Three

THE FIRST BUILDINGS: THE ECOLE DES BEAUX-ARTS, BIBLIOTHEQUE SAINTE-GENEVIEVE, AND CONSERVATOIRE DES ARTS ET METIERS

Upon their return from Rome, the pensionnaires received the minor appointments usually bestowed by the government upon Grand Prix winners. In 1829 Duban was made inspecteur to his brother-in-law, François Debret, for the rebuilding of the Ecole des Beaux-Arts. When Duban was appointed architect of that structure in 1832, Labrouste was named his inspecteur. That same year Duc was appointed sous-inspecteur under J.-A. Alavoine (1778-1834) for the Colonne de Juillet on the Place de la Bastille. In 1833 Vaudoyer was named inspecteur on the staff of Jacques Lacornée (1779-1856) in the erection of the "Palais d'Orsay," a massive block of government offices dominating the left bank of the Seine (burned during the Commune in 1871). They also received some private commissions: Duban erected the Hôtel Pourtalès on the rue Tronchet in 1835-39 and Labrouste won the competitions for the design of an insane asylum in Lausanne, Switzerland, in 1836 and of a prison at Alessandria, Italy, in 1839-40. Far more importantly, however, as the decade of the 1830s progressed each was nominated architecte-en-chef of a major government monument. First was Duban when he replaced Debret at the Ecole des Beaux-Arts. Then Duc succeeded Alavoine at the Colonne de Juillet in 1834. Finally, in 1838 Labrouste was appointed architecte-en-chef of the new building for the Bibliothèque Sainte-Geneviève, and in that same year Vaudoyer was put in charge of the expansion of the Conservatoire des Arts et Métiers.

The appointment of Duban and Labrouste to rebuild the home of the Ecole des Beaux-Arts (figures 20–28)¹ was itself a challenge to the Académie and the Ecole administration, both Bourbon foundations and staffed with Bourbon appointees. The new Liberal government seems to have intended that. Like the Commission des Beaux-Arts of 1831, a bill of 1832 authorizing 100 million francs to complete the monuments of Paris, and a law of 1832 restricting government architects to one major commis-

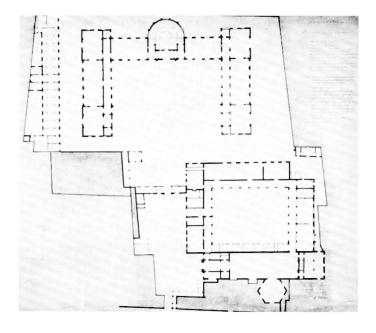
sion at a time (giving Duban this commission in particular), this was another effort to support Romanticism and to extend the Revolution beyond a mere change of kings.²

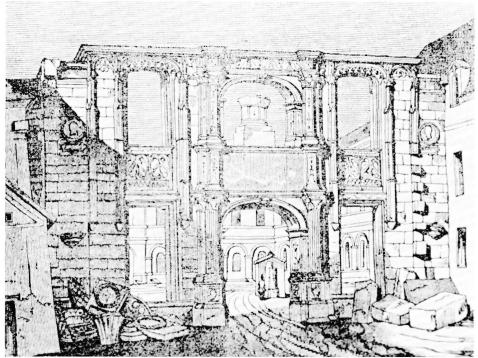
Duban did his best to carry out his difficult assignment. He pushed his design through despite resistance on the part of the Ecole professors and, to a lesser extent, of the Conseil des Bâtiments Civils, fraying bureaucratic nerves on all sides and producing some of the most emotion-laden documents moldering today in the Archives Nationales—documents no less emotional for the sincere conviction with which Duban defended his principles.

In the end a puzzling building arose. The liberals claimed to love it.³ The conservatives claimed to hate it. But the uncommitted claimed not to understand it at all. "Have you seen the new constructions at the Ecole des Beaux-Arts?" the *pensionnaire* Mathieu-Prosper Morey (1805–78) confronted his friend Viollet-le-Duc when the latter visited Rome in 1836. "Some say: admirable! Others say: absurd! I do not permit myself to judge in such an absolute manner, but if I must give you my opinion, I admit to you that I don't understand that architecture; some call it Renaissance, others Late Empire, still others Etruscan." What was so confusing was that this new architecture was something other than a new vocabulary of forms, at least as it stood in 1833. It had the elements of a synthesis, but not yet the synthesis itself. Like the *envois* of the years immediately before, it delineated a point of view and made a gesture, but nothing more.

Duban's design of 1833 was for the alteration and completion of the Ecole building begun in 1820 by the Neoclassical architect Debret (figures 20, 21). The three wings furthest from the rue Bonaparte were essentially complete in 1830. The building occupied the garden of the seventeenthcentury Couvent des Petits Augustins, the cloister and chapel of which stood along the street, temporarily divided into studios and habitations for the institution. When Debret's building was completed, these vestiges of the cloister were to be demolished to open a suitably dignified open space around it. However, piled in the basements and littering the courtyards of the old monastery were masses of French medieval and Renaissance architectural fragments, including two whole facades rising dramatically above the confusion, that of the château at Anet (by Philibert de Lorme) and that of the château at Gaillon (thought to be by Fra Giocondo) (figure 21). Upon the supression of the religious orders at the time of the Revolution, these fragments had been gathered here by Alexandre Lenoir. Between 1791 and 1814 he created his Musée des Monuments Français, the first intentionally constituted museum of national antiquities and a beloved resort of the Romantic artists of the Empire. Upon the restoration of the Bourbon dynasty (by decrees of September 15, 1815; April 25, 1816; and December 18, 1816), the museum was dissolved and its collections re-

20 Félix Duban, Plan of the Ecole des Beaux-Arts, Paris, before beginning work in 1832. Ecole des Beaux-Arts, Paris.





21
Ecole des Beaux-Arts, view across
the remains of the Musée des
Monuments Français. From Magasin pittoresque 2 (1834): 284.

turned to their former owners—the church and emigré nobility—and the site itself given to the Ecole des Beaux-Arts, which was in the process of reconstitution. Not surprisingly, however, the former owners of the fragments displayed little industry in dragging them away, so by 1830 the

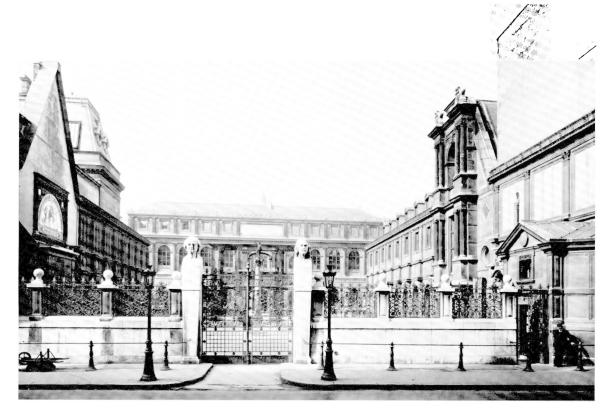
Ecole was functioning amid the ruins of the museum.

