

Reflections on Simultaneity, Ambiguity, and the 'Jellyfish' Drawings of Daniel Castor

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A jellyfish floating in the ocean exhibits two visual characteristics that make it distinctive. First is its *transparency* of form; it reveals the size, shape, and orientation of its internal organs to an outside observer. The second quality, which derives from the first, is its *reversibility* of form; because it is transparent, the parts of a jellyfish appear simultaneously like solids and voids...[1]t exhibits a double-reading of solid and void.

—Daniel Castor
Drawing Berlage's Exchange

The root of the term ambiguity, the quality of having more than one sense or meaning, is the Latin word *ambiguus*, a word whose definition includes the adjectives "wavering," "uncertain," and "changeable" as well as the nouns "doubt," "uncertainty" and "paradox." The word cleave, for example, with its opposite meanings of "to separate" and "to join," is ambiguous. One must consider the context in an effort to determine intended meaning and, even then, a precise understanding of the speaker or author's use of the term may prove elusive. Regardless of the intended meaning of cleave, however, one presumes that the speaker or author did not intend to convey *both* senses of the term.

While the uncertainty of ambiguous language is undesirable in most aspects of our lives—consider the potential havoc caused by ambiguous instructions, ambiguous evaluations, or ambiguous relationships—ambiguity as a formal characteristic can be considered a desirable trait in works of art. Robert Venturi, in his seminal work *Complexity and Contradiction in Architecture*, wrote:

The calculated ambiguity of expression is based on the confusion of experience...This promotes richness of meaning rather than clarity of meaning.¹

Calculated ambiguity is neither arbitrary nor imprecise; the "richness of meaning" described by Venturi—that rare condition where alternative (and even contradictory) interpretations or understandings can co-exist—by necessity requires equivocation, fluctuation and the acceptance of dynamic (and perhaps unstable) conditions and circumstances.

A term related to ambiguity is simultaneity, meaning "being or occurring at the same time." The significance of the term, at least in the present discussion, lies in the possibility that (1) a single entity may have or exhibit vastly different meanings, properties or characteristics at the same moment; or (2) an observer may observe events at more than one location at the same moment; or (3) (in violation of the laws of physics) two or more entities may occupy the same location in space at the same moment.

A number of writers have used the expressions “spatial ambiguity” and “solid-void ambiguity” to describe circumstances where architectural space can be perceived as a figure against the ground of walls, floors and ceilings. One must ask, however, in a plea for precision and accuracy, if at least some of those conditions might be best described as examples of simultaneity rather than calculated ambiguity.

Daniel Castor’s description of a jellyfish and the double-reading of solid *and* void (or “seen” and “unseen”) is an example of formal simultaneity but not an example of ambiguity: one can distinguish between the internal organs of the jellyfish and the surrounding “jelly,” and one is not uncertain about the creature’s location in space.

A well-known optical illusion appears in Figure 1, an example of a double-reading of figure and ground. One perceives, alternately, two faces in profile *or* a goblet, but one does not see two faces in profile and a goblet at the same time: the representation is ambiguous but it is not an example of simultaneity.

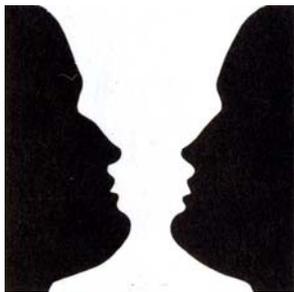


Figure 1: Figure-Ground Reversal

A list of the exemplary architectural drawings of the twentieth century surely would include Hugh Ferriss’s perspective drawing (Figure 2), rendered in charcoal and pencil, of the Chicago Tribune Building at night (1929). Ferriss believed that rendering was interpretive and that the artist sought to depict essential architectural ideas: “A realistic rendering may indeed be produced by dealing honestly with only the physical facts: an authentic rendering, however, demands a realistic treatment of intellectual and emotional factors as well.”² Ferriss’s deft hand is evident in the expression of the vertically as well as the size and dominance of the building. One can almost feel the dark dank air of Chicago’s famous fog in the diffused and indistinct surfaces of Ferriss’s drawing, almost hear the sounds of horseshoes on pavement and, perhaps, the echo of water in the dark shadows beneath the bridge.

Like Caravaggio in his painting *The Calling of Saint Matthew*, Ferriss uses light not to simply illuminate, but to unify and compose the elements of the drawing in a dynamic way. Like Vermeer, whose rendering of domestic scenes often utilizes a low station point, forcing us to look upward at standing figures, Ferriss adopts a station point *below* street level (at the level of the Chicago River), emphasizing the height of the tower. Finally, like Turner, Ferriss renders light and air as a presence rather than an absence. Beautiful. Sublime. Unforgettable.



