

The Envelope

Architecture

The five jobs an external wall has to do at once, and the layer that does each.

One wall, five separate jobs. They are rarely the same layer.

The five jobs

Keep rain out

Keep air from leaking through

Slow heat flow

Control water vapour

Carry load, or hang off what does

The layer that does it

Outer skin, plus a cavity or drainage plane

A continuous, sealed air barrier

Insulation, continuous and unbroken

Vapour control layer, on the warm side

Structure, or a supporting frame

The single most common failure is a layer that stops at a junction. Every one of the five must be continuous.