Nervous Tracery:  
Modern Analogies between Gothic Architecture and Scholasticism

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Abstract

During the Gothic revivals of the nineteenth and early twentieth centuries, Gothic architecture shed the morbid associations attached to it in earlier periods and was admired for the aesthetic and theological vision that shaped its medieval development. The Gothic cathedral came to epitomize the wholeness of the Middle Ages and an impulse toward synthesis in theology as well as the arts. This essay surveys four Gothic revival texts that define a relationship between medieval Gothic architecture and Scholastic theology: John Ruskin’s essay “The Nature of Gothic” in The Stones of Venice (1851-53); Henry Adams’ Mont Saint Michel and Chartres (1904); Wilhelm Worringer’s Form in Gothic (Formprobleme der Gotik, 1911); and Erwin Panofsky’s Gothic Architecture and Scholasticism (1951). In these widely read works, influential beyond the field of art history, the seemingly arcane analogy between the Gothic and the Scholastic becomes a proving ground for the projects of prominent intellectuals within distinct historical and cultural contexts. For each author, the meaning of the Gothic hangs in a particular balance between its tracery—that is, its naturalistic ornamental detail—and its larger structure: the balance between the concrete and the abstract, between multiplicity and unity, also achieved in Scholastic theology. Because their analogies between the Gothic and the Scholastic isolate distinct lines of force within these complex systems, Ruskin, Adams, Worringer, and Panofsky each identify different values there, revealing as much about the modern mind as about the medieval. The syntheses that their medieval forbears accomplished collectively in service of faith, these interpreters seek independently in service of their own cultural identity, aesthetic values, or intellectual coherence.

Keywords
Gothic architecture, Scholasticism, John Ruskin, Henry Adams,  
Wilhelm Worringer, Erwin Panofsky, Thomas Aquinas
The Gothic style presents an interesting case of how the Middle Ages have persisted in Western history through the backward glances, sometimes leery, sometimes wistful, of subsequent periods. First arising in the seventeenth century as a derogatory term for the anti-classical, “barbarous” style adopted by European cathedral builders beginning in the twelfth century, the word “Gothic” became attached in the eighteenth century to a type of sensational narrative set in infelicitous buildings. During the Gothic revivals of the nineteenth and early twentieth centuries, Gothic architecture shed its morbid associations and was admired both for its aesthetic form and for the integral relationship of that form to a theological vision. Symbolizing, as Arthur Symons wrote in 1899, “the very soul of the Middle Ages,” the Gothic cathedral came to epitomize the medieval impulse toward synthesis in theology as well as the arts. Indeed, St. Thomas Aquinas’ colossal reconstruction of Christian theology on Aristotelian principles in the *Summa Theologica*—architectural in its form and ambition—mirrored the synthesis between faith and reason, transcendence and empiricism, at work in the Gothic style. Although the concept of synthesis was a commonplace of medieval thought—evident in Dante’s *Commedia* as in *summas* and cathedrals—it became the mission of latter-day interpreters to detect oblique unities among these distinct medieval enterprises.

This essay will trace a path through four texts from the mid-nineteenth through the mid-twentieth centuries that define a relationship between medieval Gothic architecture and Scholastic theology: John Ruskin’s essay “The Nature of Gothic” in *The Stones of Venice* (1851-53); Henry Adams’ *Mont Saint Michel and Chartres* (1904); Wilhelm Worringer’s *Form in Gothic* (*Formprobleme der Gotik*, 1911); and Erwin Panofsky’s *Gothic Architecture and Scholasticism* (1951). In these widely read works, influential beyond the field of art history, the seemingly arcane analogy between the Gothic and the Scholastic becomes a proving ground for the projects of prominent intellectuals within distinct historical and cultural contexts. For each author, the meaning of the Gothic hangs in a particular balance between its tracery—that is, its naturalistic ornamental detail—and its architectural structure: the balance between the concrete and the abstract, between multiplicity and unity, that is also achieved in Scholastic theology. Because their analogies between the Gothic and the Scholastic isolate distinct lines of force within these complex systems, these writers each identify different values there, revealing as

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much about the modern mind as about the medieval. The synthesizes that their medieval forbears accomplished collectively in service of faith, these interpreters seek independently in service of their own cultural identity, aesthetic values, or intellectual coherence.

