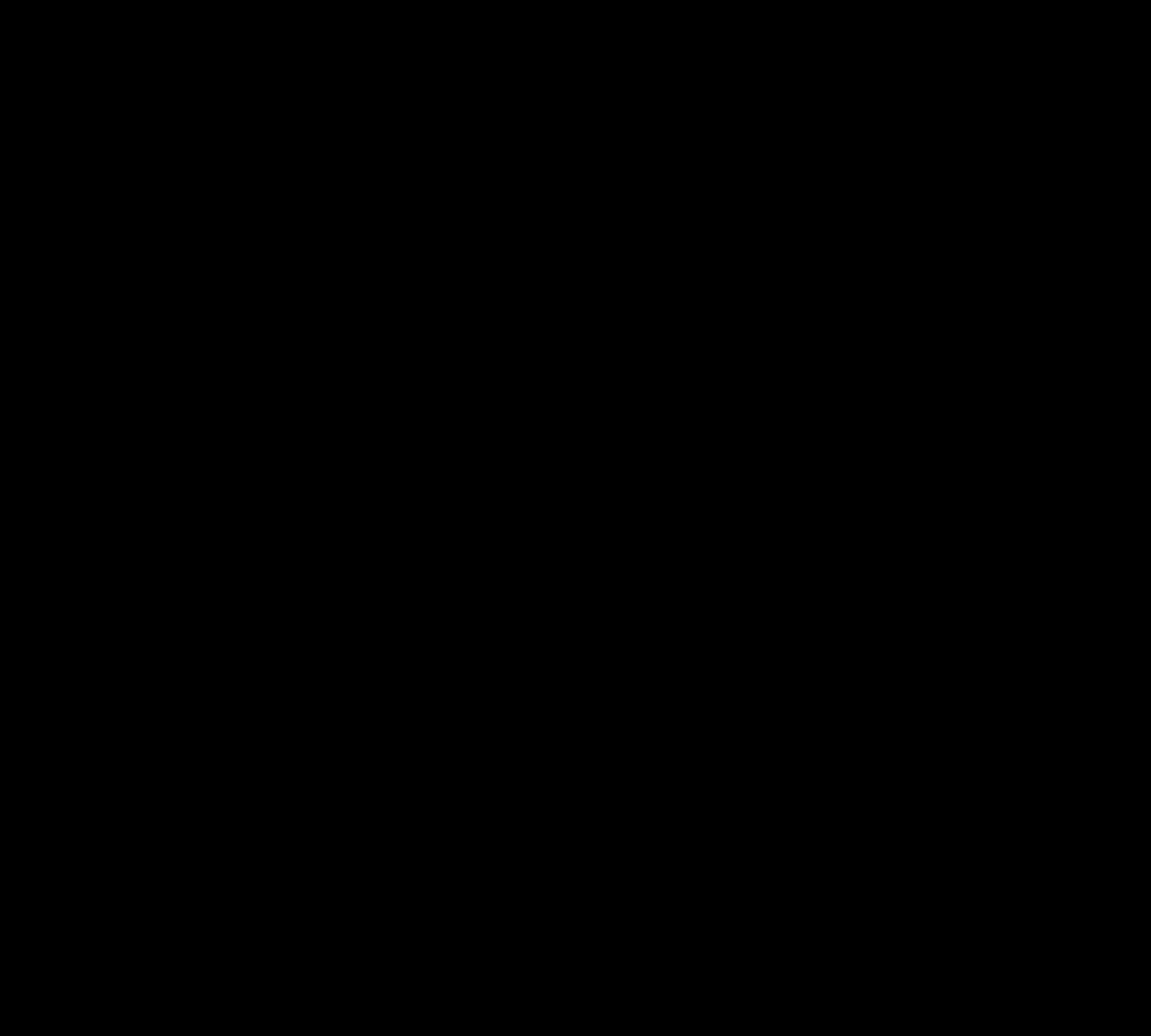


MASTERING LIGHT IN ARCHITECTURE

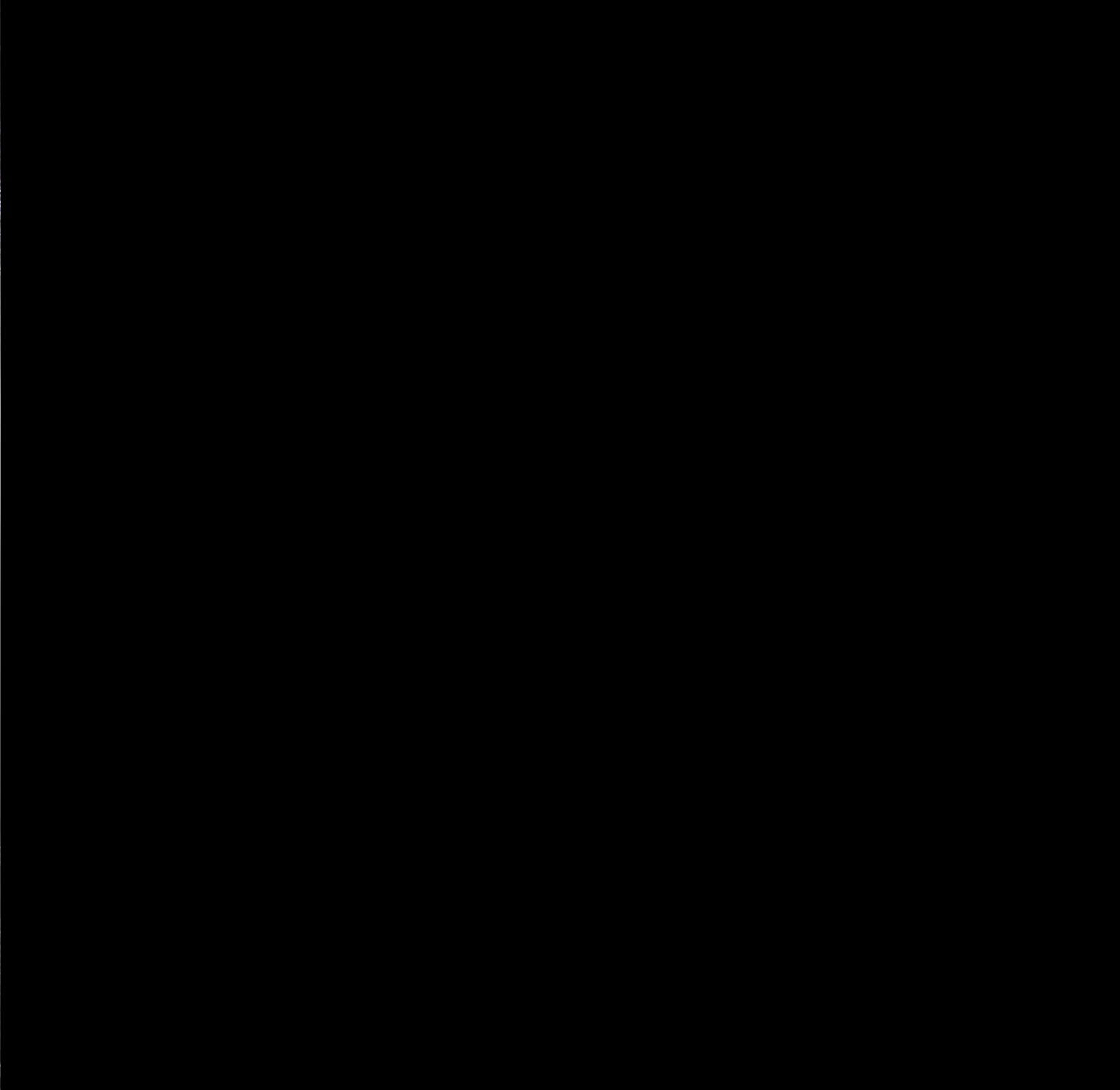
PART 1: The Theory of Shade and Shadow

Prof. Brandon Ro, AIA, NCARB
Classical Architecture Workshop













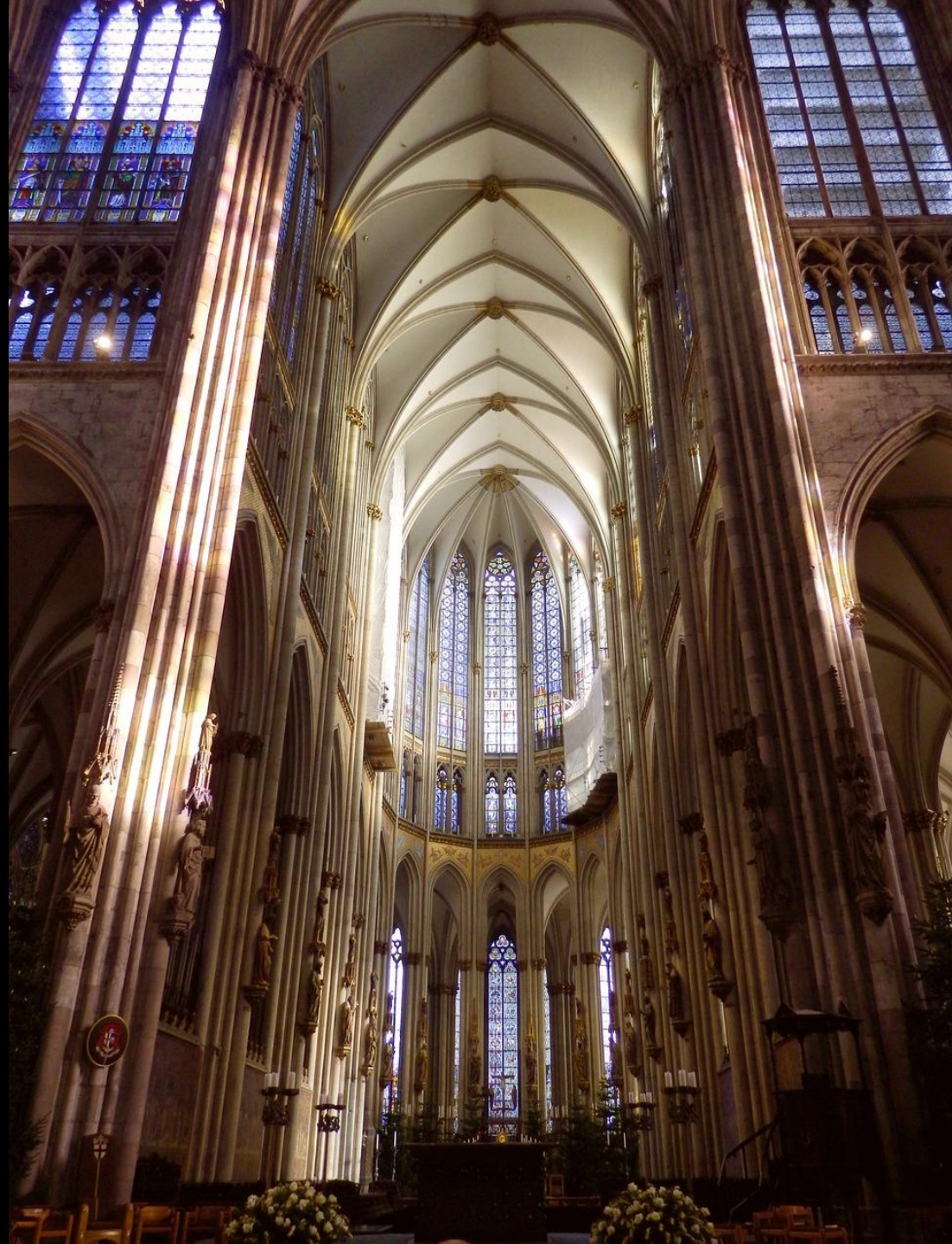
“Every distinct landscape and setting, space and place, has its characteristic light, and it is often the experiential quality that most directly and forcefully conditions the spatial atmosphere and our mood. Light defines the atmosphere of the place, and it is usually the most comprehensive criteria of its emotive character...”