On July 31, 1832, Duban was asked to draw up a plan to complete the Ecole structure, and he presented a finished project on April 5, 1833. In preparing his design he entirely rethought the problem. He sought to retain the monastery and the museum as well as to complete Debret's block in the garden. Doing so permitted him to divide the functions of the institution into two parts: instruction and research. The instructional spaces—studios for the required course on anatomy, etc.—he put in the old cloister, partly rebuilt. The research collections—casts, the library, the archives, premiated Grand Prix designs—he placed in Debret's half-built block. He opened its interior to make it a museum, simplified its staircase, and suppressed a monumental vaulted hall that was to occupy the center of the courtyard and to introduce the ceremonial hemicycle for prize ceremonies, the Salle des Prix. Duban now called this block the Palais des Etudes and redesigned its facade in an elegant but conventional style, adding an attic story to house the library (cf. figures 22, 23). Duban furthermore proposed to leave the facades of the châteaux of Anet and Gaillon in place and to make them the organizing features of a pair of narrow courtyards leading from the rue Bonaparte. These courtyards would be ornamented with other fragments from Lenoir's collection and thus would constitute museum spaces—an outdoor museum of French national architecture like the original Musée des Monuments Français.

Like all designs for French government buildings, Duban's project had to be evaluated by a board of architects, the Conseil des Bâtiments Civils, and corrected if necessary before being submitted to the Minister for signature and presentation to the Chambre des Députés for funding. This occasioned an illuminating dispute.

On June 18, 1833, the Conseil met with Duban and a delegation of Ecole professors and officials (the latter consisting of the artists Ingres and Cortot and the officials Léonor Mérimée and Charles-Léon Vinit⁶). The body concluded that Duban should be asked to remove the facade of Gaillon—the so-called Arc de Gaillon—from the center of the forecourt to its south wall, to omit the attic of the Palais des Etudes, and to restudy his details. Duban protested, appearing at the June 21 meeting of the Conseil to read a lengthy but carefully reasoned memorandum explaining his intentions in retaining the Arc de Gaillon. "Charged by the Minister with the definitive formulation of a project to complete the Ecole des Beaux-Arts," he commences, "I was first of all obliged to make an account, through careful study, of the state of the buildings." The Arc, he had



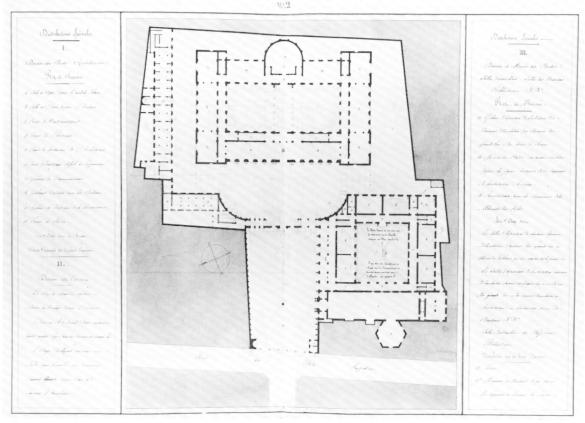


22 Félix Duban, Ecole des Beaux-Arts, 1832-40, view across courtyards from the rue Bonaparte. (Photo: Giraudon)

Félix Duban, Ecole des Beaux-Arts, view of inner courtyard looking north. (Photo: Giraudon)



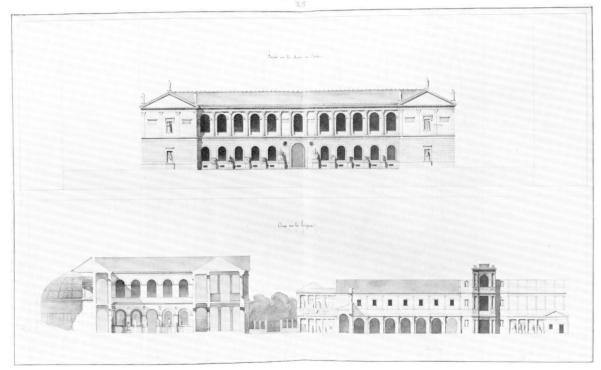
Edle Royale des Beaux Osts.



24

Félix Duban, Project for the completion of the Ecole des Beaux-Arts. Inscribed "Vu et approuvé . . . le 1^{er} octobre 1833" by Minister Thiers. Archives Nationales, Paris. (Photo: Bulloz)

Cole Hoyale de Beaux Oats.



25 Félix Duban, Project for the completion of the Ecole des Beaux-Arts. Archives Nationales, Paris. (Photo: Bulloz)

decided, was both appropriate to mark a school of art and fortuitously sited to articulate the spaces in front of the Palais des Etudes.

Its position facing southeast so favorable for the light and graceful forms that compose it; its parallelism with the street, which permits the eye to grasp immediately the configuration; its open forms, which let the glance penetrate to the Palais which it precedes, which announces, one might say, the boundary it in a sense establishes between the outer court made up of forms of past centuries and that of the Musée des Etudes; the subjects for examination and comparison it offers for consideration—all this, in a word, all this forced me to treat it as the chief ornament of the establishment.

The fragments scattered in the courtyards of the Ecole, the numbered courses of masonry ready to retake their original forms, about which public opinion has so long reproached the administration for the abandon and resulting decay, gave me the idea of erecting two light, open porticos to consolidate the principal monument, realizing an idea conceived thirty years ago by the illustrious Master of all masters [Charles Percier] to define a courtyard where young students might come, if not seeking models, at least to admire what former centuries had produced. Foreigners envy our national riches and everyone—artists, literati, antiquaries—will thank the Administration that saves and protects this storehouse of art confided to it.

Beyond [the Arc de Gaillon] two semicircles will be encrusted with all the fragments that cannot be utilized in the construction of these buildings, permitting the eye to penetrate to and to embrace the whole facade of the Palais. Exiting from the Musée des Etudes this amphitheatrical form will offer an immense surface of fragments artistically arranged, interrupted by the open porticos which define this sort of roofless museum.⁸

He concluded by proving that any fear that the Arc de Gaillon would mask the Palais des Etudes was unfounded because such an arrangement had been adopted in many of the most admired ancient ensembles—the Portico of Octavius (the subject of his fourth-year *envoi*), the Temple of Juno and Jupiter, and the Basilica Ulpia.

This apparently was ineffectual, and Duban prepared a far more passionate document for a third meeting of June 25.

I must state that in this case removal is synonymous with destruction.

No one will dispute that because of the lightness and delicacy of the parts of the building we are discussing, they will not survive a double demolition and a double reconstruction unscathed.⁹

He reviewed again the fortuitous siting and symbolism of the Arc de Gaillon. Then he declared more pointedly than before:

If the architect of a building can raise his voice in favor, not of his own work, but of the work of the great masters of which he asks the preservation, I say here that the facade of the principal building was conceived to be, not masked, but preceded by this elegant portico, by this sign (I dare thus say) of the establishment that he has to restore, that the relief of its details was worked out to make a visually agreeable whole, picturesque without disorder, to be articulated by contrasting the forms of the principal building with the elegant lightness of the open portico which masks the edifice as the Arc du Carrousel does the Tuileries, as the obelisk of Luxor does the Chambre des Députés, as all the basilicas were masked by the open porticos which preceded them, as the Egyptian temples were by their pylons, as all buildings of all periods whose beauty is always increased by the picturesque combination of structures that precede and accompany them.

