Figure 1  Bisson Frères, photograph of Henri Labrouste, Bibliothèque Sainte-Geneviève, Paris, 1838–50, 1852. Salted paper print probably coated with albumen, on mount (Académie d'Architecture, Paris)
The Template of Photography in Nineteenth-century Architectural Representation

At the core of this essay are a photograph and an engraving of it (Figures 1, 2). Each is without precedent, as is their interrelationship. The photograph was taken in 1852 and illustrates the just-completed Bibliothèque Sainte-Geneviève in Paris, one of the most important nineteenth-century buildings and a landmark in the history of modern architecture. It is the first photograph to come to light of a contemporary building made on commission and in view of some form of publication. It is by the Bisson Frères, who were soon to become one of the leading firms in the nascent field of commercial photography. The photograph dates from the first year of their partnership and may be their earliest known effort at architectural photography. The photograph dates from the first year of their partnership and may be their earliest known effort at architectural photography. It was not mentioned in the 1999 catalogue of the exhibition of their work at the Bibliothèque Nationale de France in Paris and the Museum Folkwang in Essen. Its existence has only been directly referred to once in the literature on nineteenth-century architecture—and only in passing. It has just been reproduced once, in the catalogue of the Académie d’Architecture in Paris, where it is housed and where it has remained unnoticed.

The engraving is based on a tracing of the photograph by the library’s architect, Henri Labrouste. It appeared under his and the engraver’s names in 1853 in the leading French architectural journal of the period, the Revue générale de l’architecture et des travaux publics. It is the first known case of a published architectural drawing based directly on a photograph taken to serve as its template. Indeed, the building’s history is intertwined with that of photography. The government-approved design of the library dates from 1839, the year Louis Daguerre’s “invention” of photography was announced to the Académie des Sciences in Paris. The building itself was opened to the public in 1851, the year that saw the appearance of the wet collodion glass negative for reproducing high-quality images on paper as well as the first French magazine devoted to photography, La Lumière. And the publication of the engraving occurred just a little over a year after the completion of the first government campaign to use photography to document France’s architectural patrimony, the Mission Héliographique, undertaken by the Commission des Monuments Historiques in 1851.

The omission of the photograph from the literature on the period is startling in light of the extraordinary growth of interest in the history of photography in the past three decades, the rather small number of signed and dated early examples like this one, the unique status of the building and its architect in the history of modern architecture, and the fact that the photograph has been in a public collection since 1982 and was published in the institution’s catalogue in both French and English in 1988. This essay rectifies the situation. It explains how the photograph and the engraving of it came into being and what the interchange between the two
media can add to our understanding of Henri Labrouste’s aesthetic and its anticipation of what was to become a common practice in architectural representation in the later nineteenth and early twentieth centuries. It clarifies some of the important national differences regarding architectural representation in the nineteenth century while revealing how the method of representation itself could become an active agent in the production of architectural meaning.

Architecture and Photography, 1839–51

No art was more closely linked to the early development of photography than architecture. Yet very little work has been done on how photography aided contemporary architecture in the creative process of design and diffusion.2 The reason for this may be the manifest success of photography in other areas. From the outset, photography’s main role as far as architecture was concerned was the recording and accurate documentation of historical monuments and sites.

In 1852, the year of the Bisson photograph in question, the editors of the *Encyclopédie d’architecture*, France’s second most important architectural journal of the period, wrote in a review of Maxime Du Camp’s *Egypte, Nubie, Palestine et Syrie: Dessins photographiques recueillis pendant les années 1849, 1850 et 1851* (1852) that, while “it might be that painters who, in general, much malign daguerrean images, will not attach great importance to the scrupulous exactitude with which the smallest details are reproduced in these drawings . . . we are certain that architects, for whom the daguerreotype seems to have been expressly invented, will . . . find in these pictures, in which nature herself has taken up the brush, useful information on the monuments of antiquity and invaluable material of study.”3 A number of issues are raised in this statement: (1) the different reception of photography by painters and architects; (2) the striking “exactitude” of the photographic image; (3) the equation of the photograph and the drawing; (4) the spontaneous generation, as it were, of the photographic image; and (5) the importance of photography for architects as documentation and historical reference material.

I will deal with all these points but will begin with the first and the last.

In his January 1839 presentation to the Académie des Sciences of Daguerre’s process for reproducing images on metal plates, François Arago vaunted the “exactitude,” “incredible fineness” of detail, and “almost mathematical precision” of what he described as black, white, and halftone “drawings.” As for those who might make use of the process, Arago singled out “travelers” and members of “learned societies” interested in “the graphic representation of architectural monuments,” adding that the “ease and exactitude” of the new medium, “far from being prejudicial” to traditional draftsmen, should in fact “procure additional work for them.”4

Arago expanded on his discussion of the historical origins and development of the daguerreotype in a report read before the National Assembly six months later, where he successfully called upon the government to purchase the
Before proceeding to a scientific analysis of the process and its prospects for development, Arago returned to the relationship between artists and photography mooted in the earlier report in order to quiet any suspicions that there might exist a built-in antagonism between the traditional draftsman and painter and the new “photographic drawings.” For this he relied on an opinion from the academic painter Paul Delaroche. Arago quoted Delaroche as stating that Daguerre’s process “develops the perfection of certain essential conditions of art so far that they will become for even the most skilled painters a subject of observation and study.” Agreeing that photography would in no way “prove prejudicial to our artists and our skillful engravers,” Delaroche declared that “the admirable discovery of Mr. Daguerre is an immense service rendered to the arts.”

Leaving aside the debate over when, where, and if Delaroche also said that once he became aware of Daguerre’s invention he was forced to the conclusion that “painting is dead,” the story, apocryphal or not, speaks volumes about the conflicted relationship that was to unfold between painting and photography. Painters and critics felt compelled to defend the art of painting against the claims of photography and saw the interaction between the two media as fraught, confrontational, and something to be denied or, at the very least, downplayed. The near-hysterical pitch this reached is well known through Charles Baudelaire’s critique of photography in his “Salon of 1859,” where he declared that photography had “become art’s most mortal enemy.”

Architecture, by contrast, as the editors of the Encyclopédie d’architecture stated, was the natural ally of photography and thus medium friction was not an immediate issue. That belief, however, was grounded in the relatively limited role thought to be the province of architectural photography, namely, the impartial recording and accurate documentation of historical monuments. But once photography became engaged in the world of contemporary design, the issue of competition would arise, although in a form peculiar to a medium where the final product—the building—is far removed from the artistic act that brings it into being—the drawing. The competition, in other words, would take place around representation.

