



Welcome to **The Architecture of Antoni Gaudí.**

Housekeeping Items for New Students:

Questions > **Raise Hand & Chat questions to Erin (co-host).**

5 to 10 minute break & 10 to 15 minutes at end for **Q&A.**

POLL: Last week's lecture on Surface Ornament, preference?

- A. decorative/**dimensional** tiles of Casa Vicens/El Capricho
- B. **organic**/rusticated stone cladding of Bellesguard/Park Güell viaduct
- C. **colorful** trencadís mosaics of Casa Batlló/Park Güell
- D. **eclectic** mix of Colònia Güell Crypt/Sagrada Família pinnacles

Today's treatment of natural form will touch on all four of these characteristics.



In **1868**, Gaudí went to **Barcelona** to live with his brother (studying medicine), to **begin studies in architecture**. Coming from a village in the countryside, he was fascinated by the energy and fabric of a **bustling industrial city**. He wandered the **old medieval streets (Ribera, Born, Gothic quarters)**, down by the harbor, the heart of Catalonia's maritime and mercantile past, discovering centuries of rich architectural layers. One building in particular impressed him...



Church of Santa Maria del Mar (Church of St. Mary of the Sea)

Built in **14th century**, height of Principality of **Catalonia's maritime and mercantile** preeminence.



Grand ribbed vaults are an example of **Catalan Gothic** (fortress), with **a purity and unity of style**, unusual in medieval buildings built over centuries changing to the whims/styles of patrons and kings. Santa Maria del Mar built in a half century (1329-1383), **by the funds and hands of the community it served.**



The stones used to construct the walls and columns were **carried one by one** (500lbs. each, by Postach), from Montjuïc (mONT-jrEEck) ‘Jewish Mountain’.



In contrast with the **heavy, dense, massive stone exterior**, wedged into the narrow streets of Ribera district, the **interior gives an impression of light and spaciousness**, abundant daylight streams in through the tall clerestory windows.



Basilica type, with its three aisles forming a single space, no transepts, no boundary between nave and presbytery. Simple ribbed vaults are supported on slender octagonal columns, the **slenderest stone columns in the world**,



with their **spacing widest of any Gothic church in Europe** (43ft. center to center). The center nave height equal to the total width of building.



An historical precedent for the **socialist community** he sought in **Poblet monastery**, the **ideal public building/community partnership**, involving all the building guilds.

Along with the contrasts of darkness and light, stone and air, downward compression and upward expansion, this church was the architectural template for his future Sagrada Família, built by the community with public subscription.

Direct contact, casting the building directly from the people, senza armatura.



Likely **inspired Gaudí to join Mataró Workers Cooperative (1874)**, which led to the **construction of his first structure (Cotton Bleaching Facility, 1883)**, the same year he was **named the new architect of Sagrada Família.**



The Corpus Christi Procession Leaving the Church of Santa Maria del Mar

(Ramon Casas, oil painting, 1898, 77"x45.5")

Depicting the scene (1896), just before an **anarchist bombed the Corpus Christi** (Christ's **body**) **procession** exiting the Church of Santa Maria del Mar, killing 12, creating panic in the city. **Turbulent social landscape in Catalonia**, bombing inside the **Gran Teatre del Liceu (1893)**, **Setmana Tràgica** (July 25 – Aug.2, 1909).

Play of colors and festive banners, apricots hung from balconies, pure white veils of girls in first Communion gowns (ritual based on the **consumption of Christ's body**), **lambs led unknowingly to slaughter** (bombing on the next street, Canvis Nous).

[Painting **won first medal** at the 4th Exhibition of Fine Arts and Artistic Industries of Barcelona (IV Exposició de Belles Arts i Indústries Artístiques de Barcelona).]



Baroque Retable, by Deodat Casanoves and Salvador Gurri, destroyed in fire during the **anti-clerical rebellions of Spanish Civil War (1936)**.



