

Toward An Architecture NAPHC 2018

Boston, MA, September 22, 2018



Graham Irwin

Principal, Essential Habitat Architecture

www.essentialhabitat.com

ESSENTIAL
HABITAT
ARCHITECTURE



What's In a Name?

Passivhaus Architecture

Passive House Architecture

Passive Building Architecture

Passive Architecture

?



EH Architecture: Work



2008-2017 Completed PH Projects

PH for ALL of California



Principle #1

Elemental Geometry (Conditioned Space)



R House, Syracuse NY

Bernheimer Architecture & Architecture Research Office

Principle #1

Elemental Geometry (Conditioned Space)



Infill Design for Coffey Park Reconstruction

Principle #1

Elemental Geometry (Conditioned Space)

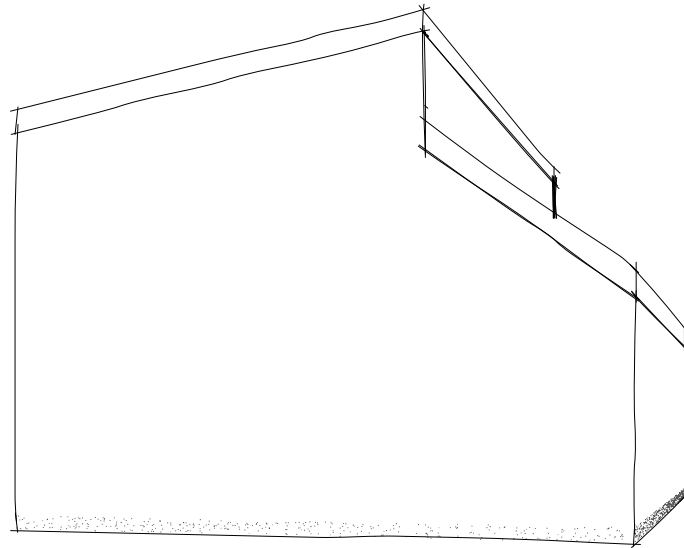


Condominium One, Sea Ranch CA

Moore Lyndon Turnbull Whitaker (MLTW)

Principle #1

Elemental Geometry (Conditioned Space)

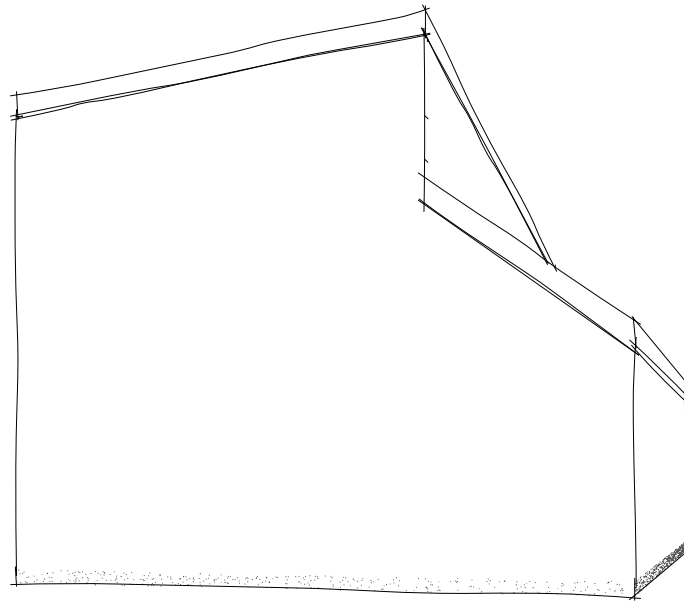


“The Mendocino”

Essential Habitat Architecture

Principle #1

Elemental Geometry (Conditioned Space)