John Ruskin’s essay “The Nature of Gothic” is the most eloquent expression of the English Gothic revival, even as Barry and Pugin’s Houses of Parliament (1840-60) are its most iconic. In order to clarify the transition between Venetian Byzantine and Gothic forms, Ruskin posits an idealized Gothic style that is recognizably Northern, unfettered by the Arab influences that colored its flowering in Venice beginning in the thirteenth century. He identifies six “characteristic or moral elements” in Gothic architecture, in order of importance: Savageness, Changefulness, Naturalism, Grotesqueness, Rigidity, and Redundance, corresponding with six characteristics of Gothic builders: Savageness or Rudeness, Love of Change, Love of Nature, Disturbed Imagination, Obstinacy, and Generosity (141).² For Ruskin the Gothic is not only an architectural style but a Northern cast of mind shared by his Anglo-Saxon audience, to whose “Gothic spirit” he appeals (139). This spirit takes the external form of “Foliated Architecture, which uses the pointed arch for the roof proper, and the gable for the roof-mask” (204; italics original). Ruskin associates the gable with the savageness of Northern weather—it being the best roof for casting off snow and rain—while the pointed arch is a function of Changefulness because, unlike the rounded arch, it is open to endless formal variation. Foliation, the architectural “adaptation of the forms of leafage” (200), is the feature that expresses the greatest breadth of Gothic spirit: Naturalism, of course, as well as the Savageness and Changefulness (variety) of the wilderness. Foliation also embodies Rigidity, which Ruskin defines as “the peculiar energy which gives tension to movement, and stiffness to resistance” (186). In “Gothic vaults and traceries,” he writes, “there is a stiffness analogous to that of the bones of a limb, or fibres of a tree; an elastic tension and communication of force from part to part, and also a studious expression of this throughout every visible line of the building” (186). “Gothic ornament,” he observes, “stands out in prickly independence, . . . here starting up into a monster, there germinating into a blossom; anon knitting itself into a branch, alternately thorny, bossy, and bristly, or writhed into every form of nervous entanglement” (186). Redundance is, finally, also a characteristic of foliation, which accumulates until “the cathedral front [is] at last lost in the tapestry of its traceries, like a rock among the thickets and herbage of spring” (190).

² Kirchhoff’s trenchant gloss of these elements (53-57) has assisted my summary here.
Ruskin locates the religious meaning of Gothic architecture not in its vertical aspiration but in its foliated detail. In contrast to ancient Greek architecture, where standardized ornamentation evinces the subservience of worker to master designer, Gothic architecture expresses the imaginations of individual, rough-and-ready artisans. “[I]t is, perhaps, the principal admirableness of the Gothic schools of architecture,” he writes, “that they thus receive the results of the labour of inferior minds; and out of fragments full of imperfection, and betraying that imperfection in every touch, indulgently raise up a stately and unaccusable whole” (146). Here Ruskin identifies the Christian principle that every soul is at once imperfect and uniquely valuable, “tending, in the end, to God’s greater glory” (146). Although Ruskin does not mention him explicitly, this analysis certainly rests on Aquinas’ belief that the variety and imperfection of creation glorifies God. Aquinas writes in the *Summa Contra Gentiles*:

> [S]ince every created substance must fall short of the perfection of divine goodness, in order that the likeness of divine goodness might be more perfectly communicated to things, it was necessary for there to be a diversity of things, so that what could not be perfectly represented by one thing might be, in more perfect fashion, represented by a variety of things in different ways. (66)

