



This week: Architecture and Nature
– A relationship for the ages.

It's quiz time...

1. What was Uccello especially interested in (even if he did not achieve his goal!)?
2. What was innovative about his three paintings showing Niccolo da Tolentino ?
3. What was the technique used on the reverse of *Garden of Earthly Delights*?
4. What happened in the head of *Apennine Colossus*?
5. Which set of myths has it been influenced by?
6. What stylistic movement was *Apollo and Daphne* part of?
7. What moment did Gericault choose to capture in his *Raft of Medusa*?
8. He really developed the Romantic movement, along with which other artist?
9. What point was Seurat making with his *Bathers at Asnieres*?
10. What was *Wheatfield* positioned very close to? Why?



Angkor Wat, 12th
century, Cambodia

Aerial view of Angkor wat

- <https://www.google.com/maps/search/ANGKOR+WAT/@13.4145734,103.8621246,2732m/data=!3m1!1e3>











Bas relief of
Emperor
Survayarman
II, Angkor Wat

























Key points for *Angkor Wat*

- Angkor Wat, translated from Khmer (the official language of Cambodia) literally means “City Temple.”
- Angkor Wat is dedicated to the Hindu god Vishnu who is one of the three principal gods in the Hindu pantheon (Shiva and Brahma are the others).
- Among them he is known as the “Protector.”
 - The major patron of Angkor Wat was King Suryavarman II, whose name translates as the “protector of the sun.”
- Hindu temples are not a place for religious congregation; instead; they are homes of the god.
- In order for a king to lay claim to his political office he had prove that the gods did not support his predecessors or his enemies.
- The five stone towers are intended to mimic the five mountain ranges of Mt. Meru—the mythical home of the gods, for both Hindus and Buddhists.
- The towers of this vast limestone temple represent the five peaks of the mountain, the outer wall the mountains at the edge of the world and the moat the seas beyond.
- The central axis of these temples should also be aligned with the planets, thus connecting the structure to the cosmos so that temples become spiritual, political, cosmological, astronomical and geo-physical centres.
- They are, in other words, intended to represent microcosms of the universe and are organized as mandalas—diagrams of the universe.



Frank Lloyd Wright, *Falling Water*, 1936-39

Satellite view – have a look around the local area.

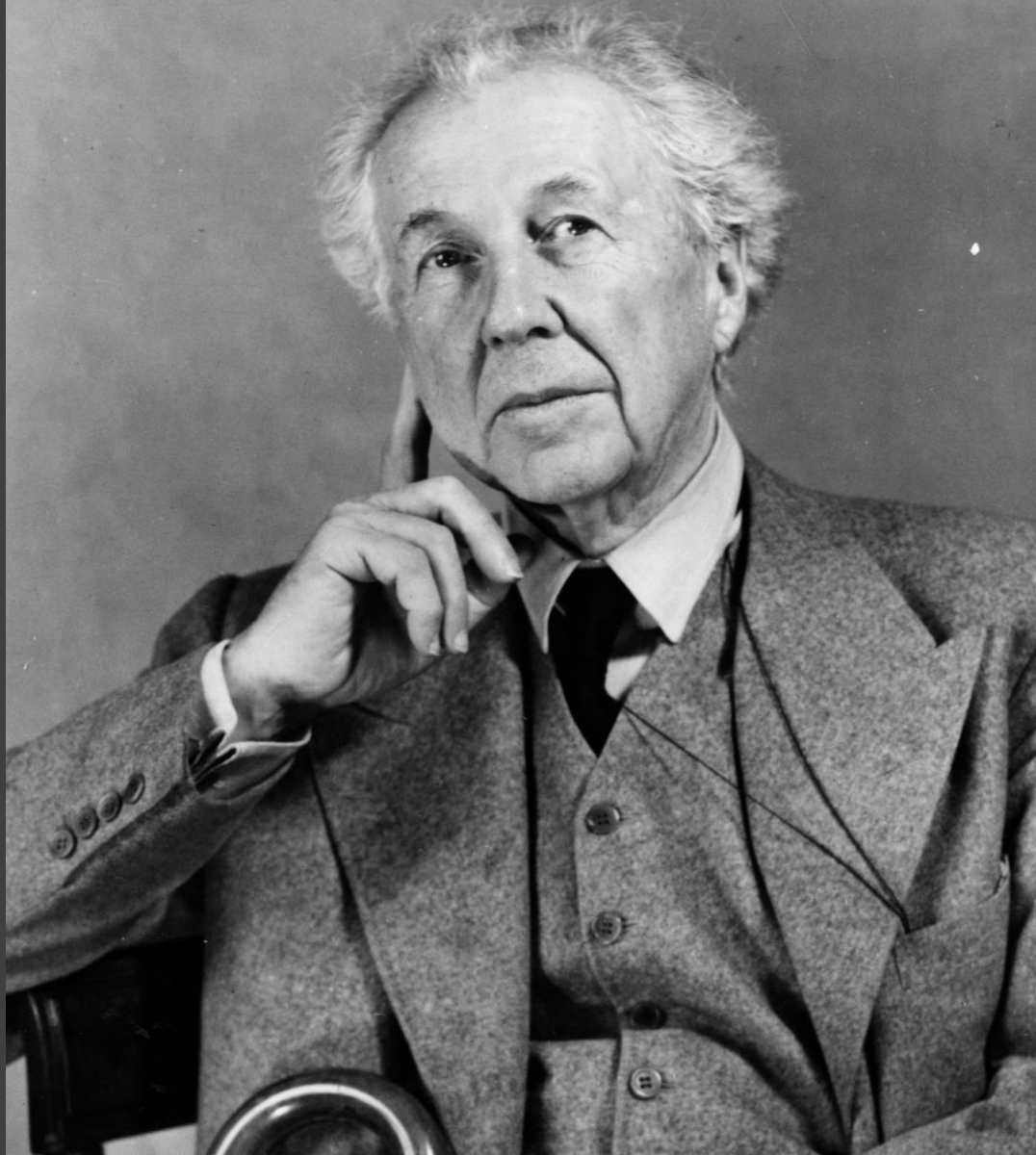
- <https://www.google.com/maps/place/Fallingwater/@39.9079036,-79.4702253,2153m/data=!3m1!1e3!4m12!1m6!3m5!1s0x883533f74d79e731:0x6e162bd3790a9ab8!2sFallingwater!8m2!3d39.9062551!4d-79.4678413!3m4!1s0x883533f74d79e731:0x6e162bd3790a9ab8!8m2!3d39.9062551!4d-79.4678413>





A computer aided
video of the house

- <https://www.youtube.com/watch?v=2AIPbJRP71E>







MODERN ARCHITECTURE

Archive
MoMA
15

MUSEUM OF MODERN ART

Bauhaus Building
by Walter Gropius (1925–26)