Figure 2: Rendering, *Chicago Tribune Tower*, Hugh Ferriss

There is at least one additional point that must be made: for Ferriss, rendering was not only interpretive. It was an intense and aggressive inquiry into the nature of the medium itself and the conventions and presupposed limits of representation, an examination of the space and depth of the drawing, and the possibility that the “authentic rendering” may reveal new or previously latent qualities of the subject or of the discipline of architecture. The extremes of spatial depth are set by the locations of the bridge pylon in the lower right foreground and a

distant building at left center whose upper silhouette mimics the profile of the bridge pylon. The distinctive Tribune Tower dominates the center of the composition, dwarfing the surrounding buildings; the lower floors are erased in a dazzling white light that obscures details and utterly flattens the volume of the tower base. Middleground and background are fused, advancing and receding in the space of the drawing defined by the twin structures, exaggerating the forward thrust of the darkly rusticated walls and pylon of the bridge in the foreground. The base of the tower is represented here as a double-reading of solid and void. Like the ubiquitous optical illusion of the goblet and the faces-in-profile, the figure-ground relationship of the tower base is in a state of fluctuation, increasing the perceived spatial depth of the image. In contrast, the location of the neo-Gothic top of the tower relative to the night sky is never in doubt: in heavy shadow like the foreground elements, the flying buttresses and crenellated crown seem to leap forward and upward against the night sky, emphasizing the height of the structure. In addition, the Tower is depicted as an absence, transparent and lighter than air, as well as a presence, solid and opaque. In this drawing, the location in space of the base of the Tribune Tower is ambiguous and the tower is simultaneously depicted as material and immaterial.

In the context of a reflection on ambiguity and simultaneity, consider an historical figure who, though neither an architect nor an artist, aptly demonstrates the importance of the concept of simultaneity in the sense of that which is both "seen" and "unseen." Dutch patriot Hugo de Groot (1583-1645), humanist, philosopher, poet, playwright, and jurist, is generally regarded as one of the first theorists on international law. De Groot was a man of high intelligence, a child prodigy (he earned a doctorate from the University of Leyden at fifteen), and a prolific writer on subjects ranging from international commerce and disputes to theology and Christianity. But, in Dutch history, De Groot is better known for a celebrated event that occurred in 1621, an episode that would capture the interest and imagination of de Groot's countrymen for centuries. De Groot was the ally of Johan van Oldenbarnevelt in his conflict with Stadholder Prince Maurice of Nassau, son of William of Orange. Oldenbarnevelt clashed with the prince on a number of issues, including the relationship between Church and state. In 1618 Maurice arrested his opponents: Oldenbarnevelt was executed and de Groot was sentenced to life imprisonment in Loevestein Castle. But De

Groot's incarceration lasted only three years: on March 22, 1621, he was smuggled out of the castle in a book chest. After making his escape, de Groot fled to Paris, where he was welcomed by Louis XIII. More detailed information regarding de Groot's daring escape is scarce. One can, however, surmise that a man as intelligent as de Groot—and possessing the sharply honed analytical skills of one trained in the law—might have been stimulated by the challenge of designing a successful escape from Loevestein Castle.

Interestingly enough, both the *Rijksmuseum* and the museum *Het Prinsenhof* in Delft claim to possess the original book chest, but even a lawyer of de Groot's prowess would find it difficult to convince a jury that he escaped in a *pair* of chests. Images from the Rijksmuseum show a large trunk constructed of wood, iron, and leather, and at least five feet in length: in its bulk this book chest resembles a small boat with a lid more than a chest or trunk. One might even say that its form is ambiguous. The dimensions of the closed trunk are large enough that a grown man could fit reasonably comfortably in the void within. And, with the lid closed, the trunk appears solid, even massive. Unlike the double-reading of the jellyfish, where solid and void are joined by the conjunction *and*, de Groot's book chest is solid OR void: only in the most literal way is the book chest simultaneously solid and void. On the other hand, de Groot's successful escape depended on at least one double-reading reminiscent of the jellyfish, that of "seen" and "unseen": a successful escape required that the guards perceive that de Groot was in his chamber, and "seen," while simultaneously in the book chest and "unseen" by his captors.

