

## MODERN / MODERNITY / MODERNIZATION – “CRISIS OF MODERNITY”

Ancients & Moderns: Where to begin?

- \* Perrault, Louvre Facade, Paris, 1667
- Laugier, "Essay on Architecture" 1752, 1763
- Rise of Engineering in Architecture

Soufflot's Cathedral of Ste. Genenvieve, Paris, 1755ff



Crisis of Modernity

Industrial & Political Revolutions ca. 1776-1848

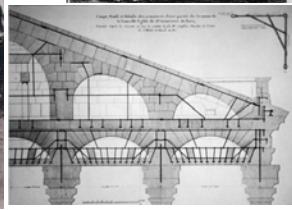
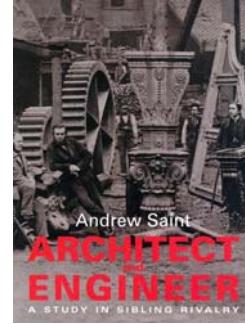
Split of Engineering & Architecture

Explosion of the Metropolis in 19th-century

Urban Growth, Infrastructure, Transportation

Slums, Reforms, Socialism, Social Engineering

Nationalism, World's Fairs



Triumph of Engineering

\* Crystal Palace, Paxton, London World Fairr, 1851

\* Paris World's Fair, 1889:

Eiffel Tower, by Gustav Eiffel

Halles des Machines, by Dutert & Contamin

St. Pancras Station, London, 1868, by Barlow (engineer) & G.Scott (architect)



Modern Consumer Culture

Department Store: Galleries Lafayette, Bon Marche, Printemps



The “Problem”: Historicism's Form vs. Function

German Pavilion, Paris World's Fair, 1900



\* = Most important images of lecture,  
to be memorized for the exams and  
future

## MODERNISM AND THE CRISIS OF MODERNITY DISCUSSION

Discussion of the terms "modern," "modernity," "modernization", "modern movement," etc. How are they different? What do they have in common? What is "modernism" and how is it different from past styles or epochs? Why did it come about in the late 19th-century? How do Baudelaire and Simmel define modern times? What is Kitsch, Avantgarde, Popular Culture?

**Report 1: ER:** C. Baudelaire, "Painter of Modern Life" & "Salon 1848" in Modern Art & Modernism: A Critical Anthology, eds. Frascina & Harrison (1854, 1982) pp.23-24, 17-18. (N6447 .M6 1982)

**ER:** G. Simmel, "The Metropolis and Mental Life" in Art in Theory 1900-1990 eds. Harrison & Wood (1910, 1992) pp.130-135. (N6490 .A7167 1993)

**ER:** M. Berman, "The Experience of Modernity" in Design After Modernism: Beyond the Object, ed. John Thakera (1988) pp.35-48. (N/A)

**ER:** Excerpt of H. Heynen, "Architecture facing Modernity," Architecture & Modernity: A Critique (1999) pp.9-21. (NA680 .H42 1999)

MODERN = multiple meanings: A) the new; B) the contemporary, now, currently fashionable; C) the transient and changing. The "modern" has been around since ancient Greece, e.g. the Renaissance was more "modern" than ancient Rome, and the Enlightenment saw a "battle of the ancients vs. moderns." To be modern is to be contradictory and paradoxical. "Retro" can be "modern," as can a (conservative) longing for a better past.

MODERNITY = The condition of the modern, industrialized world and the modern metropolis as described by Simmel. It implies whole new cultures, political ideas, economies, social interactions, etc. Modernity came about in the West, it was the product of "modernization," based the effects of (and reactions to) the industrial revolution.

MODERNISM = Modernism is the progressive reaction to the condition (or crisis of) modernity, especially in the arts. It begins with Baudelaire, and continues until the beginning of "post-Modernism." It involves radical statements about the modern world, sometimes aligning with technological modernity, and sometimes proposing radical or utopian alternatives. Many modernist artists seek to be avant-garde, or ahead of their time.

AVANT-GARDE = a military term that was transferred to the arts by Saint-Simonians in early 19th-century. Those artists that consciously seek to break the norms of the present, to get out ahead of the masses (and mass culture), and explore the future (like advance scouts in an army fighting force). Tends to be elitist, and politically progressive.



Historicism, ca. 1800



Expressionism, ca. 1910



Impressionism, 1850s-90s

## DESIGN REVOLUTIONS: ARTS & CRAFTS and ART NOUVEAU

The "Problems": Architecture vs. Engineering, Ornament vs. Construction, Urbanization vs. Slums  
 19<sup>th</sup>-Century Historicism, Eclecticism, Modernization

ARTS & CRAFTS MOVEMENT, also called Cottage Style, Aesthetic Movement, English Free Style, Domestic Revival, "Sweetness & Light," Queen Anne, Shingle Style, Craftsman Style, National Romanticism... See also Art Nouveau, Secession, Jugendstil, Yachting Style



- William Morris (1834-1896). Company founded 1861.
- \* 'Red House', by P. Webb, for W. Morris,  
 at Bexley Heath, Kent (near London), 1859-60

Domestic Reform Movement

Disseminating the Style

The Studio = The international Studio magazine, founded 1893  
 Liberty & Co. (Dept. Store), Furniture & Applied Arts, founded 1875  
 Hermann Muthesius, The English House (1904)



- \* Hvitträsk House, Saarinen, Gesellius & Lindgren, Lake Vitträsk, Finland, 1901-1903  
 Le Corbusier, Villas Jaquemet & Fallet, 1905-8, La Chaux de Fonds  
 F.L. Wright Home & Studio, Oak Park, IL, 1889, 1896



- \* Art Nouveau; Influences & Sources
  - Impressionism, Dance (Loie Fuller), Islam, Japan, Photography
  - Graphics: Mackmurdo, Wren's City Churches, 1883; A. Beardsley, "Salome", 1893; Advertising, etc
  - Journals: The Studio, London, 1893 ff.; Pan, Munich, 1895
  - Empathy Theory & the Theory of Space
  - A sense of the fluid, dynamic, linear, sensual, emotional, spatial,  
 Replaces the static, tectonic, visual, intellectual, historical



Brussels

- \* Tassel House, V. Horta, Brussels, Belgium, 1892-3  
 Maison de Peuple, V. Horta, Brussels, 1896. A new style for socialism ?

Paris

- Castel Beranger, H. Guimard, Paris, 1898  
 S, Bing, Galerie Art Nouveau, Paris World's Fair, 1900
- \* Paris Metro stations, H. Guimard, Paris, France, ca. 1900



See also:

- \* Secession (Vienna, Munich, etc.)
  - Josef Hoffmann
  - German Jugendstil
  - Van de Velde
  - Spanish Modernisme
  - Gaudi
- Glascow School
- Macintosh
- Chicago School
- Sullivan, F.L. Wright



## FIN-DE-SIECLE VIENNA: WAGNER & SECESSION

"Fin de Siecle Vienna & Ringstrasse: Freud, Wittgenstein, Schoenburg, Kraus, Hofmannsthal, Kokoschka, Klimt...  
(cf. book C. Schorske, Fin de Siecle Vienna)

Vienna Opera, Siccardsburg & Van der Null, 1861-9  
Otto Wagner works for this firm, on this building

Otto WAGNER (1841-1918)

Phase I: Ringstrasse Renaissance;

1st Wagner Villa, O. Wagner, Vienna, 1886

Phase II: Professorship & Head of Vienna Bldg. Dept.

\* Stadtbahn & Bridges, O. Wagner, Vienna, 1894-1901

Karlsplatz Station, Wagner, 1896

\* Textbook: Modern Architecture (1896, 1898, 1902\*, 1914)

1) simplicity in accommodation of modern needs

2) end to eclecticism and use of historical styles

3) new style based on current technology & construction

cf. book Die Grossstadt, 1911 (admiration for modern metropolis)

cf. article "The New American Architecture," Arch. Record 1912

Phase III: Secession Flatness & Proto-modern unornamented

Majolica House (part of Linke Wienzeile), O. Wagner, Vienna, 1898

O.W. joins Secession 1899

\* Postal Savings Bank, O. Wagner, Vienna, 1904-12

Wagner Villa #2, Vienna, 1912



Secessionism (As in "secede" from the official Academy of Art)

First "Secession" in Munich (1892); then Berlin (1893); then Vienna (1897)

\* Gesamtkunstwerk (total work of art)

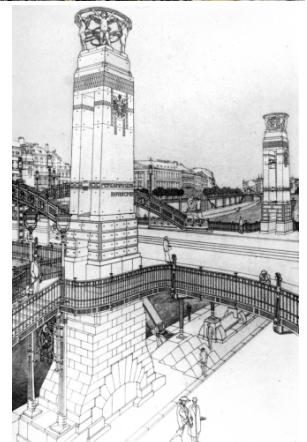
\* Secession Building, J.M. Olbrich, Vienna, Austria, 1898

Ver Sacrum (= Sacred Spring); "To the Age its Art; to the Art its Freedom"

\* Palais Stoclet, J. Hoffmann, Brussels, Belgium, 1905-11

"A-tectonic" flatness & abstraction

Paintings by G. Klimt Furnishings by Wiener Werkstätten (Vienna Workshops)



See also:

Hedrich Petrus BERLAGE (1856-1934)

Essays: "Thoughts on Style in Architecture," 1905

"Principles and Evolution of Architecture," 1908

1) Space as essence of modern architecture

2) Walls & surface (not ornament) as essential to creating space

3) Reintroduce geometrical / proportional systems as means to organize building (cf. Influence on Lauweriks, Behrens & Le Corbusier)

\* Stock Exchange, Amsterdam, 1884 Competition, 1896-1903

(Some other) Father Figures & Important Teachers:

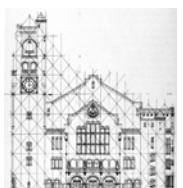
AUSTRIA: O. Wagner (1841-1918); J. Hoffmann (1870-1956)

NETHERLANDS: Berlage (1856-1934), Cuypers (1827-1921); Lauweriks (1864-1932)

FRANCE: J. Guadet (1834-1909); A. Choisy (1841-1909); A. Perret (1874-1954)

GERMANY: P. Behrens (1868-1940); T. Fischer (1862-1938), H. Poelzig (1869-1936)

USA: L. Sullivan (1856-1924), F.L. Wright (1867-1959)



## PREWAR AMERICA: WRIGHT & MODERNITY

- \* World's Columbian Exposition (Chicago World's Fair), 1893:  
Chicago's Influence on Europe  
Richardson's Marshal Field Warehouse ->  
Helsinki Telephone Exchange, L. Sonck, 1904  
Visitors: Loos, Berlage, Crane, Ashbee...  
"White City" planned by Daniel Burnham (NYC)  
Colonial Revival: W. Virginia Pavilion by Silsbee; Virginia copy of Mt. Vernon  
Cf. F.L. Wright: Blossom House, Chicago, 1892  
National Pavilions (esp. Japan)  
FLW, Winslow House, Riverforest, IL, 1893
- \* American Arts & Crafts: Integrating Craft & Machine  
Dissemination: Arts & Crafts, National Romanticism  
FL. Wright, Own House & Studio, Oak Park, IL. 1889  
FLW, "Art & Craft of the Machine" lecture & essay, 1901  
Machine as organic, as democratic, as key to reviving arts
- \* Gamble House, Greene & Greene, Pasadena, CA, 1908-10  
The "Bungalow" & "Craftsman Style": arts & crafts for the masses  
Gustav Stickley Furniture Company & The Craftsman journal, Syracuse, NY

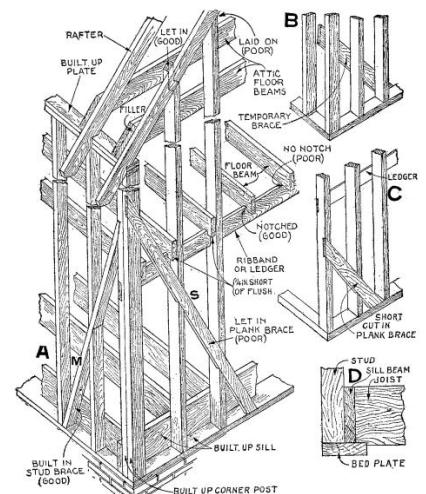
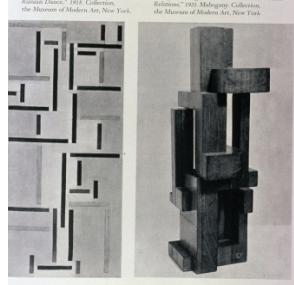
Catalogue Houses by Sears, Alladin, Lewis Homes, Portland cement, etc.  
Mass production of building components & light framing systems

