Restoring Chartres Cathedral

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The cathedral of Notre-Dame of Chartres, having been spared the destruction and vandalism visited on many other medieval sites,¹ has become the model to which scholars of the Middle Ages turn in seeking to understand medieval iconographic programs.² It is known for its stained-glass windows (Fig. 2), which by one calculation contain medieval glass in 173 out of its 186 apertures, an astonishing proportion that amounts to 5% of the surviving legacy of medieval stained glass.³ Because of its excellent preservation of medieval art, any changes to its fabric, or alteration in our understanding of the way Chartres Cathedral was conceived or adorned, have ramifications for medievalists beyond the monument itself. These stakes, in conjunction with the monument’s status as a cultural icon, have contributed to an unusually heated debate over the restorations conducted there between 1974-2017. In a widely-quoted posting in 2014, critic Martin Filler decried the “scandalous desecration of a cultural holy place,” which no longer resembles the cathedral he visited 30 years ago,⁴ while another stated that the restorations at Chartres were “on par” with the Taliban’s destruction of the Bamiyan Buddhas in Afghanistan in 2001.⁵

³ The calculation of the number of apertures within the cathedral varies considerably, having more to do with how one adds up the extant windows, than the fact of the windows’ remarkable preservation. Canon Yves Delaporte in his seminal work, Les Vitraux de la cathédrale de Chartres:  Histoire et description, 4 vols. (Chartres, 1926), 1: 6-7 suggested that there were 173 medieval windows, though his plan, 1: 526, fig. 68 and listing of windows, I: 529-32, indicates more. Elizabeth Carson Pastan and Mary B. Shepard, “The Torture of Saint George Medallion from Chartres Cathedral in Princeton,” Record of the Art Museum of Princeton University 56 (1997), p. 28 n. 2 offer the figure 173 medieval windows out of a total of 186; a figure also in Claudine Lautier, “Les vitraux de la cathédrale de Chartres, Reliques et images,” Bulletin monumental 161 (2003), 77 n. 6. The inventory of the windows of Chartres Cathedral compiled by the Corpus Vitrearum in France, Les vitraux de centre et des pays de la Loire, Recensement des vitraux anciens de la France, II (Paris, 1981), 25-45, at 25 states that there are “over one hundred windows,” based on its system that counts 143 windows total. Peter Kurmann and Brigitte Kurmann-Schwarz, “Chartres Cathedral as a Work of Artistic Integration: Methodological Reflections,” in Artistic Integration in Gothic Buildings, ed. Virginia Chieffo Raguin et al. (Toronto, 1995), 145 n. 10 refers to 150 medieval windows out of 173 openings; Wolfgang Kemp, The Narratives of Gothic Stained Glass, trans. Caroline Dobson Saltzeweld (Cambridge, 1997), 3, cites 152 remaining windows out of a total of 185. Also see “Chartres: Through a Glass Darkly,” Time Magazine 109.5 (1977), 66 estimating that Chartres has 2500 meters of glass, or 5% of the medieval legacy.
Most of us can think of restorations that involve ambiguity and compromise, including the destruction of the fourth-century Roman Tetrarchic shrine at the Temple of Amun in Luxor – the better to reveal the Egyptian New Kingdom monument – at the end of the nineteenth century;\(^6\) the cleaning of the Sistine Chapel ceiling frescoes in 1980-1999;\(^7\) and the recent replacement of the worn tutu on Degas’s bronze statuette of a young ballet dancer.\(^8\) Mindful of the potentially irreversible consequences of restoration, some have advocated that we should never intervene in the appearance of any work of art. As John Ruskin (1819-1900), the prominent Victorian author, social theorist, and art critic, cautioned,

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\text{Do not let us deceive ourselves…; it is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture.}\]^{9}

Others distinguish between “restoration,” intended to return a work to a state of optimal completion,\(^10\) and its more pragmatic cousin, “conservation,” which purports to maintain and stabilize a work of art in the condition in which it is found.\(^11\) The distinction of course is highly subjective.\(^12\) The journalist John Lichfield, for example, objected to what he perceived as the ill-conceived restoration of Chartres, stating, “Imagine how you might feel if your great, great, great grandmother was suddenly made to appear 20 years old again.”\(^13\) While Patrice Calvel, architecte-en-chef (1987-2013) of Monuments historiques, the organization which is charged with oversight of French buildings, countered, “all I’ve done was a bit of vacuum cleaning,” thus aligning the work he oversaw at Chartres with the conservation of works of art.\(^14\)

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\(^6\) See Ioli Kalavrezou-Maxeiner, “The Imperial Chamber at Luxor,” *Dumbarton Oaks Papers* 29 (1975), 225-251; and Michael Jones and Susanna McFadden, eds., *Art of Empire: the Roman frescoes and Imperial Cult Chamber in Luxor Temple* (Cairo, 2015).

