

Adaptive Re-use of Heritage Structures into Museums: What lessons can an American scholar learn from French precedents of converting historic buildings to accommodate the museum experience?

Richard Morris Hunt Prize - Final report

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Figure 1: View of Paris from the roof of Musée d'Orsay

Contents

Table of Contents	2
Acknowledgements	3
Background	4
Thesis/Report	6
Case Studies	8
• Eiffel Tower	9
• La Pagode cinema	12
• Chateau de la Chaize domaine	15
• Musée Cluny	19
• Bourse de Commerce	23
• Musée Beaux Arts, Dijon	26
• Musée du Verre/Site Verrier	29
• Musée de la Piscine	32
• Musée d'Orsay	35
Appendix A – Itinerary	38

Note: All images are by the author, unless noted otherwise.



Figure 2: Construction progress meeting at 18th c. grand ballroom for La Pagode cinema project.



Figure 3: Portables that are beautifully integrated into interior courtyard, used as swing space so renovations can be phased over time, at the Senate/Palais de Luxembourg.

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The Richard Morris Hunt Prize program is only possible because of the resilient efforts of its matriarch, Michèle le Menestrel Ullrich. Michele's dedication to leading this now thirty-year exchange program is without match.

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Figure 4: staff member, Sixte, Didier and the author in the South of France.

Background:

The Richard Morris Hunt Prize (RMHP)

This research and associated site visits were made possible by the funding and network of the Richard Morris Hunt Prize (RMHP). The RMHP is a five-week scholarship for registered architects to investigate emerging trends in historic preservation and to meet and shadow leading historic preservation professionals in France. The RMHP has been fostering and supporting cross-cultural professional exchange between France and the United States since 1990.



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Figure 5: The author on a construction tour of Notre-Dame Cathedral. Full-body suits and decontamination showers were required as lead-mitigation strategies.

Travel log

My travels to France occurred from late April to the end of May 2022. A summary of the voyage is:

- Week 1: Lyon with office of Didier Ripellin, ACMH
- Week 2: Paris with office of Pierre Antoine Gatier, ACMH
- Weeks 3 and 4: visits in Paris and day trips to the North and East of France
- Week 5: RMPH Reunion program in Paris and Lyon



A full itinerary of places visited and people met can be found in the Appendices.

Thesis Statement

Through the analysis of recent adaptive-reuse projects in France, with a focus on the conversion of existing heritage structures into museum complexes, this paper will highlight methodologies that could be applied in the American preservation and reconstruction markets. This paper will also describe the “patrimoine” systems at work in France: its deep-rooted tradition of funding cultural construction projects, the long-established, centrally focused management of the built heritage, and the development of a National museum experience. These policies could be used to cover potential gaps found in the American cultural (preservation and museum) systems, to surmount the ongoing financial, social, and professional difficulties found in certain under-served areas on this side of the Atlantic.

Combining adaptive reuse and the museum experience

A powerful force is created when the development of the museum experience is combined with the reconstruction of heritage structures. With emphasis from local governments and Federal agencies, museums are packaged and marketed as unique cultural thrills, providing large attendance numbers and the greater diffusion of cultural values. A strong sense of culture is enhanced via the combined efforts of preserving the built heritage and the insertion of new functions into under-used or abandoned structures.

In general, three potentially positive results from adaptive reuse museum projects are:

1. Local culture is maintained through the preservation of historical structures, allowing the built heritage to be enjoyed and appreciated by current and future generations
2. New economic opportunities are created (or existing economic activities are enhanced) when under-used structures are provided with innovative cultural programs.
3. When a newly inserted program is focused on the museum experience, it cultivates and develops a national “valorization of culture” at the local level.

Valorization of Culture

A “valorization of culture” is well established in France. The use of culture as a unifying National force is well understood, having been applied by French leaders, famous for promoting architecture, fashion and the arts to fortify their image throughout the different regions of the Kingdom or Empire. The 1789 French Revolution, while allowing some destruction of privately-owned patrimony, fortified and democratized the notion of cultural value through the transfer of Nationally significant properties into the hands of the French public. The newly founded government stepped in to fill the vacuum created after the fall of the royalty and further codified the use of culture to stitch the diverse regions of France into one whole.

Although found in select areas of the US, a value of culture is not as well developed in certain American rural and urban regions. The loss of manufacturing jobs and a changing economy left certain (Rust Belt) communities with a surplus of vacant buildings. Rather than being seen as a long-term opportunity to preserve local history and to develop new cultural programs, a lack of resources in these areas has created the tendency to think short-term when dealing with under-used local heritage; seeing abandoned structures as burdens that require too many dollars and too much effort to maintain, and as a consequence, seeing dilapidated buildings as blight that actively accelerates neighborhood decay (i.e. the broken window theory).

The role of the Ministère de la Culture in the French regulatory system

French policy on historical monuments and cultural facilities is strongly dictated by a centralized government. The *Directorate-General for Heritage and Architecture Direction* (“*générale des patrimoines et de l’architecture or DGPA*”), a department within the Minister of Culture, is a key player in the French regulatory environment, enforcing historic preservation laws, regulating the architectural profession, and managing the national museum system.

DGPA is responsible for identifying, studying, protecting, preserving and enhancing the architectural, urban, archaeological, and heritage riches of France. Since 1998, architecture and heritage have coexisted within a single directorate to ensure coordination on preservation philosophies while contributing to the country’s larger policy on land, landscape and urban planning.

To fulfil its mission of protection and conservation of cultural property, the DGPA is made up of the following services:

1. *Service des musées de France*: carries out museum policy throughout France, to guarantee greater access to public collections. With more than 1200 museums benefiting from the «Musée de France» designation, museums are among the most present cultural institutions in the territory.
2. *Service de l’architecture*: promotes and regulates the architectural quality of any built or landscaped spaces. It exercises a tutelage over the Order of Architects and monitors public contracts via the Law of 3 January 1977 on architecture.
3. *Service du patrimoine*: the French *Code du Patrimoine* enforces a 500-meter protected radius around classified monuments, requiring exterior design review for any architectural modifications or new construction within this zone. For a city like Paris, with numerous monuments, these protected radii overlap, and there are very few places within the city limits that escape preservation review.

The Minister of Culture extends its regulation at the local level, via the *Regional Directorate of Cultural Affairs offices* (“*Direction régionale des Affaires culturelles*” or DRAC). As the regional representatives of the Ministry, the DRACs are in charge of implementing the central policies and also provide expertise and advice to the various local authorities and cultural partners.

The regional director of cultural affairs is surrounded by a team of professionals including: the *Regional Conservation of Historic Monuments (CRMH)*, in charge of the legal protection of historic monuments; a *departmental units of architecture and heritage (UDAP)*, in charge of the scientific and technical control of historic buildings and their surroundings; and the *Pôle Création-Diffusion*, which contributes to the encouragement of cultural industries and advises local museum policy.

With this centralized infrastructure in place, the valorization of culture via the enforcement of heritage/historic preservation laws and the promotion of a National museum system is the norm and not the exception when working on cultural construction projects in France.

French Case Studies – Adaptive Reuse of heritage structures into museums

Throughout France, there are many examples of renovation and reconstruction projects on historic structures, converting multi-generational heritage structures into a modern and accessible museum experience. The following examples highlight the financial, professional, and social difficulties involved with making these conversion projects of various time periods into cultural and accessible successes.

- French Preservation Case Studies
 - Eiffel Tower: understanding historical context to inform design decisions
 - La Pagode: an American owner’s introduction to the French preservation system
 - Chateau de la Chaize : prestige from a classic private-owner restoration effort
- French Museum Reconstruction Case Studies
 - Musée Cluny, Paris : stitching multi-period heritage structures into an accessible ensemble
 - Bourse de Commerce : private museum reversibility
 - Musée Beaux Arts, Dijon : phased restoration and expansion effort
 - Musée du Verre, Meisenthal : recent local government effort at creating a cultural destination
 - Musée de la Piscine, Roubaix : local government using available National resources to create a cultural destination
 - Musée d’Orsay : maintaining and expanding a 20th century adaptive reuse icon



Figure 6: Detail at modern glass door with pivot hinge hardware at existing masonry opening.