As early as 1851, the critic Francis Wey, in a two-part article that appeared in the first issues of La Lumière, foresaw the consequences for architectural representation in general. In comparing the “diverse branches of art that photography puts at risk,” Wey singled out architectural representation as the one most likely to lose its traditional appearance. “The most complete, the most destructive outcome,” he wrote, “will affect drawings, engravings, or lithographs representing . . . architectural subjects. In this field, resistance will be chimerical: a mediocre heliographic [photographic] print of the portal of Chartres or Bourges will always be preferable for its finish, its reality, its relief, and its precision to the most accomplished engraving.”

From the 1840s well into the 1870s, Wey’s prediction would itself appear chimerical, in large part due to the fact that processes for halftone printing of photographs in books and, especially, journals were still in their infancy, but also in part due to the continued association of photography almost exclusively with the reproduction of historical monuments. According to Barry Bergdoll and Anne de Mone­nard, whose writings on early architectural photography in France have been critical to our understanding of its evolution, the earliest and most sustained application of the new medium to architecture took place in the areas of preservation and restoration and involved two of the most important architects of the period, Félix Duban and Eugène-Emmanuel Viollet-le-Duc. The latter commissioned daguerreotypes of Notre-Dame as early as 1842 to help him and Jean-Baptiste-Antoine Lassus in the preparation of their successful competition project for the restoration of the Parisian cathedral. Shortly after they won the competition, Duban, who was placed in charge of the restoration of the Château of Blois in 1843, commissioned Hippolyte Bayard to do a series of daguerreotypes of the building’s François I wing. Once work began in 1845, Duban commissioned more photographs until somewhere between twenty and fifty were taken and used in the first phase of operations that ended in the later 1840s.

The Mission Héliographique gave full recognition to the importance photography had by then achieved in the field of historic preservation, so much so that one year after the completion of its monumental task, the editors of the Encyclopédie d’architecture wrote that “just as it is no longer permissible today to undertake a building restoration project without having under one’s eyes a photograph of the building, one can neither today seriously study antique architecture without possessing photographic images of the masterpieces that remain from that period.” Indeed, by the late 1840s Alfred Normand, a pensionnaire at the French Academy in Rome, began supplementing drawings
and did not believe that the medium could adequately represent his design thinking. “For Duban,” Bergdoll explains, “the photograph remained part of the process of preparing graphic images [of historic structures], not a work of art that could be signed by an architect. New work required the poetry of drawing.”21 In opposing the “poetry” of drawing to the more scientific and objective “exactitude” and “precision” of photography, Bergdoll’s analysis of Duban’s position allows us to understand why it took so long for architects to see the value of photography for representing their creative work.

Most art critics at that time would have supported Duban’s low opinion of photography. Etienne-Jean Delécluze wrote in 1842 that, in contrast to drawings and paintings in which “the artist . . . impregnates the objects he sees with the rays from his soul,” photographs remain “works in which man voluntarily turns himself into a machine in order to receive the material impression of objects.”22 Perhaps no one at the time more fully expressed the drawing versus photograph distinction than the art critic, former student of Delarocche, and later curator of prints and drawings at the Bibliothèque Impériale Henri Delaborde. “Compared to art,” he wrote, “photography . . . can only produce, instead of an image of truth, the brutal effigy of reality. In its principle and in its necessary conditions, it is the negation of feeling, of the ideal.” “That,” he explained, “is what gives it its negative expression, the inert appearance of its products.” The “extreme abnegation of photography,” he added, “its impotence to modify reality,” was, however, entirely appropriate to its documentary function in the “representation of monuments . . . that are of interest to archaeology and history.”23

Figure 3 Charles Marville, photograph of Félix Duban, Ecole des Beaux-Arts, Paris, 1832–39, view of courtyard looking north, December 1851. Calotype (Bibliothèque Nationale de France, Paris)
Even before Delaborde penned these remarks, the notion of photography as document had been transferred from the past to the present when, in early 1855, Hector Lefuel commissioned Edouard Baldus, a veteran of the Mission Héliographique, to produce a series of views recording progress on the construction of the New Louvre. Not unsurprisingly, when Lefuel first requested funds for the operation in October 1854, he employed the argument of the preservation architect, telling the minister that, aside from having perspectives made of the “new buildings,” he thought “it would be useful also to record the present façades of the Old Louvre by the process of photography.”

This deployment of photography to document a major building operation derived logically from its earlier use in restoration practices and led directly, as Bergdoll has shown, to the photographic campaigns at the Paris Opera and Châtelet theaters, beginning in the 1860s, on through to that of the Sacré-Coeur at the end of the century. But this takes us well beyond the Bibliothèque Sainte-Geneviève, where more than two years before Lefuel hired Baldus, photography was called upon to play a role other than mere record or document and to say something only it could regarding the intentions of its architect’s design thinking.

The Publication of the Bibliothèque Sainte-Geneviève

The Bibliothèque Sainte-Geneviève was the most consequential work of architecture built in France in the first half of the nineteenth century. Great anticipation surrounded its opening in February 1851. Interest in the library was mainly due to the reputation of its architect as a leading figure of the Romantic generation, although it was also known to many that its public reading room was to be the first in the world open in the evening, lighted by gas, and made fireproof by an exposed cast- and wrought-iron structure (Figure 4). The publication of images of the Bibliothèque Sainte-Geneviève in the popular press preceded the opening of the building and continued beyond that moment in time. What concerns us here, however, are the plates published for the professional audience based on the architect’s or his staff’s own drawings and controlled by his vision of how the work should be perceived. Labrouste’s library was, if not the most, one of the most reproduced building of the first half of the nineteenth century. Almost sixty engraved plates containing nearly one hundred separate figures representing over thirty different individual and composite drawings appeared between 1851 and 1855 in major publications in France, England, and Austria. The perspective seen in Figure 2 was the penultimate and most prominent of this exceptionally large group of representations; it was also the only non-orthogonal projection. In addition, it was one of only four plates the architect himself took credit for as draftsman. Of the others signed by someone in addition to the engraver, nine were attributed to Labrouste as “inventor” and twelve to his main assistant, Julien Thobois, as “delineator.”

