

Immured: The Uncanny Solidity of Section

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The Renaissance origins of the modern architectural section drawing are shrouded in mystery and, as we shall see, rightly so. Examining the historical conception of the architectural section reveals its close interrelation with life and death through a more fundamental understanding of an uncanny body-building relation.

PLAN, ELEVATION, SECTION

Today we understand the 'orthographic drawing set' as plan, section and elevation where each one projects a plane of a building along the Cartesian X, Y and Z axes. Of these three sorts of drawings, however, only a section is described as a 'cut'.¹ This "cutaway view", according to handbooks, is made "by slicing ... much as one would cut through an apple or a melon." The conceptual sectioning is explained as a knife becoming a vertical geometrical plane. The "cutting plane" is assumed to be passed through the ... design. Then the cutting plane is removed and the two halves drawn apart, exposing the interior construction. ... [F]or the purposes of the section the other half is mentally discarded."² Thus, the design on paper is imagined as a real thing already existing in three dimensions so that it can be dissected and examined. The current understanding derives from the rationalization of architectural drawing begun by J.N.L. Durand in applying Cartesian principles of descriptive geometry to architecture. Durand introduced the modern "natural order" of the three drawings by moving section, whose purpose is to "convey [the design's] vertical arrangement or its construction", prior to elevation (plan, section, elevation) because the elevation is "no more than the result of the first two."³ This re-

strictive idea of the section as a technical explanation of a building's assembly is still dominant today. Curiously, while the section precedes the elevation in modern design, conceptually it follows it as a cut of the whole. Earlier representation approaches provide an explanation of this paradox.

The very different earlier ideas of the three drawings – named by Vitruvius as *ichnographia*, *orthographia* and *scenographia* – were built upon the Aristotelian bodily spatial dimensions of front/back, left/right and up/down. For centuries prior to Durand, the first two drawings alone provided a comprehensive three-dimensional explanation of a building. The plan, like a geometrical plane, contained the horizontal dimensions of length and width while the elevation demonstrated the vertical dimension. This was made clear in treatises of practical geometry, such as a manuscript from around 1120 attributed to Hugh of St. Victor which describes the measures of *planimetry* as a planar extension across the earth in length and width and *altrimetry* as vertical extension.⁴ Similarly described throughout the Renaissance, Scamozzi in 1615 makes explicit this relationship to architectural drawings. "The plan is the description of lengths and breadths. Orthography or the upright corresponds to the plan and shows its altitudes."⁵ Including longitude and latitude within the plan is not only more consistent with architectural and building practices, it also describes the spatial order that is integral with human experience in the gravitational world, unlike the far more abstract Cartesian coordinates.

Thus, with only plan and elevation drawings, all three dimensions are taken into account by traditional practice. What then is the role of the third

drawing, Vitruvius's *scenographia*, if all primary dimensions are already given? This paper suggests that the third drawing is to show depth. This is not the Cartesian notion of depth as merely a third measurable dimension – as length turned sideways – but depth as the infraordinary experience of projecting oneself into the life world; what Merleau-Ponty calls the “primordial dimension”.⁶ This understanding of section as representing profound depth explains why in the Renaissance, two otherwise unrelated drawing types, section and perspective, intermingle as *scaenographia*, for they shared the idea of representing depth as a mysterious presence.⁷

