

Byera Hadley Scholarship Report

Student: David McGirr - UTS

Project Title: **Modernising the Modernists**

Proposal: To investigate and analyse current and recent international examples of the modification and adaptive reuse of Modernist buildings.

Abstract

As the Modernist Project recedes ever further into history, and a contemporary society moves forward, the once progressive and dynamic Modernist building finds itself in the unusual position of becoming urban artifact. Modernism is the 'new heritage', and as such faces a challenge to ensure its future survival and relevance.¹

This *Modernist heritage* has shown itself, particularly in Australia, which has a rich history of Architecture from the Modernist era², to be especially vulnerable to perceived obsolescence and subsequent demolition.

Controversy and publicity surrounding recent projects and proposals such as alterations to The National Gallery of Australia, and UTS Kuringai Campus demonstrate that not only is the issue of modification to Modernist buildings a current and relevant topic, but also a matter which would benefit from an objective evaluation of overseas case studies. Often Modernist buildings do not receive the same amount of public support or Government protection as buildings from the more distant past. Subsequently it is the view of many (from *preservationists* to the *progressives*) that, in order to remain in some way extant, Modernist buildings must be true to their inherent ideological tenets. In other words, they need to stay "modern".

Significant modification and *adaptive reuse*³, is often seen as the most viable means of sustaining a historic building, yet this practice is one which has only recently been applied to Modernist buildings.

The report will investigate the treatment of three recent North American examples of adaptation to Modernist buildings. Comparative analysis of these two examples will be augmented by the final assessment of a European case study, which will offer a geographic and cultural counterpoint to the North American cases.

The intention of the report is to reveal a snapshot of international methodology and practice in this field which, in turn, may inform and enrich local discourse on the treatment of Australia's Modernist Architecture.

Each case study has involved in depth research of both initial design history and recent history. Efforts were made to visit each building and talk to the people involved in each project, including designers, developers, and advocacy groups (such as preservation and historical societies), as well as government agencies, authorities and media groups and perhaps most importantly, end users. The main body of the report comprises of on site comparative analysis of buildings using original plans (where available), drawings and photographs. This comparative analysis is complemented by a photographic record (on archival grade colour slide film), for the purposes of providence and future presentation to an audience.

¹ The irony of this fight for survival has not gone unnoticed by writers and critics, who have commented on the similar struggle fought by pre-modern buildings which stood in the path of Modernism and 20th Century progress.

² For the purposes of this essay, 'Modernist Architecture' can be considered as the architecture created (in its most prolific period) between (approximately) 1920-1970, which reacted against 19th Century styles & sought to express the ideology and/or aesthetics of the new era, through its various forms (e.g. international style, brutalism, minimalist, expressionist etc). See references for further detail.

³ Adaptive reuse is a process that involves adapting buildings to a new or revised function, whilst retaining much of their original fabric. The demarcation of this practice from other methods of conservation (such as restoration, preservation, 'facadism' etc) will form a key component of this investigation.

In addition to this, where budget and time has permitted in each case study, preliminary research and analysis of the surrounding area has been performed, thus allowing for better contextualization of each case study.

In addition to analysis of the specific issues arising out of each study, the case study buildings are analyzed with consideration of three broad themes:

Integrity: How much of the original fabric has been left intact and remaining?

Has the historic fabric been considered as part of the new building, or as a necessary preservation separated from the parameters of any new design?

Integration: How significantly does the new program required for the building (in both function and amenity) differ from previous requirements of the building? Is the intention of the new design one of separation or cohesion between new and old elements, and how has this treatment manifested itself in the final built outcome?

Interpretation: How easily read are the buildings new and old elements in the final building⁴?

Does the adapted building present itself as a historically layered 'palimpsest', or has a 'blurring' of old and new occurred, and if so, how has this blurring affected public and private interactions within the space⁵?

On the topic of tone, it should be noted that this report, whilst being academic in form and content, has been composed in a journalistic and casual style, with the intention that it be read and viewed with at least some degree of the same interest and delight that I experienced composing it and traveling for it. At this point I would like to thank the NSW Board of Architects for awarding me the Byera Hadley prize which allowed me to undertake this study.

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⁴ It should be noted the author strives to be as unbiased and objective as possible in evaluation of these issues. The author considers the value of issues such as 'preservation' and 'interpretation', as a topic for discussion within the report rather than a pre-existing essential component of 'best practice'.



North American Case Study 1 Tramway Oasis Gas Station

Location: Palm Springs, California

Original Design: **Albert Frey**

Original completion date: **1965**
Adaptation completion date: **1999**

Image Source: Google Earth



Image Source: Google Earth



*Image 01: Historic image of East Elevation of Gas Station, Circa 1966,
See location plan for photo position
Image Source: palmspringsmodern.com*

With its distinct hyperbolic paraboloid roof and prominent highway location, the former Gas Station is hard to miss when entering Palm Springs from the west on Highway 1, making it ideal for its current function as a Visitors Centre for the Palm Springs Tourist Bureau. However, whilst the location may be ideal, significant alterations were required to the building to adapt the building to its new function⁵. This adaptation raised queries in the community at the time about the integrity of the building and the wishes of its then still living original designer, Albert Frey.

⁵ Since major adaptation works in 1998 to turn the building into a private Art Gallery, the building has had minor adjustments to facilitate its new function as the Palm Springs Visitors Tourist Centre.