Eiffel Tower: understanding historical context to inform design decisions

Instead of being treated as a regular maintenance project, the 20th repainting of the Eiffel Tower is used as an opportunity to highlight the history and the restoration of this Landmark structure, in preparation for the forthcoming 2024 Paris Olympics.

Property: Eiffel Tower

Location: Paris, France

Year: 1889 construction, 2022 painting restoration

Protection: Monument Historique Classé

Maître d'Œuvre: Pierre-Antoine Gatier, ACMH

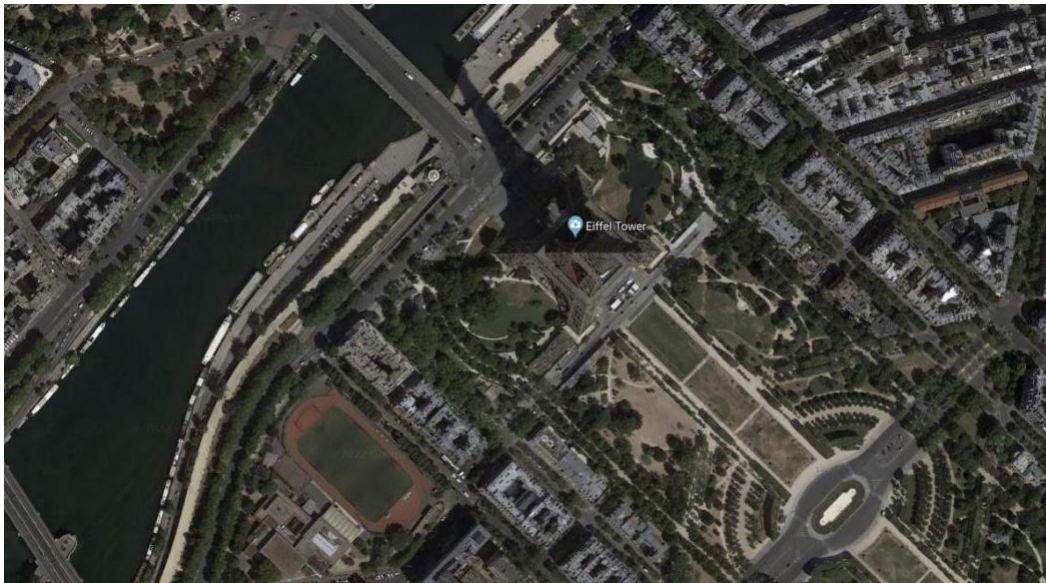


Figure 7: Eiffel Tower, Google Earth image

History of the Structure

The centerpiece of the 1889 World's Fair, the Eiffel Tower was designed by Gustave Eiffel and constructed over two years, weathering initial criticism by France's leading artists and intellectuals for its crude design, to become a global cultural icon and one of the most recognizable structures in the world. At 330 meters (or 1,083 ft) tall, the Tower is the tallest structure in Paris, and held the title of the tallest human-made structure in the world for forty-one years. The Eiffel Tower was designated a monument historique in 1964, and was named as part of a UNESCO World Heritage Site ("Paris, Banks of the Seine") in 1991.

Today's Context

One of the most visited sites in the world, coordinating Tower maintenance projects is complicated, balanced against the needs to keep the structure open to the public. Maintenance of the tower includes applying 60 tons of paint every seven years to prevent it from rusting. Lead paint was used as recently as 2001, however the practice has stopped out of concern for safety and the environment.

The restoration of the Eiffel Tower is overseen by the office of Pierre Antoine Gatier, ACMH, who employs two full-time historians and heavily relies on their historical research before starting a new design and preservation project. For the Tower, a detailed historical analysis of its paint scheme was undertaken, revealing varying colors used, reflecting the philosophies at the time of maintenance. The Tower was originally painted in five shades of orange. In 1908, when it was determined to remain a permanent structure, the Tower was painted in three shades: lighter at the top, getting progressively darker towards the bottom to complement the Parisian sky. It was originally reddish brown; this changed in 1968 to a bronze color known as “Eiffel Tower Brown.” For the 20th painting of the Tower, a return to the three shades from 1908 was determined as the periodic of significance, highlighting the decision of keeping the structure permanent.

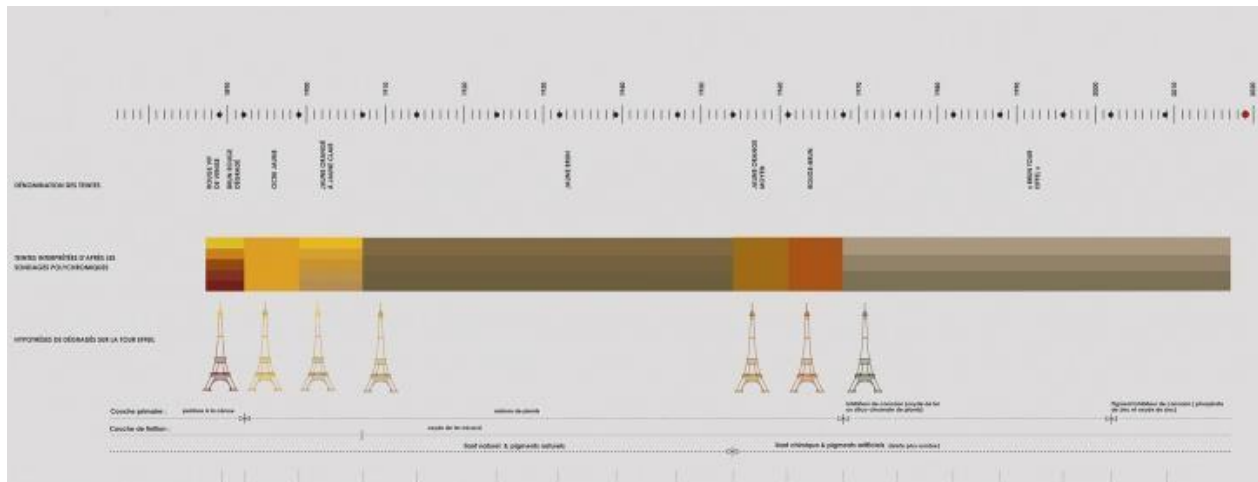


Figure 8: Eiffel Tower historical color configuration info-graphic, by Agence Gatier, published in *Academie des Beaux Arts* magazine (<https://www.academiedesbeauxarts.fr/la-tour-eiffel-une-histoire-de-couleur>)

Observations

The active maintenance site was made available via the architectural agency's weekly construction visit.

- Abatement of the existing layers of lead paint with metallic blasting:
 - More sustainable method than sand blasting as ballast can be separated from hazardous materials and reused
 - Less of a construction footprint than sand blasting
- Application of epoxy primer on exposed iron, then hand-installation of cover paint using traditional brush methods:
 - Two layers of primer on exposed metal (iron?) applied with spray guns
 - final layer of epoxy paint, applied with traditional brush method
- Installation of self-supporting scaffolding with lift, covered with screen that hid major work area by mimicking the Tower's structure
- Hiding the contractors lay-down and work areas with a screened scaffolding frame enclosure
- Areas outside of scaffolding get brushing and coat of paint, accessed via cords ("cordistes")



Figure 12: contractor work area hidden by decorative screens



Figure 11: final condition of lettering after restoration



Figure 10: demonstration of historic brush paint application



Figure 9: self-supporting scaffolding with decorative cover

La Pagode: an American client and the French preservation system

A good example of the contrast between the American and French development mindsets, the conversion of the Pagode from a historic 19-th century pavilion into a modern cinema complex highlights the struggles an outsider learns while navigating the French preservation system.