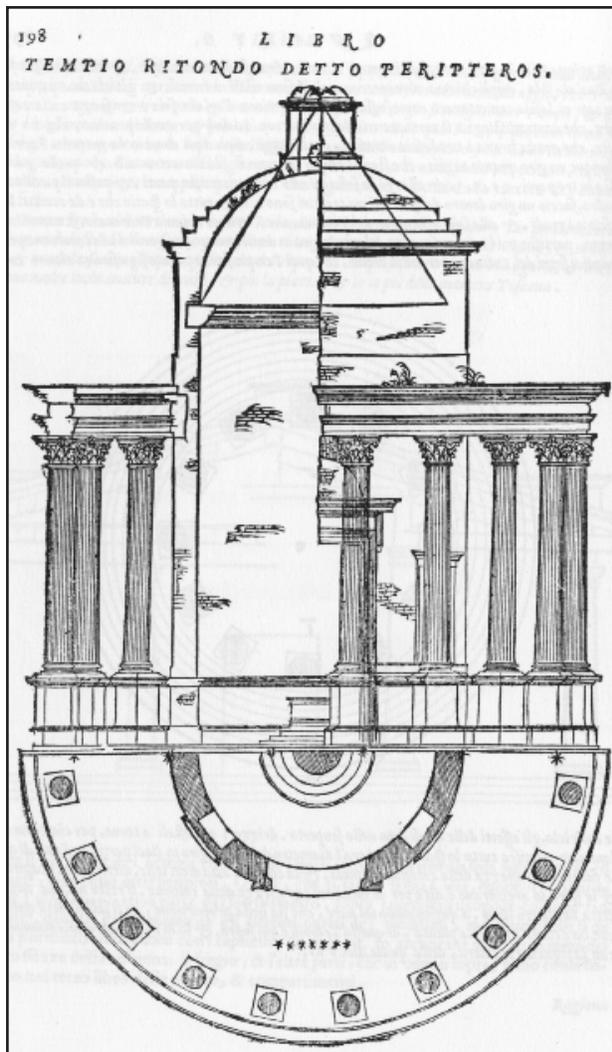


Figure 1: Peripteral Round Temple, Vitruvius, *I Dieci Libri Dell'Architettura*, Translation and Commentary by Daniele Barbaro (1567) 198.

The semantic field of the section includes: profile, shadow, ruin, cut and dissection; all of which play key roles in this intriguing puzzle.⁸ Because it does not introduce a distinct spatial plane, numerous Renaissance architects, including Serlio, Raphael and Palladio, do not separate section from elevation, explicitly equating them with the upright dimension of *orthographia*.⁹ When distinguished, it is most often called a profile. In describing the third idea of drawing as *sciographia* or *profilo*, Daniele Barbaro uses *scio-* meaning shadow, which draws upon the idea of the face in side view casting its shadow in profile.¹⁰ This follows the suggestion of Cesare Cesariano who also mentions *sciographia* in relation to the Tabernacle, “a copy and shadow of heavenly things”.¹¹ The Tabernacle makes shadow significant beyond a template as a divine presence. Shadows have long been ritually regarded as souls.¹² Similarly, the triangle at the top of the circular temple section in Barbaro’s treatise demonstrates Cesariano’s idea of the depth of section as the foreshadowing of the invisible (Figure 1). The section is elsewhere represented as a ruin or a wound that allows a glimpse into the interior.¹³ Drawn as broken, this is the origin of the modern drafting convention of a section ‘break line’. While Barbaro and other Renaissance architects link the third drawing with medical dissection, the explicit idea of the section as a cut and its modern name appears only later in the seventeenth century with the great anatomist-architects, Claude Perrault and Sir Christopher Wren. Indeed, a section drawing from Wren’s office is labeled “dissection”.

SECRECY AND DARK SILENCE IN VILLARD DE HONNECOURT

A section shows not just interior elevations, but the life within the wall itself. The secrets of section parallel the private nature of the interior – particularly of human anatomy, as Francis Bacon describes it as an inquiry into “the *secrecies of the [bodies] passages*”.¹⁴ As the body has cavities and hollows within, so the apparently solid walls of a building contain its secret habitations. Renaissance architects often refer to secret corridors and stairs.¹⁵ Corridors and interior staircases began as tunnels within the thickness of the walls and only slowly emerged as distinct spaces. Interior staircases, like chimney flues, are submerged within walls and deemed a “vertical opening in the wall”. Corridors excavated within the wall allow servants to appear only where

needed. The corridor's secretive potential was not overlooked by the master of the house who used it to stealthily observe the household.¹⁶ In this way, the 'circulation' of a house, like nerves and arteries, are inside the building body. Other openings within walls, while not for human occupation, are also secretive. Alberti advocates secret listening tubes embedded within the wall to "eavesdrop" on conversations.¹⁷

A drawing in the thirteenth century sketchbook of Villard de Honnecourt shows the elevation of a buttress at the Cathedral of Notre-Dame, Reims that includes both exterior and interior elements and so has been called a section (Figure 2).¹⁸ Lacking section cuts, the darkest marks of the drawing indicate open slots in the piers as a shadowy space for humans to stand amidst the masonry piers. This black Freudian "narrow defile" is within the pier, distinguished from the white space surrounding it.

