



## RE: (re)reading, (re)writing - the Expansion of the Louvre

NB. The paper that follows was presented in two public symposia on the history and design of major museum projects in 2009 in response to invitations from the University of Illinois at Chicago and the Cooper Union for the Advancement of Science and Art in New York City. The illustrations for the text are included on the attached powerpoint, following the numbering in the text.

## **Introduction (in the guise of an apologia)**

Twenty years is a curious lapse of time in the life of a building – not yet a generation but already two thirds of the pre-planned obsolescence of the average commercial office tower. Two decades in the life of an institutional building – a public building – marks the beginning of a kind of middle age, the moment when the sheen of the new is gone but its underlying structure and formal logic have started to affirm their place in a broader context. Or not. To write about an architectural project twenty years after its completion is, similarly, a curious exercise: too soon for judgment, too late for justification. So what follows needs, perhaps, an introduction.

First, it is remarkable how little serious critical analysis the Grand Louvre project has received in the last two decades, particularly in the English-speaking press; the strongest criticism is French and was by and large published prior to the project's two phased openings in 1989 and 1993, thus it focuses on the design as documented rather than as experienced. Since the project's completion, apart from a number of quasi-biographical works on Pei, which focus on the tribulations of the project's realization as part of a highly edited personal hagiography, only the most cursory examination has been made of the project itself, which most often serves as an illustrative example cited to support whatever general thesis the author seeks to advance on recent museum trends. Lost in these two tendencies is any sustained analysis of the real significance of the Grand Louvre: the extraordinary scope of its urban ambitions, the complexity of its formal and material intentions, the breadth of its engagement with the fundamental questions of how art is seen and how history is understood, the dramatic interrelationship between architectural and institutional invention, in short its accomplishments – and its serious shortcomings – as a satisfactory work of architecture.

Next, there is place of the Grand Louvre in the history of contemporaneous late 20<sup>th</sup> century museum projects and here too a compelling argument can be made that its significance has been misunderstood or arbitrarily dismissed. Finished just after Venturi's addition to the National Gallery in London and the opening of the Aulenti's Musée

d'Orsay, the Grand Louvre represents something quite different: the first time that the fundamental organization and character of a major, encyclopedic museum is rethought from top to bottom.

Then there is the significance of the Musée du Louvre itself. Arguably the world's first public art museum and unarguably one of the finest, the unrivalled importance of the institution would seem to demand a more serious evaluation of any project that proposes to recast it so thoroughly, particularly a project in which the terms of institutional reinvention are so directly tied to issues of architectural form and questions of urban context. Of course the Louvre has been systematically altered and added to over eight centuries, most particularly in the two hundred years since its collections were claimed for the whole of the French people after the Revolution. Its several wings and hundreds of individual galleries recapitulate the entire history of architectural forms and museological fashions brought to bear on the museum typology since the middle of the 18<sup>th</sup> century, and it is precisely this tradition that the Grand Louvre project engages, *in situ*, as it were.

Indeed, part of the force of the architectural project is its insistence on place rather than history, form or style, in the elaboration of a parti wholly developed from an analysis of the existing physical context. The Grand Louvre questions the role of the historical fragment in architectural composition; in terms of the architectural debates of the 1980's, Pei's project can be read as a reaction to the entire discourse of postmodernism and its underlying assumption that the figures or fragments of past stylistic movements can be appropriated wholesale or imitated directly in the design of contemporary buildings. Read in this way, the Grand Louvre constitutes a polemical response in the solutions it proposes, even as Pei's presentation of them strives to empty the debate of polemic with the ruse of a 'neutral' geometric logic and a landscape-based formalism.

The Grand Louvre tries, at least in the estimation of its architect, to place itself outside of time and to obviate (or obscure) any immediate reference to the present. Of course, as with any such attempt, it is the technological means upon which the project relies to make its a-temporal statement that date it most clearly and anchor it in its particular historical

moment. But with the issue of a-temporality the design of the Grand Louvre also directly engages the problematic of creating a symbol, a question at the very heart of the post-modernist critique. The project's formal tropes, its appeal to 'universal' geometries, and fetishization of contemporary technology may all be taken as implicitly proposing an alternative methodology for creating symbols.

In an entirely different register there is also the inconvenient fact of the project's extraordinary success with the public. Since its reopening in 1989, attendance at the Louvre has increased four-fold and seems poised to approach 10 million visitors annually in the next few years. The pyramid has, for better or worse, become a postcard symbol of Paris, indeed of France, that rivals the Eiffel Tower. But popular success tends to create a certain ambivalence among critics and while it can be overlooked in buildings that overtly champion a clear polemical position, as with Bilbao or Beaubourg before it, in projects of a less certain ideological stripe the successful appeal to the *vulgat* is seen as, well, vulgar, as if showmanship perforce precluded seriousness of purpose.

And finally there is the question of spectacle: the engagement of art museums in the patterns of cultural consumption that characterize post-industrial society has led to the consequent redefinition of museum buildings as signs - iconic expressions - intended to represent and project the institutional brand as much as embody its program. The modern era of museum design, from which we are perhaps just emerging, starts with the decade that saw the completion of FLW's Guggenheim and Mies' National Galerie, radically dissimilar projects which nevertheless both distinguish and separate the tectonic expression of the museum's public and symbolic functions from the space of the actual confrontation with works of art, the first steps on the road to spectacle that culminates in Bilbao. Both projects also embody strong, and clearly opposed, urban attitudes - Wright shutting the city out, his central space contrived to allow no glimpse of the world beyond; Mies on the contrary, using the major void space to re-actualize, quite self-consciously, the portico framing device of Schinkel's Altes Museum's, and thereby, like Schinkel, turning the museal regard on the city.<sup>1</sup>

---

<sup>1</sup> (re Foster's article in A. Menges ed. 2004)

Pei's Grand Louvre can be read squarely in this tradition, indeed a reading of both its 'iconicity' and its urban intentions are key to any real understanding of the project. And while its impact and importance have been marginalized in the full triumph of spectacle heralded by the arrival of Gehry's Bilbao Guggenheim a few years later, it remains a considerably more nuanced and ultimately more interesting object lesson in the architecture of museums at the end of the last century.

### **The Urban Project**

(2) The Grand Louvre is first and foremost a '*projet d'urbanisme*', a planned and deliberate intervention in the existing urban context to transform the meaning of the connections, civic spaces and public monuments that sit at the very heart of Paris. Notwithstanding the qualities of its architecture or its comprehensive reinvention of the Louvre's functional program, this urban aspect of the project is by far the most important of its ambitions. Such emphasis was, to a greater or lesser extent, a significant feature of all of Mitterrand's Parisian '*grands projets*', in part because the selection of sites for each of the projects reflected a strategic and revisionist reading of the city, and the conviction that major architectural developments can in and of themselves effectuate urban change.<sup>2</sup> But in the case of the Louvre, it could hardly have been otherwise; the eight centuries of its construction recapitulate the entire development of the modern metropolis and its relentless westward expansion in ring after ring of increasingly dense urban growth. Given the centrality of the modern Louvre, any comprehensive renovation and expansion of the museum would perforce remake a complex urban composition in formal, functional and symbolic terms.