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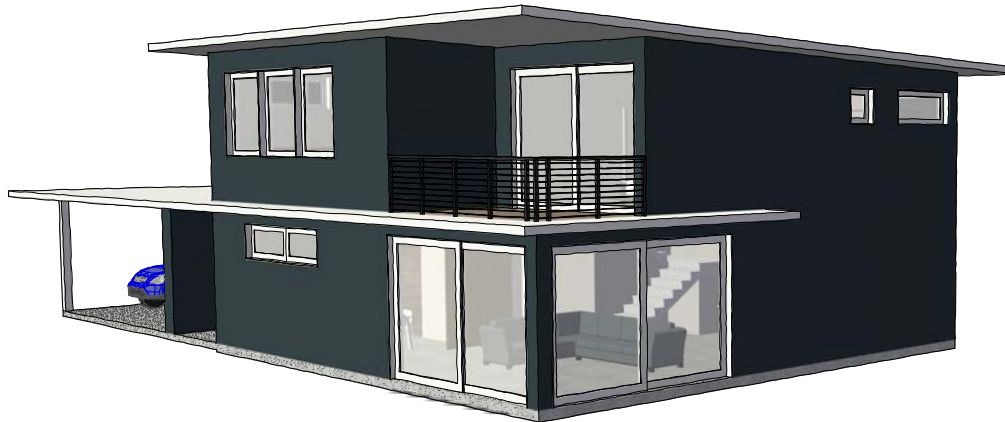


“The Mendocino”

Essential Habitat Architecture

Principle #2

Site Responsive

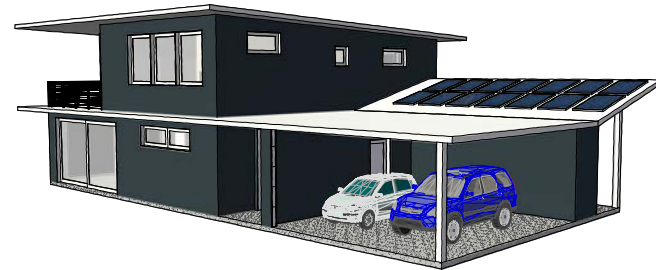
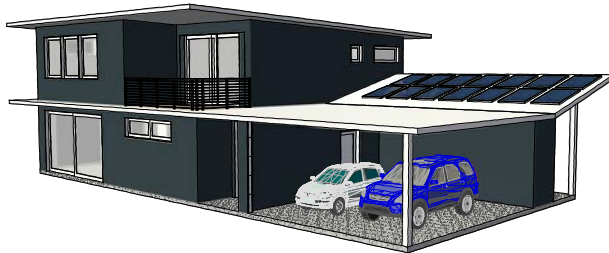
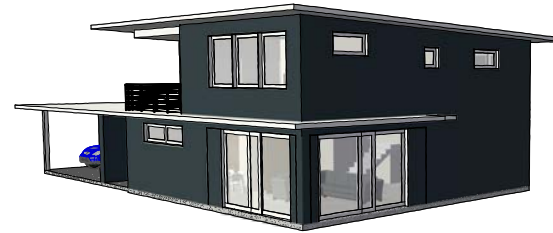
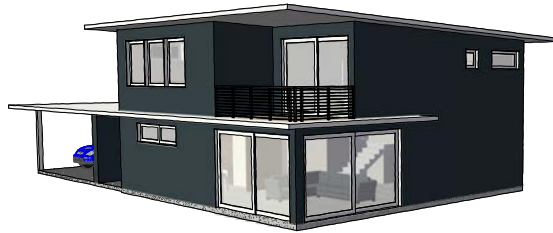


“The Healdsburg”

