

Architecture, Design & Materials Studio

Spring 2007, CMU, Arch #48-205

Coordinator: Kai Gutschow

Class website: <http://www.andrew.cmu.edu/course/48-205/>

(1/19/07)

Semper, Gottfried. "Four Elements of Architecture" (1851)

Stone -	Base -	Stereotomy
Ceramics -	Hearth-	Moulding
Timber -	Roof/Frame -	Cutting
Textiles -	Wall -	Weaving

Allen, Edward. Fundamentals of Building Construction. Materials & Methods.(2006)

Chapters on: Wood: Timber, Finishes
Brick, Stone, Concrete Masonry
Steel Frame
Concrete: Sitecast, Precast
Glass, Windows, Cladding
Foundation, Roof, Interiors

Deplazes, Andrea. Constructing Architecture: Materials, Processes, Structures. A Handbook (2005)

Chapters on: Masonry Concrete
Timber Steel
Insulation Glass

Browell, Blaine. Transmaterial: A catalogue of Materials that Redefine our Physical Environment (2006)

Chapters on: Concrete Mineral
Metal Wood
Plastic & Rubber Glass
Paint & Paper Fabric
Light Digital

Beylerian, George and Andrew Dent. Material ConneXion: The Global Resource of New and Innovative Materials for Architects, Artists and Designers (2005) cf. www.materialconnexion.com

Chapters on: Carbon Based Cement
Ceramics Glass
Metals Naturals
Polymers

Fernandez, John. Material Architecture: Emergent Materials for Innovative Buildings and Ecological Construction (2006)

Material Families: Metals
Polymers
Ceramics
Composites
Biomaterials & Loam

Ojeda, Oscar Riera, ed. Architecture in Detail; Materials (2003) (see also "Elements", "Colors", etc.)

Chapters on: Wood Concrete
Metal Plaster
Fabric Synthetics
Glass

Mori, Toshiko. Immaterial / Ultramaterial (2002)

Chapters on: Edge Surface
Substance Phenomena

Bell, Victoria Ballard. Materials for Design (2006)

Chapters on: Glass Concrete
Wood Metals
Plastics

Weston, Richard. Materials, Form and Architecture (2003)

Chapters on: Materials for Building
Materials and Form
In the Nature of Materials
Meaning Use
Junctions Time
Surfaces Place
Materiality & Translucency

Materio, ed. Material World 2: Innovative Materials for Architecture and Design (2006)

Chapters on: Air Earth
Elastic Extreme
Industrial Know-how
Light Optical
Smart Surface
Sustainable Water

Schittich, Christian, ed. Building Simply (2005) (see all "In Detail" and "Detail Praxis" series)

Chapters on: Simple Good
Wood Loam
Steel

Cohen, J.L. & G.M. Moeller. Liquid Stone (2006)

Chapters on: Structure Surface
Sculptural Form
Future of Architecture

"New Materiality I" and "New Materiality II", special issues no.23 & 24 of **a+t** (2004)

Addington, Michelle & Daniel Schodek. Smart Materials and Technologies for the Architecture and Design Professions (2004)

Lupton, Ellen, ed. Skin: Surface, Substance & Design (2002)

MoCA, Skin and Bones: Parallel Practices in Fashion and Architecture (2006)

Rieselbach, Anne, intro. Material Process, Young Architects, no.4 (2003)

Koch, Klaus-Michael. Membrane Structures: The Fifth Building Material.

McQuaid, Matilda. Extreme Textiles: Designing for High Performance.

Stattmann, Nicola. Ultra Light - Super Strong: A New Generation of Design Materials.

van Onna, Edwin, ed. Material World: Innovative Structures and Finishes for Interiors (2003)