---

<sup>2</sup> The Parisian *grands projets* undertaken in Mitterrand's first term were the new Ministry of Finance at Quai Bercy; the Institut du Monde Arabe; the Opera de la Bastille; the Arch de la Défense and the Parc de la Villette. The Musée d'Orsay, already underway and started during the term of V. Giscard d'Estaing, was completed. The World's Fair planned for Paris in 1989 was ultimately cancelled. For a discussion of the overall political strategy and urban planning analysis that preceded the implementation of this unprecedented building program, see F. Chaslin, *Les Paris de François Mitterrand*.

(3) The modern form of the Louvre's urban plan emerged with the destruction of the Tuileries Palace, the decisive act of arson that marked the climax of the Paris Commune of 1871. The museum's contemporary history was thus born of vandalism and rebellion, a willful attack on the physical symbols of state power.<sup>3</sup> With the Senate decision to clear away the ruins of the Tuileries twelve years later, the historic impetus to the Louvre's growth over four centuries was lost and the plan of the palace opened for the first time to the west. (4) The dismantling of the burnt shell also put to rest the fleeting dream of the '*grand dessein*', the obsessive focus of the long parade of commissioned and unsolicited architectural proposals to unite the Tuileries and the Louvre. (5) This near-mythic quest for the '*achèvement*' of the Louvre had been briefly realized for Louis Napoléon's Exposition Universelle of 1867/68, the great, legitimizing apotheosis of his capital and his realm. (6) It survived precisely three and a half years and collapsed with the empire it was intended to represent.<sup>4</sup>

Of course the westward expansion of Paris had already preceded this moment of communard urban planning, indeed the city's growth had begun to extend beyond the Tuileries almost from the moment it was built. (7) By the beginning of the 18<sup>th</sup> century the Champs Elysées had become a fashionable, tree-lined avenue and the outline of the famous axis that today extends from Place de la Concorde to La Défense and beyond was

---

<sup>3</sup> The 'connection' between the museum and insurrectional violence can be traced back to its origins as a public institution. The Louvre was officially opened to the public as a museum by act of the Convention on July 1793, just six months after Louis XVI was beheaded. It was the proximity of these two events that led G. Bataille to remark that the birth of the Louvre accompanied the invention of the guillotine.

<sup>4</sup> Louis Napoléon undertook the completion of the Louvre upon his succession to full power in 1852. His first architect, Louis Visconti, prepared the basic plans for the connection of the Tuileries palace to the Cour Carrée on the north with the creation of the Aile Richelieu (originally intended as offices for the burgeoning Second Empire bureaucracy and, from 1875 on, the Ministry of Finance). The basic construction was completed in four and a half years, an extraordinary achievement that required three thousand laborers organized in teams working day and night. Visconti died in 1853 and was succeeded at the Louvre by Hector Lefuel who modified little of his predecessor's basic plan but elaborated a decorative style for the treatment of the façades and the grand interior spaces quite unlike anything in Visconti's work. Indeed, Lefuel may be said to have originated at the Louvre the style recognized as *Deuxième Empire*, which was to reach its fullest incarnation in Charles Garnier's Opera of 1861 - 1875. Lefuel's alterations, notably of the Tuileries and the southern half of the wing along the quai as well as the Carrousel were completed, barely, for the Paris Exposition of 1867 - 1868. On the 23<sup>rd</sup> May 1871 the Commune set fire to the Tuileries; the shell of the building remained in place for another twelve years while the Assemblée debated its fate. Lefuel had prepared elaborate schemes for its rehabilitation (and considerable transformation) but had finally to content himself with the simple refinishing of the end pavilions, Flore and Marsan. He died two years before the senators finally voted to raze the ruins. It was Garnier, who had been designated to continue the studies for the palace upon Lefuel's death, who supervised its demolition.

already clear, an axis that traced its origins back to the 16<sup>th</sup> century garden path, framed on the entrance pavilion of the (then) Chateau des Tuileries, before Le Nôtre's comprehensive redesign. With the demolition of the (now) Palais des Tuileries, what had previously been the *arrière-cour* – the Carrousel – was transformed into the culmination of one of the most imposing urban compositions in all of Europe. (8) The Arc de Triomphe at its center, erected in 1808 to commemorate Napoléon's victories, now stood revealed as the point of intersection of two axes, that of the city and that of the Louvre. (9) Despite its anachronistic program and the delicacy of its design, the diminutive arch had become the formal resolution of the famous '*desaxement*', the germ of which had been unwittingly planted when Henri IV began the project to connect the two royal residences three centuries earlier.<sup>5</sup>

(10) This east/west axis and the plan of the gardens it structures are the essential formal and historical references for Pei's urban composition and together set the context in which the pyramid, the new entrance to the museum, and the entire surface design of the Cour Napoléon must be understood. The interplay between the axes of the palace and the city determines the position of every aspect of the plan and ties it both formally and metaphorically to the history of the site. Pei accepts the '*desaxement*' as his armature and conjures Le Nôtre for his inspiration, thus anchoring the Cour Napoléon in the same set of contextual forces that had shaped the urban plan of the site for eight hundred years. Yet in basing the design on a two-dimensional, planimetric diagram, Pei is also forced to accept a certain resultant or derivative quality in its development. The thrust and pull of historical axes and the symmetries they engender dominate the formal elaboration of the design to such an extent that the location of its component parts repeatedly proves more significant than their specific formal qualities or architectural character – position is *parti*.

---

<sup>5</sup> The Chateau des Tuileries was built as royal residence for Catherine de Medicis to the west of the city wall (mur Charles V) to plans of Philibert de l'Orme in the mid-16<sup>th</sup> century. Its original orientation was parallel to the wall of the city and perpendicular to the banks of the Seine, which curves slightly to the north as it moves west of the Louvre. Henri IV undertook the connection between the Louvre and the Tuileries in the first decade of the 17<sup>th</sup> century and it was the realization of this connection, the '*galerie bord de l'eau*' (precursor to the '*grande galerie*') that 'fixed in stone' the 7 degree shift in axis between the Louvre – the extension of the original plan of Philippe-Auguste's fortifications – and the Tuileries, become '*palais*' once the wall of Charles V was demolished and the structure was incorporated into the city limits. See L. Hautcoeur, P. Quoniam.

## Pedestrian precinct

The Grand Louvre project proposes a deliberate and systematic reopening of the two-kilometer long Louvre-Tuileries block to the city with the creation of new pedestrian connections to the surrounding context, both above grade and below. The clear intention is to break down the former walled isolation of the Cour Napoléon and to transform this key space into the hub of an urban reconfiguration that extends to the whole of the 1<sup>st</sup> arrondissement and beyond. What had previously been ‘a black hole in the center of Paris’ would now become the most important of a series of linked centers permitting Parisians and tourists alike to navigate the heart of the city while minimizing conflicts with vehicular circulation, which, in complimentary fashion, would also be rendered more logical and efficient.<sup>6</sup>

