

29 Chairs 2

Wednesday, April 10, 2019 3:19 PM

START ZOOM recording

Today

Pere Roquet Arroyo	Antoni Gaudí	Alexander Hernacki	Team Lab	Peter Jakubczak	Hans Werner Aufrecht and Erhard Melcher
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Weds we start final critiques. Friday go to the Sr Projects Expo.

Any volunteers for being Pod Facilitator or Critique Facilitator? This is a good way to make up for absences.

Let me know by 5 PM.

Let's start with industrialization of chairs. Prior to 19th century, chairs were carved from solid wood pieces, by hand.

1836 Michael Thonet. From Czech Republic. Large beechwood forests. Developed lamination process for making bentwood chairs. Boiled strips of wood with glue, put in molds, etc. A type of early plywood.



Michael Thonet

Austrian-German cabinet maker

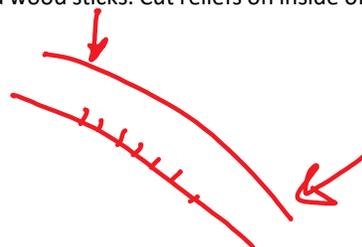
Michael Thonet was a German-Austrian cabinet maker, known for the invention of bentwood furniture. [Wikipedia](#)

Born: July 2, 1796, Boppard, Germany

Died: March 3, 1871, Vienna, Austria

Later (1856) he also figured out how to bend solid wood sticks. Cut reliefs on inside of curve, steamed and molded.

1859 Konsumstuhl, Consumer's chair, #14



The original No.14 chair is made up of six pieces of wood, ten screws and two nuts. It was the first piece of furniture

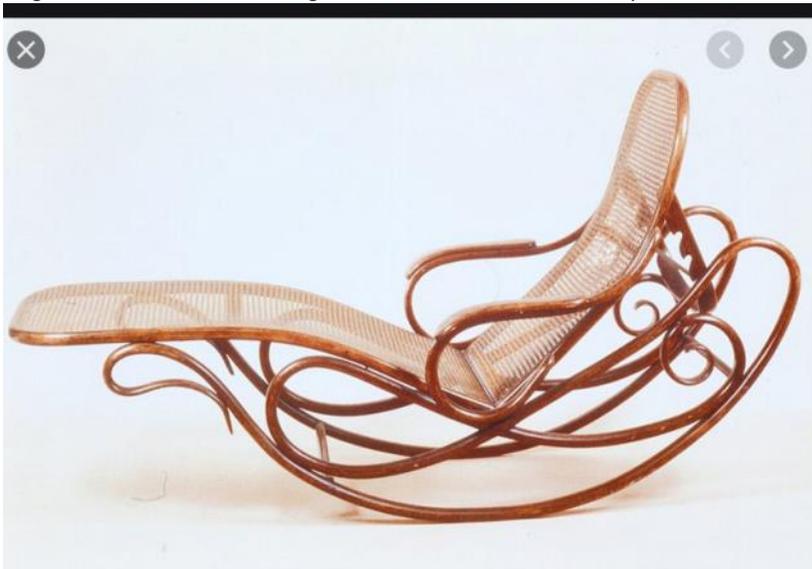
designed to be shipped in parts to save space during transportation and came with simple instructions to put it together. The No.14 could have been a source of inspiration for IKEA, the biggest manufacturer of ready-to-assemble furniture today.

From <<https://designmuseum.org/discover-design/all-design-objects/thonet-chair-no-14>>