But what for many buildings is a simple picturesque beauty is here, I dare say, an appropriate enhancement. If this portico did not exist, the architect would have had to propose an equivalent. Indeed, when one thinks about the parts of the establishment—in front, the entrance court [with], to the right, the daily studies, masses of students milling about at all hours on their way to classes, the constant coming and going of employees; beyond, everything is silence and meditation: a museum, a library, exhibition rooms, all places where one goes individually for study and examination. Such different functions demand a dividing wall: a grill in the opinion of the Conseil: indeed, this grill exists, it is of stone, it exists, it is a masterpiece from the past, it is an admirable fragment of architecture and sculpture, it is a reminder of Giocondo, of Louis XII, of Georges d'Amboise; it exists there, in the Ecole des Beaux-Arts, where the government would have to erect it were it not there already, together with the portico from Anet and the Gothic fragments which would be laid out in front, an admirable summary of our national architecture, and a council composed of the most eminent architects of France ponders its relocation, that is to say, its ruin!¹⁰

Duban was then asked by the members of the Conseil to withdraw. The Arc de Gaillon was the central issue and the minutes show that the Conseil reviewed the advantages of moving it or keeping it where it was. They appreciated that it would serve as a neat demarcation between the outer

courtyard, opening along the facade of the studio block, and the inner courtyard fronting the Palais des Etudes. But they insisted that its Late Gothic-Early Renaissance style would not be in harmony with Duban's facade and that it would mask the view of it from the street. They also asserted that the use of fragments from several historical epochs was regrettable, and finally expressed doubt: "Perhaps one should avoid, in the museum of the Ecole des Beaux-Arts, placing too prominently works of art whose composition and taste are not entirely in harmony with the principles of ancient architecture." However, in typically bureaucratic fashion, the Conseil finally deferred decision, permitting the Arc de Gaillon to remain in place during construction until its effect could be judged, while demanding the removal of two low loggias linking it to the north and south sides of the outer courtyard. Their injunction to remove the attic and restudy the details was reaffirmed.

Duban drew up a new project (figures 24, 25), which was signed by the Minister, Thiers, on October 1, 1833, and construction pushed forward. When it was completed in 1838, the attic had reappeared (authorized by the Minister during a visit to the site on September 25, 1834) and the Arc de Gaillon, of course, was still in place. It remained there until 1978, when it was abruptly dismantled and sent back to the municipality of Gaillon.

What the Empire architects comprising the Conseil des Bâtiments Civils did not seem to appreciate was that Duban's fragments were, in fact, an ordered museum of French national antiquities meant to train the students of the next generation through the broader lessons of architectural evolution and inflection that Duban and his friends had themselves learned in Rome. Young architects, Léonce Reynaud observed in 1834, "before creating for themselves a new system of architecture, must examine those that were followed by our fathers to determine their worth and to study their laws."12 This however, was to be a museum of a very particular part of the whole subject, of the Late Gothic and Early Renaissance epochs. In the initial submission of his design, Duban described the arrangement of the courtyards thus: "The objective of this proposal is to offer in the principal court for admiration and study: fragments of Gothic art on the left facade, the architectural forms of the century of Louis XII [reigned 1498-1515] at the back, and those of the reign of Henri II [1547-59] on the right, a summary of our national architecture." ¹³ Fra Giocondo was regarded as the first architect to design in the Renaissance style in France and the château at Gaillon, still Gothic in many parts, as the first Gallic statement of the new style. Later, in 1844, Duban attempted to have the facade of the Gothic Hôtel Dieu at Orléans removed to the Ecole to face that of Anet across the outer courtyard. The process verbal of the Commission des Monuments Historiques record him explaining, "It will occupy the place he designated for a thirteenth-century doorway, facing the fragment from

Anet."¹⁴ In the organization of his design, quite without any ornamental oddities, Duban had transformed the instruction of the Ecole des Beaux-Arts without removing any of the Bourbon appointees who comprised its staff. As construction was being completed another statement of Duban's message was conceived—the mural occupying the entire curved wall of the semicircular Salle des Prix (figures 26–28). It was commissioned from Paul Delaroche in 1836 and opened to public view on December 1, 1841.¹⁵ Delaroche was a friend of Duban and Thiers and a Romantic in the inclusive sense of that term in the 1830s.

The Salle des Prix was a ceremonial chamber at the culmination of the building's axis used for the annual award of student prizes. "The function of the room in a sense indicated the choice of subject," one critic wrote. 16 What Delaroche chose to represent were the great artists of the Christian Gothic and Renaissance eras—painters, sculptors, and architects—discussing their art (figure 26). Set apart from the two conversing groups and unacknowledged by them are Apelles, Ictinus, and Phidias—the masters of painting, architecture, and sculpture of ancient Greece. In front of them, mediating between them and the Christian artists, are four figures representing Greece, Rome, the Middle Ages, and the Renaissance. The latter two are "like the link that connects the ancient and entirely ideal portion of the painting with the modern and almost living part," Ludovic Vitet explained in an admiring review. 17 A nude genius at their feet throws a victor's crown into the Salle des Prix itself.

There are two things extraordinary about this mural at first glance: first, the spatial composition is not self-contained but rather the illusionistic continuation of the room it decorates; second, the subject is not allegorical but instead the portraiture of historical figures. "M. Delaroche," Ludovic Vitet wrote,

by the temper of his spirit and by the direction of his studies, is a historian more than a poet: his ideas are uncomfortable in the field of symbolic abstractions, they more happily take on the costume of a country or a time, they attach themselves to a place, a date, they make specific and personify. Where others see art, he sees the artist: sculpture for him is the sculptor. 18

Spatially, Delaroche continues the rings of steps and benches of the hemicycle up into his mural and closes it with a file of Ionic columns supporting an entablature precisely coinciding with that of Duban's room (figure 27). Considering the architecture of the room and the narrow, bending field Duban provided Delaroche, this is the only way it could have been treated. It was meant to be painted this way, as a frieze of figures illusionistically *in* the space, unified not within the painting itself, but by means of the activities in the room, the prize ceremonies. To make

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this point unmistakable—to create a point of entry into the illusion—Delaroche paints the genius actually throwing the victor's laurels outward, toward the rostrum.

But these historical figures are not merely present, they are characterized: in conversing they are taking positions among themselves and responding to one another. "One thinks one hears them," wrote Charles Blanc, "so great is the precision, the fine intention, the clarity in his characterization, in his pantomime."19 Delaroche makes the architects act out the history of their art (figure 28). At their center addressing them is Arnolfo di Cambio, the Gothic designer who began the Duomo in 1292. Brunelleschi and Bramante stand immediately to his left and right; the former, Vitet notes, "listens, but with a slightly distracted air; one perceives that he is already considering his dome."²⁰ Inigo Jones and Pierre Lescot stand next to them, and Lescot, "with the petulance of a Frenchman, advances to listen to the old Florentine and leans familiarly on the shoulder of Bramante."21 Further away, observing the scene but not participating in it, are Robert de Luzarches and Palladio, standing together as friends in afterlife. Erwin von Steinbach, Jacapo Sansovino, and Peruzzi, all late masters of developed styles, talk together. To the right of Arnolfo's auditors sits François Mansart, elegantly attired and looking bemused. Lescot's elbow, however, blocks our view of his eyes. At the far left Philibert de Lorme sits head in hand, lost in thought. Vignola is cut off from the group at the left. Delaroche has thus not only depicted the individual characters of the historical masters of Christian architecture, but also dramatized their common enterprise. They crowd around and listen to Arnolfo di Cambio, just as their buildings can be seen as responses to his Duomo.