Essential Habitat Architecture

Principle #2

Site Responsive

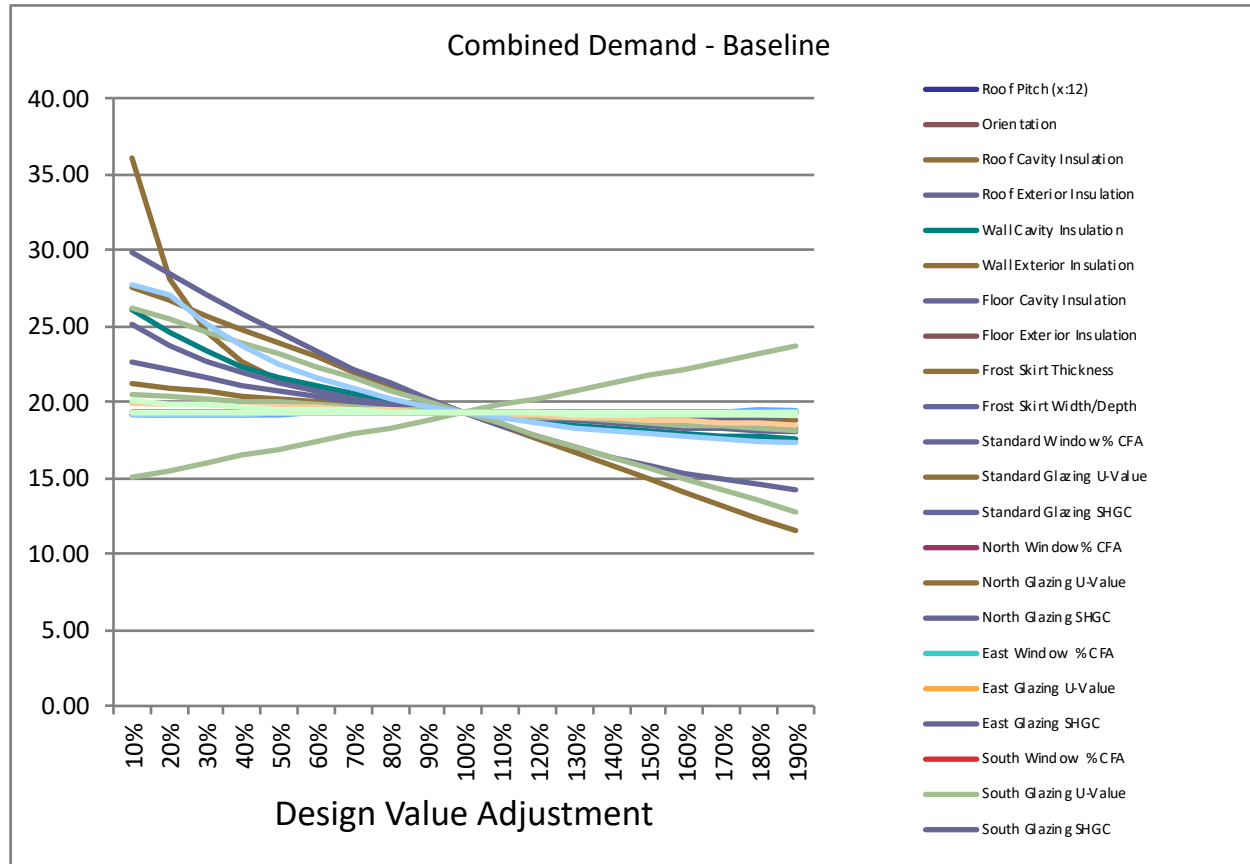


“The Healdsburg”

Essential Habitat Architecture

Principle #3

“Purposeful” Design (Parametrics)