Property: La Pagode cinema

Location: Paris, France

Year: 1896 construction as pavilion, 1931 conversion to cinema, 2022 renovation

Protection: Monument Historique Classé

Maître d'Œuvre: Pierre-Antoine Gatier, ACMH

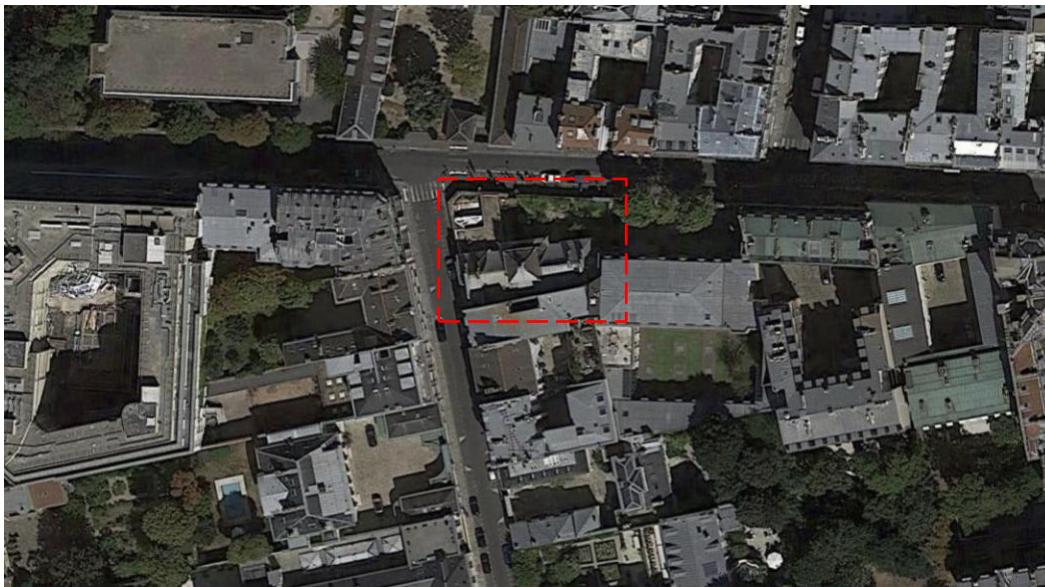


Figure 13: La Pagode, Google Earth image

History of the Structure

Commissioned in 1895 by François-Émile Morin as a wedding gift to his wife, La Pagode is an ornate replica of a Japanese pagoda that included delicately sculpted wooden beams and panels brought over from Asia. The building was first used to host high-class Parisian soirées and receptions until its closing in 1927. The structure reopened as a cinema in the 1930's and immediately forged a reputation for screening avant-garde films. Despite attracting large crowds with two small cinemas featuring red velvet seats and oriental snake light fittings, it closed to the public in 2015.

Today's Context

Charles Cohen, an American developer, through a lease with the city of Paris, is developing the Pagode structure into a modern center to exhibit his video archives collection dedicated to the “creation, training, research and innovation” in cinema. As well as restoring the façade of the Pagode and the interiors of the historic cinema, the constrained site is being expanded with two underground theaters and an above-ground reception space.



Figure 14: historical graphics of project included on construction barrier

Observations

The active construction area was made available to me via the architectural agency's weekly update meeting and site visit to the site.

- The owner's representatives looked to transplant an American design/construction philosophy into the French renovation project, meaning that the office of Pierre Antoine Gattier, ACMH, originally had a minimal scope of services during the construction phase.
 - However, when part of a historically-protected masonry wall was removed, the local DRAC office shut down the construction site. Construction was eventually allowed to resume once the Historic Architect was put in charge of managing the overall construction effort. Gattier's office was then able to establish protocols typically found in a traditional preservation project.
- The redevelopment of the garden area was also controversial. Mature trees were cut down to allow development of the courtyard spaces. Neighbors protested the development plans and fought the approvals process in order to avoid the destruction of local trees.
- Fire safety is a big concern recently, as another work site (chantier) caught fire due to unsafe plumbing work. A city fire-fighter inspects the site frequently before authorizing any hot-work permits.
- Existing foundations were found to be deteriorated so a call to the DRAC was needed to approve the replacement of historic material with new.
- At exterior, a new self-supporting concrete slab has been poured to allow for better water-proofing installation and to allow for construction crews to excavate below-ground in stages.



Figure 17: sheeting has been installed to protect future restoration area from new construction activities below.



Figure 16: new concrete beam with steel support installed to make up for deteriorated existing foundations, found after excavation

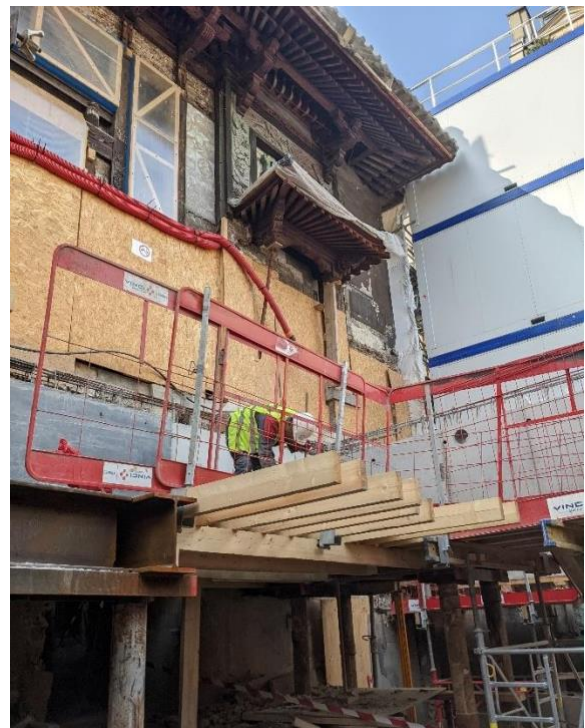


Figure 15: temporary shoring and plywood protection provided so that excavation below historic structure is possible

Chateau de la Chaize : prestige from a classic private-owner restoration effort

The restoration of Chateau de la Chaize is an example of the prestige gained by a property when an owner goes beyond the standard requirements imposed by French preservation system.

Property: Chateau de la Chaize

Location: Odenas, Bourgogne region, France

Year: 1676 construction of chateau, 1771 construction of winery, 2017-22 restoration

Protection: Monument Historique Classé

Maître d'Œuvre: Didier Ripellin, ACMH



Figure 18: Chateau de la Chaize, Google Earth image

History of the Structure

Designed in 1670 by architects Jules Hardouin-Mansart and landscape architect André Le Nôtre, Château de la Chaize is one of the largest chateaus in the Beaujolais region. The chateau's exterior and the wine cellar (chai), the largest in the Beaujolais region since 1811, were classified as historical monuments in 1972.

Today's Context

Christophe Gruy purchased the estate in 2017. With an eye to develop the domaine into a landmark destination, Gruy commissioned Didier Repellin to realize a master plan of the castle, the accessory structures, the gardens and the landscape. The master plan has led to the phased restoration of the winery, the château and outbuildings, with a view to increasing the wine-making activity and the development of new activities on the estate. A privately funded project, the owner is going above and beyond national restoration requirements to establish a destination “domaine,” integrating sustainable new construction projects with preserved historic structures.



Figure 19: chateau with formal gardens at front and newly created vineyards on hill behind. New roof tiles recently installed.

Observations

My first visit in France was to the Chateau de la Chaize in the Southern Burgundy region, tagging along for the architectural agency's weekly construction visit to the site.