This, of course, is precisely the history we saw Labrouste and Duban formulating in Rome in the 1820s and Vaudoyer, Reynaud, and Fortoul exploring in the 1830s. It is also the history made palpable in the fragments Duban used to organize the spaces of the Ecole courtyards. As the critic Louis Peisse observed in 1840, the public "may [now] traverse with us these rooms and galleries . . . and see with their eyes and touch with their hands this histoire figurée of art which M. Delaroche has been able to paint symbolically on the wall of the amphitheater."²²

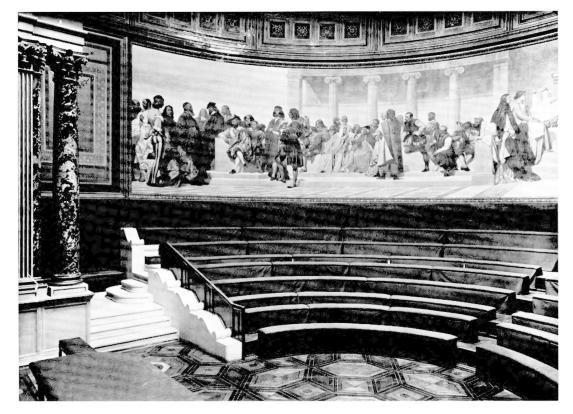
The facade of Labrouste's Bibliothèque Sainte-Geneviève of 1843-50 (figures 29-34)²³ also reflects the ideas and events of 1828-40, but in a very different sense. It is the *pensionnaires*' and Reynaud's and Fortoul's reading of history that one sees materialized in the Ecole, while it is their acceptance of structure as the basic material of design that is manifested in the Bibliothèque Sainte-Geneviève. And, most importantly, Labrouste's

26
Paul Delaroche, Replica of the mural in the Salle des Prix, Ecole des Beaux-Arts. Walters Art Gallery, Baltimore.









27 Félix Duban, architect, and Paul Delaroche, painter, Salle des Prix, Ecole des Beaux-Arts, 1840-42. (Photo: Giraudon)



28
Paul Delaroche, Detail of the architects, Salle des Prix, Ecole des Beaux-Arts. Walters Art Gallery, Baltimore.

building presents something like a new style of architecture, while Duban's Ecole presents only its materials.

What one encounters set on the edge of the Montagne Sainte-Geneviève is a narrow, rectangular box wedged onto a long, constricted site ringed by a continuous range of arches on tall, narrow piers—a sort of viaduct doubling back on itself-not disrupted by pavilions, projections, or pilasters (figure 32).24 The interior space is defined and protected by curtain walls filling the lower two-thirds of the arches, but these are set back and distinguished by their ornamentation of names, once picked out in red paint so that they did not blur the expression of the structural skeleton. Lightly fitted inside is an almost transparent floor and ceiling structure of iron and plaster tied together by a row of spindly iron columns down the axis of the single major interior space.

A number of circumstances render such a reticent treatment of the building appropriate.²⁵ Forming part of the facade of the public square surrounding the Pantheon, one of the principal monuments of Paris, it could neither compete with that structure for attention (indeed, had it done so with a display of pavilions and projections, it would have seemed ridiculous in its comparatively small scale), nor ignore its position as part of the entourage. Furthermore, as a library, it is neither a building that is traditionally a monumental element of the cityscape, nor one that requires a spatial configuration any more elaborate than the long rectangular one suggested by this site.26 Other architects would surely have proposed designs similar in shape and emphasis.

Labrouste could not have been distressed that these factors obliged such a simple, boxy solution. The whole thrust of his study in Rome, as we have seen, was to distinguish profound differences through details of articulation and ornament read closely where previously only typological similarity had been seen. Thus he had perceived the basic distinction of function between the basilica and the temples at Paestum, regardless of the fact that they all had the same boxy layout. One of the points of Labrouste's Paestum envoi is that a simple box, if read closely, can be as architecturally expressive as an elaborate academic composition of contrasting volumes—a point repeated in Duban's and Constant-Dufeux's fifth-year envois.

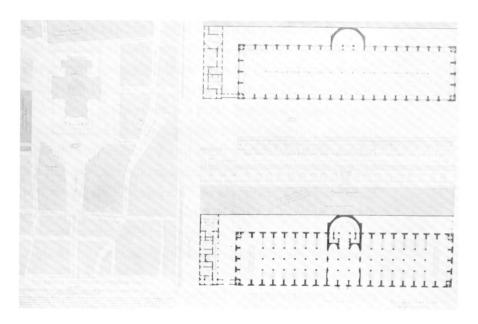
The history of the design of the Bibliothèque Sainte-Geneviève is not as complex as that of the Ecole: the project did not touch so tender a place in the Académie's heart, and the architect's aesthetic intentions harmonized with the bureaucracy's practical objectives.

The institution itself was the former monastic library of the abbey of Sainte-Geneviève, founded in 1624 and housed, until 1850, in a large cross-shaped space occupying the attic of the abbey behind the Pantheon. It had been nationalized in 1791 and by the 1830s had become an important place of study for the students in the colleges surrounding the Montagne Sainte-Geneviève. So heavily used was it, in fact, that in 1838 it became the first library in Paris to be opened at night and illuminated with gas. The government had been concerned about the insufficiency of its old quarters, however, and in 1836 had asked Alphonse de Gisors (1796-1866) to draw up a project for a new building on the site of the Prison Montaigou, nearby on the south side of the Place du Panthéon.²⁷ The matter lay dormant until June 6, 1838, when Labrouste was appointed to replace de Gisors (who was commissioned to rebuild the Luxembourg for the Senate) and a new project was requested for that same site.

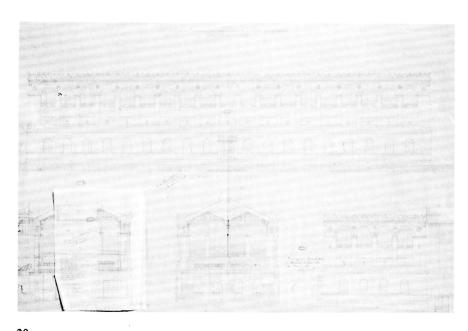
Labrouste presented his design on December 19, 1839 (figures 29-31). It was analyzed and approved by the Conseil des Bâtiments Civils in meetings of January 23 and 25, 1840, and a bill to fund it was prepared for the Chambre des Députés. Delays followed, however, including a further examination of the project by the Conseil on November 21, 1842; and it was only on July 19, 1843, that the funds were appropriated. Excavation was begun on August 1, 1843; the structure was completed in December 1850; and it was opened to the public on February 4, 1851.

The preliminary design of 1839 is very general in its depiction of the building's articulation—which was finalized only as the masonry actually rose during the late 1840s—but the plan and the structure are already clearly set. It is fireproof, gas-lit, and centrally heated and ventilated. The plan is neatly arranged, with a main reading room occupying the whole of its upper story and book storage, special reading rooms, and a vestibule below. Its most conspicuous innovation is the iron interior frame, which is the first use of a consistent, exposed iron skeleton in a monumental public building in the history of architecture. 28 This frame troubled the Conseil des Bâtiments Civils. They suggested that Labrouste study a stone vaulting system instead. He replied that he had considered that solution and had found that the masonry would be so heavy and produce such lateral thrusts that the window openings would have to be eliminated at the two ends of the structure. The iron frame, he pointed out, was not only light enough to permit an even light in daytime, but also could be fabricated off the site while construction of the masonry envelope was proceeding, thus considerably shortening the construction time. The Conseil remained dubious, asking Labrouste to rethink the question in 1842, but in the end it did not forbid his innovation. He proceeded with remarkable success, changing only the profile of the ceiling from the angular shed roof of the project to a barrel-vaulted one, which was less honest to its material but more harmonious with the masonry arches around the four walls.

