

California Architectural
FOUNDATION

Introducing the Architecture of Julia Morgan

A presentation prepared by Polly Osborne FAIA



Photo: MonicaLeeRecrafter

When I first started in architecture, there weren't many women in the profession. That was in the 1970's. Imagine what it must have been like for a woman to become an architect in 1902!



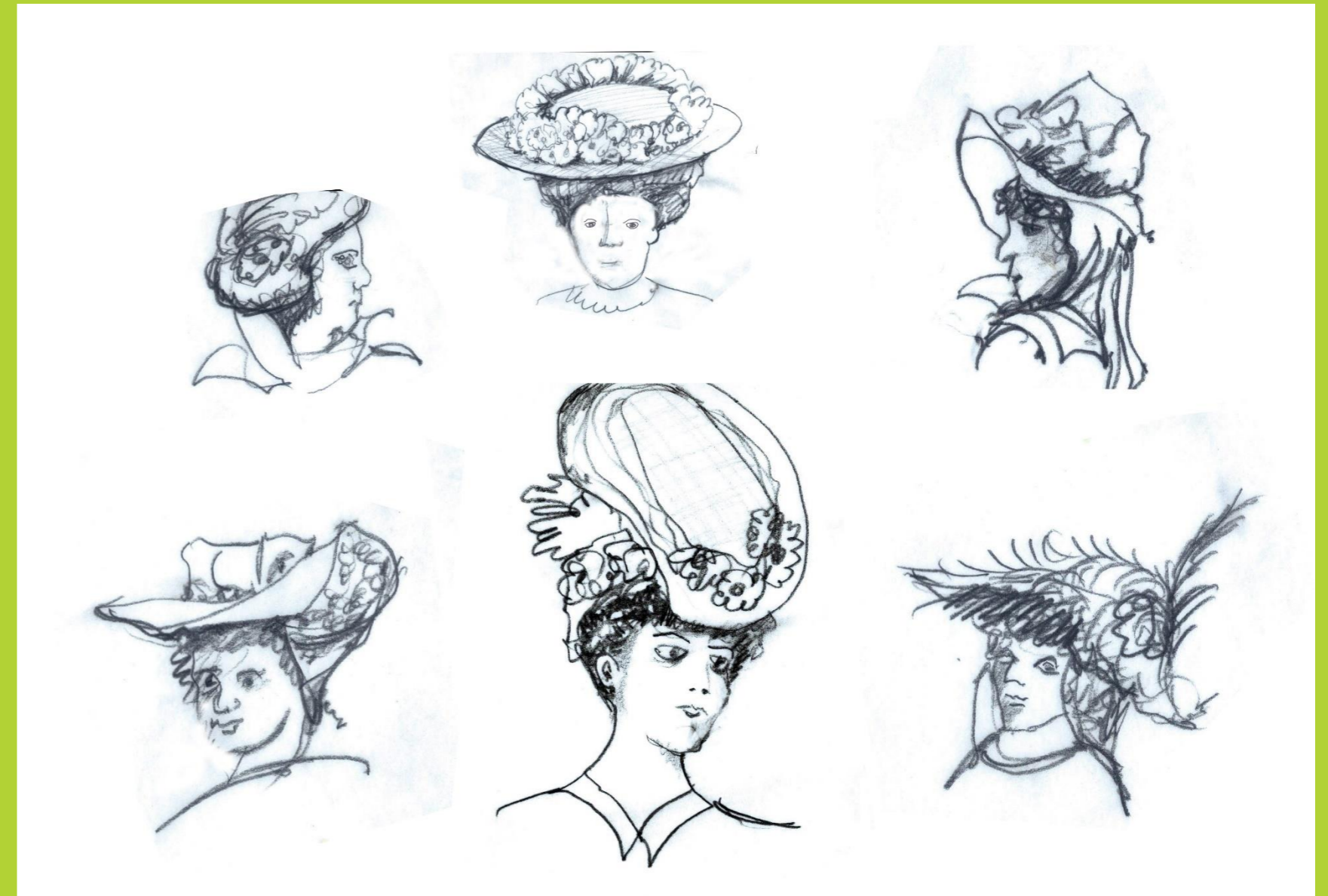
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It was a time when hats were really important to show your style, status and all around fashion.

It was time before women were allowed to vote.



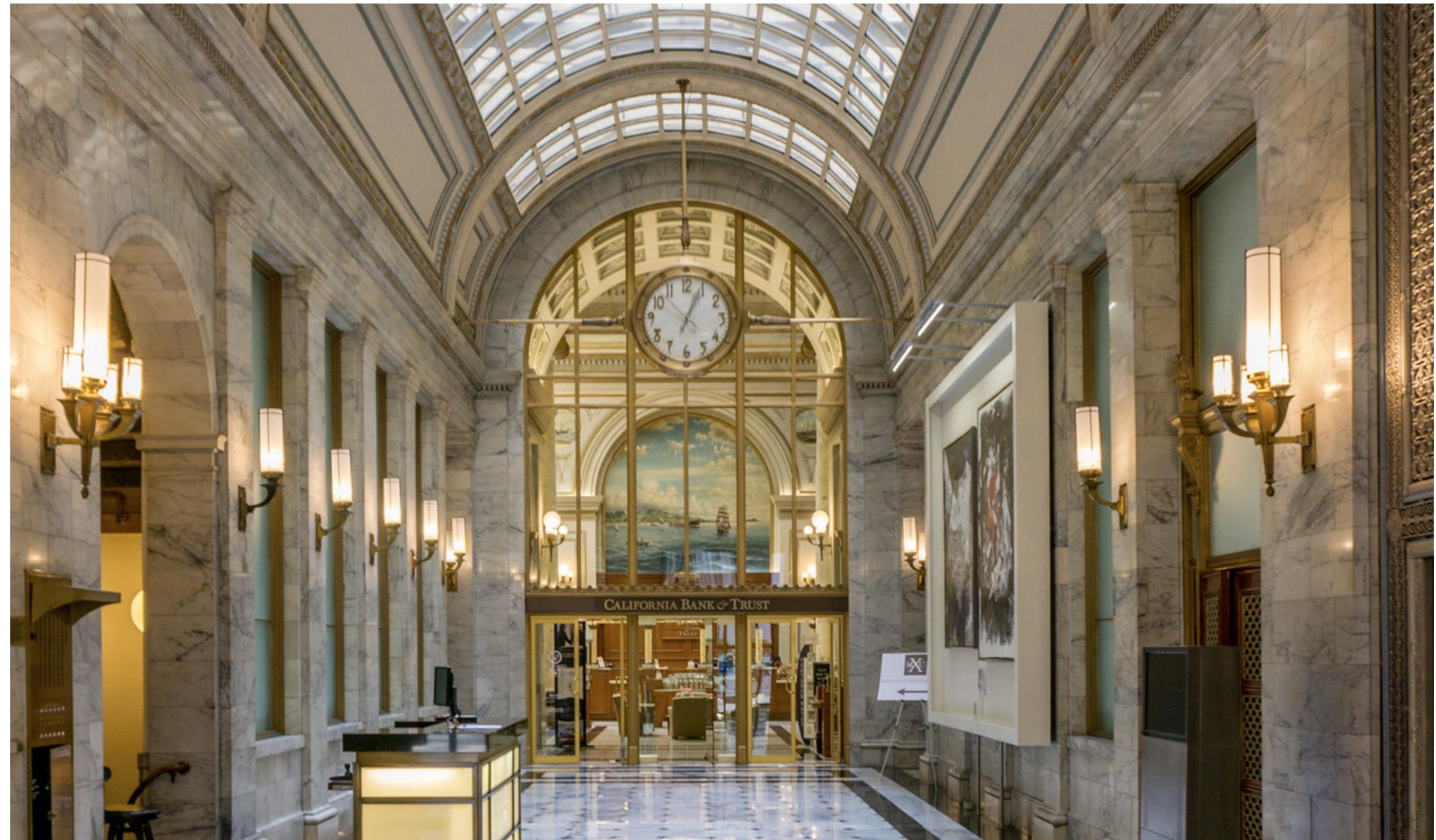
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Sketches by Polly Osborne, FAIA

First of All: What is architecture?

Architecture is the art of designing buildings. So, for a one room building, you could have four walls, a ceiling and a floor and that would be a building. Add some elegant proportions, interesting volumes, and fill the space with light and shadow. Now you have architecture.



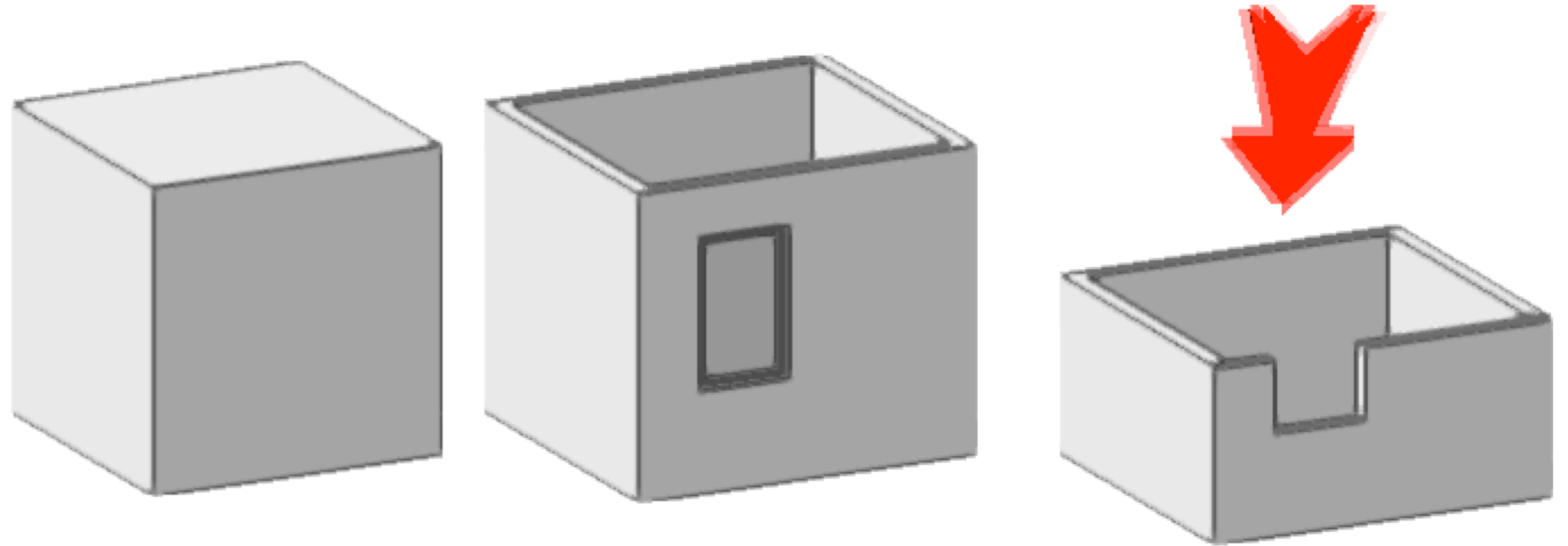
Why does Architecture matter?