Mies van der Rohe, The Barcelona Pavilion, Barcelona, 1928



Le Corbusier, Villa Savoye, 1928

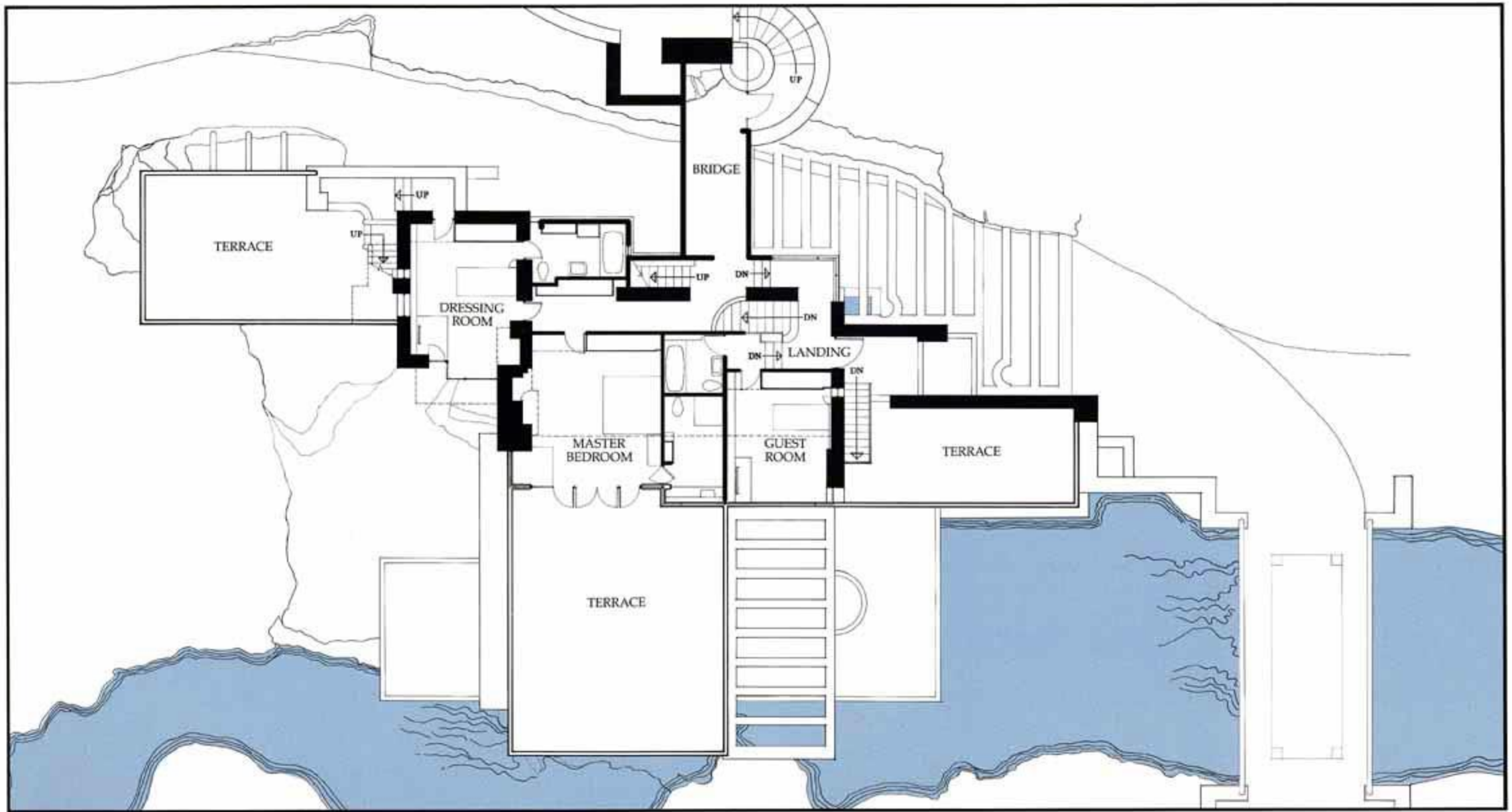


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- The catalogue calls Wright “half-modern” throwback, one of the “last representatives of Romanticism.”
 - Wright responded by denigrating European Modernism as an “evil crusade,” and a manifestation of “totalitarianism.”







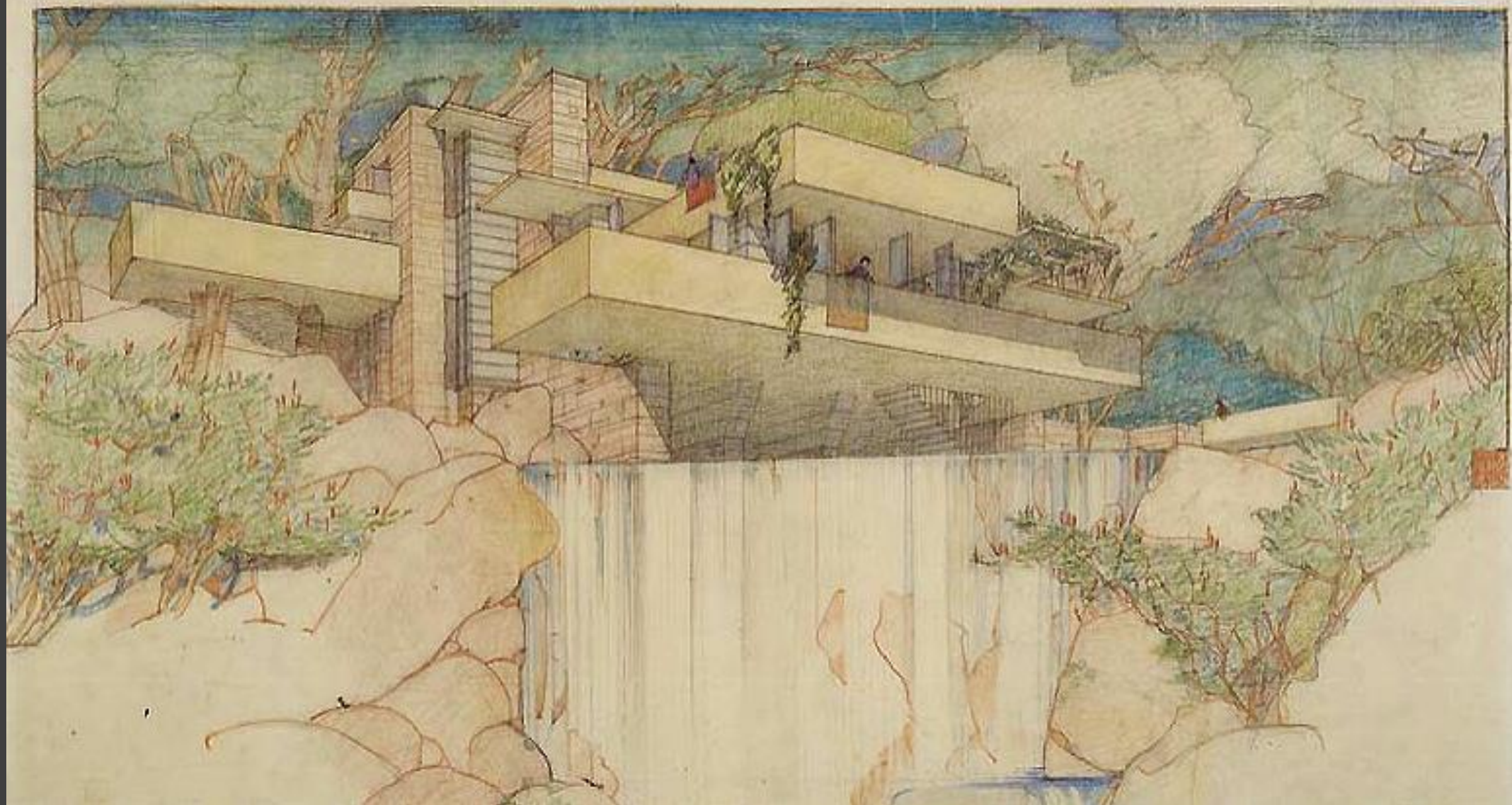


FALLINGWATER

SECOND FLOOR PLAN



Wright “briskly emerged from his office...sat down at the table set **with the plot plan and started to draw...The design just poured out of him. 'Liliane and E.J. will have tea on the balcony...they'll cross the bridge to walk in the woods...' Pencils being used up as fast as we could sharpen them....Erasures, overdrawing, modifying. Flipping sheets back and forth. Then, the bold title across the bottom 'Fallingwater.' A house has to have a name.”**