- \* Balloon Frame "invented" ca. 1840 in Chicago

Concrete Houses by T. Edison, G. Atterbury at Forest Hills, NY  
H.P. Berlage used Edison's Patent  
FLW, Unity Temple, Chicago, 1904 (early use of concrete)  
FLW, Larkin Building, Buffalo, NY, 1904  
La Jolla Women's Club, La Jolla, CA, 1912  
Dodge House, Irving Gill, Los Angeles, 1915  
cf. Schindler-Chase House, R. Schindler, Los Angeles, CA, 1921-2

Frank Lloyd Wright (1867-1959) (cont'd in next lecture)

- FLW, Own House & Studio, Oak Park, IL. 1889  
FLW, Blossom House, Chicago, 1892  
FLW, Winslow House, Riverforest, IL, 1893  
FLW, "Art & Craft of the Machine" lecture & essay, 1901
- \* FLW, Willitts House, Highland Park, IL, 1902  
FLW, Unity Temple, Chicago, 1904 (early use of concrete)  
FLW, Larkin Building, Buffalo, NY, 1904
- \* FLW, Robie House, Chicago, IL, 1909-11  
FLW, Thomas & Laura Gale House, Oak Park, IL, 1904-9  
FLW, Hotel, Mason City Iowa, 1909
- \* FLW, Ausgeführtte Bauten (Wasmuth Portfolio), Berlin, 1911



## AMERICAN INDUSTRY & CITIES

The “influence” of America on Europe and modern architecture:

- \* FLW, Robie House, Chicago, IL, 1909-11  
cf. Picasso “Ma Jolie” 1910  
& Wendingen, Amsterdam, 1926
- FLW, Thomas & Laura Gale House, Oak Park, IL, 1904-9  
cf. Haus Henry, Robert van't Hoff, Utrecht, Holland, 1915-9
- FLW, Hotel, Mason City Iowa, 1909  
cf. Werkbund Model Factory, W. Gropius, Cologne, 1914
- \* FLW, Willitts House, Highland Park, IL, 1902  
cf. De Stijl (pin-wheel plan, break the box)
- \* FLW, Ausgeführte Bauten (Wasmuth Portfolio), Wasmuth, Berlin, 1911

### \* AMERICAN INDUSTRY & “EFFICIENCY”

Henry Ford, My Life and Work 1922, autobiography, translated 1923  
Frederick Winslow Taylor, Principles of Scientific Management, 1911  
Christine Frederick, New Housekeeping, 1913 (transl. German 1921),  
Household Engineering: Scientific Management in the Home, 1915

### SKYSCRAPERS & the MODERN

Guaranty Building, L. Sullivan, Buffalo, NY, 1895  
Reliance Building, D. Burnham, Chicago, 1891, 1895  
Flatiron Building, Burnham & Co., New York, 1903  
Woolworth Building, Cas Gilbert, NYC, 1912  
European Skyscraper Utopias: Perret, Henard, F. Lang's “Metropolis”  
Cf. Futurism (Sant'Elia)  
European vs. US entries to the Chicago Tribune Tower Competition, 1922  
(Gropius, Loos, Saarinen)

- \* Critique of the American City and (ornamented) American Skyscraper  
W.C. Behrendt, Mendelsohn, Neutra  
Gropius' article "Development of modern Industrial Architecture", Werkbund Yearbook, 1913. Images referenced in:  
Le Corbusier, Towards a New Architecture, 1923  
E. Mendelsohn, Amerika, 1926  
R. Neutra, Amerika (1930)

Metropolis & Modern Life (cf. Simmel)

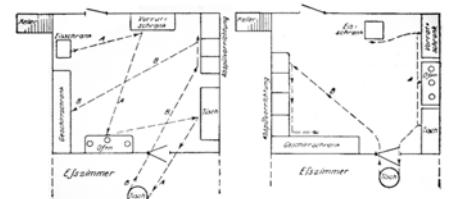
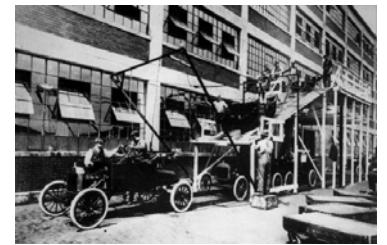
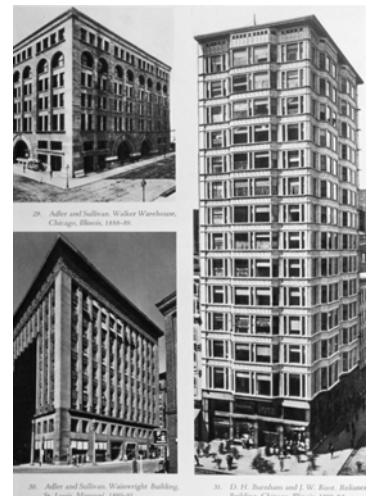


Abb. 47. Christine Frederick: Ganglinien in der Küche bei falscher (links) und richtiger Einrichtung (rechts)



29. Adler und Sullivan, Wasserturmgebäude, Chicago, Illinois, 1889-91.  
30. Adler und Sullivan, Woolworth Building, New York, 1913-15.  
31. D. H. Burnham und J. W. Root, Reliance Building, Chicago, Illinois, 1890-94.



## GERMAN WERKBUND & INDUSTRY

Addressing the Problem of German Design:

- Artistic Secessions
- Reforming Education: Weimar Art Academy & Weimar School of Applied Arts, H.v.d Velde, Weimar, 1905-11
- Workshops/Design Companies

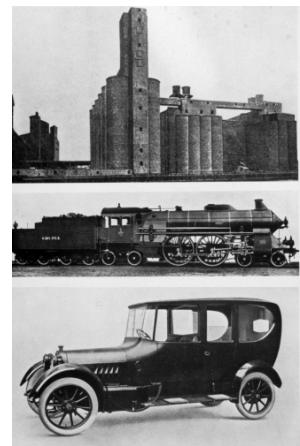
Deutsche Werkstätten für Kunst und Handwerk (=German Workshops for Art & Craft), founded by Karl Schmidt, Munich, 1898

DW Factory in Hellerau Garden City, vic. Dresden, Germany, 1908-11

Housing by: Muthesius, Riemerschmid, T. Fischer & H. Tessenow

Factory, R. Riemerschmid, Hellerau (Dresden), 1908-10

"Type-furniture", R. Riemerschmid



\* Deutscher Werkbund (DWB), founded Oct. 1907-present

A publicity & propaganda organization

12 Artistis & 12 Industrialists: H. Muthesius, K. Schmidt, F. Naumann, P.

Behrens, R. Riemerschmid, F. Schumacher, P. Schultze-Naumburg...

Exhibit "Modern Industrial Buildings," W. Gropius & Werkbund Yearbook, 1912

A.E.G. (= "General Electric Co."), founded in 1887 by Emil Rathenau.

Hire P. Behrens to be corporate designer, 1907 (was art prof. at Düsseldorf Art Academy)

\* AEG Turbine Factory, P. Behrens, Berlin, 1908

cf. Old AEG Headquarters, A. Messel, Berlin, 1905

\* Fagus Shoe Last Factory, W. Gropius, Alfeld, Germany, 1911

\* Werkbund Exhibition, Cologne, May-Aug. 1914 (closed by WWI)

P. Behrens, Main Building

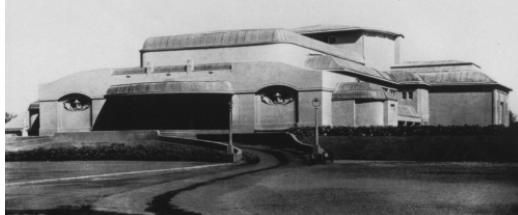
J. Hoffmann, Austrian Pavilion, with interior by H. Tessenow

\* W. Gropius, Model Factory & Office

H. Van de Velde, Theater

\* B. Taut, Glashaus (see Expressionism lecture later.)

\* Werkbund Debate: Muthesius ("type," standardization, conventions) vs. Van de Velde (individual artistic freedom)



## CRITICAL LOOS: FUNCTION & ORNAMENT

Adolf LOOS (1870-1933)

Ornament: Critic / Writer / Journalist / Theorist

\* Das Andere, (magazine, The Other), 1903

Essays (cf reading!)

Collected as Spoken into the Void (1921, 1931, 1981);

Nonetheless (1931, 1962, 1982), including:

"Ornament & Crime" (1910)

"The Principle of Cladding" (1898)

"Poor Little Rich Man" (1900)

"Plumbers" (1898)

"Cultural Degeneracy" (1908)

"Architecture" (1910)

Tradition & Ornament

Museum Cafe (= Cafe Nihilism), Loos, Vienna, Austria, 1899

Own Apt., Loos, Vienna, 1903

Mask

\* Goldman & Salatsch, Loos, Vienna, 1909-11

\* Steiner House, Loos, Vienna, 1910

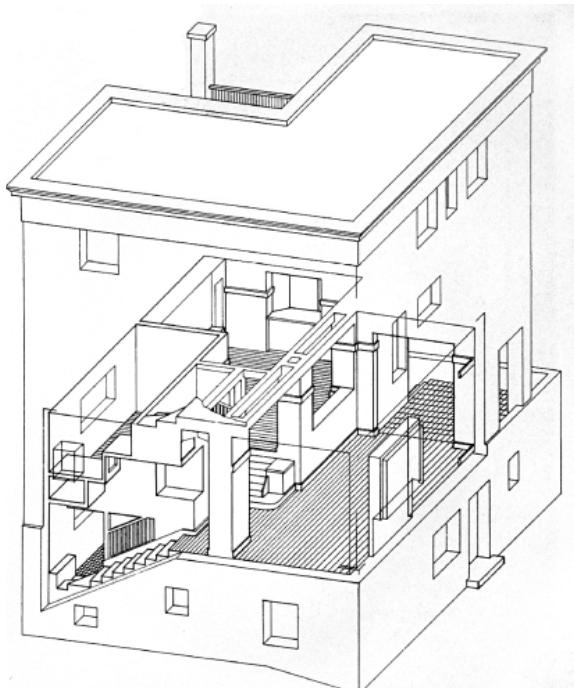
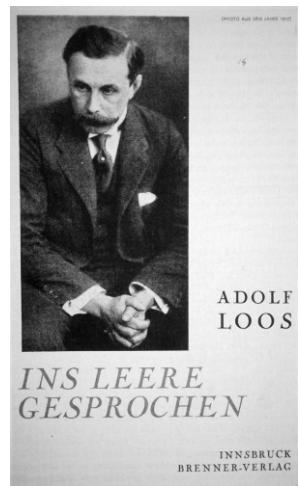
\* Raumplan (vs. Free Plan)

Proj. for Lido House, Loos, Venice, 1923

Rufer House, Loos, Vienna, 1922

Müller house, Prague, Czechoslovakia, 1930

Moller House, Loos, Vienna, 1928



"My architecture is not conceived in plans, but in spaces (cubes). I do not design floor plans, facades, sections. I design spaces. For me, there is no ground floor, first floor etc.... For me, there are only contiguous, continual spaces, rooms, anterooms, terraces etc. Storeys merge and spaces relate to each other. Every space requires a different height: the dining room is surely higher than the pantry, thus the ceilings are set at different levels. To join these spaces in such a way that the rise and fall are not only unobservable but also practical, in this I see what is for others the great secret, although it is for me a great matter of course. Coming back to your question, it is just this spatial interaction and spatial austerity that thus far I have best been able to realise in Dr Müller's house"

## PREWAR ORDER: CLASSICISM & ENGINEERING

- \* Werkbund Debate: Muthesius (Type, standardization, conventions) vs. Van de Velde (individual artistic freedom)

### DORIC CLASSICISM

A "Return to Order" in the arts before and after WWI (1914-18)

USA: Colonial Revival, 1876-1945

CMU Hornbostel Campus, 1904ff

Peter Behrens (Germany, 1868-1940) (*see Werkbund lecture earlier*)

AEG Factories, 1909-14; Werkbund Auditorium, 1914

cf. Gropius' Fagus Factory "classicism")

German *Heimat* (Homeland) Movement; "Around 1800" style (*see also functionalism lecture later*)

Goethe's Garden House, Weimar, 1790s

Paul Schmitthenner (Stuttgart, 1930)

Hellerau Garden City, vic. Dresden, 1908-11

Housing by H. Tessenow, 1911 (also by Muthesius, Riemerschmid, etc)

- \* Main Hall (= Dalcroze Dance School), H. Tessenow, 1911

Mies van der Rohe (Germany, 1886-1969) (*see Mies lecture later*)

Riehl House, Potsdam, 1907

Urbig House, Potsdam, 1916-24

Le Corbusier (Switzerland, 1887-1965) (*see Corbu lectures later*)

Villa Favre-Jacot, La Chaux-de-Fonds, Switzerland, 1912

Villa Schwob, La Chaux-de-Fonds, Switzerland, 1916

Alvar Aalto (Finland, 1898-1976) (*see Scandinavia lecture later*)

Worker's Club, A. Aalto, Jyväskylä, Finland, 1924-5



### FRENCH RATIONALISM & ENGINEERING

Tradition of French Classical Rationalism: Perrault, Laugier, Viollet-le-Duc, Ecole de Beaux-Arts, Choisy, Guadet, Perret, Garnier, Le Corbusier...