Architecture makes a big difference in how things look and work. It can help us feel better, connect us to each other, and even help us do better in school. Good architecture is important for all parts of our lives.

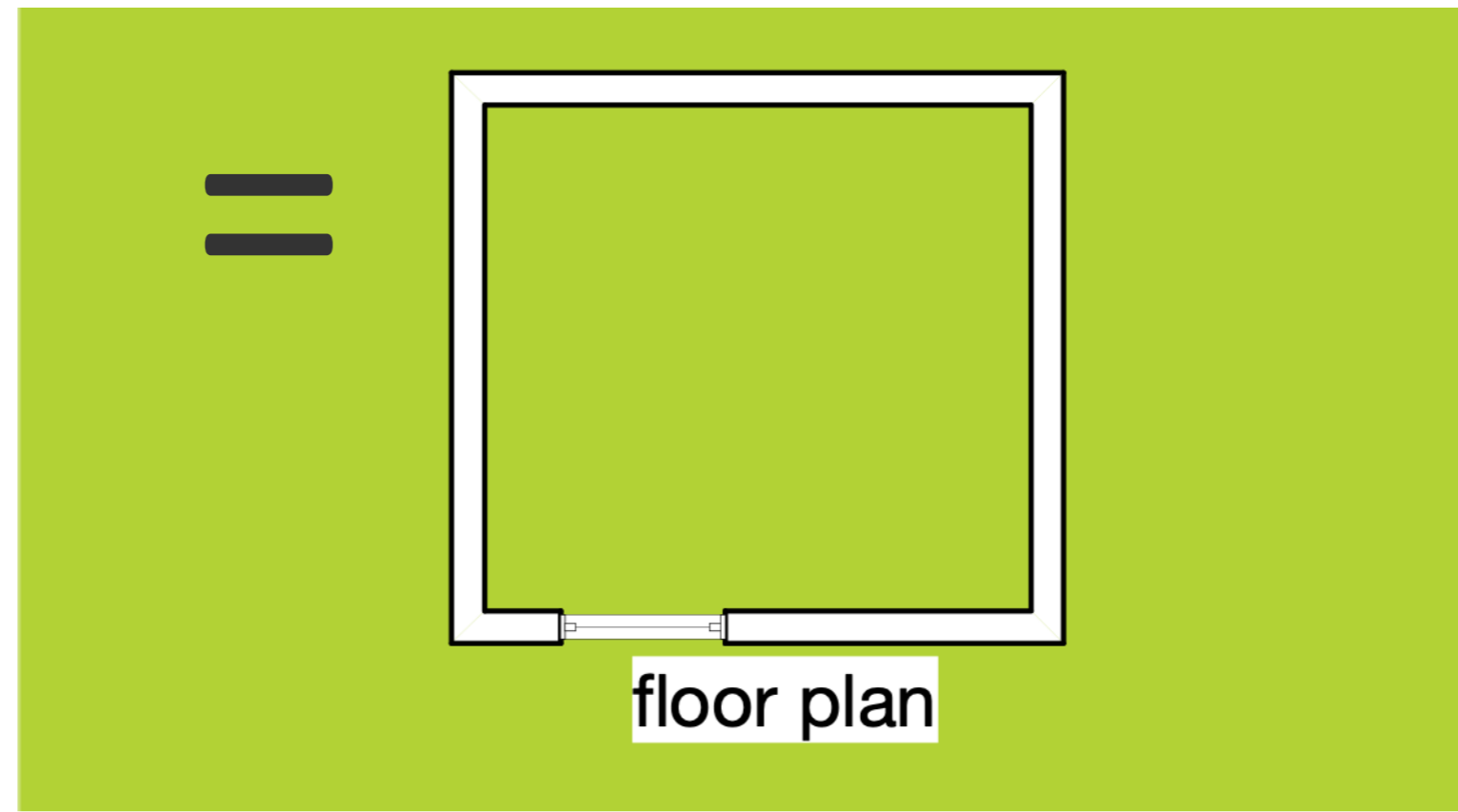


PLAN

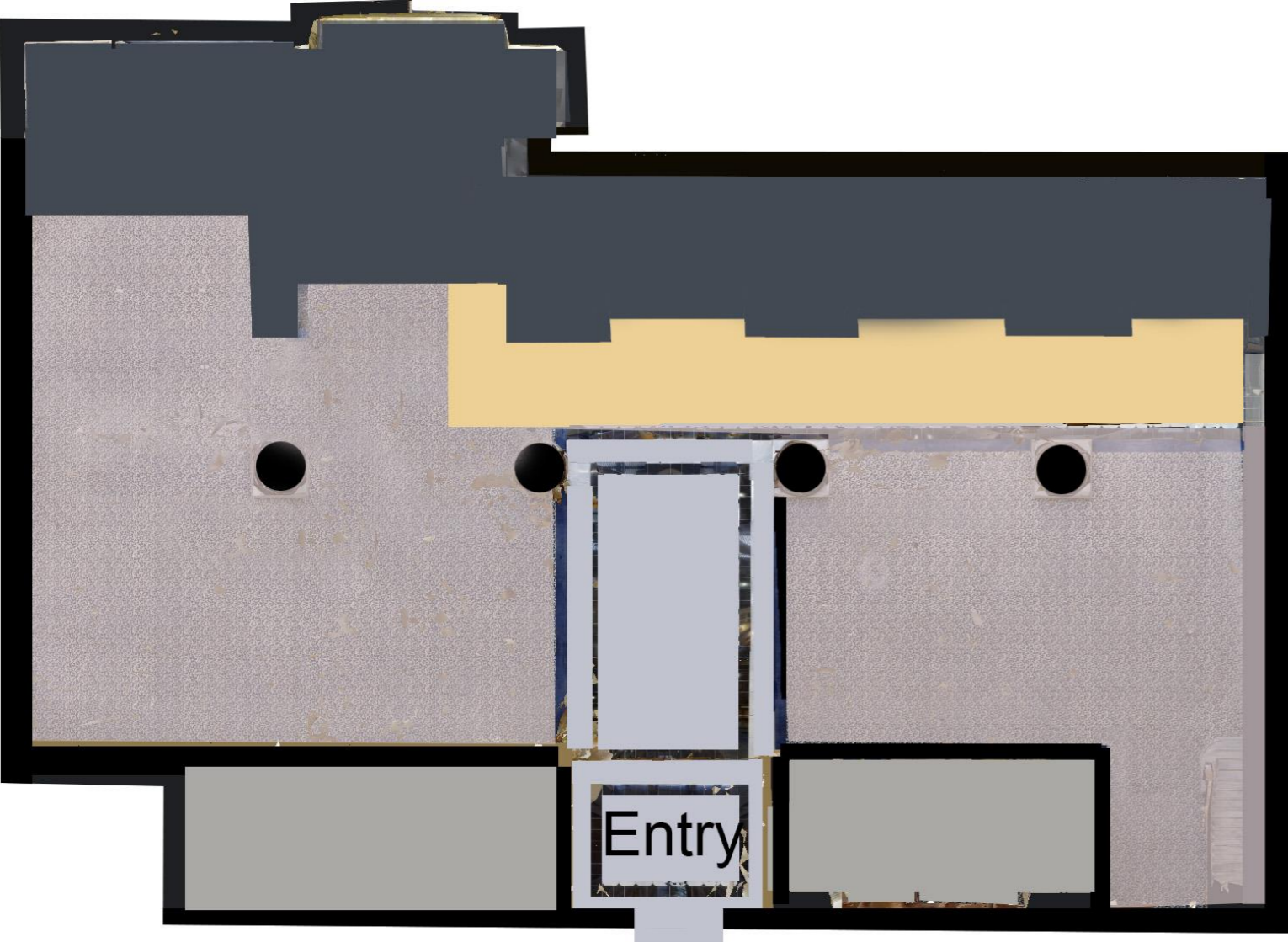
Architects often start their designs with a floor plan.



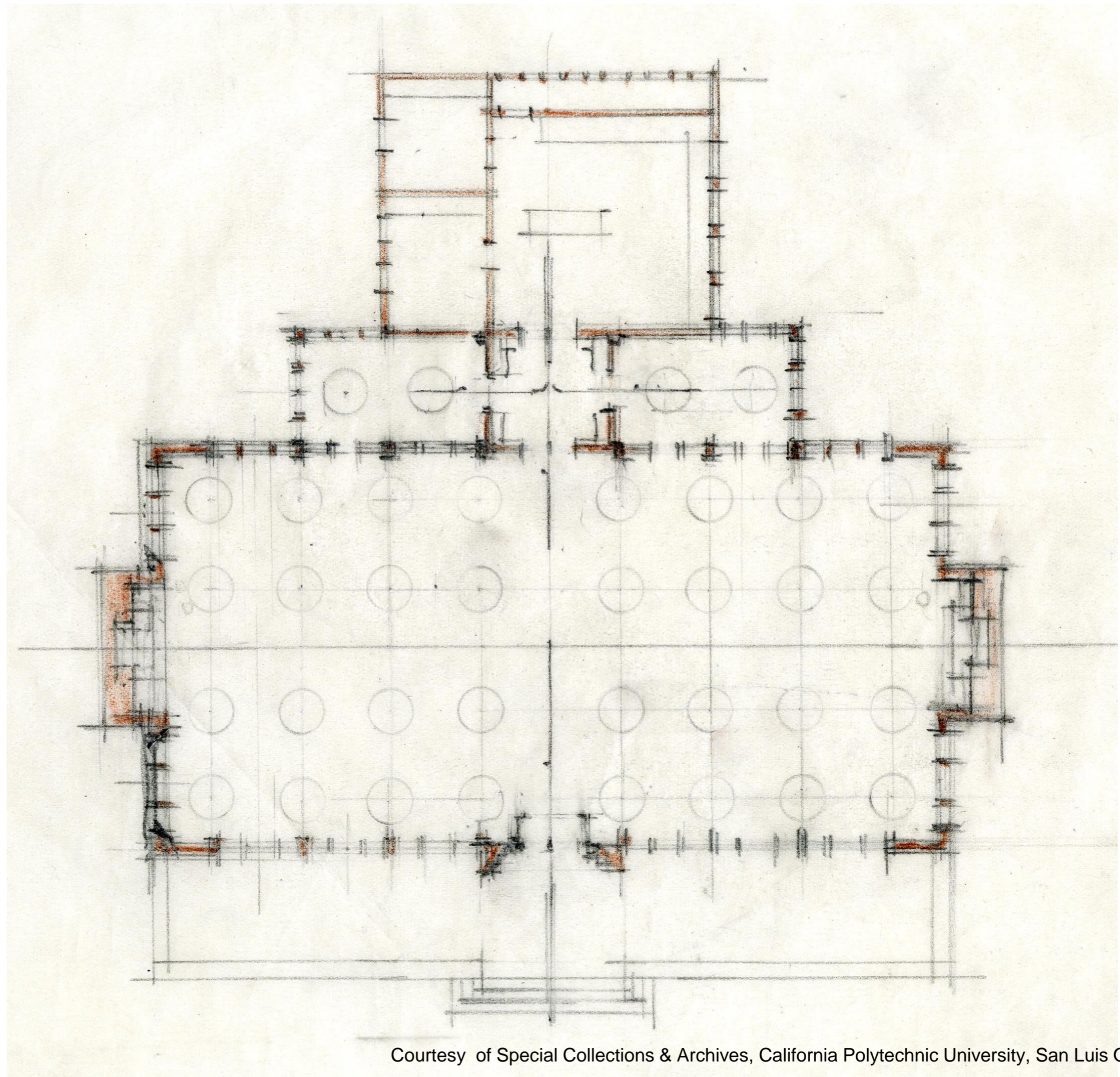
A floor plan looks straight down, like a bird's eye view, but from about 3 feet off the ground.



