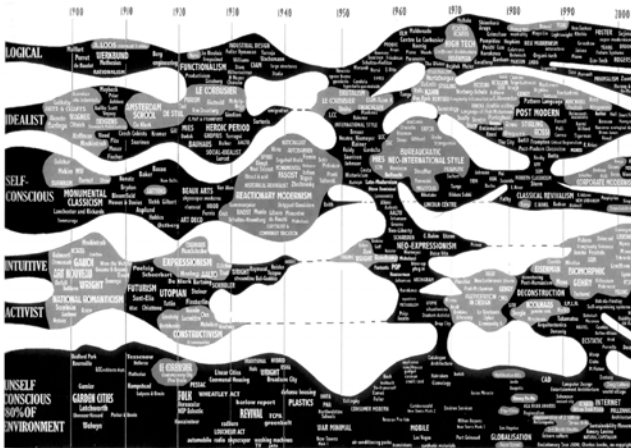
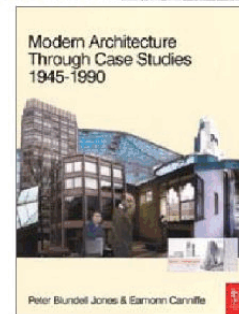
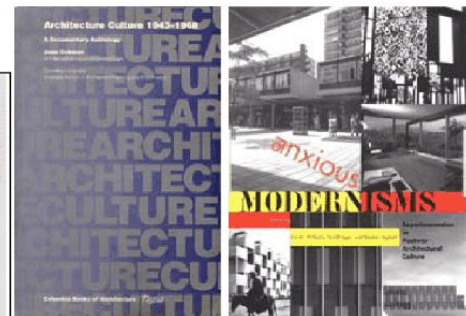


# INTRODUCTION & OVERVIEW

- Introductions
- Expectations
- Textbooks
- Assignments
- Electronic reserves
- Research Project
- Sources
- History-Theory-Criticism
- Methods & questions of Architectural History

Assignments:  
Initial Paper Topic form



Professor Kai Gutschow, M.Arch/PhD

Carnegie Mellon University  
School of Architecture

Last updated January 5, 2010

## ARCHITECTURE OF WWII

### The World at War (1939-45)

Nazi War Machine - Rearming Germany after WWI

Albert Speer, Hitler's architect & responsible for Nazi armaments

Autobahn & Volkswagen

Air-raid Bunkers, the "Atlantic Wall", "Sigfried Line", by Fritz Todt, 1941ff

Concentration Camps, Labor Camps, POW Camps

Luftwaffe Industrial Research

London Blitz, 1940-41 by Germany

Bombing of Japan, 1944-45 by US

Bombing of Germany, 1941-45 by Allies

Europe after WWII: Reconstruction, Memory, the "Blank Slate"

### The American Scene:

Pearl Harbor, Dec. 7, 1941

Pentagon, by Berman, DC, 1941-43

"German Village," Utah, planned by US Army & Erich Mendelsohn

Military production in Los Angeles, Pittsburgh, Detroit, Akron, Cleveland, Gary, KC, etc.

Albert Kahn, Detroit, "Producer of Production Lines"

\* Willow Run B-24 Bomber Plant (Ford; then Kaiser Autos, now GM), Ypsilanti, MI, 1941

Oak Ridge, TN, K-25 uranium enrichment factory; town by S.O.M., 1943

Midwest City, OK, near Midwest Airfield, laid out by Seward Mott, Fed. Housing Authority, 1942ff

Wartime Housing by Vernon Demars, Louis Kahn, Oscar Stonorov, William Wurster, Richard Neutra,

Walter Gropius, Skidmore-Owings-Merrill, et al

\* Aluminum Terrace, Gropius, Natrona Heights, PA, 1941

Women's role in the war production, "Rosie the Riveter"

War time production transitions to peacetime: new materials, new design, new products

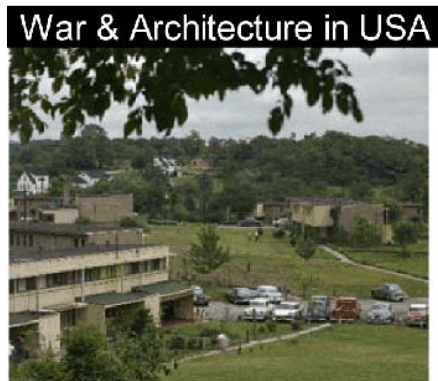
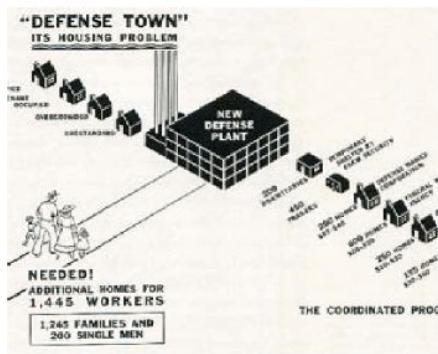
Plywood Splint, Charles Eames, 1941 / Saran Wrap / Fiberglass, etc.

Victory of Democracy; "From total war to total living"

The Returning G.I.

Beatriz Colomina, Domesticity at War

"It was beautiful while it lasted. For a brief period, the span of about fifteen years following the end of World War II, America seemed to embrace modern architecture. It was not, as with the International Style, the importation of some European ideas packaged as a style. It was the development of a whole new mode of operation, one that fascinated Europe in the same way that European models had once fascinated the U.S. Indeed, it would seem that the Europeans were more fascinated by the new American models than the American themselves."





## POSTWAR RESEARCH PROJECT

Architecture Archives

**POSTWAR TERM PAPER** (See also the class website [www.andrew.cmu.edu/course/48-340](http://www.andrew.cmu.edu/course/48-340))

**Goal:** The goal of the semester "term paper" assignment is for you to produce an excellent, college-level research paper that builds on **primary sources** (first hand evidence from the time period) AND **secondary sources** (previous scholarship about the past), and that contributes to a **new or revised understanding or interpretation** of your subject. You must find, read, and interpret existing sources or evidence on a particular subject that interests you, establish the different points of view that have already been expressed about that subject, and then argue your own position on a subject. You should seek to go beyond a summary of existing knowledge about a subject (a "report"), and instead create an original interpretation or point of view about an existing subject ("re-search").

### 1) FIND A TOPIC:

### 2) YEAR IN ARCHITECTURE COLLAGES (2):

As an introduction to the postwar era, and to get everyone immersed in the material and the "feel" of the period, every student will be assigned to research 2 years in the period 1942-1974 during the first week of classes.

The assignment:

- Leaf through the entire volume of pages of Architectural Record, and of London's Architectural Review, and the entire pdf of Pittsburgh's Charette magazine (see website) for the 2 years assigned to you.
- Scan/save at least 15 pages from each journal, as well as any other images that interest you, including interesting and boring buildings, funky ads, notable quotes, art, fashion, cars, etc.
- Compose a tightly-packed, well-organized, **single-page, 11"x17"** (landscape orient) collage of ID'ed images for **each** of the two years assigned to you, and attempt to capture and communicate the most important and significant architectural events for Pittsburgh, the US, and international context.
- Feel free to connect it to the paper topic that you are beginning to choose.
- Feel free to use additional images from anywhere on the web, including the AP Archives, Life, etc.
- Each page should include your name, year, and the title: "Postwar Modern Architecture in Pittsburgh"
- Submit color hardcopy & pdf with filename: **Postwar\_19XX\_Lastname.pdf** on Blackboard by Jan. 23.



See syllabus for next steps:

- 3) "PAPER TOPIC" FORM:
- 4) SEARCH FOR SOURCES:
- 5) FIND / DETERMINE THE EXISTING ARGUMENTS:
- 6) RESEARCH CONSULTATIONS:
- 7) 2<sup>nd</sup> TOPIC PROPOSAL REVISION (½ page + biblio):
- 8) 3<sup>rd</sup> TOPIC PROPOSAL REVISION + ANNOTATED BIBLIOGRAPHY:
- 10) WRITE FIRST THREE PAGES + UPDATED BIBLIOGRAPHY:
- 11) FINAL PROJECT DUE:

:

## POSTWAR PITTSBURGH

Pittsburgh's long history & problems of capitalist, industrial city  
Postwar Urban Crisis: Problems of

1) Smoke; 2) Floods; 3) Traffic.

Strangling the CBD. City dying, corporations leaving

Little overall planning, corporate competition + politics prevents it

Oakland Civic Center created to escape downtown grime, ca. 1900

F.L. Olmstead Plan for Pgh. 1911

Robert Moses "Arterial Plan" for Pittsburgh, 1939



Allegheny Conference on Community Development (ACCD)

(R.K. Mellon, Kaufman, etc.), 1943ff

"Reverse Welfare State" strategies: harness public power for corporate good

Pittsburgh Renaissance I

New Highways, Bridges, Tunnels & Parking Garages, 1945-60, 1980s-present

- \* Point Park & Gateway Center, by Eggers & Higgins, 1950-56
  - Projects
    - Erich Mendelsohn's proposal for Pgh. Point, 1943 (proj.)
    - F.L. Wright's "Point Park Coney Island in Auto Scale" 1947 (proj.)
    - Mitchell & Ritchey, "Pgh in Progress", Kaufmann's Dept. Store, 1947
  - Precedents:
    - Le Corbusier's "Towers in the Park" (1922ff)
    - Eggers & Higgins' Stuyvesant Town in NYC, 1943-47
  - Developed by Equitable Life Insurance Corp. (Private development)
  - Other Buildings: State Office Bldg (1957), Hilton Hotel (1959), IBM Building (1963), etc.
- \* Mellon Square - Mellon's bequest to Pgh.
- \* Alcoa Building, Harrison & Abramovitz, 1950-53
- \* Mellon - US Steel Tower, Harrison & Abramovitz, 1949-51
- Landscape - Simonds & Simonds
- Other Harrison & Abramovitz Buildings: Porter, USX, Four Gateway, Amer. Inst. Research, Learning Research Ctr.
- \* Lower Hill Development & Civic Auditorium
  - Federal Housing Act of 1949 allows cities to acquire and redevelop blighted areas and slums
  - Hill seen as blighted: Demolition began 1956; displaced 1551 negro families & 413 businesses.
  - Developed by Webb & Knapp, later by Alcoa
  - Civic Auditorium, promoted by Kaufmann 1946-61, designed by Mitchell & Ritchey, 1957-61
  - Washington Plaza Apts., I.M. Pei, with Webb & Knapp, 1964
  - Chatham Center, by E.D. Stone / Symphony Hall & Arts Ctr, SOM, 1965
- Panther Hollow, Abramovitz, 1967 (proj.)
- Northside / Allegheny City Redevelopment
- East Liberty Redevelopment



Postwar Pittsburgh bibliography:  
<http://www.andrew.cmu.edu/user/ma1f/ArchArch/postwarPGHarchbibliography.html>

\* = Most important buildings (for midterm, etc)

## **DISCUSSION: WHAT IS POSTWAR MODERN?**

Discuss:

Joedicke, J. "Introduction," Architecture Since 1945 (1969)

Goldhagen & Legault, "Introduction: Critical Themes of Postwar Modernism," in Anxious Modernisms

Goldhagen, "Coda: Reconceptualizing Modernism," in Anxious Modernisms

Ockman: "Introduction," in Architecture Culture, 1943-1968

Differentiate: Prewar Modernism; Postwar Modernism; Postmodernism

Critical Themes of Postwar Modernism: Anxiety, Popular Culture, Consumer Culture, Everyday Life, Anti-Architecture, Democratic Freedom, Homo Ludens (play), Primitivism, Authenticity, Architecture's History, Regionalism, Place, Skepticism & Infatuation with Technology.