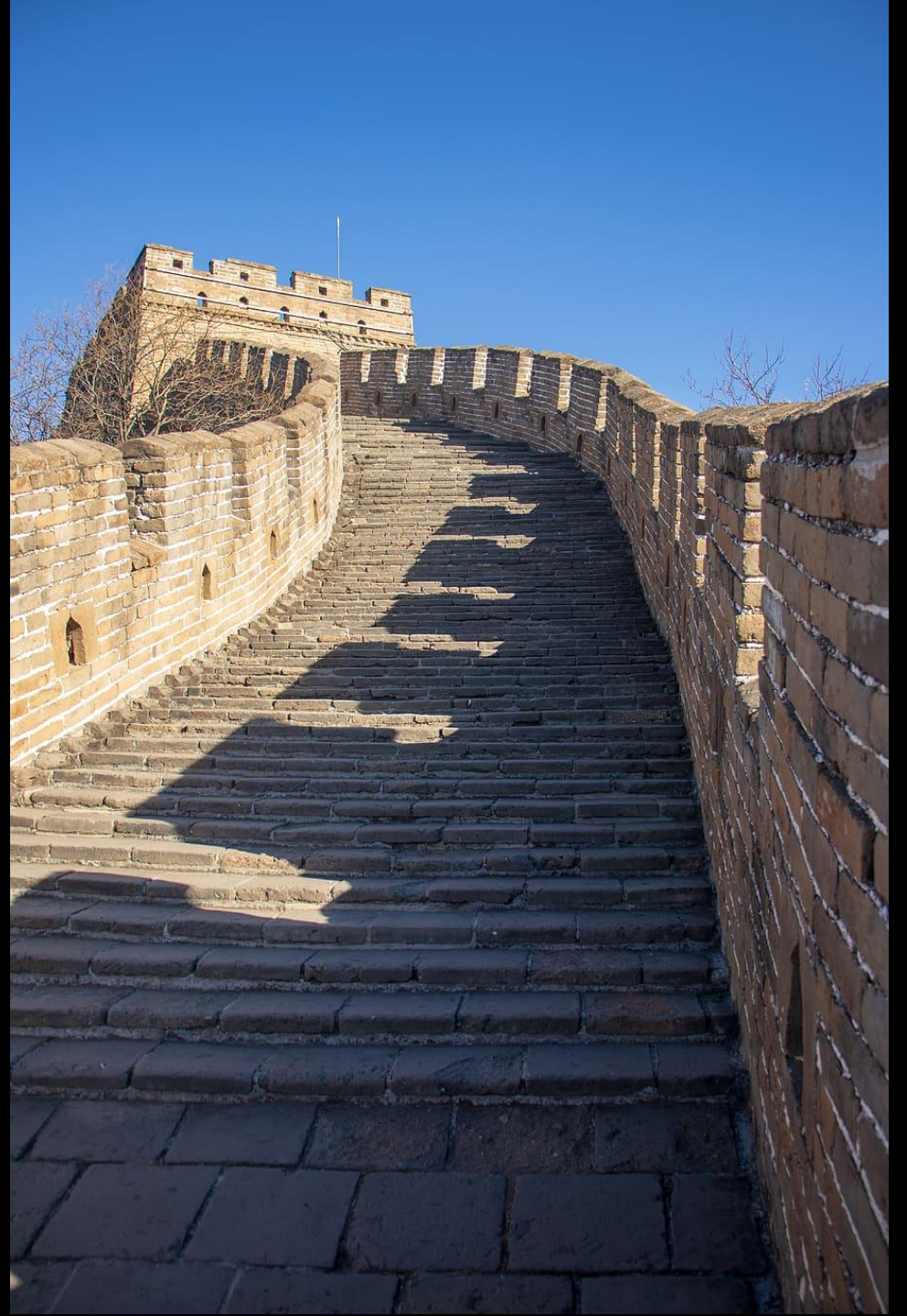
– Juhani Pallasmaa, “Light, Silence, and Spirituality in Architecture and Art,” in *Transcending Architecture*, p.23)

“...Light controls the processes of life and even many essential hormonal activities depend on light. As a consequence, it has a deep effect on our activeness and energy level in addition to conditioning our mood”

– Juhani Pallasmaa, “Light, Silence, and Spirituality in Architecture and Art,” in *Transcending Architecture*, p.23)









M·A·G

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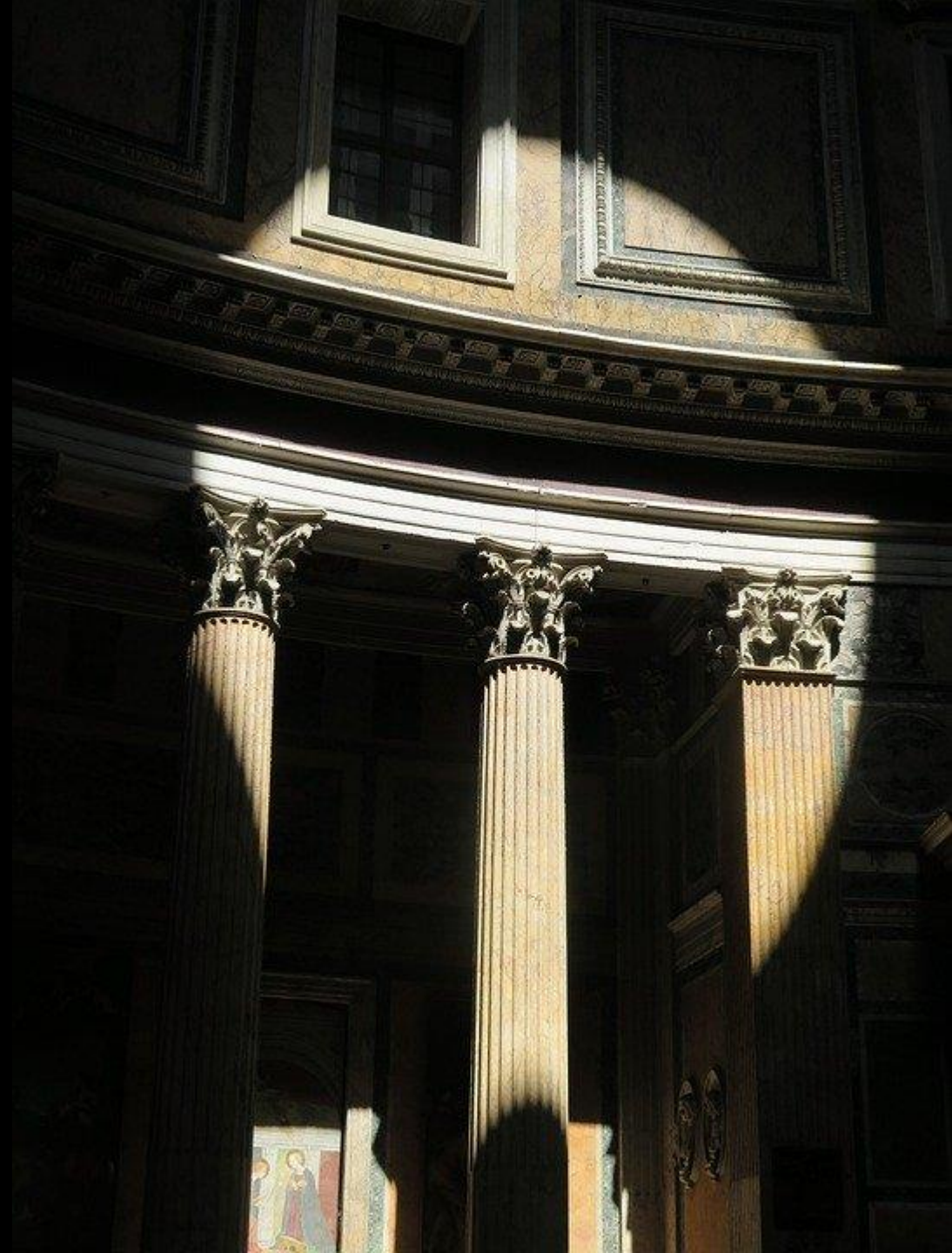










