



Figure 1 Volkswagen Beetle (1938 to 2003), engineer: Ferdinand Porsche. Copy of the Czechoslovakian Tatra T97 engineer: Hans Ledwinka.

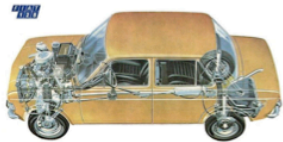


Figure 2 Fiat 128 (1969 to 1985)



Figure 3 Citroën DS (1955 to 1975), engineers: André Lefèbvre, Pierre-Jules Boulanger, Paul Magès, designer: Flaminio Bertoni.



Figure 4 Citroën 2CV (1949 to 1990) engineer: André Lefèbvre, designer: Flaminio Bertoni.

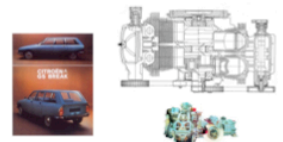


Figure 5 Citroën GS (1970-1986), engineer: Jean Dupin, designer: Robert Opron



Figure 6 Croft with heather thatch, Sidinish, North Uist, Outer Hebrides



Figure 7 Wright brothers bicycle



Figure 8 Wright flyer



Figure 9 Boeing 707



Figure 10 Arthur Vierendeel *Cours de stabilité des constructions*, Tome V, A. Uystpruyst, Louvain, 1906

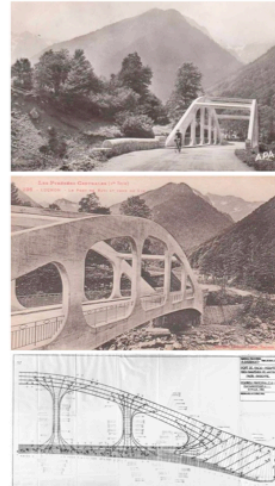


Figure 11 Pont de Naou-Hounts, reinforced concrete Vierendeel arch bridge by Alexandre Sarrasin, 1931



Figure 12 Marseilles Transporter Bridge, Ferdinand Arnodin, 1905. Photograph: F. R. Yerbury.

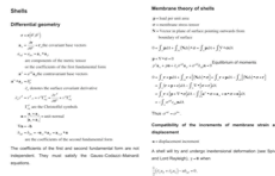


Figure 13 Theory of shell structures



Figure 14 P. A. M. Dirac, *General theory of relativity*, Wiley, 1975

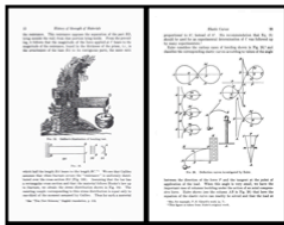


Figure 15 S. P. Timoshenko, *History of Strength of Materials*, McGraw-Hill Book Company, 1953



Figure 16 Students learning how to use a slide rule, Keuffel & Esser catalogue, 1933.



Figure 17 Chernobyl disaster, 1986. Source: Soviet Authorities.



Figure 18 WALL-E, Pixar 2008



Figure 19 Computational fluid dynamics

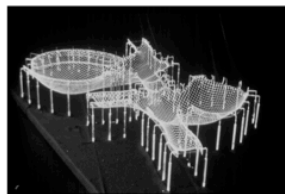


Figure 20 Mannheim gridshell hanging model, Frei Otto, 1974

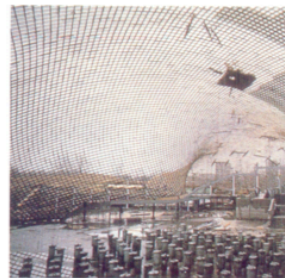


Figure 21 Mannheim load test



Figure 22 CDC 6600. Base model price \$7,000,000 in 1964. A modern laptop is 6000 times faster

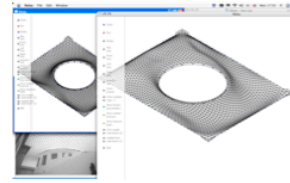


Figure 23 Structural analysis of the Great Court roof

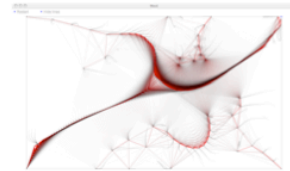


Figure 24 Maud algorithm – emergence



Figure 25 Philips Pavilion, Xenakis and Le Corbusier

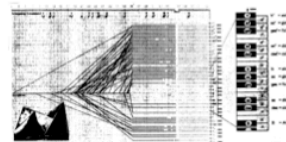


Figure 26 Relationship between Metastaseis and the Philips Pavilion