Among the most often reproduced images are the ground- and upper-floor plans and a combined partial elevation and section (Figure 5). These were engraved from drawings that Labrouste and Thobois produced specifically for...
publication. A little more than thirty of the drawings have been preserved, among which are six done in ink and colored wash on large sheets of grand aigle paper (approximately 100 × 67 cm). The latter are beautifully rendered and lusciously detailed in rich india-ink blacks, soft washes of gray, and hues ranging from vermilion to pink to mauve to ocher to pale blue and green. In the transverse section of the reading room, gold highlights pick out the titles of the books (Figure 6). The color and most of the shading was lost in the engravings although a few, especially those in Daly’s Revue, manage to translate some of the finesse and dimensionality of the drawings into the reproductive medium. One of the very few engraved images for which we lack the architect’s original drawing is the perspective (see Figure 2).

In many cases the journal combined two drawings onto a single plate or added others to provide more information. A prominent example of this is the often reproduced transverse section through the center of the structure showing the west half of the vestibule, reading room, and stairwell (Figure 7). It is, in effect, a collage of two of the large colored transverse sections plus that of the stairwell (Figure 8, see Figure 6). This engraving also highlights the important difference in
Figure 6  Probably Labrouste and/or Julien Thobois, drawing of Bibliothèque Sainte-Geneviève, transverse section through reading room, ca. 1850 (Bibliothèque Sainte-Geneviève, Paris)

Figure 7  Labrouste, drawing of Bibliothèque Sainte-Geneviève, transverse section through vestibule, reading room, and stairwell. Engraving by Huguenet (from Revue générale de l’architecture et des travaux publics 10, nos. 11–12 [1852], pl. 26)
At the beginning of his introductory piece, Daly described the plates that had appeared in the year's previous issues. His comments on the transverse section seen in Figure 7 are instructive as to his concern for making the library appear as “real” as possible. “To give an effect of light and depth to this engraving,” Daly contended, “would have been to sacrifice all the details; to want to render all the details . . . was to attempt the impossible, yet that is almost what our skillful engraver Mr. Huguenet has dared to do.”

“Has he been able to render exactly the physiognomy of Mr. Labrouste’s work?” Daly asked. “Evidently not. All that line engraving could produce has been achieved; but in order to render the real effect of the [reading] room, one would need a perspective view in color, at a large scale.”

If Daly had been able to publish a colored perspective of the reading room, it would have been the first reproduction of its kind in any journal of the period. He certainly could have relied on Labrouste’s help, since the architect had done a perspective of the building’s main space as early as 1839, when he initially submitted the project for government approval (Figure 11). But here photography would have been of no use given the medium’s limitations at the time. Which brings us back to the exterior perspective. At the same time Daly said that he would have liked to publish an interior perspective to capture a sense of the building’s “real” presence, he also wrote, in commenting on the partial elevation and section (see Figure 5), “although one could produce for oneself a very exact idea of [the building’s]
overall [exterior] appearance” since the façade is “uniform except for the central bay,” he had “the intention of publishing in the eleventh [next] volume a view of this façade,” meaning a perspective.33 There was no mention of color in this case, and the focus on “reality” and “exactitude,” the two characteristics typically associated with photography, could easily have led Daly and Labrouste to discuss the use of that medium as a means to achieve the desired “effect.”

Drawing and Engraving in Perspective

Daly’s announcement of the future publication of a perspective view of the exterior of the Bibliothèque Sainte-Geneviève appeared in the final double issue of 1852, that is, in late November or December. He made good on the promise one year later. The perspective appeared in the next-to-last issue of 1853 (see Figure 2).34 While not as radical a move as an interior perspective in color would have been, the large-scale, full-plate, almost clinically objective linear perspective was still highly unusual for architectural journals of the period.

Unlike the Revue générale de l’architecture, both the Allgemeine Bauzeitung (founded 1836) and The Builder (founded 1842–43) often reproduced perspective drawings of contemporary buildings. The numbers in the former increased considerably from the mid-1840s on and, by the end of the decade, revealed a definite influence from the English type of picturesque composition. But even before that, perspectives were generally of a pictorial, scenic sort related to the type that Karl-Friedrich Schinkel favored in his Sammlung architektonischer Entwürfe (1819–40). Buildings were invariably seen from an idealized point of view, in a setting that often reduced the sense of scale to that of a vignette (Figure 12).
The Builder, a few dramatic and large-scale perspective images did appear but these were, again, mostly seen from an idealized, picturesque point of view. The relatively stark and up-close perspective of William Butterfield’s All Saints, Margaret Street, in London, only came in 1853, the same year as the Revue’s view of Labrouste’s library (Figure 13).35

It should not be surprising that a French professional journal would lag behind ones in England and Austria in publishing perspective views of buildings. The didactic architectural culture in France favored the more abstract, geometric orthogonality of plans, sections, and elevations. In the state-run Ecole des Beaux-Arts, as it was reorganized during the Restoration, perspective drawings were disallowed in design competitions until 1819 and after that only as a supplement to the required orthogonal drawings.36 The Encyclopédie d’architecture, founded in 1850, did not print a single perspective until 1856, when it was already in its sixth year of publication.

True to cultural type, Daly expressed serious reservations about the value of perspective as a representation of the “truth” of a building’s structure and form. In commenting on the perspective course at the Ecole des Beaux-Arts in 1846, he remarked that its instructor, Simon-Claude Constant Dufeux, “focused particularly [in his opening

Figure 10 Jean-Charles Huguet, engraving of Bibliothèque Sainte-Geneviève, details of iron structure of reading room. (from Encyclopédie d’architecture 3 [Jan. 1853], no. 70, pl. 20)
lecture] on truth, perhaps because the art that he teaches (perspective) is that of illusions, and one [in which] appearance constantly contradicts reality.”37 Prior to the publication of the Labrouste drawing in 1853, Daly’s Revue avoided perspectives of contemporary buildings and only included two very small ones in 1847 as parts of the presentation drawings done by Amédeé Couder and Hector Horeau for the Paris Opera.38 Other than these, the only perspectives that appeared during the first thirteen years of the magazine’s existence were images of historical buildings and sites (most often small in scale and picturesquely composed), mechanical equipment, structural details and systems, and small ancillary structures like garden sheds and greenhouses. The only things by well-known architects that appeared in perspective renderings were more sculptural than architectural, namely, tombs, fountains, and street furniture. Of these, an example by Labrouste was one of the first (Figure 14).39

Daly’s first reference to publishing perspectives, both interior and exterior, of the Bibliothèque Sainte-Geneviève occurred, as noted above, in late 1852; and the view of the exterior appeared almost exactly one year later. It is not
possible to say whether the idea came from Daly or from Labrouste. No correspondence on the subject exists. While it might appear from Daly’s published comments that the idea was his, it is more likely that it came from the architect who, as Daly himself stated, asserted control over everything regarding the building. Furthermore, Labrouste never dismissed the value of perspective drawing. To the contrary, he relied on it heavily in developing his designs and singularly exploited it in presenting them to the public.