Here is a floor plan of the Merchant's Exchange Building.



Here is Julia
Morgan's plan of the
The Crocker Dining
Hall.



Who was Julia Morgan?

Julia Morgan was born in 1872 and died in 1957. She was an architect who understood both structure and beauty. She designed more than 800 buildings. She received a Bachelor of Science in Engineering at UC Berkeley, then went on to become the first female to graduate in architecture from the Ecole des Beaux Art and the first woman licensed in architecture in the State of California.



Photo Courtesy of Special Collections & Archives,
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At the Ecole, Julia received a classical architectural training. Her buildings are beautifully proportioned and also very liveable. What is classical training? What was the “Ecole des Beaux Arts” in Paris teaching?

The Beaux Art style was:

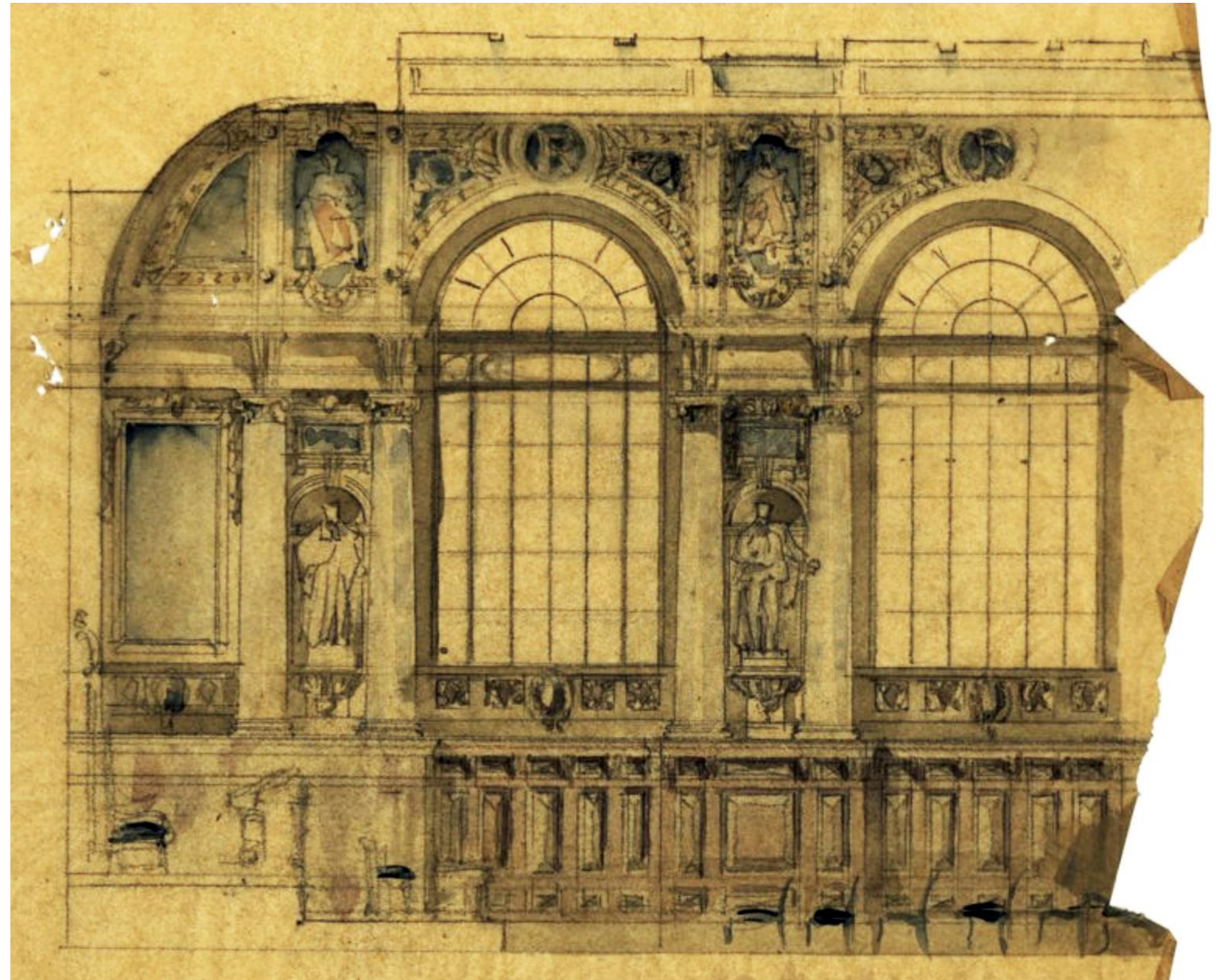
Classical Proportions

Symmetrical

Formal & Orderly

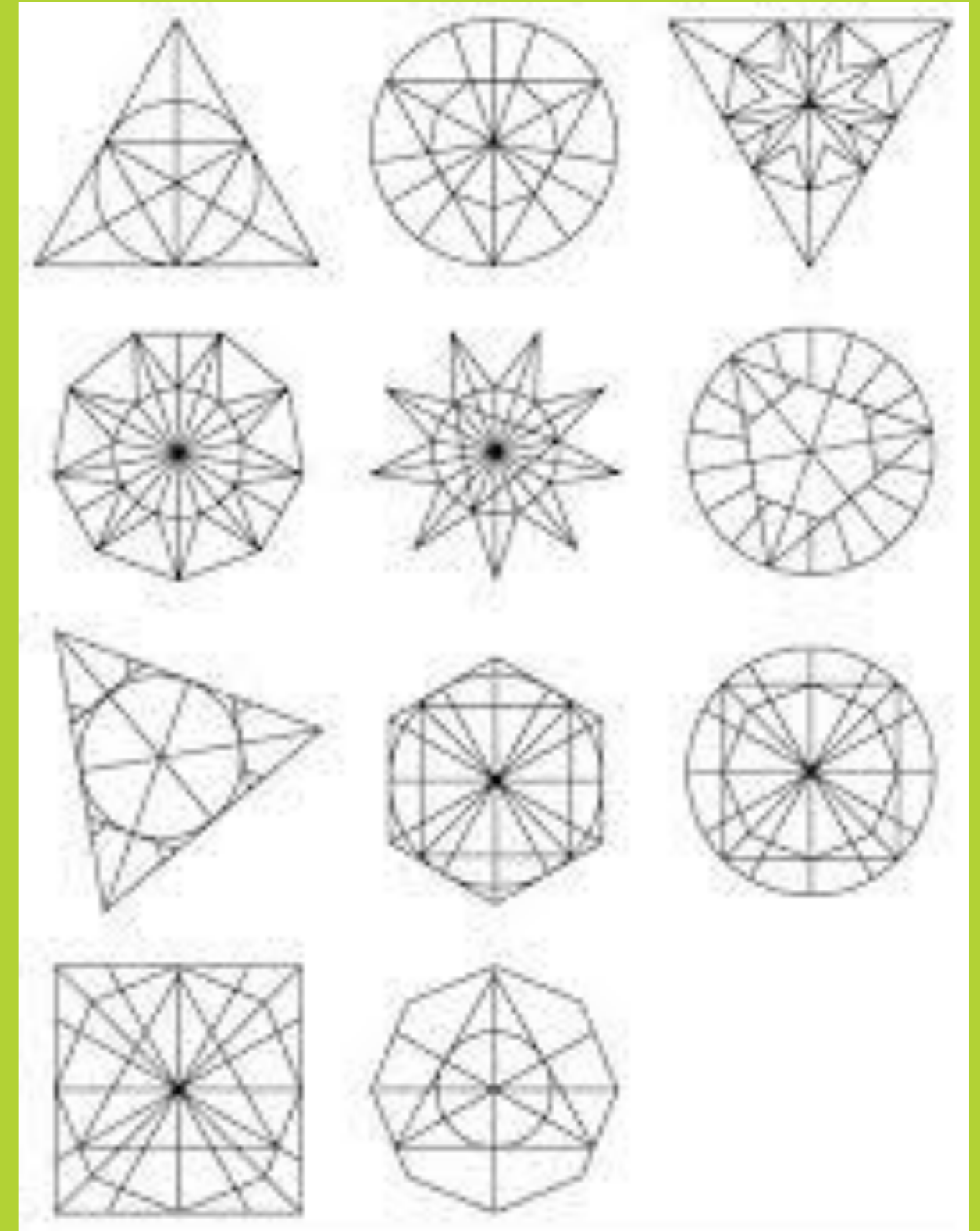
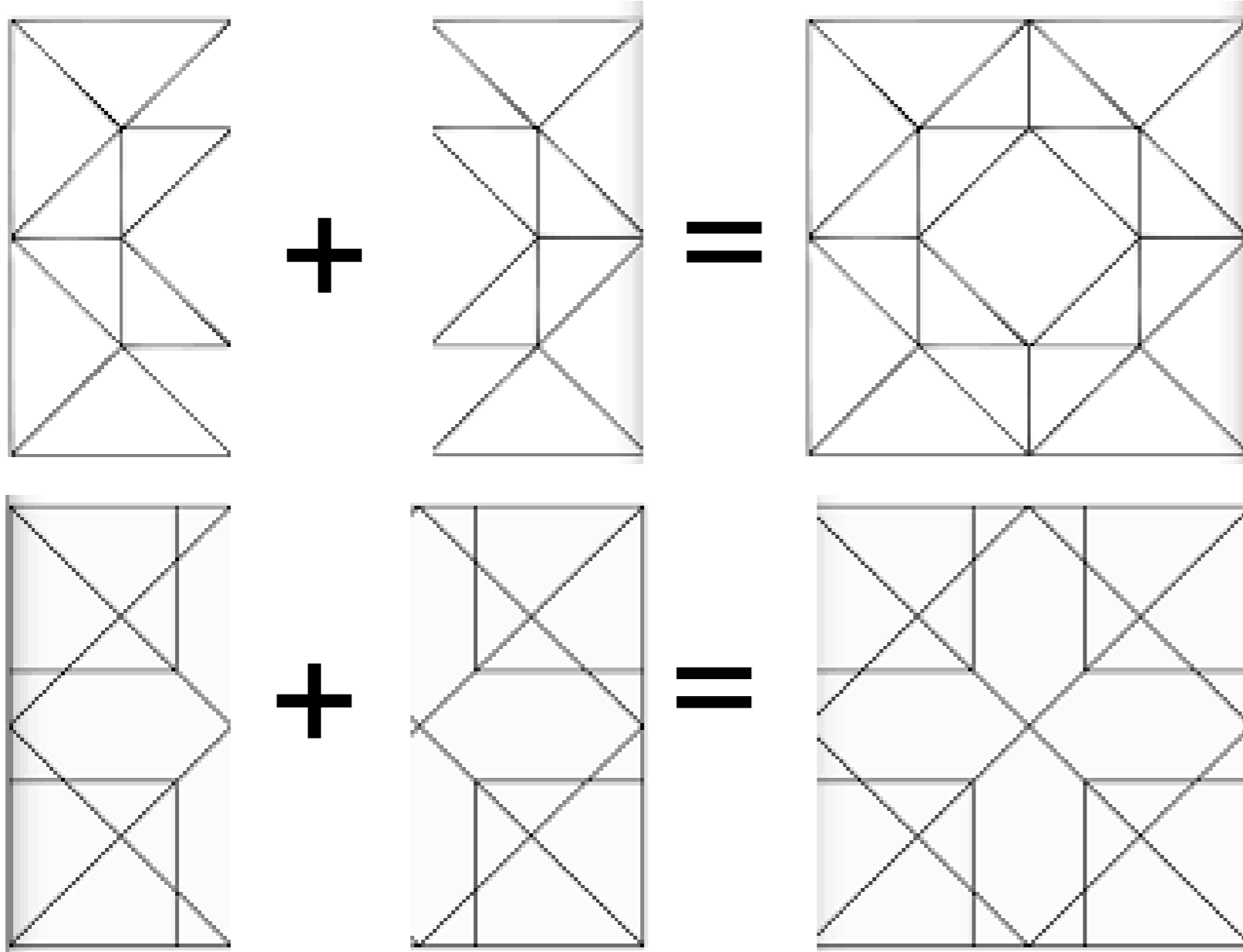
Decorative