Alhambra (889-1492)

In 1887, through his association with **Eusebi Güell**, Gaudí traveled with the **2nd Marqués de Comillas** to make **plaster casts from Alhambra** for pavilion at **Barcelona World Fair of 1888**. (**Pavilion of the Transatlantic Company**)



Alhambra (The Red One), a **red mud brick palace fortress complex in Granada**, Spain, constructed on **remains of Roman fort in 889**, restored by **Nasrid emir Mohammed ben Al-Ahmar** in **13th century** of Islamic Art in late European stages **influencing contemporary Mudejar Art**, after **Christian Reconquista in 1492** became **Royal Court of Ferdinand and Isabella** (**Catalan King / Queen**) where **Christopher Columbus** was endorsed for expedition to the New World.

[**Transatlantic Company Pavilion** built by another architect in 1887. Transported to Barcelona, for Gaudi to recreate his much-loved **Alhambra**. Arabic palace of smaller dimensions, and **coated with plaster casts of the decoration of Alhambra**, with towers covering the own decor, and the corresponding dome in the center as a mosque. **Reliefs** and tiles, whiteness of walls, horseshoe arch entry between plants. One of the largest pavilions in the maritime section, competing for their size with that of the Navy. The public and the press described as ‘beautiful’ and ‘undoubtedly one of the most beautiful and elegant buildings of the Exhibition’.]



3:15

Astorga Cathedral (1471-18th cen.) Astorga (Province of León, Spain)

German Gothic style built **within walls of 11th century Romanesque church**. Thru 18th century, added **Neo-Classical cloister, Baroque towers and façade, Renaissance portico**. **Dimensional relief, plasticity of portico, but stylized figures.**



Also in **1887**, Gaudí was commissioned by his friend **Bishop Grau** to restore the **Episcopal Palace in Astorga**. During his **11 visits overseeing construction**, he had **discussions with the Bishop on interpretation of the liturgy** in the Catholic Mass, in particular, the **Astorga Cathedral canopy over the altar Gaudí believed distracted** from the high relief **carved figures in the retablo** (high altarpiece) behind the altar.



The **life-sized polychromia marble figures** by **Gaspar Becerra** in **1558** are considered a **masterwork of the Spanish Renaissance sculpture**. The figures come to life by their **plasticity in dimensional quality and color rendering**, but most impressionable, the **realistic depiction of human anatomy**.



Gaspar Becerra, born at Baeza in Andalusia. **Studied under Michelangelo** (Rome). He also **contributed to the anatomical plates of Juan Valverde de Amusco's History of the composition of the human body** (Historia de la composicion del cuerpo humano, Rome, **1556**).



Juan Valverde de Amusco, born in the Kingdom of Leon (Spain) in 1525, studied medicine in Padua / Rome under Realdo Columbo / Bartolomeo Eustachi. He published several works on anatomy. In *Historia*, all but 4 of its 42 engraved copperplate **illustrations were taken almost directly from Andreas Vesalius'** *Seven books on the fabric of the human body* (*De corporis humani fabrica libri septem*), **one of the most influential medical texts ever printed**, because Vesalius **performed his own careful dissections** and observed the body in great detail and the **artistic renderings of the anatomist's findings**. Vesalius bitterly commented on Valverde's plagiarism, accusing him of having performed very few dissections himself. However, occasionally Valverde corrected Vesalius' images, as in his depictions of the muscles of the eyes, nose, and larynx. One of Valverde's most **striking original plates is that of a muscle figure holding his own skin** and a knife, likened to Michelangelo's St. Bartholomew in the Sistine Chapel's Last Judgment, **likely drawn by Gaspar Becerra**. The copperplate engravings by Nicolas Beatrizet. [Vesalius at times translated Galen's words exactly, however he confirmed and refuted many of Galen's anatomical and physiological tenets. His peers reacted strongly to his questioning Galen, and he received praise and condemnation.]

"Architecture is the first of the plastic arts, sculpture and painting depend on it." An architect is "a man **of synthesis** who has **a vision of plasticity** – which is an overall vision – and who **places objects in relation (proximity) to each other in distance (perspective)**, he **groups them together (concentrate) rather than dispersing them**, he generalizes and sees what exists and what does not exist." "Sight is the sense of plasticity (sculptural dimension), of space, light, immensity."