\(^7\) Gianluigi Colalucci, *Michelangelo’s Colours Rediscovered in The Sistine Chapel* (New York, 1986). This modern restoration is the most frequently in laudatory terms: though from different sides of the debate on Chartres, both Filler, “Scandalous Makeover,” and Jeffrey F. Hamburger and Adam Nathaniel Furman, “Forum: Does the restoration of Chartres Cathedral deserve praise?” in *Apollo Magazine* (May, 2015), 16-17 at 16 refer to it with approval.


\(^10\) Eugène-Emmanuel Viollet-le-Duc, “Restauration,” *Dictionnaire raisonné de l'architecture française du XIe siècle au XVIe siècle* (Paris, 1869), vol. 8: 14 notoriously defined restoration as “the reinstatement of a building in a condition of completeness that never could have existed at a given time” (translation mine).

\(^11\) For David A. Scott, “Art Restoration and Its Contextualization,” *Journal of Aesthetic Education* 51.2 (2017), 85 the difference between conservation and restoration offers a useful conceptual boundary.

\(^12\) Scott, “Art Restoration.” 85 admits that “there is a natural overlap between [conservation and restoration] in their more moderate manifestations that cannot be so easily divorced from each other.” In French, the nearest cognate terms are reconstitution (restoration) and restauration (conservation), creating additional confusion.


Too often, recent discussions of Chartres have pitted scientists, archeologists, and art historians against social critics, journalists, and bloggers, and the French who oversaw the work against everyone else. Snippets from Martin Filler’s 2014 posting in particular – amusingly referring to the “faux-marble” restorations in the choir of Chartres, the “magical thinking” involved in the attempt to recapture the past, and to ‘repainting in the color of whipped cream’ – have claimed media attention, precisely because he is unburdened by any knowledge of the literature on Chartres or medieval architecture generally, and can proceed without nuance or historical reference. He succeeds as a writer, where he fails as a scholar. There may be valid reasons to criticize the work undertaken at Chartres, but they are not because it no longer resembles the cathedral Filler remembers from his visit 30 years ago, or because it provides British designer and blogger Adam Nathaniel Furman ‘a space to think about the passing of time.’ The current discourse centers uncomfortably on how the medieval space “should” look, with the result that one visitor’s aesthetic valuation and emotional responses are as valid as another’s.

The discussion of best practices in the conservation of works of art, while vitally important, is not my focus here. The work at Chartres is still too insufficiently understood to contribute meaningfully to such a discussion. In this study, I propose instead to accept the $18.5 million-dollar overhaul of Chartres Cathedral as a fait accompli and investigate what we have learned about the medieval edifice from the work undertaken there over the past several decades. In analyzing the recent conservation of the cathedral, I will first discuss the restoration of its stained-glass windows, which began in 1974, before considering the treatment of its walls initiated nearly two decades later in 1992, because the difference in the reception of these campaigns is illuminating. I will then turn to findings uncovered during the latest campaign of

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15 See the exchange between Hamburger and Furman, “Forum.”
16 A point made in Filler, “Scandalous Makeover,” who nonetheless finds one Frenchman to break ranks.
17 Hamburger and Furman “Forum,” 17.
18 See the discussion by the founding director of the UCLA/Getty Conservation Program, David A. Scott, “Art Restoration” (n. 11 above), which draws on a wide range of examples to articulate an ethics of conservation practices.
19 The two most detailed published studies of the restorations at Chartres to date are: the issue of Bulletin monumental 169.1 (2011) dedicated to “La cathédrale de Chartres. Restaurations récentes et nouvelles recherches”; and Arnaud Timbert, ed., Chartres: Construire et restaurer la cathédrale, XIe-XXIe s, Architecture et urbanisme (Villeneuve d’Ascq, 2014). Many publications on Chartres are now out of date because they only have pre-restoration images. For a publication that partially encompasses the changes that were taking place, see Michel Pansard, ed. Chartres, la Grâce d’une cathédrale (Strasbourg: La Nuée Bleue, 2013). In addition to other studies that will be cited within, two classic treatments of Chartres are still unparalleled: the anthology edited by Robert Branner, Chartres Cathedral, with Source Material and Selected Critical Writings, Norton Critical Studies in Art History (New York, 1969); and Jean Bony, French Gothic Architecture of the 12th & 13th Centuries, California Studies in the History of Art (Berkeley, 1983), esp. 195-207.
restorations, in order to anchor this discussion in new evidence, which sheds light on medieval architecture generally.