This is the basis of Julia Morgan’s training.

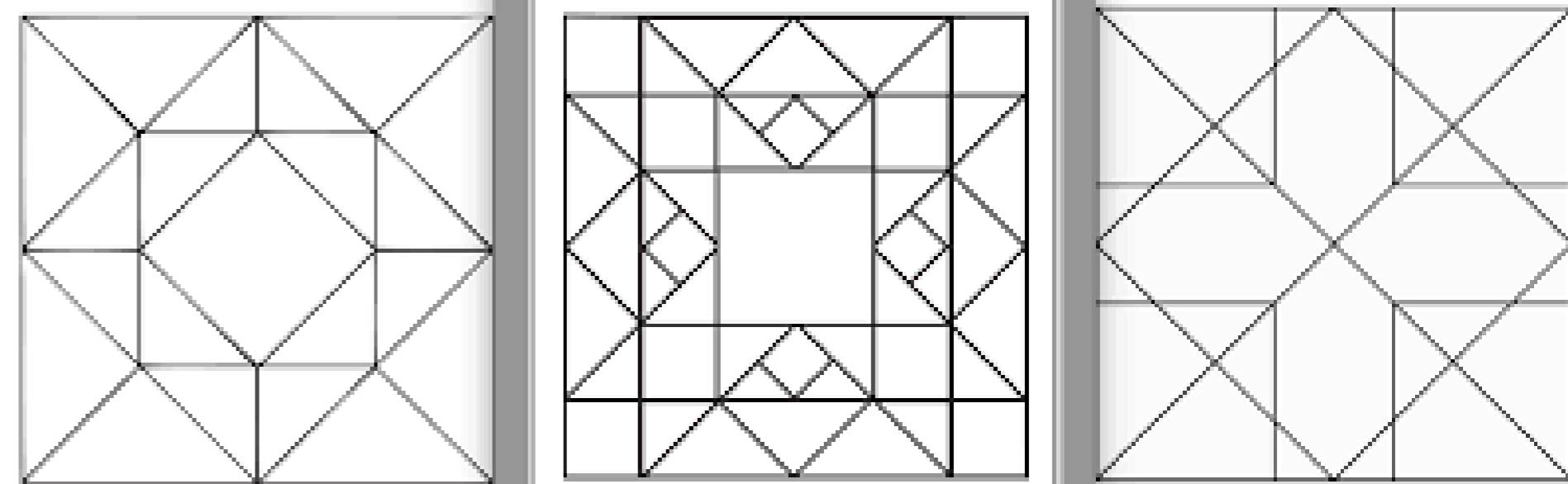
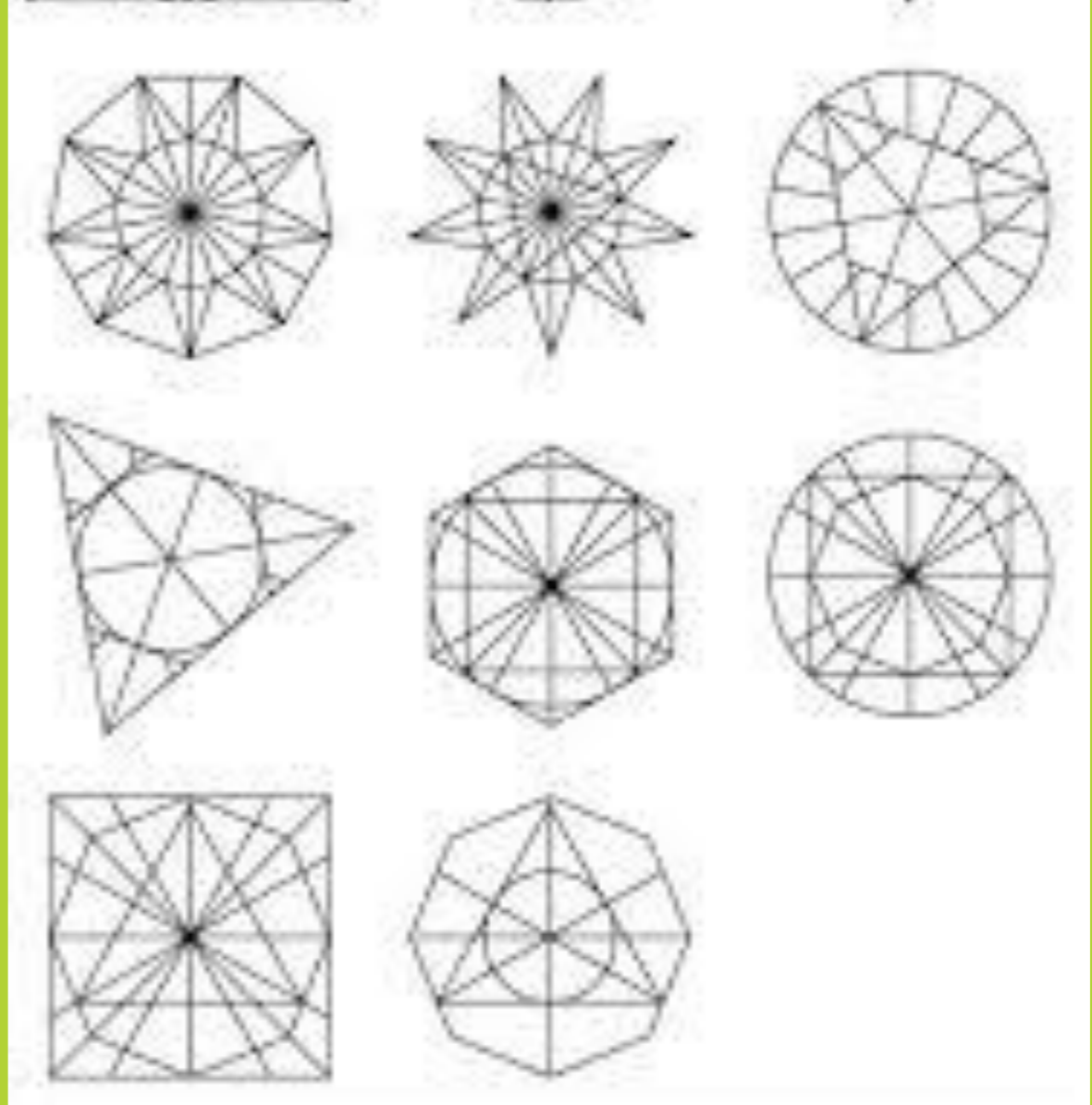


Drawing by Julia Morgan at the Ecole des Beaux Arts, 1902
Photo Courtesy of California Polytechnic University Special Collections