The design is best understood as a pedestrian precinct – a *lieu de flânerie* – a sequence of choreographed spaces and repeated motifs that reveals itself gradually in a continuous phrase of movement from one end to the other. Central to this strategy is an almost archaeological uncovering of a web of existing physical connections, a framework for movement that had been abandoned over time and, with its reuse, the conscious renewal of an urbanism that has its origins in Paris’ 19<sup>th</sup> century *passages couverts* and arcades. It is this emphasis on pedestrian movement that animates the plan and argues against its being read as a static, axial assemblage of monumental set-pieces, projecting it rather as an extension, and restructuring, of an alternative reading of the city. There are three major components to this comprehensive redesign: the reinforcement and articulation of the east/west axis with the creation of a protected path of movement from St. Germain Auxerrois to the Place de la Concorde; the opening of several cross-axes that extend as far as the Place des Victoires and the Musée d’Orsay; and the duplication of this pedestrian network with a new

---

<sup>6</sup> The reworking of the traffic system was a collaborative effort between the architects’ consultants and the *Service de la Voirie de la Ville de Paris*; it extended to the northern limits of the 1<sup>er</sup> arrondissement and across the Seine to the south. Key to this effort was the construction of two new underground parking garages beneath the Carrousel gardens, one for private vehicles and the other for tour buses. The phrase “black hole in the center of Paris” was used by E. Biasini, president of the state-run building agency responsible for the Grand Louvre (EPGL) in a press briefing unveiling the project.

system of subterranean passages that both serve the museum and seek to establish an independent urban identity as new infrastructure in the public realm.<sup>7</sup>

### Sequence and historical continuity

(11) The formal *parti* of the project can be seen in the juxtaposition of a primary path, (which, read from east to west, roughly recapitulates the chronology of its own historical development), with a collection of secondary north/south axes that connect this central line of movement to the greater urban context. This establishes an outdoor spatial sequence through a succession of restored spaces and new architectural features that have been articulated with a rigorous, two-dimensional geometry and a limited palette of surface materials, creating an overall homogeneity that is key to reading the full extent of the project.

Starting at the Place St- Germain l'Auxerrois, fronting the east colonnaded façade of the palace, the main axis leads through six clearly structured zones: from the restored Cour Carrée, to the transformed Cour Napoléon with its pyramids and fountains, across the new rond-point, through the the Cour Carrousel centered on the Arc de Triomphe, to a new terrace, and finally, the restored gardens of the Tuileries. (12) Across all of these architecturally framed spaces, the ground plane is regularly interrupted by a series of reflecting pools and new glazed structures, creating a counterpoint to the mineral paving and a punctuated rhythm of reflected light that unifies the sequence formally, a compositional device borrowed directly from Le Nôtre. Indeed, the general formal references of the entire design owe more to the landscape vocabulary of the classic French

---

<sup>7</sup> Although the plan must today be considered as a continuous, multi-level landscape of courts and terraces, passages and parterres, the surface of the Grand Louvre was paradoxically the first element to be designed and the last to be completed. It was realized in several partial projects over 15 years, each additional block of underground space and garden renovation adding its part to the overall composition, each exploiting the interplay of formal, functional and historical opportunities and constraints.

garden tradition, with its forced perspectives, multiple horizons and “outdoor rooms”, than to any discernable architectural influences.<sup>8</sup> **(13)**

Both of the redesigned gardens are used for the installation of sculpture – in the Carrousel the famed group of Maillols bronzes and in the Tuileries, a chronological collection of marbles culled from the grounds of historic chateaux throughout France. Thus the new urban framework serves to extend the museum’s pedagogical program beyond the confines of the palace and introduces a critical dialogue in which museological objectives and urban form are conjoined to make an aesthetic and historical agenda legible to the largest possible public. This is a recurrent theme throughout the project, placing it squarely in a much broader dialectic that confronts the museum with the city and reflects the modernist conviction that contemporary interventions in historic centers can adapt the city’s underlying forms and structures to a deliberate pedagogical purpose.

The five secondary cross-axes that intersect this major pedestrian spine each make new or renovated connections to the larger urban context to the north and south.<sup>9</sup> Together they serve to open up the walled ‘*enceinte*’ (precinct) of the museum/palace complex and provide multiple points of access to and through it. **(14)** Moreover, each of these secondary axes takes as its formal reference a major feature of the existing architecture of the palace and gardens: an arched entry, a reopened arcade or a previously abandoned stair. The reuse – the reanimation – of these elements reconnects the palace to the large, complex web of urban patterns that its architectural composition was responsible for engendering in

---

<sup>8</sup> (*Look at Gardens of Illusion...*)

<sup>9</sup> From the Cour Carrée south to the Pont des Arts; from the pyramid north through the Passage Richelieu to the Place and edifice of the Palais Royal, and its gardens beyond; from the rond-point through the Louvre’s central “guichets”, south to the Pont du Carrousel and north to the foot of the Avenue de l’Opera; from the new Terrasse des Tuileries, south to the Pont Royal and north to the Place des Pyramides; and finally, from the mid-point of the Tuileries garden, south across the new Passerelle Solferino, a replacement bridge designed by Marc Mimram that connects the walks on the upper and lower quais on both sides of the Seine and makes a direct pedestrian route from the center of the gardens to the foot of the Musée d’Orsay and the other cultural monuments along the rive gauche.

the first place, adding a dimension of meaning that clearly ties the new plan directly to a reading of the history of the city.

The most important of these cross connections is the Passage Richelieu, (15) which reopens the formerly gated central axis of the Ministry of Finance Wing built by Lefuel. Aligned on the summit of the pyramid, it creates a connection between the Cour Napoléon and the Place de Palais Royal, providing direct access from the Metro to the main entry of the museum. The passage also provides views into the Louvre's terraced sculpture galleries, creating a kind of public belvedere that anticipates entry into the collections. (16) In the larger cityscape however, the significance of this new connection is far greater than its role as an entry for it ties the exterior courts of the Louvre to a sequence of major public pedestrian spaces that include the Place Colette in front of the Comédie Française, the court and gardens of the Palais Royal (17) and, through these, to the system of *passages* and *places* that extends north to the Passage Colbert and the Place des Victoires. Indeed, the reopening of the Passage Richelieu anchors the public spaces of the Louvre in the network of arcaded streets and 19<sup>th</sup> century mid-block *passages couverts* that permeates the entire 1<sup>st</sup> arrondissement, extending as far east as the edge of les Halles and as far west as the Place Vendôme. Thus reconnected to the north and south, the courts of the Louvre are no longer an obstacle but stand at the nexus of an independent system of pedestrian movement inherited from the 19<sup>th</sup> century that functions in counterpoint to the primary street grid of the city.