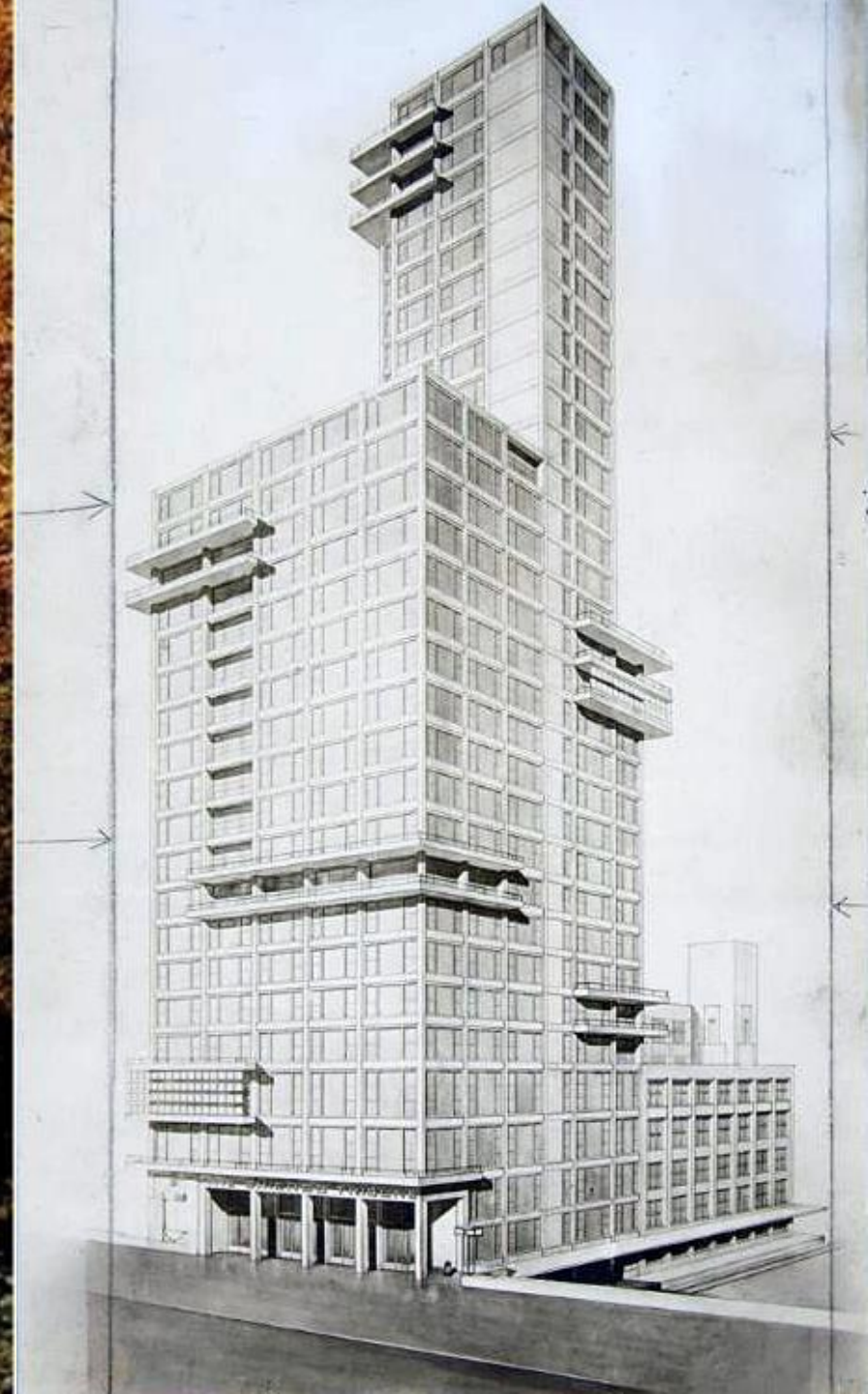


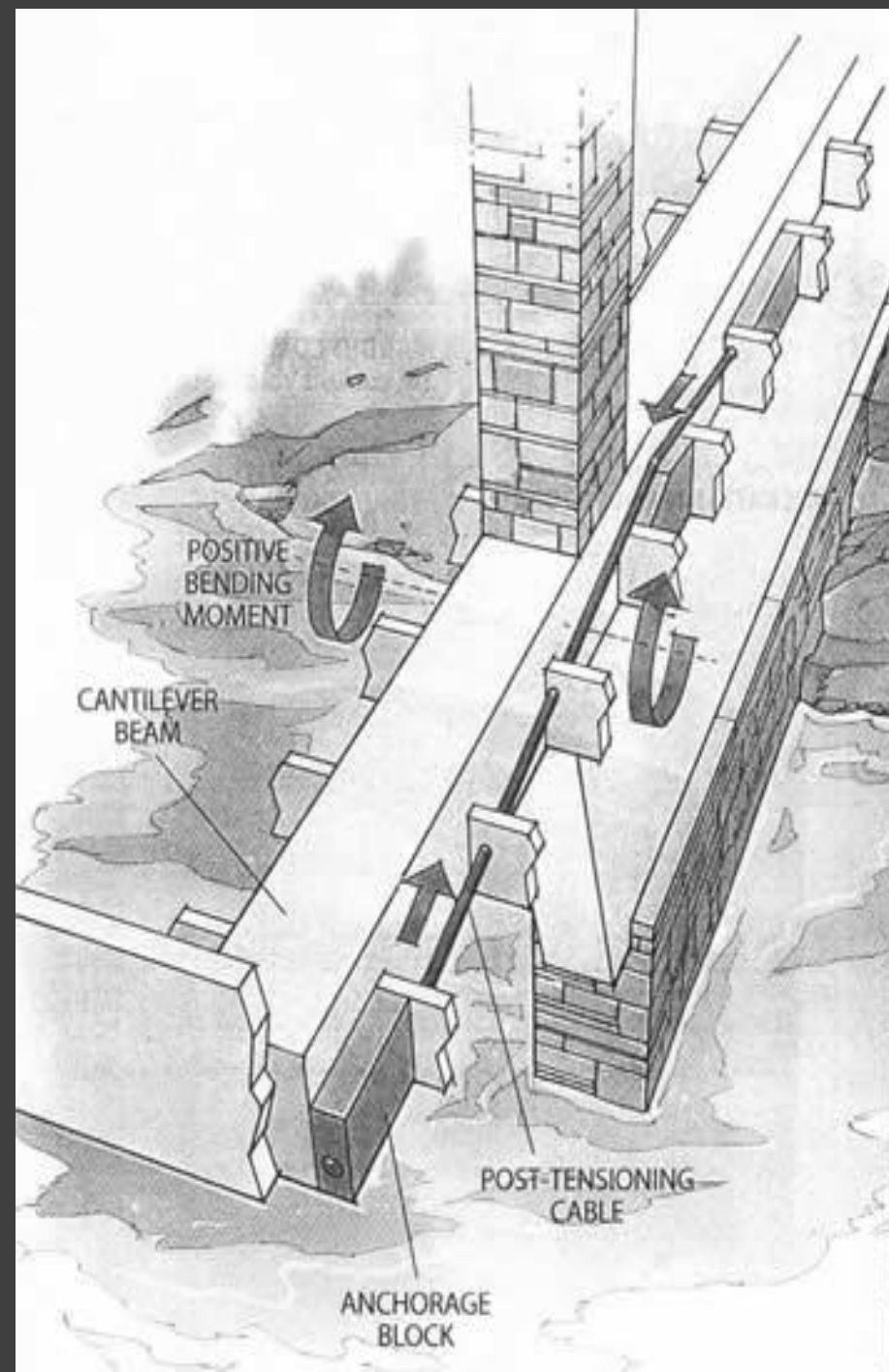






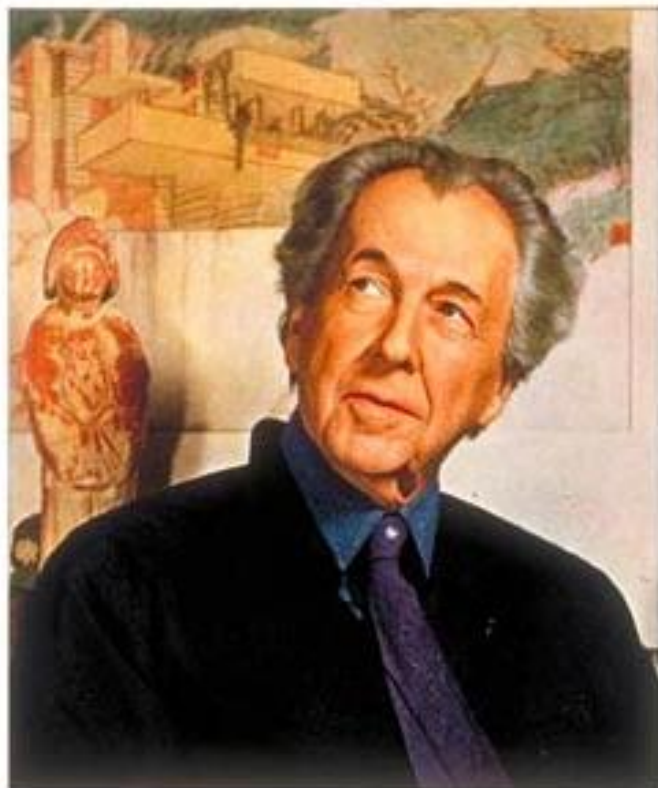
Walter Gropius and Adolf Meyer,
competition entry for the Chicago
Tribune Tower, 1922,