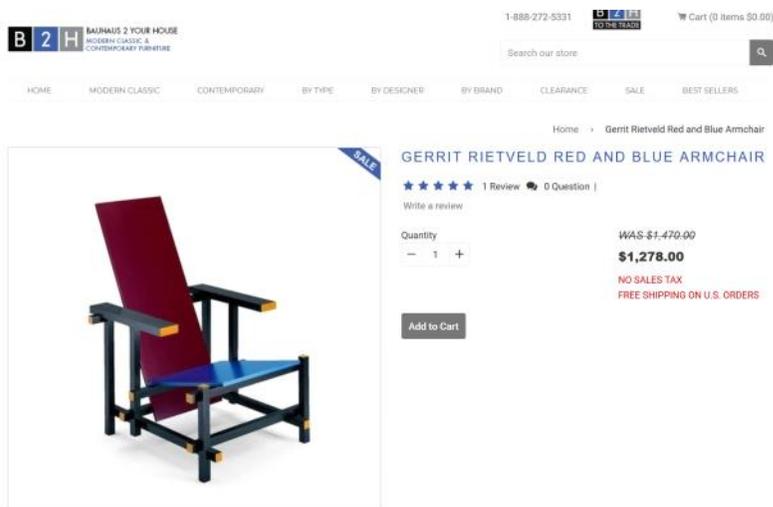
Still found in cafes around the world

August Thonet, third son, designer : Schaukensofa ~1860. Early Art Nouveau



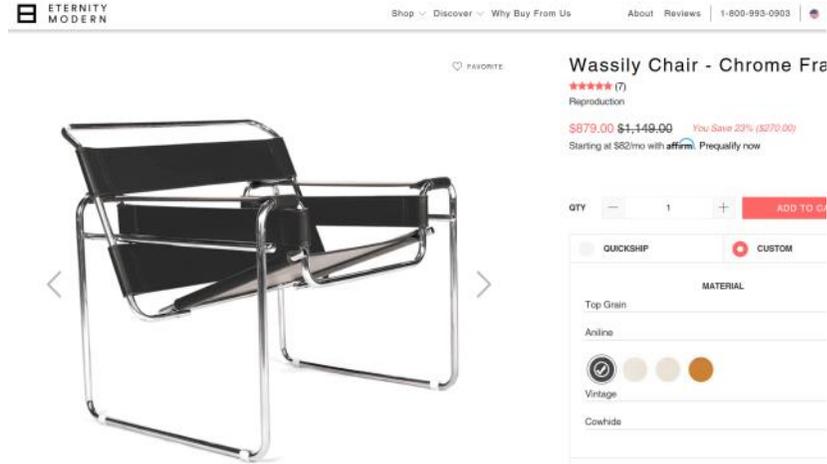
Thonet company, 200 years old, is still big in furniture today: <http://en.thonet.de/startseite.html>. Pioneered mass manufacturing and mass marketing.

This allowed independent chair designers to begin to work in late 19th century; neither cabinetmakers nor manufacturers



Dutch designer Gerrit Rietveld chair. Designed 1918 as work of art. Not very comfortable. Yes, part of De Stijl (Mondrian)

Then, Bauhaus: Gropius' protégé Marcel Breuer graduated 1925, immediately became furniture design teacher and built Wassily chair:

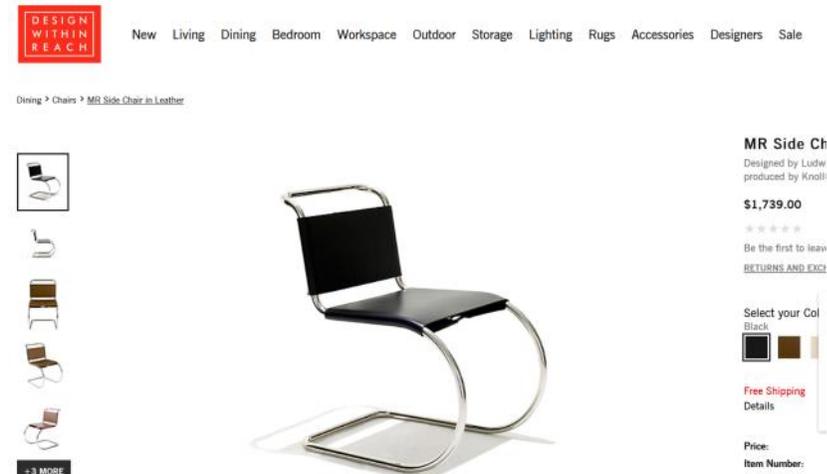


"This was the first technical innovation in furniture making since Thonet invented bentwood 65 years earlier" *Now I sit me down, pg 121.*

This chair had huge impact. Bauhaus was big in architecture, and now had a model in furniture.