### **Postwar Modern Architects & Pritzker Architecture Prize Laureates**

2010: SANAA, Kazuyo Sejima + Ryue Nishizawa of Japan.

2009: Peter Zumthor of Switzerland

2008: Jean Nouvel of France

2007: **Richard Rogers** of the United Kingdom

2006: **Paulo Mendez da Rocha** of Brazil

2005: Thom Mayne of the United States

2004: **Zaha Hadid** of the United Kingdom

2003: **Jorn Utzon** of Denmark

2002: Glenn Murcutt of Australia

2001: Herzog and de Meuron of Switzerland

2000: Rem Koolhaas of The Netherlands

1999: **Norman Foster** of the United Kingdom

1998: **Renzo Piano** of Italy

1997: **Sverre Fehn** of Norway

1996: Rafael Moneo of Spain presented

1995: **Tadao Ando** of Japan

1994: Christian de Portzamparc of France

1993: **Fumihiko Maki** of Japan

1992: Alvaro Siza of Portugal

1991: **Robert Venturi** of the United States

1990: **Aldo Rossi** of Italy

1989: **Frank O. Gehry** of the United States

1988: **Gordon Bunshaft** of the United States and **Oscar Niemeyer** of Brazil

1987: **Kenzo Tange** of Japan

1986: **Gottfried Boehm** of Germany

1985: **Hans Hollein** of Austria

1984: **Richard Meier** of the United States

1983: **leoh Ming Pei** of the United States

1982: **Kevin Roche** of the United States

1981: **James Stirling** of Great Britain

1980: **Luis Barragan** of Mexico

1979: **Philip Johnson** of the United States

## GROPIUS, MIES & EMIGRE MODERNISM IN USA

Emigre Architects: DIASPORA of the Avant-Garde

Russia: E. May, H. Meyer, G. Schutte-Lihotzky, B. Taut

Japan: B. Taut, A. Raymond

Turkey: C. Holzmeister, H. Poelzig, B. Taut, O. Kaufmann, M. Wagner

Mexico: H. Meyer, M. Osborn, M. Cetto

Israel/Palastine: Mendelsohn, O. Kaufmann

Africa: E. May, M. Fry, J. Drew, L. Connell

India: Raymond, Konigsberger

England: Gropius, Mies, Mendelsohn

USA:	Gropius (Harvard),	M. Wagner (Harvard),
	Mies (IIT),	Moholy-Nagy (IIT),
	Mendelsohn (Berkeley),	Hilberseimer (IIT),
	Saariinen (Cranbrook),	W.C. Behrendt (Darmouth),
	Aalto (MIT),	Gutkind (Penn),
	Breuer (Harvard),	Konrad Wachsmann (CMU)
	Giedion (Harvard),	

Walter Gropius (1883-1969)

Founding Director of Bauhaus, 1919-1928

Emigrates from Germany 1934, to England, then US, 1937

Chair of Architecture at Harvard, 1937ff

\* Gropius Own House, Gropius, Lincoln, MA, 1937 (p.396)

Frank House, Breuer & Gropius, Pgh, 1937

Aluminum City Terrace, New Kensington, PA 1942

Harkness Commons (Harvard), Gropius, Cambridge, MA, 1948 (**Curtis textbook**, p.397)

Michael Reese Hospital Complex Additions, Chicago, 1945-59 (37 acres)

The Architect's Collaborative (TAC) With Benjamin Thompsom

PanAm Building, TAC with Belluschi & Emery-Roth, NYC, 1965

Athens Embassy

Chase Manhattan Bank, Great Neck, NY

Bagdad University

Ludwig Mies van der Rohe (1886-1969)

Head of Werkbund, Last Chair at Bauhaus, 1933

Emigrates to US 1937

Chair of Architecture at IIT 1939ff

\* Farnsworth House, Mies v.d. Rohe, Plano, IL, 1945-51 (p.403)

\* IIT Campus Plan, Mies v.d. Rohe, 1939-56, incl. Crown Hall Architecture, 1950-56, (p.401-2)

\* Lake Shore Drive Apts., Mies v.d. Rohe, Chicago, 1948-51 (p.394,407)

Seagram Building, Mies v.d. Rohe & P. Johnson, NYC, 1954-8 (p.408)

\* New National Gallery, Mies van der Rohe, Berlin, 1962-8 (p.645)

Erich Mendelsohn

**SOM & GLOBALIZING CORPORATE MODERN**

- \* Seagram Building, Mies v.d.Rohe & P. Johnson, NYC, 1954-8 (p.408)

## Skidmore Owings &amp; Merrill (SOM)

Founded 1936, Chicago; office in NYC for 1937 World's Fair.

Architecture by a corporation for corporations: anonymous. Notable SOM architects include: Gordon Bunshaft, Natalie de Blois, Myron Goldsmith, Bruce Graham, Brigitte Peterhans, Gertrude Kerbis, Walter Netsch, Edward Charles Bassett, Adrian Smith, Larry Oltmanns, Fazlur Rahman Khan, Lucien Lagrange, David Childs, Gordon Gill...

Venezuela & Heinz Pavilions, NYC World's Fair, 1937

TVA Housing, Oak Ridge, TN, 1941

Great Lakes Naval Training Center, Chicago, 1941

Marine Gunnery School, SOM, Great Lakes, IL, 1954 (Frampton text, p.301)

- \* Heinz Vinegar Plant, Pittsburgh, SOM & Gordon Bunshaft, 1950
  - + Heinz Research Ctr, Pgh., 1956 & Heinz Headquarters, UK, 1965

- \* Lever House, SOM & Bunshaft, New York City, 1951-2 (p.409)
  - Manufacturer's Hannover Bank, New York City, SOM & Bunshaft, 1953-4 (Bertoia sculptural screen)
  - Inland Steel, Chicago, SOM & Bunshaft, 1955-58
  - Pepsi, NYC, 1956-60
  - Chase Manhattan Plaza, NYC, 1955-61
  - Corporate campus architecture:
    - Connecticut General Life Insur. Co., SOM/Bunshaft, Bloomfield, CT, 1954-7
    - Upjohn Pharmaceuticals, Kalamazoo, MI, SOM, 1961

## Sculptural Modern

- \* Airforce Academy & Chapel, SOM (Netsch), 1956
- Beinecke Library, Yale, SOM/Bunshaft, New Havn, 1963
- UIC Biology & Architecture Bldg., SOM (Netsch), Chicago, 1963-8
- Pittsburgh Arts Center & Symphony Hall (proj.), SOM & Gordon Bunshaft, Lower Hill, 1965
- Brunswick Bldg., Chicago, 1965
- Hirshhorn Museum, SOM (Bruce Graham), Washington, DC, 1968-74
- \* Hancock Tower, SOM (Fazlur Kahn & Graham), Chicago, 1968 (p.559)

## Corporate Modern

- Equitable Life Assurance, P. Belluschi, Portland, OR, 1944-7 (p.407)
- \* UN Building, Harrison & Abramovitz (& Le Corbusier), NYC, 1947-50 (p.410-11)
- Alcoa Building, Harrison & Abramovitz, Pgh, 1953
- Time-Life Building, Rockefeller Ctr., NYC, Harrison & Abramovitz, 1959
- GM Bldgs: 1923 Albert Kahn, Detroit // 1965, E.D. Stone, NYC // 1977, J. Portman, Detroit
- Emery Roth & Sons': architects to NYC's corporations
- Pgh's Postwar Modern: 3 Mellon Plaza (H&A), One Oliver Plaza (Lescaze), Equibank Center 2 (H&A)
- XYZ Bldgs, extension to Rockefeller Ctr., 6th Ave, NYC: McGraw Hill (1969), Exxon (1971), Celanese (1973) all by Harrison & Abramovitz
- Globalizing the corporate modern box

\* = Most important buildings, for midterm, etc. (page numbers in parentheses refer to Curtis textbook)



## LIVING IN THE U.S.A.: ICONS (New Canaan, Case Study)

WWII & "Total Living" in the Postwar

Precedents for modern architecture

"International Style" Exhibit, MoMA, NYC, H.R. Hitchcock & P. Johnson, 1932

Fallingwater, Bear Run, PA, F.L. Wright, 1935-38

\* Gropius Own House, Gropius, Lincoln, MA, 1937-38 (p.396)

\* Farnsworth House, Mies v.d. Rohe, Plano, IL, 1945-51 (p.403)

MoMA's "Good Design" program, 1941ff. (E. Kaufmann Jr., Noyes)

"Organic Design in Home Furnishings" competition, won by Eames & Saarinen, 1941

"Harvard Five" in New Canaan, CT

Eliot Noyes House, 1947 (Corporate design for IBM)

Breuer Hse 1, 1948

Houses in Lincoln, MA, 1938-39

Frank House, Gropius & Breuer, Pittsburgh, PA 1939

Robinson Hse., Williamstown, MA, 1947

Thompson Hse, Ligonier, PA, 1947

MoMA House, NYC, 1949

Landes Gorres Hse, 1948 (Draftsman for P. Johnson)

John Johansen Hse, 1949

\* Johnson Glass House, Johnson, New Canaan, CT, 1949-50 (p.403)

Case Study Houses

John Entenza, *Arts & Architecture*, Los Angeles, 1945-62

\* Eames Own House (C.S. #8), Charles & Ray Eames, Santa Monica, CA, 1945-9  
(p.404) (cf. Blundell, *Case Studies*)

\* Case Study Houses #21), P. Koenig, Los Angeles, 1958 (p.405) (#22, 1959)

Julius Shulman's Photographs & the Canonization of Modern Architecture

Kaufmann Desert House, Neutra, Palm Springs, 1946 (p.399)



Living in USA: Icons: Breuer, New Canaan, Case Study





## LIVING IN THE U.S.A.: PREFAB & POPULAR SUBURBS

Balloon frame, 1840s, Catalogue Houses, 1900-1940

Quonset Huts, U.S. Navy quick & transportable housing (based on English WWI Nissen Hut)

Dymaxion House, Buckminster Fuller, 1927-29  
Dymaxion House Built at Wichita, Fuller, 1945 (cf. p.325)

Lustron Steel Houses, 1948-51, plant in Columbus, OH

Suburbs

“White Flight”

Neglect of US inner-cities & housing stock during the war

“Red-Lining”

Returning vets, selling the “American Dream”

G.I. Bill - Mortgages & Tuition

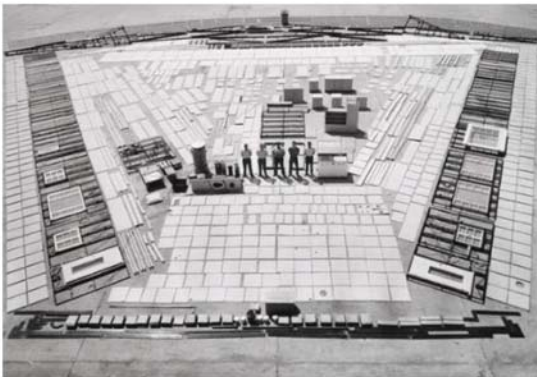
Federal highways & Detroit's automobiles

Mass production of houses

Levittown, William Levitt & Sons, Hempstead, Long Island, 1947-52  
(also ones in PA & Puerto Rico)

Auto Culture

Shopping Culture, Malls



Living in USA: Prefab & Popular



## **LIVING IN THE U.S.A.: PUBLIC HOUSING**

Neglected housing in US Cities, Depression & WWII (Shortage, Crowded, Substandard)

Housing Legislation

1937 Wagner-Steagall Housing Act: gives power to cities, demands new housing + removal of old

1945 - Truman's Inauguration speech includes housing

1947 Illinois "Blighted Area Redevelopment & Relocation Act": encourages housing by private dev's

1949 Housing Act - Creates funding for City housing agencies to create cheaper housing for all

1956 - Federal Housing Act 2

Williamsburg Houses, NYHA + Lescaze & Shreve, Brooklyn, 1937

Stuyvesant Town, Eggers & Higgins, with Met Life Insurance, 1940-47

Megalomaniacal Planning of 20<sup>th</sup>-century: Le Corbusier, Hilberseimer, Hitler, F.L. Wright...