Phase One: Restoring the Stained Glass of Chartres Cathedral

The modern cleaning of Chartres Cathedral’s stained-glass windows has been generally applauded because glass is expected to transmit light and carry content into the interior. It was evidently the expectation of medieval beholders as well; in his *Manuale de mysteriis ecclesiae*, Pierre de Roissy who served as chancellor of Chartres Cathedral from 1208-1213, described stained-glass windows as “divine writings” that “throw the light of the True Sun, that is to say the light of God, into the interior of the churches, that is into the hearts of the faithful by filling them with light.”

By the mid-seventeenth century, however, many medieval stained-glass windows were no longer being regularly maintained. Eighteenth-century churchgoers did not hesitate to complain about the darkness of churches that retained their medieval glass. Writing in 1718, the Jesuit scholar Jean-Baptiste Le Brun des Marettes observed that the somber medieval windows made the choir of Chartres Cathedral so dark that the clergy was forced to use candlelight in order to recite the office of Sext, normally observed at noon. Problems of medieval windows were also discussed by Pierre Le Vieil in his 1774 treatise on glass painting in his chapter entitled, “Reasons for the Decadence of Glass & Responses to the Difficulties Cited in Order to Excuse or Bring About its Abandonment.” Le Vieil conceded that dissatisfaction with medieval stained glass was understandable since his generation, better educated than its predecessors, had difficulty reading their prayer books in dark church interiors. He recommended allowing the

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23 Jean Baptiste Le Brun des Marettes, *Voyages liturgiques de France* (Paris, 1718), 227. The author also lamented the darkness created by the stained-glass windows at the cathedral of Bourges and the Sainte-Chapelle, see 140, 142.

crepuscular light of the windows to inspire a “religieuse horreur,” or failing that, placing the principal scene of a medieval window onto a clear new ground, an operation that he himself was hired to perform on the windows at Notre-Dame in Paris, which had become darkened after centuries of neglect. 

Medieval glass was made from local raw ingredients, usually one part sand and two parts ash, which had the advantage of being easy to melt, but the mixture was innately susceptible to decomposition. Without regular cleaning to remove excess water, as well as dirt and spider webs that help contain moisture near the window, the glass will gradually decompose, forming a chalky layer on the exterior surface, which is almost plaster-like in appearance (see Fig. 6). The conservation of stained glass involves removing the weathering crusts that form on the exterior surface of the windows, which block light from fully penetrating the glass and illuminating the interior (Figs. 3-5). This weathering crust – sometimes referred to as patination – is hydroscopic, and thus further traps the water that promotes decay. Sulfur dioxide associated with automotive exhaust also accelerates decomposition in glass, making the application of safe conservation measures especially urgent. Thus, the removal of weathering crusts is not merely a matter of aesthetics, but also prevents the endangerment of the medieval glass. When scholars refer to the admirable consequences of aging over time (“that special dimming”) and the desirability of patination, they generally discuss works of art made in non-translucent materials such as bronze or wood, or works with opaque polychrome finishes, but not windows whose legibility depends on their ability to transmit light, and whose stability is endangered by that patination. 

The contrast between windows that have been cleaned to those in an unmaintained state is truly night and day, which I illustrate with views of the Charlemagne window from Chartres Cathedral before and after restoration (Figs. 6-8). You can see the difference in the photograph taken at Chartres in 1997 when the Charlemagne window on the left had not yet been cleaned and the St. James window to its right was newly restored (Fig. 6). In the view taken after the

26 Scott, “Art Restoration,” 91-92 refers to the innate properties of a given material to acquire a patina of aging as “inherent vice.”
Charlemagne window was conserved in 2000, the window has reclaimed its legibility and charisma, and offers an excellent example of the kind of intricate glass composition that was meant to convey content in its setting in a meaningful way (Fig. 7).

A window dedicated to the Emperor Charlemagne (768-814) might seem like a strange choice for a prominent location in the choir ambulatory, because Charlemagne was accused of incest with his daughters, only canonized centuries after his death, and never became part of the liturgy at Chartres. But the window honors Charlemagne under the terms that he was meaningful to the cathedral: as the donor of the cathedral’s chief relic, the Sancta Camisia or garment worn by the Virgin Mary. The window identifies Charlemagne through nine inscriptions (Fig. 9), more than any other named protagonist in the choir, indicating his importance to the site, and it is one of only three in this location that features an historical ruler. These characteristics, along with the scenes throughout the window that return to the intercessory role of relics, suggest how significant Charlemagne’s gift was to the cathedral and to its stature as a Marian shrine. Such a window is a site-specific distillation of Charlemagne’s importance, tailored to the devotional traditions of this setting, and was intended to be viewed.