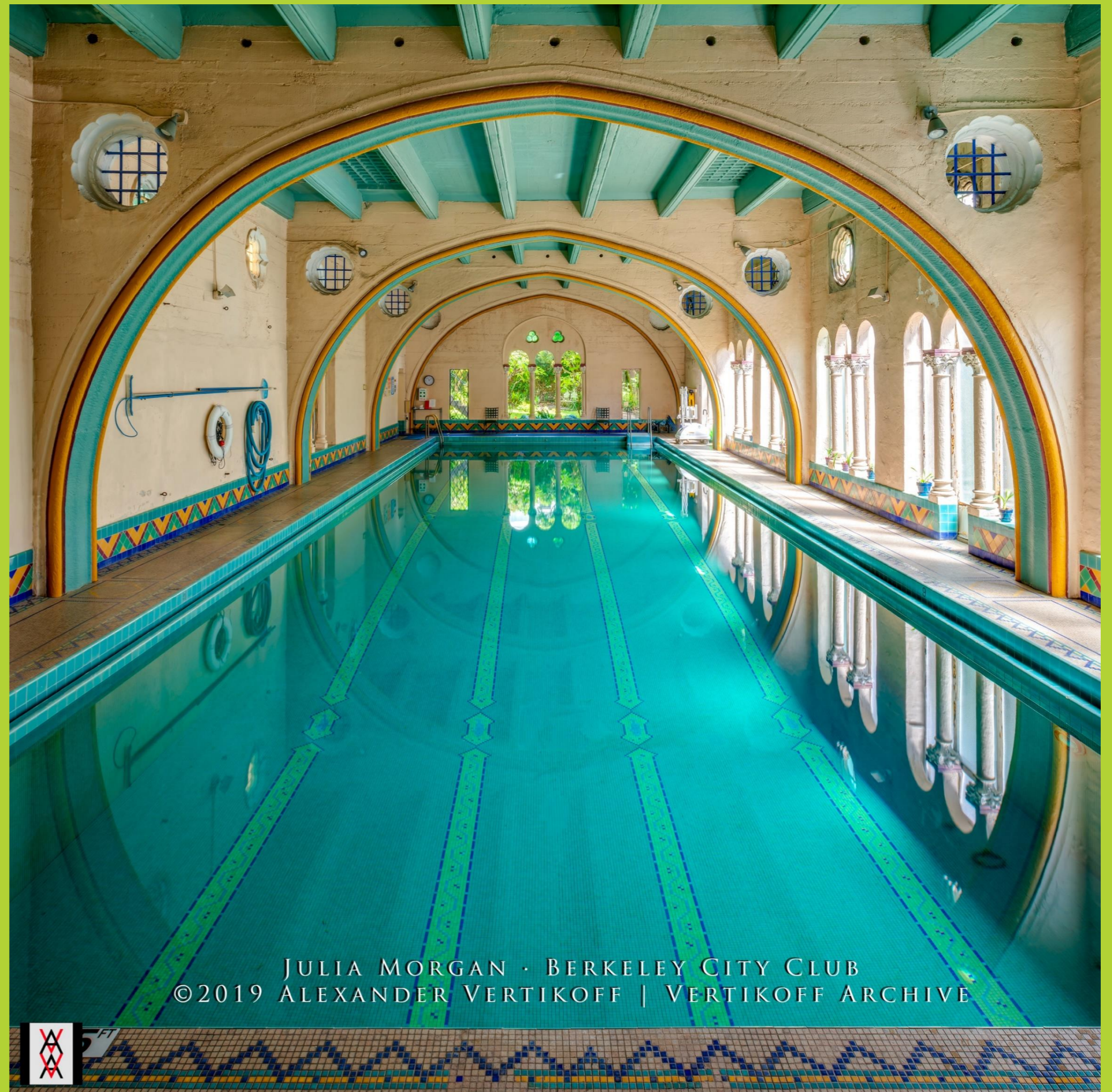
What is symmetry?
Symmetry is like a mirror.



Draw a design using symmetry.



Although Julia Morgan was true to the roots of her training, often using classical proportion and formal arrangements, her architecture was varied, and included Arts & Crafts and Spanish styles.

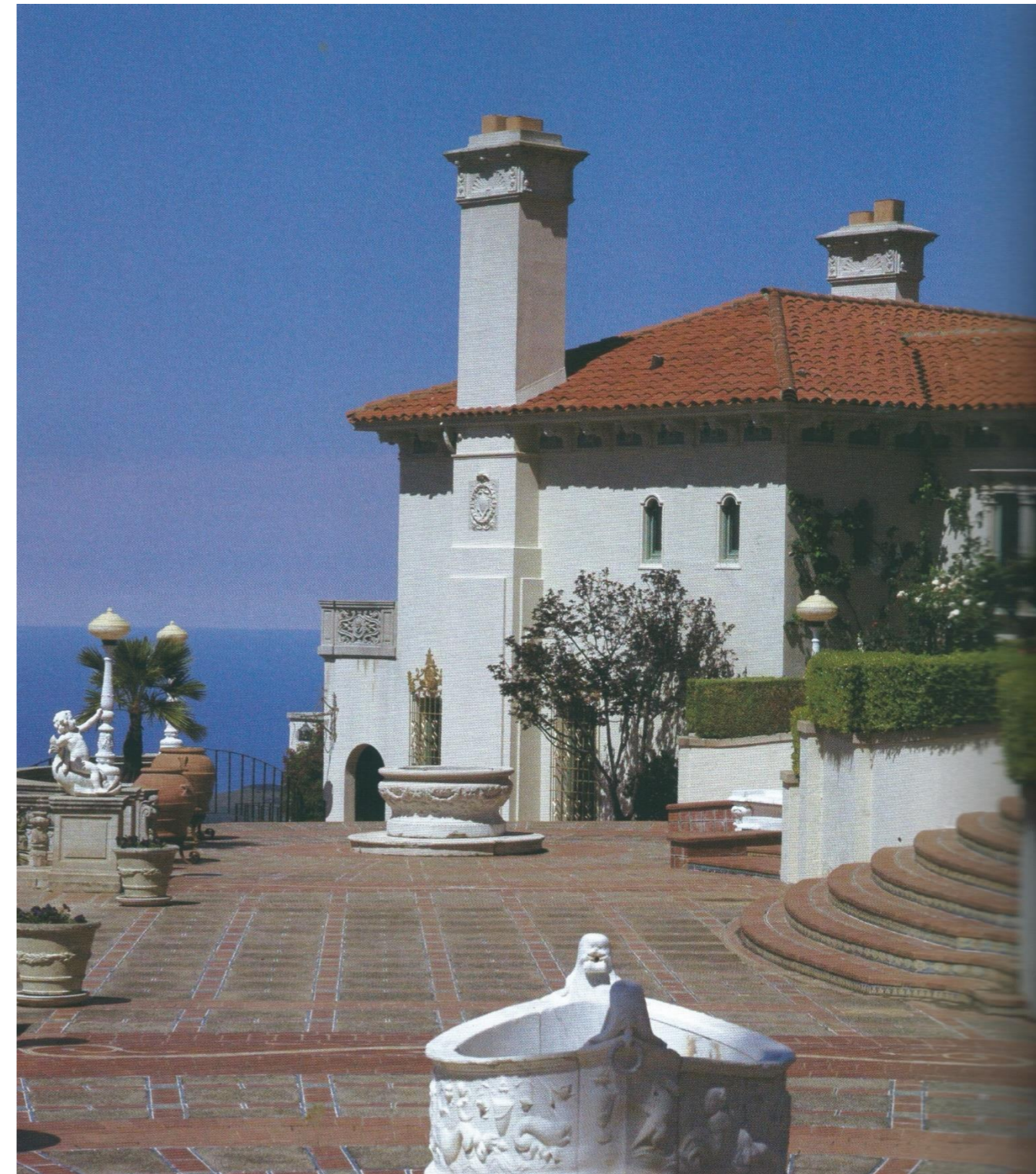


JULIA MORGAN · BERKELEY CITY CLUB
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Arts and Crafts Style



Spanish Style

She designed her first building in 1903 before she opened her own office in 1904. It was a bell tower on the Mills College Campus. She designed it out of a new material, reinforced concrete. With this material, she could pour the concrete into a mold and be done- no bricks or sticks!



JULIA MORGAN · EL CAMPANILE · MILLS COLLEGE
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and that building withstood the 1906 earthquake, when so many other buildings fell down. Because of this, she was in high demand after the earthquake. The Bell tower at Mills College is still standing today, 120 years later.



So why was it so impressive that this building stood up?

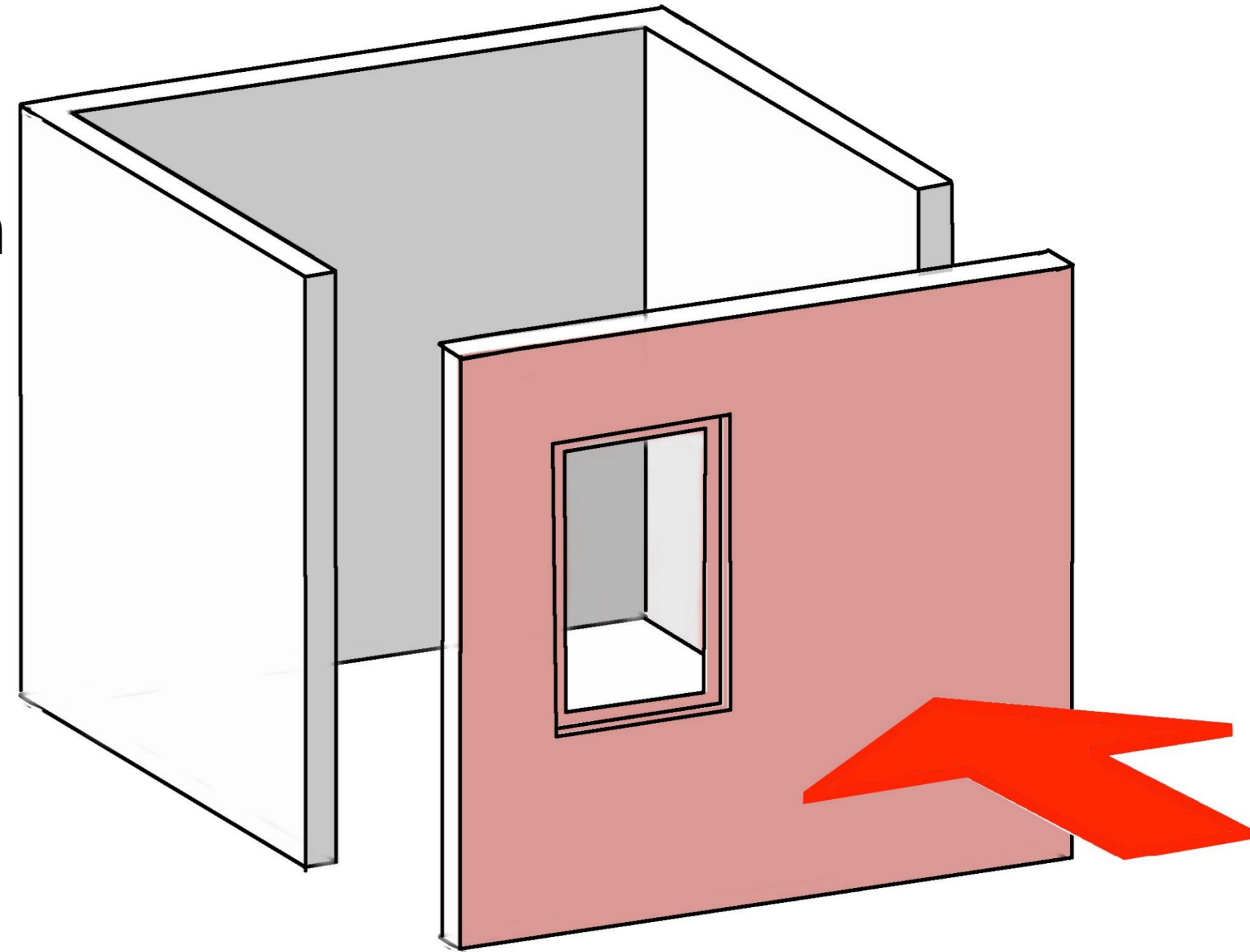
Do this quick exercise:

Build a tall narrow building out of blocks and a low building using only one or two levels of blocks. Now everyone get on the edge of the table and shake it. Which set of blocks fell down first?