Chicago Housing

"Surgery" for a city: urban economic redevelopment + slum clearance + housing development

Questions of housing type & geometry: move from low-rise rows to high-rise towers

Lake Meadows Housing, SOM with New York Life Insurance, 1952-59

Supported by Southside Planning Board (IIT + Reese Hospital + citizens)

First scheme - 2 giant slabs, 1950

Residents move to Dearborn Homes

Stateway Gardens (1952) and Robert Taylor Homes (1962) alongside Ryan Expressway

Pruitt-Igoe Housing, M. Yamasaki, St. Louis, 1954-72

"Death of Modern Architecture" (C. Jencks, The Language of Postmodern Architecture, 1976)

Pittsburgh

Lower Hill Cultural Center, 1951-68

Northside

Allegheny Center; Allegheny Commons East, Katselas, 1967

Manchester, PHLF, 1970s

East Liberty, 1960s

Penn Ave. Pedestrian Mall (URA), 1970s

Penley Plaza Apartments, Katselas and others, 1970s (PHA)

## **DISCUSSION - AMERICAN POSTWAR VALUES**

- We. Feb. 6 #11 - PUBLIC HOUSING IN THE USA  
Bristol, K. "The Pruitt-Igoe Myth," JAE 44/3 (1991): 163-171.  
Wright, G. "Public Housing for the Worthy Poor," in Building the Dream, pp.240-261  
*Optional:* Plunz, R. "The Pathology of Public Housing," Ch.8 in Public Housing in NYC  
pp.246-279
- Fr. Feb. 8 #12 - DISCUSSION: POSTWAR AMERICAN VALUES  
Curtis: pp.513-517  
Compilation from Ockman, Architecture Culture:  
Sert/Leger/Giedion, "Nine Points on Monumentality," p.27;  
Kahn, "Monumentality," p.47f;  
\*\* Hudnut, "The Postmodern House," p.70f;  
Lods, "The Return from America," p.80f;  
\*\* Fuller, "Designing a New Industry," pp.86-92;  
Bachelard, "The Oneiric House," p.110f;  
Mumford, "Bay Region Style," p.107f;  
Schwarz, "Concerning the Building Art," p.129f;  
\*\* Johnson, "Seven Crutches," p.189f.  
*Suggested:* Scott, "Bernard Rudofsky" in Anxious = Ch.9

Monumentality & City – Giedion, Leger, Sert

Monumentality & Technology - Kahn

Regionalism - Mumford

Technology & America - Lodz

Existential Space - Bachelard (cf. Heidegger)

Humanism/Religion - Schwarz (cf. Mies)

Architecture as Art - Johnson

## **GERMANY, DEMOCRACY & TRANSPARENCY**

### German Democracy – Important Dates

- Germany first unified as "2nd Reich" in 1871 - WWI defeat and end of Empire Nov. 9, 1918 - Weimar Republic 1919-1933 - Hitler's Third Reich 1933-45 - WWII 1939-1945; US at war 1941ff - Germans suffer 10 million deaths - Vast destruction of cities
- V.E. day: May 8, 1945 - Division of Germany by Allies - 25 million displaced people
- Federal Republic of Germany (FRG) created May 23, 1949 (= West Germany) out of US, French & English sectors - New capital at Bonn (provisions after 1956) - A parliamentary democracy - First Chancellor Konrad Adenauer, 1949
- German Democratic Republic (DDR) - created Oct. 7, 1949 (= East Germany) - Tightly controlled by Soviets - New capital in eastern Berlin - Berlin Wall created 1961
- Unification Nov. 9, 1989, unified government in Bonn - Capital moves to Berlin 1999

### Bonn & Transparency

Parliament, (Renovation & Addition to Pedagogical Institute), Hans Schwippert, 1949

New Parliament, Gunther Behnisch, 1989

Chancellor's Bungalow, by Sep Ruf, 1956

- \* German Pavilion, Brussels World's Fair, by Eiermann & Sep Ruf, 1958 (cf. Blundell, Case Studies)  
cf. Mies, Barcelona Pavilion, 1929; Speer's German Pavilion, Paris World's Fair, 1937
- German Supreme Court, in Karlsruhe, by Paul Baumgarten, 1965
- German Embassy, Washington DC, Eiermann, 1965

Max Bill, Hochschule für Gestaltung (= Design College, Ulm, 1953 (Frampton p.287)

cf. Mies, Bauhaus Chicago, North Carolina, Ulm

Braun & German Industrial Design

### Egon Eiermann (1904-1970)

Handkerchief Factory at Lauffenmühle KG, at Blumberg, Baden, 1949

Offices for United Silk Weaving Works (Vereinigten Seidenwebereien), in Krefeld, 1950-56

cf. Mies' Esters & Lange Houses, Krefeld, 1930

Matthauskirche (Church of St. Matthew), in Pforzheim, 1951-53

- \* Kaiser Wilhelm Gedächtniskirche, Eiermann, Berlin, 1959-63
- \* Neckermann Mail Order, Frankfurt, Germany, 1958-61 (p.472)
- Parliamentary Office Building in Bonn, 1965
- IBM Germany, by Eiermann, in Frankfurt, 1967-72

### Sep Ruf (1908-1982)

Bavarian State Bank, Nuremberg, by Sep Ruf, 1949-51

Germanisches Nationalmuseum Addition, by Sep Ruf, in Nuremberg, 1953-73

### Others (if we have time)

Primary School, Düsseldorf, Paul Schneider-Esleben, 1959

Garage, Düsseldorf, Paul Schneider-Esleben, 1949

Mannesman Tower, by Schneider-

Esleben, in Mannheim, 1958

cf. Mannesmann Headquarters,

Peter Behrens, 1912

- \* Thyssen Hirise, Hentrich & Petschnigg, Düsseldorf, 1957-60



**Transparency, Democracy  
& the German State**





## COMPETING COLD WAR MODERNISMS

### Cold War

USA Democracy vs. USSR Communism; Iron Curtain  
Sputnik (Oct. 1957); Space Race; Arms Race; Atomic Design Style; Fallout Shelters  
Red Scare, McCarthyism

### USSR: Master Planning, Classicism, Soviet Realism

Moscow Metro System, 1935-56

Stalin's "Seven Sisters" Skyscrapers, 1947-53: Hotel Ukraina, Kotelnicheskaya Embankment Apts,  
Kudrinskaya Sq. Bldg, Hotel Leningradskaya, Ministry of Foreign Affairs, Red Gates Admin. Bldg,  
+

Lomonosov Moscow State University, by Rudev, 1945-50 (value of research for space race, etc.)

USSR Embassy in East Berlin, 1946

Increasing use of modern architecture after 1953, and in 1955-60 "Five Year Plan"

### USA: Democracy, Consumerism & Modern Architecture

US Embassies: London (Saarinen), The Hague (Breuer), Athens (Gropous), New Delhi (E.D. Stone),  
Stockholm (Rapson), Frankfurt Consulate (SOM)...

Hotels (Hiltons Berlin, Istanbul, Caribbean, Pittsburgh, etc.); tropical hotels...

Morris Lapidus & Miami Modernism: Fontainebleau Hotel

### Brussels World Fair, 1958

Atomium

cf. Atomic threat, Atomic age, Atomic war, Atomic style...

US Pavilion, by E.D. Stone

USSR Pavilion

Sputnik & Space Race

\* (German Pavilion, Eiermann & Ruf)

\* (Philips Pavilion, Le Corbusier)

### American Expo, Moscow, 1959,

Dome Pavilion, Buckminster Fuller

Nixon-Kruschev "Kitchen Debate"

Eames Exhibits



Cold War Modernism and Iron Curtain



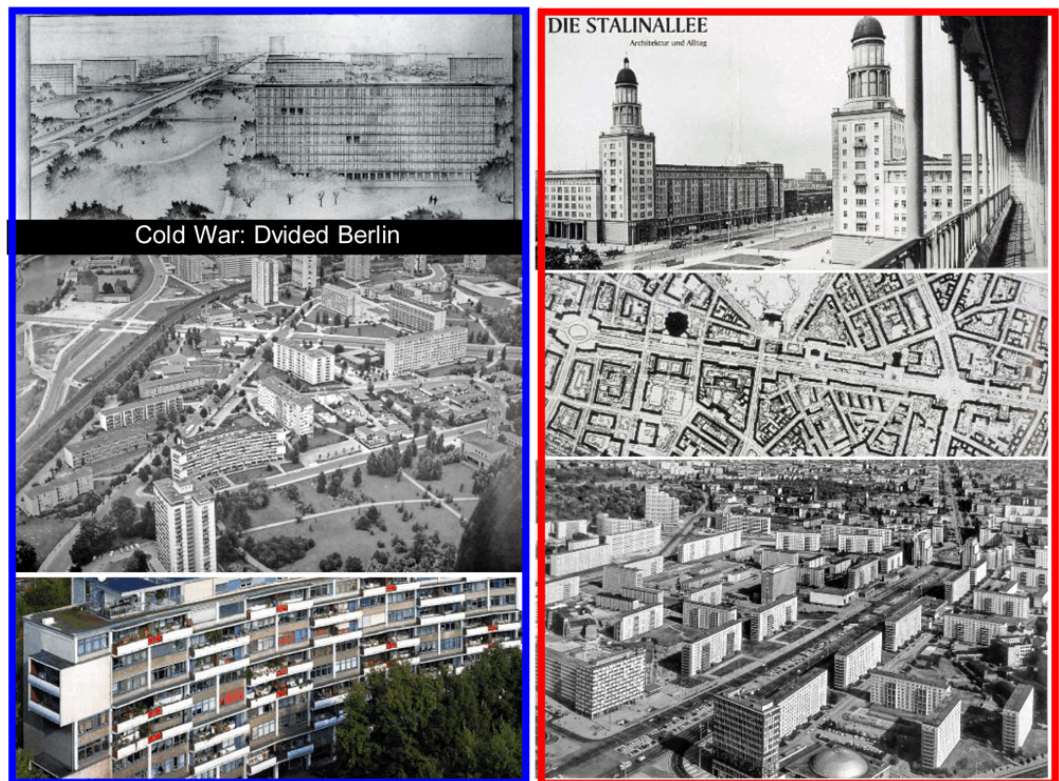
## DIVIDED BERLIN & THE IRON CURTAIN

Berlin as Epicenter of Cold War

Removing the rubble from central Berlin, 1945-52  
First reconstruction plans by Hans Scharoun & Team, 1946ff  
Berlin Blockade & Airlift, 1948 – increasing division of Berlin