For Ruskin, the Gothic cathedral dramatizes this fundamental Scholastic operation, from which he moves to a condemnation of copying and exact finish in English manufacturing, to the aesthetic claim that “*the demand for perfection is always a sign of a misunderstanding of the ends of art*” (156; italics original). Thus Ruskin appeals to the Northern identity of his English readers ultimately to upbraid them for abandoning their ancestral aesthetic and social values.³

Henry Adams, in his *Mont Saint Michel and Chartres*, expressed the sentiments of the American Gothic revival as passionately as Ruskin did the English. The grandson and great-grandson of Presidents John Quincy Adams and John Adams, and an authority on both American and medieval history, Henry Adams was uniquely situated to explain medieval culture to American readers. Writing after 1900 as an informed observer of breakthroughs in physics and engineering, Adams shifts attention away from Gothic fretwork and toward its

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³ As Helsinger demonstrates, Ruskin exposes the English love of Gothic to be, on one level, a touristic escape from a dehumanizing industrial society (160-61).
mechanistic superstructure. For him, the cathedral is more the product of master architects than naïve craftsmen. His book culminates in an extended analogy, point for point, between the vertical lines of the Gothic cathedral and Aquinas’ account of the free will’s ascent toward God. In Aquinas’ Church Intellectual, the vaulting is the tour de force:

He swept away the horizontal lines altogether, leaving them barely as a part of the decoration. The whole weight of his arches fell as in the latest Gothic, where the eye sees nothing to break the sheer spring of the nervures [ribs of the groined vault], from the rosette on the keystone a hundred feet above, down to the church-floor. In Thomas’s creation nothing intervened between God and his world; secondary causes become ornaments; only two forces, God and Man, stood in the church. (Adams, Mont Saint Michel 334)

The stability of this structure depended on Aquinas’ success, through “architectural obstinacy,” in establishing man as “an energy independent of God” (343, 345), first by asserting that “souls were not created before bodies” (337); and second, by teasing out a concept of free will within a universe generated in a single “instantaneous act, for all time” (336). Man’s free will, Aquinas argues, is a reflex action of God’s original free act of creation. And grace, defined by Aquinas as “a motion which the Prime Motor, as a supernatural cause, produces in the soul, perfecting free will” (qtd. in Adams, Mont Saint Michel 352), becomes in Adams’ more mechanistic gloss, “a reserved energy, which comes to aid and reinforce the normal energy of the [human] battery” (352). Turning to the Gothic cathedral, he analogizes the reserved energy of grace to the apparently effortless rising of the fleches of Chartres and Laon:

The square foundation-tower, the expression of God’s power in act,—his Creation,—rose to the level of the church façade as a part of the normal unity of God’s energy; and then, suddenly, without show of effort, without break, without logical violence, became a many-sided, voluntary, vanishing human soul. . . . (356)

Adams compares the Summa Theologica to Beauvais, the tallest Gothic cathedral, as “excessively modern, scientific, and technical, marking the extreme points
reached by Europe on the lines of scholastic science.” The “despotic central idea” of both is “that of organic unity . . . in the thought and the building” (356-57).

*Mont Saint Michel and Chartres*, Adams’ paean to “Thirteenth-Century Unity,” must be understood in the context of his subsequent autobiography, *The Education of Henry Adams* (1907), which he called “a Study of Twentieth-Century Multiplicity” (*Education* 435). For Adams, the doctrine of unity is what distinguishes the medieval period from the modern, when science and art abandoned unity for “complexity, multiplicity, variety, and even contradiction” (*Mont Saint Michel* 357). However, he finds continuity between the modern and medieval periods in their confrontations with overwhelming power. Describing a visit to the 1900 Paris Exposition in the *Education*, Adams famously pairs the electric dynamo, on the one hand, and the Virgin and the Cross, on the other, as symbols of infinity exerting comparable “attractions on thought” (383). The emotional tone of his Gothic cathedral is therefore colored by a modern anxiety about its fragility as well as an attraction to its familiar power. Adams expresses this ambivalence best when he describes the ribs of the groined vault, the *nervures*:

> Of all the elaborate symbolism which has been suggested for the gothic Cathedral, the most vital and most perfect may be that the slender *nervure*, the springing motion of the broken arch, the leap downwards of the flying buttress,—the visible effort to throw off a visible strain,—never let us forget that Faith alone supports it, and that, if Faith fails, Heaven is lost. (359)

*Nervures* and flying buttresses are the nervous byproducts of divine grace, conducting anxiety into the earth as the spire rises effortlessly toward the sky. The Gothic cathedral, Adams concludes, is “the cry of human suffering” (359).

In *Form in Gothic*, the German art historian Wilhelm Worringer compares the Gothic and the Scholastic by striking a middle course between Ruskin’s focus on ornament and Adams’ on structure. For Worringer, “[t]he Gothic cathedral is the most powerful and comprehensive presentation of mediaeval feeling” because it unites the “organically sensuous” and the “abstractly mechanical” (163). This unity is achieved subtly through the communication between the distinct energies of the cathedral’s interior and exterior. Inside, sensuous ornamental details achieve a super-sensuous, abstract energy through their combined upward motion. Outside, these vertical forces attain freer and more legible expression: unconstrained by the competing horizontal push toward the altar on the interior (a throwback to the
basilica form), and assisted by flying buttresses, the upward thrust shoots untrammeled into the towers. For Worringer, “the Gothic will to form” is characterized by “exalted hysteria” for “strongly expressive activity” which, moving upward, “dematerializ[es] the body of the building” and transcends its stone substance (79, 156-57; italics original). Gothic architecture induces “intoxication of the senses” through “pathos of space,” in contrast to the “sensuous clarification” of classical buildings (159; italics original). Worringer identifies the Gothic will with “Northern,” Germanic man, in contrast to “Classical” man, whose “felicitous state of spiritual equilibrium” produces balanced, rational forms (33). His terms, contrasting Northern and Classical, are thus remarkably similar to Ruskin’s, but he reaches almost opposite conclusions. While Ruskin traces particular Gothic ornament back to rude Northern craftsfolk, each unique, Worringer perceives there the undifferentiated abstract motion characterizing Northern tribes in general. Ruskin highlights the naturalism, peculiarity, and independence of ornaments, but Worringer surveys them abstractly.

Worringer writes, with obvious overstatement, that the interior of the Gothic cathedral is “all mysticism” and “the exterior construction is all scholasticism” (163). As his argument develops, it becomes clear that his analogy to Scholasticism entails activity on both the inside and the outside of the cathedral. For Worringer it is “a certain involved, contorted movement of thought as such” (170), not the specific content of Aquinas’ theology, that links Gothic architecture to Scholasticism:

It was not the result of thought, but the abstract process of the movement of thought, which bred in the Scholastic that intellectual ecstasy which stupefied and liberated him,—in the same way as the abstract process of movement in the line, which he made visible in ornament, or . . . the abstract movement in the energies of stone, which he made visible in architecture. (171)

Worringer takes the least of Ruskin’s Gothic moral elements—Redundance or Generosity—and gives it top billing. In effect, he locates in the form of Scholastic argument something akin to the concept of grace it articulates: a supplementary and gratuitous energy.

For Worringer, Gothic form synthesizes the dialectic between naturalistic and non-naturalistic styles in Western art history discussed in his 1908 bestseller, *Abstraction and Empathy*. There he defines artistic abstraction as a withdrawal of
subjective feeling from the perceived object, reflecting a straining beyond the physical world, in contrast to empathy, which entails a transfer of feeling from subject to object, resulting in more naturalistic forms. Abstraction and Empathy was championed by the German expressionist artists Ernst Ludwig Kirchner and Emil Nolde, as justifying their angular, energetic style, and was applied by the English critic T. E. Hulme to his prescient discussions of modernist abstraction in art and literature. Even as the Great War raged, damaging cathedrals at Soissons, Rouen, and Reims, Worringer oversaw a fourth edition of Form in Gothic while on leave from the front, where the Northern impulse for redundant movement was finding new expression in trench warfare. Ironically, his sharp distinction between Northern and Classical styles was co-opted by the Nazis, who denounced expressionism as degenerate and propagated representational art and classical architecture as tonics for the German nation.