- \* S. Giedion, *Building in France, Building in Iron, Building in Ferroconcrete* (1928)

Role of history in envisioning future

Role of construction and industry in determining future

19thC Iron leads to 20thC Ferroconcrete



#### Auguste PERRET (1874-1954)

- \* Rue Franklin 25bis, A. Perret, Paris, France, 1902-3

Champs Elysees Theater, Paris, 1903

Rue Ponthieu Garage, A. Perret, Paris, 1905

- \* Church of Notre Dame, A. Perret, Le Raincy, France, 1922-3

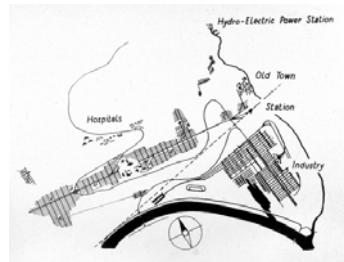
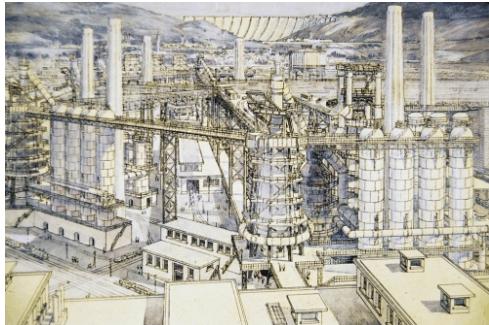
Rue Raynouard Apts., A Perret, Paris, 1929-32

#### Tony GARNIER (1869-1948)

- \* *Cité Industrielle* by T. Garnier, published 1917 (begin 1901 in Rome)

Abattoir (Slaughterhouse) La Mouche, T. Garnier, Lyon, 1909-16

Hôpital Grand Blanche (=Hosp. E. Herriot), Lyon, France, 1918-30



## PREWAR ORDER: CLASSICISM & ENGINEERING

- \* Werkbund Debate: Muthesius (Type, standardization, conventions) vs. Van de Velde (individual artistic freedom)

### DORIC CLASSICISM

- A "Return to Order" in the arts before and after WWI (1914-18)
- USA: Colonial Revival, 1876-1945
- CMU Hornbostel Campus, 1904ff
- Peter Behrens (Germany, 1868-1940) (*see Werkbund lecture earlier*)
  - AEG Factories, 1909-14; Werkbund Auditorium, 1914
  - cf. Gropius' Fagus Factory "classicism"
- German *Heimat* (Homeland) Movement; "Around 1800" style (*see also functionalism lecture later*)
  - Goethe's Garden House, Weimar, 1790s
  - Paul Schmitthenner (Stuttgart, 1930)
- Hellerau Garden City, vic. Dresden, 1908-11
  - Housing by H. Tessenow, 1911 (also by Muthesius, Riemerschmid)
- \* Main Hall (= Dalcroze Dance School), H. Tessenow, 1911
- Mies van der Rohe (Germany, 1886-1969) (*see Mies lecture later*)
  - Riehl House, Potsdam, 1907
  - Urbig House, Potsdam, 1916-24
- Le Corbusier (Switzerland, 1887-1965) (*see Corbu lectures later*)
  - Villa Favre-Jacot, La Chaux-de-Fonds, Switzerland, 1912
  - Villa Schwob, La Chaux-de-Fonds, Switzerland, 1916
- Alvar Aalto (Finland, 1898-1976) (*see Scandinavia lecture later*)
  - Worker's Club, A. Aalto, Jyväskylä, Finland, 1924-5



### FRENCH RATIONALISM & ENGINEERING

- Tradition of French Classical Rationalism: Perrault, Laugier, Viollet-le-Duc, Ecole de Beaux-Arts, Choisy, Guadet, Perret, Garnier, Le Corbusier...
- \* S. Giedion, *Building in France, Building in Iron, Building in Ferroconcrete* (1928)
  - Role of history in envisioning future
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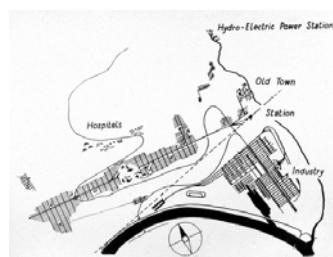
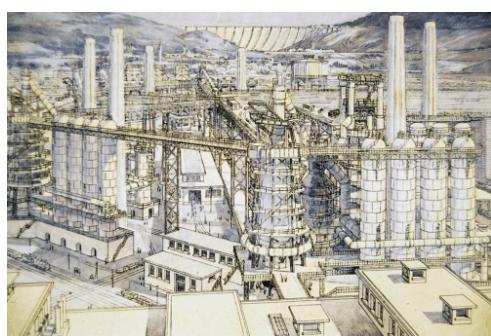


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## ART & REVOLUTION - CUBISM & FUTURISM A NEW SPACE-TIME

\* S. Giedion, Space, Time & Architecture: Growth of a New Tradition (1941)  
cf. A. Barr, Cubism and Abstract Art (MoMA, 1936)

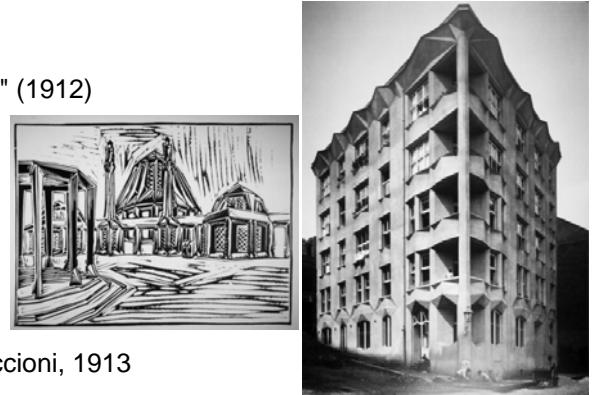
### CUBISM & SPACE-TIME

Inventing Cubism (Picasso & Braque) 1907-11,  
Duchamp, "Nude Descending Stair" 1912; "Fountain" 1917  
Dada (Zurich 1917, Berlin 1920)



### CZECH CUBISM (Folding)

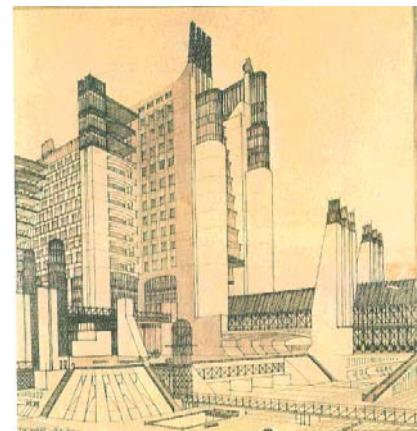
Pavel Janak, "Vision of Architecture," (1906) "Studies for Interior" (1912)  
\* Vlastislav Hofman, Cemetery Entry Pavilions, Prague, 1912-3  
Josef Chocol, Apartment House, Prague, 1913  
J. Gocar, Furniture, 1913-22  
Riunione Adriatica Office & Dept. Store, Prague, 1922-24



### ITALIAN FUTURISM (Dynamism)

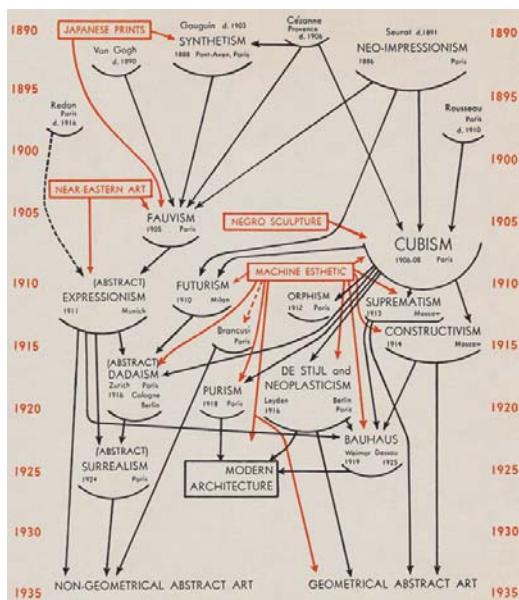
Futurist Manifesto, Le Figaro, by T.F. Marinetti, Feb. 1909  
"Unique Forms of Continuity in Space" (Sculpture), Umberto Boccioni, 1913  
Futurist Manifesto of Architecture, Antonio Sant'Elia, 1914

Vigilio Marchi, Mario Chittone  
\* Antonio Sant'Elia, Città Nuova, 1914  
cf. "Elevated Sidewalk" Scientific American 1913

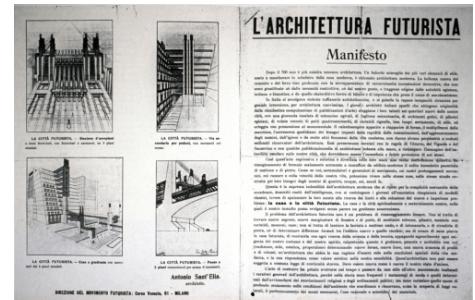


\*\* World War I: Aug. 1914 - Nov. 1918 (US enters 1917)

Return to Classicism: Picasso, De Chirico  
"Novecento" style: G. Muzio, Ca' Brutta, Milan, 1922  
cf. M. Piacentini, Milan  
Fiat Factory, G. Matte-Trucco, Turin, Italy, 1919-23



**CUBISM AND ABSTRACT ART**



## AVANT-GARDE 1: GERMAN EXPRESSIONISM

Avant-garde vs. Modernism

### GERMAN EXPRESSIONISM

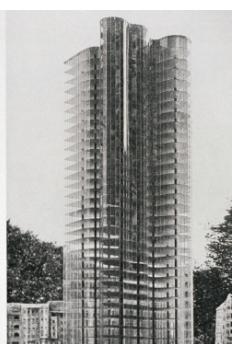
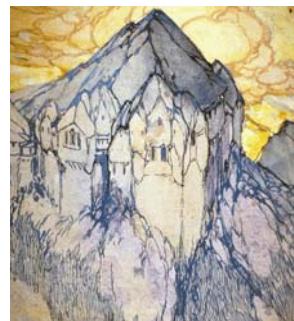
#### Early Influences:

Artists: W. Kandinsky, Blue Rider Group, E.L. Kirchner, E. Heckel  
Buildings: Scala Café, R. Belling, 1920; Lunapark, Berlin 1920  
The Gothic, Art Nouveau, Czech Cubism

- \* Chemical Factory, Hans Poelzig, Luban, Germany, 1911
- Falkenberg ("Paintbox") Siedlung, B. Taut, vic. Berlin, 1912
- Werkbund Exhibition, Cologne, 1914
- \* Glass Pavilion, B. Taut

World War I: Aug. 1914 - Nov. 1918 (US enters 1917)