For Gaudí, organizing space meant **bringing it to life**, **adjusting all the elements (structure, form, materials) into clear relation to each other**, revealed, intelligible, and **displayed in their true dimensions, more than tectonic or structural**. Above all, "it is necessary to **dematerialize them**," **spiritualize**, not through the expediency of cold abstractions, but **ornament that is "living,"** realistic, inimitable, the kind of ornament that has been labeled **super academic**. In Gaudí's search for a truly organic ornament, he turned to a Mediterranean temperament, in particular the Catalan tendency to be **straight-forward, strict, and hyper-realistic**.

Derived from the **observation of nature**, a natural grammar, based on **natural form**.



Leitmotif: Natural Form

Only **truth of life** had meaning for Gaudí, it alone “is the **reflection of eternal life.**” “The **ornamentation must be natural** and based on the purpose of our life. There is no question of our imitating any particular style; we must rather work out a system of **lines and curves in harmony with the given topographical condition**, the climate, and the meteorology of the locale. The result will constitute a style. The next step is to try to **increase the importance of surfaces without weighing them down.**”

Like Rodin, Gaudí asserted “**art is beauty** and **beauty is the glow of truth** without which it would not exist. To possess truth, one must study things in depth. As for **beauty, it is life**, which is **manifest in the human form through movement.**”

...or to say, **gesture – the expression of a feeling.** A **gestured form**, for example, a brow lowered in anger, raised in joy, isolated in curiosity, creates an **activated space**, charged emotionally, making a place meaningful.

Music as form, gesture is melody, how it is articulated.

Most importantly, **casting the gesture from the form directly (senza armatura).**

Gaudí attached great importance to having his sculptors be **continually working from real life.** **Castings directly from the flora and fauna in nature**, such as the cast of a **palmetto leaf** for the **Casa Vicens** railing or working with the community living around the Sagrada Familia for the figures on the Nativity Façade, Gaudí believed this **directness** had **intuitive knowledge of the figures and their gestures.**

1x The Cathedral of the Poor (Joaquim Mir, 1898)

In 1882, José María **Bocabella**, founded the church for the Holy Family, dedicated to Barcelona's patron **Saint Joseph**, which was intended as a **protest against industrialization and the sidelining of Catalan culture by the Spanish monarchy**. Located Barcelona outskirts, an impoverished farm community, became known as the **Cathedral of the Poor**.

1x Crypt

In 1883, The original architect **Francisco de Paula del Villar**, resigned shortly after the foundation was laid, dispute over stone material for the crypt columns. Gaudí was **hired on recommendation of former professor, Juan Martorell**. Had **only built Mataró Coop's Bleaching Facility earlier that year**, so had demonstrated he was **skilled and talented**, **Bocabella** likely looking for architect he **could control decisions, but didn't anticipate Gaudí's charisma and friendship**, eventually **re-designing Villar's original plans just over a year later** (1885).

1x Apse

In 1892, after completing construction of the Crypt and Apse (rear of the church), **Bocabella dies**, the church receives **large anonymous donation from Isabel Güell**, told to **spend as much as possible on building, before Bishop could use elsewhere**, afforded possibility of a **more lavish scale / ornament**, than modest original. **Plaster model of the Nativity archivolt** cost 20K duros of 140K duros donation, took 12 carpenters a **year to make the molds** (1898).

1x Nativity Portal

Manifesto: Nativity Façade (1892-1910)

Sagrada Familia “whose **portal will be large enough for all humanity to pass through.**” Not making a work of art, but putting **art into the service of religion**. Not by representing faithfully an object or animal in all of its details, but to recreate its **simplified form, the exact and revealing outline which ultimately could alone be translated into the deep imprint of the molding**. The excess of relief sculpture of the portal as of more than mere aesthetic interest, it shows an absolute necessity for being complete and “alive.”



+1x Shadows

In the **Spring**, the earth blooms and everything is reborn. Gaudí associated this **beginning of life directly with the arrival of Jesus**, also the beginning of the day, as the **Nativity façade looks to the east**.