- \* GDR, “16 Principles for the Restructuring of Cities,” 1948 (cf. Ockman reading!)
- \* Stalinallee & East Berlin, by Henselmann, Paulick, Ulbricht, et al, Berlin, 1951-3 (cf. Anxious Mod.)  
Soviet Realism & Master Planning  
Lomonossow University, Rudnew et al, Moscow, 1947-52  
Turn to Modernism, City in the Park & “Plattenbau” (panel building) ca. 1954
- Interbau: Hansaviertel & “The City of Tomorrow” exhibits, 1955-7 (Frampton p.202)  
Hansaviertel Buildings by: Gropius, Aalto, Ruf, Eiermann, Niemeyer, Bakema,  
Unite Berlin, Le Corbusier, 1957

Berlin Hauptstadt Competition (Proj.), A.&P. Smithson, Le Corbusier, et al, 1958 (Frampton p.275)



## LE CORBUSIER LATE WORKS

Charles Edouard Jeanneret (1887-1965)

- \* Unite Apts., Marseilles, France, 1947-53 (p.436-441)  
Also: Berlin Unite, part of Interbau, 1957
- \* Chapel of Notre-Dame, Ronchamp, France, 1950-54 (p.416-21)
- \* Monastery of La Tourette, LeCorbusier, Eveaux near Lyons, 1953-7 (p.422-3)
- Philips Pavilion, Brussels World's Fair, 1958
- Project for UN Building, built by Harrison & Abramovitz, NYC, 1947-50 (p.410-11)
- Carpenter Center (Harvard), Le Corbusier, Cambridge, MA, 1959-63 (p.435)
- Venice Hospital (Proj.), Le Corbusier, Venice, Italy, 1963-5 (p.434)



Late Le Corbusier





## CIAM URBANISM, HOUSING, HABITAT

- \* Congres Internationale d'Architecture Moderne (C.I.A.M.)
  - Founded 1928, La Sarraz, Switzerland, by Le Corbusier, Giedion, and many more...
  - Athens Charter, 1933 meeting, 1941 publication
  - Analysis of existing cities / Propose "towers in the park & zoning as solution
  - The CIAM Grid = Le Grille CIAM (*Anxious*)
  - Urban planning via four functions: Dwelling, Working, Culture/Recreation, Transportation
  - Le Corbusier's Plans for the reconstruction of Ste. Die, France

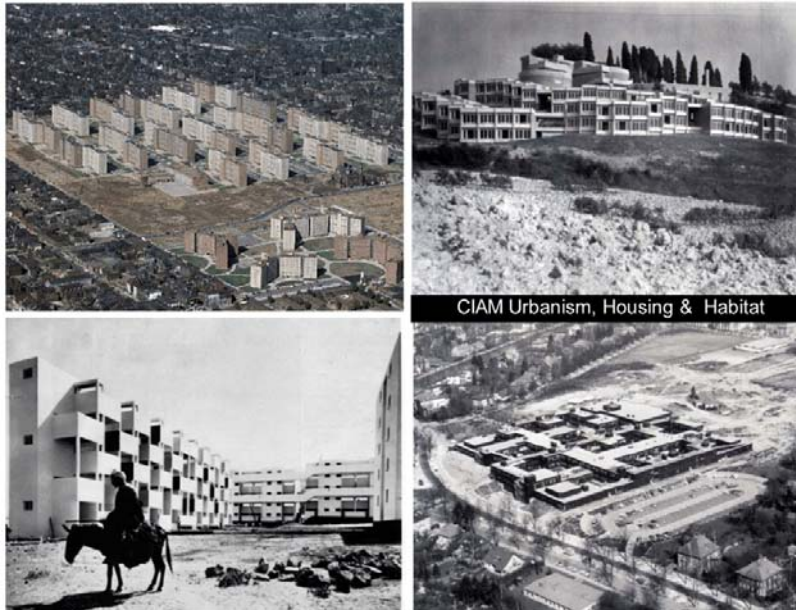
The Plight of Postwar Cities: Reconstruct, Rebuild, Erase, Expand, Insert...  
USA Urban Renewal (Urban Removal?): Chicago, New York, Pittsburgh  
The "White Flight" to the Suburbs; Elk Grove Village, IL  
J.L. Sert, Can Our Cities Survive (1943)

George Candilis & Shadrach Woods

- Carrieres Centrales by ATBAT, Casablanca, Morocco, 1951-4 (*Anxious*)
- Cite Horizontale, Michel Ecochard, 1951
- \* Cite Verticale, Candilis/Woods/ATBAT, 1953 (p.443)
- "Habitat" as critique of CIAM (Candilis, Smithsons, Van Eyck, Team X)
- Toulouse-le-Mirail Town Extension, Candilis, France, 1961
- Free Univ. Berlin, Woods, Candilis et al, Berlin, Germany, 1964-79 (p.446)

Giancarlo Di Carlo

Free Univ. of Urbino, Giancarlo De Carlo, Urbino, Italy, 1962-5 (p.446) (cf. Blundell, Case Studies)  
Il Magistero Urban Insertions, Giancarlo De Carlo, Urbino, Italy, 1969 (p.547)





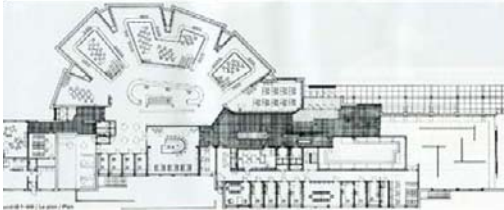
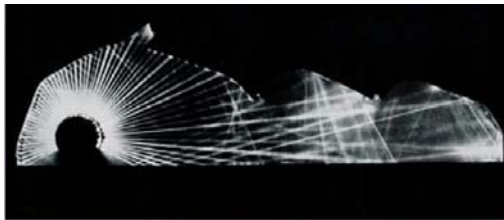
## AALTO, PIETILA & FINLAND

Alvar Aalto (1898-1976)

- Baker House (MIT), Cambridge, MA, 1947-8 (p.454-5)
- \* Saynatsalo Town Hall, Saynatsalo, Finland, 1949-52 (p.456-7)
- Experimental Summer House, Muuratsalo, Finland, 1953
- \* Vuoksenniska Church (Church of Three Crosses), Imatra, Finland, 1956-9 (p.452,458-9)
- Helsinki Univ. of Technology, Aalto, Espoo/Otaniemi (vic. Helsinki), Finland, 1949-66
- Fan & Courtyard Plans
  - Wolfsburg Cultural Center (& Library), Wolfsburg, Germany, 1958-62
  - Rovaniemi Library, Aalto, Rovaniemi, Finland, 1963-8 (p.459)
  - Seinajoki Cultural Library (& Cultural Center), Seinajoki, Finland, 1963-65
  - Mt. Angel Abbey Library, St. Benedict, Oregon, 1970
  - Neue Vahr Apartment Tower, Bremen, Germany, 1963

Reima Pietila (1923-93)

- Kaleva Church, Tampere, Finland, 1959
- \* Dipoli Polytechnic Student Union, Pietila, Helsinki Technical Univ., Finland, 1966 (p.551)



Aalto, Pietala & Finland



## **LEWERENTZ, FEHN & SCANDINAVIA**

### Sweden

Stockholm Public Library, Gunnar Asplund, Stockholm, Sweden, 1925-35

Stockholm Expo, Gunnar Asplund, 1930

(a lightweight, graceful modernism)

Swedish "New Empiricism" - Erskine, Markelius, etc

\* Vällingby New Town, Backstrom, Reinus et al, Stockholm, Sweden, 1952-57.

Sigurd Lewerentz (1885-1975)

Chapel of Resurrection, Woodland Cemetery, Stockholm, 1923 (Doric Classicism)

St. Peter's Church, Klippan, Sweden, 1963-6

cf. St. Mark's Church, Björkhagen, Stockholm, 1956

### Norway

Sverre Fehn (1924-2009 - Prizker 1997)

Norway Pavilion, Brussels World Fair, 1958

Nordic Pavilion, Sverre Fehn), Venice Biennale Grounds, 1962 (p.550)

Schreiner House, 1959

Hamar Bispegaard Museum, S. Fehn, Hamar, Norway, 1967-79

### Denmark

Louisiana Museum, BO & Wohlert, Humlebaek, 1958-91

## DANISH MODERN

### Danish Modern Design

Arne Jacobsen (1902-1971)

Studied with Kay Fisker; prize at Paris Art Deco fair 1925; influenced by Mies and Germany in 1920s

Skovshoved Petrol Station, 1936

Aarhus City Hall, 1941

Søholm I&II terraced houses, Klampenborg vic. Copenhagen, 1946-55

Rodovre Town Hall, Rodovre, Denmark, 1952-8

Carl Christensen Factory, Arne Jacobsen, Aalborg, Denmark, 1957 (p.464)

\* SAS Royal Hotel, Copenhagen, Arne Jacobsen, Copenhagen, Denmark, 1958-60 (p.464)

Egg Chair, 1958

Jørn Utzon (1918-2008) (Pritzker 2003)

Training under Kay Fisker, Steen Eiler Rasmussen, Gunar Asplund; travels to Africa, Asia, USA, Mexico

Own House, Hellebaek, 1950-52

cf. Middleboe House, 1952

cf. Can Lis House, Mallorca, Spain, 1973

Courtyard Housing

\* Kingo Houses, Elsinore, Denmark, 1958-62 (p.466)

Fredensborg Houses, vic. Helsingor, Denmark, 1959-62

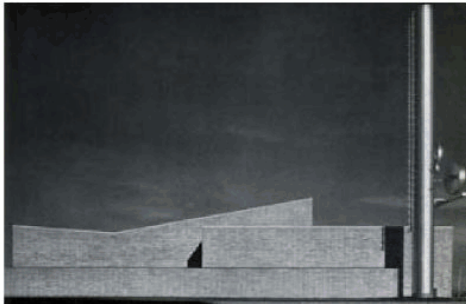
Birkehoj Houses, Elsinore, 1963 (p.466)

\* Sydney Opera House, Utzon, Sydney, Australia, 1957-73 (p.467-9)

with Ove Arup, structural engineering (1895-1988)

Bagsvaerd Church, Utzon, Copenhagen, 1969-76 (p.612-3)

National Assembly, Utzon, Kuwait City, 1972 (p.585)



Danish Modern





## GERMAN ORGANIC & EXPRESSIONISM

Colin St. John Wilson, The Other Tradition of Modern Architecture (1996)  
Bruno Zevi (1918-2000), Toward an Organic Architecture (1945); Architecture as Space (1948)