Phase Two: Cleaning the Fabric of Chartres Cathedral

29 Conrad Rudolph, “Inventing the Exegetical Stained-Glass Window: Suger, Hugh, and a New Elite Art,” Art Bulletin 93 (2011), 399–422, has argued that Abbot Suger of Saint-Denis (1122–1151) was able to justify the expense of his windows through exegetical subjects that required a level of engagement akin to monastic spiritual study.


31 The importance of the Sancta Camisia and Charlemagne’s role in bestowing it on the cathedral are expounded in two thirteenth-century texts from Chartres, the Miracles of Notre Dame, composed in Latin by a cleric of Chartres at approximately the same time as the Gothic windows in the second quarter of the thirteenth century and a French verse redaction from about half a century later. As the Latin text explained, the relic was a garment worn by Mary when she gave birth, and as the French verses elaborated, the garment was especially important because it touched both mother and child. See Jean le Marchant, Miracles de Notre-Dame de Chartres, ed. Pierre Kunstmann (Ottawa, 1973), with French verses and Latin text offered in parallel. Also see Annemarie Weyl Carr, “Threads of Authority: The Virgin Mary’s Veil in the Middle Ages” in Robes and Honor: The Medieval World of Investiture, ed. Stewart Gordon (New York, 2001), 59-93; and E. Jane Burns, “Saracen Silk and the Virgin’s ‘Chemise’: Cultural Crossing in Cloth,” Speculum 81 (2006), 365-397. Also see Lucien Merlet, Catalogue des Reliques & Joyaux de Notre-Dame de Chartres (Chartres, 1885), 82-92, which publishes the first inventory of the treasury of Chartres compiled in 1322; Charles Challine, Recherches sur Chartres (Chartres, 1918), 167-78; and Claudine Lautier, “Les vitraux de la cathédrale de Chartres: Reliques et image,” Bulletin monumental 161 (2003), pp. 3-96.


According to architect-in-chief of Monuments historiques Calvel, it was the luminosity and brilliance of the colors revealed in the cleaning of the windows that led to the decision to begin on the fabric of the building in 1992.\textsuperscript{34} The modern cleaning of Chartres’ stained-glass windows was not without controversy,\textsuperscript{35} but the advent of social media has both galvanized armchair critics and created new avenues of expression for those who object to the most recent restorations of the fabric of the building, largely on aesthetic grounds. Indeed, the removal of centuries of grime, fire damage, and whitewash has revealed surprisingly colorful, “tarty,” and even modern-looking walls, as these before and after views reveal (Figs. 9-12, 18-21).\textsuperscript{36} Intensive analyses conducted by French scientists, archeologists, and restorers claim to have discovered 80-90% of the original thirteenth-century wall treatment in the nave intact, underneath the accumulated dirt and grime.\textsuperscript{37} The medieval stonework was covered with a thin layer of plaster, and this plaster was painted a creamy ocher-yellow hue, with white courses of masonry painted over the ocher, projecting a regularity that the stone walls do not possess.\textsuperscript{38} The ribs, which culminate in tall pointed vaults, are differentiated by white paint, enhancing the effect of verticality in the interior.\textsuperscript{39}

Many associate interior polychromy with unique monuments such as the Sainte-Chapelle in Paris, or the basilica of Saint Francis in Assisi (Figs. 13-14), but the investigations made in conjunction with the recent work at Chartres suggest that it was a far more commonplace practice.\textsuperscript{40} The cleaning of the walls at Chartres Cathedral is the culmination of research first


\textsuperscript{38} See detailed discussion of the stratigraphy of the walls in Calvel, “Restauration du décor polychrome” (n. 12 above), esp. 14-15. Also see Madeline Caviness and Jeffrey Hamburger’s Response to Filler, “The New Chartres: An Exchange,” in the New York Review of Books (17 December 2014), emphasizing there was not one, but two layers of false masonry were clearly visible, one dating to the thirteenth, the other to the fifteenth century. As they clarify: if there is anything controversial about the restoration, it lies with the restorers’ decision to use the thirteenth-century false masonry as their guide.

\textsuperscript{39} As Ellen Shortell has pointed out in a personal communication, “It has been thought that this change was part of a new aesthetic at Chartres, one that emphasized the structural elements as part of the visual effect. However, now that we see that these shafts were whitewashed so that the [horizontal] mortar joints disappeared, and so that they stand out from the flat surface of the wall and from the central part of the pier, it seems that the builders of Chartres wanted to maintain an illusion of the familiar wall elevation with en-delit shafts around the main piers and against the wall, but with a stronger structure.”