Restoration of historic "chai" (wine cellar)

- Inert stainless steel or concrete fermenting vats installed at main level, oak barrel installed at lower level to age the wine
- New reinforced concrete floor installed to accommodate heavy liquid loads
- "Trait de Jupiter" joint used to hide repair and replacement at historic joist members, new wood selected and hand-cut to match historic material
- Salvaged wood from disused wine barrels repurposed into flooring materials in wine tasting areas
- Old wine press reinstalled to provide visual contrast to newer technologies



Figure 20: upper level for fermenting of wine in concrete and stainless steel drums



Figure 21: lower level for aging of wine in oak barrels.



Figure 23: "Trait de Jupiter" joint at historic wood truss



Figure 22: restored exterior of chai

Modern wine-cellar:

- Modern storage, bottling and loading areas built into the landscape, minimizing visual impact on the domaine
- Gravity feed (No pumps) used to transport liquid wine from historic chai to new structure
- Stainless steel systems and yellow-lamped light fixtures used throughout to minimize damage to quality of wine in bottles



Figure 24: discrete entrance built into the hill



Figure 25: glass and copper loading dock built into the hill

Restoration of chateau:

- Phased restoration to slowly open parts to the public
- Add drip edge at stone cornices
- Remove concrete balusters and replace with stone ones



Figure 26: restoration of stone gallery



Figure 27: restoration of stone and plaster at interior

Musee Cluny, Paris: stitching multi-period heritage structures into an accessible ensemble

A contrasting addition by Bernard Desmoulins provides a modern reception area and stitches together the different existing structures to create a museum accessible to the public.

Property: Musée de Cluny - Musée national du Moyen Âge

Location: Paris, France

Year: 1819 – conversion of 2nd c. baths, 1847 – conversion of 15th c. hotel, 2018 – addition, 2022 – renovation

Protection: Monument Historique Classé

Maître d'Œuvre: Bernard Desmoulins, architect



Figure 28: Musee de Cluny, Google Earth image

History of the Structure

The Hôtel de Cluny complex is partially constructed on the foundations of third-century Gallo-Roman baths, with the vestiges of the frigidarium structure known as the Thermes de Cluny. The first hotel was constructed by Pierre de Chaslus in 1340 as the residence of the abbots of Cluny, and rebuilt by Jacques d'Amboise in 1510. In 1843, it was renovated and expanded into a public museum by Alexandre du Sommerard to preserve relics of France's Gothic past.

Today's Context

Bernard Desmoulin's Phase One modern addition, completed in 2018, connects the different levels of the ancient, medieval and 19th century structures due to the installation of modern ramps and elevators. The extension has also improved the reception areas, with a new ticketing area and a more spacious bookstore/gift shop. It also includes spaces for artwork management facilities, educational areas and rooms for temporary exhibitions.



Figure 30: enclosed courtyard at abbey.



Figure 29: simple form for modern addition.



Figure 31: three different structures along urban path.

Observations

I was able to visit the recently re-opened museum complex with a guided tour by the design architect, Benard Desmoulin. The second phase of the complex focused on the renovation and restoration of the heritage structures, opening in May 2022.

- Phase One addition:
 - The addition is supported by steel pilotis, embedded in existing antiquity-era foundations. This creates an accessible space below, allowing for potential archeological excavations in the future.
 - The new building is composed of simple volumes, clad in lightweight aluminum-cast panels of uneven sizes and textures, painted with bronze paint, which catch the light and change color depending on the time of day.
 - The façade's rhythm is inspired by historical artifacts, pick up on a motif featured in the stone filigree on the Flamboyant Gothic chapel of the medieval town house, resonating directly with the history of the site.

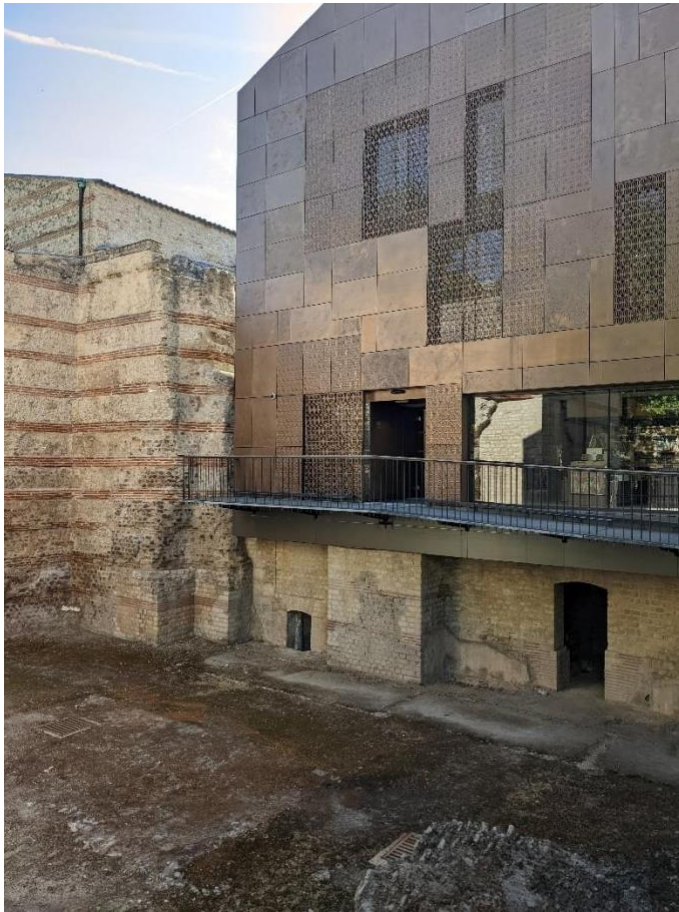


Figure 34: addition installed over ancient foundations

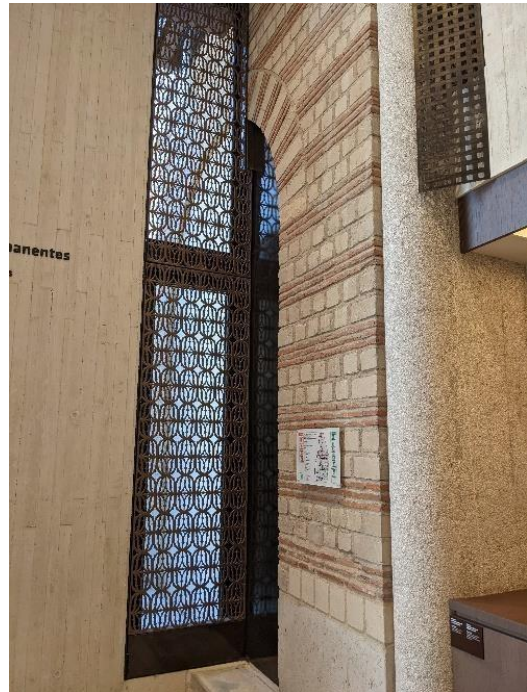


Figure 32: joint between new and old



Figure 33: cast aluminum motif inspired by historic collections

Phase Two restoration and restoration:

- “Hollow” joints used to differentiate modern interventions (stairs, floors, walls, ceilings) from historic materials, creating a shadow between the two periods
- 28 changes in elevations resolved via ramps, elevators and lifts
- Historic windows remain, covered with an acrylic layer with film and two types of blinds to control UV levels at the interior
- HVAC systems hidden in benches and under raised floors
- New self-supported curved steel stair mimics contour of historic shell, with no attachment to exterior walls
- Heritage tapestries hung at five degree angle within casework to reduce stress on historic materials and for better viewing by public



Figure 37: transition between new and old levels.



Figure 35: control of light levels at historic windows via multiple shades and films on glazing.



Figure 36: raised platform in historic space for accessibility. Power and mechanical systems located discretely below platform.

Bourse de Commerce : private museum reversibility

The Bourse de Commerce, an abandoned stock market structure converted into a museum, provides a great example of “reversibility” via the introduction of a modern contrasting concrete cylinder addition to showcase the private Pinault art collection.