### Subterranean projection

(18) If this surface network builds on an infrastructure that largely pre-existed the Grand Louvre project, it is the new system of arcades and passages below grade that represents the most radical - and controversial - transformation of the urban context. The axial pedestrian circulation above grade is duplicated eight meters below, with the Hall Napoléon lobby marking the center of an underground movement system that extends west to the Carrousel, and thence north to the Rue de Rivoli. (19) The design of these passages was quite deliberately modeled on 19<sup>th</sup> century precedents and they create a protected pedestrian street for shops and restaurants that borrows directly from nearby

above-grade models such as the Passage Vero-Dodat and the Galeries Vivienne.<sup>10</sup> (20) Although often condemned as bringing the merchants too close to the temple of art, this new underground infrastructure also supports a variety of public and institutional uses, including the Auditorium of the Ecole du Louvre and the vast halls for the défilés of the Salons de la Mode<sup>11</sup>. Moreover, the subterranean circulation system also reveals the archaeological vestiges of Paris' historical development, uncovering and incorporating, the *scarpe* and *contrescarpe* of the city wall of Charles V at the foot of the Carrousel (21) and, at the opposite end, the moat and foundations of the tower of Philippe-Auguste's *chateau-fort*.<sup>12</sup> (22) In this respect the new arcades colonize the foundations of the city, projecting the museum's didactic program on an extraordinary collection of urban fragments and explicating a palimpsest of historical layers that had been entirely lost to view. The seamless extension of the project's architecture through this new infrastructure of subterranean galleries and arcades allows the museum in a very real sense to curate the history of its own physical development and to give a pedagogical (and even aesthetic) meaning to the foundations on which its modern formal structure is built and in which its contemporary design seeks its *raison d'être*.<sup>13</sup> Thus this new system of movement has a far greater significance than its nostalgic formal references to 19<sup>th</sup> century *passages couverts* would suggest, for it proposes a relationship between the museum and its urban context that quite deliberately blurs the limits between the two and presents both in a fundamentally altered

---

<sup>10</sup> The critical rediscovery of these references in the first published editions of Walter Benjamin's magnum opus *Das Passagenwerk* and the contemporaneous publication in English of Johann Friedrich Geist's *Arcades* coincided precisely with the period in which the urban plan of the Louvre project was first being examined.

<sup>11</sup> Find citation on controversy...

<sup>12</sup> (note vestiges and B Palissy etc. Nor are these fragments simply 'displayed as found': the archaeological vestiges included were 'recomposed' architecturally to fit the larger plan, with certain portions left unexcavated or even cut and demolished to allow for the new system of movement. This is urban history as framed artifact, curated, lit and staged every bit as much as any piece of church sculpture or painted altarpiece in the Louvre's more conventional collections.).

<sup>13</sup> Indeed the building and its history have actually been framed as another curatorial department within the museum, with an introductory gallery that traces the broad outline of the development of the Louvre and the center of Paris in models and historical documents and then orchestrates a self-guided tour through the palace/museum that focuses on its architecture and the extant archaeological fragments that speak to its previous incarnations and gradual modification over time. This extends to the architecture of the present day and one understands, with the immediacy that only visual proof can provide, that the same honey-colored stone has been used for every major expansion of the Louvre from 1199 to 1989, just one example among many.

way. In so doing, it renews with a rich history of arguments about the pedagogical program of the museum and its relationship to the city.

The original Parisian arcade of the first decades of the 19<sup>th</sup> century proposed an alternative to the street, a well-lit, clean and protected system of movement, albeit at the price of a burgeoning commercialization of the urban realm and a commensurate loss of its truly public character. In a similar fashion, the idea of a covered street or arcade as a space of pedagogy gained currency among an influential group of early 20<sup>th</sup> century architects and cultural theorists; in this view it was precisely the removal of the street from its purely mechanistic, functional role in urban life that allowed it to become the locus of didactical display, and to take on "... an instructive instrumentality, as a museum of the everyday, an instrument for the spectacle of modernity."<sup>14</sup> The rich interplay of influences went both ways: throughout the first half of the 20<sup>th</sup> century the street/arcade was adapted formally as the sectional *parti* or building block of numerous projects for ideal museums, from P. Geddes through le Corbusier; at the same time, the 'museification' of the enclosed street was actively explored as a pedagogical device in a distinctly social context, a means for bringing an educational and cultural program to an audience that might not otherwise seek it out in conventional cultural institutions.<sup>15</sup>

---

<sup>14</sup> (IV. p.164 note tracing lineage of Provesnal, Geddes, Corbusier, Otlet, Malraux proposed the appropriation of the covered gallery or arcade as a space of didactical display and public education. [add Provesnal, Vidler, etc.]

<sup>15</sup> [Provesnal cited 4 schools where, "... the masses can be schooled in the high truths of art. These are: the Museum, the Street, the Monument and the Book. The potential for the museum to serve a progressivist social and didactic program and for the street as a prototype for a new space of display was to be developed in the work of P. Geddes in Edinburgh and elsewhere and Vidler traces a continuous line of influence from Geddes' collaboration with Paul Otlet on the Exposition Universelle of 1900 to Otlet's later collaboration with le Corbusier on the Mundanaeum for Geneva of 1928-29. This lineage could be extended through le Corbusier to A. Malraux for whom the museum was a critical problem in the final years of his writing. This in turn anticipates a later 20<sup>th</sup> century debate about the design of public policy to foster the enlargement and vulgarization of audiences for traditional cultural institutions, a debate in which the Louvre and the Grand Louvre project took a leading role. One can find echoes of this same thematic in the contemporary campaign to install casts of sculptures and photographs or other facsimile of art objects throughout the stations of the Parisian metro, typically chosen to signal the proximity of major institutions or landmarks directly above the underground locations. Here was a further adaptation of the principle of 'rendering the city and its history visible' by complimenting the purely functional purpose of a major piece of urban infrastructure with a pedagogical program. The vigorous debate on the museum's potential role as a tool/site for cultural education of the masses continues among professional and critics today. Sylvie Octobre's study etc. (citations SO bibliography). For Geddes' twin convictions that the city itself and its history could be subject to the museum and that the creation of museums could play a major role in the growth or (re- )

This is precisely the duality reflected in the design of the Grand Louvre and its ultimate significance as a piece of urbanism: **(23)** the reuse and adaptation of a classic typology of urban infrastructure and its transposition to a new, subterranean position signals nothing less than the deliberate appropriation of the space of the city by the museum and the projection of the ‘museal gaze’ onto the raw material of urban history. And just as the new multi-level pedestrian network projects the rigorous geometry of the pyramid, and with it some part of the museum’s pedagogical mission, to the extremities of the premier arrondissement, read conversely, it connects the farther reaches of the city to the museum’s front door. By extending and appropriating this circulatory structure the museum draws towards itself, as if magnetically, the urban life of the historic center and proclaims itself both the logical destination of any promenade, and the arbiter of its meaning.

\* \* \* \* \*

The architectural design of the pyramid and the spaces beneath it also follow from, and elaborate on, this historical and formal analysis of the urban context. **(24)** Indeed the entire design is contextually determined and the formal development of the new entry and underground program starts from a deliberate replication of the surface organization of the courtyard above it, as if proposing a projection of the exterior plan down into the new subterranean precinct. The hallmarks of the architectural project are a rigidly symmetrical disposition of the museum’s new public program, following directly from the axial armature on which the plan is composed; a palette of materials derived from the rich tradition of the palace construction; and finally, a series of formal and phenomenal variations on the quality of transparency.

## **The Pyramid and the Hall Napoléon**

---

structuring of cities, see Welter, V.M., The return of the Muses: Edinburgh as Museion in M. Giebelhausen ed.]