\textsuperscript{40} Arnaud Timbert, “Mise en perspective,” in idem, ed., Chartres: Construire et restaurer, 87 notes other medieval churches with interior polychromy, including Noyon, Amiens, Geneva, and Lausanne.
conducted in Germany by the art historian Jürgen Michler, who drew attention to the routine and prevalent use of paint on the interiors of Gothic cathedrals, beginning with Sainte-Elisabeth of Marburg.\textsuperscript{41} He extended his research to Chartres Cathedral, in a pioneering article published in 1989.\textsuperscript{42} Michler’s investigations were made using only a flashlight and his naked eyes, yet the colored diagram he produced (Fig. 15), projecting what the elevation of Chartres Cathedral would look like with its medieval paint uncovered, has turned out to be surprisingly accurate.\textsuperscript{43}

The ramifications of the analyses that began with Michler are enormous. The cleaning at Chartres offers new evidence for the ways that medieval builders sought to coordinate the effects of windows and walls. This is particularly evident in one of the details missing from Michlér’s diagram projecting what the cleaned walls would look like: analyses have now revealed that the grounds behind the clerestory rosettes and the cathedral’s three extant medieval rose windows were painted white (compare Figs. 11-12 with Fig. 15).\textsuperscript{44} These grounds offset the imagery in the upper windows, making them more legible, and promote the dappling of colored light emanating from the windows onto the surrounding walls.\textsuperscript{45} In addition, the colonettes in the nave triforium, at mid-level above the arcade (See Fig. 12), are simulated colored marble in hues of green and red that further harmonize with the colors in the stained-glass windows. The conservation of the walls thus offers evidence of the close coordination of the windows and their setting.

I will anchor the rest of my discussion around four discoveries that have come about as the result of the recent cleanings: 1) evidence of the liturgical life of the building, 2) the heraldry uncovered on its painted keystones, 3) the differentiation of the choir, or holiest part of the building in the east, and 4) newly discovered medieval wall paintings. This is hardly a comprehensive list, but it is my hope that these findings will contribute to a more grounded conversation.

**Evidence of the liturgical life of the cathedral**

As the conservation of the walls at Chartres gives new evidence of the paint that routinely decorated many medieval church interiors, we are confronted with aspects of its medieval

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\textsuperscript{41} Jürgen Michler, *Die Elisabethkirche zu Marburg in ihrer ursprünglichen Farbigkeit*, Quellen und Studien zur Geschichte des Deutschen Ordens, 19 (Marburg, 1984).


\textsuperscript{44} Calvel, “Restauration du décor polychrome” 19.

religious life. Now starkly revealed, for example, are the ambries for holding implements associated with the Mass in the choir chapels (Fig. 16). These cupboards were unremarkable when the walls were a monochrome dirty grey, but now they are prominent, as you can see in this view of a cabinet in the wall of a choir chapel, where the camera angle creates the illusion that the statue’s outstretched arm is motioning to the ambry. Ambries are practical, all-purpose storage cupboards for the use of the clergy, and particularly associated with sacramental oils, such as those used in Last Rites. Lacking the evidence of these ambries, when I encountered references to vessels and books kept in chapels in medieval inventories, I never fully grasped where they put these things and how this was managed in a practical sense.46 The physical findings at Chartres help us to approach the cathedral as a functioning building and place of devotions.

Another finding of note are the post holes discovered throughout the upper parts of the choir, with sixteen in the side walls alone (visible in the upper registers of Fig. 17). For conservators seeking to assess the layers of paint and whitewash concealed beneath the grime, these had great diagnostic value. Moreover, as archeologist Jérémie Viret explained, while there had been various excavations below ground excavations conducted at Chartres at the end of the nineteenth and early twentieth centuries, the elevation and vaults of the cathedral had never undergone full investigation.47 The pattern of these holes in the side walls suggested that they assisted in the construction of the vaults, in the planting of wooden scaffolding.49 In addition, a significant grouping of holes aligned along the main axis of the choir, which correspond to altars below, appear to have held metal joints, indicating that these may have been used for hanging items. Their placement suggests lights suspended from the ceiling, as well as ex-votos, or offerings given in gratitude or devotion, which were often in wax that took the form of the body

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47 Viret, “Archéologie des parties hautes du choeur,” 30, Fig. 2.
50 One of the longest entries in the Bayeux Cathedral Inventory concerns the Corona or large candle wheel given by Odo of Bayeux; see Deslandes, “Le trésor,” 375; discussed in Pastan, “Item une tente très longue,” 119-120.
part healed, or the crutch no longer needed.\textsuperscript{51} Ex-votos are often mentioned in medieval miracle stories and accounts, and sometimes appear in depictions of interiors (Fig. 17), but since so few of them survive, the post holes that could have accommodated them at Chartres are a particularly interesting finding.