Labrouste entered the Ecole des Beaux-Arts three months before the school lifted the ban on perspective drawings in design competitions. Among the projects he completed early in his school career, there is one, in particular, where he included a perspective view of the interior of a hospital ward as a supplement to the required orthogonal drawings (Figure 15). His sketchbooks of the period are filled with small perspectives visualizing the interior spaces of buildings. One of the most fascinating is that of the main stairway

Figure 13 B. Sly, perspective drawing of William Butterfield, All Saints, Margaret Street, London, 1849–59. Engraving by C. D. Laing (from The Builder 11 [22 Jan. 1853], 57)
Figure 14 Félix Duban (top) and Labrouste (bottom), perspective drawings of Napoleon tomb projects. Engraving by Huguenet (from Revue générale de l’architecture et des travaux publics 2 [Dec. 1841], pl. 32)

Figure 15 Labrouste. Branch of the Hôtel des Invalides project, concours d’émulation (rendu), Ecole des Beaux-Arts, 27 April 1821, elevation, section, and perspective (Ecole Nationale Supérieure des Beaux-Arts, Paris)
of his project for a Law Courts that won second prize in the Grand Prix competition of 1821 (Figure 16). Needless to say, the sketch was only done for himself in order to picture the space in relation to human scale and use.

While in Italy as a pensionnaire at the Académie de France à Rome between 1825 and 1829, Labrouste, like many of his peers, recorded monuments and sites in perspective drawings. His are extremely assured and often very unusual in their point of view and spatial resolution. Particularly indicative of his interest in rendering three-dimensional space on a two-dimensional plane is the large number of drawings he did of illusionistic Pompeian wall paintings, narrative Roman relief sculptures, and, especially, pre-Renaissance frescoes by Giotto and others, where he extracted the architectural settings from the scenes in order to focus on the way they create a three-dimensional spatial framework without recourse to scientific perspective (Figure 17).

![Figure 16 Labrouste, Law Courts project, Grand Prix competition, Ecole des Beaux-Arts, 1821, perspective of main staircase (in 1821 sketchbook) (Académie d’Architecture, Paris)]
Labrouste’s final two major projects during his stay in Italy, the reconstruction of the Greek temples at Paestum (1828–29) and a frontier bridge to link France and Italy (1829), both relied on perspective to carry the message of the project (Figures 18, 19). In the interior of the Temple of Hera I and the view of the frontier bridge looking back to France from Italy, Labrouste manipulated a simplified, austere form of one-point linear perspective to create a space and a place more of the mind than of physical reality, a conceptual image of what might have been or what might be.

This type of abstracted, bodiless three-dimensionality, seemingly more cerebral than physical, became part and parcel of Labrouste’s design thinking and representational strategy. It was used to great advantage in the project he did with his brother Théodore for the Pont de la Concorde in

Figure 17  Labrouste, drawing of background architectural details of thirteenth-/fourteenth-century frescoes by Giotto and others, San Francesco, Assisi, ca. 1625 (Bibliothèque Nationale de France)

Figure 18  Labrouste, reconstruction drawing of Temple of Hera I, Paestum, 1828–29, interior perspective. Engraving by André Soudain (from Henri Labrouste, Les Temples de Paestum: Restauration exécutée en 1829, 1877)
Paris (1836–40) (Figure 20). The nearly head-on point of view sets the weirdly anthropomorphic candelabra, with their fluttering flags, midway between the defining negative presence of an observer and the stagelike scenic backdrop of the Assemblée Nationale’s temple portico. In the design Henri entered in the competition for Napoleon’s Tomb in the Church of the Invalides (1841), published by Daly, the extraordinary concept of the enormous metal shield, barely lifted above an opening to reveal the underground coffin of the deceased, was dependent for its emotional and intellectual impact on the mysteriousness of the low, raking perspectival view (see Figure 14).

Labrouste clearly thought in perspective. He used it both as a primary design tool and as a fundamental means for conveying the significance of his work. We already saw that one of the drawings included in the project for the Bibliothèque Sainte-Geneviève submitted for government approval in late 1839 was a perspective of the reading room (see Figure 11). It was undoubtedly meant both to highlight this important part of the design and to clarify how the unprecedented exposed iron structure would appear in reality. Sheets of plan studies for the library have marginal sketches in perspective of both the exterior and the interior (Figure 21). One of the most extraordinary sheets shows a series of perspectival sketches of ideas for how the capital and impost block of the vestibule pier might receive the exposed iron structure of the ceiling (Figure 22). By means of perspective, Labrouste sought to visualize and compare
different ways of turning a purely mechanical condition into a subject for architectural poetics.

From Photograph to Engraving

The engraved perspective published in Daly’s *Revue* came at the very end of the building process. While it shares much in form and function with the architect’s many perspective drawings for the library and other buildings, it remains unique for its time, both for Labrouste and for his contemporaries, in terms of its dependence on photography. This dependence poses a number of fascinating and important questions that will direct the last part of this essay: Was the photograph commissioned or was it done on speculation? If
commissioned, who was responsible, Labrouste or Daly? Might the photograph have been intended to be published as a photograph? If not, can we be sure that the engraving was actually made from a drawing made from the photo? Why did Labrouste sign the engraving as “delineator” and why was no credit given to the Bisson brothers? Finally, and most critical for our understanding of the meaning of the event, what were Labrouste’s motivations in using the photograph and what value did he think could be achieved by this exceptional means of reproduction and representation?