Erwin Panofsky was art historian and rector at the University of Hamburg (the first Jewish rector of a German university), until the Nazis ousted him in 1933 and he began a distinguished academic career in the United States. In 1948 he delivered the Wimmer Lecture at Saint Vincent Archabbey in Latrobe, Pennsylvania, published in 1951 as Gothic Architecture and Scholasticism and later issued in paperback and numerous translations. Panofsky proposes manifestatio—“CLARIFICATION FOR CLARIFICATION’S SAKE”—as the formal principle uniting Gothic architecture and Scholastic theology (Gothic 34-35). Cutting through Worringer’s vague racial model to a more sophisticated understanding of Scholasticism, and, like Adams, a greater focus on master architects as intellectuals (exposed to Scholastic ideas, he argues), Panofsky sober Worringer’s intoxication of the senses. Indeed, he finds in Gothic architecture the very clarification that for Worringer is the antithesis of the Gothic and the essence of Classicism. Panofsky argues that three core principles of Scholastic argument also apply to Gothic architecture. Firstly, “totality (sufficient enumeration).” Like Scholastic theology, the High Gothic cathedral “sought to embody the whole of Christian knowledge, theological, moral, natural, historical, with everything in its place and that which no longer found its place, suppressed” (Gothic 31, 44-45). Secondly, “arrangement according to a system of homologous parts and parts of parts (sufficient articulation).” Just as the well-ordered Scholastic treatise is arranged in a hierarchy of consistent logical levels, so the Gothic cathedral divides into nave, transept, and chevet, with a hierarchy of subdivisions, resembling one another in their pointed arches and triangular ground plans—a uniformity that sets the Gothic apart from the Romanesque (Gothic 31, 45-49). As Aquinas maintains, “the senses delight in
things duly proportioned *as in something akin to them*; for the sense, too, is a kind of reason as is every cognitive power” (qtd. in Panofsky, *Gothic* 38). And finally, “distinctness and deductive cogency (sufficient interrelation).” The homologous order mirrored in different parts of the cathedral, as in the treatise, is balanced by the clear articulation between parts: between shafts and walls, between vertical elements and their arches. Simultaneously, the Gothic style requires a mutual inference among parts, so that we can “infer, not only the interior from the exterior or the shape of the side aisles from that of the central nave but also, say, the organization of the whole system from the cross section of one pier” (*Gothic* 31, 50-51).

For Panofsky, the Gothic cathedral, like the Scholastic *summa*, is an edifice of “solutions” to organizational problems faced by master intellectuals. Where Worringer sees a superabundance of random movement, inspired by unconscious racial character, Panofsky sees “gratuitous clarification” consciously achieved (*Gothic* 60). Panofsky’s conception of the Gothic implicitly rejects Ruskin’s notion of an “unaccusable whole” arising willy-nilly from “the labour of inferior minds.” *Gothic Architecture and Scholasticism* typifies Panofsky’s signature theory of iconology, whereby the visual image codifies “those underlying principles which reveal the basic attitude of a nation, a period, a class, a religious or philosophical persuasion—qualified by one personality and condensed into one work” (Panofsky, *Meaning* 30). This theory, focusing on the work of educated personalities, underlies Panofsky’s study of linear perspective as the central “symbolic form” of the Renaissance, the key to politics, philosophy, and poetry, as it does his influential essay on motion pictures, which he compares, in their massive coordination of artists under a central vision, to medieval cathedrals.4