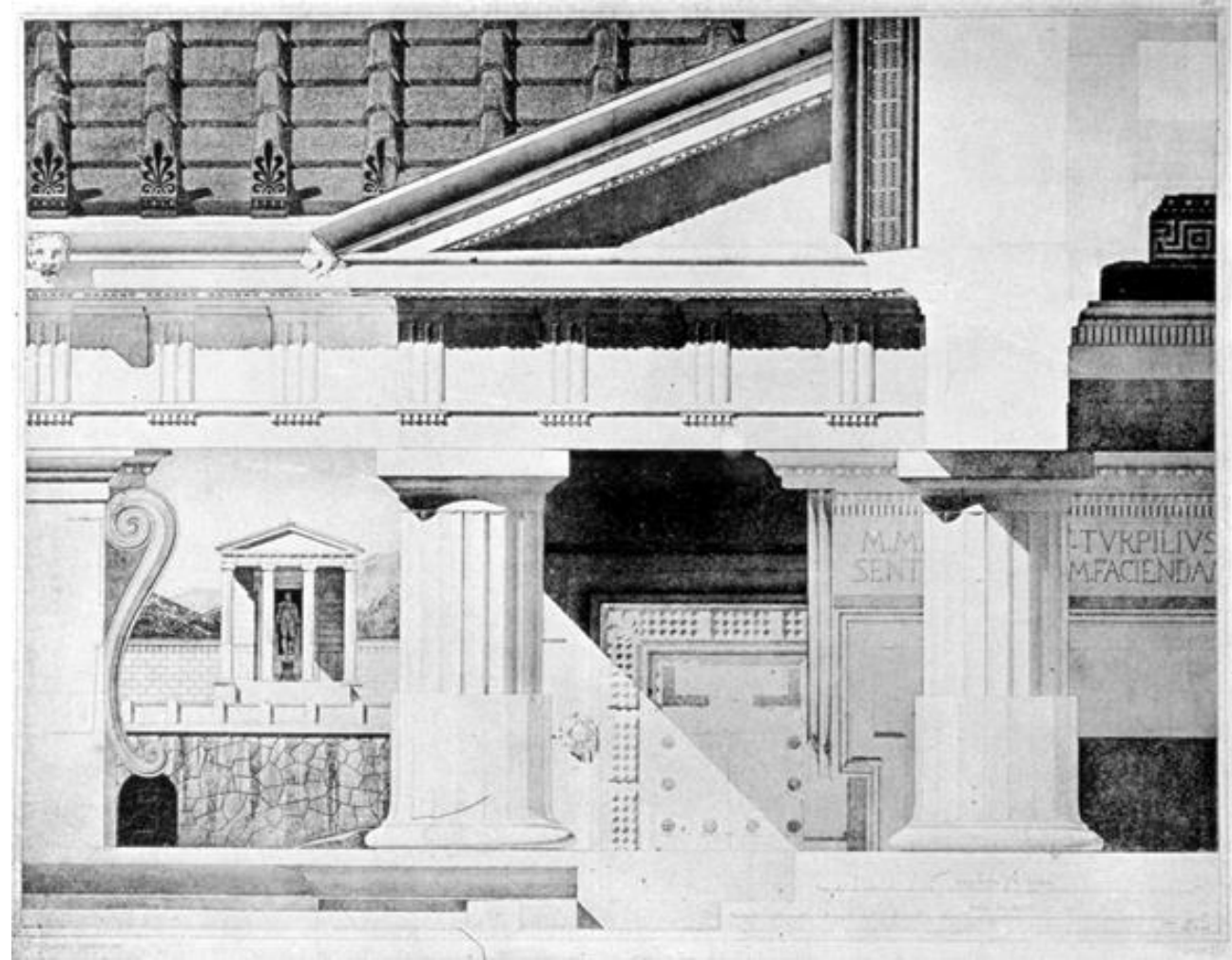


“Light and shadow articulate space into places and subspaces, and their interplay gives space its rhythm, sense of scale, and intimacy. Objects are separated by their shadows, and they dwell in the intimacy of their shadow... Light must be contained by space, or concretized by the surface or matter that it illuminates to be recognized”

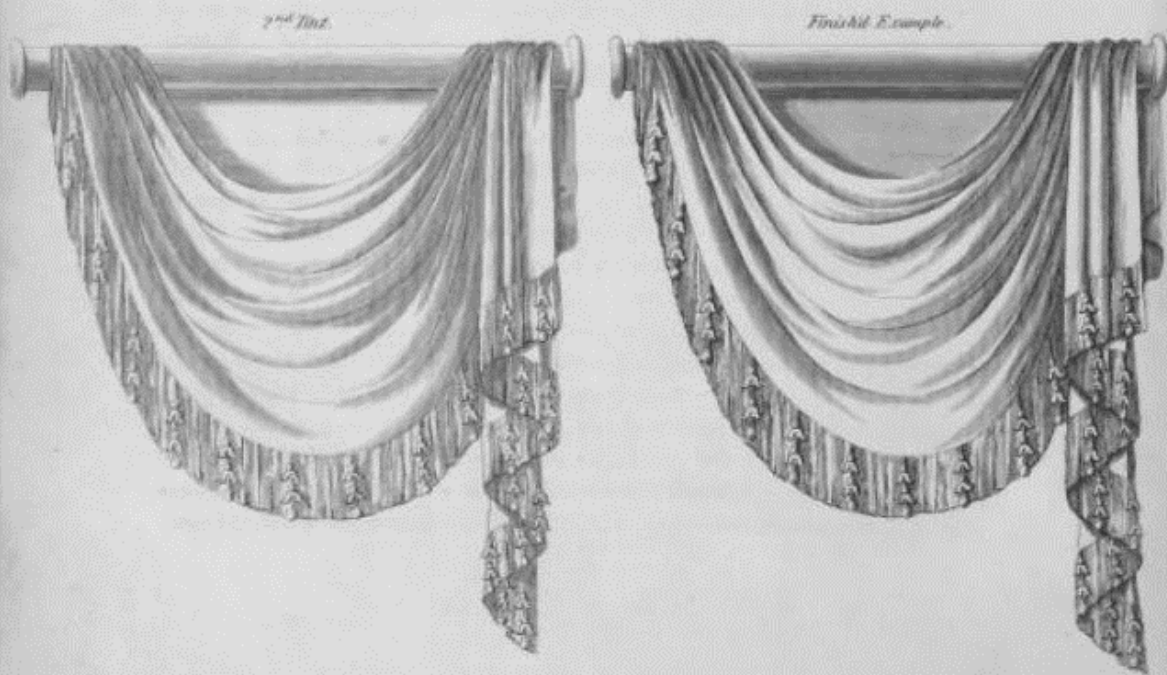
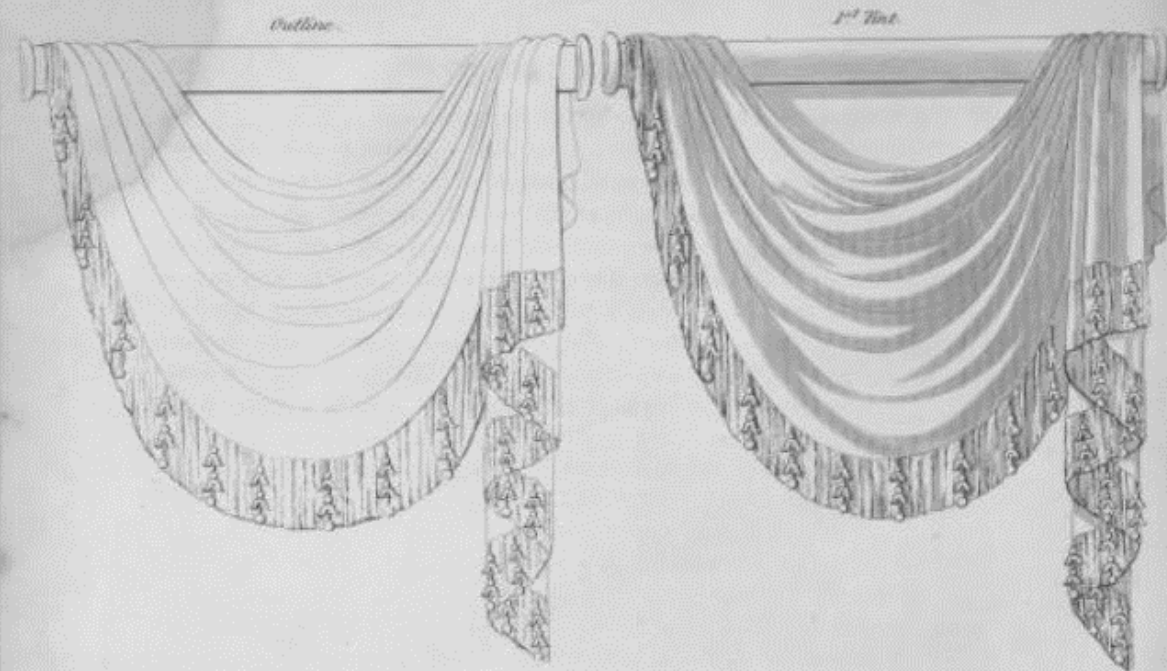
– Juhani Pallasmaa, “Light, Silence, and Spirituality in Architecture and Art,” in *Transcending Architecture*, p.24)