Property: Bourse de Commerce, Pinault Collection

Location: Paris, France

Year: 1812 construction as granary, 1889 conversion to stock market, 2020 conversion to museum

Protection: Monument Historique Classé

Maître d’Œuvre: Pierre-Antoine Gatier, ACMH



Figure 38: Bourse de Commerce, Google Earth image

History of the Structure

The site was originally occupied by the Hôtel de Soissons, a 15th century palace for Catherine de Medicis, with the only remnant remaining being the Column de Medicis, the first free-standing column in Paris. The Bourse de Commerce was originally designed and built in 1763 by Nicolas Le Camus de Mézières as a grain exchange and capped in 1812 with a metal and glass dome by architect François-Joseph Bélanger. The structure was modified in 1889 by architect Henri Blondel to become the “Paris Stock Exchange.” The structure was essentially abandoned once the stock market functions relocated elsewhere in the 1980’s.

Today's Context

The Bourse de Commerce was transformed by Japanese architect Tadao Ando and restored by Pierre-Antoine Gatier, with construction completed in 2020. The newly restored Bourse de Commerce comprises ten exhibition spaces, an auditorium, a sound studio and reception and mediation spaces. The monument has been injected with new museum and exhibit functions due to Ando's contemporary insertions. At the core of the redesign, a large 29-meter-wide, nine-meter-tall concrete structure was inserted within the walls of the glass-domed rotunda. Staircases lead to the top of the wall where visitors can walk along a circular walkway to better view the glass-oculus-roof, 19th-century mural and original interiors.



Figure 39, restored exterior.



Figure 40, restored glass dome and murals, seen from top of interior addition.

Observations

I was able to visit the recently-opened museum via a tour by Pierre-Antoine Gatier and a representative from the museum's administration team.

- A rare example of a French private collector funding and founding a private museum, Francois Pinault has leased and rehabilitated the Bourse de Commerce and spent his own funds to and convert the stock market structure into a public museum to house his private art collection.
- The cast-in-place concrete cylinder is reversible, as its loads are transferred to the basement level with new columns and new construction minimally touches existing floor and wall elements.
- The proposed height of the modern cylinder was lowered to provide deference to the historic glass dome and murals. A horizontal concrete projection was added as a "cornice" to better define the view of the dome from within the structure. The cylinder's concrete walls include chases to hide ductwork serving the vast interior space.

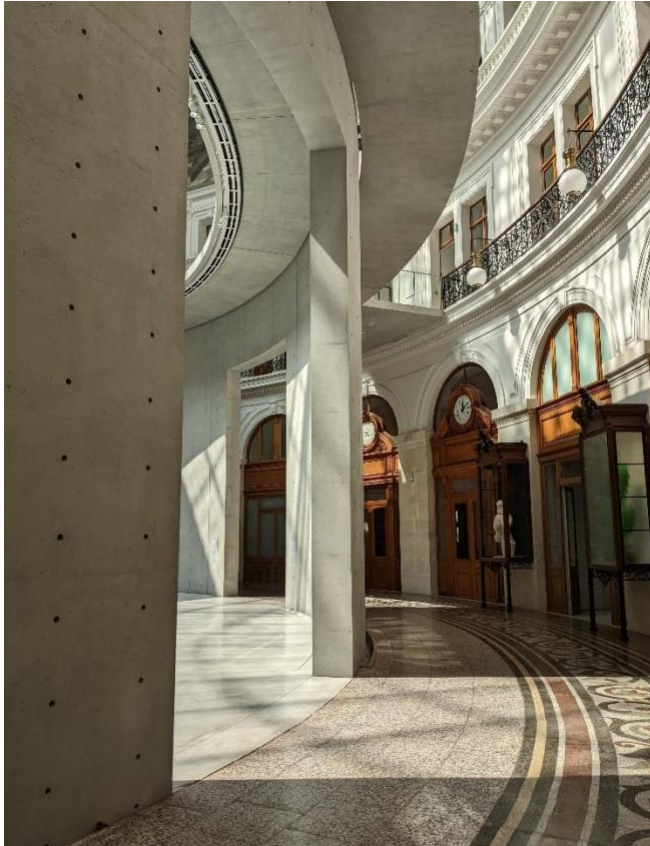


Figure 42, reveal where concrete addition meeting the terrazzo floor. Utilities hidden within concrete structure.



Figure 41, the concrete addition encloses an exhibit area and draws the view towards the murals and dome above.

Musee Beaux Arts, Dijon: phased restoration and expansion effort

A National Museum that has been upgraded and expanded over multiple phases to welcome a greater and more diverse number of visitors.

Property: Musée des Beaux Arts, Dijon

Location: Dijon, France

Year: 15th century ducal palace, 17th century palace addition, 18th and 19th century museum additions, 2006-2021 multi-phase renovation/restoration

Protection: Monument Historique Classé

Maître d'Œuvre: Eric Pallot, ACMH



Figure 43: Musée des Beaux Arts, Dijon, Google Earth image

History of the Structure

Located in the historic city center in the former 15th-century ducal palace designed by Jules Hardouin-Mansart, the Musée des Beaux-Arts de Dijon opened to the public in 1787, making it one of the oldest museums of France. Since then, the palace complex has been renovated and extended as a museum over multiple centuries to house and exhibit its growing collection.

Today's Context

Since 2006, the museum has undergone multiple renovation and extension construction projects. Phase One was completed and opened to the public in 2013. After the completion of the Phase Two renovation, the fully-renovated museum was inaugurated in 2019.



Figure 45, modern addition encloses stairs, mass is reduced with Mansard "roof," nested between historic structure.



Figure 44: spacing between new and old at roof levels.



Figure 46: 15th century ducal palace in background and 17th century palace addition at foreground. Taken from courtyard. Right side of complex is museum, left side is city hall.

Observations

I was able to walk the museum complex and city of Dijon with Eric Pallot, ACMH, the historic architect of the Phase 1 and 2 renovation and restoration projects.

- Feasibility study carried out by office of Eric Pallot, identifying spaces per historical importance, to help guide levels of intervention
- Original floor structure and material removed from less historically significant areas to provide opportunity for three new vertical stairs and elevator systems
- New construction elements are added in less visible areas (i.e. at interiors, at interior courtyards)
- Old vestiges are revealed where possible to provide contrast to new construction
- Windows:
 - Operable glazing incorporated into historic sashes for smoke evacuation system
 - Double-pane glazing units created by combining new and historic glazing layers
- HVAC:
 - Louvers embedded into wood paneling and false doors to hide return air paths
 - Supply vents hidden at top of inserted stair structures
- Collections/artifacts:
 - Metal materials are stored in enclosed vitrines to strictly control levels of temperature and relative humidity to avoid rusting
 - Exterior windows are blocked/covered where organic materials, such as fabrics, are exhibited to maintain low UV-levels



Figure 48: hollow joint to further visually separate new and old.



Figure 49, large volumes defined by planes of modern finishes hiding utilities.



Figure 47, modern glazing layer added to protect historic windows.

Musee du Verre, Meisenthal: recent local government effort at creating a cultural destination

The Site Verrier de Meisenthal, a publicly-funded, active cultural center housed in an 18th century glass factory complex, is a successful example of a local government body organizing and funding a polyvalent destination to attract visitors to its rural location.

Property: Musée du Verre, Site Verrier

Location: Meisenthal, France

Year: 2005 – conversion of 18th c. factories, 2022 – addition and renovation

Protection: Monument Historique Classé

Maître d'Œuvre: SO-IL + FREAKS, architectes

History of the Structure

The original foundry structure was constructed in 1711, with the campus having its current configuration by 1860. After many generations of hosting artists, the foundry's golden decade of artistic production was in the 1920's. Unfortunately, the post-War industrial decline led to the closure of the factory in 1969.