My parents bought one. Was uncomfortable, and they quickly sold it. It's still iconic, and available.

Tube steel furniture was a short fad, <10 years. Reminded everybody of hospitals and dentists. Still, some designs lasted:



MR10 by Mies van der Rohe. 1927. Expensive to manufacture, and easy to tip forward. Still Bauhaus, but looks Art Deco. Both were between WW I and II.



Marcel Breuer again. 1928 or so.

Le Corbusier liked bentwood better. Designed some chairs, inspired others. Alvar and Aino Aalto, Finnish architects, husband and wife. Paimio lounge chair



Designed for a tuberculosis sanatorium, 1929. This one is actually comfortable.

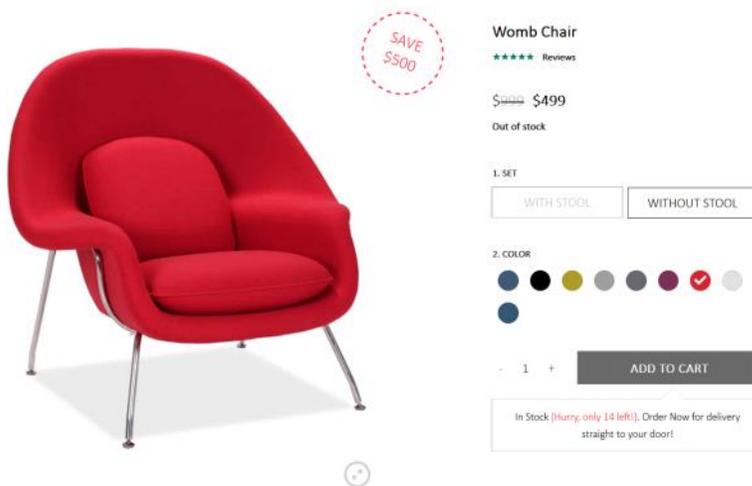
The Aaltos then influenced Eero Saarinen, who partnered with Charles Eames to make the Reading Chair:



The Organic Chair – a small and comfortable reading chair – was developed in several versions for the 1940 'Organic Design in Home Furnishings' competition organised by the Museum of Modern Art in New York. With its sculptural shapes, the design was ahead of the times. But due to the absence of suitable manufacturing techniques, the armchair never went into production. Not until 1950 did it become possible to manufacture and market organically shaped seat shells in large quantities, as exemplified by Charles and Ray Eames's famous Plastic Armchair or Saarinen's Tulip Chair.

This one wasn't manufactured until 2004, for \$2000

Eames then moved away. Saarinen went on to design the Womb chair. My mother loved this chair. I spent my childhood curled up in it watching TV.



Charles and Ray Eames, husband and wife, members of Mid Century Modern/Organic design movement. Pioneered fiberglass and molded plywood seating. Many designs for huge furniture manufacturer Hermann Miller (Grand Rapids, MI). Eames Intro: <http://www.eamesoffice.com/eames-office/charles-and-ray/>

They made a number of educational films as well. My favorite is Powers of Ten: <https://www.youtube.com/watch?v=OfKBhvDjuj0>