For all their differences, Ruskin, Adams, Worringer, and Panofsky each tell a story of decline. The medieval synthesis came apart. The Renaissance, in Ruskin’s view, suppressed individual workers’ creativity and, according to the others, unleashed separate strains of mysticism and empiricism that Scholastic theology and Gothic architecture had, for a time, held together. These writers traced analogies between the Gothic and the Scholastic as a refuge, perhaps, from modern societies that offered no coherent belief to anchor artistic experimentation. At the same time, however, formal order—where form and function merge, and ornament, even if seemingly gratuitous, streams into a meaningful whole—is the underlying dream of modernism, as it was, for these writers, the aspiration of Gothic

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4 *Perspective as Symbolic Form* (1927, trans. 1991); “Style and Medium in the Motion Pictures” (1934, rev. 1947).
architecture. These studies are highly original works of imagination, mutually illuminating yet isolated from one another (the absence of Ruskin from Adams’ book, and of Worringer from Panofsky’s, are matters of choice). Although criticized as scholarship, each survives as a work of creativity. Panofsky’s study is the most scholarly of the four, but the least emotionally satisfying, and the least *nervous*: the fretting of remote Gothic artisans, the mysterious ascent of towers, the gratuitous motion of tracery, all fire the imagination more than does gratuitous clarification. However, Ruskin, Adams, Worringer, and Panofsky all discerned in Gothic architecture and Scholasticism a particular synthesis of organic detail and abstract form, resonant with their intellectual, aesthetic, and social visions, and perhaps with their emotional needs. Medieval Gothic is an outcast, earlier modernism in which later modern observers, working amid shifting forms of society and culture, have repeatedly imagined themselves. “It is that strange *disquietude* of the Gothic spirit that is its greatness,” Ruskin writes; “that restlessness of the dreaming mind, that wanders hither and thither among the niches, and flickers feverishly around the pinnacles, and frets and fades in labyrinthine knots and shadows along the wall and roof, and yet is not satisfied, nor shall be satisfied. . . . [T]he work of the Gothic heart is fretwork still . . .” (165; italics original).

**Works Cited**


About the Author

Joseph C. Murphy is Assistant Professor of English at Fu Jen Catholic University, where he teaches graduate and undergraduate courses in American literature and edits Fu Jen Studies: Literature & Linguistics. He received his Ph.D. in English from the University of Pennsylvania. His dissertation, “Exposing the Modern: World’s Fairs and American Literary Culture, 1853-1907,” examines the influence of exposition culture on works by Walt Whitman, William Dean Howells, and Henry Adams. His research and teaching have focused on relationships between literature and visual culture as well as literature and religion. He has published articles in Cather Studies, Literature and Belief, Modern Language Studies, Chung-Wai Literary Monthly, and the electronic Whitman journal Mickle Street Review <http://micklestreet.rutgers.edu/>. In 2002-03 he was Visiting Professor of English at St. Vincent College in Latrobe, Pennsylvania.

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If we are to draw the dividing line between Romanesque and Gothic, knowledge of the individual parts is less important than an understanding of the architectural conception as a whole. The Church of Saint-Etienne in Caen, consecrated in 1077, shows, in purely Romanesque terms, an intention that would in itself have been enough to start a new style. Such pure forms are of great importance to the modern observer, who only too easily forgets that whole generations worked at the building of the medieval churches, most of which are Romanesque churches restored or enlarged by Gothic builders. 

ERWIN PANOFSKY. Architecture and Scholasticism An inquiry into the analogy of the arts, philosophy, and religion in the Middle Ages. Amiens, west facade. Begun 1220; clerestory completed 1236; tracery of the rose ca. 1500, Figure 34-. Reims, St.-Nicaise (destroyed), west façade. Between Gothic architecture and Scholasticism a palpable and hardly accidental concurrence in the purely factual domain of time and place.