The question of whether or not the photograph was commissioned can be dispensed with rather quickly. Louis-Auguste Bisson and his younger brother, Auguste-Rosalie, formed their partnership in the spring of 1852. Within just three years, they were being described by the critic Paul Périer as “the Michelangelos of architectural photography,” whose only possible rival was Edouard Baldus.42 Louis-Auguste had studied architecture and even worked for a time as an architect for the city of Paris, a point alluded to by Périer.43 Yet nothing in the output of the Bisson firm in its early years gives any evidence of an interest in contemporary architecture. The works the brothers produced for commercial distribution ranged from an album devoted to the decoration of the Alhambra to a series of views of buildings throughout Europe, dating from Roman times through the early nineteenth century, published in installments between 1854 and 1863.44

Individual photographs by the Bissons meant for sale, and therefore sent to the dépôt légal of the Bibliothèque Impériale, include the standard medieval through eighteenth-century Parisian monuments such as St. Etienne-du-Mont (1853), Notre-Dame (1853–57), the Hôtel de Ville (1854), and the Panthéon (1854–56). Aside from these, the brothers produced a number of images of the renovations of the Louvre (1853–57) and the Palais de Justice (1854) as well as several of Duhau’s Ecole des Beaux-Arts (1852–54). Like Marville’s images of the Ecole, the subject of the Bisson photographs was historical fabric and fragment, not contemporary design.

The photograph of the Bibliothèque Sainte-Geneviève, which eliminates any intrusion of Soufflot’s Panthéon and Ecole de Droit, is so demonstrably an isolated photograph of a recent construction that it has no parallel whatsoever in the Bisson’s work of the time, or in that of any other Parisian photographer for that matter. A copy of the photograph was not consigned to the dépôt légal nor would it have had any commercial value as an item for general consumption. Indeed, it remained in Labrouste’s possession, and later his family’s, until it was given to the Académie d’Architecture in the early 1980s. This is not only an obvious reason for assuming the photograph was done on commission but also a very likely one that the commission came from the architect himself.

One cannot, however, state for certain that it was Labrouste and not Daly who ordered the photograph. Daly was extremely interested in what the new medium could bring to architecture. He included news stories and notices regarding developments in the field in several early issues of the Revue and apparently met with members of the Société Héliographique, soon after its founding in 1851, to discuss ideas for setting up a company to produce photographic prints commercially.45 In 1856, the Revue published the first photograph of a building—a tipped-in calotype of the François I staircase at Blois—and the first photolithographic reproduction of a building—a rather murky view of Paris’s Halles Centrales under construction (Figure 23).46 Still, as late as 1851, Daly concluded a review of the new journal La Lumière on a note reiterating the conventional view that photography’s primary significance lay in the area of historic preservation: “We join in a desire expressed by La Lumière, by inviting architects, without delay, to point out to photographers all the monuments that are threatened to disappear or to be altered by unfortunate restorations so that, at the very least, faithful images will preserve for science the riches that so many causes combine to destroy.”47

Although Daly stated in his 1852 article on the library that he wanted to publish views of both the interior and exterior of the building, he never mentioned the idea of using a photograph for either and specifically referred to the process of chromolithography for the view of the reading room. Since the correspondence between Labrouste and Daly and his staff makes no reference to the subject, it seems logical to infer that it was Labrouste’s idea to commission the photograph following Daly’s request for an exterior perspective. That the photograph ended up in Labrouste’s possession would seem to confirm this supposition.

The decision about who commissioned the photograph directly relates to the question of whether it was meant to be published as such. Clearly, if the idea from the beginning was either to tip in a photographic print or make a lithographic version of it—as was done four years later for the images of Blois and the Halles Centrales—then it would stand to reason that the request for the image came from the publisher. But there is no evidence that this was the case. Furthermore, when the photograph of the Blois staircase was published in 1856, the article about it noted that the journal had “hesitated for a long time inserting in the Revue these [photographic] images [that are] so complete in appearance yet so deceptive in the end.” Not only was there a perceived lack of sharpness and clarity of detail especially in the “overly dark shadows,” there was also the sense that photographs “would not offer the same guaranty of
permanence that ordinary engravings would." One can therefore conclude that the photograph of the library was, from the outset, intended to be used as the basis for an engraving—and that the idea was Labrouste's.

The fact is that, aside from minimal cropping and cleaning up of certain details, Labrouste's drawing follows the photograph exactly. Indeed, it was clearly traced from it. Which leads one to think that the architect played a significant role in the setting up of the shot itself. This makes all the more sense since the Bisson firm had only been in existence at most six to eight months by then and the two principals were novices in architectural photography. Based on extant works, the Bibliothèque Sainte-Geneviève was either their first or second essay in the field (a view of the Gaillon Arch and courtyard of the Ecole des Beaux-Arts being the only other known work of theirs from 1852).

The choice of point of view was critical. It determined the flattened, exaggeratedly foreshortened image the structure presents while providing, from a distance, a sense of the edge the urban design as a whole creates for the Place du Panthéon. Included in the raking view are the library's administration building on the right and the Collège Sainte-Barbe, designed by Théodore Labrouste in collaboration with his brother Henri, on the left (Figure 24). The question of distance was thus as important as the narrow angle of view. The camera was placed at eye level nearly 300 feet to the southeast of the library, at the corner of the rues Clovis and Clotilde, across the street from the Panthéon and up against the facade of the Lycée Henri IV. The distance from the camera to the library was a little more than the length of the building itself.

One can easily imagine Labrouste looking over the photographer's shoulder to establish the precise position of the camera. Perhaps most obvious is how the northwest corner of the administration building aligns with the vertical axis of the pier that defines the first bay of the library's eastern facade. It is nudged to the right just enough to reveal the full iron bolt-head in the upper spandrel. At the same time, the top of the lower part of the administration building's mansard roof nearly touches the line of the library's hip roof sloping off to the northeast. The left side of the picture...
removes completely the eighteenth-century constructions by Soufflot, allowing only an indefinable piece of the Panthéon’s platform and railing to respond to the base of the library opposite it and serve as a repoussoir for the buildings of the present-day Lycée Louis-le-Grand in the background. The ragged look of the left side of the photograph was eliminated through cropping. To compensate for the resulting asymmetry, two bays of the administration building were removed (Figures 25, 26). "The four pencil crop marks are clearly visible on the surface of the photograph." 49

The photograph was made by the wet collodion process from a glass plate negative. It was printed on a thin salted paper probably coated with albumen. 50 The print is glued to a card backing on which is stamped, just beneath the lower left margin of the photograph, the name of the firm (see Figure 1). Centered beneath the image is a handwritten...
legend: “- 1852 - Bibliothèque Sainte Geneviève Par Henri Labrouste.” The mount is approximately 28.35 centimeters high by 39.75 centimeters wide; the photograph itself is approximately 21 centimeters high by nearly 33.5 centimeters wide. This is a little smaller than the view of the Ecole des Beaux-Arts, which may indicate that it is slightly earlier. The difference in size between the engraving and the photograph within the crop marks is minimal—somewhere between 1.75 and 2 millimeters—a difference that can be attributed to the natural shrinkage of paper in the reproduction process.