How is one to read this retiring masonry box? First, through inflections in its structural skeleton; second, through legible symbols integrated into its ornamentation; third, through the actual rendering of the stone sur-

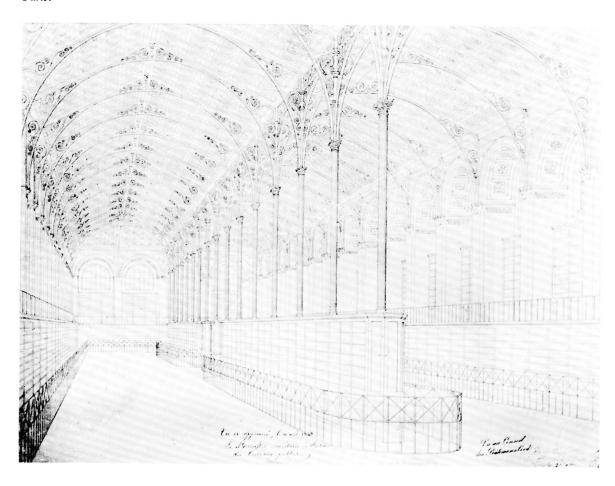


29 Henri Labrouste, Bibliothèque Sainte-Geneviève, Paris, preliminary project. Inscribed "Vu et approuvé, le 10 avril 1843" by the Minister. Archives Nationales, Paris.



30
Henri Labrouste, Bibliothèque
Sainte-Geneviève, preliminary
project. Inscribed "Vu et approuvé,
le 10 avril 1843" by the Minister.
Archives Nationales, Paris.

31
Henri Labrouste, Bibliothèque
Sainte-Geneviève, preliminary
project for reading room interior.
Inscribed "Vu et approuvé,
le 10 avril 1843" by the Minister.
Cabinet des Dessins, Louvre,
Paris.



faces—for everything has been thought through and made to reflect its function in the ensemble. There are no conventions; even the two columns framing the door in the preliminary design were replaced with more specific symbolic motifs as construction progressed.

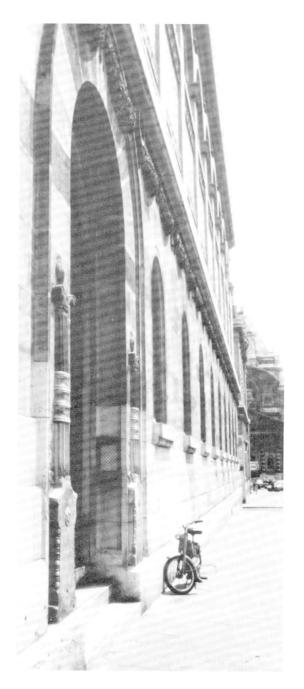
The upper and lower stories contain the primary (reading room) and secondary (storage, vestibule, manuscripts) spaces, respectively. The predominance of the reading room is made clear by the emergence of the skeleton in the upper story as a tall, arched cage, while it is concealed by a horizontal veil of masonry below. The monumental column-ribs of the reading room have been freed by draping a curtain wall across the inside of the arch embrasures, while their upper thirds are opened into broad windows that signify the continuous space inside and admit a flood of light. Built within this skeleton are secondary structures that show through on the surface: a staircase to the roof in the corner piers, identified by lines of tiny windows; two tiers of bookshelves ringing the reading room, expressed by the curtain walls, which are enriched like bookspines with the names of authors; and a range of small storage rooms below the upper tier of shelves signified by a string of openings. Finally, the iron interior structure emerges in the form of two ranges of tie rods at the top of each story, blossoming into platelike pateras that support a carved garland on the first floor and compositions of ribbons and swags on the second. Thus by the size of the window openings and the degree of relief, Labrouste makes the interior appear through the confining skeletal cage, which becomes a compositional grid organizing and unifying what is a highly varied, emphatic spatial configuration.

The building is decorated with carved stone ornaments, but they are not conventional motifs (figure 33). "This monumental catalogue," Labrouste wrote of the fields of lettering on the curtain wall, "is the principal decoration of the facade, as the books themselves are the most beautiful ornament of the interior."29 The only other significant ornamentation is the main entrance, which is shown flat-lintelled and flanked with Tuscan columns in the approved design but was executed arched and with two flaming lamps sculpted in the masonry on each side. Henry Trianon, the librarian, explained in 1851 that these carvings commemorated the opening of the library at night for the convenience of students and workers.³⁰

All of Labrouste's ornamentation thus simply articulates facts of the building. It functions directly, without any intervening filter of conventional Neoclassical forms or Orders. The primary fact remains the building's structure: externally arched construction in layers of limestone. Even the cutting of the surfaces brings out the structure, through a new reticence of relief and a new expressiveness of curve in moldings. To continue the wall plane and to take emphasis away from the windows of the lower story, Labrouste indents the surface around them, thereby subtly outlining



32 Henri Labrouste, Bibliothèque Sainte-Geneviève, Paris, 1844-50. (Photo: James Austin)



33 Henri Labrouste, Bibliothèque Sainte-Geneviève, details of masonry at doorway.



them with a single, sharp, continuous shadow line. Deeper in the embrasure is a second continuous surface, now made into a broad cymation to vary the shadow. To give emphasis to the upper story arcade, Labrouste carves an elaborate plinth (sharply contrasting with the mere bevels marking the stony, solid base of the lower story), but one composed only of bevels and exquisitely drawn quarter-rounds so that the bands of light and shadow are broad and distinct.

Most impressive and illuminating is his treatment of the carving at the entrance (figure 33). The plane of the lower-story masonry is brought right to the edge of the arched opening but is subtly and perversely "slowed" here by a single thin projection ringing the embrasure like a wave caused by a stone dropped in a pond (all the more so for permitting the swags hung on the tie rods to run unbroken through it). This molding, square on two sides with a cymation on the third, establishes a plane an inch-and-a-half in front of the wall plane that is picked up in the window sills and that defines the relief of the flaming lamps. One is made to feel every millimeter of the wall surface cut back in the ravalement from the continuous datum of the molding, sills, and lamps. Further, one is made to sense the coursing of the stone, already clearly stated in the bevels along the top of the lowest course of the wall base, as Labrouste confines each division of the lamp form within each stone field and has the flame just lick the mortar joint of the course above.

The manner in which Labrouste draws forth the moldings reflects his objective in the whole design: to draw art forms out of structure, not impose them upon it. Nowhere is his ornament a veil over the stone surface obeying sculptural rules of its own. Either it emerges from the mass itself, like the lower-story plinth moldings, or it is clearly attached, like the garland of swags. Taking the design as a whole, there is neither a colonnade nor a tier of windows on the main story—that is, neither an ornamental convention nor a series of holes in a passive wall plane—but rather a ring of piers bearing a continuous arcade, truly and unmistakably the skeleton of the building. The strange little capitals that emerge at the pier tops oblige one to read it thus—a colonnade, if you will, transformed into Fortoul's "style curviligne." This, the pier-borne arcade, is the organizing element of the design. Other spaces and elements are subordinated to it, inserted into it. Labrouste even extends its characteristic semicircular span into the ironwork of the interior, knowingly distorting its practical form so that it can echo and reinforce the motif that he, in the spirit of Vaudoyer, Reynaud, and Fortoul, accepts as the quintessential expression of this first design in a purely arcuated style of architecture.