### German Expressionism

Bruno Taut & the "Crystal Chain Correspondence", Berlin, 1919-21 (pp.183-190)  
Domenikus Böhm (1880-1955): St. John Baptist Church, Neu Ulm, Germany, 1927 (p.298)  
Organic (or Biological) Functionalism  
Hugo Häring & Garkau Cow Barn, vic. Lübeck, Germany, 1923

### German Organic Expressionism

- Hans Scharoun (1893-1972)
- \* Berlin Philharmonic Hall, Hans Scharoun, Kulturforum Berlin, 1956-63 (p.470,473)  
Also: State Library (Staatsbibliothek), Scharoun, Kulturforum Berlin, 1967-78  
Also: Chamber Music Hall, 1984 (based on sketches of Scharoun)
  - \* Compare to: New National Gallery, Mies van der Rohe, Berlin, 1962-8 (p.645)
- Frei Otto & Institute for Lightweight Structures  
Frei Otto taught with Buckminster Fuller at Washington Univ., St. Louis in 1950s  
founded Institute for Lightweight Structures, Stuttgart, Germany, 1964ff
- \* Olympic Stadium, Otto with Günther Behnisch, Munich Germany, 1972 (cf. Blundell, Case Studies)  
Cf. German Pavilion, Behnisch & Otto, Montreal Expo, 1967
- Gottfried Böhm (1922-present) (Pritzker 1986)  
Own House, Cologne, Germany, 1952
- \* Town Hall at Bensberg, vic. Cologne, Germany, 1962-68 (cf. Blundell, Case Studies)  
Catholic Pilgrimage Church at Neviges-Velbert, vic. Düsseldorf, Germany, 1963-68



German Organic & Expressionism





## DUTCH STRUCTURALISM

### Structuralism

Began in linguistics Ferdinand de Saussure (1857-1913), all culture as a complex system of signs  
Language, instead of nature, as a model of system

In architecture it was harnessed in reaction to CIAM-Functionalism (Rationalism) after WWII

Four different manifestations of Structuralist architecture exist:

- 1) the "Aesthetics of Number" (Aldo van Eyck), arch. as cellular tissue, woven fabric & community
- 2) the "Architecture of Lively Variety" (N. John Habraken), participatory design
- 3) Smithson's anti-Empiricist avant-garde, based on experience and real building (New Brutalism)
- 4) Situationist International, Debord, Constant, revolutions of 1968

### Team 10, 1953-73:

Grew out of CIAM, especially Dutch & English contingents

Jaap Bakema, Georges Candilis, Giancarlo De Carlo, Aldo van Eyck, Alison and Peter Smithson, Shadrach Woods.

Other Participants: José Coderch, Ralph Erskine, Herman Hertzberger, Alexis Josic, Reima Pietilä, Oswald Mathias Ungers, Christopher Alexander, Juan Busquets, Balkrishna Vithaldas Doshi, Ignazio Gardella, Hans Hollein, Charles Jencks, Kisho (Nurioka) Kurokawa, Fumihiko Maki, Jean Prouvé, Joseph Rykwert, James Stirling, Colin StJohn Wilson, Kenzo Tange

Lead to Dutch Structuralism & English New Brutalism

### Dutch Structuralism

Bakema (1914-1981) & Van den Broek

Lijnbahn, Bakema & Van den Broek, Rotterdam, Holland, 1948-53 (cf. Anxious Modernisms)  
cf. Bijenkorf Dept. Store, M. Breuer, 1955

Aldo van Eyck (1918-1999)

CoBrA Group of Painters, 1948ff: Karel Appel, Constant, Corneille, Christian Dotremont, Asger Jorn  
cf. Situationist International

Playgrounds, Amsterdam, 1948

cf. Sonsbeek Pavilion, Aldo Van Eyck, Arnhem, 1966 (p.549)

cf. Rietveld, Sculpture Pavilion, Arnhem, 1966

\* Orphanage, Aldo VanEyck, Amsterdam, 1957-62 (p.548) (cf. Blundell, Case Studies)

Hermann Hertzberger (1932-present)

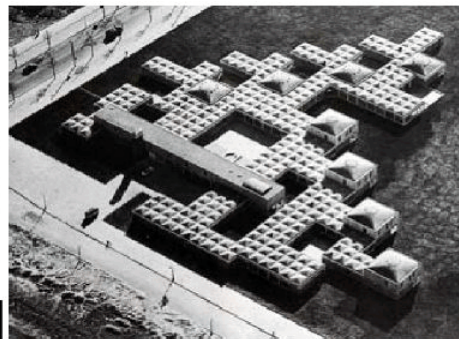
Student Housing, Amsterdam, 1959;

Montessori School, Delft, 1960

\* Centraal Beheer Office, H.Hertzberger, Apeldoorn, 1968-72 (p.596)



Dutch Structuralism & Team X



## POSTWAR BRITAIN - SMITHSONS & ART

Postwar austerity & "New Empiricism"

London County Council: British New Towns & Housing

Alton Estates East (low rise) vs. West (high rise), London County Council, Roehampton, London, 1952-55 (p.530)

cf. Park Hill Estate Housing, Lynn & Smith, Sheffield, 1957-61

- \* Alison & Peter Smithson (1928-1993; 1923-2003)

Part of CIAM, then Team X...

Hunstanton School, Smithsons, Norfolk, England, 1949-54

Cf. Mies, IIT Buildings, Chicago, 1945-56

Festival of Britain, Southbank slum clearance & revitalization, London, 1951 - signals for a modern Britain

Discovery Dome, Tubbs, 1951

Royal Festival Hall, Martin et al., London, 1951 (p.530)

cf. National Theater, Lasdun, London, 1967-76 (p.544-5)

Independent Group, 1952-55: Alison & Peter Smithson, Eduardo Paolozzi, Richard Hamilton, Nigel Henderson, Reyner Banham...

"Parallel of Life and Art," exhibit at the ICA in the Autumn of 1953

"This is Tomorrow" exhibit at Whitechapel Gallery, London, 1956

cf. Smithson's "House of Future" (1956)

"Machine Made America," John McHale, Architectural Review (May 1957)

Banham, Theory & Design in the First Machine Age (1960)

- \* Alison & Peter Smithson (1928-1993; 1923-2003)

Sugden House, Smithsons, Watford, 1955 (cf. Anxious ch.3)

"House of the Future," (molded plastic) for London Daily Mail "House of Tomorrow" exhibit, Smithsons, 1956 (cf. Anxious ch.3)

Golden Lane Housing (proj.), Smithson, 1952 ("Twig Network" + "Street in the sky")

- \* Economist Bldg., Smithsons, London, 1959-64 (p.532-3) (cf. Blundell, Case Studies)

Cf. Venice Hospital (Proj.), Le Corbusier, Venice, Italy, 1963-5 (p.434)

- \* Robin Hood Gardens, Smithsons, London, 1966-72 (p.533)





## POSTWAR BRITAIN - STIRLING & HISTORY

James Stirling (1926-1992) (3<sup>rd</sup> Pritzker winner, 1981)

Thesis Project, "Community Center for Newton Aycliff New Town," 1949-50  
Done with Colin Rowe, Univ. Liverpool, 1950

Projects following Le Corbusier

House for an Architect, 1949

Stiff Domino System, 1951

Sheffield University Extension, Competition entry, 1953

cf. Entry by Smithsons (Street in Sky & Twig Connection)

\* Ham Common Flats, Stirling, Richmond, 1955-58 (p.534)

cf. Maison Jaoul, Le Corbusier, Paris

cf. "New Brutalism" by Banham & Smithsons

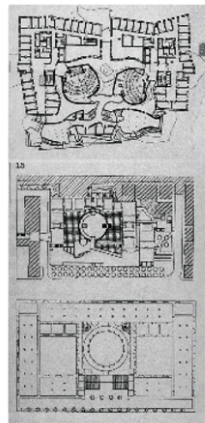
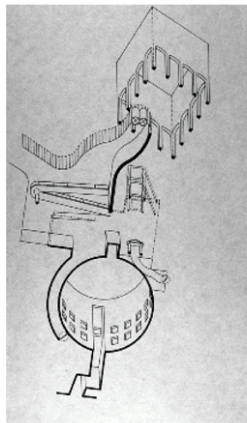
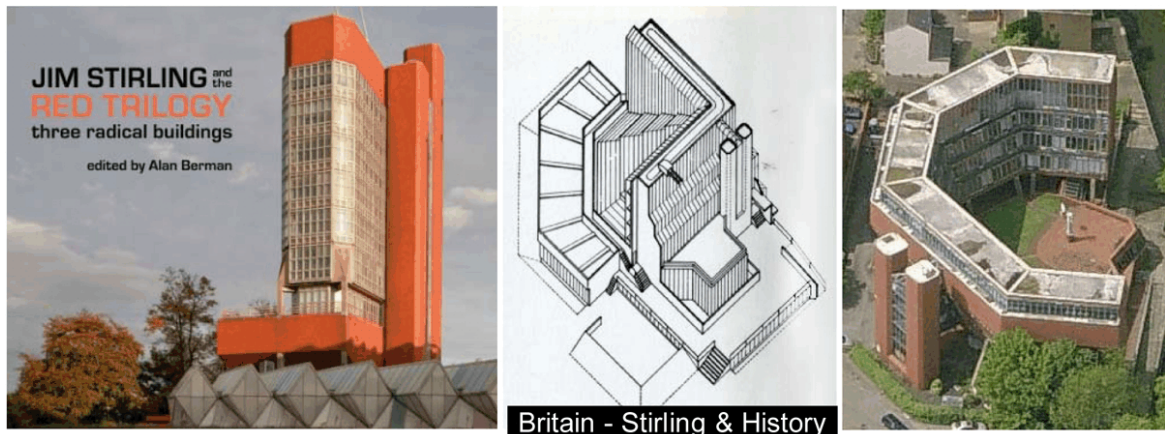
\* Engineering Bldg., Stirling, Leicester Univ., 1959-63 (p.528,535) (cf. Blundell, Case Studies)

History Faculty, Stirling, Cambridge, 1964-6 (p.536-7)

Florey Building, Queen's College, Oxford, 1966 (p.538)

Museum Nordrhein-Westfalen Museum Competition entry, Düsseldorf, 1975

\* Staatsgalerie Stuttgart, 1974 (p.607)



**BRUTALISM: ETHIC or AESTHETIC?:**

Brutalism: Ethic or Aesthetic ?