Daniel Castor's pencil drawings of H. P. Berlage's Exchange constitute a body of work so unusual and so remarkable that it defies initial attempts at classification. Before discussing Castor's analysis of the Exchange, however, a few words regarding Berlage are in order in an effort to demonstrate the convergence of Berlage's aims and aspirations as an architect and Castor's investigation. Berlage wrote, in 1908:

The art of the master-builder lies in this: the creation of space, not the sketching of facades. A spatial envelope is established by means of walls, whereby a space, or a series of spaces is manifested, according to the complexity of the walling.³

If the wall here is understood as a kind of translucent or transparent membrane of varying thickness, affinities between Berlage's Exchange and a jellyfish—at least Castor's Jellyfish—begin to present themselves in provocative and compelling ways..

One's first impression of the stolid Exchange, a large (over 400 feet long) masonry structure in the heart of Amsterdam, is hardly a work that celebrates the richness and space. First impressions can be deceiving, one should be mindful that Berlage was not only an architect but a teacher whose followers and students included G. T. Rietveld and Ludwig Mies van der Rohe. And, as we shall see, Castor aims not to simply document the Exchange, but to understand Berlage's design principles, especially the relationships between walls and space.

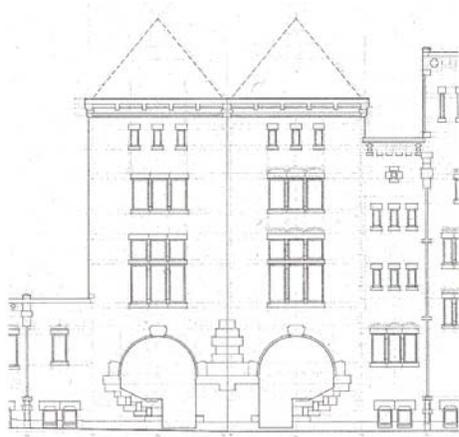


Figure 3: Unfolded Elevation, *Berlage's Exchange*, Daniel Castor

Castor's carefully crafted drawings and accompanying text, published in 1996, are an exhaustive study of Berlage's masterpiece (opened by Queen Wilhelmina in May, 1903) and includes unfolded elevations, plans, partial sections, and worm's eye isometrics. Castor writes, by way of introduction, that:

...[W]hat follows is not a descriptive endeavor. Although the drawings are accurate to a fault, their diligence reflects a desire to understand the principles that motivated Berlage's design process, rather than a compulsion to slavishly record the particularities of each solution.⁴

Castor offers a written commentary on the history of the building, the significance of its 'Flatness', its position in the canon of Modern Architecture, his reasons for studying the Exchange using traditional drawing techniques rather than the computer ("I

went to the Beurs to draw deliberately. Using a computer to analyze the building would have been like rollerblading across a frozen pond."), and includes an example of an unsuccessful analytical graphic study of the deep space of the building.

The first group of drawings is a series of unfolded elevations (Figure 3), an extended rumination on the continuity of surfaces and facades. Castor writes, "The continuous elevation serves as a stable field against which to chart [three-dimensional] ...investigations."⁵ The elevation studies are followed by a series of isometrics and, by way of introduction, Castor discusses the worm's eye drawings of Auguste Choisy and Reyner Banham's assessment of the 1,700 drawings included in Choisy's *L'Histoire de L'Architecture* (1899). Banham, according to Castor, incorrectly describes Choisy's drawings as noteworthy for their homogeneity when, in fact, the departures from the isometric formula are numerous. "[Choisy's]...book...is as much an encyclopedia of drawing techniques as of building types,"⁶ writes Castor, and it is that diversity of drawing styles that propels Castor's exploration:

I intend to test the limits of methodological rigor through the application of a stricter 'code of drawing' for the studies that follow—with the expectation that it will eventually self-destruct. Choisy employed representation in the service of analysis. I reverse that order of priority. An analysis of the northwest corner will emerge only through its representation.⁷

The isometric studies focus on spatial and formal conditions at building entrances, openings which sometimes appear like rips or fissures in the taut masonry skin of the Exchange, adumbrating the large volume of the exchange. Each isometric projection study "suppresses the presence of other systems"⁸ in order to focus on the characteristics of a single system, condition or attribute. In one drawing, only the passages between exterior and interior spaces and between adjacent interior spaces is delineated. In another, titled 'Negative', the interior spaces at the building corner are drawn as if they are solid (Figure 4). In a third ('Flip-Flop'), Castor, inspired by Josef Albers's drawings of spatially ambiguous conditions, attempts to "see inside and outside at the same time."