TIME

The Weekly Newsmagazine



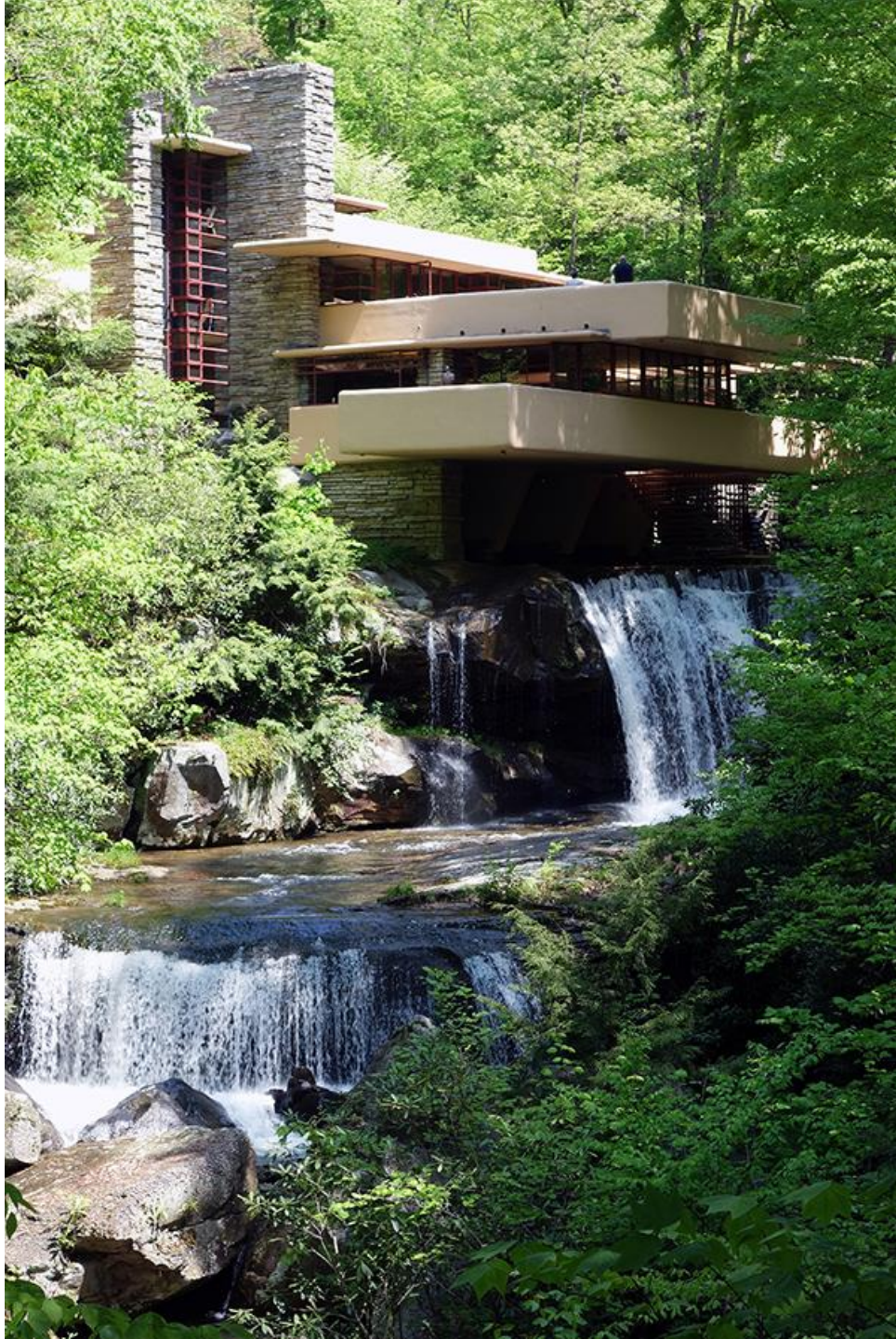
Color photograph for TIME by Christine Brown

Volume XXXI

FRANK LLOYD WRIGHT

*His city would be skyscrapers and gardens.
(See 340)*

Number 3



Kaufmann Jr. said, "[Wright] understood that people were creatures of nature, hence an **architecture which conformed to nature would conform to what was basic in people.** For example, although all of Falling Water [sic] is opened by broad bands of windows, people inside are sheltered as in a deep cave, secure in the sense of the hill behind them."



Miniature replica of
Fallingwater

Key points for *Falling Water*

- Kaufmann offered Wright a chance to design a “weekend home” in the country
- from the very beginning, the architect rejected a site that presented a conventional view of the waterfall;
 - instead, he audaciously offered to make the house part of it
- The South-southeast orientation gives the illusion that the stream flows, not alongside the house, but through it.
- Wright’s famous concept of “Organic Architecture” stems from his Transcendentalist background.
 - The belief that human life is part of nature.
- Wright even incorporated a rock outcropping that projected above the living room floor into his massive central hearth, further uniting the house with the earth.
 - The contouring of the cantilevered ledges responds so sympathetically to the rock strata of the stream banks
- liberal use of glass;
 - the house has no walls facing the falls, only a central stone core for the fireplaces and stone columns.
 - This provides elongated vistas leading the eye out to the horizon and the woods.
 - “corner turning windows” without mullions causes corners to vanish.
- Wright even bows to nature by bending a trellis beam to accommodate a pre-existing tree.
- Almost from the day of its completion, Fallingwater was celebrated around the world.
 - The house and its architect were featured in major publications including the cover of Time Magazine, and they called it Wright “most beautiful job”.



Santiago Calatrava, *Bodegos Ysios Winery*, 1998-2001, Spain



[Drop into the Winery](#)

Satellite shot

- [https://www.google.com/maps/place/Bodegas+Ysios\(+Ysios+winery\)/@42.568758,-2.590732,665m/data=!3m1!1e3!4m5!3m4!1s0xd4ff85497027d43:0xcdb05bd1a336b1bd!8m2!3d42.5688228!4d-2.5907558](https://www.google.com/maps/place/Bodegas+Ysios(+Ysios+winery)/@42.568758,-2.590732,665m/data=!3m1!1e3!4m5!3m4!1s0xd4ff85497027d43:0xcdb05bd1a336b1bd!8m2!3d42.5688228!4d-2.5907558)





Santiago Calatrava, *Bodegos Ysios Winery*, 1998-2001, Spain



Home made
video, but it
shows the
Winery nicely 😊

- <http://socialvignerons.com/wine-reviews/international-wine-reviews/bodegas-ysios-rioja-alavesa/>



















**Calatrava's mission
was to build a
“unique, avant-garde
winery, conceived as a
place of worship.”**

Key points for *Bodegas Ysios Winery*

- Gently melding into the mountainous backdrop of the majestic Sierra de Cantabria, the building has become a star attraction among the many avant-garde wineries in the region.
 - Ingenuity and structural mastery seen at its best as the eye wanders from the undulating aluminium roof to the snow-capped
- Ysios winery stands proud at the foothills of the Sierra Cantabria mountains, those mountains that separate Rioja from Basque country and protects the area from the cold and humid oceanic influences.
- A major hurdle for this design was the uneven terrain, which sees dramatic grade changes of almost 32' (approx. 10 m) of difference between the highest levels in the north and the lowest in the south.
- The roof is made of laminated beams that reflect the Spanish sun, creating a snow-covered mirage and again paying homage to the natural backdrop.
- Creating a sharp contrast to the metal roof, the rustic facade is constructed of horizontal cedar planks.
- Two lateral reflecting pools lined with white ceramic tiles create a mirror-like reflection at the foot of the building.
- An aggressive glass-panelled balcony looms over visitors as they approach the cavernous entrance.
- Calatrava adopted the strategy of giving a volumetric treatment to the roof and walls — physical limits of the landscape outside and the winery within — so that continuity between the two spaces is achieved through the 'static movement' of the enclosures.