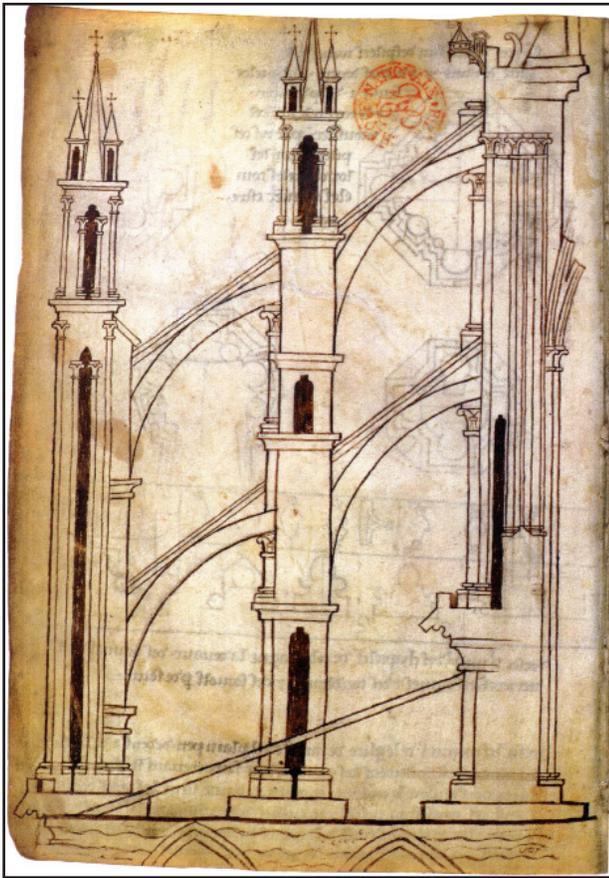


Figure 2: Chevet Buttresses of the Cathedral of Notre-Dame, Reims, Villard de Honnecourt, Fol. 32v.

SOLIDITY AND THE *APPARITIO* OF ST. MARK

Perhaps the most secret part of the section is the solid mass of the wall itself. While not a place for physical occupation, the material mass invites imaginary inhabitation. When Merleau-Ponty wrote that "to look at a thing is to inhabit it," he described this empathetic projecting of self into the things of the world.

The mosaic of the *Apparitio* in St. Mark's (Venice) is an early representation of a building section from the mid-twelfth century (Figure 3). When St. Mark's remains were translated (stolen) from Alexandria, Egypt to Venice in the ninth century, they were concealed within the church which still bears his name.¹⁹ Their exact location was kept secret for protection and two centuries later, after a devastating fire, everyone feared the relics were lost. The citizens of Venice reportedly prayed, fasted and processed around the city for three days. Then, on the third day, a stone fell from a column in the original undamaged part of St. Mark's to reveal the relics' hiding place, which had protected it from fire. The mosaic remembering the miraculous event is inscribed "the stone pillar opens up" and is located beside the "*pilastro del miracolo*" itself.²⁰ It is not an accident that the mosaic uses a building section to reveal this story of a body within the solid masonry. The column contains the saintly body, upright as if the literal demonstration of the body

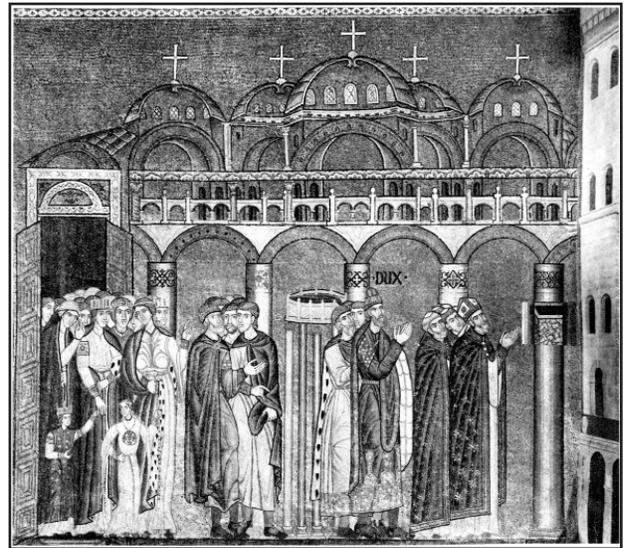


Figure 3: "The stone pillar opens up", mosaic, San Marco, Venice.

as column. The rent section of the column with the Saint parallels and is within the building section with the five domes containing the congregation.