CASTING SHADOWS

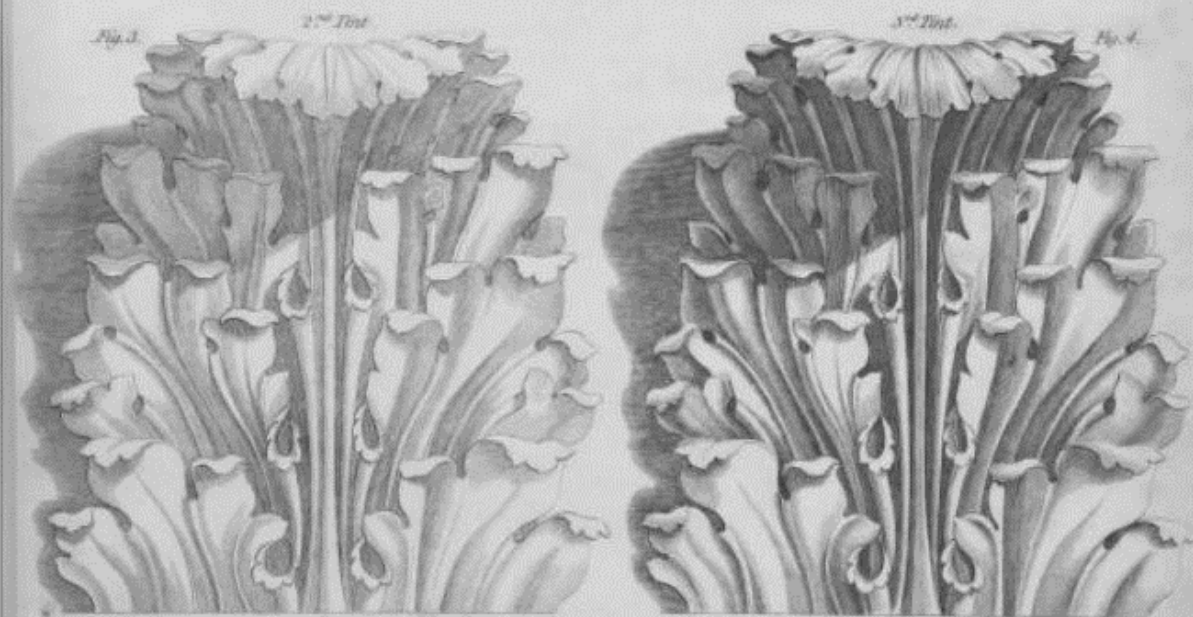
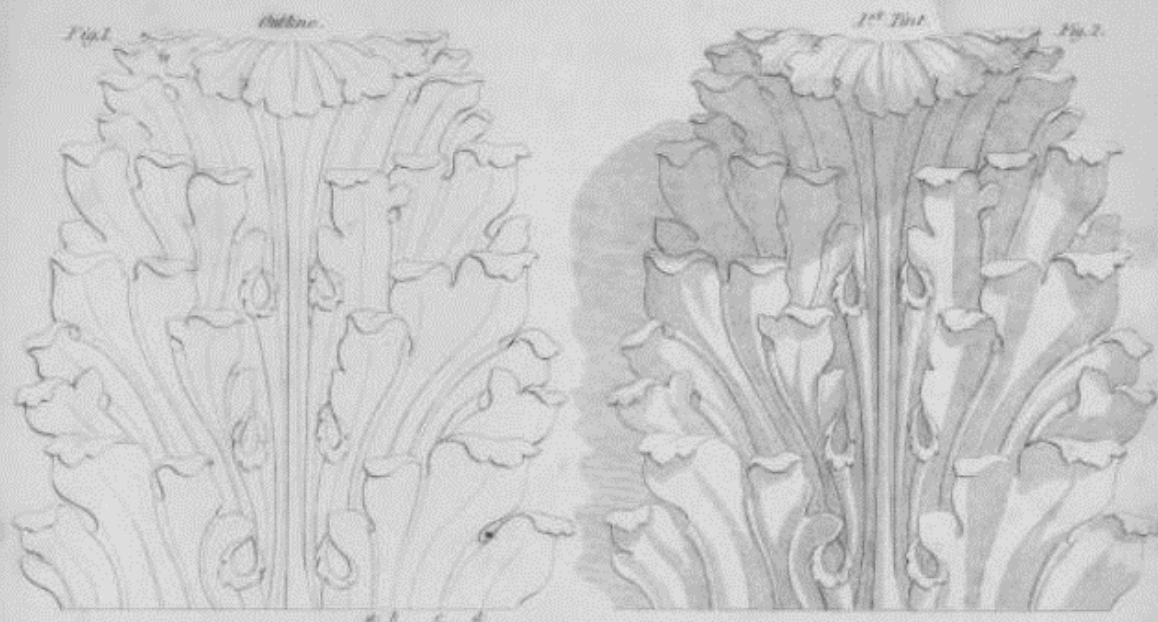
- Drawing was viewed as a design tool
- Purpose of architectural rendering was not to make a pretty picture but to make a conventional drawing intelligible
- Casting of shades and shadows expressed the third dimension
- Shadows had to be drawn correctly to give life to plan, elevation, section
- Monochrome (grayscale) renderings were required for the analytique
- Sun angles on horizontal and vertical projections used a 45 degree angle



SHADOWING.



SHADOWING.



SHADOWING.

First Tint.



ELEMENTS OF ORNAMENT. I.



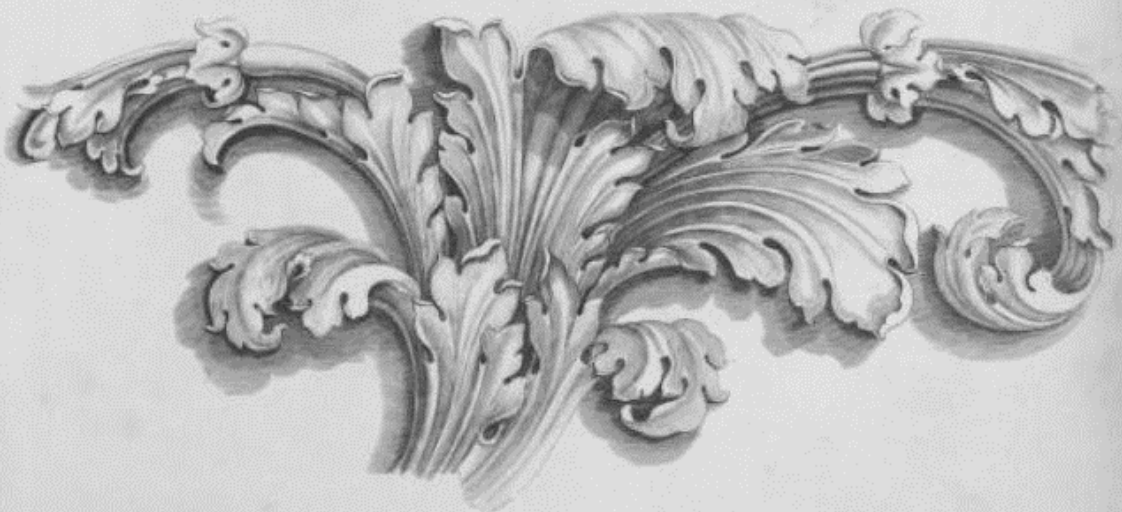
ELEMENTS OF ORNAMENT.