The exterior walls of the Bibliothèque Sainte-Geneviève hold themselves with tremendous firmness, especially when seen from the inside in their full depth (figure 34). They seem to complement and hold in the

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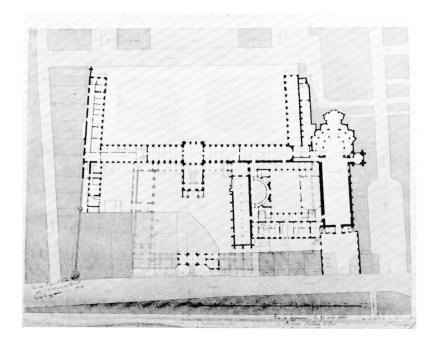
34
Henri Labrouste, Bibliothèque
Sainte-Geneviève, interior of reading room. (Photo: James Austin)

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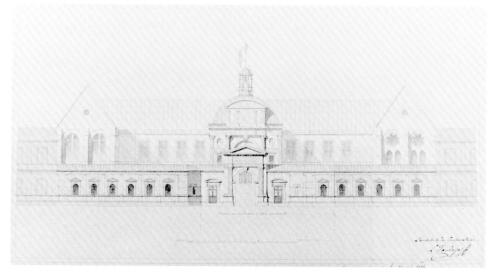
dramatic iron webwork of the interior. But there is a problem with this intuitive assumption: Labrouste's iron armature in fact applies no thrust against the stone exterior at all. Being of cast iron, bolted together in large sections, the ironwork exerts no live thrusts despite its resemblance to a pair of barrel vaults. It is simply a series of lateral cantilevers balanced on the row of central columns, infilled with a thin plaster webbing.³¹ Labrouste even tries to impress this disturbing fact on us by supporting the iron trusses where they meet the girdling masonry wall by nothing more than the slightest corbels. The function of these corbels is merely to stabilize the cantilevers at their ends; as a result, the skeletalized but nonetheless thick and stable stone viaduct enclosing the space supports nothing more than its own weight. And as a further consequence, despite superficial appearances, because of Labrouste's use of iron the Bibliothèque Sainte-Geneviève has no structural relation to the Cathedral at Albi, the refectory of the monastery of Saint-Martin-des-Champs, the Vatican Library, or any other masonry-vaulted historical sources that present themselves.³²

Why, then, did Labrouste conceal the most remarkable advantage of his new iron system by enclosing it in this thick stone envelope? The answer is, in a sense, very obvious: not only for stability but also because the building is a library, a place illuminated properly for reading, and because proper lighting is difficult here since the site is flattened and oriented along its whole vast length directly toward the southern sun. The only means Labrouste had to provide a diffused, comfortable light was to protect the interior by a light, deep arcade whose thin piers would act as sun screens, breaking the direct rays and diffusing the sunlight by reflection off their flat, unornamented sides. This is also why the windows are set so close to the outer plane of the facade and why the ceiling was altered from the structurally "honest" form of flat panelled planes (figure 31) to the "irrational" one of undecorated, white half-cylinders suggesting vaults. In 1860-67 Labrouste went a step further in his Salle des Imprimés at the Bibliothèque Nationale (figure 84), where he erected nine domes of paperthin ceramic tile—domes not in the structural sense, but merely hemispheres, reflectors amplifying and diffusing the light admitted by oculi at each peak.33 (The succeeding architect of the Bibliothèque Nationale, Jean-Louis Pascal, did not understand this and in building the Salle des Périodiques at the turn of the century provided a single large skylight without reflecting surfaces that resulted in an ill-lit hole.) Labrouste was building with light even more than with iron and stone. His approach is indeed functionalist, but not just narrowly that of a structural rationalist.

Vaudoyer's Conservatoire des Arts et Métiers, designed and erected beginning in the 1840s, mixes the qualities of the Ecole des Beaux-Arts and the Bibliothèque Sainte-Geneviève (figures 35–42).³⁴ It is both a completion and a spatial articulation of a complex of historic monuments



35 Léon Vaudoyer, Conservatoire des Arts et Métiers, Paris, preliminary project. Inscribed "Vu et approuvé le 27 avril 1844" by the Minister. Archives Nationales, Paris.



36 Léon Vaudoyer, Conservatoire des Arts et Métiers, preliminary project. Inscribed "Vu et approuvé le 27 avril 1844" by the Minister. Archives Nationales, Paris.



37 Léon Vaudoyer, Conservatoire des Arts et Métiers, Paris, 1847–58, facade from Square Chautemps.



Léon Vaudoyer, Conservatoire des Arts et Métiers, exterior facade on Square Chautemps. (Photo: James Austin)

39
Léon Vaudoyer, Conservatoire des
Arts et Métiers, monumental
entrance to museum in east wing
in first courtyard. (Photo: James
Austin)



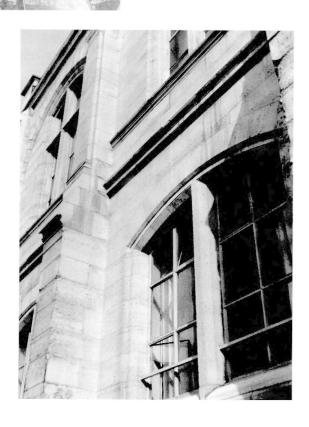
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40
Léon Vaudoyer, Conservatoire des
Arts et Métiers, north wing in first
courtyard.



41
Léon Vaudoyer, Conservatoire des
Arts et Métiers, details of masonry
on north wing in first courtyard.





42 Léon Vaudoyer, Conservatoire des Arts et Métiers, facades along rue Saint-Martin. (Photo: James Austin)

and, in parts, the demonstration of a new, nineteenth-century style of skeletal design. It is elegant and supple but ultimately lacks the concentrated historical reference of the Ecole as well as the constructional toughness of the Bibliothèque Sainte-Geneviève. It is a professional rather than an inspired design.

This is a general characteristic of Vaudoyer's work, which might fatigue us somewhat today but which in the mid-nineteenth century made it the model for progressive professional practitioners. The work of the next two generations of progressive architects—of Charles Questel, for example, beginning in the late 1830s; of Emile Vaudremer beginning in the late 1850s; and of Richard Morris Hunt in the United States—parallels Vaudoyer's at the Conservatoire.

The institution itself was a museum founded in 1793–94 and recognized in 1819–20 and in 1839–40. It's purpose was to foster mechanical knowledge through displays of machines and technical models, through its technical library, and through demonstrations and an expanding series of public lectures. It was envisioned as a "haute école d'application des connaissances scientifiques au commerce et à l'industrie." Jacquard, Dolfus, and Schneider of Le Creusot all studied there during the Revolution.