The pyramid and the Hall Napoléon 8 meters below it are in every sense the center of the Grand Louvre project. Together they redefine the entry to the museum, accommodating vastly larger crowds of visitors, and provide it with a programmatic infrastructure that disencumbers the historical palace and returns it to the display of art alone.<sup>16</sup> Functionally, they provide the *coulisses* for the *théâtre* of the Louvre, in Georges Salles' celebrated phrase, while formally and symbolically, they reframe the identity of the museum; they are the synecdoche that stands for the Louvre as a whole.<sup>17</sup>

### Context and Site

The proposed reorganization of the museum, as first presented to Pei, assumed that its collections would be redeployed throughout the totality of the palace, incorporating the Aile Richelieu (then still the Ministère des Finances) and transforming the Louvre from a long, 'L'-shaped configuration to a more compact organization of three roughly equal wings disposed around a centralized court. **(25)** It was never doubted that the main entry to the new complex would be in the Cour Napoléon, (even if its exact position and form were still entirely open to study) nor that the space below the Cour Napoléon would be used to accommodate the new public program, nor that the actual connections to the museum's three wings would occur at the foundation level of the palace, roughly five meters below grade. These assumptions, explicitly stated in the program documents, set the project a typological problem for which few precedents exist, namely the creation of a major public hall underground and an entry sequence that moves the visitor down into the earth.<sup>18</sup>

Two other considerations also influenced the initial framing of the architectural problem. First, for Pei, Lefuel's architecture represented the culmination of a centuries-long, 'classical' French tradition that had been lost by the end of the 19<sup>th</sup> century<sup>19</sup>; thus, the existing architecture of the Louvre precluded the direct addition of a new volume,

---

<sup>16</sup> (note on attendance etc.)

<sup>17</sup> (note Salles' plans)

<sup>18</sup> (note on Dourdin program and the extent to which it was based on the preliminary Pei design)

<sup>19</sup> (citation, CdesArts)

regardless of its formal vocabulary. As a corollary, any new architecture built within the Cour Napoléon would have to engage the 19<sup>th</sup> century surround by contrast rather than mimicry, and the new entry would need to establish a separate formal and material syntax from Lefuel's ornate facades.<sup>20</sup>

### Response and Compositional Strategy

Pei proposes two distinct formal strategies in his response to this complex problem. The first is based on the development of the existing visual and compositional axes of the historic context, while the second is grounded in an abstract exercise in planar geometry, the manipulation of rotated squares in plan. Complimentary and contradictory by turns, these two strategies are present at every scale of the project architecture, from the integration of the entire architectural plan in its urban setting to the detailing of the stone walls and the concrete ceiling of the entry hall: throughout one finds the systematic interplay of axes and rotated squares.

**(26)** The axial strategy is explicitly derivative and recapitulates at a smaller scale the same analysis that determines the relationship of the project's exterior courts and gardens to the urban setting, as we have seen. Pei bases his design on the geometry of Lefuel's composition, however the new intervention ignores the form, materiality and style of the 19<sup>th</sup> century wings and extrapolates from Lefuel's exuberant masses an abstract, axial framework, which is amenable to a completely new strategy of interpretation, no longer tied to the older architectural language. **(27)** By contrast, the second formal strategy, the use of rotated squares, is autonomous and self-referential; it seems, at times, even defiant of the setting. It is a strategy used to develop the proportions of the design and it generates the dimensional module that fixes the position of all the major program elements. It also

---

<sup>20</sup> {note: contrast was not however the 'default' strategy for Pei: throughout the eighties Pei developed several designs for other commissions that borrowed quite heavily from the historical formal languages of their contexts, perhaps not entirely 'post-modern' but much more explicitly accommodationist in character; see for example the Fragrant Hills Hotel, the Four Seasons hotel and the base of the Bank of China Tower in Hong Kong. Also note here the unacceptability of vertical glazed forms that would have reflected Lefuel's facades) }

works as a scaling device, an intuitively grasped, haptic measure of the size relationships between nested spaces.

It is in the pyramid and the underground hall that the two strategies are most subtly combined. Lefuel's compositional axes are used to set the position of the summit of the pyramid and the center of the new reception spaces below grade. (28) The plan of this grand hall is a rotated square covering twice the area of the base of the pyramid. The midpoints of the diagonal walls of the hall are notched by the four cruciform columns, which support the beams that carry the metal superstructure on which the glass is fixed. The rotated square of the subterranean plan is repeated on the surface in the positioning of the inner pools, which surround the pyramid on three sides; the endpoints of this second square are marked by three smaller pyramids, themselves rotated squares relative to the main axis. These reinforce the connection between the axes of the major pyramid and the existing pavilions thus, in Pei's phrase, 'locking' their larger relation in place, while generating a surface paving of diagonal granite bands that spread out from the center to the four edges of the court. A final rotation of the square positions the outer set of basins, their edges parallel to the palace facades, the small pyramids marking, in turn, their midpoints.

### Hall Napoléon/Interior

The design of the Hall Napoléon seven meters below further develops the interplay between these contextual and autonomous formal strategies. (29) Just as the compositional device of rotated squares in plan establishes a correspondence between surface and underground levels of the project, the axes of the courtyard are repeated below grade by the passages that connect the new hall to the vaulted basements of the museum. Indeed, the projection of the organization of the exterior court provides the diagram for the subterranean public realm and through this replication, establishes a virtual transparency in plan.

The surfaces of the underground lobby are a Burgundy limestone of the same honey color as Lefuel's façades and a finished concrete tinted to match, which evoke the original

material of the palace above while introducing a very different tactile quality, achieved through a thoroughly modern vocabulary and detailing. The stone, although but a 2-inch veneer, is smoothly dressed to give the walls an illusion of mass and the concrete coffers of the ceilings are contrived to suggest great depth in what is in fact a very shallow space. The net effect is a room seemingly carved from a single block and the formal language with which these materials are worked continues the exercise of rotated squares, which are to be found everywhere, at different scales, in plan and elevation. The use of limestone establishes a compelling visual continuity above and below the datum of the pyramid's base, while the shift in formal syntax and detailing proposes a transformed meaning for this most traditional of materials.

The descent from exterior court to the reception hall below grade is accomplished by three distinct movement systems that spring from the edges of the triangular entry belvedere: to one side, a double escalator, to the other, a helicoidal stair with an open, hydraulic lift at its center. (30) Each of these is developed as an independent structural and visual tour-de-force, almost sculptural in form, and the dark grey metal cladding underscores their nature as mechanical devices. Indeed, they prove to be the most spectacular visual elements in the entire composition, willfully breaking the restraint exercised elsewhere to celebrate, or perhaps dissimulate, the uneasy transition from surface to hall below. (31) One arrives at the lowest, '*accueil*' or lobby level, then via stairs and escalators to an upper '*mezzanine*', which is accessible after ticketing and leads directly to the vaulted basements of the palace. This sectional '*faux-pas*' - going down to go up - is imposed on the project by the tension between the palpable need for a tall, well-proportioned reception space and the existing level of the palace basements, the only level at which a connection could be made. The three small pyramids underscore the connections between the two levels and between interior and exterior, offering the visitor an upward view to the center of Lefuel's pavilion at the precise moment of discovery of the entry to the galleries.

(32) However the axial diagram of the circulation creates a series of residual symmetrical spaces, diagonally disposed around the Hall Napoléon, and on either side of the long axis that leads toward the easternmost entry, at the pavillon Sully. The major elements of the

program are organized within this system of resultant spaces, including two levels of restaurants, the museum store, an auditorium of 420 seats and a reception center for children and visitors in groups. Along the Sully axis there are also two exhibition spaces, a permanent introduction to the history of the Louvre (which now leads visitors to their first confrontation with the palace's archaeology with the fragment of the Mur LeVau, just beyond the galleries); on the floor below there are additional galleries for temporary exhibitions.