Shadowing.

Second Tint.



Finished Example.





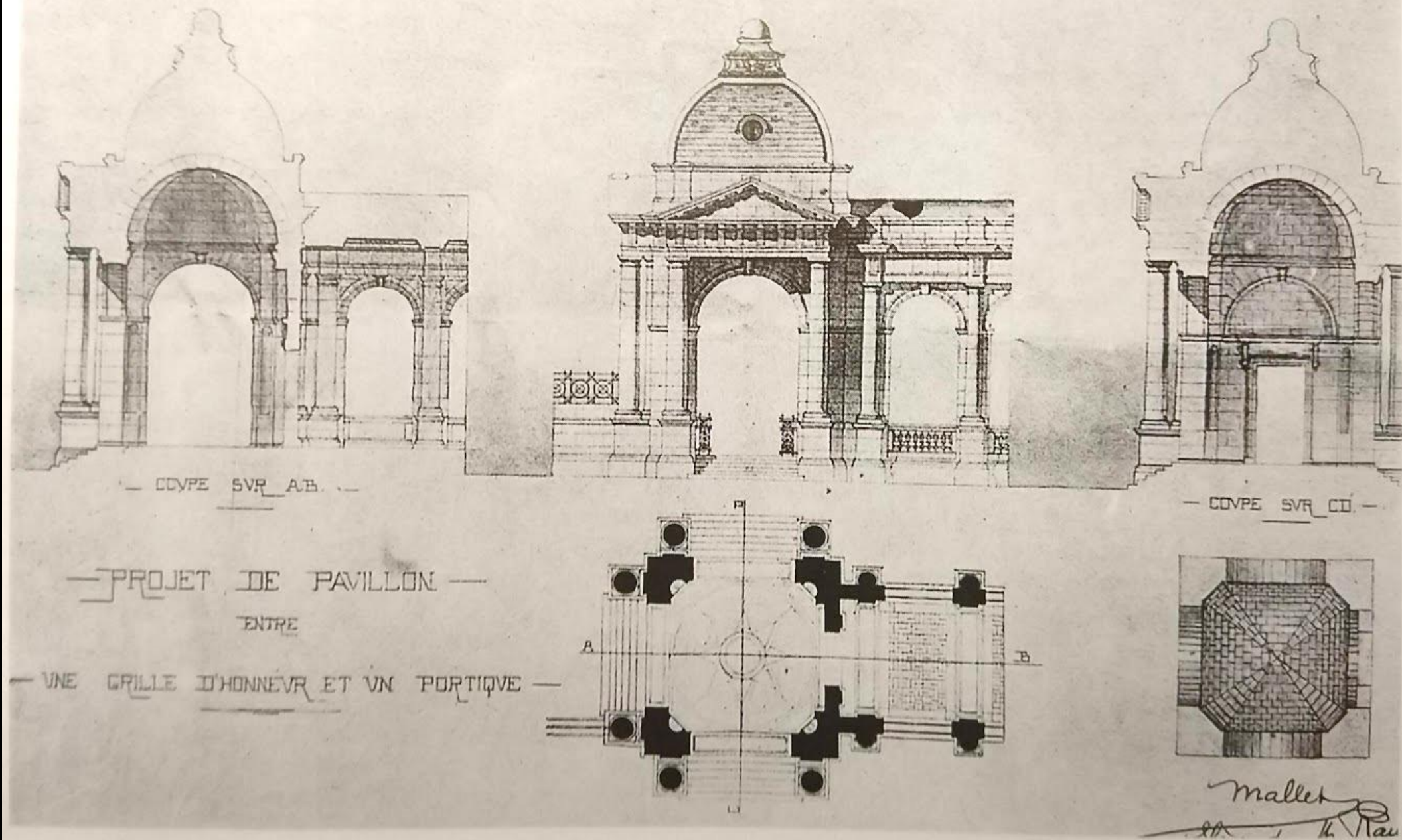
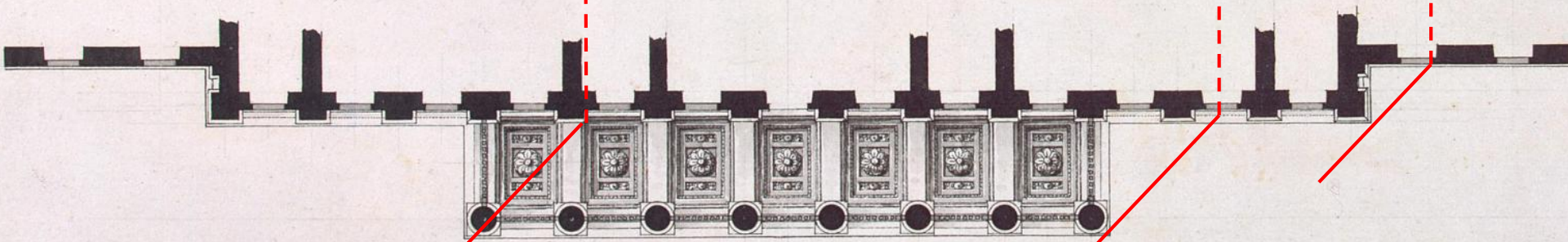
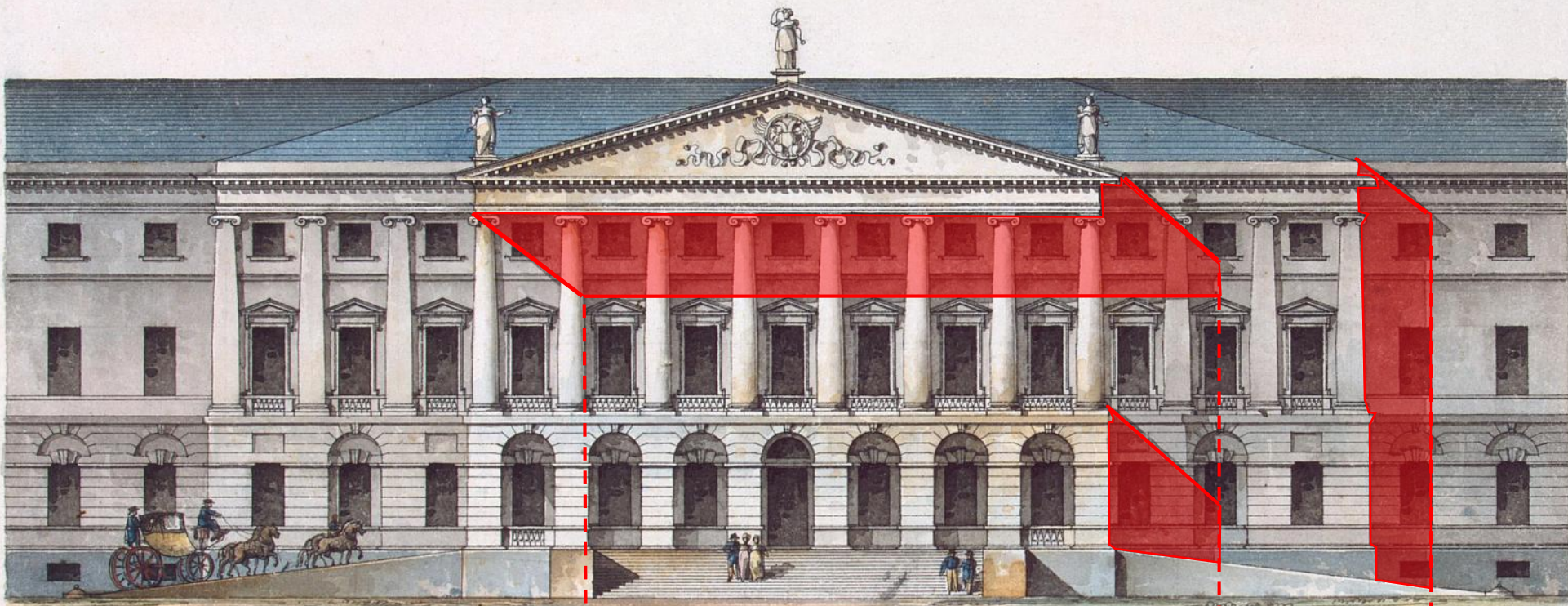


Figure 313. Admission Drawing, Ecole des Beaux Arts, Paris. M. Mallet, Pupil of M. Raulin.



N^o 9648.