**Painted keystones**

Also newly in evidence are the painted coats of arms that adorn the keystones at the apex of the vaults (Fig. 18-19), which proclaim the beneficence of those who helped to pay for the building. Many medieval sites made financial provision for the beginning of a new architectural undertaking in gifts of land, tithing of the resident clergy, the acquisition and display of relics, and the setting aside of income from unfilled clerical prebends towards building costs.\textsuperscript{52} But funds inevitably grew scarce as construction dragged on over many decades, especially by the time it reached the upper stories of the elevation, where highly skilled craftsmen were needed to coordinate the joining of the wall with the vaulting. The keystones of the vaults thus presented a significant medieval donor “opportunity.” While there are depictions of donors and devotees interspersed throughout the glazing program,\textsuperscript{53} the limited number of keystones in the vaults, where the eye is reflexively drawn, offered elite patrons special prominence.\textsuperscript{54} After cleaning, Michel Pastoreau analyzed the heraldry in the five richly painted keystones in the choir and was able to identify their donors: King Louis IX of France (+1270), King Ferdinand III of Castille (+1254) or his son Alfonsus X (+1284), Duke Hugh of Burgundy (+1284), Count Charles of


\textsuperscript{54} As revealed in the film, “Chartres, La Lumière retrouvée!” 2014 restorers at Chartres faced the decision of how to approach one keystone in the nave for which there was extant pigment and chose to create a modern version, so as to harmonize with the other extant keystone. Arguably this was an opportunity to do less.
Anjou and Maine (+1285), and Duke Henry III of Brabant (+1261) or a close relative. I illustrate this point with a view of the restored central keystone of the hemicyle, which shows Christ blessing surrounded by ribs painted with the fleur de lis of the king of France (Fig. 19). The dates of the donors of the choir keystones indicate a time frame for the completion of the choir vaults in the years c. 1257-1261, about half a century after the beginning of construction. The cleaning thus provides new specificity about the time it took to complete the structure, and this evidence is compelling because the dating suggested by the heraldry aligns with the cathedral’s consecration on 17 October 1260. Here, the cathedral choir is literally overseen by the ruling elites of the day (Fig. 18).

The choir

Medieval ecclesiastical architecture focuses on the choir, the holiest part of the edifice, and the most brightly illuminated part of a church in an oriented building. It is distinguished from the nave by architectonic elements such as the choir screen, which is the church within the church that frames the main altar (see Fig. 11, with a view of the modern choir screen, erected in 2009 to cordon off the restoration work in the choir). Other ways of highlighting the choir might include a difference in height, as at Saint-Denis where the choir was ten feet higher than the nave, or through enlarged windows, as at Amiens Cathedral. One scholar observed that the paving of Chartres Cathedral appears to slope gently downwards from east to west, facilitating the washing out of the nave, made necessary by pilgrims lodging there, as well as poultry sellers, wine-criers etc., known to populate the western part of the building.

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58 Jean Bony, French Gothic Architecture of the 12th & 13th Centuries, California Studies in the History of Art (Berkeley, 1983), 94 documenting a 3.18 m or 10’5” differentiation in height. Also see Sumner McKnight Crosby, The Royal Abbey of Saint-Denis from Its Beginnings to the Death of Suger, 475–1151, ed. and completed by Pamela Z. Blum (New Haven 1987), 125-135, documenting the raising of the height by 6 feet of the interior pavement of the narthex, nave, and transepts of Saint-Denis in 1812 at the request of Napoleon 1.
The conservation of the choir of Chartres Cathedral has revealed its boldly differentiated presentation (Figs. 20-21). The choir, which received new Baroque decoration beginning in the seventeenth century, with light-blue inset panels, marble reliefs, and simulated sepia-colored painted marbles on wooden cylinders wrapped around the original limestone supports, has been the most controversial part of the cleaning. What most critics are objecting to, however, is the Baroque embellishment of the Gothic choir, not its modern restoration, which they only imagine confected the faux-marble revetments.