Term starts 1950 with Asplund Jr.,  
Smithson articles in *Architectural Review* 1954-7

- \* Banham, *The New Brutalism: Ethic or Aesthetic* (1966)  
cf. Banham, *The Architecture of the Well Tempered Environment* (1969)  
Modern Masters Precedents
- \* Mies, I.I.T (Alumni Hall), Chicago, 1945 (cf. Gropius, Reese Hospital, Chicago, 1945)
- \* Le Corbusier's *beton brut*, Unite Apts., Marseilles, France, 1947-53 (p.436-441)  
Le Corbusier's Maisons Jaoul, Neuilly-sur-Seine Paris, 1951-4 (p.425)
- Hunstanton School, Smithsons, Norfolk, England, 1949-54 (p.531)
- Sugden House, Smithsons, Watford, 1955 (cf. *Anxious* ch.3)
- Ham Common Flats, Stirling, Richmond, 1955-58 (p.534)
- \* Robin Hood Gardens, Smithsons, London, 1966-72 (p.533)
- Park Hill Estate Housing, Lynn & Smith, Sheffield, England, 1957-61
- Trellick Tower, Erno Goldfinger, London, 1966

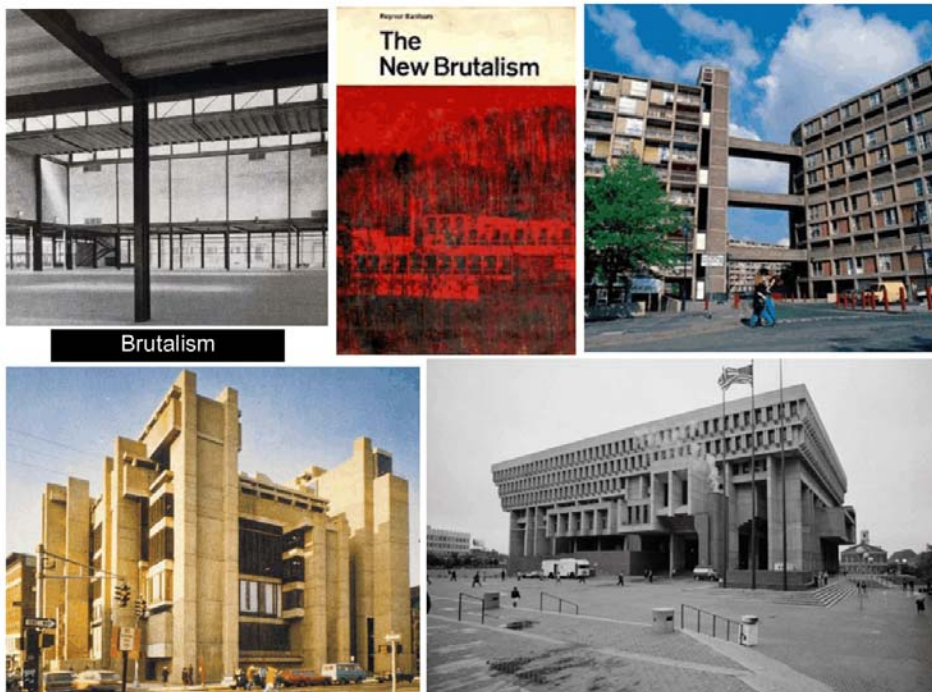
Brutalists: Myron Goldberg, Marcel Breuer, Dennis Lasdun

Paul Rudolph (1918-1997)

- Florida Houses, Rudolph, 1951-54
- \* Jewett Art Center, Wellesley, Rudolph, 1955-8 (cf. *Anxious*)
- \* Art & Architecture Bldg.(Yale), P.Rudolph, New Haven, CT, 1958-62 (p.561)
- Parking Garage, New Haven, Rudolph, 1959
- Yale Married Student Housing, Paul Rudolph, New Haven, CT, 1960
- Government Services Center, Boston, Rudolph, 1962-67
- \* Boston City Hall, Kalmann McKinell, Boston, 1962-8 (p.515)

Banham, *Megastructure: Urban Futures of the Recent Past* (1976)

Lower Manhattan Expressway (proj.), Rudolph, 1970-76 (cf. Robert Moses, 1930s)  
University Megastructures  
Panther Hollow (proj.), Harrison & Abramovitz, Univ. Pgh., 1966





## MEGASTRUCTURES & TECHNOLOGY

Banham, *Megastructure: Urban Futures of the Recent Past* (1976)

Lower Manhattan Expressway (proj.), Rudolph, 1970-76 (cf. Robert Moses, 1930s)

University Megastructures

SMTI / U.Mass Dartmouth, North Dartmouth, MA, Rudolph, 1963-71

Panther Hollow (proj.), Harrison & Abramovitz, Univ. Pgh., 1966

U.Illinois Chicago Circle, SOM / Walter Netsch, 1963-8

Simon Fraser Univ., Arthur Erickson, Vancouver, Canada, 1964

\* Univ. of East Anglia, Denys Lasdun, Norwich, 1962-68 (p.543)

Technology & Futurism

Nuclear War, Arms Race, Space Race, Science Fiction, Futurism, Dream of Technology

Houses of Future (Smithson, Kiesler, Lautner, Monsanto, Suuronen...)

Utopian Urbanism

Dome Over Manhattan, Buckminster Fuller & Shoji Sadao 1960

Urban Renewal for NYC, Hans Hollein, 1963

\* Yona Friedman, "Paris Spatiale," 1963 (Ockman p.273f)

Alan Boutwell, "Continuous City", 1969

Archigram: Peter Cook, Warren Chalk, Ron Herron, Dennis Crompton, Michael Webb and David Greene

\* Plug-In City, Peter Cook / Archigram, 1964 (p.538)

Living Pod, David Greene, 1965

Walking City (Proj.), Ron Herron, 1964 (Frampton p.281)

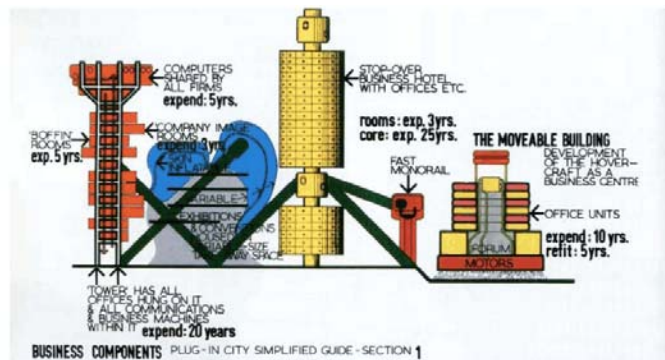
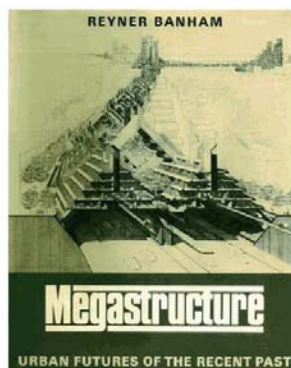
cf. Other projects: Sin City, Potteries Think Belt, Fun Palace (cf. *Anxious*)

See: <http://archigram.westminster.ac.uk/>

\* Centre Pompidou, Rogers & Piano, Paris, 1971-77 (p.600)

Habitat Housing at Montreal Expo, Moshe Safdie, 1967

cf. German Expo Pavilion by Frei Otto & Gutbrod; USA Pavilion by B. Fuller



## (some) UTOPIAN URBAN-SCALE PROJECTS

- 1908 William R Leigh Great City of Future  
1911 Moses King's Dream of New York  
1914 Antonio Sant'Elia La Citta Nuova  
1914 Mario Chiattone Modern Metropolis  
1916 Giacomo Matte-Trucco Fiat Lingotto Factory  
1917 Tony Garnier Cite Industrielle  
1919 Virgilio Marchi Citta Superiore  
1922 Le Corbusier Contemporary City for 3 million  
1924 Ludwig Hilberseimer Vertical City  
1924 El Lissitzky Wolkenbugel  
1925 Kiesler, City in Space  
1927 Richard Neutra Rush City Reformed  
1928 Chernikov City of the Future  
1926 Fritz Lang, Metropolis  
1928 Walter Gropius Wohnberg  
1928 Henri Sauvage Metropolis  
1931 Raymond Hood City Under a Single Roof  
1930 Le Corbusier Plan Obus Algiers  
1931 Tullio Crali Urban Airport  
1931 Hugh Ferriss Metropolis of Tomorrow  
1932 Le Corbusier, Radiant City  
1934 Frank Lloyd Wright Broadacre City  
1939 Speer Plans for Germania/Berlin
- 
- 1945 Le Corbusier Unité d'Habitation Marseille  
1947 Affonso Reidy Pedregulho Apartment  
1947 Floating City William Katavolos  
1951 Alison & Peter Smithson Golden Lane  
1956 Frank Lloyd Wright Mile High Building  
1956 Minoru Yamasaki Pruitt-Igoe Housing  
1958 Yona Friedman La Ville Spatiale  
1958 Walter Jonas, Intrapolis  
1958 Kiyonuri Kikutake Marine City  
1959 Paolo Soleri, Mesa City  
1959 Paul Maymont Floating City  
1960 Paul Maymont Suspended City  
1960 Kurokawa, Floating City  
1960 Fuller, Dome over Manhattan  
1960 Jellicoe, Motopía37  
1960 Kenzo Tange, Tokyo Bay  
1961 Kisho Kurokawa Helicoids  
1962 Arata Isozaki Clusters in the air  
1962 Constant, New Babylon  
1962 Candilis, Josic & Woods Downtorn Frankfurt  
1962 Paul Maymont City under the Seine  
1962 Buckminster Fuller Cloud 9  
1962 Ian Mcharg Plan for the valleys  
1963 Chanéac, Villes Crateres  
1963 Walter Pichler Compact City  
1963 Warren Chalk & Ron Herron City Interchange  
1963 Peter Cook, Plug-In City  
1964 Warren Chalk Underwater City  
1964 Hans Hollein Aircraft-carriers in the desert  
1964 Ron Herron, Walking City  
1964 [Harlem High-Rise] Buckminster Fuller  
1964 Paolo Soleri, Babelnoah  
1964 Paolo Soleri, Hexahedron  
1964 Fuller Harlem Redevelopment  
1965 Fuller Tetra City  
1966 Domenig & Huthv Graz-Ragnitz project
- 1966 Blow out Village, Peter Cook  
1967 NER Group Urban Project  
1967 Bertrand Goldberg Marina City  
1967 Moshe Safdie Habitat  
1968 Fuller Triton City  
1968 Candilis, TU Berlin Berlin  
1969 Mitchell & Boutwell Comprehensive City  
1969 Superstudio Continuous Monument  
1969 Archizoom Non-Stop City  
1968 Archigram Instant City  
1970 Ricard Bofill City in Space Walden 7  
1970 Parent & Virilio Bridge Cities  
1970 Paolo Soleri, Arcosanti

## JAPANESE METABOLISM

Pre-war modern in Japan

Zero Hour in Japan - Aug. 1945

Reader's Digest Building, Tokyo, Antonin Raymond, 1948-50

Kenzo Tange (1913-2005)

Saw Corbu drawings 1930s; then worked for Maekawa (who had apprenticed to Corbu in 1920s)

1953: Photos of Katsura with Gropius & Ishimoto; sees Ise Shrine reconstruction (books 1960)

- \* Hiroshima Peace Memorial, K. Tange, Hiroshima, 1949-55 (p.508)

Tange's Own House, Tokyo 1953

Kagawa Prefectural Office, K. Tange, Takamatsu, 1955-58 (Frampton p.260)

Kurashiki Town Hall, Tange, Kurashiki, Japan, 1960

Harumi Building, Maekawa, Tokyo, 1958 (p.506)

Le Corbusier, Tokyo Museum, 1959

Imperial Hotel Addition & Reconstructions, 1952, 1960s...