Aside from the cropping, Labrouste made a number of deletions from the photograph in transforming it for engraving. He removed all evidence of human activity, namely, the guard in the library doorway, the figures standing in front of the administration building, and the horse and carriage and delivery person in front of the Collège Sainte-Barbe (the people sitting on the sidewalk at the base of the Panthéon platform disappeared in the cropping). He got rid of the four street lamps and the chimney above the Collège Sainte-Barbe. As for the library itself, Labrouste removed the flagpole over the entrance, the temporary oil lanterns to either side of it, and the three ventilators on the roof. He also removed the shadow at the lower left edge of the first step of the entrance to make the face of the step appear flush with the stone jamb, which was how the detail had been designed. Finally, in addition to removing evidence of the cracks in the glass along the bottom of the plate, an abrasion above the one in the center, and several ink spots, Labrouste eliminated the large shadow cast by Soufflot’s law school on the six westernmost bays of the library’s façade as well as the buildings behind the gable-fronted structure of the Lycée Louis-le-Grand to the left of the Sainte-Barbe façade.

Labrouste’s tracing of the photograph involved more than removing unwanted features. His redrawing highlighted important aspects of the building that were somewhat indistinct in the photograph. The lack of clarity of detail in parts of the photograph is ironic given the emphasis on the medium’s “precision” and “exactitude” in photographic discourse. Labrouste reinforced the linearity of the design and the limited though sharp separation of planes in depth. He carefully picked out the detailing of such finely carved elements as the garland of the lower frieze, the window moldings, the arcade capitals, the lower and upper pateras, and the terracotta gutter. Perhaps most strikingly, he gave added prominence to the grid of the upper-floor window treatment and made especially legible the authors’ names inscribed in the inset panels. All these details pop out, as they do not in the even-toned, softer-focus photograph.

Labrouste built on photography’s putative strengths to give the image an even greater degree of precision, exactitude, and mechanical definition than the photograph itself provided. He gave added emphasis to the building’s linearity and flatness while at the same time making its decorative embellishment appear almost hyperreal. The compression of perspective produced by the lens’s long focal length was intensified by the drawing’s mesmerizing repetitiveness. Finally, the removal of all trace of human occupation transformed the photographic scene into an abstracted, airless, uncanny representation of reality combining in almost equal measure the rational character of the building’s design with its pronounced structural expression.

Architecture and the “Abnegation” of Photography

There is one additional change Labrouste made to the mounted photograph that is most telling. This was his replacement of the authorial signature “BISSON F. Photographes” by his own “H. Labrouste del.” While it may seem rather ungracious on his part, it speaks directly to the way photography was considered at the time. Barry Bergdoll, Molly Nesbit, and Paul-Louis Roubert have all remarked on the anonymity of the photographer in the nineteenth century, his “ancillary position” in the creative process, and his ultimate role as an “invisible collaborator.” He was more often than not treated as a servant—seen but not heard, there but not there, in effect, a non-person. The photograph became, in Labrouste’s hands, an instrument without identity serving as a template for another artistic agency.

All of which leads to my final points, which have to do with Labrouste’s motivations. Why did he do what he did? Why did he turn a photograph of his first, pathbreaking building into the drawing he intended the world and history to know it by? While one might immediately think that the reliance on a photograph was merely a time-saving device, a matter of convenience, this can easily be ruled out. Labrouste and his staff could turn out drawings like this with no trouble and little expenditure of time. Perspective construction, as we saw, was something the architect himself had long mastered. Furthermore, once he completed work on the library, Labrouste had no other major commitments until 1854, when he was commissioned to design the seminary of Rennes and placed in charge of work at the Bibliothèque Impériale.

The new, materially based functional realism of the Bibliothèque Sainte-Geneviève led Labrouste to seek a manner of representation that avoided picturesqueness and was as close to scientific and objective as possible. This is what the photograph promised. By accepting the limitations
it posed and the “abnegation” it implied, Labrouste clearly believed that he could eliminate the personal and the idealistic in the construction of the perspectival view by means of a medium of representation believed to be inherently mechanical and impersonal. As Delécuz wrote, through photography “man voluntarily turns himself into a machine in order to receive the material impression of objects.” The mechanical in appearance would thus match the mechanical in conception.61

Having decided to produce the perspective for Daly’s Revue, Labrouste was of necessity confronted with the issue of illusion and the subjectivity it involved. Daly himself had written just a few years before that “the art . . . [of] perspective . . . is that of illusions, and one [in which] appearance constantly contradicts reality.”62 An obvious way to circumvent the issue and preserve a three-dimensional rendering of reality from appearing to result from a personal, subjective point of view was to model it directly on the undeniably non-illusionistic, “brutal effigy of reality,” as Delaborde described it, of an image produced by the camera. The photographic image, as many critics noted, was purely linear and geometric and “devoid of atmosphere.”63 “One will never photograph air,” wrote Georges Niel.64 The uncanny, one might even say weird, spatial indeterminacy of Labrouste’s perspective was a logical consequence of his tracing the image from a photograph from which all signs of human activity and urban life had been removed.

The mechanical means of expression went hand in hand with the new, industrialized means of construction Labrouste adopted for the library. The pieces of its iron structure were mechanically produced and mounted by mechanical means. The contrast with the traditional carving of stone set the image of the machine against the handmade. The template of photography did for the rendered view of the building precisely what iron did for the constructed space. It created a clear and absolute distinction between the individual facture of the hand and the impersonal, repetitive product of the new industrial world.