- \* Arbeitsrat für Kunst (Working Council for Art), founded by W. Gropius and B. Taut, 1918-1921
- Crystal Chain artists: Paul Scheerbart, poet; Hans Scharoun; Wassily Luckhardt; Wenzel Hablik; H. Finsterlin;
- \* Bruno Taut: Alpine Architecture, The City Crown, The Dissolution of the Cities, 1919-20
- Grosses Schauspielhaus (Large Theater), H. Poelzig, Berlin, 1918-1919
- \* Erich Mendelsohn: Einstein Tower, Potsdam, Germany, 1919-21
- Friedrichsstrasse Skyscraper Competition:
- \* Mies v.d. Rohe Glass Skyscraper (also Poelzig, Mendelsohn et al)
- Mies v.d. Rohe, Monument to Liebknecht & Luxemburg, 1926
- Walter Gropius: Monument to the Victims of March, Weimar, 1921



## AVANT-GARDE 2: DUTCH DE STIJL

DE STIJL = NEO-PLASTICISM

De Stijl group & De Stijl magazine founded 1917, Mondrian, v. Doesburg, Vantongerloo, Oud...  
Read De Stijl Manifestoes in Conrads' Programs & Manifestoes



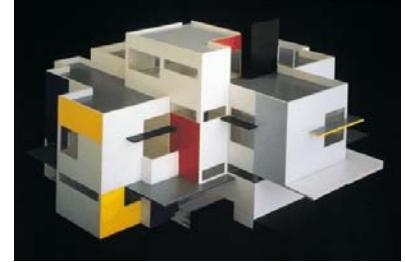
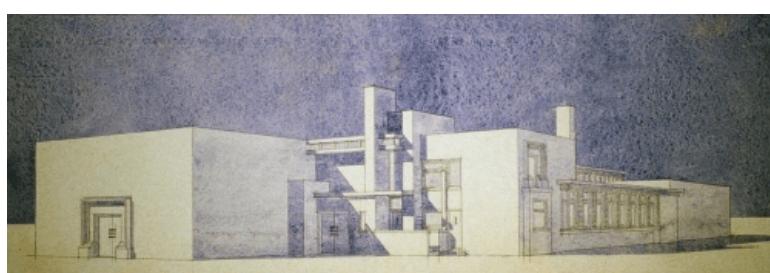
Precedents to De Stijl architecture:

- Cubism
- Piet Mondrian's paintings, 1908-1920
- Georges Vantongerloo, "Construction of Volumetric Relations," 1918
- \* - Gerrit Rietveld Furniture: "Red + Blue Chair," 1917
- \* - H.P. Berlage, Stock Exchange, Amsterdam, 1897-1903
- F.L. Wright publications with influence in Holland:  
Wasmuth Portfolio 1910; Wendingen series, 1925  
Haus Henry, Robert van't Hoff, Utrecht, 1915

- Villa Allegonda, Katwijk, J.J.P. Oud, T.v. Doesburg et al 1916-17
- "De Vonk" Holiday Residence, Oud & Van Doesburg, in Noordwijkerhut, 1917
- \* J.J.P. Oud Projects: Housing at Seashore, 1917; Factory at Purmerand, 1919
- Maison Particulière Project, C.v. Eesteren + T.v. Doesburg, Paris, 1923
- Oud Mathenesse Housing, J.J.P. Oud, Rotterdam, 1923  
Site Manager's Office
- Housing at Hoek von Holland, Oud, 1924-27
- \* Schröder House, G. Rietveld, Utrecht, Holland, 1924-5  
cf. Essay by Alice Friedman in Women and the Making of the Modern House
- Café de Unie, Oud, Rotterdam, 1925

cf. Influence of De Stijl on Bauhaus

- \* Mies van der Rohe, Brick Country House Project, 1923
- \* Barcelona (or German) Pavilion, Barcelona World's Fair, Spain, 1929



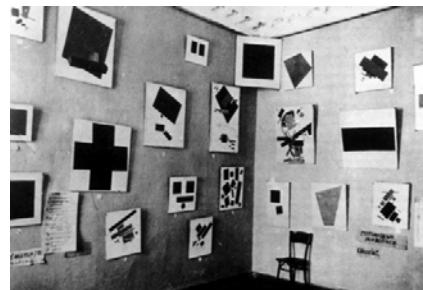
## AVANT-GARDE 3: REVOLUTIONARY RUSSIA

Russian Historicism, Tradition & Modernity

Russian Revolution - 1905: strikes and violent anti-government protests against Tsar Nicholas II

Russian surrender to Germany in WWI (1915)

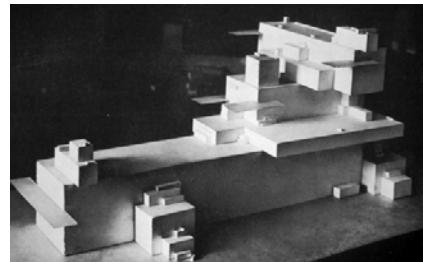
Russian Revolution      - Feb. 1917: Czar abdicates  
                              - Oct. 1917: Bolsheviks seize power



### 1) Suprematism / Elementarism / Rationalism

- More utopian, spiritual, often mystical, abstract
- Includes K. Malevich, N. Ladovsky, Vkhutemas School, Malevich's UNOVIS School (School of New Art), ASNOVA (Assoc. of New Architects) architects K. Melnikov, Golosov 0.10 Exhibit, Petrograd, 1915, with Malevich's "Black Square"
- K. Malevich, "Suprematist Composition, White on White," 1918
- Vkhutemas School, Moscow

- \* El Lissitzky, Pro-un (Pro-Unovis): "Town", 1919; "Pro-un Space", Berlin, 1923
- \* K. Malevich, "Arkitekton," 1923ff



### 2) Constructivism / Productivism:

- Utilitarian, Agit-prop, revolutionary, materialistic, engineering & construction.
- Sought a communitarian socialist art.
- Includes: Rodchenko, Tatlin, M. Ginsburg, Popova, OSA (Assoc. of Contemporary Architects) includes Ginzburg, Vesnin, Barshch

AgitProp Trains, 1919-21

- \* El Lissitzky, Lenin's Tribune, 1920
- Simbirchev, "Proj. for Restaurant on Cliff," N.A. Ladovsky Studio, Vkhutemas School, 1922

- \* V. Tatlin, Monument to the 3rd International, 1920
- Competition Entry for Palace of Labor, Vesnin Brothers, Moscow, 1922
- Proj. for Pravda Newspaper Building, Vesnin Brothers, Moscow, 1924



### Executed Projects

- Designs for clothing, kiosks, fabrics, etc. by Rodchenko, Stepanova, Klutis, etc.
- \* Soviet Pavilion at Expo. des Art Décoratifs, K. Melnikov, Paris, 1925  
Interior, Worker Club, Rodchenko
- \* Rusakov (=Tram) Worker's Club, K. Melnikov, Moscow, 1927  
Zuyev Worker's Club, I. Golosov, Moscow, 1928  
K. Melnikov House, Moscow, 1929



Chernikov, Architectural Fantasies, 1930



\* = Most important images of lecture, to be memorized for the midterms and future

## BAUHAUS

### BAUHAUS

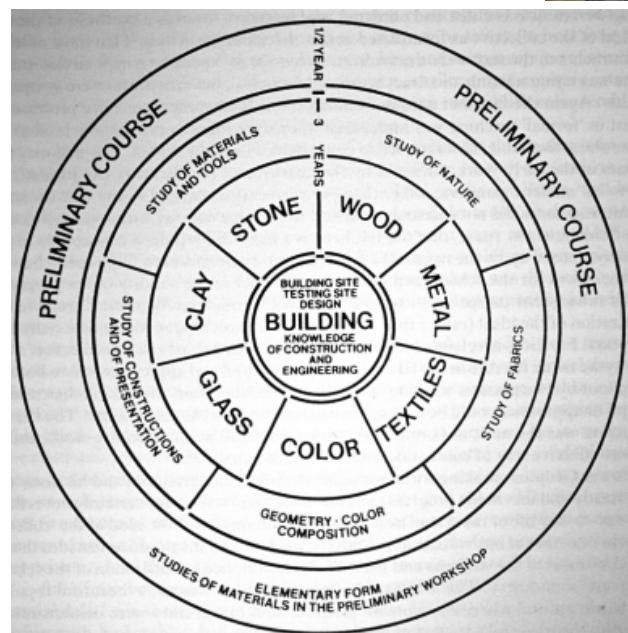
- \* Academy of Art / School of Arts & Crafts, Henri van de Velde, Weimar, 1904-11
- Bauhaus: Weimar, 1919-1925      Directors: Walter Gropius, 1919-1928
- Dessau, 1926-1932      Hannes Meyer, 1928-1930
- Berlin, 1932      Mies van der Rohe, 1930-1932

- Lionel Feininger, "Cathedral of Socialism," 1919
- \* Walter Gropius, "Bauhaus Manifesto," 1919 (reading in Conrads)
- J. Itten, "Vorkurs" ("Preliminary Course"), 1919-1923
- \* Sommerfeld House, Gropius & Bauhaus Students, Berlin, 1919

- T. van Doesburg and De Stijl come to Weimar, Winter 1921
- \* Office of Bauhaus Director, Weimar, Gropius, 1923 (in Van de Velde building)
- L. Moholy-Nagy: "Glass Architecture" 1922; "Light-Space Modulator," 1922-30
- 1st International Bauhaus Exhibition, Weimar, August 1923
- Experimental House (G. Muche)
- "International Architecture" exhibit (Gropius)

Conservative criticism and attack on Bauhaus pedagogy & instructors

- \* New Bauhaus Building, W. Gropius, Dessau, Germany, 1925-6
- Arts & Crafts & Industry:
  - Weavings by Gunta Stoezl
  - Lamps by W. Wagenfeld, 1924;
  - Teapot by Mariane Brandt, 1928
  - Chairs by Marcel Breuer: "African Chair, 1921"; "Easy Chair" 1922;
  - "Wassily Chair" 1925
  - Theater by Oscar Schlemmer
  - Painting by Kandinsky & Klee
- \* Master's Houses, W. Gropius, Dessau, Germany, 1925-6
- cf. Törten Siedlung/Housing, Gropius/Bauhaus/Meyer, 1926-8



### Some BAUHAUS Dates:

- 1902 Van de Velde called to Weimar by Thuringen State government to teach private Kunstgewerbe (Arts & Crafts) Seminar
- 1903-07 P. Behrens becomes Director of Düsseldorf Art School, includes workshops
- 1906 Founding of Grand Ducal School of Arts & Crafts (Kunstgewerbeschule) in Weimar, under direction of Henri van de Velde
- 1904-11 Van de Velde designs new buildings for Kunstgewerbeschule (Applied Arts School) and Hochschule für Kunst (Art Academy)
- 1907 Werkbund founded; P. Behrens to AEG; Heimatschutzbund founded; founding of Deutsche Werkstätten, Dresden (leads to Hellerau)
- 1910 Gropius' Fagus Shoe factory at Alfeld
- 1913 Nationalists begin to put pressure on the Belgian citizen Van De Velde to leave
- 1914 Köln Werkbund exhibit, Gropius' factory.
- 1914-18 WWI - Gropius at war; Van de Velde resigns (1914), then deported (1915)
- 1918 Gropius asked to become new director of Kunstgewerbeschule
- 1919, Apr. Unification of Hochschule für Künste and the Kunstgewerbeschule; opens as "Staatliches Bauhaus" in Weimar with Gropius as director, in Van de Velde's Buildings  
First "Masters" are Feininger, Itten, Marcks,  
Gropius manifesto "Programm des Staatlichen Bauhauses"
- 1920 Appointment of Muche, Schlemmer, Klee as Masters  
Sommerfeld Villa in Berlin built
- 1921, Wintel/Jan Doesburg arrives in Weimar, teaches De Stil functionalist ideas in private school in opposition to Itten's mysticism
- 1922 Appointment of Kandinsky.  
Gropius replaces Itten in Vorkurs
- 1923 Itten resigns. L. Moholy-Nagy replaces him, assisted by J. Albers.  
Aug. Large exhibition, Bauhaus Woche, includes Muche's "Haus am Horn"  
Gropius' lecture "Kunst & Industrie" signals change from craft medievalism to machine  
Gropius, Idee und Aufbau des Staatlichen Bauhauses zu Weimar (12pp.)
- 1924 State of Thuringen reduces Bauhaus budget, pressure increases from right-wing
- 1925 Gropius decides to move Bauhaus to nearby city of Dessau  
Tandem teaching of workshop (Master of Form and Workshop Master) abandoned.  
Gropius' Internationale Architektur and 7 other books published
- 1926 Bauhaus moves into new buildings, designed by Gropius, and is now called "Hochschule für Gestaltung,".  
Gropius' essay "Principles of Bauhaus Production"
- 1927 Appointment of architect H. Meyer as Master
- 1928 Gropius resigns, moves to Berlin.  
Breuer, Bayer, Maholy-Nagy also resign  
H. Meyer assumes directorship -- extreme functionalism, much architecture.  
L. Hilberseimer hired  
Protests about Meyer's politics, bolshevism, etc. increase
- 1929 Schlemmer resigns to go to Breslau academy
- 1930 H. Meyer removed as director because of his left-wing politics.  
Mies van der Rohe is appointed new director
- 1931 Klee resigns, goes to Düsseldorf
- 1932 Dessau parliament, controlled by Nazis, closes Bauhaus in Sept.; buildings used as NS training facility.  
School reopens in Berlin in October, a private school, under Mies.
- 1933 April 11 NS soldiers occupy school.  
July 20 Bauhaus closed by Nazis

## HOUSING THE MASSES

### THE PROBLEM:

Meyer's Hof *Mietskaserne* (=Rental Barracks), Berlin, 1875-1930.