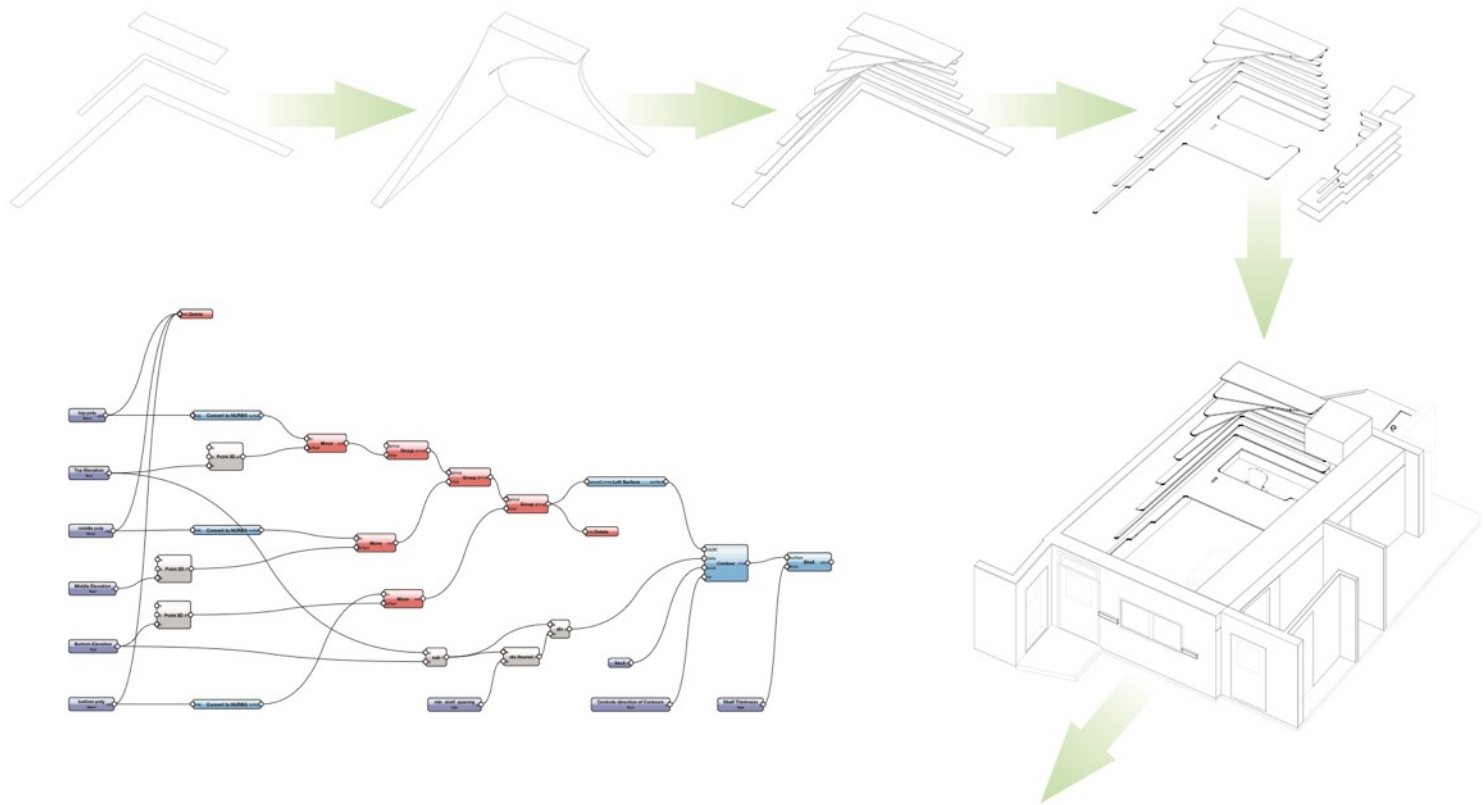


Sensitivity Analysis of PH Project

Essential Habitat Architecture

Principle #3

“Purposeful” Design (Parametrics)



Design Studio, San Anselmo CA

Essential Habitat Architecture

Principle #3

“Purposeful” Design (Parametrics)



Design Studio, San Anselmo CA

Essential Habitat Architecture

Principle #3

“Purposeful” Design (Parametrics)