These are followed by the 'Jellyfish' drawings where the isometric drawings executed previously are synthesized in a series of rendered two-point perspectival studies. Furthermore, the spaces just behind the exterior wall of the Exchange are depicted in such a way that they "exhibit a double-

reading of solid and void,"⁹ a presence rather than an absence. The shift from isometric views to rendered perspectival views reflects, as Castor notes, a shift from the conceptual to the experiential and a desire to "accentuate the depth and spatiality of the subject."¹⁰ Castor notes that the "isometrics operate like multiple autopsies, each drawing identifies a technique with which to dismantle the body of the building."¹¹ In contrast to the abstractness and the isolation of systems in the isometrics, the goals of the 'Jellyfish' drawings are the synthesis of systems and "an experiential understanding of the spaces."

Castor's drawing entitled 'Prodigal Son' (Figure 5) depicts one of the primary thresholds into the Exchange, located at the northeast corner of the building and adjacent to one of the prominent turrets. Castor writes that this entrance, marked by a statue of the aforementioned Hugo de Groot, is one of the most distinctive:

The spurlike intrusion of the engaged stair turret...dislodges the statue...from his corner perch and turns him toward the action on Damrak, and away from the Red Light district....[This] is the only incident within this vast building in which sculpture advances fully into the round.

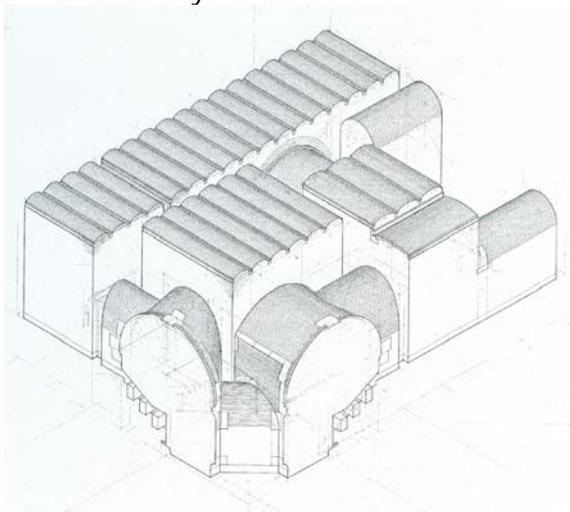


Figure 4: Isometric, *Berlage's Exchange*, Daniel Castor

Careful inspection of Castor's two-point Jellyfish perspective depicts, from left to right, the turret base that marks the building corner; the swirling volume of the interior spiral stair directly behind the spinning statue of de Groot; the 'floating keystone', arched opening of the entry, and the cascading stairs (Castor writes that the entry 'lunges north, toward Central Station'); and the volume of the entry vestibule (note that the number of stair treads finds a counterpoint in the number of ribs in the vestibule ceiling at the far right as well as in the number of levitating stones on the right side of the entry arch). The exterior wall is partially transparent and the volumes of the spiral stair and the vestibule can each be understood as solid or as void.

The representation of architectural 'incidents' synthesizes the conceptual as well as the experiential. One understands that the conceptual thickness of the wall is occupiable and, furthermore, that the cavities just behind the masonry skin mediate between the semi-private interior volume of the Exchange and the public streets that surround it. The statue of De Groot not only marks the entry ("Seen!"), but seems to have escaped from the interior volumes of the Exchange, a structure now understood, thanks to Castor, not only in terms of a double-reading of solid and void but a double-reading of building for commerce and large scale book chest—a modest 'Jellyfish' *par excellence*. The present discussion should not be construed as an argument in favor of either formal ambiguity or formal simultaneity: Castor's studies, like the work of Ferris, reflect an intense and aggressive inquiry into the nature of architecture and the representation of architecture, as well as a desire to understand, in a more substantive way, the nature of design thinking. (Castor, of course, would likely reject the consideration of "emotional factors"; his studies are an homage to objectivity.) What differentiates Castor's approach is the desire to use constructed drawings—elevations, isometrics, and perspectives—as primary evidence in the aggressive analysis of architectural ideas. By the simultaneous presentation of previously "unseen" conditions, Castor eschews the depiction of mere appearance in favor of the depiction of essential formal relationships and design concepts.