### THE TECHNICAL DEBATES:

City Center or Periphery

Low Rise vs. High Rise

Detached vs. Row Housing vs. Apartment Blocks

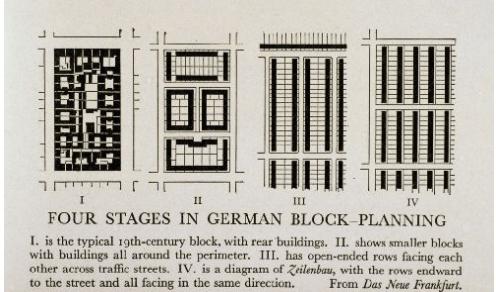
Perimeter Blocks vs. Zeilenbau (=Linear building)

### HOLLAND

Oud Mathenesse Housing, J.J.P. Oud, Rotterdam, 1923

Hook of Holland, J.J.P. Oud, 1924-7

- \* Kiehoek Housing, J.J.P. Oud, Rotterdam, 1925-29 (298 units)



### GERMANY

Törten Siedlung, Gropius/Bauhaus/Meyer, 1926-8

**"Das Neue Frankfurt"** =The New Frankfurt

Siedlungen: Bruchfeldstraße, E. May, 1926-7 (643 apts., zig-zag, perimeter block)

- \* Roemerstadt, Ernst May, 1927-8 (1220 apts., curves)
- Praunheim, E. May, 1926-8 (1441 apts., with trolley tracks, Phase 3)
- Am Lindenbaum, W. Gropius, 1930 (1532 apts., Zeilenbau)
- Siedlung Goldstein, May, 1930 (Co-sponsored with german Garden City Assoc.)

- \* Frankfurt Kitchen, Grete Schute-Lihotsky

Das neue Frankfurt magazine

Construction site efficiency, pre-fabricated concrete panels

CIAM II Meeting: "Existence Minimum Apartments", 1929

- \* Weissenhof Housing Development Exhibition, Stuttgart, Germany, 1927

Exhibit Plan & Apartment Block, Mies van der Rohe

Houses by: W. Gropius, P. Behrens, B. Taut, Le Corbusier, M. Stam, H. Poelzig, H. Scharoun, J.J.P.

Oud...

cf. Competing traditional "Heimat" housing developments



## LE CORBUSIER I: MACHINE VILLA

Charles Edouard Jeanneret = Le Corbusier (after 1920) (Chronology)

Born 1887 in La Chaux de Fonds, Switzerland (died 1969)

Villa Fallet, La Chaux-de-Fonds, 1905

Travel to Italy & Adriatic, 1907

Work with Auguste Perret, Paris, 1908

Voyage d'Orient, Italy-Greece-Turkey, 1911

Studies Decorative Arts & Werkbund in Germany,

work with Behrens, Berlin, 1911; H. Tessenow, Hellerau, 1912

\* Domino House Project (with Dubois), after Aug. 1914

\* Villa Schwob, La Chaux-de-Fonds, 1916

LC settles in Paris, 1917

Meets Amédée Ozenfant. Purist painting, Apres le Cubisme (1918)

Maison Monol, 1919

Esprit Nouveau magazine, 1920-1925, 28 issues

\* Maison Citrohan, 1922

Studio for Ozenfant, Paris, 1922

\* "Contemporary City for 3 Million," 1922-3

\* Maison La Roche/Jeanneret, Paris, 1923 (today = Fondation LC)

\* Vers un Architecture (= Towards an (new) Architecture) 1923

Pavilion de l'Esprit Nouveau, Exposition des Arts Décoratifs, Paris, 1925

Housing Colony at Pessac (for Fruges, vic. Bordeaux), 1925

Plan Voisin for Paris, 1925

Maison Cook, Paris, Paris, 1925

\* "Five Points of Architecture," 1926

Piloti, Roof Garden, Free facade, Ribbon Window

League of Nations, Geneva, Switzerland, 1927

\* Villa Stein (= Les Terraces), Garches, 1927

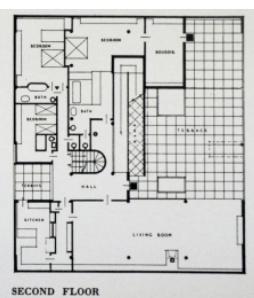
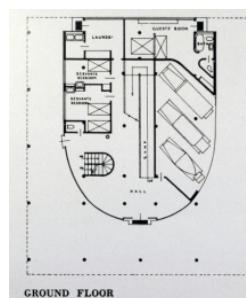
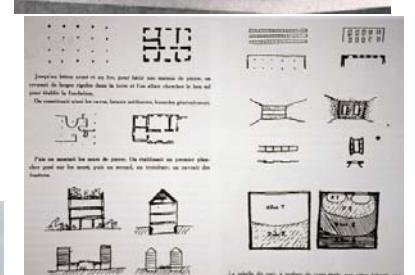
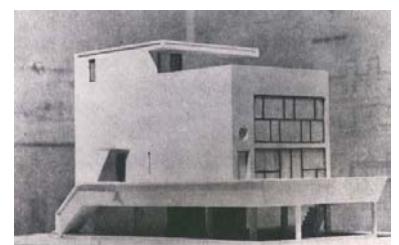
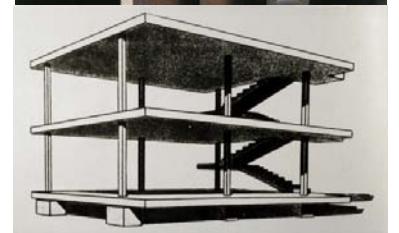
\* Single + Double Houses, Weissenhof Exhibit, Stuttgart, Germany, 1927

\* Villa Savoye (= Les Heures Claires), Poissy, vic. Paris, 1929

Centrosoyuz, Moscow, 1928-30

\* Pavilion Suisse, Cité Universitaire, Paris, 1930

Ville Radieuse, 1935



## LE CORBUSIER THEORY DISCUSSION

LE CORBUSIER (1887-1969)

Architecture of Books

\* Vers un Architecture (= Towards an (new) Architecture) 1923

Urbanisme (1925) = "City of To-morrow"



## GERMAN FUNCTIONALISM

"Arab Village," vs. "Victory of the New Building Style" propaganda war about the Weissenhof Housing Development Exhibition, Stuttgart, Germany, 1927



### Vernacular Functionalism

Anti-Modern = Heimat Movement: P. Schmitthenner's "Stuttgart School"  
Hellerau Garden City Housing by Riemerschmid, Tessenow & Muthesius

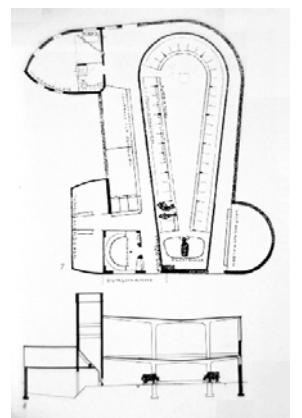


### Rational or Machine Functionalism: "Neues Bauen" in Berlin

Weissenhof: Exhibit Plan & Apartment Block, Mies van der Rohe; Houses by: Gropius, Behrens, Taut, Le Corbusier, Oud, Poelzig, Scharoun...  
H.&W. Luckhardt, Am Rupenhorn Houses, Berlin-Westend, 1927



- \* "International Style" exhibit, catalogue & book  
"Modern Architecture: International Exhibition" = MoMA Exhibit #15,  
Feb.-Mar. 1932. Travels to PgH., L.A., Philly, Worcester, Buffalo, etc.  
H.R. Hitchcock & P. Johnson, International Style: Architecture Since 1922.  
3 main principles of "Int'l Style": 1) volume; 2) regularity; 3) Anti-ornament
- \* Dynamic Functionalism -- Erich Mendelsohn (1887-1953)  
Mossehaus (Newspaper Office), Berlin, 1922
- \* Schocken Department Store, Chemnitz, 1926-29
- \* Organic Functionalism – Hans Scharoun & Hugo Häring  
Bauwelthaus, H. Jarchow, 1924  
Hugo Häring, Gut Garkau, Lubeck, 1924

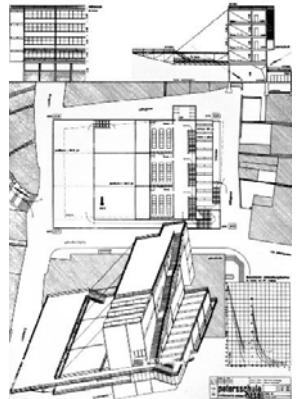


### Programmatic & Use Functionalism

Hannes Meyer (1889-1954)  
ABC & G magazines & Constructivist groups, 1924  
(Includes: El Lissitzky, M. Stam, H. Schmidt)  
Coop Room, 1926

- \* Petersschule Project, Basel, 1926

League of Nations Competition, Geneva, Switz., 1926  
Entries by H. Meyer, R. Neutra, Le Corbusier, Piacentini  
Le Corbusier entry -- elemetarism



CIAM (Int'l Congress of Modern Architecture) Meetings:  
1) 1928, La Sarraz, Switzerland, "Preparatory Mtg."  
2) 1929, Frankfurt, "Housing of Existence Minimum"  
3) 1930, Brussels, "Rational Construction Systems"  
4) 1933, Athens (Patris II), "The Functional City"  
5) 1937, Paris, "Housing & Leisure"

### Expressionist Functionalism

Bruno Taut, Siedlung Eichkamp, Berlin, 1919-27  
"Colorful Magdeburg" 1920-4  
Bruno Taut, Own House, Berlin-Dahlewitz, 1926



## CHANGING ARCHITECTURE IN THE 1930s

In reaction to conservative attacks, modern architecture responds:

Neues Bauen (=New Building), New Objectivity, Autonomous Architecture, Post-Humanism, Rationalism, Economic Functionalism, Dictatorship of the Machine, "Building = Function x Economy", Building as Biological Process, New age-materials-principles, Dynamic Functionalism, International Style, CIAM (Congress international d'architecture moderne)..