The embellishment of the choir also included installation of a 30-ton marble statue of the Virgin behind the main altar in 1773 (Fig. 20). As part of this campaign to modernize the appearance of the choir, in 1773 and again in 1786 colored medieval stained-glass windows were demounted from the choir and replaced with modern grisaille compositions (see Fig. 22, left side of the image). These removals were evidently instigated by the sculptor, Charles-Antoine Bridan, who wanted to see his work displayed to better effect. This operation resulted in the one verifiable example of (heavily restored) medieval stained glass from Chartres in American collections (Fig. 22-23). Besides providing additional documentation of the troublesome darkness of the glass and the remedies adopted in the eighteenth century, this example underscores the fact that each generation makes its own mark in its places of worship, which characteristically focus on the choir as the holiest part of the building.

**Medieval Wall Paintings**

As is frequently noted, most analyses of the stained glass of Chartres Cathedral attend to the lower narrative windows, and pay little attention to its clerestory compositions, or its rose windows. The reasons are not hard to fathom: these upper windows are farther from the beholder, and do not generally adopt the sequential narratives favored in the lower windows. The cleaning of the walls in the western part of the building has revealed new evidence about how the content of the western rose of Chartres of c. 1200 was conveyed to beholders (Figs. 24-26). Significantly, this rose is both the earliest of the three medieval rose windows at the cathedral

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64 Elizabeth Carson Pastan and Mary B. Shepard, “The Torture of Saint George Medallion from Chartres Cathedral in Princeton,” *Record of The Art Museum, Princeton University* 56 (1997), 10-34. In all, eight medieval windows were removed.

(see Fig. 2), and at 12 meters or nearly 40 feet in diameter, the largest. After the cleaning of the western rose of Chartres Cathedral was undertaken in 2011, it became apparent that the window retains an astonishing 95% of its original glass, allowing it to serve as a useful point of reference for envisioning how rose windows would have appeared to their medieval viewers.66

It stands to reason that one cannot “read” a rose in the way one would read a lower narrative window.67 The content of rose windows has been described as “encyclical,” alluding to their themes that lend themselves to the refracted portrayal favored by the many small units joined together in a rose’s composition (Fig. 25).68 It is also noteworthy that rose windows feature subjects that cannot be seen with human eyes; they are primarily visions from the end of time as at Chartres, or great luminous chart-like presentations of holy personages and the elements that make up the cosmos. This diagram of the 36 individual elements joined within the circular field of the western rose window (Fig. 26) demonstrates how the theme of the Last Judgment was realized in the logical equation of up for the heavenly scenes and down for the scenes related to hell (Fig. 27).69 The largest single medallion is reserved for Christ, who is shown at center inscribed within a red quatrefoil emphasizing the cross-like position of his outreached arms. Here again, there is a dramatic difference between pre-restoration photographs (Fig. 28), where Christ appears as a dark cipher silhouetted against the blue ground, and this view taken from scaffolding in 2011 (Fig. 29), where you can see considerably more detail, including his nude upper torso, the five wounds from the crucifixion, and his voluminous purple robe, details which emphasize the mystery that Christ was both fully human and fully divine. Cleaned, the image of Christ from the Last Judgment stands an infinitely greater chance of being recognizable to a viewer positioned 80 feet below. The imagery in the surrounding vitreous roundels is likewise boldly painted, and each unit contains no more than five figures, thereby


67 On distinctive strategies for “reading” medieval narrative windows, see Kemp, Narratives of Gothic Stained Glass, 3-88; Cavinness, “Bible Stories in Windows,” 122-127.


69 Delaporte, Vitraux de la cathédrale, p. 520, Fig. 67; useful visual aids are available on the websites compiled by Painton Cowen http://www.therosewindow.com/pilot/Chartres/w143-Frame.htm and Alison Stones http://www.medart.pitt.edu/image/France/Chartres/Chartres-Cathedral/Windows/West-windows/143-Rose/chartres-143Wrose-main.html, (both accessed 15 September 2017). This chart comes from the latter.
allowing the contours of the forms to aid in the discernment of the scenes (see Fig. 27). Yet it is undeniable that one still cannot see the scenes in the detail with which they were created. Even Canon Yves Delaporte writing in 1926, before automotive exhaust further exacerbated the decomposition and weathering of the cathedral’s windows, suggested that the western rose of Chartres was best viewed from the organ loft.\(^70\)

The most surprising discovery from the recent conservation of the interior walls are the medieval wall paintings, contemporary with the rose (Fig. 30), of the elders of the Apocalypse mentioned in the Book of Revelation who were present at the time of the Last Judgment.\(^71\) The wall paintings complete the iconography of the rose window, adopting the composition of the rose window’s multiple circular elements, and mimicking the form of the figures within the rose, further harmonizing window and wall. They thus further extend the vitreous content of the rose out into the nave, into the viewer’s space, and contribute to its interest and importance.