It was established in the old monastery of Saint-Martin-des-Champs, which had been nationalized during the Revolution. 35 This comprised a large chapel (with an extraordinary Early Gothic chevet and a bald, unfinished Late Gothic nave), a cloister to its north, an exquisite High Gothic refectory (usually attributed to the thirteenth-century architect Pierre de Montreuil) across the north side of that, and finally a large U-shaped dormitory block extending northward from the transept and facing east to the narrow rue Vaucanson, which widens here as a public market square. This last block had been erected in 1742 by J.-D. Antoine (1733–1801) and had a beautiful stone staircase in a pavilion projecting westward from its center. On the back, the rue Saint-Martin, lined with private houses beyond the monastic garden, defined the site.

First A.-F. Peyre (1739–1823) and then Victor Dubois (1779–1850) held the post of architect of the Conservatoire; each presented projects for better adopting the complex to its new function and for its extension. 36 In 1838 Dubois was named architect of the Archives Nationales and resigned from his post at the Conservatoire. As a result, in a letter of June 22 of that year, Léon Vaudoyer received his first serious position, as architecte-en-chef of the institution, together with a request for an immediate project to reconstruct it. This he submitted to Jean Vatout, Directeur des Bâtiments Civils, as a sketch on October 21, 1838, and again as a preliminary project in February 1839. This project was analyzed by the Conseil des Bâtiments Civils at their meeting of January 30, 1840.

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Vaudoyer's basic scheme appears at the outset, although the details of its articulation are sketchy and far from what, in the end, was actually executed.

Vaudoyer proposed to make a monumental composition of the abbey structures while retaining all its important historical elements: the chapel, the cloister, the refectory, and the Antoine block with its stairway. His plan was to reverse the axis of the complex and set it in a large urban context by erecting an ornamental pavilion around Antoine's stair block, which would have a monumental entrance opening onto its landing, and by sending an axis down a grand flight of stairs and across a cour d'honneur made from the abbey garden. This he defined on the north by a new block of classrooms below a display space for machines, which would balance the mass of the refectory on the south. On the west, Vaudoyer proposed to purchase the houses along the rue Saint-Martin and to open the cour d'honneur toward it with a monumental gateway on his new axis, thus making the reformulated complex address this more important thoroughfare. Indeed, the urban texture at this point was soon made to respond to and enlarge his gesture, as the opening of the Square Chautemps in 1861 continued the axis, repeated and emphasized the cour d'honneur, and provided a place from which to enjoy the view of the ensemble (figure 37).37 Vaudoyer proposed to block off the eastern axis of the complex by placing a wing of laboratories between the ends of Antoine's wings. The library was to be established in the refectory, which was well suited to this function with its high ceiling, open structure, and large north windows. Display space would be in Antoine's wing and lecture amphitheatres in the cloister.

This was a fairly obvious solution, distinct from earlier projects by Dubois chiefly in the large scale of the elements and in the retention of the chapel. This latter had not originally been part of the Conservatoire property and instead belonged to the Département de la Seine, which used it as a mairie and headquarters of the Garde Nationale. The building itself was slated for demolition. Waudoyer's principal departure from his original assignment was a successful effort to appropriate the chapel as a historic monument, to preserve it, and to rebuild its dilapidated west facade. To this day it incongruously houses a display of automobiles, trains, and airplanes, continuing Vaudoyer's pretense that its retention was a practical necessity to the institution.

Vaudoyer's project was shuffled around in the bureaucratic labyrinth for a half decade. When finally it was funded, the architect wrote Fortoul, "The Chambre des Députés has proclaimed me architect . . . at 43 years old . . . I thus may finally accomplish something." In the report of January 30, 1840, the Conseil des Bâtiments Civils had made some minor suggestions (notably the addition of a covered gallery on the inner, east

side of the west wing of the cour d'honneur), and on April 27 Vaudoyer submitted his revisions. After some glacial progress—principally the preparation of a bill to fund the project, ready in March 1842, but never submitted—the Conseil des Bâtiments Civils asked to re-examine the project. It approved it again on December 5, 1842, but objected to Vaudoyer's use of overlays to show modifications and requested a new set of drawings, which he provided on January 19, 1843 (figures 35, 36). 40 These were stamped with the Conseil's approval on that same day and with the Ministre des Travaux Public's approbation in April 1844. The bill to fund the project was then definitively prepared and passed.

Vaudoyer was told to begin work at once. ("1845" is inscribed on the eastern attic of the entrance arch.) He began in the cloister, which was rebuilt to accommodate two amphitheatres and several chemistry laboratories. Meanwhile, he perfected his designs for the blocks around the cour d'honneur, which appear in their final form in a set of drawings bearing the watermark 1847. 41 Construction began that year. In 1858 the courtyard in front of the chapel facade was begun, together with the two blocks along the rue Saint-Martin (figures 38, 40).

Vaudoyer faced three basic design problems as he refined his project during the 1840s. First, he had to articulate his new axis of approach from the entrance on the rue Saint-Martin to the pavilion added on to Antoine's stair block. Second, he had to erect the new classroom and display space, balancing the Gothic refectory but remaining distinct and not distracting from the accent points of the main axis. Third, he had to ornament the wall of the low wing along the rue Saint-Martin as a frontispiece and jeu d'esprit.

Vaudoyer's solution to the first problem, the articulation of the axis, is excellent in the abstract. The pace and tableaux work perfectly, and the emphases fall where they should. But it remains disappointing in many details, as if such a traditional, Baroque problem was not yet sympathetic to the pensionnaire's vocabulary. In the project of 1842 (figure 36) the pavilion around Antoine's stairway is focused at its center by two three-quarter columns topping the high stair from the court. These support a pedimented attic with a clock and frame a deep archway in which is set the principal doorway. This arrangement is precisely repeated in Vaudoyer's contemporaneous proposal for the gate on the rue Saint-Martin. When imagined in perspective, the gate would have anticipated the pavilion, but on a smaller scale and with its angular pediment enframed by and contrasting with the round pediment of the pavilion attic. That in turn would link visually with the rounded roof of the whole stair block, and the little belfry would be the last, topmost term in this compressed composition of planes in space (figure 37).

It is interesting to watch how between 1842 and 1847 Vaudoyer refined

his detailing and the cutting of the stone to enrich and articulate this progression of tableaux. His most brilliant refinement (and the one most often noted and praised) was the replacement of the pilasters at the rue Saint-Martin gate with carvatids thrust high up at the springing of the arch (figure 38). They impart a light but clear emphasis here, raise the viewer's eyes toward the composition of pediments, and, most importantly, replace the banal, conventional vocabulary of the 1842 project with freer sculptural speech. These carvatids, carved by the sculptor Elias Robert, are actually engaged in the masonry of the wall and seem to push actively upward, like the voussoirs that spring at their feet. "Caryatids of great character," said Labrouste's son Léon, they are remarkable because they "form part of the masonry of the structure." They are an expression of the construction as well as accents in light and shade, like similar passages in the carving of the Bibliothèque Sainte-Geneviève, but more richly sculptural. The historian and critic Charles Blanc later reminisced that watching the carving of these figures while a young man provided his first insight into architecture. He recalled:

One day when I was passing by in the street while a young sculptor, M. Elias Robert, was working on these figures, I remarked with surprise that, far from dissimulating the joints, he tried to make evident the superposition of the courses so that the statue, traversed by the great horizontals of the masonry work, seemed not an added ornament provided by sculpture to take the place of a column, but an evolution of the stonework itself, an energetic projection of the construction and, one might say, a partuition of the building. Not knowing anything more about architecture than what everyone knows or thinks he knows, that is, knowing nothing, I was struck as by a lightning bolt and in my profound naïveté thought I had discovered, all by myself, one of the great principles of architecture, namely that decoration must be engendered by construction.⁴³

This, Blanc goes on to explain, Robert told him was Vaudoyer's precise intention.