Ludwig Mies = LUDWIG MIES VAN DER ROHE (1886-1969)

Born Aachen (= Aix-la-Chapelle), stonemason father

Riehl House, Potsdam, Germany, 1907 (cf Doric Classicism)

Works for P. Behrens, 1908-1910 (cf. Werkbund)

cf Schinkel Classicism: Altes Museum, Schinkel, Berlin, 1828;

Urbig House, Potsdam, Germany, 1915 (cf. Doric Classicism)

Glass Skyscraper, Friedrichstrasse Skyscraper Competition Entry, 1922

(Cf. Expressionism)

Concrete Office Building Project, G Magazine, June 1922

Concrete Country House Project, 1922 (publ. G Magazine, Sept. 1923)

- \* Brick Country House Project, 1923

Monument to Luxenburg & Liebknecht, Berlin, 1926 (cf. De Stijl)

- \* Weissenhof Housing Development Exhibition, Stuttgart, Germany, 1927

Exhibit Plan & Apartment Block, Mies van der Rohe

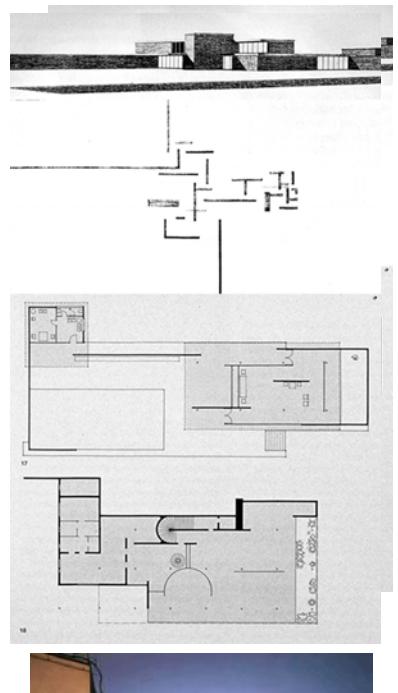
- \* Barcelona (or German) Pavilion, Barcelona World's Fair, Spain, 1929

cf. Barcelona Chair

- \* Villa Tugendhat, Brno, Czechoslovakia, 1930

Reichsbank Extension Competition Entry, Berlin, 1933 (cf. Nazi architecture)

Farnsworth House, Plano, IL, 1945-50 (cf. Postwar USA)



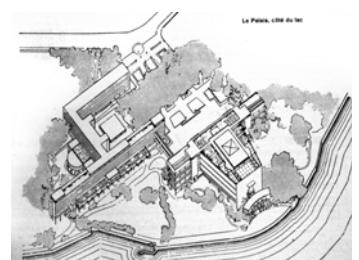
Programmatic Functionalism

ADGB Union School, Bernau-Berlin, Meyer, 1928

International Constructivism / ABC Group

- \* Van Nelle Tobacco Factory, Brinckmann, Rotterdam, 1926-9

Open Air School, J. Duiker, Amsterdam, 1930-2



From Purism to Nature: LE CORBUSIER (1887-1966)

- \* League of Nations, Geneva, Switzerland, 1927

Lecture tour of South America, 1929; published as Precisions (1930)

Centrosoyuz, Moscow, 1929-36

- \* Pavilion Suisse, Cité Universitaire, Paris, 1930

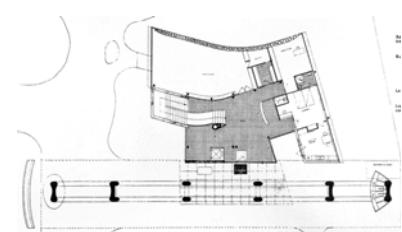
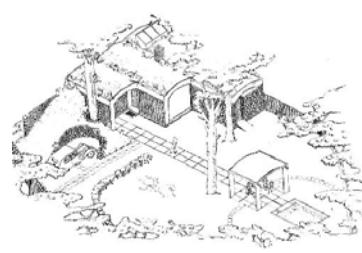
Villa Mandrot, Le Pradet, France, 1930-31

Salvation Army Hostel, Paris, 1933

Low Cost Holiday House, Mathes, France, 1935

Petit Maison Weekend (=Villa Felix), La Celle St. Cloud, 1935

Plan Obus, Algiers, Algeria, Africa, 1930-35



## AALTO & SCANDINAVIAN GRACE

Gunnar ASPLUND (Sweden, 1885-1940)

Chapel at Woodland Cemetery, Stockholm, Sweden, 1925

Swedish Pavilion, Art Deco Expo, Paris, 1925

\* Public Library, G. Asplund, Stockholm, Sweden, 1920-8

\* Stockholm Exhibition, G. Asplund, 1930



Alvar AALTO (Finland, 1898-1976)

Worker's Club, Jyväskylä, Finland, 1924-5

\* Library, Viipuri, Finland (today in Russia), 1927-35

\* Tuberculosis Sanatorium, Paimio, Finland, 1929-33

Paimio Chair, 1933

Sunila Paper Mill and Worker Housing, Sunila, Finland, 1933-39

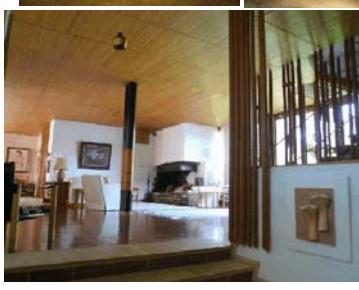
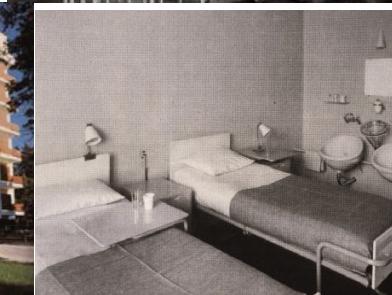
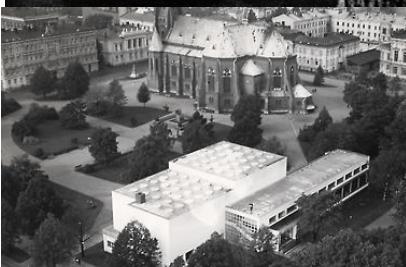
\* Villa Mairea, Noormarkku, Finland, 1937-9



Finnish Pavilion, Paris World's Fair, 1937

Finnish Pavilion, New York World's Fair, 1939

Baker House, MIT, Cambridge, MA, 1947



## DISSEMINATION OF MODERN ARCHITECTURE: INDIA

Concepts: Colonialism, Orientalism, The "Other"

The English Empire: An Empire upon which the sun never sets...

Historicism: Victoria Terminus, Bombay, F.W. Stevens, 1878

National Art Gallery, Madras, H. Irwin, 1906

Prince of Wales Museum, G. Wittet, Bombay, 1914

McMillan Library, Nairobi, Kenya, c. 1920

- \* British build new capital of India in New Delhi, classicist design by Edwin Lutyens & Herbert Baker, 1911-1936
  - Grand Manner planning: Versailles, Washington DC, Pretoria, Nairobi, Canberra (by W.B. Griffen, 1908-13)
  - Lutyens: "Architecture, more than any other art, represents the intellectual progress of those that are in authority. [In India] they have never had the initial advantage of those intellectual giants of the Greeks, who handed the torch to the Romans, they to the great Italians and on to the Frenchman and to Wren, who made it same for England ... I should have liked to have handed on that torch and made it same for India..."
- \* Viceroy's Palace, E. Lutyens & H. Baker, New Delhi, India, 1912-31
  - Influences: Sanchi, Taj Mahal, Fatepushikri
  - Bungalows
- \* St. Martin's Garrison Church, Shoosmith, 1928-31
  - Modernism
  - Lighthouse Cinema, Wm. Dudok, Calcutta, 1936-8
  - Marine Drive, Bombay = Mumbai

India fights with British & Allies in WWII

Post-War & Indian Independence: Important Dates

1947 British grant independence to India, based on non-violent protest by Gahndi

Decree the "partition" of India into (largely Hindu) India and (largely Muslim) Pakistan

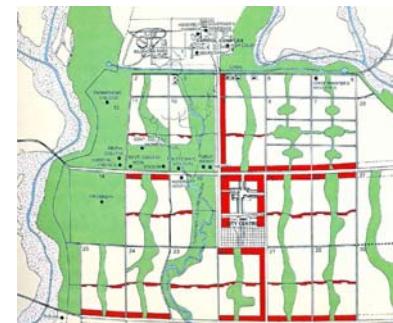
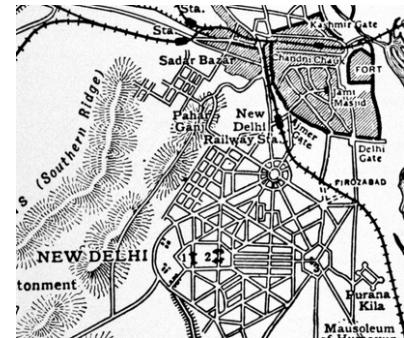
1947-60 Nehru is first Prime Minister, advocates for a new, future-oriented Capital of Indian Punjab

1950s-60s, constant civil strife during in India, and between East & West Pakistan

1972 Independence of East Pakistan as "Bangladesh"

- \* Master Plan for new capital of (Indian) Punjab at Chandigarh, Le Corbusier, 1951 (p.427, 430)
- \* Parliament, Le Corbusier, Chandigarh, India, 1951-63 (p.430-433)
- \* High Court, Le Corbusier, Chandigarh, India, 1951-5 (p.429)
- Secretariat, Le Corbusier, Chandigarh, India, 1951-63
- CIAM urbanism, Sectors as villages, housing by Pierre Jeanneret, Maxwell Fry & Jane Drew

cf. Dacca, Bangladesh, L. Kahn, 1962-74



## TROPICAL MODERN IN BRAZIL & AFRICA

Dissemination of Modern Architecture

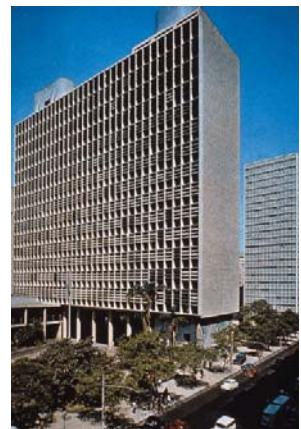
Regionalism

Development of Tropical Modernism & Climate (vs. International Style)

Le Corbusier's South American Lecture trip, 1929 (includes Rio)  
*See also: Le Corbusier's Plans for Algiers, Algeria (Africa), 1930-1938*

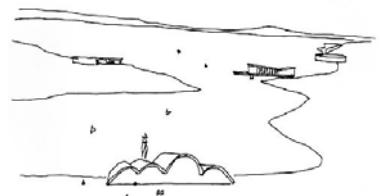
### BRAZIL

- \* Ministry of Health & Education, O. Niemeyer & L. Costa (w/ Le Corbusier), 1937-42
- Pampulha Club, O. Niemeyer, vic. Belo Horizonte, Minas Gerais State, 1942
- \* Casino, Yacht Club, Dance Hall
- \* Church of St. Francis, 1943
- Brazilian Pavilion, New York World's Fair, O. Niemeyer, New York, 1939  
*cf Finnish Pavilion, Alvar Aalto*
- Niemeyer House, Canoas (vic. Rio), Brazil, 1950
- Plans for Brasilia, new capital of Brazil, 1957ff. (*Cf Postwar course*)



Tropical Modernism:

Jane Drew & Maxwell Fry, Tropical Architecture in the Humid Zone (1956)



### EAST AFRICA - Ernst May

- Magnitogorsk Plan, Ural Mountains, Soviet Union, E. May & M. Stam, 1930,
- E. Udet, Arusha Farming, Nairobi Office
- E. May's Own House, Nairobi, Kenya, 1937 & 1942
- Delamere Flats Apartments, Nairobi, Kenya, 1939
- Internment in South Africa with sons, 1939-42
- Pre-Fab Huts for Natives, Nairobi, Kenya
- Aga Khan School, Kisumu, Kenya, 1947



*See also: PALESTINE (Israel).*

"Tel Aviv Bauhaus"

Villa Schocken & Library, E. Mendelsohn, 1934

Medical Center, Hebrew University, E. Mendelsohn, Jerusalem, 1937



### DIASPORA of the Avant-Garde

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

Japan: B. Taut

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

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

Israel/Palestine: Mendelsohn, O. Kaufmann

England: Gropius, Mies, Mendelsohn

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



## TOTALITARIANISM: GERMANY, RUSSIA, ITALY

PARIS World's Fair, 1937, Pavilions:

- Belgium, H.v.d. Velde;
- French Rural Village (Regionalism);
- Spain, J.L.Sert + Picasso, "Guernica"
- Le Corbusier, Pavilion Temps Nouveau;
- Japan, Sakakura;
- Finland, A. Aalto;
- \* Germany, A. Speer;
- \* Russia: B. Iofan;
- Italy: M. Piacentini



NAZI GERMANY:

Hitler voted into office 1933; Reichstag fire 1933; Hindenburg dies 1934.  
Hitler annexes Rhineland 1936; invades Poland 1939, starts WWII, US enters war 1941; ends 1945

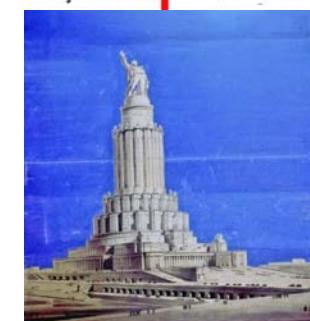
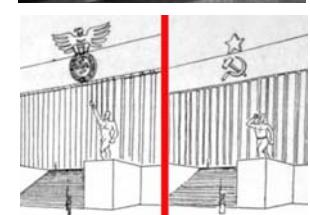
What is Nazi Architecture?