Unaware of Labrouste’s dependence on photography for disseminating the image of the Bibliothèque Sainte-Geneviève, although no doubt aware of the recent publication of the photolithograph of the iron construction of Paris’s Halles Centrales, Charles Garnier remarked on the connection between iron and photography four years after the perspective of the Bibliothèque Sainte-Geneviève was published. “Photography,” he wrote, “attempts every day to replace drawing and engraving, in other words, to replace art with science, feeling with exactitude; likewise iron . . . comes to encroach upon architecture, to alter its characteristic forms, and finally to substitute in the same way industry for art.”65

In light of the relationship Labrouste drew between iron and photography, it is interesting to recall that the nearly photographic engraving of the ironwork details of the Bibliothèque Sainte-Geneviève was published as the plate immediately following the perspective view (see Figure 9). It was the last one in the Revue’s coverage of the building. Although the different elements included in it were published several times before in other journals, it must be presumed that Labrouste wanted to place his own drawing of them, finally, in direct apposition to the perspective and as an explicitly mechanical corollary of it.66

Afterlife of an Idea

Labrouste’s use of photography to produce the image of the Bibliothèque Sainte-Geneviève that circulated throughout Europe and America instituted a process that became, nearly twenty years later, a typical one until the advent of halftone printing in the 1880s. Labrouste appears to have availed himself again of the idea in the early 1870s, when he used photographs as the basis for the published engravings of the Bibliothèque Nationale. Both the entrance façade on the Square Louvois and the so-called Rotonde Voltaire at the corner of the Rues de Richelieu and des Petits-Champs were apparently traced from photographs, at least one of which was taken by Louis-Émile Durandelle around the time he was working for Garnier documenting the construction of the Paris Opera.67

The practice of tracing perspectives from photographs had one of its most remarkable outcomes in the lithographs Frank Lloyd Wright produced in 1910 for his Ausgeführte Bauten und Entwürfe von Frank Lloyd Wright, published in Berlin by Ernst Wasmuth in that year.68 This, however, represents a kind of swansong. The idea lost currency by the early 1920s, when photography, on its own and independent of drawing, assumed the primary role in diffusing architectural images. That is not to say that drawing and photography would not find new paths for interaction, as in the photomontage techniques employed by many in the pre-World War II period and the collages produced by Mies van der Rohe and others during and after the war. The advent of the digital and its widespread use by the end of the 1990s, however, makes relevant once again the issue of the intimate relationship between drawing and the mechanically produced image that Labrouste’s library initiated.

Notes
1. I want to thank the following for their advice and generous help: Claire Alonso and Marilena Kourniati, Académie d’Architecture; Sylvie Aubenas,
Thomas Cazentre, and Marc Le Coeur, Bibliothèque Nationale de France; the late Yvonne Labrouste; Marie-Noëlle Leroy; Susan Lockhart; Caroline Mathieu and Alice Thomine, Musée d’Orsay; Tim Sakamoto; Deborah Sears; Peter Sealy; Barbara Shapiro-Comte; and Henri Zerner. I also owe a debt of gratitude to Anthony Alofsin; Eve Blau; Sarah Kennel, National Gallery of Art; Anne McCauley; Christopher Mead; Michelle Penhall; and Wim DeWit, Getty Research Center.


4. Académie d’Architecture, Catalogue des collections, vol. 1, 1750–1900: Dessins, photographes, jetons et médailles, effigies d’architectes, ed. Paul Dufournet, Claudine de Vaulchier, and Gilbert Dumas (Paris: Académie d’Architecture, 1988), 258–59. The Bisson photograph, which I first saw in the early 1970s when it was still in the possession of Labrouste’s granddaughter-in-law, Yvonne Labrouste, was given by her to the Académie in 1982, four years after her major gift of the architect’s drawings and papers. It was not placed within the Fonds Labrouste section of the catalog but in the general photography section, which may partially explain why it has been neglected.

I first publically presented the research for the present article in a workshop/symposium at Northwestern University in 2010 held in anticipation of the Henri Labrouste exhibition to take place at the Cité de l’Architecture in Paris in the fall of 2012 and at the Museum of Modern Art in New York in the spring of 2013. Based on this talk, the organizers decided to include the Bisson photograph in the exhibition.

5. Revue générale de l’architecture et des travaux publics (hereafter RGAP) 11, no. 11 (1853), pl. 31. The engraver, Jacques-Joseph Huguenet, thought the engraving important enough to exhibit at the Salon of 1855. Commission impériale, Exposition universelle de 1855, Explication des ouvrages de peinture, sculpture, gravure, lithographie et architecture des artistes étrangers et français, exposés au Palais des Beaux-Arts, Avenue Montaigne, le 15 mai 1855 (Paris: Vinchon, 1855), 539. I thank Marc Le Coeur for bringing this to my attention.

6. See note 5 above.


9. “Mémoire et communications des membres et des correspondants de l’Académie,” Séance du lundi 7 janvier 1839, Compte rendu des séances de l’Académie des Sciences 8 (Jan.–June 1839), 4–6. Almost as an afterthought, Arago added that the invention “seems also sure to furnish physicists and astronomers very precious means of investigation.”


11. Ibid., 33–34.


16. Bergdoll, “Félix Duban, Early Photography.” For the second phase of operations, beginning in 1855, the architect hired the local photographer Séraphin Méliédre Mieusement to serve as a regular member of the restoration team.

17. “Vues photographiques,” EA 3, no. 2 (1 Dec. 1852), col. 16.


21. Ibid.


26. While these numbers are mainly for journals, including the Paris-based RG4 and EA, the London-based The Builder and The Architect: In Cooperation With The Civil Engineer and Architect’s Journal, and the Vienna-based Allgemeine Bauzeitung, they also include Léonce Reynaud’s Traité d’architecture, the first volume of which was published in late 1850, and Charles Gourlier et al.’s Choix d’édifices publics projets et construits en France depuis le commencement du XIXe siècle, the third volume of which appeared early in 1851. Soon after it was begun, the building’s plan was published by Léon de Laborde in his De l’organisation des bibliothèques dans Paris, 8th letter, Étude sur la construction des bibliothèques (Paris: A. Franck, 1849), 28.

27. In two cases the same basic image was attributed to both Labrouste and Thobois as “delineator.” The difference in both cases was that the one by Labrouste had a greater amount of detail. It should also be noted that at least six of the engravings signed by Thobois as delineator were of details of the bookshelves and colored details of the decoration, the latter reproduced as chromolithographs.