Santiago
Calatrava,
*World Trade
Centre
Transportation
Hub*, 2003-16,
New York

Drop into the Transport hub

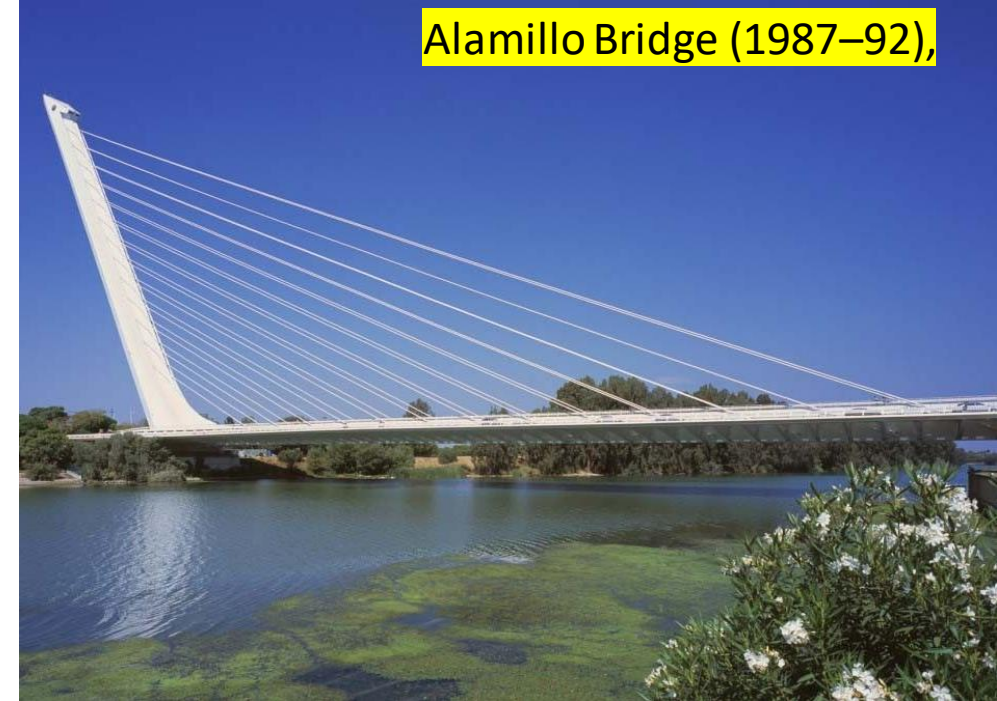
- https://www.google.com/maps/@40.711878,-74.010235,3a,75y,228.56h,100.94t/data=!3m6!1e1!3m4!1sfbj1_YFYxlxlxaC-ujw5ww!2e0!7i16384!8i8192?hl=en