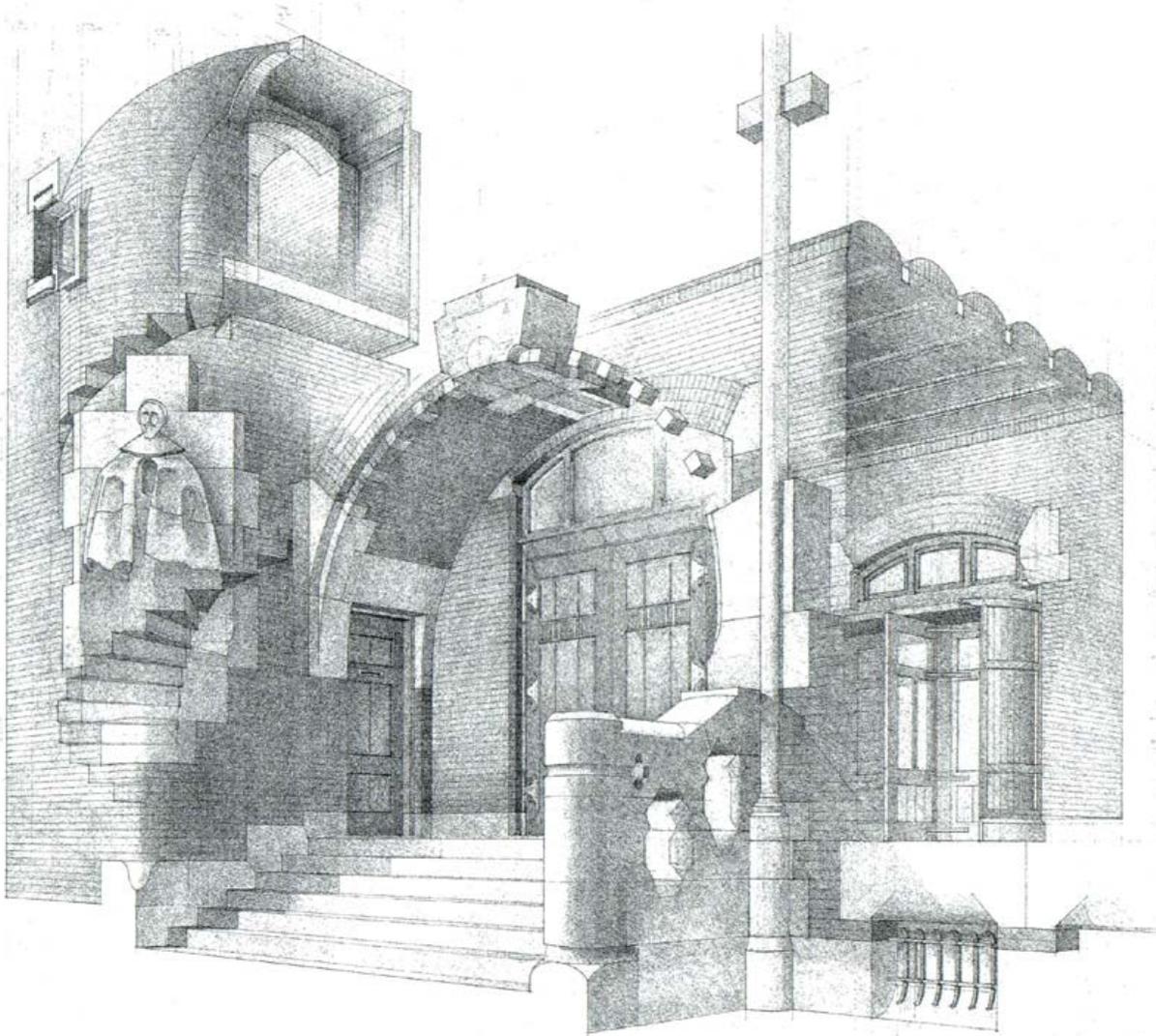


Figure 5: 'Jellyfish' Drawing, *Berlage's Exchange*, Daniel Castor

Endnotes

¹ Robert Venturi, *Complexity and Contradiction in Architecture*, second edition (Lawrenceville, NJ: Princeton University Press, 1992), p. 22.

² Hugh Ferriss, "Rendering, Architectural", *The Encyclopedia Britannica*, 14th edition, 1929-1973.

³ H.P. Berlage, *Grundlagen und Entwicklung der Architektur*, 1908.

⁴ Daniel Castor, *Drawing Berlage's Exchange* (Rotterdam: NAI Publishers, 1996), p. 9.

⁵ Castor, p. 26.

⁶ Castor, p. 27.

⁷ Castor, p. 27.

⁸ Castor, p. 46.

⁹ Castor, p. 46.

¹⁰ Castor, p. 46.

¹¹ Castor, p. 46.