Design Studio, San Anselmo CA

Essential Habitat Architecture

Principle #4

Non-Structural Exoskeleton

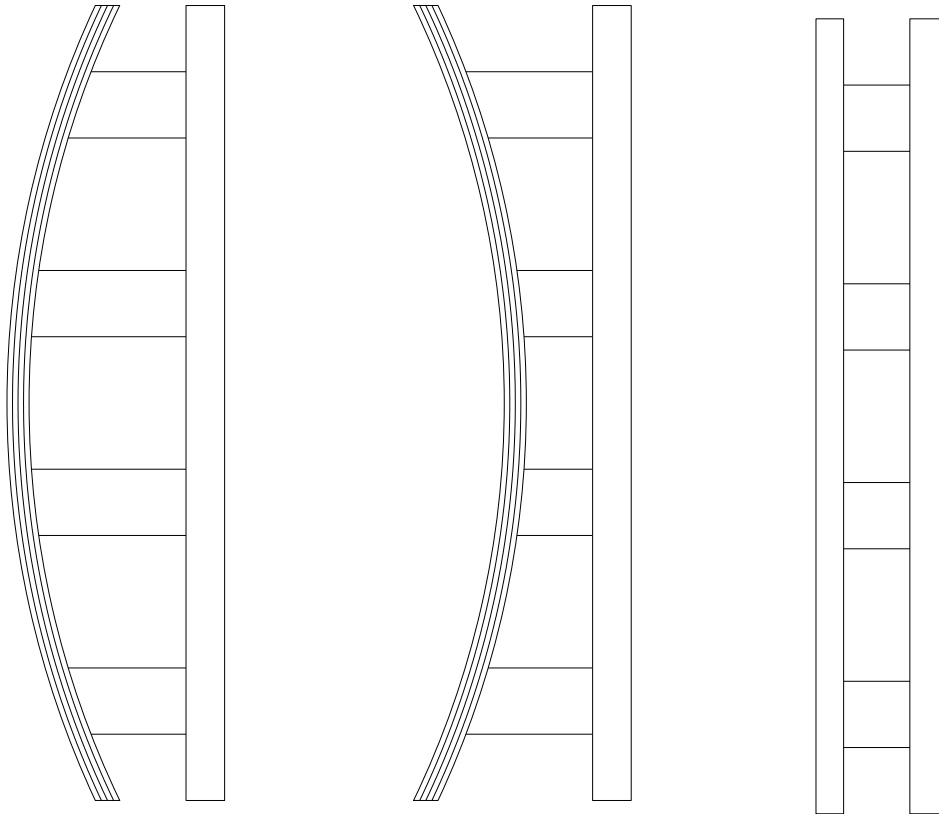


VOLKsHouse One, Santa Fe NM

MoSA Architects

Principle #4

Non-Structural Exoskeleton



Larsen Truss Opportunities

Principle #5

Consolidated Glazing



Anchor Bay House, Gualala CA

Matthias Oppliger, Architect

Principle #6

“Informed” Vernacular

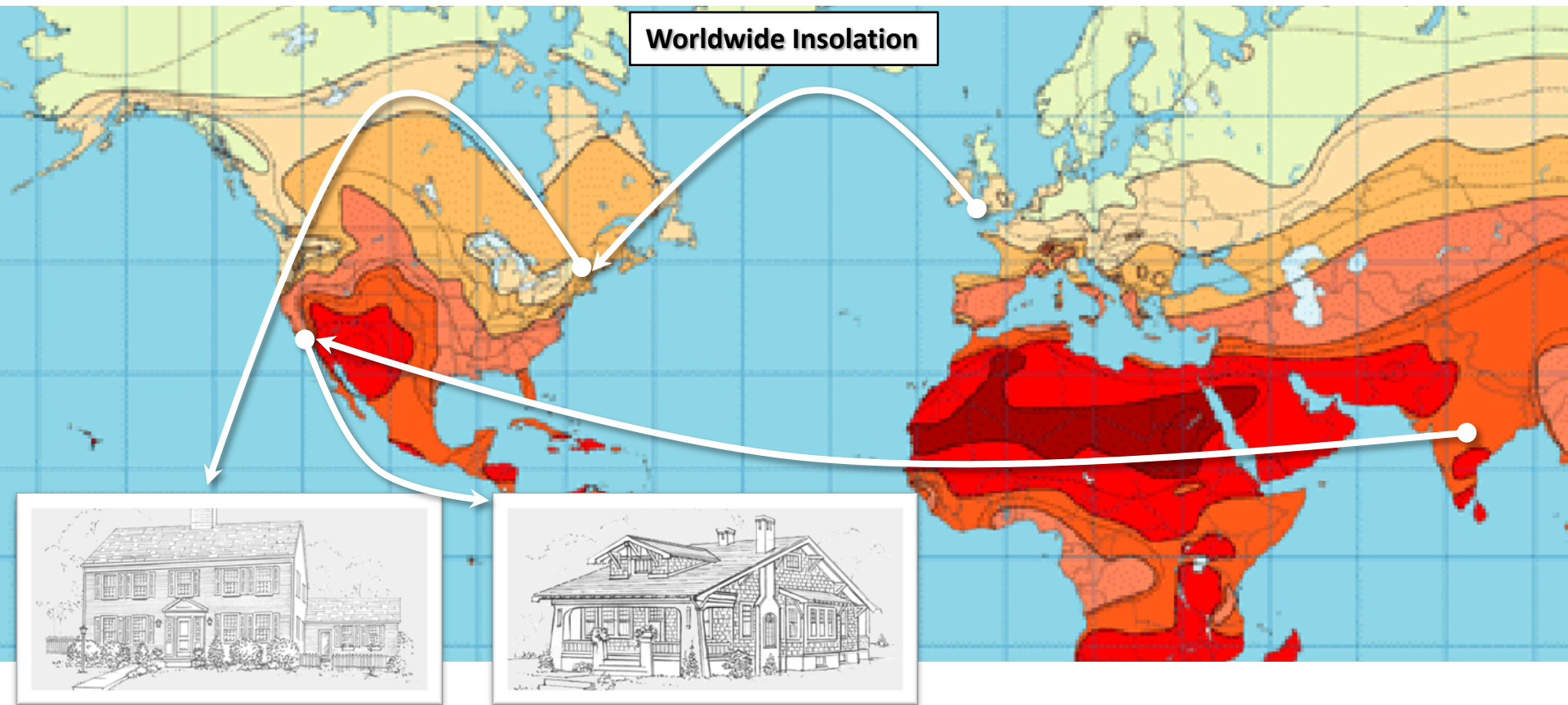


GO Home Passive House, Belfast ME

GO Logic

Principle #6

“Informed” Vernacular



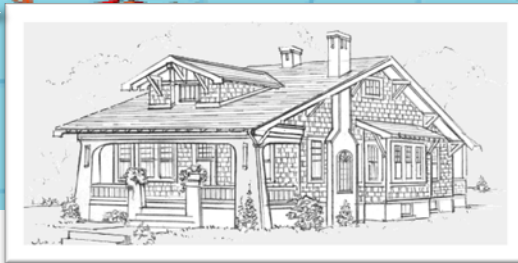
Baṅglā
Baṅgalo
Bungale
Bungalow

Principle #6

“Informed” Vernacular

Worldwide Insolation

shading [shey-ding]



Baṅglā
Baṅgalo
Bungale
Bungalow

Principle #7

Discrete Shading Elements



“The Mojave”