3x Donkey, Hens, Serpents

Gaudí chose people who varied widely: there's everything from bishops to rag men, non-commissioned officers to goat herders, tavern hands to laborers. Because, more than 'artistic beauty', he was truly interested in the expressiveness of these people. Gaudí believed the **truth of life was a reflection of eternal beauty** and that **each being is a piece of God**. So, there was always some **association between the model chosen and the figure they represented**. So, the schoolchildren were used for the **angels** in the crypt and stillborn babies from the hospital represented the **massacre of the innocents**. It was also this search for resemblance in their essence that led him to choose the models for the most important sculptures on the façade.

1x Egypt, Slaughter

Left **portal of Hope**: **Flight into Egypt** saving Jesus from **Massacre of Innocents**. **Reeds** found on riverbanks, **ducks and geese** aquatic birds served at Christmas. Above a **lotus flower**, water plant, rose of the Nile, associated with **spiritual purity** of the body and soul as it flowers in muddy waters. All of this aquatic nature.

1x Nazareth

Right **portal of Faith**: **desert plants**, **arid** Nazareth, where Jesus spent his childhood. The animals are **hens and roosters**, **farm animals**. **Controversial on sacred building**. A **bee**, **daily toils**, chameleon (change) as a gargoyle may swallow the insect. Flowering, leafy **apple tree filling the archivolt**, with **fruit of sin**, redemption. Jesus preaching to doctors and lawyers, **wisdom and freedom of choice**.

1x wide North Star

The central **cypress tree** on the façade was completed in 1932, including Jesus the **carpenter** and **Joseph and Mary at the temple**. 1936, after bell towers were finished, efforts focused solely on completing the various sculpture groups, including the apostles, Saint Joseph with the **ship of the Church**, and the **Coronation of Mary**. Led by Joan Matamala, in 1939, the main scene of the **crèche**. Adoration of the **Shepherds** in 1981 and Adoration of the **Magi** in 1982. Later, the **angel singers and musicians** (sculptor Etsuro Sotoo, who designed/cast bronze doors).

1x in bed

In 1893, **Bishop Grau dies**, Gaudí **deeply saddened**.

Gran Teatre del Liceu bombing, **atheism/anarchy troubling Gaudí**.

Spring 1894, Gaudí's **repentant Lent Fast nearly dies**, his body reduced to a **corpse**. During this time, he **began his anatomic studies of the human skeleton and body**.

(10 MINUTE BREAK)

POLL: ???

1x Rodin figures

Parti: Colades de Guix (Casts of Gypsum) [Gesso in Italian, Gypse in French]

In **1877**, when **Rodin** exhibited the **Age of Bronze** at the **Paris Salon**, that was rumored he had **cast it directly from a live model** (soldier in the Belgian Army), it caused **a scandal in the artistic circles**.

1x Rodin plaster

Sculptors in Gaudí's time created plaster molds of objects, animals and plants, but hid **this practice as they thought it took away from their achievement**. The artistic avant-garde was moving towards exalting the artist and avoiding copies. However, when Gaudí discovered the **Greeks used this technique**, he felt justified and learned everything he could about the technique of molding live subjects.

1x Hanging Plasters

Two primary reasons he made castings of live subjects were a desire **to express life**, and to **avoid expressiveness of many sculptures**, stylized more than of natural life, Gaudí desired a **cohesiveness among the sculptures on the façade**. The sculptors Gaudí surrounded himself with (**Lorenzo Matamala** his life-long collaborator, **Ramonet Bonet** who also worked with Rodin) had to **humbly accept anonymity**, adhere to his method casting directly from life. This gave his ornamental sculpture a **formal unity**, that **fused and integrated it into the mass of the building**, so the **sculpture seemed emanate from the architecture and expanded it**.

1x Anatomy class

ANATOMY

Gaudí began **studying the human body**, by going to the **anatomy classrooms** at the **hospital to learn from cadavers**. Like **Gaspar Becerra**, in the **Astorga Cathedral**, Gaudí **studied large anatomical engravings** from 18th century Italian works, as well as **anatomy and physiology books**.

1x Nativity Façade/Towers

SKELETON

In Gaudí's buildings, as with his figures, the **skeleton was of prime importance**, it was **the variable element**. Every **form is but the envelope of an inner structure**.

“The **most intensive expression of a figure** is provided by the skeleton, for this is the basic variable element. The **rest are only details, that disappear at a distance**.”