28. The large-scale colored drawings, now in the collection of the Bibliothèque Sainte-Geneviève, Paris, are numbered 1 through 6. Three are on Watman’s paper, one with a watermark of 1850 and two with a watermark of 1846; the other three are on Huddelist paper, with no watermark date. The drawings are unsigned and undated. The twenty-seven drawings in the Fonds Destailleur de l’Académie d’Architecture (uncatalogued album entitled “Etudes d’architecture”) were produced for the Encyclopédie d’architecture. Almost all are the same size as the final engravings and drawn in ink. Some are on tracing paper and a few have light gray or beige washes. None are signed. Their existence was first pointed out in Béatrice Bouvier, “La Bibliothèque Sainte-Geneviève et les publications d’architecture (1840–1860),” in Des Palais pour les livres, ed. Leniaud, 74–77, where four of the drawings were reproduced. She stated that “the majority [of the group] were drawn by Henri Labrouste himself” (75). She repeated the attribution in B. Bouvier, L’Édition d’architecture à Paris au XIXe siècle: Les Maisons Bancel et Mert et la presse architecturale (Geneva: Droz, 2004), 84, 93, but again offered no justification for the claim. A number of the drawings have errors that were corrected, which suggests that they were not originally done by Labrouste.

29. The drawing for the engraving published in the Encyclopédie d’architecture is literally a collage. The reading room section is on a piece of tracing paper glued to a larger sheet containing the combined vestibule and stairwell sections. “Etudes d’architecture,” 9, Fonds Destailleur, Académie d’Architecture.

30. [César Daly], “Bibliothèque Sainte-Geneviève,” RG4 8, nos. 7–8 (1849–50), col. 279.


32. Ibid. Daly claimed that “the time necessary to do such a drawing and not the expense of the lithochrome process or the printing was the only thing that prevented us from giving this perspective view in the Revue.”

33. Ibid., col. 379.


35. The Builder 11, no. 520 (1853), 57.

36. A decree of 14 October 1819 stated the following: “First article. The articles of all preceding regulations that prohibited drawings in perspective in concours d’émulation are all rescinded. Second article. In the concours d’émulation, it is [now] permitted for students to add to the drawings required by the program views, or drawings in perspective, useful for the development of their compositions, as long as the students completely present in number, proportion, measure, and scale, all the geometric drawings demanded by the program.” Registre (5°) des Années1821 à 1823. Jugements, 29 mai 1821–24 décembre 1823, A112 99, Archives Nationales, Paris.


38. The designs by Couloud and Horeau were published as plates 9 and 10 in “Le Nouvel Opéra de Paris,” RG4 7, no. 4 (1847–48), cols. 135–72. The Couloud project dated from 1845, when it was first published, while the one by Horeau was conceived in 1843 and redrawn in 1845.

39. The plate including both Labrouste’s and Duban’s competition designs for Napoleon’s Tomb in the Invalides was published as an illustration to César Daly, “Exposition des projets du tombeau de Napoléon,” 3rd pt., RG4 2, no. 12 (Dec. 1841), cols. 593–629, pl. 32.

40. To my knowledge, only four letters exist between Labrouste and the RG4 staff. The first, dated 11 March 1852, is a request from Daly’s assistant Perrot de Blanzy for a meeting to discuss the publication of the library. The second, from the same person, dated 22 March 1852, is a follow-up urging Labrouste to send the information he apparently had promised. The third is a letter from Daly himself, dated 8 November 1852, begging Labrouste to supply an article or even just notes for an article on the building. The fourth is the response from Labrouste to Daly’s request that formed the basis for the published account by Labrouste, “A. M. le Directeur de la Revue,” cols. 381–84. All four letters are in the collection of the Bibliothèque Sainte-Geneviève, the first three under the number MS. 3920, the last under the number MS. 3919.

41. Henri Labrouste’s brother Théodore’s project in the same competition of 27 April 1821, which won the first prize, did not include a perspective. Henri’s design came in second.


57. Other works, including the block used to engrave the reading room, match the Labrouste engraving. The engraving bears no signature stamp.

58. To analyze the differences between the photograph and the engraving.


60. For further discussion, see Neil Levine, Modern Architecture: Representation and Reality (New Haven: Yale University Press, 2010), 128-48.

61. Labrouste’s search for a more scientific, objective manner of rendering buildings can be traced back to his years as a pensionnaire at the Académie de France à Rome. In his obituary of Labrouste, Henri Delaborde described these “revolutionary” studies of historical monuments as “strictly faithful portraits of reality—so faithful that they did not stop at the exterior resemblance of things but, by the character they derived from certain inner elements, the stone building for instance, they make known to us and explain to us what one could call the organism of each construction.” Henri Delaborde, Notice sur la vie et les ouvrages de M. Henri Labrouste, lue dans la séance publique annuelle du 19 octobre 1878 (Paris: Académie des Beaux-Arts, Institut de France, 1878), 8. Barry Bergdoll, Léon Vaudoyer: Historicism in the Age of Industry (New York: Architectural History Foundation; and Cambridge: MIT Press, 1994), 76-79, has an excellent discussion of the turn away from the picturesque tradition of Charles Percier in the later 1820s and how Léon Vaudoyer—and his friends—led, it seems by Labrouste—were consciously ‘inventing’ a new kind of drawing, with lines that seemed ruled and self-consciously precise, as if to emphasize a heightened objectivity” (76).


65. Charles Garnier, “L’Architecture en fer,” Le Musée des sciences, 1st year, no. 41 (11 Feb. 1857), 321–22. Garnier was as negative in his assessment of the creative potential of photography as he was of the artistic possibilities of iron.

66. Purely line engravings of the same elements of the reading room’s iron structure were published in ÉA 2, no. 7 (1852), fig. 65 (pl. 8); ÉA 2, no. 7 (1852), fig. 69 (pl. 19); Allgemeine Bauzeitung 17 (1852), 473 (figs. 1–6); and ÉA 3, no. 3 (1853), fig. 28 (pl. 12).

67. The images appeared as plates 56 and 58, respectively, in RGA 30, no. 6 (1873) with an accompanying notice in the text, “Bibliothèque Nationale, Rue de Richelieu, Paris, par M. Henri Labrouste, architecte,” col. 245. The dates of the photographs, however, are uncertain. In addition, of the two existing contemporaneous photographs of the corner rotunda, the one that matches the Labrouste engraving bears no signature stamp.

68. This was first noted in H. Allen Brooks, “Frank Lloyd Wright and the Wasmuth Drawings,” Art Bulletin 58 (1966), 193–202. The dependence of Wright’s drawings on photographs was further studied by Anthony Alofsin and presented in the text panels of the exhibition Wright’s Wasmuth Folio: Representing the Ideal that he curated at the Arthur Ross Gallery, Columbia University, 1994.