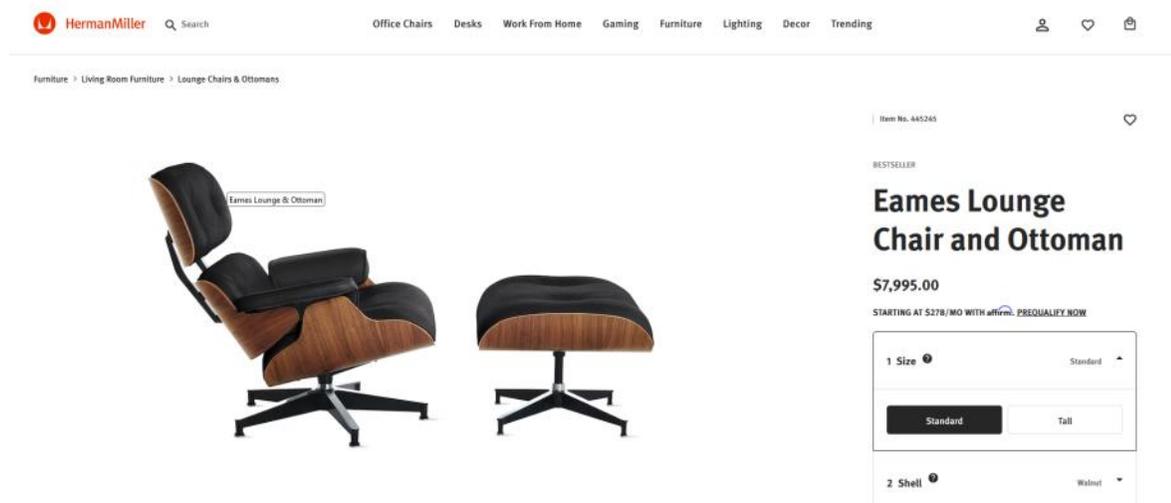
Eames were big in the Organic movement: Incorporated user experience philosophy (the good host, providing comfort) with pioneering manufacturing process; formed plywood shells + upholstery

You have probably sat in this at an airport:



Eames Tandem Sling, by [Herman Miller](#). Still available new. Aluminum frame, vinyl fabric. 2 seater \$5000 up to 7 seats X2 rows (back to back) for \$30K. Refurbished with leather, \$6K on Etsy. I always try to sit in these at airports; they fit me.

Eames Lounge Chair and Ottoman



(Hermann Miller part numbers 670/671)

Designed specifically for mass production, **organically** so that the elements of the mass production process actually enhance the design of the chair. Aimed at the middle class. Now \$8000, still available new from Herman Miller, more than 50 years after its introduction. Priced a bit high for the current middle class.

\$300 Herman Miller Eames Replica Lounge Chair - Is It Any Good? 10/16/2018
<https://www.youtube.com/watch?v=xJ4HjiUbCRs> Review. Doesn't actually recline...
https://www.amazon.com/Mophorn-Ottoman-Century-Recliner-Armchair/dp/B07J4VQT5J/ref=as_li_ss_tl?keywords=eames+replica&qid=1550044298&s=gateway&sr=8-6&th=1&linkCode=s11&tag=hitmanb88-20&linkId=e8f10eef0c3b3e5ac756250e51193b63&language=en_US \$550



<https://shanechendesign.com/lounge-mouse>

However, the Eames' goal was a single piece, inexpensive chair. Plywood was hard to mold in 3D. They tried stamped steel and aluminum. Eventually they made one from a new material, fiberglass; i.e. glass fibers impregnated with polyester (epoxy) resin: the Shell chair



The **Eames Molded Plastic & Fiberglass Armchair** is a fiberglass chair, designed by Charles and Ray Eames, that appeared on the market in 1950. The chair was intentionally designed for the 'International Competition for Low-Cost Furniture Design.

Designer: Charles and Ray Eames

Style / tradition: Mid-century modern furniture d...

Materials: Zenaloy (polyester reinforced with fi...

Date: 1948-1950

[en.wikipedia.org › wiki › Eames_Fiberglass_Armchair](https://en.wikipedia.org/wiki/Eames_Fiberglass_Armchair)

[Eames Fiberglass Armchair - Wikipedia](#)

Life Magazine article, 1950: "Eames is so interested in making the products of his drawing board available at the lowest cost that the modest retail price of his recent chair (\$32.50) bothers him... he guiltily feels that it should sell for less."

Later redone in polypropylene by Robin Day

Monobloc

Contrast the Eames Lounge chair to the Monobloc, or Resin chair: \$14.





https://en.wikipedia.org/wiki/File:Plastic_Tuinstoel.jpg



\$8000 USD

\$14 at Big Lots

History of the Monobloc

Wikipedia:

The Monobloc chair is a lightweight stackable polypropylene chair, often described[by whom?] as the world's most common plastic chair.