Projet de milieu de la façade
 Coiffe 1 2 3 4 5 6 7 8 9 10
 120 de l'édifice
 120 Anglois

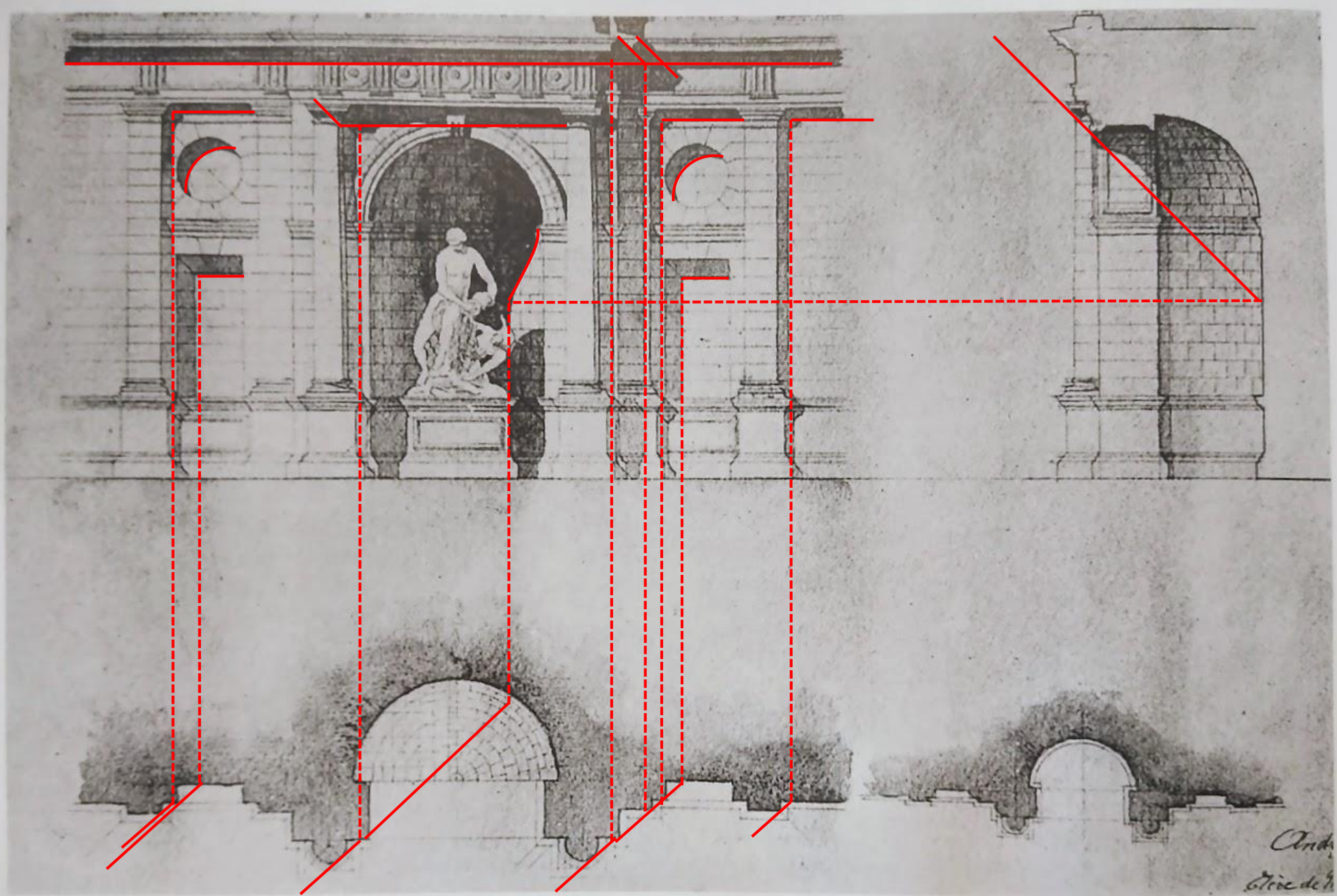
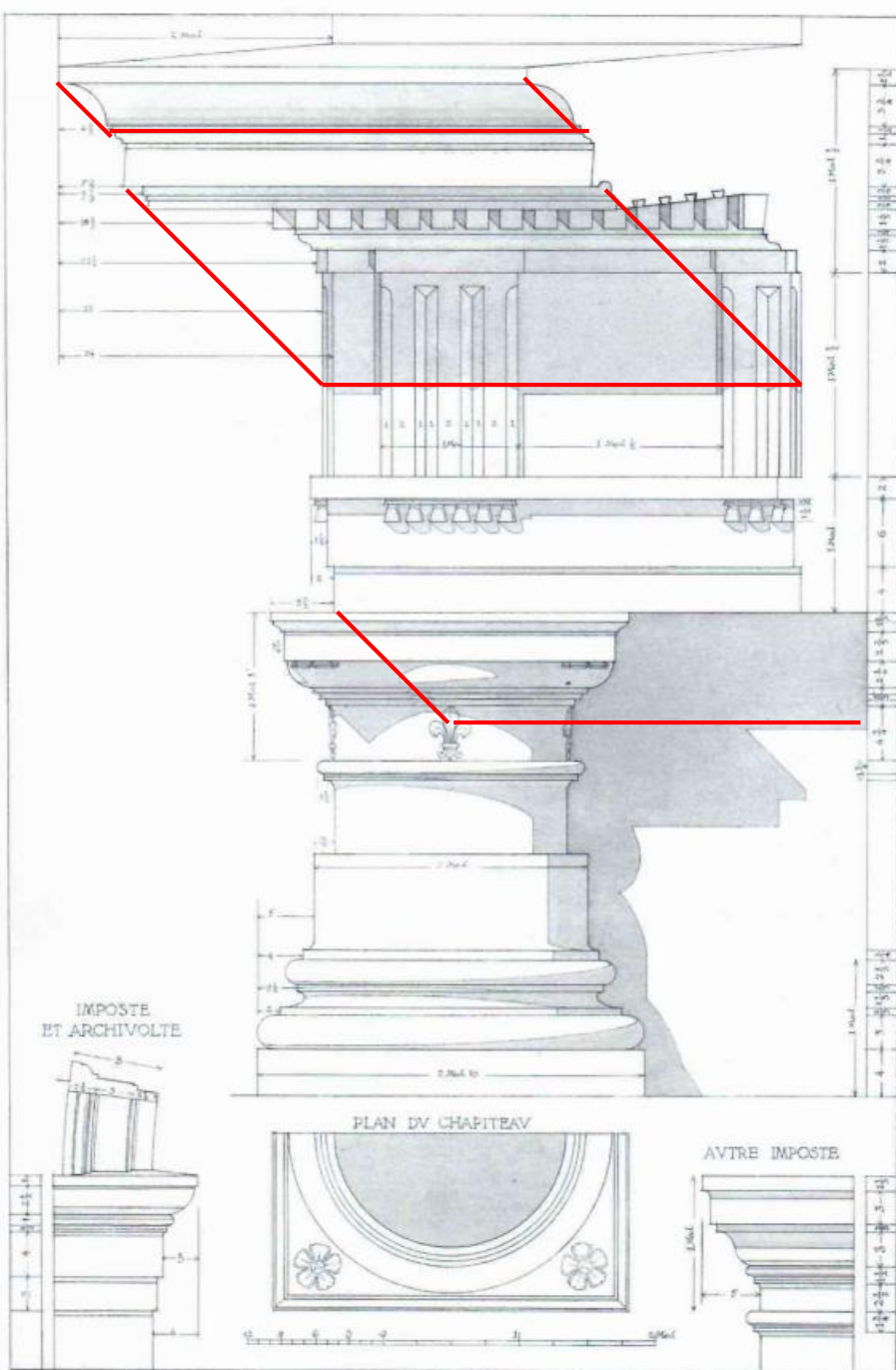
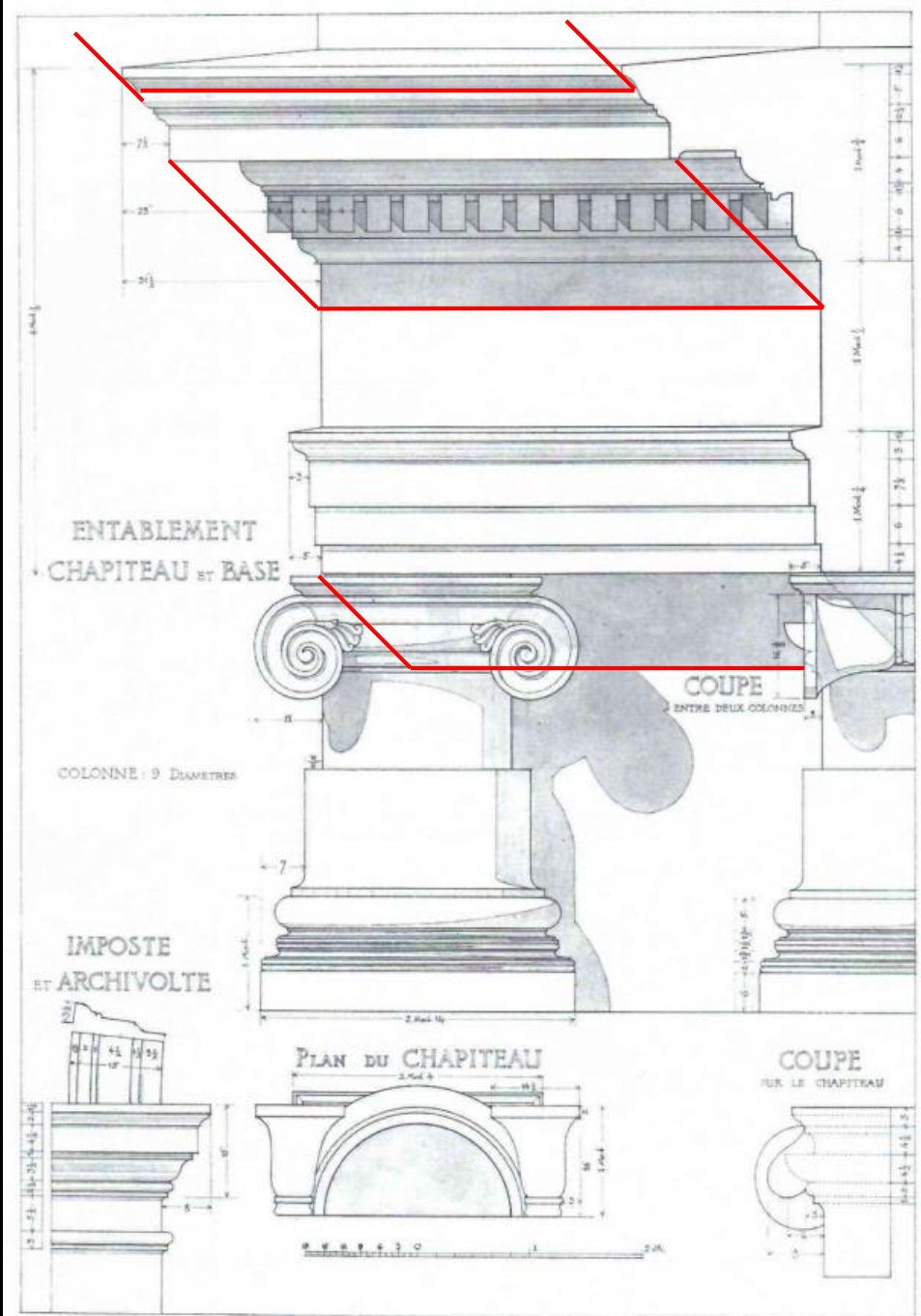