Alamillo Bridge (1987–92),





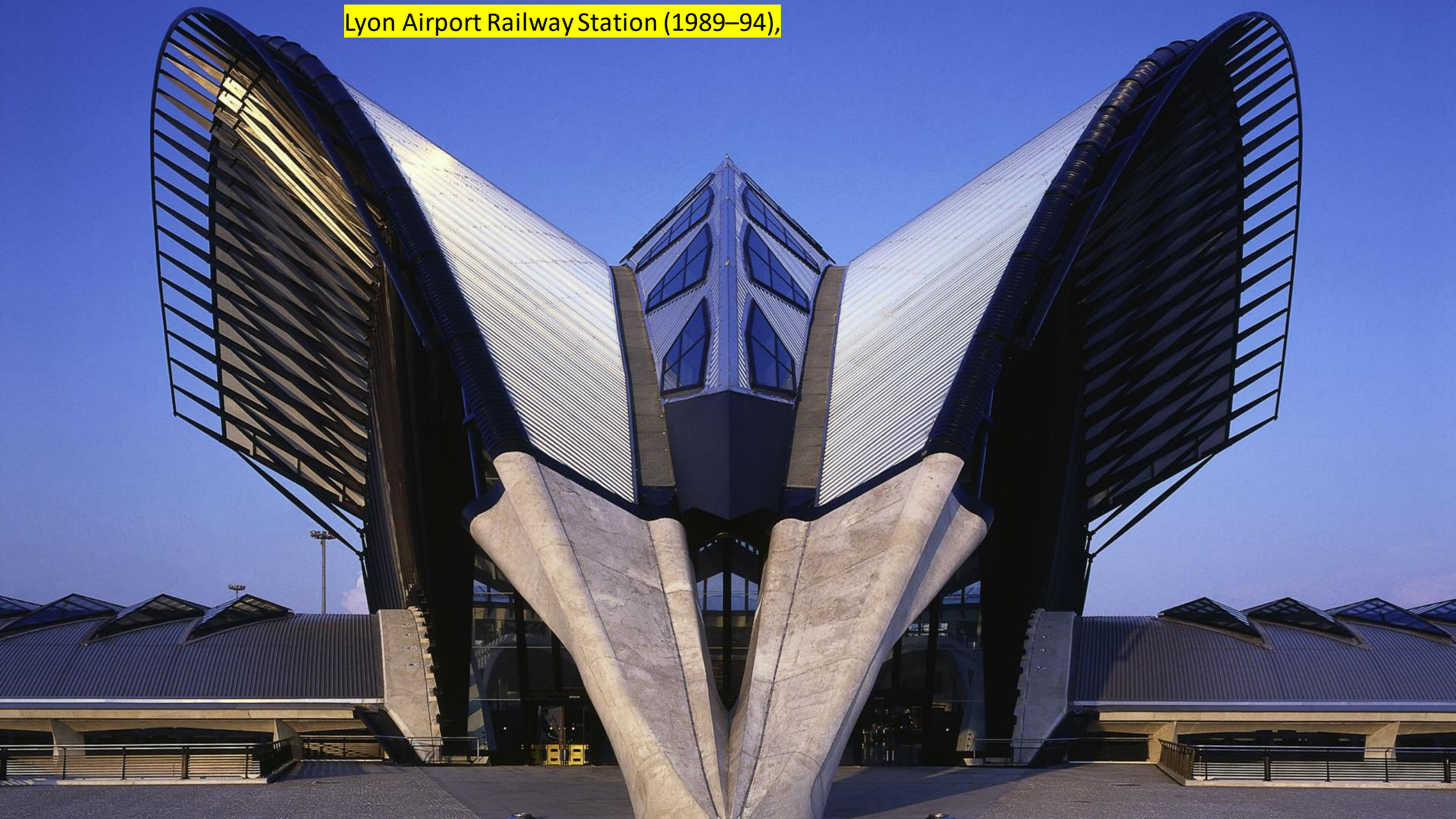


Santiago Calatrava,
Bac de Roda Bridge,
Barcelona, 1984-7



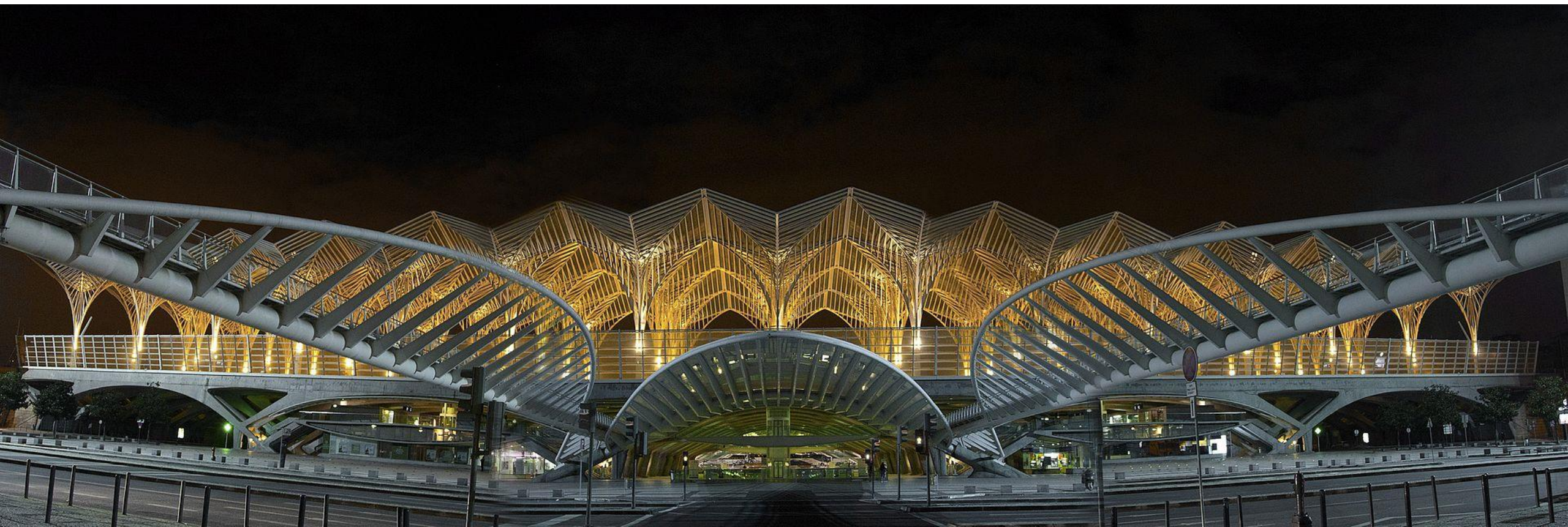
Santiago Calatrava, *Turning Torso Building*, Malmö, 1999-2004

Lyon Airport Railway Station (1989–94),





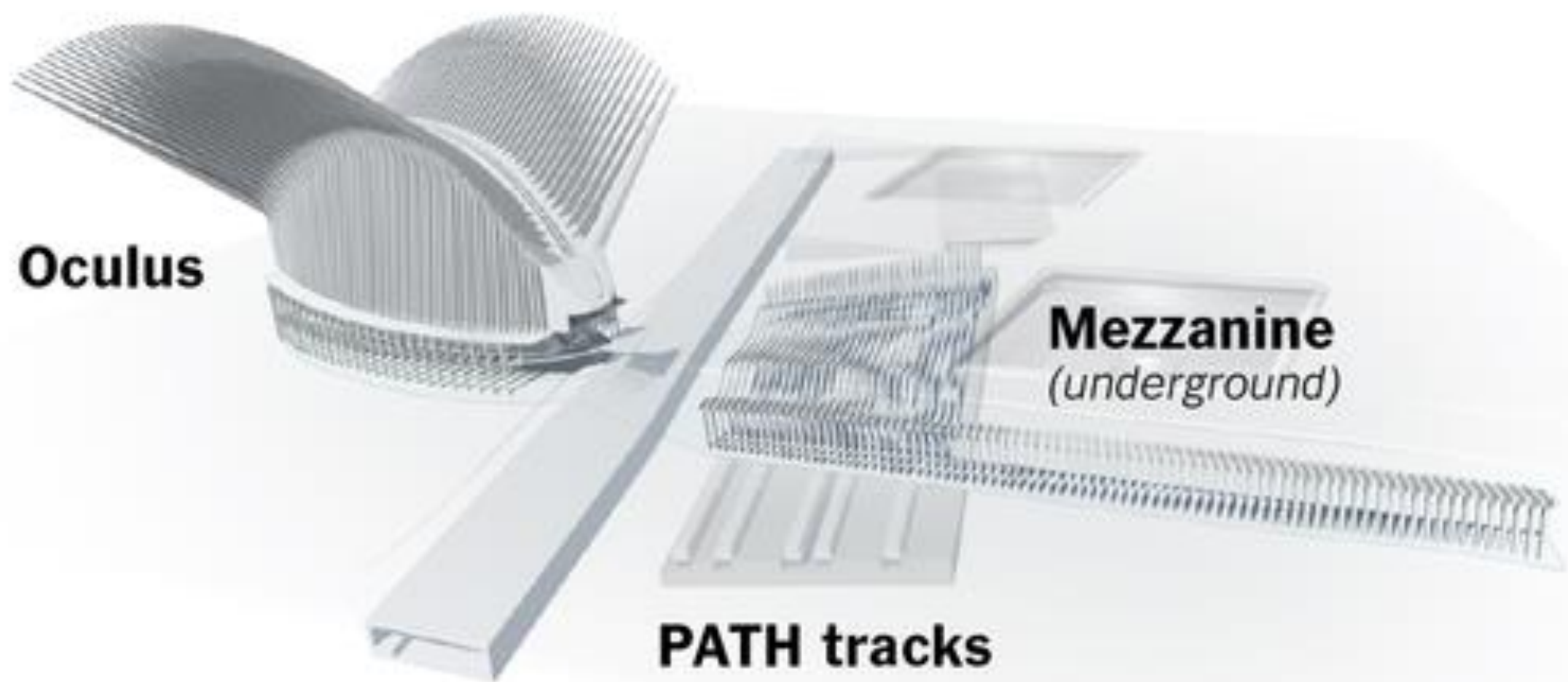
Santiago
Calatrava,
*Atrium of
Brookfield
Place, Ontario,*
1992



Santiago Calatrava, *Garo do Oriente*, Lisbon, 1998



Santiago
Calatrava,
*World Trade
Centre
Transportation
Hub*, 2003-16,
New York



No. 1 Subway





Santiago
Calatrava,
*World Trade
Centre
Transportation
Hub*, 2003-16,
New York















Santiago
Calatrava,
*World Trade
Centre
Transportation
Hub*, 2003-16,
New York



Architectural animation of the building

- <https://www.youtube.com/watch?v=qn0Wl0aNGNI>

Key points for *World Trade Centre Hub*

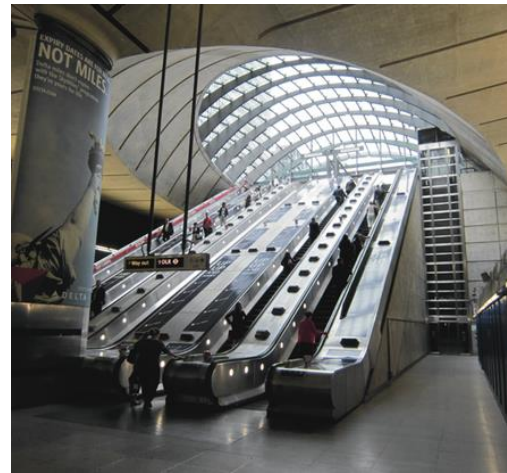
- Calatrava gained a reputation for his ability to blend advanced engineering solutions with dramatic visual statements, in both bridges and buildings.
- He was intensely interested in the architectural use of zoomorphic forms, a passion evident in such buildings as Turning Torso (1999–2005), his unique apartment tower in Malmö, Sweden.
 - Its sculptural shape suggested a twisting spinal column.
- In addition to serving the Port Authority Trans-Hudson (PATH) commuter trains, the building also connects to New York City subway trains (1, A, C and R lines);
 - to provide seamless, indoor pedestrian access to many areas creating an inspiring, light-filled public gathering place.
- The 'Oculus' is comprised of steel ribs and glass arrayed in a large elliptical shape.
- The ribs extend to create two canopies over the north and south portions of the plaza.
- Although suggestive of motifs from many traditions
 - (the Byzantine mandorla, the wings of cherubim above the Ark of the Covenant, or the sheltering wings on Egyptian canopic urns),
 - the form may be summed up, according to Santiago Calatrava, by the image of a bird released from a child's hands.
- Santiago Calatrava speaks of light as a structural element in the WTC Transportation Hub, saying that the building is supported by 'columns of light.'