Based on original designs by the Italian designer Vico Magistretti <https://www.pamono.com/designers/vico-magistretti> in 1967, variants of the one-piece plastic chair went into production with Allibert Group and Grosfillex Group in the 1970s. Since then, millions have been manufactured in countries including Russia, Taiwan, Australia, Mexico, the United States, Italy, France, Germany, Morocco, Turkey, Israel and China. Many design variants of the basic idea exist.[1]

The Monobloc chair is named because it is injection molded from thermoplastic polypropylene, the granules being heated to about 220 degrees Celsius, and the melt injected into a mold. The gate of the mold is usually located in the seat, so ensuring smooth flow to all parts of the tool. The chairs cost approximately \$3 to produce, making them affordable across the world.

Victoria and Albert Museum, London

<https://www.pinterest.com/davidortegatorr/vico-magistretti/>



“Everybody Take A Seat.” *Smithsonian*. Accessed March 2, 2016. <http://www.smithsonianmag.com/people-places/everybody-take-a-seat-2386495/>. Short article describes the ubiquity of the chair, and its mysterious history.

“Then, in 1968, came what Fiell calls “one of the most important events in the entire history of furniture design.” Danish designer Verner Panton, after ten years of searching for the right plastic, produced the first single-form, single material, injection-molded chair. It achieved total design unity in combination with a high-volume industrial process. Still, Panton’s chair was very high style, a single long S curve with a U-shaped base, and demand for it was limited.



<http://www.design-museum.de/en/collection/100-masterpieces/detailseiten/panton-chair-panton.html>

Vitra Museum

2017 exhibit on Monobloc: <http://www.design-museum.de/index.php?id=1821&L=1>

Shortly after 1970, the monobloc began appearing. Probably designed by a plastics manufacturer. Spread worldwide in 1980s. Injection molding machines and the molds are very expensive, but if you can make tens of thousands of something in two minutes each from cheap materials, the payback is pretty quick.

A new mold ~ 300K. Used mold ~50K. Polypropylene.



Sidebar:

<https://www.chindogu.com/> Almost Un-Useless designs



http://www.kailinke.com/en/news/:mirror_chair Mirror Chair by Kai Linke, 2009.

Sidebar:

<https://www.chindogu.com/> Almost Un-Useless designs

Chindogu is in contrast to perfectly useless objects by artist Katerina Kamprani

<https://www.theuncomfortable.com/>



There is a collector for everything under the sun: Bryan Ropar. *Plastic Chair Collection Video From Tosh.O*, 2013.

https://www.youtube.com/watch?list=PL0gsOtujqLgT7k71oh5g44Gc29UyM_QZZ&time_continue=10&v=endP6hTviXE.

Impact of the Monobloc Chair

Social theorist Ethan Zuckerman describes them as having achieved a global ubiquity:

"The Monobloc is one of the few objects I can think of that is free of any specific context. Seeing a white plastic chair in a photograph offers you no clues about where or when you are."

John Dunnigan, head of furniture design at the Rhode Island School of Design called the monobloc chair the "emblematic chair of our time" *

* Rybczynski, Witold. *Now I Sit Me Down: From Klismos to Plastic Chair: A Natural History*. First Edition edition. New York: Farrar, Straus and Giroux, 2016. Pg 210.

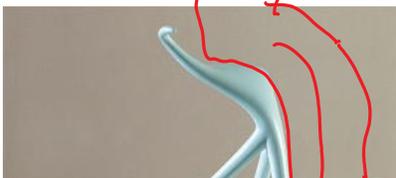
Since Then

Contemporary chairs



<http://www.design-museum.de/en/collection/100-masterpieces/detailseiten/vodoel-coop-himmelblau.html>

Vodol, by Coop Himmelblau





<http://www.design-museum.de/en/collection/100-masterpieces/detailseiten/ww-stool-starck.html>

W.W. Stool by Philippe Starck. Created for Wim Wenders, 1990. Elements of biomorphism; a germinating rhizome, with 3 roots and a shoot.

More on him on later.

Pinterest actually has broad collection

Metro naps