The skeleton is a **mobile structure**, it must be considered in both a direct study of the **bone structure** and a direct study of its **movement**.

1x Wire Skeleton

Gaudí would make small **artificial skeletons out of iron or brass wire, dressed with metal mesh** to model muscle and flesh. Then **manipulate with nuance adjustments, just an inch or so, to observe the mechanisms of movement, articulation of gesture**.

1x Bone Skeleton

He would then **develop these observations using actual human skeletons (Juan Matamala procured skeletons from the hospital and morgue, still born infants from Santa Cruz Hospital)**, all this amounting to a **grammar and syntax, to better understand the language of gesture**. Way of revealing and intuitively understanding **what is hidden, the mystical and profound architecture of reality**. Desire to bring vitality to the representation of that **inner spiritual energy that gives truth and character to beings and things**.

“The **expression and appearance of an individual derive from his skeleton**.”

2x Crib / Harp

PHOTOGRAPHS

After **capturing desired gesture**, positioned live subjects to model for photographs, for reference, before **casting plaster molds**. Photography was just another new technology that Gaudí embraced, both **economical and effective** in obtaining the **imprint and outline of reality in its dynamic truth**. He was a pragmatist, easily **switching from one method to another** – what he could not achieve with cast, he would demand of photographs. In the **1880s**, many painters (**Manet, Rousseau, Cezanne**) often **copied from photographs**. **Ricardo Opisso**, a friend of Picasso, was Gaudí's **photographer and archivist**, documenting the models and figures.

2x Degas Photos

Degas was preoccupied with **recording dancers in movement** (Tarantella dance from Bournonville's Napoli ballet) and **used photographs to translate gestures** into small-scale models, which he used **for research**. [French doctor **Etienne Marey** invented chronophotographic machine in 1882 to study physiology of movement.]

3x Bird Photos

For Gaudí as well, photography was a **means of conserving the transitory nature of movement and gesture** – wings of a **bird in flight** or **expression of eyes** on a face. Photography, as plaster casts, could **capture instants of life**, “**picturesque reality**”. Photography could **isolate a gesture at its most expressive moment**, but also grasp an **instant of reality** that the eye itself would miss, such as **precision of a form** or the **play of light / shadow**. Certain details neglected in drawings from nature, shadows and **light revealed with exact degree of firmness and softness**, of great importance for character, very **delicate distinction without which there would be no vitality**. Means of **rapidly collecting greatest amount of information**.

4x Figures with Mirrors

Gaudí would surround the figure with mirrors, **two mirrors placed vertically** and **another suspended horizontally above the figure**, to capture five perspectives **simultaneously in a single photograph**, revealing valuable information on the way **movement affects the intensity of light and play of shadow on the body**.

When asked why he worked so diligently on the visual impression of every angle, even parts on top that would be obscured from the street, he replied to the Bishop, “Your Grace, **the angels will see them**.” Speaks to a level of perfection he sought.

4x Army soldiers as trumpeters

CASTINGS

The person would have to wear a special tunic, or take off their clothes if necessary. The molding was done in parts, which were then numbered and stored workshop, often interchangeable. The most delicate part was the face. If the model wanted to keep their eyebrows, eyelashes and beard, these parts had to be covered in a pomade or fresh butter. Otherwise, freshly shaved. After greasing their face and scalp with olive oil, covered with a towel to keep plaster from hair or ears. Lay down flat with their eyes and mouth closed tight. Very thin feather shafts were put in the mouth and nostrils to breathe. Fine and quick-drying plaster mixed with lukewarm water and left to set up a bit so the effect on the face would be limited. Then, it was applied with a fine brush, starting with the forehead, then the cheeks and, finally, the mouth and nose. In just a few moments, no more than a minute, the mold had to be removed, lifting it very carefully from the edges so it would come off in one piece, like a piece of armor. Most important was the molder's skill, experience and professionalism, because the job not only has to be done well; it has to be done quickly. The intense heat given off by the curing plaster, the humidity by the dehydration, and the strong pressure from drying shrinkage could produce a very dangerous suffocation that could be fatal.