What 50 works have we
looked at?





Overview in 10 (more!) objects (2)



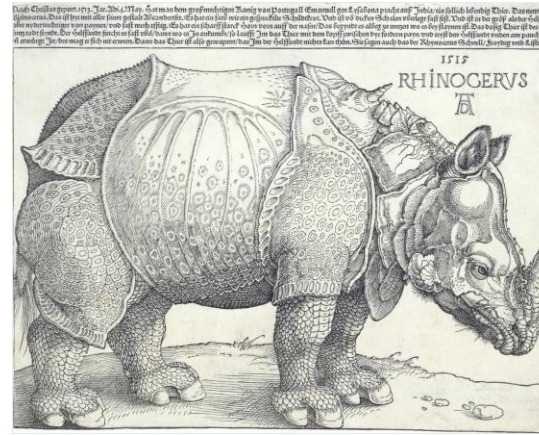
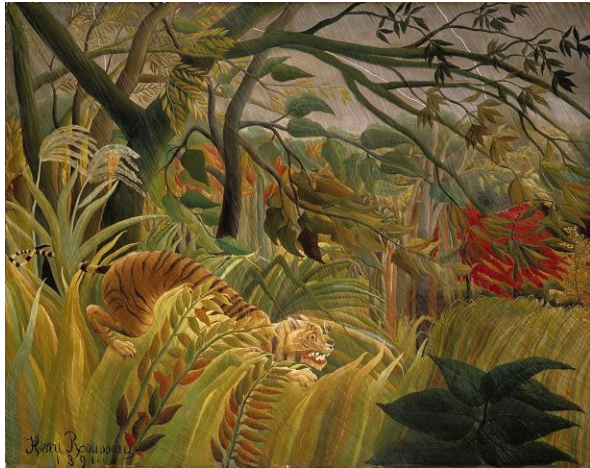
Elements





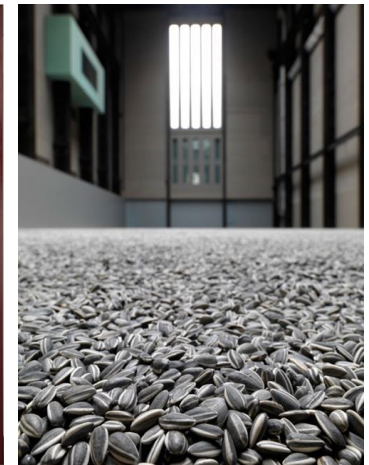
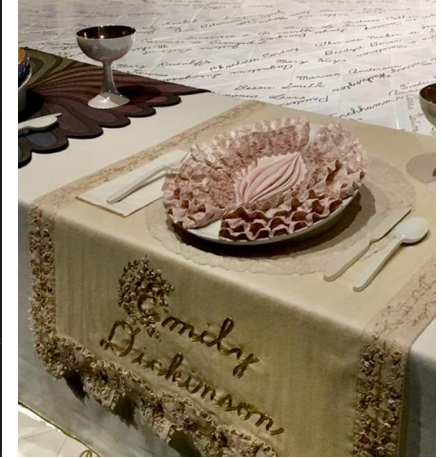
Landscape

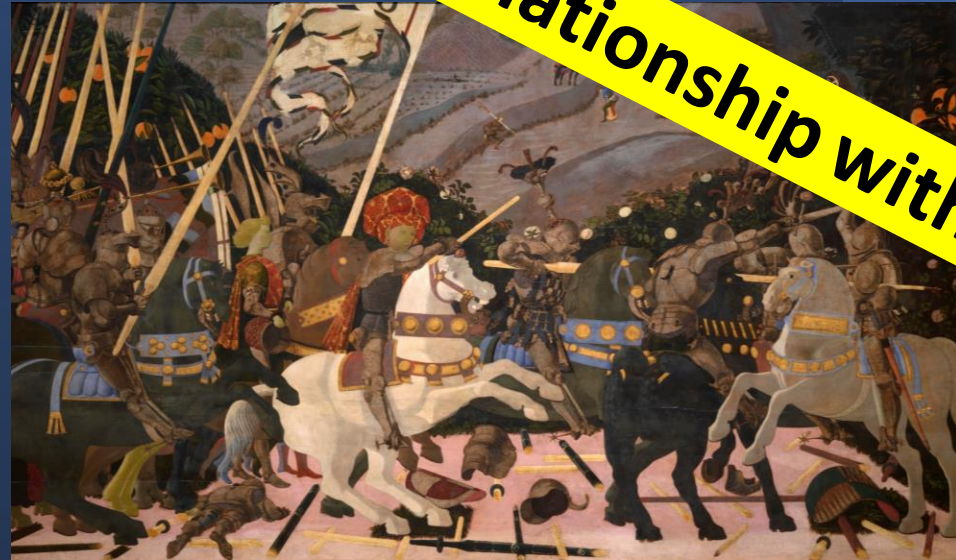




Animals

Plants





Our relationship with Nature

Architecture



What was the oldest
work?

The Pantheon
C.130, travertine, brick, lava-stone (tufa), pumice, marble, Rome



What was the most
recent work?





Santiago
Calatrava,
*World Trade
Centre
Transportation
Hub*, 2003-16,
New York

A chronological look at all of the works

N.B – The dates given correlate to the examples we have looked at, not necessarily the dates of the stylistic movement