Orig. By F.L. Wright, 1918-23

- \* Metabolism - Kenzo Tange, Kiyonori Kikutake, Kisho Kurokawa, Fumihiko Maki & others (cf. Anxious)

End of CIAM 1958; Tange joins Team X; World Design Conference in Tokyo 1960

Marine City (Proj.), Kikutake, 1958 (cf. Anxious)

Space City, Clusters in the Air, Metabolist City, (projs.) by Isosaki, 1960-63 (p.510; Anxious)

Tokyo Bay Project (proj.), Tange, 1962ff (cf. Anxious, Ockman)

- \* Yamanashi Press & Radio, Tange, Kofu, 1961-7 (p.511)

Olympic Gym, Tange, Tokyo, 1961-4 (p.509)

Izumo Shrine Office, Kikutake, 1963

Kikutake, Sky House (own hse.), Tokyo, 1964

Kyoto Int'l Conference Center (ICC), Kyoto, Otani, 1966

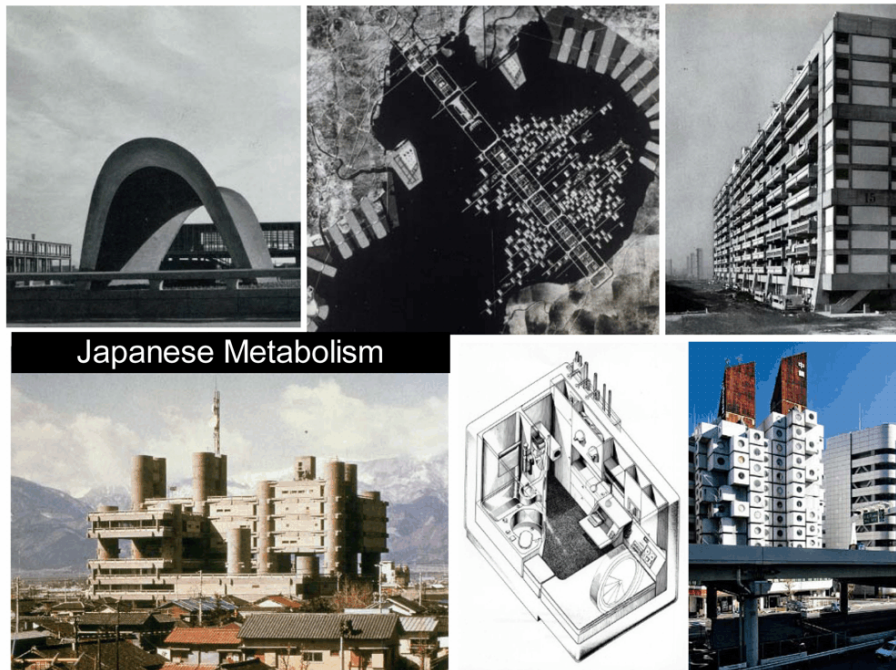
Shizuoka Press Building, Tokyo, Tange, 1968

- \* Nagakin Capsule Tower, Kurokawa, Tokyo, 1971 (Anxious)

Osaka World's Fair, 1970 - master plan Tange

Beaullion Pavil., Kurokawa

US Pavil by Davis & Brody



Japanese Metabolism



## CIAM URBANISM, HOUSING, HABITAT-EKISTICS

The Plight of Postwar Cities: Reconstruct, Rebuild, Erase, Expand, Insert...

USA Urban Renewal (Urban Removal?): Chicago, New York, Pittsburgh

The "White Flight" to the Suburbs; Elk Grove Village, IL

J.L. Sert, Can Our Cities Survive (1943)

- \* Congres Internationale d'Architecture Moderne (C.I.A.M.): The CIAM Grid = Le Grille CIAM (Anxious)  
Urban planning via four functions: Dwelling, Working, Culture/Recreation, Transportation  
Le Corbusier's Plans for the reconstruction of Ste. Die, France

George Candilis & Shadrach Woods

Carrieres Centrales by ATBAT, Casablanca, Morocco, 1951-4 (Anxious)

Cite Horizontale, Michel Ecochard, 1951

- \* Cite Verticale, Candilis/Woods/ATBAT, 1953 (p.443)

"Habitat" as critique of CIAM (Candilis, Smithsons, Van Eyck, Team X)

Toulouse-le-Mirail Town Extension, Candilis, France, 1961

Giancarlo Di Carlo

Free Univ. of Urbino, Giancarlo De Carlo, Urbino, Italy, 1962-5 (p.446) (cf. Blundell, Case Studies)

Il Magistero Urban Insertions, Giancarlo De Carlo, Urbino, Italy, 1969 (p.547)

College Campus Megastructures cf. Banham, Megastructure: Urban Futures of the Recent Past (1976)

Free Univ. Berlin, Woods, Candilis et al, Berlin, Germany, 1964-79 (p.446)

- \* IIT, Mies van der Rohe, Chicago, 1938ff

U.Illinois Chicago Circle, SOM / Walter Netsch, 1963-8

SMTI / U.Mass Dartmouth, North Dartmouth, MA, Paul Rudolph, 1963-71

Empire State Plaza, Harrison & Abramovitz, NY, 1965ff

Jane Jacobs, The Death & Life of Great American Cities (1961]



CIAM Urbanism, Housing & Habitat



### READINGS

#23 - CIAM HOUSING

**Curtis:** pp.442-451, 555-556

**Ockman:** CIAM 6, "Reaffirmation," p.100f; CIAM, "Summary of Needs at the Core," p.135

**Anxious:** Eleb, "Alternative to Functionalism Universalism" = Ch.2

#24 - LOUIS KAHN

**Curtis:** pp.518-527

**Ockman:** Kahn, "Architecture is Thoughtful Making of Spaces," p.270f



## BRAZIL BUILDS: TROPICAL MODERN & REGIONAL EXPRESSION

### Regionalism & Tropical Modernism

Education Ministry, Niemeyer, Costa, Marx, Corbu, et al, Rio, Brasil, 1937-41 (p.387)  
Pampulha Country Club complex, Minas Gerais, Brazil, 1940-43

"Brazil Builds" MoMA Exhibit, 1943

cf. Brazil Pavilion, Niemeyer, New York World's Fair, 1939

Banco Boavista Building, Niemeyer, Rio, 1946

Pedregulho Apts., A. Reidy, Sao Paolo, Brasil, 1956

COPAN Apts, Niemeyer, Sao Paolo, 1957

cf. Other curved apartment Buildings in Rio & Belo Horizonte, Niemeyer,

\* Niemeyer Own House, Canoas-Rio, Brazil, 1953 (p.499)

cf. Lina Bo Bardi

\* Brasilia (new capital, promoted by President J. Kubitschek de Oliveira, 1956-1961)

Master Plan by Lucio Costa (1956-8)

Architecture by Niemeyer, Brasilia, Brazil, 1957-70

Congress, "Palaces", Ministries, Cathedral (p.500-501)

Supercuadra Living

Latin America Expo (now Itapuera Park), Niemeyer, Sao Paolo, Brazil, 1963

French Communist Party Headquarters, Paris, Niemeyer, 1965

Copacabana Promenade landscaping, Roberto Burl Marx, Rio, Brasil, 1965-70

Niemeyer, World Cup 2014, Olympics 2016



## LE CORBUSIER & INDIA

Third World

Indian Independence, 1947

- \* Chandigarh Master Plan, Le Corbusier, Chandigarh, India, 1951 (p.427,430)  
CIAM urbanism, Sectors as villages, housing by Jeanneret, Fry & Drew
- \* High Court, Le Corbusier, Chandigarh, India, 1951-5 (p.429)
- \* Parliament, Le Corbusier, Chandigarh, India, 1951-63 (p.430-433)  
Secretariat

Ahmedabad Industrial Patrons

- \* Millowner's Association Building, Le Corbusier, Ahmedabad, India, 1951-4 (p.426)
- \* Shodhan House, Le Corbusier, Ahmedabad, India, 1951-4 (p.426)
- \* Sarabhai House, Le Corbusier, Ahmedabad, India, 1951-5 (p.425)

Balkrishna Doshi

Low Cost Vault Housing, Doshi, Ahmedabad, 1957

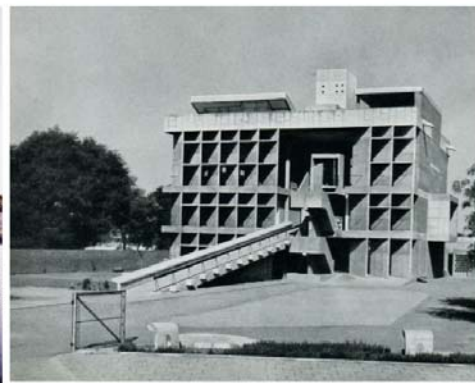
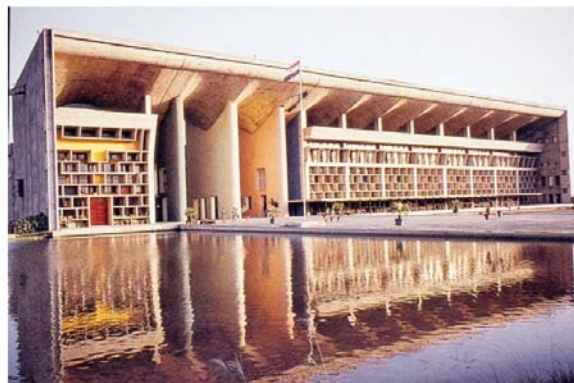
Doshi House, Ahmedabad, 1959

Institute of Indology, Doshi, Ahmedabad, 1957-61

Correa, Gandhi Ashram, Ahmedabad, 1958-63

Indian Inst. of Management, Louis Kahn, Ahmedabad, India (p.521)

Sher-e-Banglanagar (now National Capital), Louis Kahn, Dacca, Bangladesh, 1962-74, (p.526-7)





## MEXICAN MODERNISM & LATIN AMERICA

Mexican Revolution, 1910-1920

Kahlo & Rivera House & Studio, Mexico City, 1931 (cf. Le Corbusier)

Max Cetto, Matthias Goeritz & others help define/express a Mexican modernism

- \* Barragan Own House, Barragan, Mexico City, 1947 (p.495)
- El Pedregal Housing, Mexico City, Barragan et al, 1945-50
  - O'Gorman Own House, Mexico City, El Pedregal, 1953 (Doordan p.1880)
- Plaza Las Arboledas, Barragan, Mexico City, 1958-61 (p.490)
- San Cristobal (Egerstrom), Barragan, Mexico City, 1968 (p.498)

Ciudad Universitaria, Moral, Pani et al, Mexico City, 1946 (p.492)

- \* Univ. Library, O'Gorman, Mexico City, 1950-3 (p.493)
  - Azteca Stadium, 1957 (cf Olympics in 1968)
- Hotel Camino Real, Legoretta, Mexico City, 1968

Felix Candela

Olympic Sports Dome, Mexico City, Candela et al, 1968

Cosmic Ray Lab, Univ. Mexico, 1951

Church of Miraculous Virgin, Mexico City, Candela, 1953

- \* Restaurant at Xochimilco Gardens, Candela, 1958

See also other South American modern architecture:

Dieste, Atlantida Church, Montevideo, Uruguay, 1960

Villaneuva, University of Caracas, 1950-9 (p.502)

Testa, Bank, of London, Buenos Aires, 1966

Monte, Civic Center, Social Security Office & National Bank, Guatemala City, 1956