The free play of accents inherent in sculpture is also applied by Vaudoyer to the carving of the moldings surrounding the caryatids—the powerful curve of the plinth, the profile of the brackets holding the figures, the return of the egg and dart of the pediment cornice on the two end blocks of the arch entablature. It is thus with disappointment that, upon entering the gate, one is forced to recognize that the culminating accent, the pavilion facade, is ineffectually sculpted (figure 39). The attic is inarticulate, the pilasters (replacing the columns of the 1842 project) weak, and the composition of panels, windows, and busts on the side bays ill-proportioned and overemphasized. The moldings in particular have gotten out of

hand with a multiplicity of deep, round surfaces of the sort that the *pension-naires* had usually been so careful (and so wise) to avoid. This failure is perhaps understandable because the Baroque vocabulary that Vaudoyer was forced to echo in order to harmonize with Antoine's work was precisely that which he found least sympathetic. Indeed, he was here trying to sidestep the problem by using the details of the French Early Renaissance, Lescot's Louvre, the Hôtel Lamoignon, and the engravings of the Du Cerceaus.

The weakness of the pavilion facade is redeemed by the exquisite treatment Vaudoyer devised for his second basic design, the classroom and machine display block (figure 40). Here is one of the finest Romantic rationalist walls in Paris. It is a long, rectangular prismatic background building like the Bibliothèque Sainte-Geneviève with its skeleton similarly emerging from its surfaces and its ornament sinking into them. Yet spatially Vaudoyer's solution is entirely different, as the lower floor is necessarily higher than Labrouste's and its surface is broken by larger windows. As a result, Vaudoyer's skeleton must emerge from the facade plane as nine buttresses (aligned to pick up the nine similar projections on the Gothic refectory across the cour d'honneur). He uses the round arches of the nineteenth century, which leap completely between the buttresses of the upper story and embrace spurs of curtain wall at either side of the tall vertical windows in the medieval style (a lighter structure and more vigorous combination of shapes than the simple arched bays proposed in his 1842 project, figure 36). The buttresses are similarly carried forward in time by the suggestion of Tuscan pilasters on their upper stages. Vaudoyer's adjustment of chiaroscuro in the moldings is perfect (figure 41). At points of secondary emphasis he takes the motif of the beveled moldings on the refectory, repeats these to build by transitional planes around the openings, and brilliantly sharpens their emphasis with narrow grooves, Greek in origin, at their meeting with the facade plane. On the buttress tops and the wall base he uses broader, curved moldings which are kept shallow, strong, and springy in their profile.

Along the rue Saint-Martin, to solve the third of his basic design problems, Vaudoyer carved the surface of the wing closing the cour d'honneur in a part-Pompeiian, part-Early Renaissance manner (figure 42). His objective was clearly to render this plane distinct from those of the blocks rising behind it in the tableau presented to the Square Chautemps. His technique was to emphasize the coursing of the masonry construction and to sink a series of pilasters and window frames into that pattern. This passage is characteristic of Vaudoyer's entire design in that, for all its structural honesty, it is closer to its historical sources and more restrained in its decorative fantasy than Labrouste's or even Duban's productions. It remains precise, logical, judicious, and very professional.

The solutions Vaudoyer offered to these three design problems were all worked out in the context of one general objective: preserving and articulating the specific architectural history manifested in these buildings, gathered over a period of seven centuries at this spot in Paris. He has neither imposed a single historical style nor restricted himself to a consistent "modern" style (although he has modified the Gothic and the Baroque in his additions and framed the whole, when seen from the Chautemps, behind a Néo-Grec frontispiece). This is a more judicious and more profound understanding of historicism than that of, for instance, the imposed fantasy in Alavoine's *flèche* at Rouen (1823–77) and was to become the model of professional architecture in Paris.

The principal example in Paris during the 1830s and 1840s of a historic building extended in its original style was the Hôtel de Ville (figure 43). This project was richly funded with fifteen million francs in 1835 and executed between 1837 and 1849 by E.-H. Godde (1781-1869), aided by J.-B. Lesueur (1794–1883), who was "very erudite in the monuments of the Renaissance." 44 They took the system of the building's Renaissance facade, simplified it and stretched it north and south to more than twice its original length, then carried it around the remaining three sides of what became a very large rectangle enclosing three internal courtyards. 45 Fortoul, near the beginning of De l'Art en Allemagne, derides Godde and Lesueur because they "applied to the works of the Middle Ages a routine that they could not justify by any example from the best period of antiquity."46 What he would have preferred was the mixing of styles to bring out the history of the building. He felt von Klenze had achieved this admirably in the Munich Residenz. "My God! What would these people [Godde and Lesueur] say of the palace of the King of Bavaria? . . . The palace of King Ludwig is like a book the four parts of which, created in four different centuries, embrace the history of the art and of the world."47 It was the enjoyment of this mixing of styles that attracted him to Munich (the subject of most of the first volume of his book), with its recent monuments in contrasting historical styles.

In no other country is it possible to find the variety of systems and the luxury of reminiscences that one finds in the buildings of the capital of Bavaria. . . . Animated by the political and religious passions of this country, [Munich's architecture] has succeeded in realizing on its surface a living and almost complete history of architecture.⁴⁸

This he contrasts to the situation in France:

In France one generally agrees that art consists primarily in invention; but this great principle, which often encourages ignorance, does not preserve it from either

43

E.-H. Godde and J.-B. Lesueur, Extended Hôtel de Ville, Paris, 1837–46. (Photo: L. L. Roger-Viollet)



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monotony or bad taste. In Bavaria one practices art as if one accepted that it resided above all in memory; but in displaying more knowledge than genius, the architects of this country provide a fascinating field for study and criticism and perhaps prepare for a new epoch when, following the usual course of events, the transfigured forms of previous ages will be blended, with distinctions due to the particular character of each people.⁴⁹

This generation experienced a real excitement in seeing a story told in architecture. It was surely to this that Fortoul referred when he wrote of Duban's Ecole, "I have seen the public struck by a mysterious passion for this building, astonished to find so much pleasure in an art that bored them for so long and so much imagination in what appeared to them, until now, just the science of raising stones upon one another." 50 Yet at the Ecole and the Conservatoire des Arts et Métiers — in Duban's main facade of the Palais des Etudes and in Vaudoyer's entrance and wings on the rue Saint-Martin — and even more emphatically in later buildings by the pensionnaires, we find an important passage in the "new style" of the nineteenth century amid the carefully resuscitated ensemble of early forms. This pops out of the composition and dates it. As Duban declared to the Conseil des Bâtiments Civils in 1833, "The monument erected by the nineteenth century should not be denied the means which the contemporary state of the art provides to characterize our epoch."51 These passages become progressively refined and striking during the Second Empire in Duc's Palais de Justice (figure 64) and Labrouste's Bibliothèque Nationale (figure 84). But one must not see them in isolation and analyze them by themselves. They are merely markers attached to broader and more subtle historical compositions; they are meant to bring the history of these buildings up to date but not to deflect attention from that history. The problem for the pensionnaires was always the whole, not the individual decorative parts.

Four