

cheap materials
& unfamiliar details





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The basis of construction is repetition. Drawing sets are composed of typical and atypical details; material systems are always modular; types are the base unit of architecture.

These systems of cheap and repetitive construction can be ordered by material, type, aesthetic, architectural element, or process of manufacture.

Each material is ranked for its promise:

- Structural Potential
- Enclosure Potential
- Minimal Energy/Matl
- Minimal Req'd Craft
- Ordinary-ness
- Cheap-ness

The distinction between a good and gimmicky use of a material relates to whether or not it offers a meaningful meditation on the material's capacities. Details that are too effortful or too unrelated to the properties and behaviors of the material are unsatisfying; good details bring out latent beauty, truth, or contradiction.

Concrete
Masonry Block

Price: \$1-3 per block
\$3 per SF

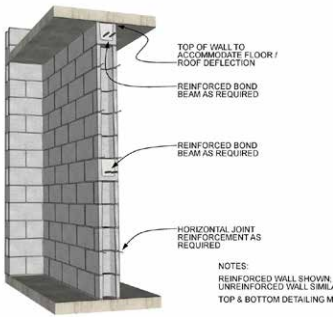
Material Type (Manufacture):
Modular (Poured)

Qualities:
Banal, Granular, Many Finishes

Tendencies:
Cracking (Stepped)

Potentials:
Corbelling, Variety of unit types (knockout blocks, headers)

Utilities:
Structure, Enclosure, Apertures in Block
Low embodied carbon because they can easily include up to 80% recycled material



	1	2	3
STRUCTURE?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
ENCLOSURE?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
MIN. INPUTS	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
MIN. CRAFT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ORDINARY?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
CHEAP?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>



H Arquitectes Casa 1413



Sol LeWitt Double Negative Pyramid

Compressed
Earth Blocks

Price: \$1-3 per block
\$6 per SF

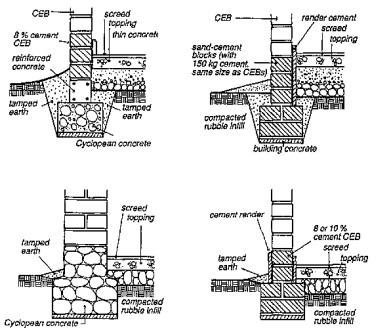
Material Type (Manufacture):
Modular (Formed/Poured?)

Qualities:
Earthen, Granular

Tendencies:
Slight erosion and wear from wind, elements

Potentials:
Activate a small community with industry

Utilities:
Structure, Enclosure, Can utilize excavated earth from sitework



	1	2	3
STRUCTURE?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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MIN. INPUTS	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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CHEAP?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>



Roger Bolthausen, Martin Rauch



Omar Rabie, Custom CEB

Rammed Earth

Price: \$75-100 per SF

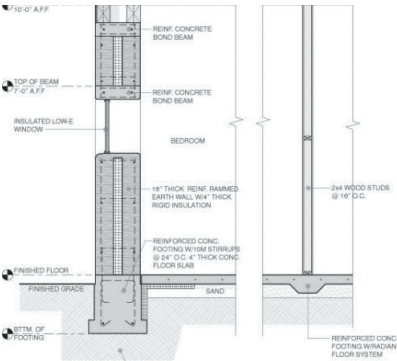
Material Type (Manufacture):
Poured

Qualities:
Grainy

Tendencies:
Slight erosion and wear from wind, elements

Potentials:
Malleability,

Utilities:
Can utilize excavated earth from sitework



	1	2	3
STRUCTURE?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
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Chapel of Reconciliation at the site of the Berlin Wall



Rafa Esparza - Staring at the Sun

Brick

Price: \$1/brick
\$7-10 per SF

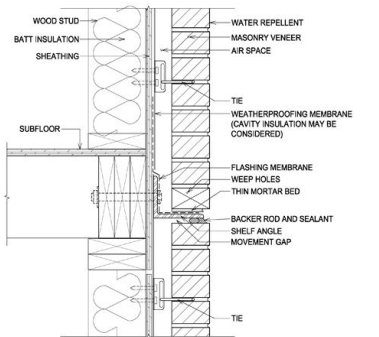
Material Type (Manufacture):
Modular (Formed)

Qualities:
Granularity, Uniformity, Diversity of Units

Tendencies:
Breaking, Color Varietgation

Potentials:
Incremental change in mortar

Utilities:
Enclosure, Vernacular



	1	2	3
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Raphael Moneo -Museum at Merida

The bricks acts as the cast-in formwork and the reinforcing for the unsupported concrete fill.