It is more difficult to stabilize a tall narrow building than a short broad building.

Other types of Drawings Architects use are elevations and sections. An elevation shows what the building looks like vertically. It is also called “Façade,” which is the French word for the face of the building.

And like a plan, it is drawn exactly to scale, without perspective, so that all the measurements are accurate. It shows the surface, rather than the inside of the building.



Elevation

Julia Morgan did a lot of buildings for the YWCA. This is her elevation drawing of the Oakland YWCA and the finished building. You are in a building she did for the YWCA, but now belongs to the state.

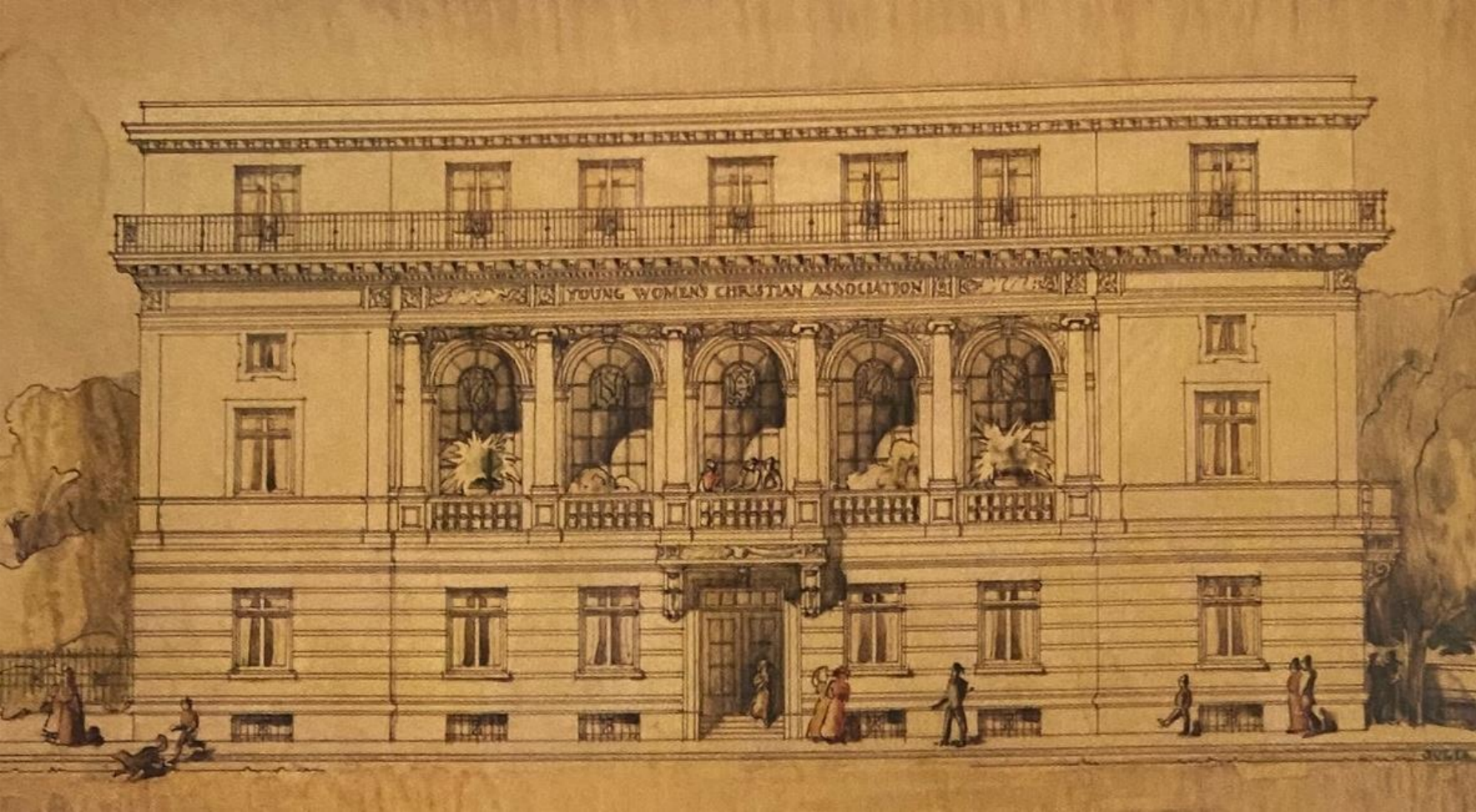
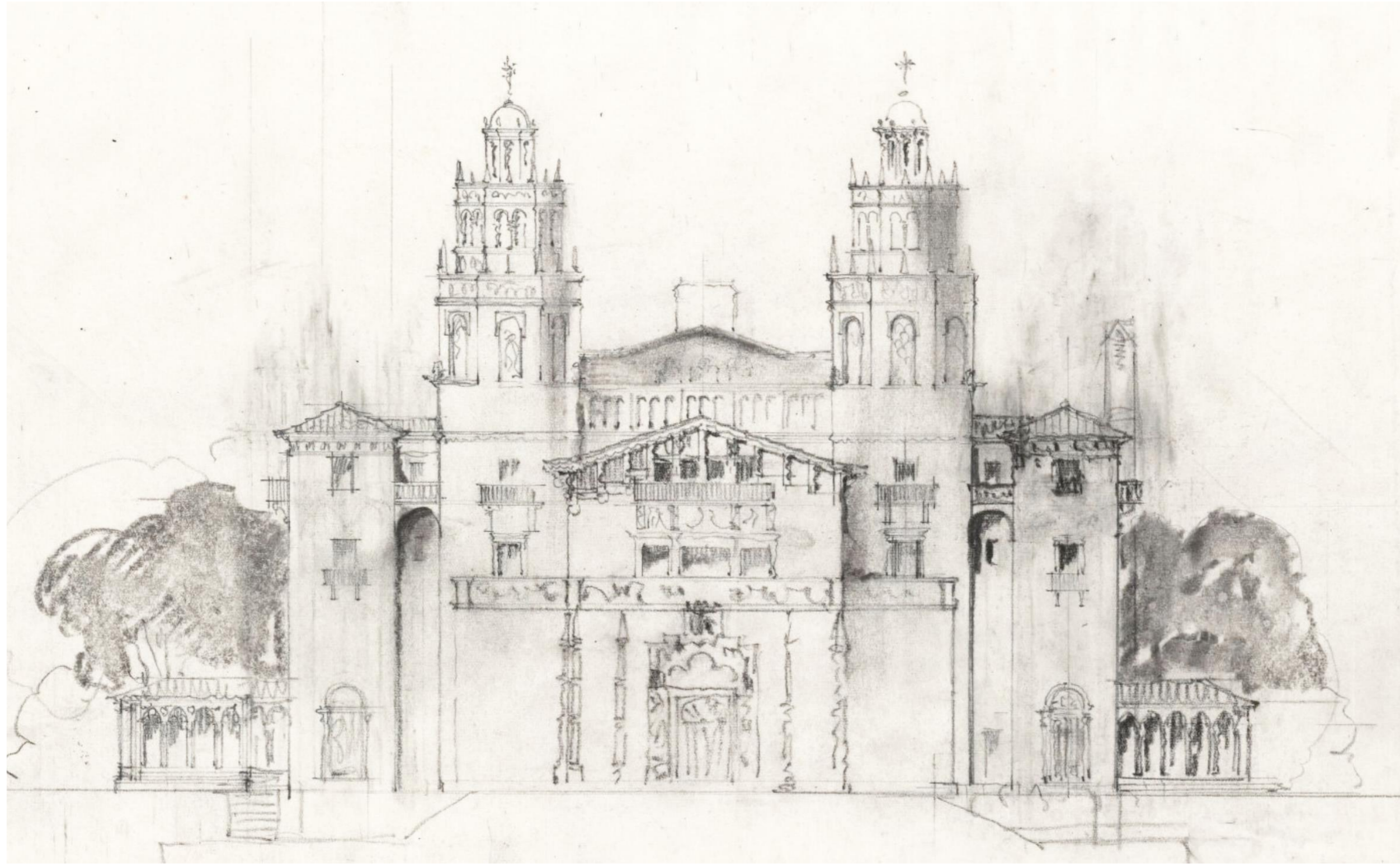


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This is Julia Morgan's elevation for the façade of "Casa Grande" at Hearst Castle

Casa Grande is part of the Hearst Castle complex of buildings, Julia Morgan's most famous work.

Julia Morgan designed them for William Randolph Hearst on a hill above the coast highway in San Simeon, California.



PHOTO BY MATT THOMPSON

Hearst was really rich and had lots of ideas. He kept Julia busy for years! Shown here is the magnificent Neptune pool, which you can see in a music video by Lady Gaga, or better yet, go visit in person.