All architecture built in Germany during Hitler/Nazi rule (1933-45)?  
A style? Classicism? French?  
Continuation of Weimar Conservatism of un-traditional and un-German architecture?  
Nazi reaction against the promiscuous avant-garde, and against bolshevism, socialism, Jewish architects; e.g. Closing of Dessau Bauhaus, 1932 // Closing of Berlin Bauhaus, 1933



Nazi Monumental Classicism

Nuremberg and Party Rallying Grounds  
Stadium & Zeppelin Field, Nuremberg, A. Speer & L. Ruff, 1933-7  
cf. CMU campus architecture (Stadium & Purnell) by Michael Dennis & Assoc.  
Munich as "Führerstadt" (= City of the Führer) and City of Culture  
House of German Art, P.L. Troost, Munich, 1933  
Exhibit of Degenerate Art, 1937 (=Entartete Kunst)  
Cf. Mellon Institute, Janssen & Cocker, 1931-37



SOVIET "SOCIALIST REALISM"

Stalin rules Soviet Union 1925-53 (Lenin dies 1924)

- \* Palace of Soviets Competition, Moscow, 1931  
Modernists: Vesnin Brothers, M. Ginsburg, Le Corbusier, E. Mendelsohn, A. Perret, Le Corbusier  
Winner: B. Iofan, construction 1934-39 (unfinished)



THE THIRD ROME: TENSION OF MODERNITY & NATIONAL TRADITION

Mussolini forms Fascist party 1921, March on Rome 1922

"Contacts" and "Sources" of Modern Italian and Ancient Architecture, Micellucci, Domus, 1932

Gruppo 7, founded 1926 by Milan Polytechnic students: Terragni, Libera, Figini, Pollini et al

- \* Casa del Fascio, G. Terragni, Como, 1932-6



## TOTAL WAR & THE ARCHITECTURE OF DEMOCRACY

### NAZI GERMANY

Berlin as "Germania," Capital of the IIIrd Reich

- \* N-S Axis and Dome for Germania (Berlin), A. Speer, 1938-41
- \* Reichs Chancellery, A. Speer, Berlin, 1938-9
- Luftwaffe (=Airforce) Ministry, E. Sagebiel, Berlin, 1935-36
- Tempelhof Airport, E. Sagebiel, Berlin, 1936-41

Nazi Technological Modernity

German Luftwaffe

Autobahn and the VW Bug

Ernst Neufert's "standards" & House-Building machines

The "Atlantic Wall", bunkers

Concentration Camps



### DESTRUCTION OF WWII

### SHIFT OF POWER & INFLUENCE IN MODERN ARCHITECTURE

### AMERICA AT WAR

The Military Industrial Complex;

Albert Kahn: the Producer of Production Lines

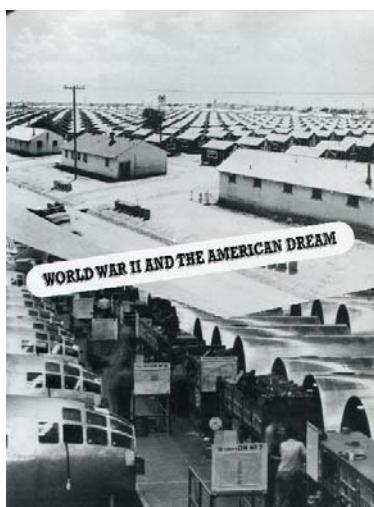
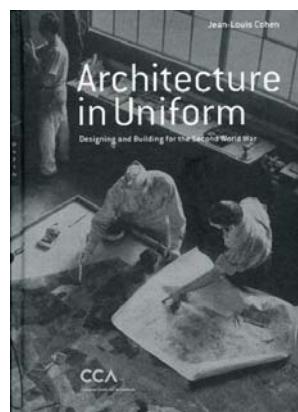
Willow Run B-24 Bomber Plant (Ford; then Kaiser Autos, now GM),  
Detroit, Albert Kahn, 1941

Aluminum Terrace, Gropius, Natrona Heights, PA, 1941

The Victory of Democracy

The Returning G.I.

The American Dream / Home



"After total war  
can come total living"



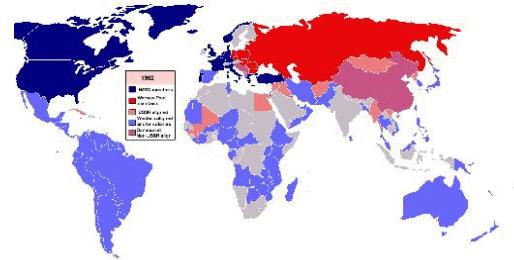
DURING the last six months of peace, 1,17,800,000 families of Commerce, survey indicates that 1,011,000 moved to new homes, 1,000,000 moved to existing homes, 392,000 moved to residence elsewhere—496,000 plan to move again.

Properties and advantages  
of Special U.S.S. Steel  
Hot Rolled Steel. "Save on construction costs by using our services instead of other materials."

## DIVIDED GERMANY: POLITICS & ARCHITECTURE

### Cold War

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



### 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  
 Lomonossov 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  
 Hansaviertel Buildings by: Gropius, Aalto, Ruf, Eiermann, Niemeyer, Bakema,
- \* Unite Berlin, Le Corbusier, 1957



### Bonn & Transparency

Parliament, (Renovation & Addition to Pedagogical Institute), Hans Schwippert, 1949  
 New Parliament, Gunther Behnisch, 1989  
 German Supreme Court, in Karlsruhe, by Paul Baumgarten, 1965  
 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 Pavilion, Paris 1937  
 Cf. Atomium, US Pavilion, by E.D. Stone, USSR Pavilion  
 German Embassy, Washington DC, Eiermann, 1965



## MODERN LIVING & SUBURBIA

Emigre Architects: DIASPORA of the Avant-Garde (See Lec.24 for list)

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

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)

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)

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

"Harvard Five" in New Canaan, CT - A Mecca of Modernism

Marcel Breuer, Landis Gores, John Johansen, Philip Johnson, Eliot Noyes

Breuer House, New Canaan, CT, 1948

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

Case Study Houses, Los Angeles

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 & #22, P. Koenig, Los Angeles, 1958 (p.405) (#22, 1959)

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

Julius Shulman's photographs & the Canonization of Modern Architecture

Beatriz Colomina's Domesticity at War; Alice Friedman's American Glamour

Dymaxion House, Buckminster Fuller, 1927-29

Dymaxion House Built at Wichita, Fuller, 1945 (cf. p.325)

Conversion of War-time Production

Lustron Steel Houses, 1948-51, Carl Strandlund & Curtiss-Wright airplane factory in Columbus, OH

"Reconstruction Finance Program"

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

Suburbs & American Dream

G.I. Bill, Federal Mortgages, "White Flight"

Mass production of houses

Auto Culture

Shopping Culture

## MIESIAN BOXES & CORPORATE MODERNISM

Ludwig Mies van der Rohe (1886-1969)

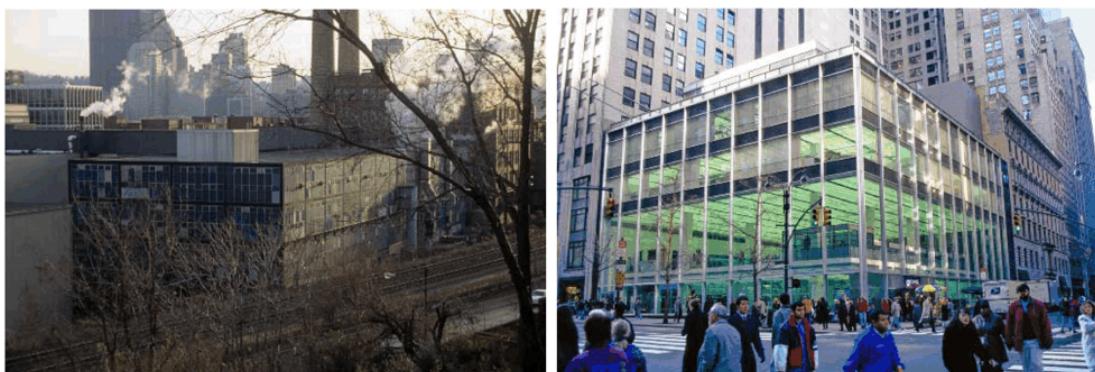
- \* IIT Campus Plan, Mies v.d. Rohe, 1939-56, incl. Crown Hall Architecture, 1950-56, (p.401-2)
- \* Lake Shore Drive Apts., Mies v.d. Rohe, Chicago, 1948-51 (p.394,407)
- \* Seagram Building, Mies v.d.Rohe & P. Johnson, NYC, 1954-8 (p.408)  
cf. New National Gallery, Mies van der Rohe, Berlin, 1962-8 (p.645)

Skidmore Owings & Merrill (SOM)

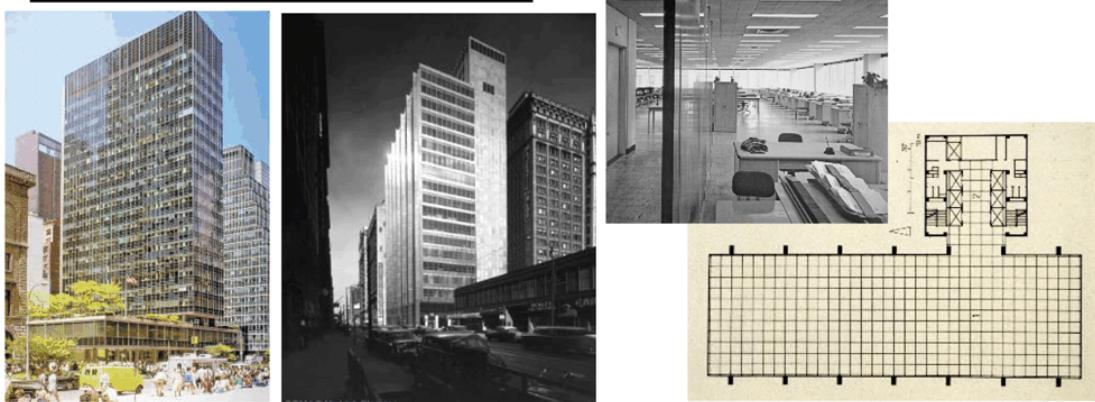
- Venezuela (+ other) Pavilions, NYC World's Fair, 1939 / TVA Housing, Oak Ridge, TN, 1941
- Great Lakes Naval Training Center, Chicago, 1941
- Marine Gunnery School, SOM, Great Lakes,IL, 1954 (**Frampton text**, p.301)
- Heinz Vinegar Plant, Pittsburgh, SOM & Gordon Bunshaft, 1950 (+ Heinz Research Ctr, 1956)
- \* Lever House, SOM &Bunshaft, New York City, 1951-2 (p.409)
- Manufacturer's Hannover Bank, New York City, SOM & Bunshaft, 1953-4
- Inland Steel, Chicago, SOM & Bunshaft, 1955-58

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)
- \* Point Park & Gateway Center, by Eggers & Higgins, 1950-56
- Precedents: Le Corbusier's "Towers in the Park" (1922ff)  
Eggers & Higgins' Stuyvesant Town in NYC, 1943-47
- Alcoa Building, Harrison & Abramovitz, Pgh., 1953
- Time-Life Building, Rockefeller Ctr., NYC, Harrison & Abramovitz, 1959
- Emery Roth & Sons': architects to NYC's corporations



SOM & Corporate Modernism in USA



## MASTER BUILDERS: MODERN EXPRESSION

Le Corbusier (Charles Edouard Jeanneret, 1887-1965)

cf. Project for UN Building, built by Harrison & Abramovitz, NYC, 1947-50 (p.410-11)

\* Chapel of Notre-Dame, Ronchamp, France, 1950-54 (p.416-21)

    “Stirling, ‘Ronchamp,’ Architectural Review (1956): “crisis of rationalism”

cf. Projects for Chandigarh, India, 1951-60

Philips Pavilion, Brussels World’s Fair, 1958

\* cf. Unite Apts., Marseilles, France, 1947-53 (p.436-441)

    Also: Berlin Unite, part of Interbau, 1957

\* Monastery of La Tourette, LeCorbusier, Eveaux near Lyons, 1953-7 (p.422-3)

cf. Carpenter Center (Harvard), Le Corbusier, Cambridge, MA, 1959-63 (p.435)

