

Building Techniques at a Glance

Technique	Fire Resistance	Rain and Floods	Extreme Temperatures	Wind	Seismic Resilience
Pit Houses	<p>✔ Naturally fire-resistant.</p> <p>Can be further fire-proofed with steel roofing.</p>	<p>⚠ Needs to be well ventilated to reduce buildup of moisture.</p> <p>Stagnant air can lead to mold growth.</p> <p>Flood risk due to low structure (exact location matters)</p>	<p>✔ Great natural insulation and less heat loss from wind due to low structure.</p> <p>For low to medium cost, roof overhangs or insulation (reflective roofing) can be added.</p>	<p>✔ Natural protection due to being underground, and less impact due to low structure.</p>	<p>⚠ Reinforcements needed through bracing or panels, such as wood or metal frames or tyre foundations (earth-filled tires) below the walls.</p>
Modular Construction	<p>✔ / ⚠ Short construction time can make it easier to avoid wildfires.</p> <p>Buildings can be made with fire-resilient materials.</p>	<p>⚠ Depending on materials used, buildings can be made to be more moisture resilient.</p> <p>Needs to be well ventilated to reduce buildup of moisture. Stagnant air can lead to mold growth.</p> <p>✔ Raising the foundation and waterproofing can improve flood resilience. Some modular buildings can float or be moved out of flood zones, such as Rotterdam's Floating Pavilion.</p>	<p>! Many modular homes reported overheating. Following energy modeling guidelines can mitigate this risk.</p>	<p>⚠ Wind resilience requires composite panels and robust connections. Debris-impact and connection fatigue may be issues.</p>	<p>⚠ Seismic performance dependent on design, particularly the strength of connections.</p>