Figure 50: Site Verrier, Meisenthal, Google Earth image

Today's Context

The modern cultural conversion project site, the Site Verrier, is actually made up of three independent institutions: 1) the Musée du Verre et du Cristal, a museum tracing the history of glass at the site; 2) the Centre International d'Art Verrier, an active glass art glass fabrication center; and 3) the Halle Verrière, a large open cultural space hosting art installations and music concerts, housing a 500-seat black box theater and an open concert hall for 3,000 visitors. A modern concrete intervention, housing a welcome center, commercial and meeting spaces, unifies the separate historic structures.



Figure 53: modern welcome center with undulating concrete roof/floor, connecting different structures.

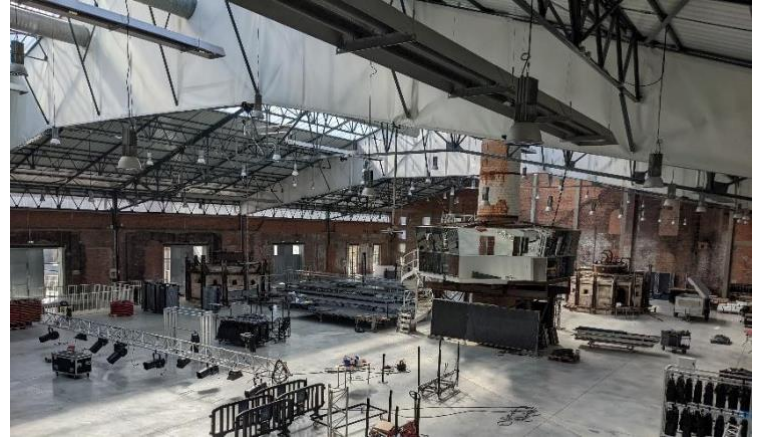


Figure 51: interior of open performance hall.



Figure 52: interior of museum exhibit.

Observations

I was able to receive a guided tour by the museum's director and was able to arrive to the remote site via automobile with the local DRAC representative.

- After closure of the factory, the community started using the space for informal art and music shows. The local government went on to formalize the process that began a local non-profit cultural effort by locals. The site has been home to the Meisenthal Glass Museum since 1978 and the International Glass Art Centre since 1992.
- The concrete addition connects the different historical structures and creates a landscaped courtyard for gathering and events.



Figure 55: connection between welcome center and performance hall.



Figure 54: interior display space, workshops located behind glass enclosure.



Figure 57: concrete bridge connecting museum to workshops.

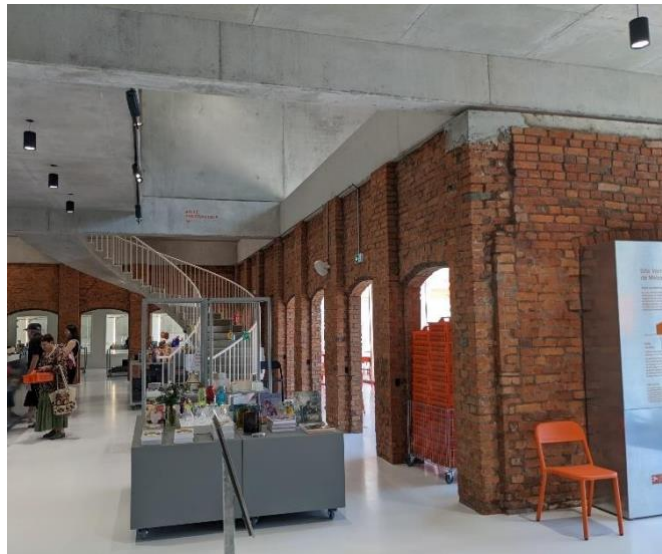


Figure 56, interior of welcome center, using masonry vestiges as walls.

Musée de la Piscine, Roubaix: local government using National resources to create a cultural destination

A successful example of a local French government reviving a downtrodden industrial area, leaning on available Federal resources to organize and fund a museum conversion project, to create a National cultural destination.

Property: La Piscine - Musée d'art et d'industrie André Diligent

Location: Roubaix, France

Year: 2001 – conversion of 1932 swimhall, 2018 – addition and renovation

Protection: Monument Historique Classé

Maître d'Œuvre: Jean-Paul Philippon, architect



Figure 58: La Piscine - Musée d'art et d'industrie André Diligent, Google Earth image

History of the Structure

In the 19th century Roubaix, a suburb of Lille, was known one of the world capitals of textiles. The municipal swimhall was built in 1932, commissioned by the Mayor and designed by architect Albert Baert. A stunning art deco monument, the pool complex closed to the public in 1985 due to maintenance issues, a symptom of the decreasing local industrial economy.

Working with the National museum system, the Roubaix government focused on creating a cultural destination by converting the abandoned swimhall into a world-class museum. The project funding was finalized in July 1992. A design competition was held, won by Jean-Paul Philippon, one of the architects integral to the conversion of the Gare d'Orsay (next project). La Piscine opened its doors in October 2001, with remarkable media and public success.

Today's Context

Responding to the large number of public visitors and to a burgeoning collection, an expansion quickly became necessary. Jean-Paul Philippon once again was tasked with the design for the extension, completed in 2018. With an additional surface of over 2000 square meters, the new spaces add exhibit spaces and better circulation through the museum.



Figure 61: reception area addition encloses entry courtyard.



Figure 59, Exterior sculpture courtyard of museum.



Figure 60, model showing stages of development.

Observations

I was able to solo visit the la Piscine museum after numerous different trains and metro trips to its remote Roubaix location.

- Pool area with water features has sculptures on display, exhibits that can deal with high humidity levels
- More sensitive artifacts are exhibited in enclosed glass areas, repurposed shower stalls
- The genesis of the museum was a joint effort, with artifacts for the collections and funding for the design and construction projects provided by a combination of local, regional and national sources.



Figure 64: sculpture area within swimhall.



Figure 65: active water fountain at platforms within historic pool structure.



Figure 62, restored stairs.

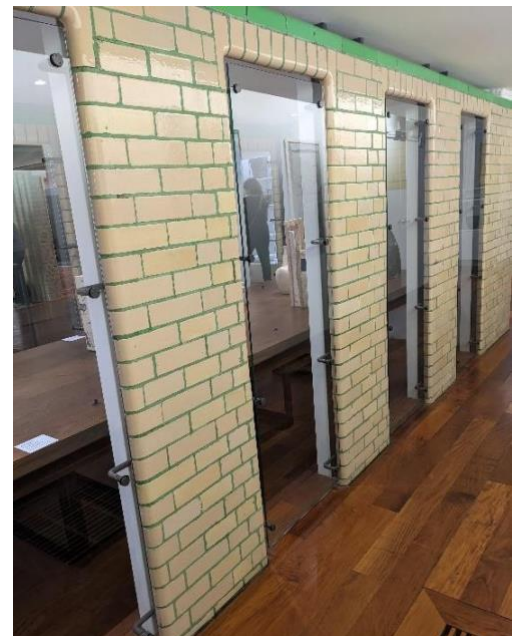


Figure 63: dressing rooms converted to display cases.

Musée d'Orsay: the continuing evolution of an adaptive reuse masterpiece

An example of an established adaptive reuse structure reorganizing and expanding to create more public spaces, with the help of generous American benefactors.