Ancient: c.130 AD

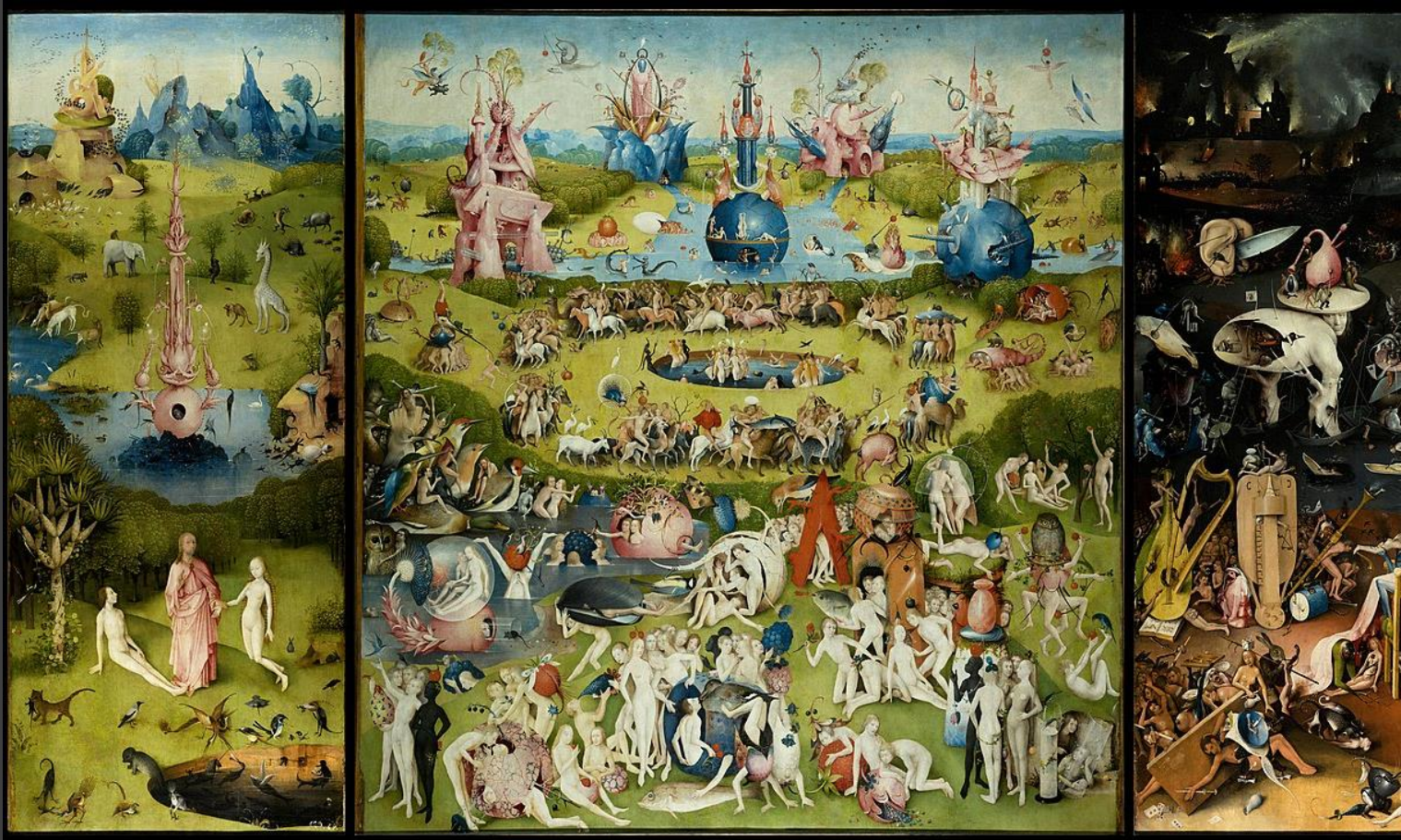
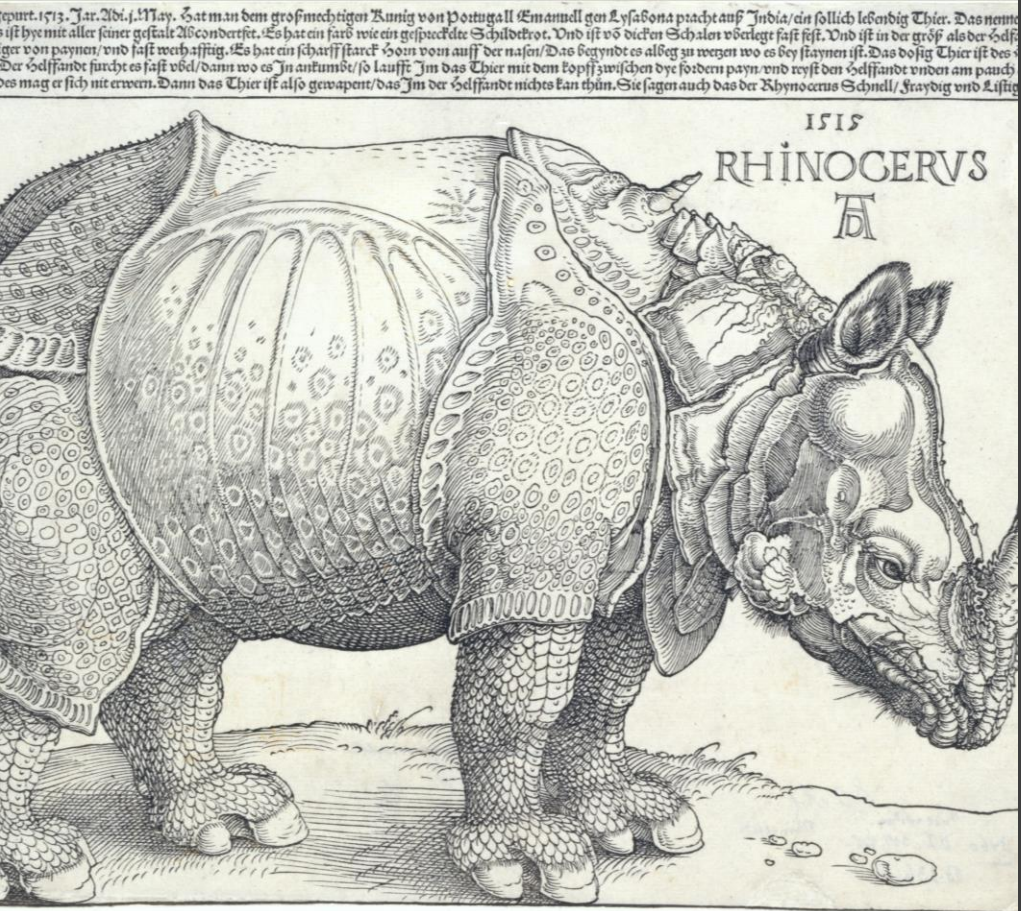




12th Century Cambodia

Renaissance: 1304 - 1556





Northern Renaissance: 1515-1560

Japanese
screens: late
16th century





Mannerist: 1567 -1580

Baroque: 1622-1656





18th Century



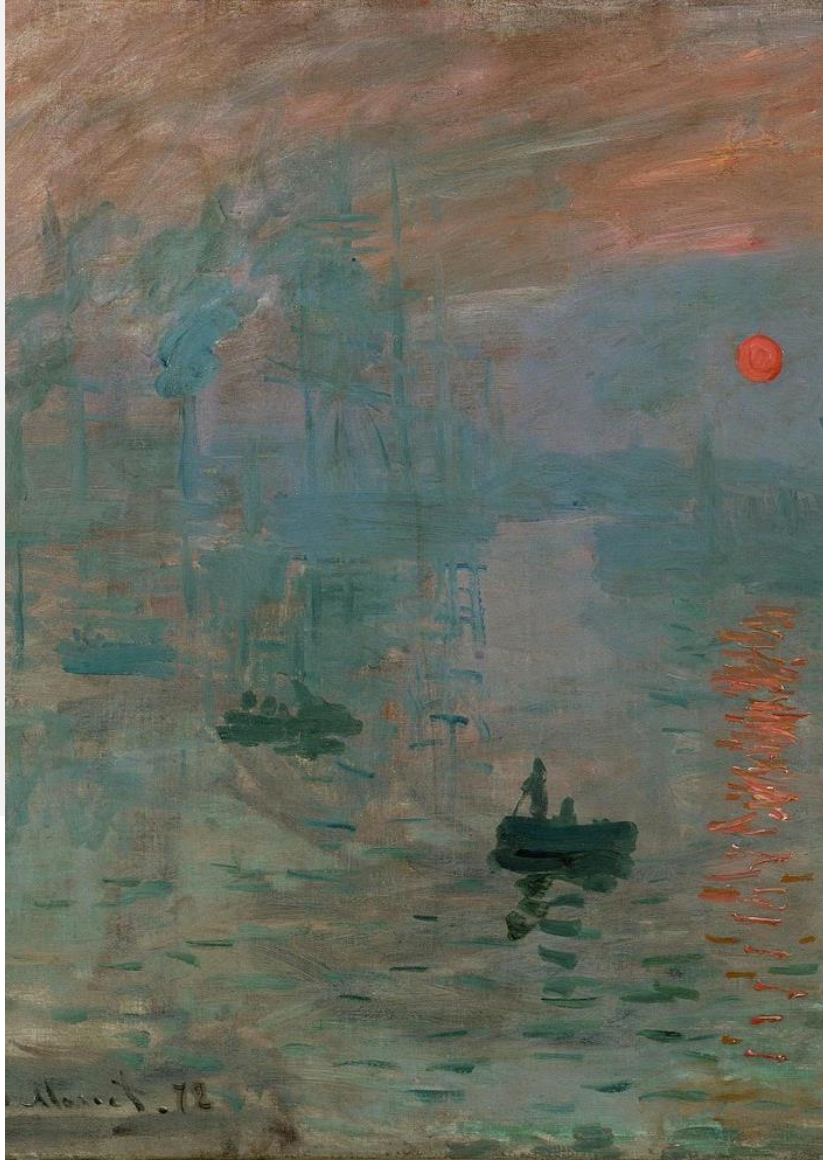
Romanticism: 1821 - 38



神奈川沖
浪裏

舟が波に打たれる

Ukiyo-e: 1830



Impressionism:
1872 - 1875



Pre-Raphaelite Brotherhood: 1888



Post Impressionism: 1889 - 1891

Italian Futurism: 1912





Dada: 1917

Surrealist: 1919 - 1947





International School:1929

Prairie Style: 1936





Land Art: 1973-1984





Feminist Art: 1974

YBAs: 2000



Contemporary (1): 1980 - 2014





Contemporary (2): 1980 - 2014

