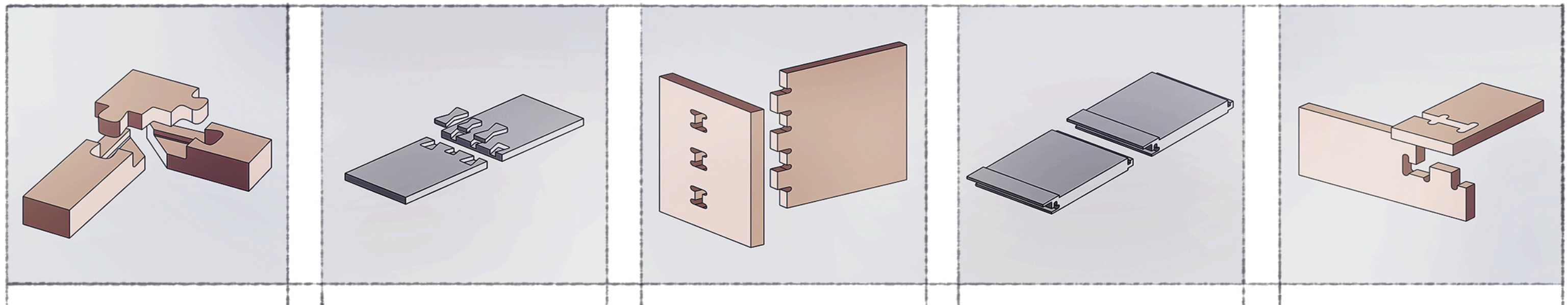# MILLING THE NORTH

CHRISTOPHE YOUNG   and   EMILY AYOTTE

Back to the Drawing Board

Customizable maker-house architecture is the future of affordable housing in complex communities where resources and skilled labour are scarce. The use of an open source design database, recycled materials and simple tools will allow Arctic communities to erect high quality building units with ease. CNC technology will provide the inhabitants of Nunavik the opportunity to build up their own communities, based on each village's needs. After all, who would be better to design their homes than the creative minds that know the communities' unique dynamics best?

Self building would result in highly personalized and multifunctional construction that accommodates the specific needs of each habitant. Repurposing the used wood and metal materials that communities already have access to in their landfills makes the process self-sustainable, economical, and practical. The traditional wood and steel joinery designs will allow for self assembly and disassembly, so that they can be continuously modified and relocated to suit the residents' changing needs throughout the months and years. Although the use of open source architecture is currently being implemented world-wide in locations such as London, UK with the Wiki House, it has not yet reached the Inuit communities of the Arctic. The flexibility and variability of these assemblies will also indirectly influence the evolution of these communities, which are not currently supported by the modern suburban template. Self-sustainable open source design will provide the residents of Nunavik what they need for their communities to progress; a right to build and rebuild.

MILLED PARTS are finally assembled into HIGH QUALITY structures

FLEXIBLE STRUCTURES can be easily dismantled, relocated and reassembled

CNC MILLING MACHINES are easy to use and can cut out any assembly parts from the digital OPEN-SOURCE LIBRARY

SHEET METAL, WOOD, and certain SYNTHETIC POLYMERS can be milled into applicable components at the community's MAKER-HOUSE

OFFCUTS are recycled to make smaller components or other synthetic materials

RECYCLABLE MATERIALS are gathered from surrounding LANDFILLS