Without a doubt, the evidence produced by the restorations at Chartres unsettle and challenge the ways we think about medieval cathedrals. The program of restorations has revealed how both religious and social hierarchies were inscribed within its sacred topography, in features not previously in evidence such as the ambries in the chapels, post holes in the upper walls and vaults, and the choir keystones. It also illuminates how the architecture and its glazing program coordinated with one another, most spectacularly in the newly discovered western wall paintings. In weighing the evidence produced by the restorations at Chartres Cathedral, I draw perspective from Marcel Proust (1871-1922), who worried about the fate of medieval churches in his own day. Writing in *Le Figaro* in 1904, Proust envisioned a time when the monuments of the past would be condemned to serving as mere nostalgia palaces, “visited by bus loads of snobs.”\(^72\) I have endeavored to steer a parallel course, in advocating that we approach Chartres less through nostalgia, and begin the important task of taking stock of the new findings that can enlarge our understanding of Gothic cathedrals.

\(^70\) Delaporte, *Vitraux de la cathédrale*, 521.
\(^71\) First published in Lautier, “Rose Window,” 126-127, Fig. 7.4 and colorplate 20. For a good discussion of Last Judgment iconography, see Pamela Sheingorn, “‘For God is Such a Doomsman’: Origins and Development of the Theme of Last Judgment,” in David M. Bevington et al., *Homo, Memento Finis: the Iconography of Just Judgment in Medieval Art and Drama*, Early Drama, Art, and Music Monograph Series 6 (Kalamazoo, MI, 1985), 15-58.
\(^72\) Marcel Proust, “The Death of the Cathedrals,” *Le Figaro*, 16 August 1904.
Fig. 1 View of Chartres Cathedral from the south east.

Fig. 2. Ground plan showing the stained-glass windows of Chartres Cathedral.
Figs. 3-4 Window from Troyes Cathedral with weathering crusts, shown from interior & exterior, c. 1981
Fig. 5. The same window from Troyes Cathedral, with weathering crusts removed, c. 1987
Fig. 6. View of the unconserved Charlemagne window, next to the cleaned St. James window, in Chartres Cathedral, c. 1997
Fig. 7. View of the bottom third of the Charlemagne window at Chartres Cathedral, after conservation in 2000
Fig. 8. Detail of the cleaned Charlemagne window, with inscription
Fig. 9. Before and after views of the nave of Chartres Cathedral

Fig. 10. View into nave clerestory, showing cleaned and uncleaned walls
Fig. 11. View of Chartres Cathedral to the east, undergoing conservation, with mock choir screen, c. 2011

Fig. 12. View of the northern nave elevation, post cleaning at Chartres Cathedral, c. 2016
Fig. 13. View of the Sainte-Chapelle, Paris

Fig. 14. View of St. Francis, Assisi
Fig. 15. Michler’s diagram of polychromy at Chartres Cathedral from *Bulletin Monumental*, 1989
Fig. 16. View of the northern choir ambulatory at Chartres, with the ambry apparently gestured to by the statue
Fig. 17 Guillaume de Saint-Pathus, *La vie et les miracles de Saint Louis* (Paris BN MS fr. 5176, f. 629) with the miracle of Orenge of Fontenay showing the hanging of a coiled candle, crutches, and an arm.
Fig. 18. View of the 5 keystones in the choir of Chartres Cathedral, c. 2011

Fig. 19. Detail of the keystone with fleur de lis given by King Louis IX
Figs. 20-21. Views of the 18th-century embellishments in the newly restored choir of Chartres Cathedral, including Chartres-Antoine Bridan’s Assumption of the Virgin, the marble statues placed in the choir in 1773.
Figs. 22-23. Torture of St. George, The Art Museum, Princeton University, Trumbull-Prime Fund, y71, and Delaporte’s reconstruction of bay 112 in the southern choir clerestory of Chartres Cathedral from which it was removed.
Fig. 24. Western entrance façade of Chartres Cathedral from the exterior, showing its 3 twelfth-century lancets below, surmounted by its thirteenth-century western rose window.
Fig. 25. Interior view of the cleaned western rose window of Chartres Cathedral of c. 1200

Fig. 26. Diagram with subjects of Last Judgment in the western rose of Chartres Cathedral
Fig. 27. Western Rose of Chartres Cathedral, detail of the Rosette of the Dead Rising (scene #21)
Figs. 28-29. Before and after images of scene #1, Christ from the Last Judgement rose window at Chartres Cathedral
Fig. 30. Detail of the medieval wall painting of an Elder of the Apocalypse, from the westernmost bay of the nave that abuts the rose window