While there is a certain clarity in the location of these elements and their relationship to the Hall Napoléon, the rigid symmetry of the plan imposes a forced formal equivalence on functions which are in fact quite distinct, both in the frequency of their use and the populations that use them. The functional discrepancies in the disposition of these spaces are underscored by the elevations of the vertical surfaces that frame the Hall: paired openings and blind stone walls line up in perfect mirror symmetry with no concern for the specific requirements of the uses behind them. This twinning of spaces and forced equivalence of uses extends even to a number of secondary functions: remote pairs of identical audio-visual orientation rooms and undersized coat check spaces divided at opposite extremes of the Lobby. Even the 'back-of-house' uses - art storage, locker rooms, kitchens and offices - all are more or less indifferently disposed in the resultant corners between the public spaces and the foundations of the palace.

Clearly the programmatic design of the Hall Napoléon is an instance of function following form. With its rigid, contextually derivative *parti*, the project accommodates the program only to the extent that the forms and axial geometries allow. In Pei's analysis of Lefuel's Louvre and his extrapolation from it of an urban rendering of Le Nôtre geometries, we find a curious transformation that, despite the exquisite detailing, new materials and all the force of 20<sup>th</sup> century technology, returns us to a space planning strategy very reminiscent of the Beaux-Arts *promenade*. In perhaps the ultimate reversal, a thoroughly progressive and contemporary reading of history seems to anchor the project in a fundamentally *retardataire* architecture and at each step, we can read in the underpinnings of Pei's design, the rigid compositional frame of an older order.

### Iconography vs. Geometry

(33) A form as highly charged with tradition and cultural associations as the pyramid inevitably invites speculation as to sources and meaning and many have suggested that Pei's use of the form harkens, consciously or otherwise, to a panoply of symbolic associations. Some have seen a willful aggrandizement of the project to match the ambitions of a 'pharaonic' president. Others have noted the troubling iconography of death that surrounds the use of the form, not only in its Egyptian incarnation but in, for example, Brogniart's Crematorium for Père Lachaise. The prevalence of the pyramid in the pre- and post- Revolutionary periods, as exemplified in the work of Boullée and Ledoux, has been cited to adduce Enlightenment values; still others have pointed to the pyramidal monuments that were actually erected within the grounds of the Louvre during the Convention; or suggested a kind of homage to Napoléon's Egyptian campaigns that led to the plundering of antiquities that became the cornerstone of the museum's collections.<sup>21</sup> Pei has consistently rejected any and all references, insisting that the abstract, geometrical nature of the pyramid and its realization in modern materials assert its independence of specific precedents and their associations. He has also advanced the 'timelessness' and 'universality' of the form as proof that its meaning is not tied to any particular culture or period (nor is the pyramid used as an isolated monument, as with so many of its putative predecessors, but rather as the central trope in a completely new formal strategy for the project as a whole). Finally however, in architectural terms, it is the material transformation that is posited as performing a symbolic transformation as well: the change from stone to glass, from opacity to transparency, is seen as purging the form of all historical and cultural connotations.<sup>22</sup>

---

<sup>21</sup> (note on all of these ...David and L'Heureux)

<sup>22</sup> (Note: Finally, the detailing of the pyramid as a minimalist object appropriates from contemporary art theory the terms of reference of mid 20<sup>th</sup> century abstraction, creating an object that plays with our understanding of scale and material presence that is meant - simultaneously - to astonish and to disappear.)

Here again, the source that Pei has acknowledged is the landscape design of Le Nôtre, citing especially his admiration for Vaux, and Le Nôtre's garden plans can well be described in terms of the same strategies that Pei deploys: axial composition framed by elaborate permutations of simple geometries.<sup>23</sup> Visual effect also reinforces the comparison, as we have seen, especially in Le Nôtre's use of broad, flat pools of water to capture reflected light, thus tying an essentially horizontal understanding of space to an implicit 'borrowed' vertical dimension; indeed the glass sides of Pei's pyramids seem at times to dissolve in reflected light and to become virtual pools that engage the sky. The reference also seems apt: where better to find an echo of Le Nôtre than on the canted end of the famous '*désaxement*' for which his garden provided the unwitting impetus, and in tying his plans so directly to the 17<sup>th</sup> century history of the Louvre, Pei is implicitly effacing the intervening two centuries of change and claiming fraternity in a French tradition of landscape, as opposed to architectural, design.

But there are limits to the analogy; for if the essence of Le Nôtre's compositions is an uninterrupted extension to an infinite horizon and the play between a perspectival understanding of space and the scale of a 'natural' order, Pei's composition soon parts company with this conceptual framework. The pyramid subverts Le Nôtre's terms of reference by making itself the focus and terminus of all axes. For Le Nôtre's space Pei substitutes an object, for his vegetal parterres, a building, for infinite expansion, containment. The only way to imagine otherwise is to mistake the pyramid's transparency for invisibility.<sup>24</sup>

### Structure and Materiality

---

<sup>23</sup> (note int. CdesA "ceci est le GL" 1984)

<sup>24</sup> (note on problem of entry and quote from IM on best of bad possibilities in Suner)

While the decision to make the pyramid in glass may seem self-evident in hindsight, it too was a response to three distinct imperatives that flow from Pei's analysis of the larger site: first, to create a strong contrast to the surrounding 19<sup>th</sup> century stone façades; next, to provide abundant natural light for the underground spaces; and finally, to put the visibility of the existing palace architecture from below to use as a 'natural' means of orienting the visitor towards the three new entries. **(34)** The most straight-forward means of achieving all of these objectives was a lightweight structure sheathed in a great expanse of glass but the refinement of the design lies in a series of aspects that are less immediately obvious.

The pyramid is supported by four composite, concrete-clad steel girders that span 35 meters between massive, cruciform columns set at the corners of its square base.<sup>25</sup> The original structural design began as a conventional 'space-frame', a system in which all members have the same size and the intersections between members are standardized to create a universal set of connecting joints or nodes. There is great economy in this approach as fabrication of the structure becomes highly repetitive and the limited array of members and connections allows for great speed of assembly.<sup>26</sup> However it is an intrinsically wasteful solution in material terms, as the standardization of structural members requires that each must be sized to take the loads of the most extreme condition - there is more material than is strictly required and the finished structure is heavier, in both literal and visual terms, than a non-standardized structural design.

**(35)** The solution for the pyramid as ultimately executed lay in abandoning standardization and sizing each member instead to provide just the resistance required by its position in the overall structural scheme. The exterior glazed skin is carried by a complex, 'tensile-compressive net' that articulates the static and dynamic forces to which it responds in the

---

<sup>25</sup> (note: That these beams, nearly 2 meters in depth, are indeed made of steel has been entirely hidden from view as they are clad in the same honey-colored concrete that comprises the entire ceiling surface of the below grade spaces and sustains the illusion that the structure of the pyramid itself is placed directly on the void that has been carved out of the mass below the courtyard. [note, this blatant dissimulation of the real structural system is but one of many aspects of the design where the visible takes precedence over the purely functional and suggests that whatever 'truth' there may be in the use of materials is subject to a rather more complicated interpretation than standard modernist practice might lead us to expect).