Burials of reliquaries in the solid stone of column capitals were not uncommon.²¹ A primary feature of a mass element such as a column or wall is its solidity. Solidity is, according to John Locke, resolutely impenetrable.²² Solidity is an idea that is received from touch; present not to the eye so much as to the perception of a solid pushing back against one's hand. A solid body touches us as we touch it. The psychological import of solidity, then, is the awareness of the other while at the same time the empathetic projection of self within the solid. Locke distinguishes solidity from hardness because solidity has repletteness. A surface can be hard, but only a body can be solid. Unlike hollow partition walls, solidity is measured by the deep resonance of silence. Thus, *firmitas*, first in the Vitruvian triad, is translated as 'firmness', but never 'hardness'. When today *firmitas* is usually conceived of as 'structure', it reduces the concept to quantitative calculations that lack the psychological dimension of the presence of solidity.²³ The body's solidity is related to darkness, silence and secrecy.²⁴

THE UNCANNY MUMMY COLUMNS OF FRANCESCO DI GIORGIO

The often-discussed body-building metaphor operates not only as proportion and appearance, but ultimately how one imagines the living presence of the building. The body is not like a column, it is within the column. It is through solidity that body and building are related.

Architect and author Francesco di Giorgio Martini (1439-1502) emphasized the primary importance of drawing "which above all deals with the visible as well as the invisible".²⁵ For him, representing the relationship of interior and exterior was a key issue that revealed the complexity of architecture and implied levels of meaning exceeding physical appearance. He wrote that the greatest challenge is to "demonstrate the extrinsic, intrinsic and the occult things all at the same time".²⁶ In Francesco's translations and (mis)reading of Vitruvius's origin story of the Corinthian column, the maiden from Corinth is buried within the shaft of a basket/column.²⁷ He illustrates the origin story with the maid visible inside a column as if it were transparent. Since he illustrates other columns similarly, it is not

so much a misreading than a point of theory.²⁸ As Francesco anthropomorphically writes: "columns contain hidden human bodies".²⁹



Figure 4: The birth of the Corinthian order by Callimachus. Francesco di Giorgio, Codex T, fol. 14v. Turin, Biblioteca Reale, Codice Saluzziano 148.

This perception of the solidity of a building simultaneously as the self and as other resonates with Freud's concept of *unheimlich*, when the familiar becomes frightening. *Heimlich* as home and as a place of concealment leads inevitably to the *unheimlich* as that which ought to have remained secret but has come to light. Freud asserts that "the most uncanny thing of all" is "to some people the idea of being buried alive", relating this to our original intra-uterine existence. Freud's discussion of the uncanny noted its close relationship to the double, such as shadows, spirits and reflections (including the soul as double for the body), or in the present case, body and building.³⁰ The double, which is both a twin of self to overcome death and a confrontation with the other, is the solidity of the building in relation to the individual. The sense of solidity is the absolute other, but it is also empathetically the place where we dwell through a se-

cret at-homeness with an "eerie unfamiliarity" that is strange but at the same time part of ourselves. Freud's etymology of *unheimlich* demonstrates the uncanny is not opposed to the homelike, but its constituting element, like the "architectural unconscious" described by Don Kunze. To be at home is to confront the uncanny in a building's material solidity. The modern section attempts, like scientific anatomy, to make a fully visible, transparent interior by providing a structure without solidity.

THE END: IMMURATION

Sir Thomas Browne's 1642 description of the soul as "immured in the wals of flesh" suggests that as the soul is to the body, so the body is to building.³¹ To immure is to enclose within a wall; where the body becomes wall. There is not a room in the wall; one is literally built up in a solid wall.³² Immurement is central in numerous building traditions. Some ancient Chinese burial stones are inscribed in reverse so they can be read from inside the stone by spirits of the dead.³³ Foundation legends tell of the life of a structure deriving from human life immured within.³⁴ In some cases, architects are literally entombed in their edifices. William Strickland (1788-1854), architect of the Tennessee State Capitol (1845-59), is immured in its foundation by an act of the state legislature. Prior to his death, he specified the removal of a large basement foundation stone to make a place for his body.³⁵ This petrifying reverie is the unspoken foundation of the body-building analogy.