Figure 314. Admission Drawing, Ecole des Beaux Arts, Paris. M. Dassier, Pupil of M. Laloux.

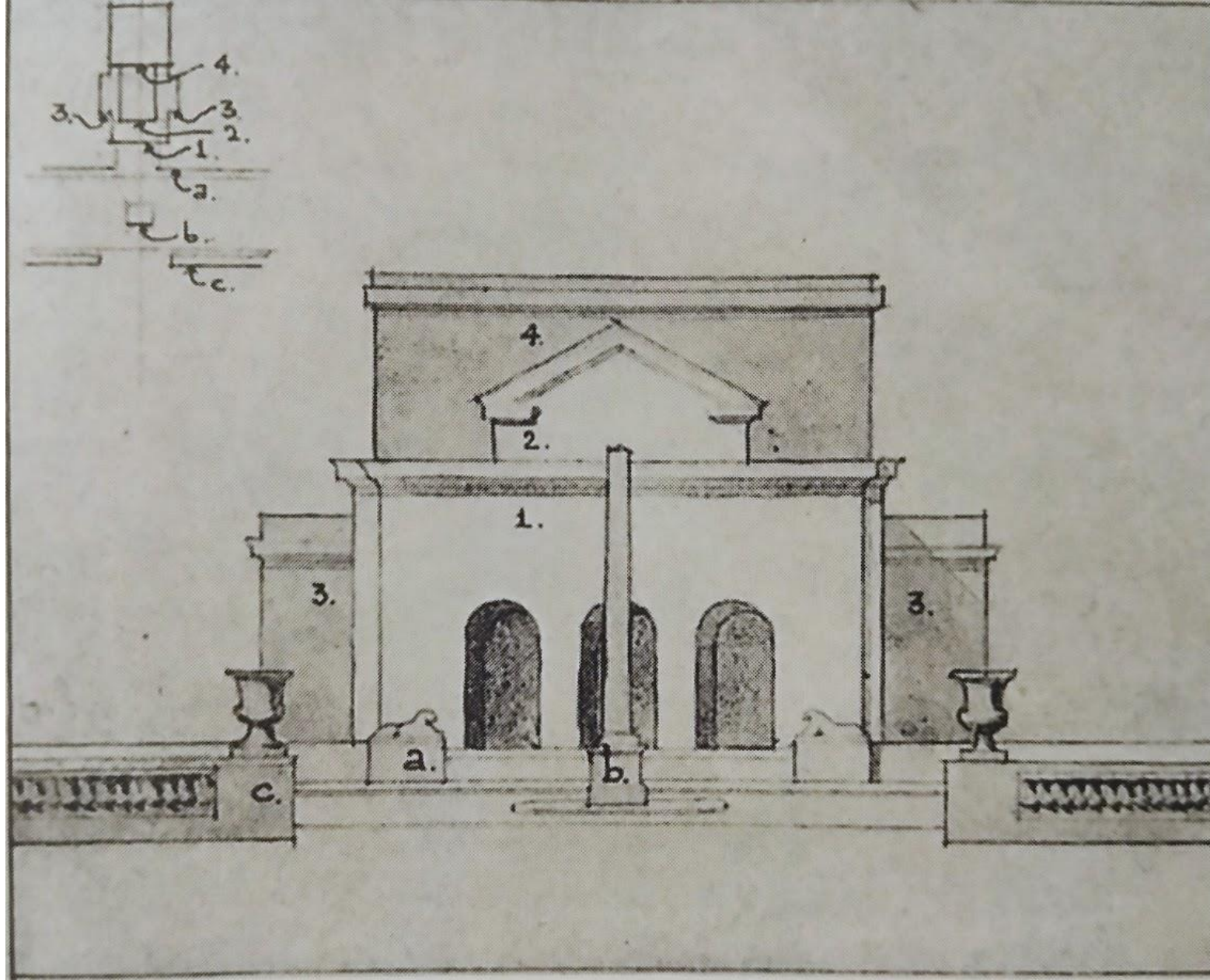


THE ROMAN DORIC ORDER: COURT OF THE PALAZZO FARNESE

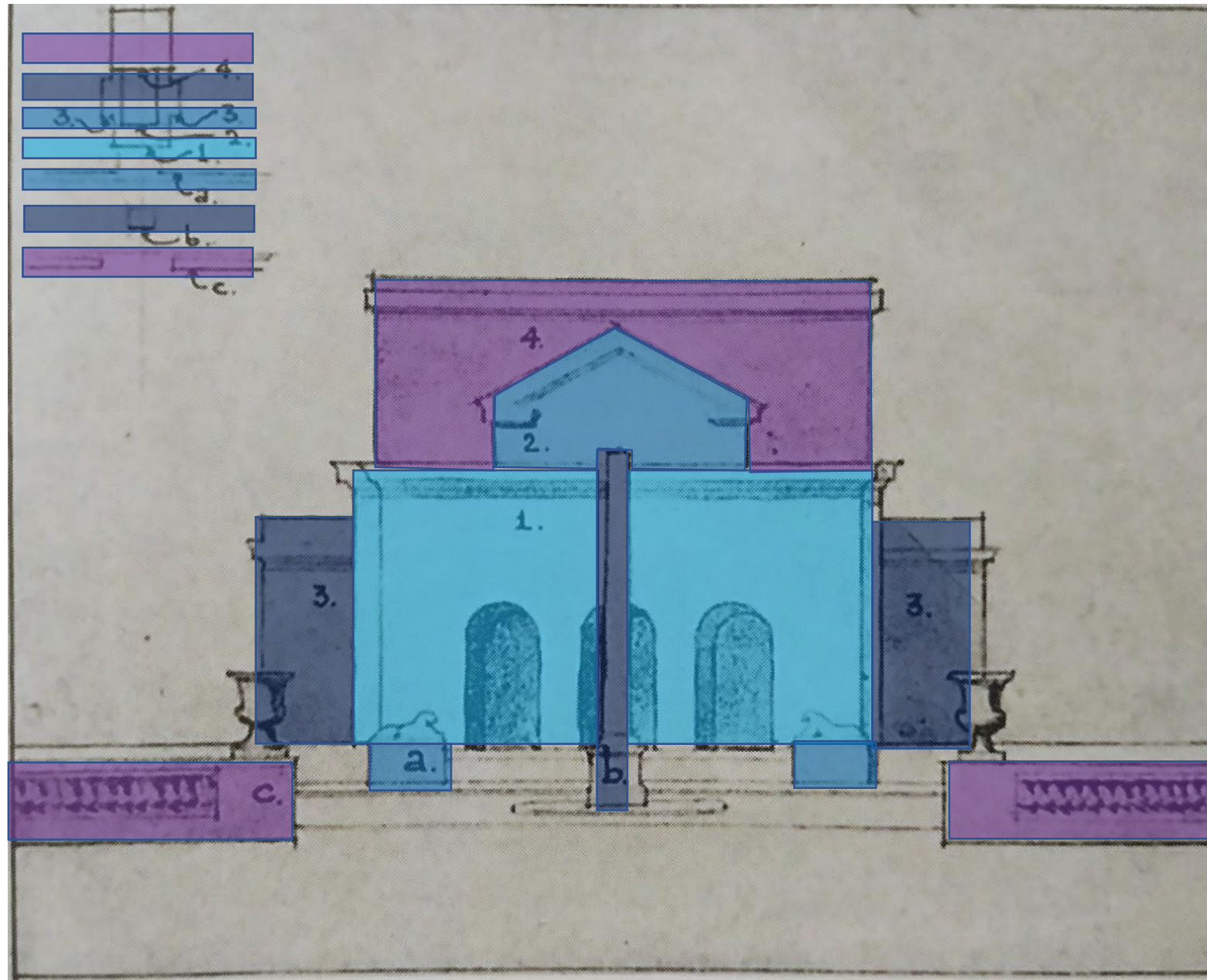


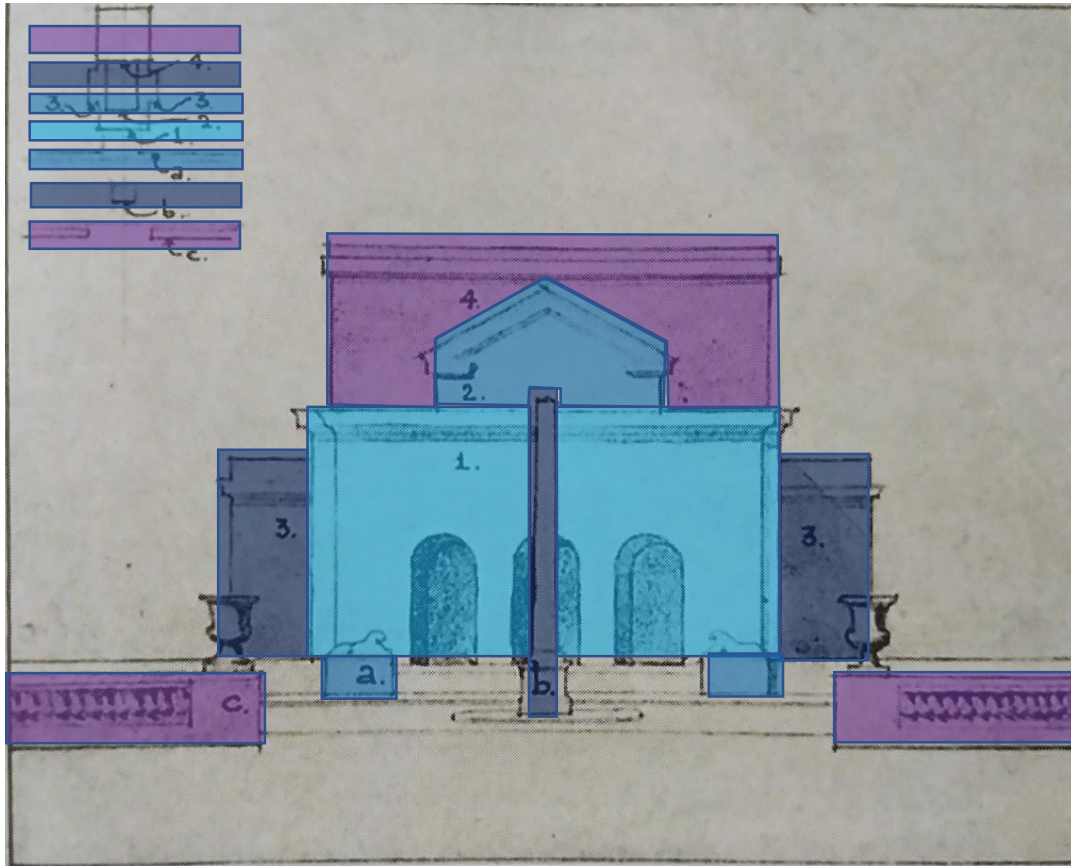
THE ROMAN IONIC ACCORDING TO SANGALLO AND VIGNOLA

CONVEYING DEPTH BY LAYERING SHADOWS / WASHES



CONVEYING DEPTH BY LAYERING SHADOWS / WASHES





4. Background (Darkest/Least Contrast/Least Developed)

3. *Tertiary plane*

2. *Secondary plane*

1. Principal plane (Lightest/Most Contrast/Developed)

a. *Secondary plane*

b. *Tertiary plane*

c. Foreground (Darkest/Least Contrast/Most Developed)

CONVEYING DEPTH BY LAYERING SHADOWS / WASHES



4. Background (Darkest/Least Contrast/Least Developed)

3. *Tertiary plane*