<sup>26</sup> (note It is an approach that Pei had used to considerable effect in several of his previous works, notably at the National Gallery in Washington and the Kennedy Library in Boston; refs).

varying diameters of its constituent elements.<sup>27</sup> In this approach each node is distinct as it must resolve the connections between this differentiated array of members as a function of its position – standardization is sacrificed for absolute material efficiency and a consequent lightness in both material and metaphorical terms.<sup>28</sup>

(36) The reduction of each member to the strict minimum creates a visual transparency that would be unattainable with a more conventional structure. It also emphasizes the overall pyramidal form when viewed from inside, with a progressive diminution of the amount of steel as the structure rises to its summit. (37) Although rigorously demonstrative of its static principles, the structure of the pyramid is a highly complex form and resists an easy visual resolution. (38) The repetition of the lustrous, stainless steel parts also has a distinctly ‘decorative’ quality, creating varied geometric patterns that seem to open and close as a function of one’s point of view.<sup>29</sup>

### Transparency

Transparency is at once the most obvious and most subtle of the project’s characteristics: obvious because transparency resides in the basic material qualities of glass; subtle because

---

<sup>27</sup> (note on Rice/ Knoll, etc.)

<sup>28</sup> The resulting structure can best be understood as a series of ‘bow-string trusses’, having an upper, flat compressive chord of steel bars that receives the frames that hold the glass, and a lower, curved chord in tension that is made of thin steel rods. [Fig. 7] The two chords are connected by a perpendicular steel strut of varying length depending on its position, thus giving each truss its distinctive curve as a function of its total length. Secondary steel rods triangulate between the top and bottom chords, intersecting at each cast steel node, which is specifically engineered to resolve the interplay of forces at that given point. Finally, to tie the separate trusses together and to assure that any lateral wind forces are equally distributed to all sides of the pyramid, a set of annular tension cables connects the cast nodes to one another, essentially tying them into place and assuring the equilibrium of the whole. [Fig. 8]

Ultimately, despite its superficial resemblance to various glass sheds or 19<sup>th</sup> century exhibition halls, the pyramid is anything but an industrial structure, as virtually all of its constituent parts are hand-made and assembled. Each of the \_\_\_ nodes was individually sculpted and cast using the lost-wax method for example and the erection of the structure resembled the fabrication of an exotic musical instrument more than a modern technical building as the tension in each cable was ‘tuned’ by hand as the glass loads were progressively placed. Thus, as Peter Cook’s said of Foster’s Sainsbury Center a few years earlier: “... we have to be reminded iconographically of the joy of technology.”

<sup>29</sup> (note on the surface treatment of the steel- bil de verre, etc. One may even read in the sculpted steel elements a kind of three-dimensional reinterpretation of Le Nôtre’s highly embellished ‘broderie’ within the simple parterres of his gardens.)

the material qualities of glass are truly transparent only in an abstract or conceptual sense. As soon as real pieces of glass are situated in a real architectural context, their phenomenological qualities become multiple, ambiguous and contextually determined. Thus the pyramid, as it sits in the Cour Napoléon, is as often reflective as it is transparent, a mirror as often as a lens; and most often it is something curiously in between these two absolutes: partial and confused in its optical qualities, unstable and changing, its aspect prisoner to every passing cloud.

The design plays quite deliberately with the complex visual nature of glass posed on a diagonal slope. Seen from within, it is indeed clear and almost wholly translucent, and great effort was given to procuring an ‘extra-white’ glass that would minimize any distortion of the Louvre’s façades.<sup>30</sup> **(39)** But seen from outside the pyramid is rarely entirely transparent, offering instead some partial view into and then out, through its sloped surfaces while at the same time capturing some part of the sky in reflection. **(40)** This multiplicity of aspects, or incompleteness, distorts our understanding of form itself, by turns flattening or exaggerating its depth, creating a certain ambiguity as to its size, its color or even its fundamental geometry.<sup>31</sup> **(41)**

The flat pools and vertical jets of water that surround the pyramid only heighten these ambiguities, adding to the palette of changing light effects, challenging our understanding of the form as solid or void. It is this range of visual effects and the ambiguous nature of the pyramid’s materiality that sets the terms of its relationship to the 19<sup>th</sup> century façades that

---

<sup>30</sup> (note glass)

<sup>31</sup> (note: Colin Rowe, in a celebrated text, distinguishes between literal and phenomenal transparency following an analysis by G. Kepes in which transparency is posited as one quality of a broader spatial order, that which admits interpenetration without an optical destruction. For Rowe, by Kepes’ definition, “... the transparent ceases to be that which is perfectly clear and becomes, instead, that which is clearly ambiguous”. Without meaning to annex the whole of Rowe’s subtle and brilliant argument, it might be suggested that Pei’s design partakes of this second, non-literal transparency in the relationship it establishes with the existing façades of Lefuel’s Louvre. Simple, material transparency is used to create a historical superposition, the readings of which are clearly ambiguous and while this ambiguity does not function spatially, as in the buildings which Rowe examines, it functions metaphorically, and in ways that are only controlled to a limited extent by the architect’s stated intentions. In Pei’s project there is a deliberate confrontation of historical moments and consequently of our thinking about them and of what they represent ideologically. The transparency of the pyramid comes to stand for a kind of guilelessness or honesty, its bright reflections scowling judgmentally at Lefuel’s shadowy, opaque facades, implicitly closed, dishonest, hiding something. Standing on the ‘belvedere’, looking out on the 19<sup>th</sup> century palace, we have then the shining promise of latter-day heroic modernism becoming additionally the looking glass through which history is seen.)

surround it: Lefuel's is a language of mass and depth, figure and shadow, solidity and the absorption of light. The pyramid declares its contrast in thinness, flatness, translucency and reflection. The slope of the form quite intentionally avoids any simple mirroring of the surrounding architecture and yet its surface is constantly animated by the changing Parisian sky. Lefuel's architecture is sculpted to catch sunlight and project shadow - the brighter the day the stronger the depth and clarity of the stone's relief. The pyramid engages in a subtle reversal: the greyer and flatter the sky above it, the more mysterious its surface, the more ambiguous its location. At night, the roles are reversed yet again: the pyramid all but disappears and whatever light is within it is projected through it like a beacon into the shadows of the dark, enclosing court.

We are left finally to ask what kind of symbol the pyramid proposes itself to be and the role of that symbolic quality in the design as a whole. There can be no question of its importance. De Maupassant ate at the Eiffel Tower because, he said, it was the only place in Paris where he didn't have to look at it.<sup>32</sup> In the smaller universe of the Louvre the pyramid is equally omnipresent - the only way to stop seeing it is to go inside and then, of course, we are constrained to look at the world through it.

Despite Pei's protestations, the pyramid is, or has become, a forceful signifier yet the terms of signification would seem to adhere to the ambiguities of its allusive physical qualities, rather than any deliberately referential scheme. With the pyramid structure Pei has combined technical prowess and an exacting selection of materials and given them heroic and distinctly modernist overtones. The remarkable structure is open and explicit, with an expression derived of pure technical necessity; the whole is proudly functional, shorn of the extraneous or merely ornamental, indeed structure and ornament have been fused. One can sense an attempt to give transparency a kind of moral, or at least moralizing weight. If, as Pei has characterized it, Lefuel's architecture as the last gasp of a dying tradition then transparency becomes the stick with which to beat it.<sup>33</sup> But it is perhaps not pushing too far

---

<sup>32</sup> The story is related in Roland Barthes's essay on the Eiffel Tower. R. Barthes, *The Eiffel Tower and Other Mythologies*, N.Y. 1979, (American edition).