## LOUIS KAHN - SITUATED MODERNISM?

### Chronology

1901	Born Itze-Leib Schmuilowsky in Estonia / Russia
1904	Burns face, scars for life
1905	Emigrate to USA, very poor
1924	B.Arch from U.Penn, Beaux-Arts training
1928-9	European travel, interest in Carcassone & Castles
1929	Works for Paul Cret (Beaux-Arts, U.Penn Prof., Folger Shakespeare Library, etc.)
1930	Marries Esther Kahn
1932-45	Works with PWA, George Howe, Oscar Stonorov on housing
1942-4	Carver Court war housing, Coatesville, PA
1945	Begins work with Anne Tyng (Gropius student; interest in geometry & structure; woman in a world of men)
1947	Begins teaching at Yale
* 1951-3	Yale Art Gallery extension, New Haven, CT (p.518)
1952	Stint at American academy in Rome, admires ancient ruins of Greece, Italy, Egypt; light, mass, history
* 1952-55	Trenton Bath House / JCC, Ewing, NJ
1957	Begins teaching at U.Penn (also MIT & Princeton)
* 1957-65	Richards Medical Labs, U.Penn, Philadelphia, PA (p.519)
1958-62	Tribune Review Building, Greensburg, PA (local!)
* 1959-65	Salk Foundation, La Jolla, CA (p.522-3)
1959	First Unitarian Church, Rochester, NY
1960	Norman Fisher House, Hatboro, PA
1960-65	Erdman Dorms (Bryn Mawr), Kahn, Philadelphia (p.520)
1961	Graham Foundation grant to study traffic movement in Philly
* 1962	Indian Inst. of Management, Ahmedabad, India (p.521)
1962-74	National Assembly, Dacca, Bangladesh (p.526-7)
* 1965-72	Phillips Exeter Library, Exeter, NH (p.520)
* 1967-72	Kimbell Art Museum, Fort Worth, TX (p.512,524-5)
1969-74	Yale Center for British Art, New Haven
1974	Dies at Penn station, anonymous, in debt

### Concepts / Ideas / Theory

Served vs. Servant space  
 Use of History  
 Light  
 Mass / Materiality  
 Spatial Structure  
 Geometry  
 Articulating the elements of architecture



## USA EXPRESSIONISM - SAARINEN, et al

What is "expression" in architecture?

Modern Expressionism, Organic, Baroque (cf. Abstract Expressionism in art), Brutalism...

Eero Saarinen (1910-1961)

- 1923 Emigrates from Finland to USA with father Eliel Saarinen; grows up at Cranbrook
- 1930s Studied at Cranbrook Academy; friends with Ch. & Ray Eames, Knoll;
- 1940 "Tulip Chair," for "Organic Design in Home Furnishings" competition
- 1948 Case Study House #9 with Ch. & Ray Eames, Sta. Monica, CA
- 1948-66 St. Louis Arch (= Jefferson Nat'l Expansion Memorial), Saarinen, St. Louis, MO (p.400)
- \* 1948-56 GM Technical Center, Saarinen, Warren, MI (p.400)
- \* 1956-62 TWA Building at JFK Airport, Saarinen, NYC (p.516)
- 1953-5 Kresge Auditorium & MIT Chapel, Cambridge, MA
- 1953-8 Ingalls Rink, Yale Univ., New Haven, CT
- 1957-63 John Deere Headquarters, Moline, IL
- 1958-62 Dulles Airport, Chantilly, VA
- \* 1958 IBM Manufacturing Facility, Rochester, Minn. (Anxious)
- 1961 Morse & Stiles Colleges, Yale
- 1961-5 CBS Headquarters, 52<sup>nd</sup> St., New York City
- 1961-5 Vivian Beaumont Theater, at Lincoln Center, NYC  
Cf. Philharmonic by Abramovitz (1962); State Theater by P. Johnson (1964) , Opera by Harrison (1966); Julliard by Belluschi (1966)
- 1961 Dies during brain operation; firm & projects taken over by Kervi Roche & John Dinkeloo

Marcel Breuer (1902-1981)

- UNESCO Headquarters, Breuer with L. Nervi & B. Zehruss, Paris, 1952-8
- St. John's Abbey & University, Collegeville, Minn., 1953-61
- \* Whitney Museum of American Art, NYC, 1963-6

Bertrand Goldberg (1913-1997)

- Studies at Bauhaus 1932, works for Mies, returns to native Chicago, works for Schweicker, Kecks...
- \* Marina City Apartments, Office & Theater, Chicago (1959-62)
- Prentice Women's Hospital
- River City



USA Expressionism (Saarinen, Breuer et al)



## FREE FORM USA: F.L. WRIGHT

Edward Durell Stone (1902-1978)

New Delhi Embassy, 1954

Kennedy Center, Washington DC, 1962

Frank Lloyd Wright (1867-1959) & "Organic Architecture"

- \* Price Tower, FLW, Bartlesville, OK, 1952-6 (p.412-3)
  - St. Marks in the Bouverie, Tower, NYC, 1924
  - Johnson Wax Research Tower, Racine, WI, 1944 (p.304,314-5)
  - Mile High Illinois Bldg. (proj.), 1956
  - Hagan Hse., (= Kentuck Knob) Uniontown, PA, 1954
  - Beth Sholom Synagogue, Elkins, Park, PA, 1954
- \* Guggenheim Museum, FLW, NYC, 1943-1956-59 (p.414-5)
  - Pittsburgh Point Civic Center #1, #2, 1947-48
  - Cf. Pittsburgh Point View Residence #1, #2, 1953
  - Annunciation Greek Orthodox Church, Wauwatosa, WI, 1956

Lloyd Wright (& his son Eric Lloyd Wright)

Wayfarer's Chapel, Rancho Palos Verdes, CA, 1949-54

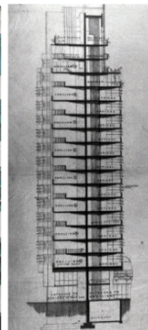
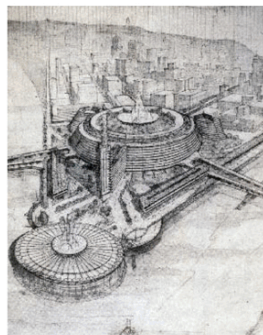
Bruce Goff (1904-1981) & The Architecture of Fantasy (book by U. Conrads, 1960)

Ford House, Aurora, IL, 1947 (cf. House for a Musician, 1952)

- \* Bavinger House, Goff, Norman, OK, 1950-55 (p.556)
  - Price House, Bruce Goff, Bartlesville, OK, 1956-58
- John Lautner (1911-1994, at Taliesin 1933-39)
  - Malin House (=Chemosphere), Hollywood, 1960
  - Reiner House, Lo Angeles, 1963
  - Stevens House, Malibu, CA, 1968
- Fay Jones (1921-2004, occasional residence at Taliesin)
  - Thorncrown Chapel, Eureka Springs, Ark., 1980

See also: Paolo Soleri, Gunar Birkets, Wallace Cunningham

See also: Taliesin Associates, Wes Peters, Cornelia Brierly & Peter Berndston (from Pgh.)



USA Free Form





## **1968 EUROPE: SITUATIONISM, ROSSI & VENICE SCHOOL**

Early critiques of modernism: Team X, Metabolism, Organic (Zevi, FLW, Otto), Banham, Jacobs, Blake...

1968 - Mexico City Olympics, "Black Power Salute," Oct. 1968

- Prague Spring in Hungary, reformist A. Dubcek vs. Soviet tanks (Jan.-Aug. 1968)
- Student Riots & Strike in Paris (May-June 1968), anti-Stalin, anti-capitalism, anti-establishment
- Closing of the architectural Ecole des Beaux Arts, Paris

Situationist International (1957-72), Anti-capitalist, Homo Ludens, create "situations," Asger Jorn & COBRA; Guy Debord, Society of Spectacle (1967)

\* Constant Nieuwenhuys, "New Babylon" (proj.), 1959-74

Carlo Scarpa (1906-1978)

Castelvecchio Museum, Verona, 1957-75

IUAV Entry, 1976

Manfredo Tafuri (1935-1994)

Histories & Theory of Architecture. (1968)

"Towards a Critique of Ideology," Contropiano, Materiali Marxisti, no. 1 (1969).

Architecture & Utopia: Design & Capitalist Development (1973)

"Venice School": IUAV, Venice, founded 1926, after 1959 Marxist historians & "Rationalist" architects  
La Tendenza, Autonomous Architecture, Rationalism

Aldo Rossi (1931-1997)

Monument to Resistance, Cuneo, Italy, 1964

Monument at City Hall, Segrate, Italy, 1965

\* Architecture of the City, 1966

Gallaratese Housing, Milan, Italy, Rossi, 1969 (p.592)

\* S. Cataldo Cemetery, Modena, Italy, Rossi, 1971

Giorgio Grassi

Restoration of the Bresciana (Roman) Theater

Student Housing at Chieti

## **COMPLEXITY & CONTRADICTION**

Robert Venturi (1925-present) (Pritzker 1991)

BA & M.F.A. from Princeton (1947, 1950)

Works for Saarinen, L. Kahn, Amer. Academy in Rome & U.Penn, 1951-65

Denise Scott Brown: meet 1960, marry 1967

Visiting Nurses Assoc. Of Philadelphia, 1961-3

\* Guild House, Philadelphia, 1961-63 (p.562)

\* Vanna Venturi House, Chestnut Hill (Philly), 1961-7 (Mother's House) (p.561)

\* Complexity & Contradiction in Architecture (1966), written 1961-5

Gentle manifesto of non-straightforward architecture

\* Learning from Las Vegas: the forgotten Symbolism of Architectural Form (1972, rev. 1977)

"Duck" vs. "Shed"

Charles Moore

\* Sea Ranch, Moore, 1963

Kresge College, UC Santa Cruz, 1965

\* Piazza d'Italia, Moore, New Orleans, 1975-9 (p.603)

Aldo Rossi (1931-1997)

\* S. Cataldo Cemetery, Modena, Italy, Rossi, 1971

Giorgio Grassi

Student Housing at Chieti, 1976

Venice Biennale #1, "Presence of the Past," 1980, organized by Paolo Portoghesi

## POSTMODERNISM

Postmodernism

Venice Biennale #1, "Presence of the Past," 1980, organized by Paolo Portoghesi

Richard Meier

Smith House, Meier, 1967

Atheneum, Meier, 1975

Peter Eisenman

Falk House (Hse. II), Hardwick, VT, 1969

Miller House III, CT, 1972

...

Wexner Center, Columbus, OH, 1983-9

Michael Graves

Benacerraf House, Graves, Princeton, 1969 (p.565)

...

Fargo-Moorhead Cultural Center, Graves, 1977 (p.604)

Portland Building, Graves, 1980

John Hejduk

Texas Houses (projects), 1967-75

"Wall House", 1973 (built in Groningen, 2003)

Whites" = The "New York Five," MoMA exhibit 1969; book The New York Five (1972, 1975)

Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk, Richard Meier

"Greys" - "Five on Five," Architectural Forum (May 1973)

Romaldo Giurgola, Allan Greenberg, Charles Moore, Jaquelin T. Robertson, Robert A. M. Stern

Postmodernism in architecture vs. Culture/Society

Charles Jencks, Postmodernism

Liotard, "The Condition of Postmodernism"