2. *Secondary plane*

1. Principal plane (Lightest/Most Contrast/Developed)

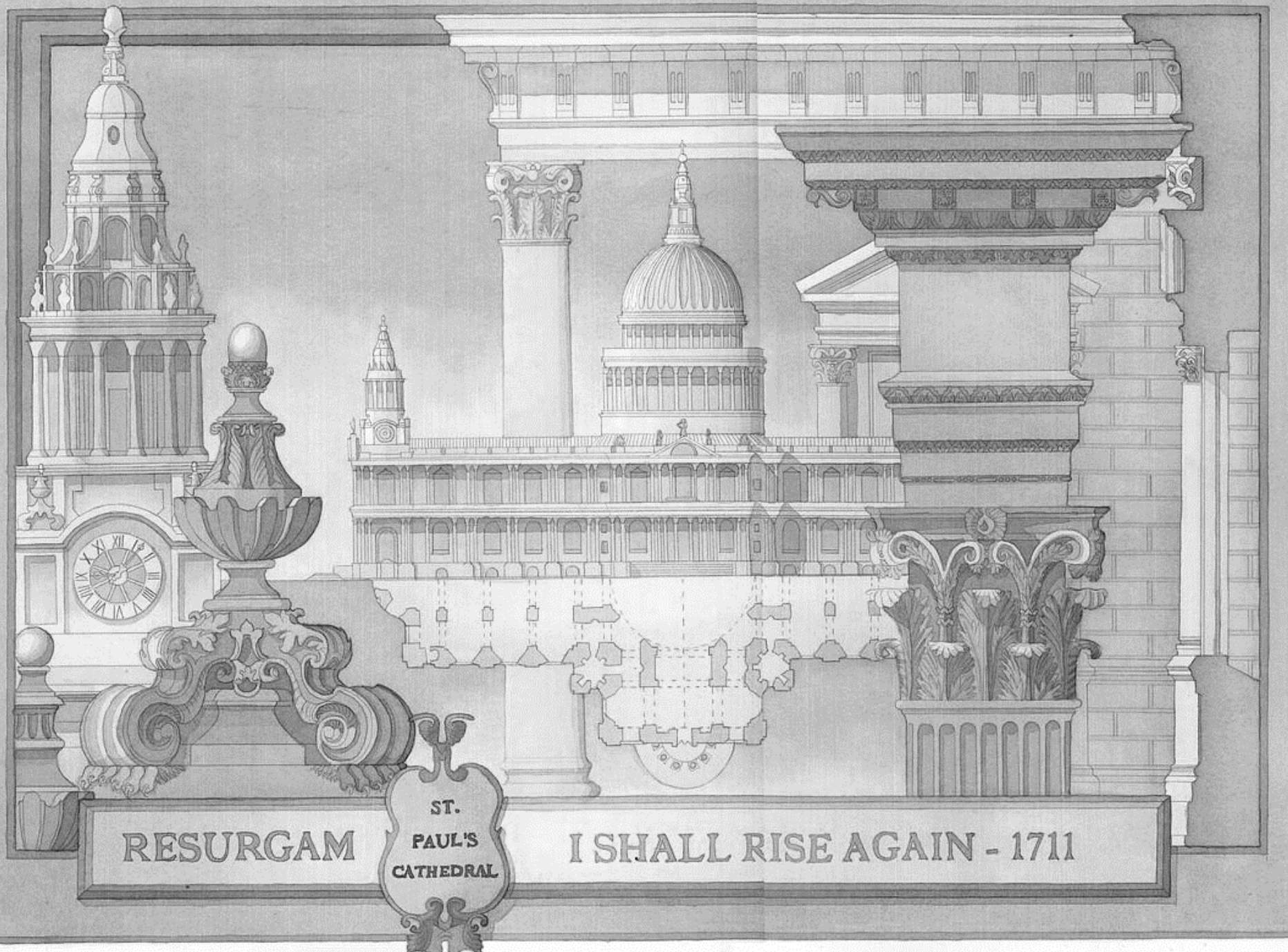
a. *Secondary plane*

b. *Tertiary plane*

c. Foreground (Darkest/Least Contrast/Most Developed)

**CAN YOU DISCERN
THE VARYING
LAYERS / PLANES
IN THIS
ANALYTIQUE?**

- 4. Background
 - 3. *Tertiary plane*
 - 2. *Secondary plane*
 - 1. Principal plane
 - a. *Secondary plane*
 - b. *Tertiary plane*
 - c. Foreground



“The interplay of light and shadow connects architectural spaces with the dynamics of the physical and natural world, the seasons, and hours of the day...Natural light connects us with cosmic dimensions and brings life into architecture.”

– Juhani Pallasmaa, “Light, Silence, and Spirituality in Architecture and Art,” in *Transcending Architecture*, p.23)