Elladio Dieste - Factory

Ladrillo Perforado

Price: \$9-\$15/block

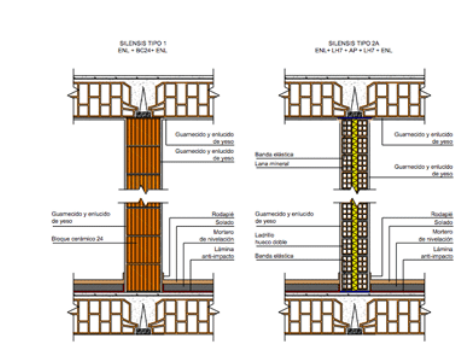
Material Type (Manufacture):
Modular (Extruded)

Qualities:
Lightness, Chispness, Delicacy, Unit Porosity, Isotropic, Prominence of Mortar

Tendencies:
Difference Between Solid/Hollow Sides, Mottling of Shadows

Potentials:
Transparency, Laciness, Roughness of Joints

Utilities:
Dense waffle provides built-in reinforcing
Pipes and bracing can run up thru holes



	1	2	3
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Goupy mortar and



Galeria de Casa 712, H Arquitectes

Ceramic Roof Tiles

Price: \$5-10/SF

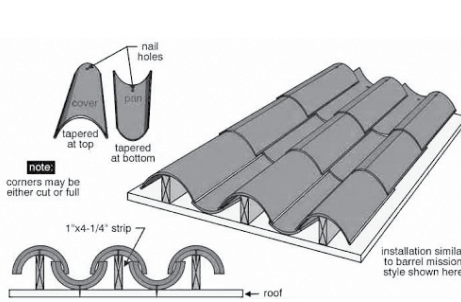
Material Type (Manufacture):
Modular (Extruded)

Qualities:
Curvature, Reflectivity, Strength, Thermal Mass

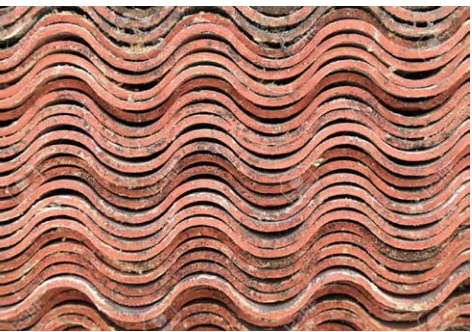
Tendencies:
Lapping, Shattering

Potentials:
Porosity, Air Flow, Structure

Utilities:
Reflects solar heat, compact packing, typical for roofing/coping, vernacular in some areas



	1	2	3
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Planetstaden Housing Complex, Jorn Utzon

Naturally Utzon likes this material because it is a corrugation of surface!
He celebrates its curvature as the coping for a wall



Serpentine Pavilion, Frida Escobedo

An element typically used to make a building's roof impenetrable and impereable is used here ot create a porous pavillion.

Peat Block

Price: \$3/block

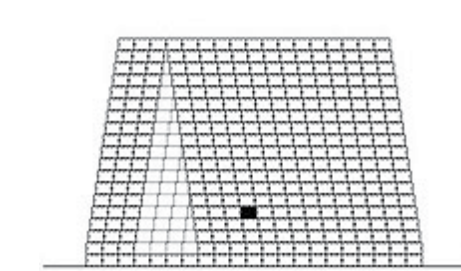
Material Type (Manufacture):
Modular (Formed)

Qualities:
Odor, Ridges, Richness of color, Rubber bands

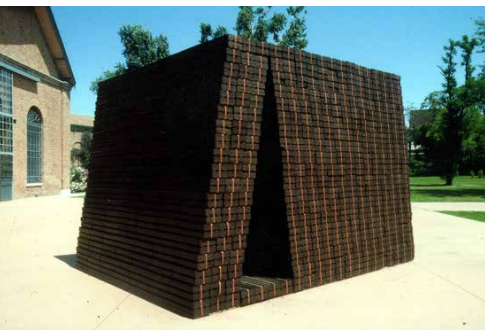
Tendencies:
Stickiness, Shrinkage

Potentials:
Stacking, stamping, manipulation of ridges and rubber bands

Utilities:
Decomposes and can be used as mulch, also commonly used as fuel for fires



	1	2	3
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Irish Pavilion Venice Biennale, Tom de Paor

Oils Barrels

Price: \$50-\$100

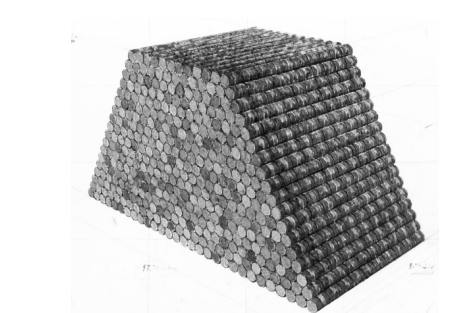
Material Type (Manufacture):
Modular (Rolled, Crimped, Capped Sheet Mtl)

Qualities:
Industrial,

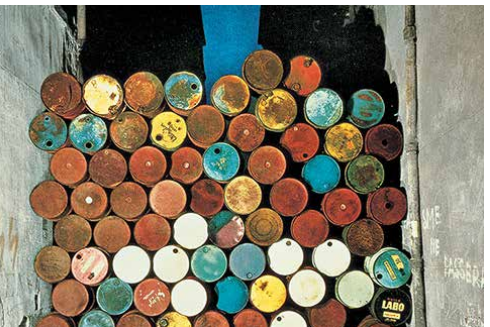
Tendencies:
Rolling, Rusting, Denting

Potentials:
Stacking, Peeling/unrolling

Utilities:
Ability to float, ability to contain, use diverts waste from landfills



	1	2	3
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Wall of Oil Barrels & Pyramids, Christo and Jean Claude