PHOTO BY MATT THOMPSON

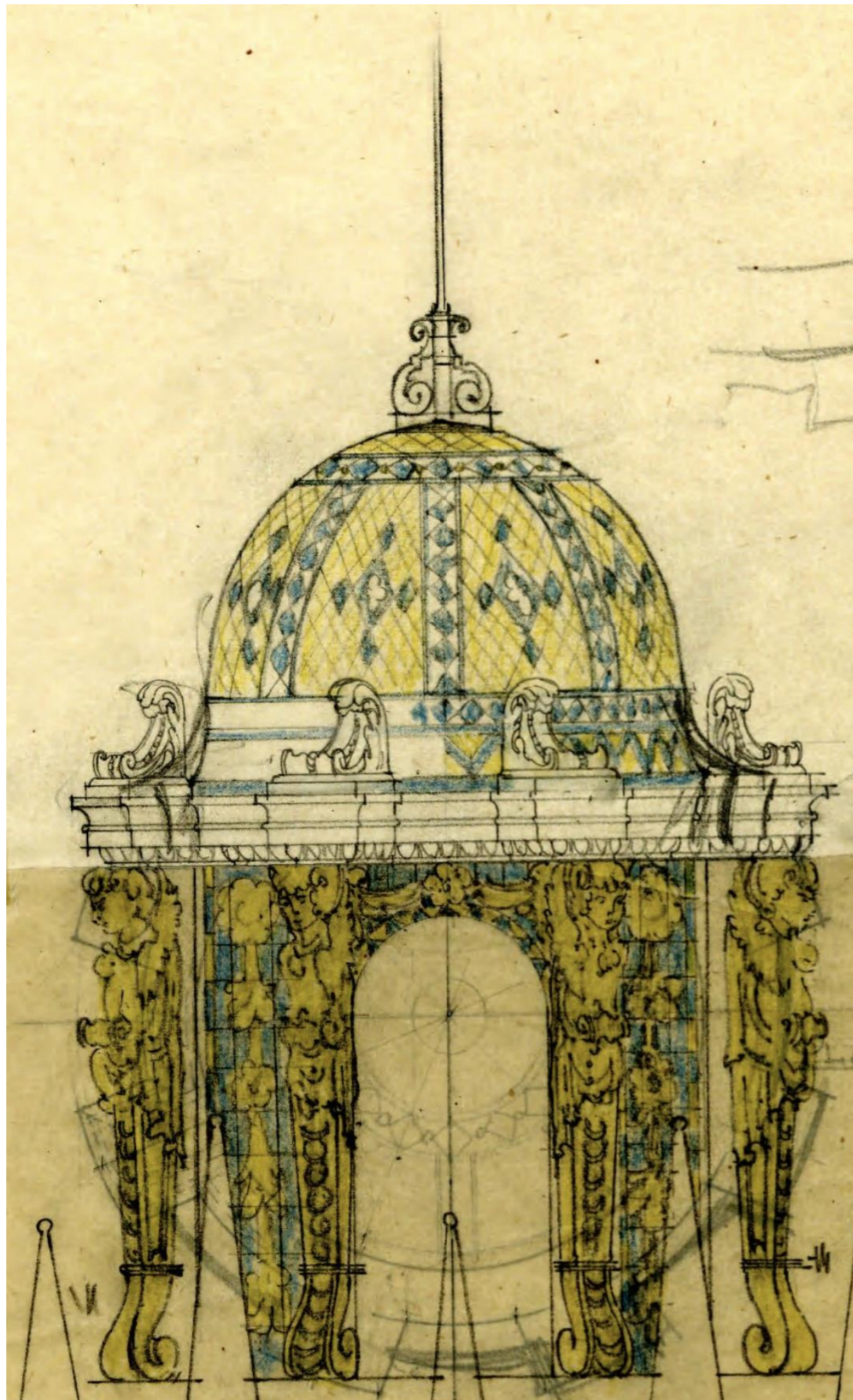


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Even though the domes of the Casa Grande are high up and hard to see, Julia Morgan drew them in exquisite detail.

At Asilomar, Julia Morgan designed 8 buildings between 1913 and 1928. With these buildings, you can see Julia Morgan's love of structure, particularly trusses.

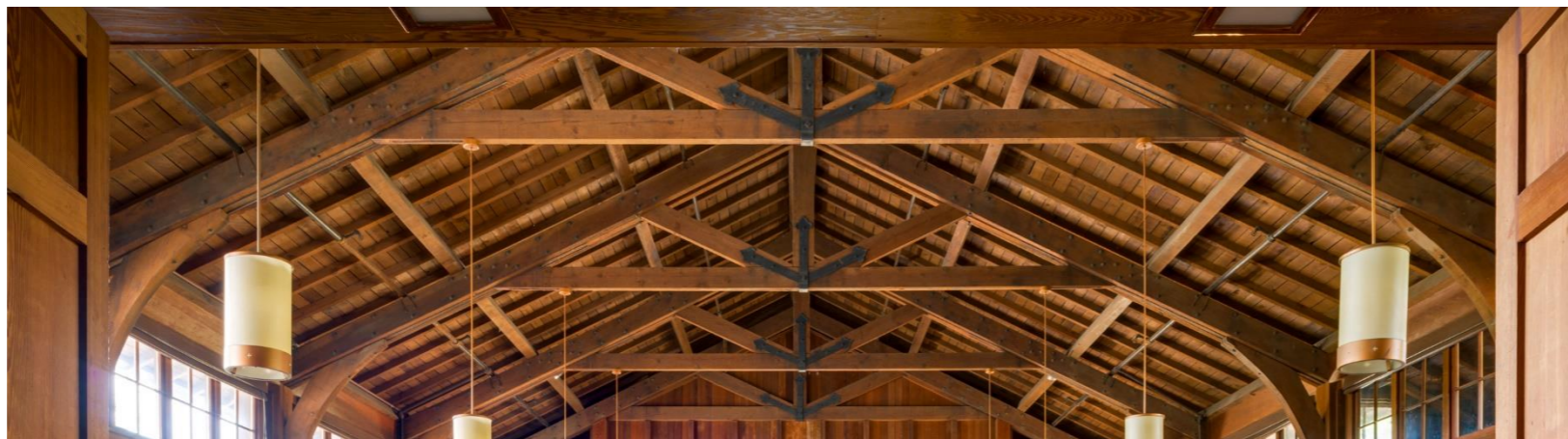


JULIA MORGAN · DODGE CHAPEL · ASILOMAR
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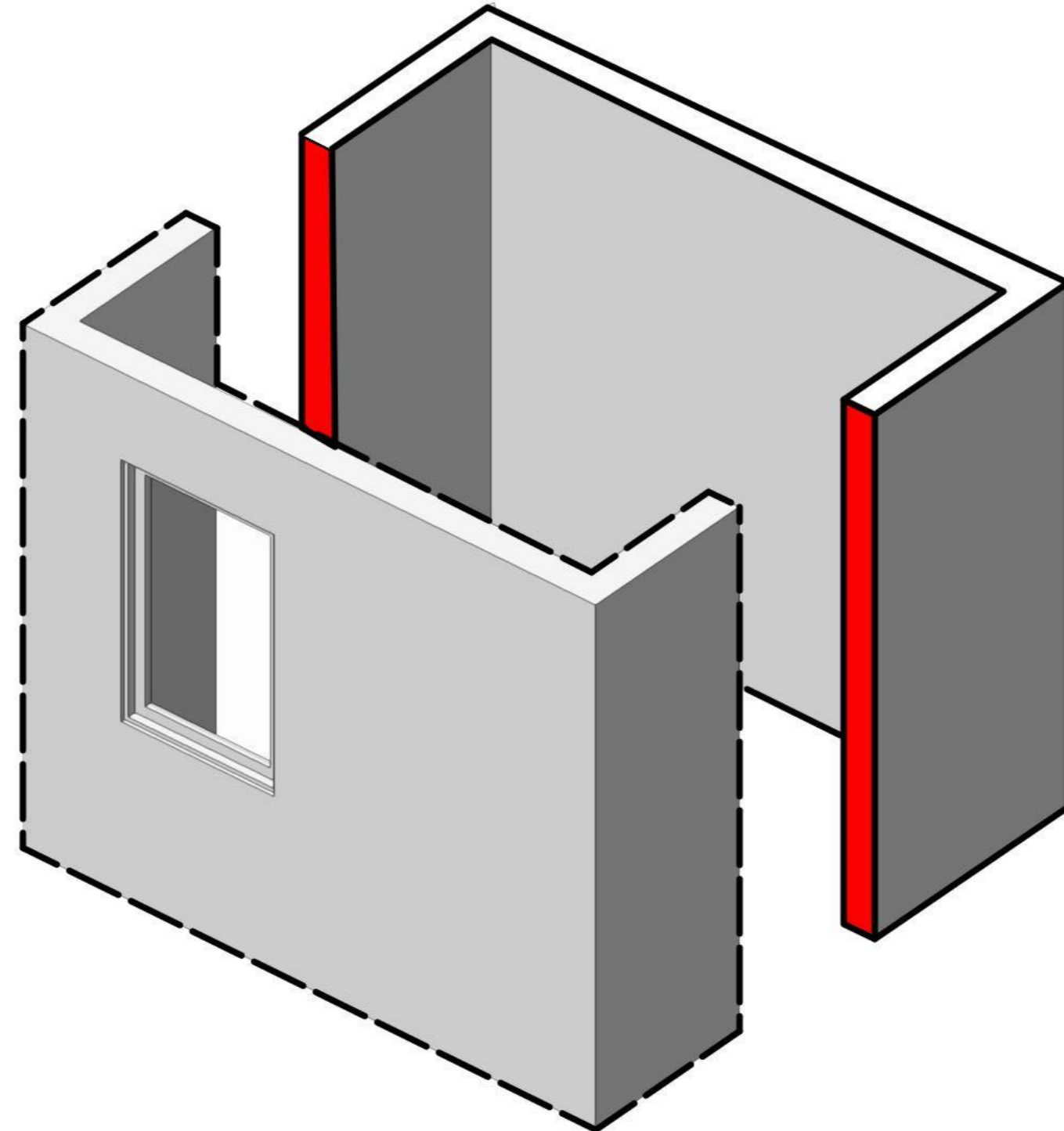


What is a Truss?