Property: Musée d'Orsay

Location: Paris, France

Year: 1989 – conversion of 19th c. station, 2024 – planned renovation

Protection: Monument Historique Classé

Maître d'Œuvre: Jean-Paul Philippon, architect



Figure 66: Musée d'Orsay, Google Earth image

Context/History of the Structure

Located in central Paris, the Gare d'Orsay, a railway station with grand hotel and dining spaces, was completed in time for the 1900 Exposition Universelle with a classical design, concealing the then-modern train functions housed within. By 1939, the short platforms had become unsuitable for the long trains typically used for regional services. The station fell into disuse and by 1970, permission was granted to demolish the station. Jacques Duhamel, the Minister for Cultural Affairs, intervened, listing the station as a Historic Monument in 1978. The suggestion to turn the station into a museum gained popularity and a design competition was organized, also in 1978. ACT Architecture, a team of three architects (Pierre Colboc, Renaud Bardon and Jean-Paul Philippon) was awarded the contract, which involved creating 20,000 square meters (220,000 sq ft) of new floorspace on four floors. In 1981, the Italian architect Gae Aulenti was chosen to design the interior including the internal arrangement, decoration, furniture and fittings of the museum. The museum officially opened to the public in December 1986.

Today's Context

The Musée d'Orsay is running out of space and a capital campaign "Orsay Grand Ouvert" is underway to fund the relocation of office, support and research spaces into another neighboring structure, allowing more of the train station's interior to be converted into publicly accessible, including additional exhibit spaces and a Youth Center.



Figure 69: metro station below historic train depot.

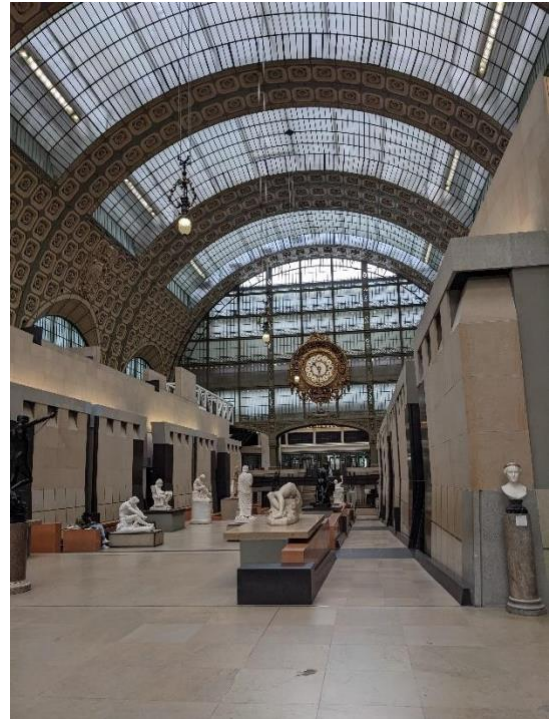


Figure 68, sculpture hall and exhibit structures under laylights and decorative plaster, barrel vaulted ceiling.

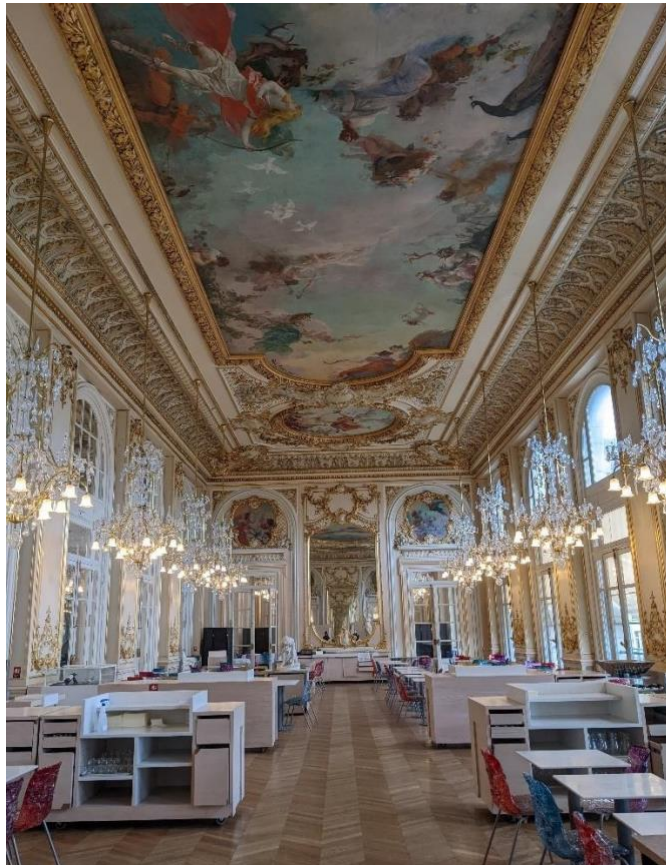


Figure 67: restaurant in ballroom space.

Observations

I was granted access to the museum by curatorial, research and facilities staff on a Monday, when the complex is closed to the public, enabling me to understand the efforts needed to maintain this landmark adaptive-reuse structure.

- The 1980's restoration and restoration of the train station doesn't adhere to today's philosophy of "reversibility." Unfortunately, the preservation philosophy in the 80s did not encourage the "reversibility" of new elements, so some historic fabric was removed, which wouldn't necessarily be carried out today.
- Relocation of support and research spaces to the Hotel de Mailly-Nesle will allow researchers a modern area to work, away from the museum. The effort will create more gallery spaces for public access.
- The museum needs to stay open continuously to the public during maintenance projects. For the restoration of the portico slab waterproofing, the contractor created their own exterior access path via scaffolding.
- Goal is to reduce energy consumption and keep interior dry. Replacement of skylight systems with new glazing is in the works.



Figure 70: space between historic skylights and laylights.

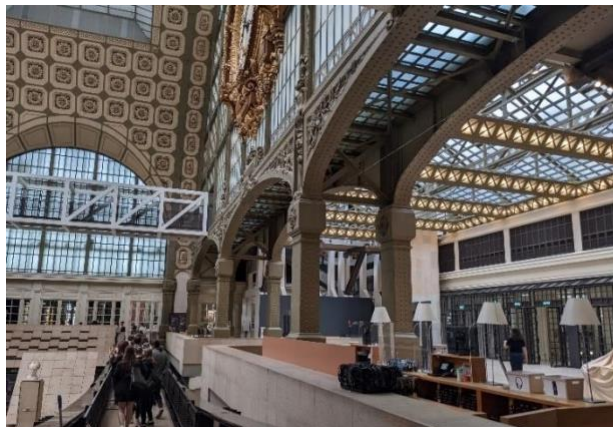


Figure 72, transition between entry and exhibit areas.

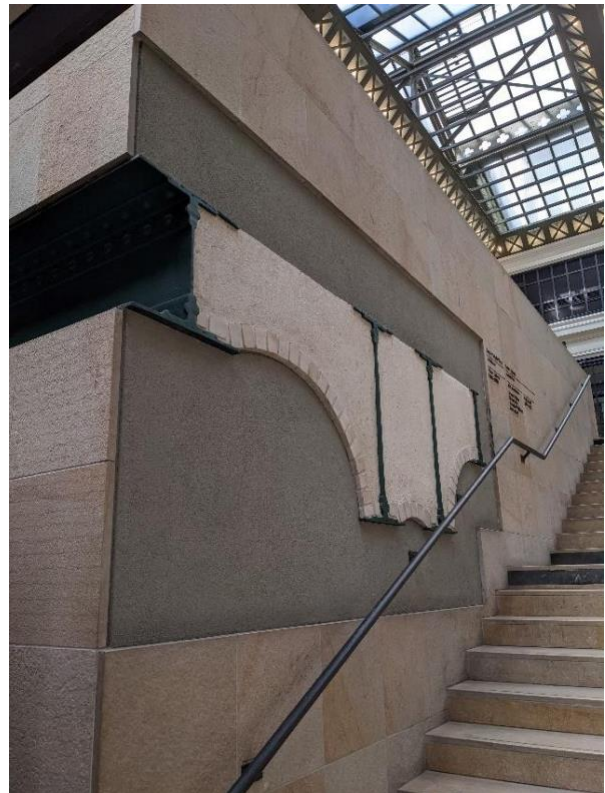


Figure 71, remnants of existing structure remain visible where modern stair cuts through historic fabric.