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Principle #8

Competent Renewable Grid Transactor

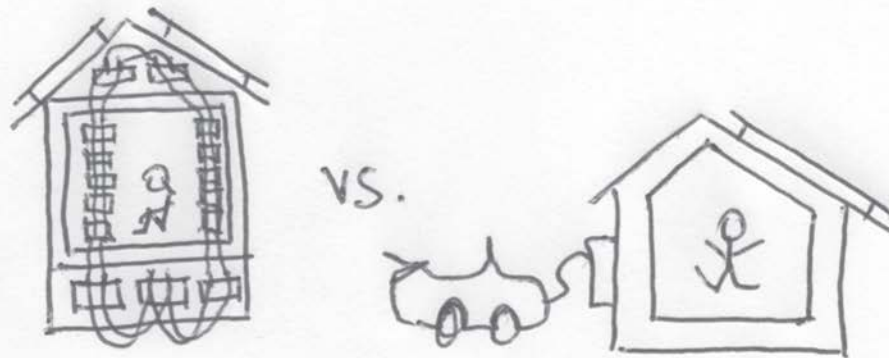


Sol-Lux Alpha, San Francisco CA

Off the Grid Design & rg-architecture

Principle #8

Competent Renewable Grid Transactor

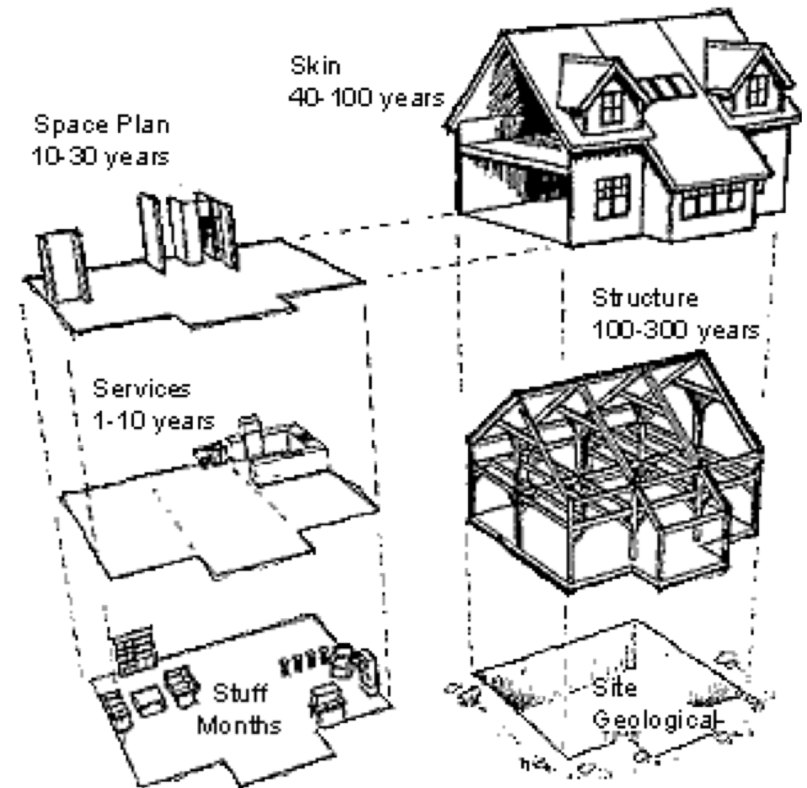