Alvar Aalto (1898-1976)

Baker House (MIT), Cambridge, MA, 1947-8 (p.454-5)

\* Vuoksenniska Church (Church of Three Crosses), Imatra, Finland, 1956-9 (p.452,458-9)

Wolfsburg Cultural Center (& Library), Wolfsburg, Germany, 1958-62

Seinajoki Cultural Library (& Cultural Center), Seinajoki, Finland, 1963-65

Mt. Angel Abbey Library, St. Benedict, Oregon, 1970

Neue Vahr Apartment Tower, Bremen, Germany, 1963

Eero Saarinen (1910-1961)

“Tulip Chair,” for “Organic Design in Home Furnishings” competition, 1940

cf. Case Study House #9 with Ch. & Ray Eames, Sta. Monica, CA, 1948

St. Louis Arch (= Jefferson Nat’l Expansion Memorial), Saarinen, St. Louis, MO, 1948-66 (p.400)

Kresge Auditorium & MIT Chapel, Cambridge, MA, 1953-5

Ingalls Rink, Yale Univ., New Haven, CT, 1953-8

\* TWA Building at JFK Airport, Saarinen, NYC, 1956-62 (p.516)

Dulles Airport, Chantilly, VA, 1958-62

Frank Lloyd Wright (1867-1959)

Hagan Hse., (= Kentuck Knob) Uniontown, PA , 1954

Beth Sholom Synagogue, Elkins, Park, PA, 1954

Pittsburgh Point Civic Center #1, #2, 1947-48

Annunciation Greek Orthodox Church, Wauwatosa, WI, 1956

\* Guggenheim Museum, FLW, NYC, 1943-1956-59 (p.414-5)

Guggenheim Phenomenon

## **POSTWAR BRITAIN: SMITHSONS & STIRLING**

British Postwar austerity & "New Empiricism"

British New Towns & Housing; London County Council

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

Alison & Peter SMITHSON (1928-1993; 1923-2003)

Part of CIAM, then Team X...

Independent Group, 1952-55; "Parallel of Life and Art," exhibit, 1953; "This is Tomorrow" exhibit, 1956

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

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

cf. Banham, "New Brutalism" Architectural Review (1955)

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")

\* cf. Unite Apts., Marseilles, France, 1947-53 (p.436-441)

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

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

Fan of Corbu; cf. article "Ronchamp," Architectural Review (1956)

Sheffield University Extension, Competition entry, 1953

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

\* Engineering Bldg.,Stirling, Leicester Univ., 1959-63 (p.528,535) (cf. Blundell, Case Studies)  
History Faculty, Stirling, Cambridge, 1964-6 (p.536-7)

Museum Nordrhein-Westfalen Museum Competition entry, Düsseldorf, 1975

\* Staatsgalerie Museum, Stuttgart, Germany 1974 (p.607)

cf. Postmodernism

## DUTCH STRUCTURALISM

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

Team 10, 1953-73:

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

Leads to: 1) New Brutalism of the English members (Smithsons et al)  
2) Dutch Structuralism (Aldo van Eyck & Bakema)

Structuralism

Began in linguistics Ferdinand de Saussure (1857-1913); all culture as a complex system of signs  
In architecture it was a reaction after WWII to CIAM-Functionalism (Rationalism)

Two different manifestations of Structuralist architecture exist:

- 1) the "Aesthetics of Number" (Aldo van Eyck), compared to cellular tissue
- 2) the "Architecture of Lively Variety" (N. John Habraken), participatory design

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

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

Aldo van Eyck (1918-1999)

CoBrA Group of Painters, 1948ff: Karel Appel, Constant, Corneille, Christian Dotremont, Asger Jorn  
Playgrounds, Amsterdam, 1948

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

cf. Rietveld, Sculpture Pavilion, Arnhem, 1966

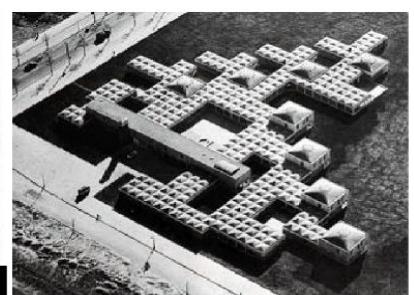
\* Orphanage, Aldo VanEyck, Amsterdam, 1957-62 (p.548) (cf. Blundell, Case Studies)

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



## GERMAN & DANISH ORGANIC EXPRESSION

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; and Chamber Music Hall, 1984 (based on sketches of Scharoun)
- \* Compare to: New National Gallery, Mies van der Rohe, Berlin, 1962-8 (p.645)



Gottfried Böhm (1922-present) (Pritzker 1986)

- Own House, Cologne, Germany, 1952
- Catholic Pilgrimage Church at Neviges-Velbert, vic. Düsseldorf, Germany, 1963-68
  - cf. Town Hall at Bensberg, vic. Cologne, Germany, 1962-68 (cf. Blundell, Case Studies)



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)



Jørn Utzon (1918-2008) (Pritzker 2003)

- Training under Kay Fisker, Steen Eiler Rasmussen, Gunnar 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. Helsingør, 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)



## CRITIQUES: BRUTALISM & MEGATRUCTURE

### Brutalism

Ethic or Aesthetic? Ugly?

- \* Le Corbusier's "beton brute", Unite Apartment, Marseilles, France, 1947  
Smithsons articles in Architectural Review 1954-7  
Banham, The New Brutalism: Ethic or Aesthetic (1966)  
cf. Banham, The Architecture of the Well Tempered Environment (1969)

Paul Rudolph (1918-1997)

- \* Art & Architecture Bldg.(Yale), P. Rudolph, New Haven, CT, 1958-62 (p.561)  
Cf. F.L. Wright, Larkin Building, Buffalo, 1904

### Urban Renewal "Projects"

Robert Moses in NYC; Chicago Housing Authority; "Blank Slate" Urbanism in Europe  
Park Hill Estate Housing, Lynn & Smith, Sheffield, England, 1957-61

- \* cf. Robin Hood Gardens, Smithsons, London, 1966-72 (p.533)  
Boston Urban Renewal
- \* Boston City Hall, Kalmann McKinell, Boston, 1962-8 (p.515)  
Government Services Center, Boston, Rudolph, 1962-67

### Campuses - Government, Corporate, and Collegiate

Empire Plaza (State Capital Complex), Harrison & Abramovitz, Albany, NY, 1965-79  
U.Illinois Chicago Circle, SOM / Walter Netsch, 1963-8  
SMTI / U.Mass Dartmouth, North Dartmouth, MA, Paul Rudolph, 1963-71  
Panther Hollow Project, Max Abramovitz, Pittsburgh, 1967

### Japanese Metabolism

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

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

- 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)
- \* Archigram: Peter Cook, Warren Chalk, Ron Herron, Dennis Crompton, Michael Webb and David Greene
- \* Plug-In City, Peter Cook / Archigram, 1964 (p.538)  
Walking City (Proj.), Ron Herron, 1964 (Frampton p.281)

### Utopian Urbanism

Alan Boutwell, "Continuous City", 1969

Dome Over Manhattan, Buckminster Fuller & Shoji Sadao 1960

Urban Renewal for NYC, Hans Hollein, 1963

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

Superstudio, "Continuous Monument: An Architectural Model for Total Urbanization," 1969

### Robert Moses, Lower Manhattan Expressway, 1960ff

Paul Rudolf Proposal for Lower Manhattan Expressway, 1970

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

Jane Jacobs, "Death & Life of Great American Cities" 1961

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

## LATIN AMERICAN & THIRD WORLD MODERNISM

Defining Mexican Modernism: Pyramids, Volcanoes, Color

Diego Rivera & Mexican murals (after Mexican Revolution 1910)

Mathias Goeritz, "Manifesto of Emotional Architecture", 1953

Plastic Integration of the Arts, "El Eco", 1952-3

El Pedregal Landscape & Housing, Mexico City, L. Barragan et al, 1945-50 (p.391)

Houses by Cetto, O'Gorman, Candela, et al, 1950-55;

Luis Barragan (1902-1988); Pritzker winner 1980 (2<sup>nd</sup> one ever)

\* Barragan Own House, Barragan, Tucubaya - Mexico City, 1947 (p.495)

Cf. Satellite City Towers, Barragan, Mexico City, 1957 (p.497)

Cf. Plaza Las Arboledas, Barragan, Mexico City, 1958-61 (p.490)

Cf. San Cristobal (Egerstrom) House Stables, Barragan, Mexico City, 1968 (p.498)

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

Modernism by Pani

\* Univ. Library, O'Gorman, Mexico City, 1950-3 (p.493)

Mexican Muralists: Siquieros, Orozco, etc.

University Stadium, 1957 (used for 1968 Olympics)

Mexico City Olympics, 1968

Hotel Camino Real, Legoretta, Mexico City, 1968 (p.576)

Sports Dome, Candela, Mexico 1968 Olympics

Felix Candela (1910-1997)

Cosmic Ray Lab, Univ. Mexico, 1951

Church of Miraculous Virgin, Mexico City, Candela, 1953

Restaurant at Xochimilco, Mexico City, Mexico, 1958

University City, Villanueva, Caracas, Venezuela, 1950-9 (p.502)

Guatemala City Civic Center, Monte et al, 1955ff.

Church of Atlantida, Eladio Dieste, Uruguay, 1958 (p.575)

Bank of London, Testa, Buenos Aires, Argentina, 1960-6 (p.503)

Balkrishna Doshi (1927-present; worked in Corbu office in Paris 1951-54)

ATIRA & PRL Low Cost Vault Housing, Doshi, Ahmedabad, 1957-60 (p.566)

\* Sangath Studio Workshop, Doshi, Ahmedabad, 1972 (office founded 1955) (p.653-5)

Aranya Housing, Doshi, India, 1983

Hassan Fathy, Architecture for the Poor (1969)

\* New Gourna Village, Hassan Fathy, Cairo, Egypt, 1945-59 (p.569)

Aga Khan Foundation for Architecture

Term "Third World" coined in 1952 to refer to countries unaligned with Communist bloc or Nato Capitalism

Fry & Drew, Tropical Modernism (1956); Rudofsky, Architecture without Architects (MoMA 1964);

Rapaport, House, Form, Culture (1969)

Role of: Climate, Tradition, Culture/Religion, Technology, Symbolism,

"New Third World" - ascendency of China, India, Brazil, Singapore, Malaysia, Indonesia, Venezuela... Korea?

## LOUIS KAHN - HISTORY & MONUMENTALITY

### 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



## 1968 AND THE END OF MODERNISM

1968 - USA

- Civil Rights Movement, Race Riots,
- Assassination of MLK (1968) and Robert Kennedy
- Vietnam War (1959-75) & Anti-war Protests (cf. Kent State Shootings, May 1970)
- Women's Lib., Equal Rights Amendment (ERA, 1970)
- Anti-Establishment: Summer of Love in SF (1967) - DNC Protests 1968 - Woodstock (1969)
- Student sit-ins & protests at Columbia Univ., Berkeley, Kent State (1968-72, various reasons)
- Wolf, Electric Koolaid Acid Test (1968)

1968 Europe

- Prague Spring in Hungary, reformist A. Dubcek vs. Soviet tanks (Jan.-Aug. 1968)
- Situationist International (1957-72)
- Student Riots & Strike in Paris (May-June 1968), anti-Stalin, anti-capitalism, anti-establishment
- Closing of the architectural Ecole des Beaux Arts, Paris
- Manfredo Tafuri becomes Professor at IUAV Venice,  
Promotes "Venice School" Marxist historians & "Rationalist" architects, La Tendenza, Ticino  
School, Autonomous Architecture, Rationalism  
Histories & Theory of Architecture.(1968)  
"Towards a Critique of Ideology," Contropiano, Materiali Marxisti, no. 1 (1969).  
Architecture & Utopia: Design & Capitalist Development (1973)

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)

1968 & Alternative Architecture

- Zines
- Charles Jencks, Adhocism (1972)
- Rudofsky, Architecture without Architects (MoMA 1964)
- Environmental Movement
- Eco Villages & Communes
- Hog Farm & Wavy Gravy
- Whole Earth Catalogue, 1968-71
- Drop City, Colorado
- Steve Badances & Jersey Devel, 1972ff
- Arcosanti, AZ, Paolo Soleri
- Ant Farm
- An.Architecture & Gordon Matta Clark