Appendix A – Itinerary



Figure 73: Visit to the Romanesque ruins of Cluny. The once massive abbey complex, the center of Christianity in the 14th century, was demolished in parts over time, causing a scandal that led to the start of the French preservation movement in 1819.



Figure 76: Notre Dame Cathedral under renovation; construction barriers contain great illustrations explaining the restoration work taking place.



Figure 75: guided survey of cross-laminated lattice wood roof structure at Musée Pompidou-Metz.

Figure 74: Senate offices, houses within the Palais de Luxembourg. Large restoration projects are underway as Senators are on the five-month break between national elections.

Richard Morris Hunt Prize, Scholar trip itinerary:

4/25/22

Arrival in Paris from DC, train to Lyon

4/26/22

Visit domaine of Château de la Chaize à Odenas (Rhône) with Didier REPELLIN and Lucie DUC-DODON, visit of restored Chai and new underground stockage structure, grounds and chateau

Déjeuner avec Didier, Lucie, Christophe GRUY, Pierre DENEUVEU

Dîner avec Didier, discussion of Didier's class trip to Cambodia to restore French Napoleon III Pavillion at Royal Grounds of Phnom Penh.

4/27/22

With Sixte DOUSSAU –

construction site visit at Chabrilan, Chapelle Saint-Pierre (Drôme);

kickoff meeting at Cathédrale d'Orange (Vaucluse)

team progress meeting at Musée Calvet à Avignon : restauration du Jardin (Vaucluse)

Cocktail dinatoire 37 place Bellecour avec Sixte, Jérôme, Eric, Laurent, Didier

4/28/22

Avec Sixte DOUSSAU et Didier REPELLIN au Sud

Carpentras : restauration du Palais de Justice (Vaucluse)

Ansouis : Chapelle du Château : restauration des intérieurs (Vaucluse) avec Ludovic

night tour of Lyon by car with Didier: Gratte Ciel/Villeurbanne neighborhood (Art Deco development), Croix-Rousse and water-front

4/29/22

Solo Visit of Musée des Beaux Arts, Lyon

client/project interview at Saint-Christophe en Brionnais avec Edouard DE VIMAL et Didier REPELLIN (Saône et Loire)

4/30/22

Visit town of Cluny and Abbaye de Clunney, train to Paris

5/1/22

Visit Montreuil and Parc des Beaumonts

5/2/22

Meet Pierre Antoine GATIER at his office and discuss Eiffel Tower historic research with Marion GAUCHARD-DURAND

Climb scaffolding at Eiffel Tower with P-A and Marion to look at restoration work

Client meeting with M Dumont of Eiffel Tower management group

5/3/22

Construction progress meeting and site walkthrough at la Pagode with Pierre Antoine and Alice TREVIEN-DE LAVENNE

Construction progress meeting and site walkthrough at Cite d'Argentine with Denis BERNARD CASSIEN

5/4/22

Discuss Bourse de Commerce project history with Clotilde BREUX at office

Guided tour with Pierre Antoine and Philippe WILLERVAL and others from Altarea at Bourse de Commerce,

Solo visit of Bibliotheque de l'Insitut National d'Histoire

5/5/22

Train to Arras with Benjamin BION-KEMPF

Design progress meeting with clients and Bernard DESMOULINS at Abbaye de Arras

Working lunch at Arras City Hall

Bidder walkthrough at Abbaye

Visit Arras Citadel

5/6/22

Guided tour with Damien DECHELETTE and Virginie BOUCLEINVILLE at Orangerie du Senat, visit offices, greenhouses, and Medici fountain; visit of Palais du Luxembourg with Virginie

Solo visit at Carnavalet Museum and Musee du Arts et Metiers

5/7/22

Train to Brussels, visit of Belgian Comic Book Museum, MIMA museum and Fonderie Museum

5/9/22

Train to Amiens, visit Amiens cathedral

Train to Compiegne, meet Jean-Francois at Chateau du Compiegne, train to Paris

5/10/22

Solo visit at la Madelaine and Opera Garnier,

meeting with Christophe CLEMENT at Minister of Culture

5/11/22

Train to Roubaix, solo visit la Piscine museum,

train to Lille, solo visit Musee des Beaux Arts, train to Paris

guided visit of la Chancellerie du Duc d'Orléans at Hotel Rohan by Emmanuel PENICAUT

5/12/22

Walking tour of Musee Cluny with Bernard DESMOULINS,
visit Napoleon's tomb and Musee de l'Armee at Hotel des Invalides,
solo visit Musee d'Art Moderne de Paris and Palais de Tokyo,
visit library of Cite d'Architecture et Patrimoine

5/13/22

meet LRMH director Aline MAGNIEN
discuss Pole Beton with Myriam BOUICHOU and Jean regarding reinforced concrete testing project with
Getty Center
discuss Pole Microbiologie with Alexandre FRANCOIS regarding testing of organic matter and durability
of historic materials
discuss Pole Pierre with Lise LEROUX regarding collection/catalog of historic stones
discuss Pole Textile with Mohamed DALLEL and visitor Michael LEWIS regarding Bayeux Tapestries
visit Chateau de Champs-sur-Marne with Mohamed DALLEL and Michael LEWIS

5/16/22

Visit Musee d'Orsay with Clemence RAYNAUD and Lionel BRITTEN
solo visit of Cite d'Architecture library,

5/17/22

Train to Metz and meet Christophe CHARLERY
Visit Citadelle de Bitche with Cyrill FRITZ
Visit Musee du Verre in Meisenthal with Caroline DUCHAMPS
Visit la Grange aux Paysage in Lorentzen

5/18/22

Solo visit Metz cathedral
visit Centre Pompidou-Metz with Christian BERTAUX, Patrick STEFFEN and Maxime CHAUVELIN
visit UDAP offices with Chrisophe CHARLERY
visit Musee du Cour d'Or with Philippe BRUNELLA
visit FRAC Lorraine with Marine HARDY and Valentin WATTIER

5/19/22

Train to Dijon and visit Musee Beaux Arts, Dijon with Eric Pallot, ACMH
visit Saint Etienne library and Musee Rude
visit Eglise St Michele
visit Eglise St Philibert and Metz Cathedral

5/20/22

Train to Amsterdam, ferry to NDSM district
visit at NDSM warehouse, temporary exhibit area and artist studio,
visit to STRAAT museum

5/23/22

visit Notre Dame construction site with hazmat shower
drinks and dinner at Hotel Sully

5/24/22

train to Lyon, metro/funicular to Fourviere
guided tour of Basilique de Fourviere,
guided tour of Lugdunum museum by Christine DESMOULINS
visit Vieux Lyon quartier and Lyon Cathedrale
presentation by Connie LAI and dinner at Cercle de l'Union

5/25/22

visit of Mufactory Prella,
visit of Fort Saint-Jean school
presentation by Laurent ,
visit Chateau de Flecheres,
visit domaine du Chateau de la Chaize

5/26/22

visit Firminy Corbusier sites: Unite d'Habitation, Maison de Culture et Eglise Saint Pierre
visit wall at Montbrison,
visit Chateau de la Batie d'Urfe
visit Château de Saint-Marcel-de-Felines and gardens

5/27/22

Presentation of current projects by RMHP Laureates,
visit at l'Hotel Dieu with Didier REPELLIN
guided visit of Musee de Confluences
Farewell dinner at Foureviere restaurant with Michele LE MENESTREL ULLRICH

5/28/22

Walking tour of Croix-Rousse with Jonathan BELL
walking tour of Vieux Lyon
train to Paris

5/29/22

bike tour of La Villete , visit Philharmonie de Paris

5/30/22

Solo visit of Sacre Cœur, bike tour of Arc de Triomphe

5/31/22

Bike along Canal St Martin, walking tour of Promenade Plantee with Jonathan BELL