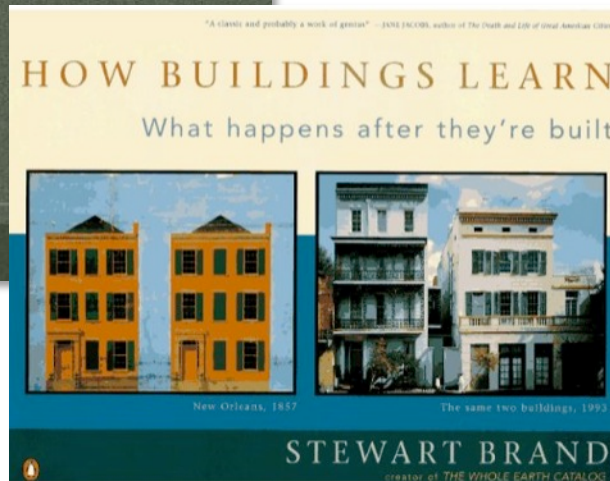
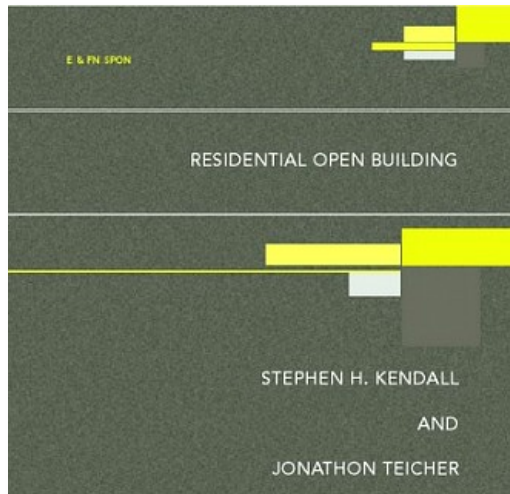


Passive House = Thermal Battery
©2015 Essential Habitat

House of batteries or house as a battery?

Principle #9

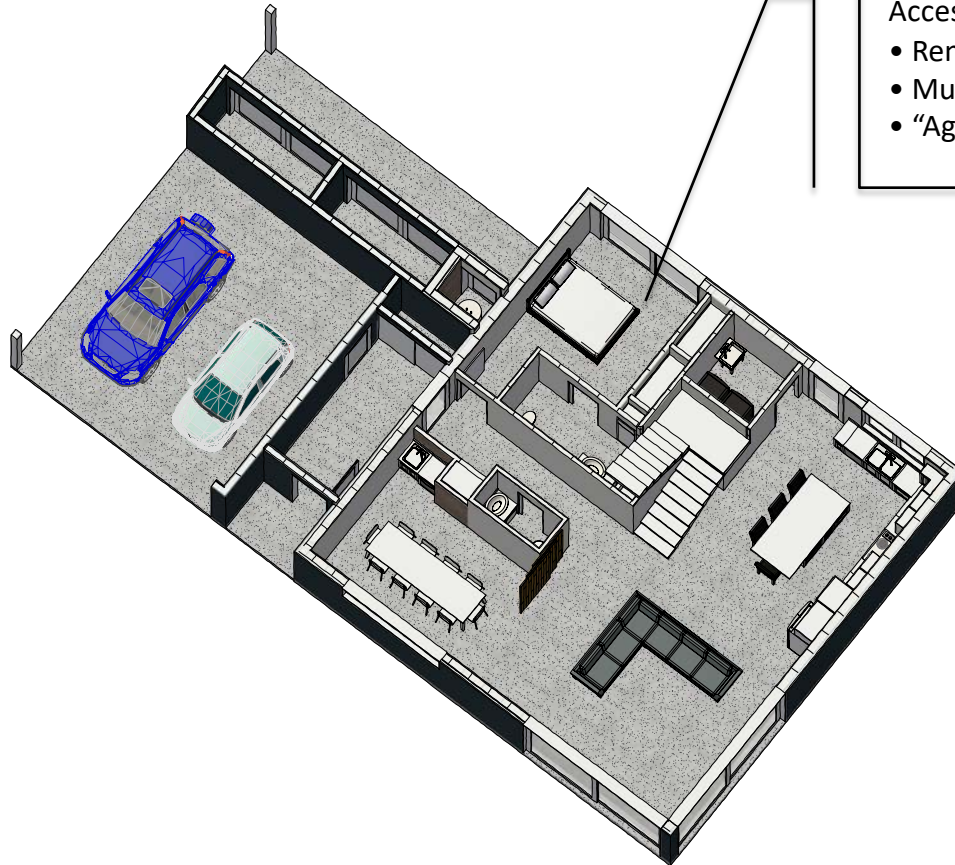
Open Building (“Forever Home”)