The physical impossibility of pure immurement captures a psychological reality that is also at the core of the *apparitio* of San Marco and the drawings of Francesco di Giorgio. This is the profound depth comprehended through the section. Today's focus on Cartesian descriptive geometry too often occludes the deeper significance and potential of the section for the architectural imagination.

Sections of Palladio's buildings drawn by Ottavio Bertotti Scamozzi have a consistent *poché* of closely spaced diagonal hachure at 45 degrees from upper left to lower right; corresponding with the projected shadows in the drawings.³⁶ The repetitive drafting of section lines may be the architectural practice of ritual immurement. The detail column sections, however, are most often shown as a roughly broken line, and sometimes Bertotti Scamozzi's meander-

ing pen invents plant forms growing in the ruinous ends of the columns. Through this undergrowth, as Marco Frascari points out, the plants open into another realm, at times erupting into full fantasies of worlds within worlds in a sectional reverie.

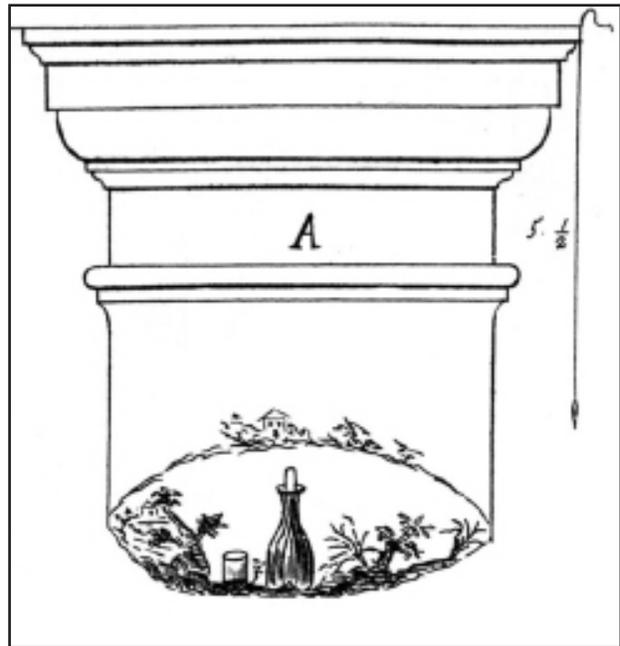


Figure 5: Column section from Villa Emo, Ottavio Bertotti Scamozzi, *Le Fabbriche E I Disegni Di Andrea Palladio* (Vicenza, 1796) Vol. 3, Pl. XIX.

Transparency and openness, unassailable and unquestionable universal values, are exposed in Jacques Tati's movie *Play Time* (1967) to deny dwelling and reduce one to be endlessly move along. Yet, when understood as privacy and introspection, the secretive can also be valued. While not advocating a return to traditional mass bearing wall construction, even the 'lightest' buildings still require solid elements of structure and fire-rated building cores that should not be overlooked in denial. The core, once the heart of a building, is the often unacknowledged last vestige of solidity. The fire stair is a place to avoid and denies us the wonder experienced when, as in a gothic cathedral, one disappears into a vast stone pier to ascend a spiraling stair and finally re-emerge on top of a tower above the city. Some contemporary architecture obsessively multiplies infra-thin planes in an attempt to reconcile transparency with the need for depth, but like Zeno, never arrives at its goal and in having no shadow, lacks a soul. As we have seen,

hard surfaces cannot create firm solids. But even today's complex, biomorphic computer-generated surfaces could become inhabited within potentially solid interstices. The section, understood as it was by Di Giorgio and Bertotti Scamozzi, can reveal the other as ourselves, dwelling in a chthonic realm of solidity and in a profound depth of immurement.

ENDNOTES

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- 6 Maurice Merleau-Ponty, *Phenomenology of Perception*, transl. Colin Smith (London: Routledge, 1962).
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- 16 Nicolas Le Camus de Mézières, *The Genius of Architecture; or, The Analogy of that art with our Sensations*, trans. David Britt (Santa Monica: Getty Center, 1992), 108.
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