## STEEL AND WOOD TOGO, MINNESOTA





## Mechanized Fabrication wedded with Traditional Construction

**Togo** The Outbuilding is remotely located in northern Minnesota on the edge of the iron and timber ranges. The structure required easily transportable materials and was constructed by the owners with local loggers and steel workers. Designers wanted to minimally impact the red pine plantation and utilize the locally available materials of steel remnants and cedar logs.

**Quonset** A pre-manufactured Quonset or Q hut was found as a remainder from another project. Quonsets are ideal due to their extreme material efficiency, snow load strength, wind resistance, lack of maintenance and simplicity of construction. The structure was produced in Canada from Iron Range steel and delivered on one pallet. The Q shell was erected by the owners with family members in a long week of bolt tightening.







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## Locally Sourced Materials of Remnant Wood and Rusting Steel

**Flares** In this north edge of the Range, stacks of wood are seen on logging trucks, forest edges, in backyards, and in wood processing towns. Two hundred year old cedar tree fragments, including log ends or flares were stacked and strewn in the neighbor's log yard. Three foot long sections of these remnant trees were coursed into a gravity wall. The wood is laid with two recessed mortar beds and keyed to the folds of the shell. The thick cord wood walls are freestanding and are inset to protect the wood from the weather, while creating exterior work porches.

**Portals** A local mining industry welder made the four panel pinwheel Dutch doors from steel scraps. Three foot wide jambs match the cordwood wall width and create thick portals to the interior of the Q. The lower doors are closed to discourage the local animals while maintaining a cross breeze above. The raw steel is left to weather and patina like the wood.

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