Source: *OPEN Prototype Home - Building the Future*
www.MadeForOne.com

Principle #9

Open Building (“Forever Home”)



Accessible Ground Floor En-Suite:

- Rental unit (w/ optional kitchenette)
- Multi-generational housing
- “Aging-in-place”

“The Healdsburg” (1st Floor)

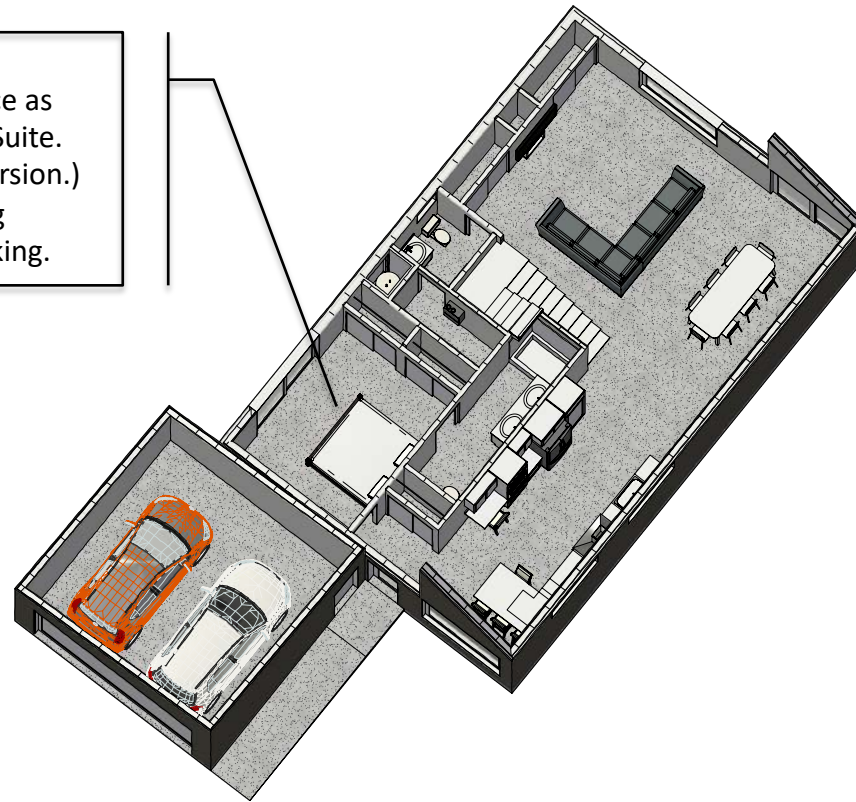
Essential Habitat Architecture

Principle #10

The End of Single-Family Housing

Future Plan:

Design attached “garage” space as easily convertible to ADU/En-Suite.
(State of CA now allows conversion.)
Possible workaround of zoning requirements for covered parking.



“The Mendocino” (1st Floor)

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