<sup>33</sup> Pei interview, Jodidio, "Grand Louvre" 60.

to see here as well a polemical response to historicizing of the post-modern variety, which, in 1984 when the project was designed, was still a horse to be flogged, however wobbly on its feet.

What is proposed then is an architecture seemingly made from the minimum: from the diameter and density of the steel rods and cables which comprise the structure to the color and thickness of the glass, all has been treated so as to dissolve the materiality of the constituent parts of the pyramid and to create a structure which is meant – simultaneously – to astonish and to disappear.

Pei almost pulls off just such a disappearing act. It is tempting to imagine the pyramid hermetically sealed, surrounded on all four sides by reflecting pools, enclosing a great void without belvedere, entry, escalators, stairs and lifts, without a central column awaiting a sculpture – tempting to imagine it, in other words, truly empty, useless, unencumbered by all that makes it a building. Such an object, liberated of the functional obligations which entry imposes might well have better served the Grand Louvre in symbolic terms, (achieving perhaps the Barthesian status of ‘pure signifier’).<sup>34</sup> For paradoxically, if there is one part of the design which most thoroughly subverts its formal and symbolic intentions, it is the entry itself. (42)

Pei has conceded that the entry as finally treated is simply a solution chosen for its discretion, “the least bad of several bad alternatives”, and that finally, the pyramid is a form that “does not want to be entered”.<sup>35</sup> Both statements are remarkable given that the initial

---

<sup>34</sup> Such a ‘useless’ pyramid might, in time, come to fulfill the conditions Barthes stipulates as fundamental to the mythic quality of the Eiffel Tower. For Barthes it is precisely the uselessness of the Tower that is key to, “its prodigious propensity to meaning”, an inutility vaguely scandalous, at once, “precious and inadmissible”. Like the Tower, the pyramid is, “... an object when we look at it, ... a lookout in its turn when we visit it. ... The Tower (and this is one of its mythic powers) transgresses this separation, this habitual divorce of seeing and being seen; it achieves a sovereign circulation between the two functions; it is a complete object which has, if one may say so, both sexes of sight.: Barthes, Eiffel Tower, 3 – 5. The analogy must not be pushed too far, if only because the Tower dominates all of Paris and the pyramid is hidden from the City by the very buildings which it dominates from within. And, in accepting the function of the entry Pei has missed the chance to realize the “zero degree of monument” which Barthes analyzes. Nevertheless, the potential of a sealed-up pyramid assuming the “glamorous” role of a “pure signifier” and of its emptiness becoming an invitation to dream provides perhaps an idealized model which resonates over the much humbler ambitions of the building as actually built.

justification for the pyramid was precisely that it be the new entry to the museum. Several other possibilities were considered during the development of the design, but as treated the entry is a compromise that contradicts the formal language of the pyramid itself. The supposed discretion of the simple cut in the glass in fact severely distorts the structural and visual integrity of the cables and rods that support it. A poorly proportioned space-frame segment was inserted to counteract the disequilibrium created by the cut. An oversized set of mullions, a 'supergrid', on the glass exterior surface is hardly more convincing, a weak attempt to attach the entry to a larger visual order. But the most disconcerting aspect in this treatment is that we pass through the shimmering wall of glass at all, and that the illusion of immateriality so carefully contrived for the pyramid seems to be violated by our passage and succumbs to the very real exigencies of condensation gutters and revolving doors.

#### The Grand Louvre after twenty years

(43) From the vantage of two decades Pei's Grand Louvre appears in a changed light; if it spectacularly solved the set of functional problems posed in 1981, it has created new ones for which it offers no ready answer. The pyramid entry and underground hall that effortlessly accommodated the nearly 6 million who came to the Louvre the year after it opened, seem inadequate to the projected 9 million expected in 2010. The very success of the pyramid compounds the problem for although today it is but the largest of many entries to the Louvre, its force as a symbol keeps the millions lined up in front of it. So too, the clarity of Pei's axial *parti* concentrates the vast number of visitors in the underground hall where all the commonplace services that support the museum visit - ticketing, coat-check, orientation - are often overstrained and chaotic. Not all of this is fault of the project's design - certainly in 1984 no one foresaw the airport-like security and anti-terrorist measures that the Louvre, as all major museums, has introduced since. But the net result is that the Hall Napoléon, intended to liberate the palace and provide the Louvre with an entry and reception space equal to its full measure, has itself become the major obstacle in finding one's way into the museum's collections.

---

<sup>35</sup> Chaslin, *Les Paris*, 138 - 139.

Moreover, on some level the very notion of *le Grand Louvre* has been surpassed by a less centralized conception. The construction of the Lens annex in northern France now underway, the development of long-term loans to foreign institutions, as in Atlanta, and the plans for the Louvre-Abu Dhabi, all suggest that the original *palais/musée* at the heart of Paris is being gradually reconceived as the center of a virtual hub of interconnected but geographically remote sites that share, not a common history or architecture but something harder to define: a set of principles and intentions and, perhaps, ‘a brand’.<sup>36</sup>

Our understanding of Pei’s architectural intentions has also changed: the modernist idiom of the project has by now been absorbed into the continuum of styles that has marked eight centuries of continual transformation of the palace. With the construction of the Seine entry at the Port des Lions in (1999?), the creation of the Islamic Wing in the Cour Visconti now underway and a host of other, more modest changes throughout the museum, the project no longer reads, as it once did (and as its political patrons intended), as the ‘final’ step in the ‘*achèvement*’ of the modern Louvre. The cyclical battle of the ancients and moderns has moved beyond it and the pyramid is today as much a part of the Louvre as the Samothrace staircase or the Grande Galerie – indeed as much a part of Paris as the Eiffel Tower, which met with much the same opprobrium when it was first built. So too, the pretensions of the project to a certain timelessness or a ‘classic quality’ outside of history have themselves been placed in historic context and today appear very much a product of the formal and political debates of the 1980’s, the avatar of a waning architectural ‘modernism’, which may also be understood in hindsight as a riposte to the emergence of ‘post-modernism’ (although the increasingly blurred distinction between the two terms of this simple opposition is itself a reflection of the intervening decades). Even the project’s insistence on the principle of a confrontation of styles as the appropriate contextual response may now be understood as part of an older formal and aesthetic canon; indeed Pei’s very emphasis on ‘context’ and ‘appropriateness’ speak to an ideological position that is increasingly muted or ignored in an age where Bilbao and its progeny have posited

---

<sup>36</sup> (note on the original debate about whether the Louvre should be made one whole or seven separate departmental institutions, here recapitulated in a greatly enlarged context. Also re Kren’s Gugg?.)

'iconicity' as the ultimate measure of success. And here, in a final irony, Pei's project is again partly responsible for creating the new debate that has since passed it by: for its astounding popular success has assured that architectural history, and the public at large, will persist in reading the pyramid that its architect struggled to anchor in a complex set of urban, functional and historical relationships, as a formal gesture and an end in itself. (44)