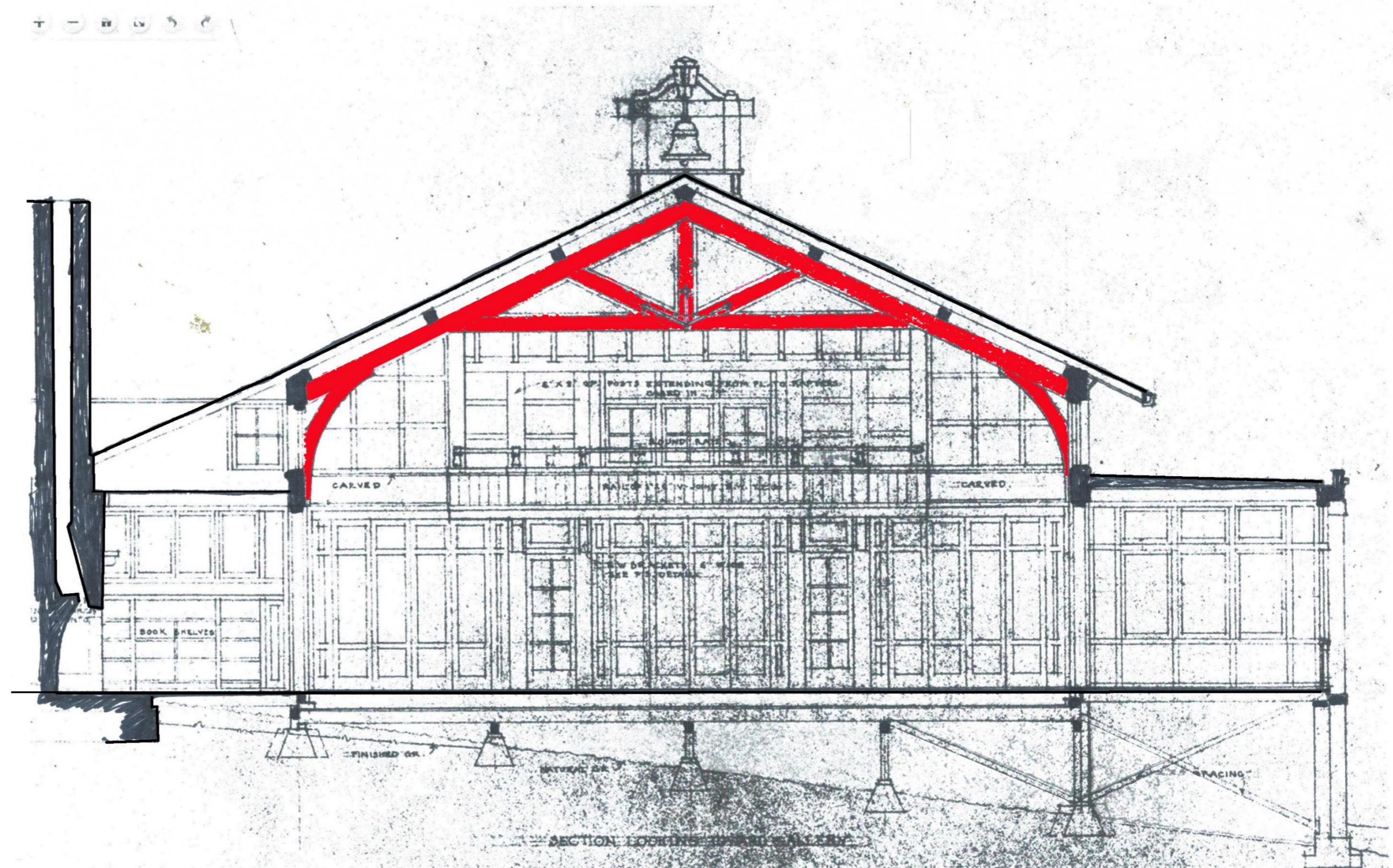
A truss does the same job as a beam. It holds up things placed above it. Whereas a beam is one solid piece of wood, steel, or concrete, a truss is made up of a lot of sticks that act together to achieve the same strength as a beam. It's a lighter and more economical use of materials

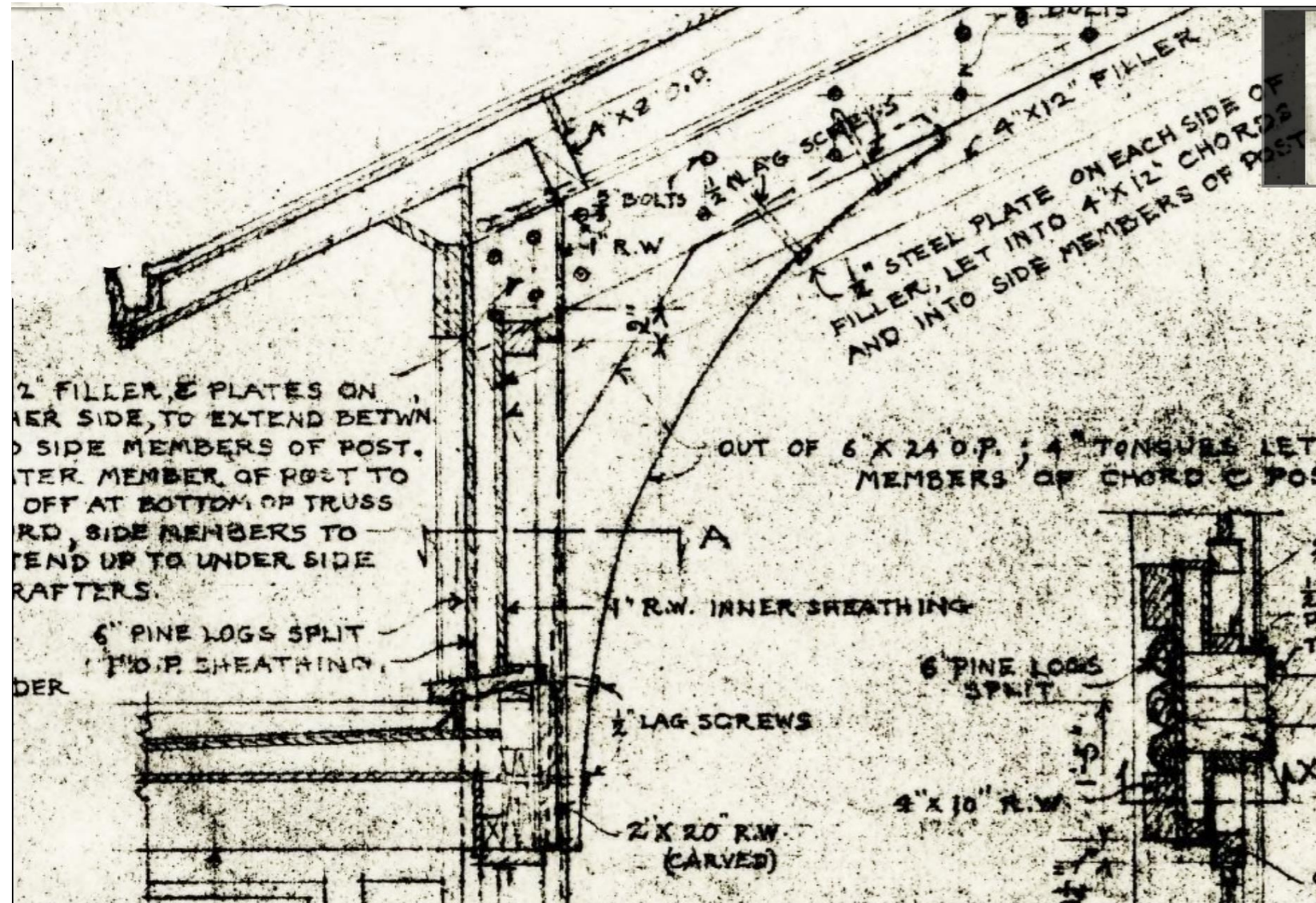


Architects use sections and details to communicate how they want their building components to fit together. A section is a slice through the building, showing the components that make up the building.

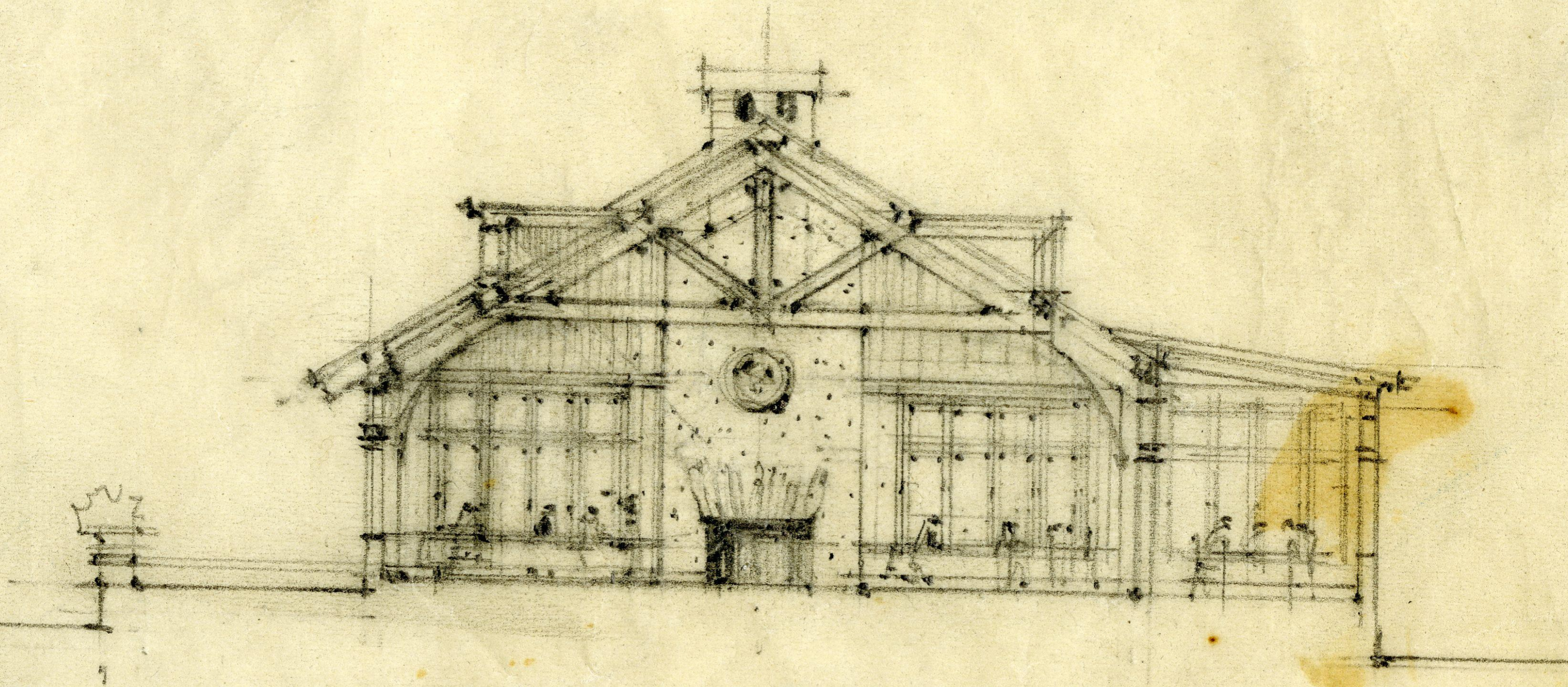


Here is Julia Morgan's section of Grace Dodge Chapel at Asilomar. I show the structural parts of the building, that are cut through in the section, are black and the truss is shown in red.





A detail is an enlargement of the section or elevation, showing more closely what the components are and how they fit with each other. This is especially important when showing complex pieces, like trusses. This is one of her details of the truss in Grace Dodge Chapel.



Now it's
your turn:
Build a Bell
Tower!



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