2x Archivolt

After casting, Gaudí always went over them, correct, stylized or simplified them. Then the full-scale plaster models of the figures were hoisted to arranged locations over the Portal of the Nativity. Gaudí would cross over to the Calle Marina, from where he could harmonize the archivolt's decoration in the early morning light. The sculptors, balanced on their wooden scaffolds, placed and replaced each element, remodeling the façade according to his remarks, tuned to his eye's perspective.

3x Organ builder as St. Barnabus

Plaster figures would be enlarged in proportion to their distance from an observer down on the street and according to the hierarchy of symbolism. The plaster figure was then divided into sections based on future assembly of the stones.

13x Tavern waiter was a Roman soldier Virgin Mary was a pious spinster

SCULPTING

After the plaster casts were refined, Gaudí's sculptors would **transpose them into stone**, with the **use of mechanical aids** and **precise measurements** (squaring, etc.).

Q&A

Gaudí used molding because it was effective and affordable, as it allowed him to make an imprint of reality as a shape and movement at the same time. Molds and photographs were the techniques used to achieve what he really wanted: life-like figures. While photography allowed him to capture fleeting moments, like beating wings, smoke or a falling body, with the plaster molds he could faithfully recreate the person he really wanted. When choosing a real person, he looked not only at their physical constitution but also made sure their nature or character was similar to that of the person represented. This brought him closer to the truth he sought.

Gaudí **did not accept professional models**, rather he **used people from community**, in the tradition from the **Church of Santa Maria del Mar** and **trencadís mosaics** use of **unskilled labor**. His workshop was a Noah's Ark, a mix of characters from the community – the bishop, the ragman, goatherder, tavern waiter, construction laborers, painters, poets. More than “beauty of form”, what interested Gaudí was **truth of their expression**, inner truth reflected in the features of the face, **in gestures**, and **behavior of their being as a whole**, to procure the resemblance of **their soul**, beauty itself. Gaudí saw the **reflection of eternal beauty in life's truth** and a particle of God in each person.

Goethe wrote, “Nature is a goose which we try to transform into a swan,” with Gaudí he was content with the goose.

Dali stated, “To photograph God is an act of the purest faith, in the most profound medieval spiritual tradition. To do so is to express one's vision by an intensely realistic act!”

Christ on cross was a 33 year old

Joseph was a stonecutter

Judas the site caretaker

The **trumpeting angels**. At that time, the Temple was surrounded by open fields that were often used for military maneuvers. Once, some soldiers from the bugle corps were playing right on the corner opposite the Temple, just below the workshop. This was extremely annoying to Gaudí, who at the time was in the middle of a visit with his friend Bishop Torras i Bages, and told them to stop. The soldiers' superiors were offended and went up to see who had given them that order. In the end, the bishop had to intervene to calm things down, and the three trumpeters ended up sitting as the models for the angels that were still needed for the façade.

The **Virgin Mary**, Gaudí chose an older single woman who was so religious that she wanted to walk to the Holy Land. When she reached Premià de Mar, 20 kilometers from Barcelona, however, she said, "My God that's far!" and took the train back home. For **Saint Joseph**, he found his perfect model in a stonemason who had missed work several days in a row. When they went to see him, they found him on the ground on a torn-up straw mattress, next to his wife, who was praying for him to get well. And for the baby Jesus in the crèche, he chose a real new-born baby: the granddaughter of his great friend and sculptor Llorenç Matamala.

The **Roman soldier** in the massacre of innocents. He chose a strong tavern hand because he was from Tarragona and Gaudí believed people from this region to have features reminiscent of emperors and Roman patricians. Plus, it turned out he had six toes on one foot, instead of five, and anomaly Gaudí left visible in the sandals he was wearing and that we can relate to another anomaly: that of killing babies.

The turkeys, hens and geese were from a neighboring farm. However, the best story seems to be the one about the **donkey** for the sculpture group of the flight into Egypt. To start off, they had to buy the animal from an old clay seller who often passed through these neighborhoods, selling clay, which was used for crockery, because she didn't want to let them use it. However, the donkey resisted the modelling operations, so Gaudí had her hoisted up in a sling under her belly. Once suspended off the ground, terrified, she was still and then, could be molded easily.