Albert Frey, born in Switzerland, studied briefly under the renowned Swiss architect Le Corbusier before emigrating to the U.S in 1930. He worked primarily in Palm Springs where he pursued the pared-down 'desert modern' aesthetic, along with other notable architects such as Richard Nuetra, Quincy Jones and others.

The role of these west coast practitioners in the narrative of American modernism cannot be understated. Frey himself had already gained notoriety on the East coast shortly after his arrival in the U.S, for his experimental lightweight 'Alluminaire House' (completed in 1932 in association with Lawrence Kocher on Long Island). However it would be in the Californian desert where Frey would find a language with which to articulate consistently and beautifully his version of modernism. The aesthetic is expressed most famously in Frey house 1 and 2 where glass and steel collide with a harsh landscape of cacti, crags and palms.

The body of work left behind by this group of architects, much of which is still intact today, has helped to create something of a niche tourist industry within Palm Springs, which hosts tours of the famous houses and buildings in the area. The extent of preservation amongst these buildings (most of which are landmarked by the State of California and some of which are virtually untouched) is a testimony to the local awareness of the historical significance of these buildings as well as the power of advocacy groups which lobby for their preservation.

Designed much later in his career, the Tramway Gas Station was conceived by (developer) Culver Nichols as an entry statement to Palm Springs, and whilst the function and brief may seem mundane (a gas filling station to stand out in the middle of the Desert) the architectural expression thereof was far from generic or benign. The roof is a hyperbolic paraboloid of steel I-beams and corrugated metal roofing supported by steel tubular pilotis. This form achieves beautifully the primary desire of the developer, as it cannot be missed from the main road. The canopy provided motorists taking the long drive east from California with sufficient shade and shelter to rest, fill their cars, pay and move on, and the Gas Station ran successfully for two decades in this fashion before being superseded by the more modern prefabrications of the Gas Station (with high clearance to accommodate the large trucks that Frey's roof could not) in the mid 1980's.



Given the local awareness of the providence of the building, any alterations to Frey's structure needed to be carefully considered. However both general public and modernist enthusiasts alike were united on the belief that the building should have a tenant to secure its future (The building spent nearly ten years unoccupied during the 1990's, at which point it fell into disrepair).

*Image02: Historic image of East Elevation of Gas Station, Circa 1975,
Still in operation at this point*

Image Source: palmspringsmodern.com

In 1997 the building was thrown a lifeline by two modern art purveyors looking for a showroom to sell their wares. They purchased the building and in collaboration with local heritage architects, re-engaged Albert Frey in the early stages of re-design for the Gas Station before his death in 1998.

Apart from an update to the exterior amenities block, and the addition of new car park, little was changed to the exterior of the building. Frey's sweeping roof and heavily glazed front façade were as affective in attracting art buyers as they were in pulling in thirsty motorists and motorists. At night the building could be illuminated to showcase artwork inside, much of which is visible from the road, therefore an update to the glazing size and frame section to meet with code was all that was required. Inside the interior's original joinery was removed to create a slender eye shaped open plan space.



*Image 03: The current state of the Frey Building from tramway Road
See location plan for photo position*

Image by Author

Since these works took place in the late 1990's, the gallery has moved away from town. The building now exists as the Palm Spring Visitors Centre. The changes required to fit this new function were minimal, and, in keeping with conditions pertaining to the buildings landmark status following its 1998 renovation, any changes made subsequent to this date are 'non-fixed' and can be removed/reversed at any time.

One would have to conclude that overall the adaptation is a successful one. Interpretation of the buildings former use is evident, however this has more to do with Frey's original iconic form making than any further preservation efforts (for instance, whilst the petrol pumps have been long removed, the roof and columns denote the buildings prior use affectively). A small modest plaque on the exterior gives a brief history of the building, and Visitor Centre

Staff are quick to inform curious tourists of the buildings origins (Palm Springs is after all, a mecca for modernist aficionados, so the new function of the building is in this instance, a perfect fit).

The building has become emblematic of the rise, fall and recent revival of Californian Modernism.



*Image 04: Rear Elevation of Frey Building in
Its current state
See location plan for photo position*

Image by Author



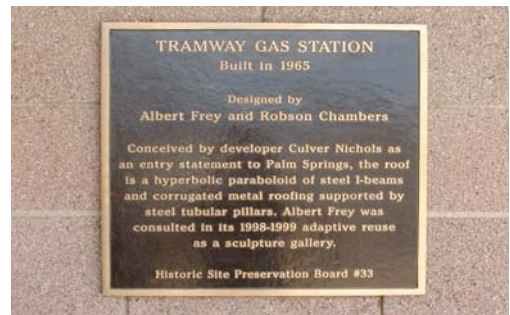
*Image 05: Frey building from the approach on
Palm Canyon drive
See location plan for photo position*

Image by Author



*Image 06: Front Elevation of Frey building
from Tramway Road*

Image by Author



*Image 07: Interpretative panel explaining
buildings history*

Image by Author



*Image 08: Interior image of building in its current state,
showing new joinery, and reception counter
beyond*

Image by Author



*Image 09: Interior of building in its current state,
showing Frey exposed soffit, as well as
mediation of bright exterior and darker interior
through information panels fixed to glazing mullions*

Image by Author



NORTH AMERICAN CASE STUDY 2

PSFS Building

Location: Philadelphia, Pennsylvania

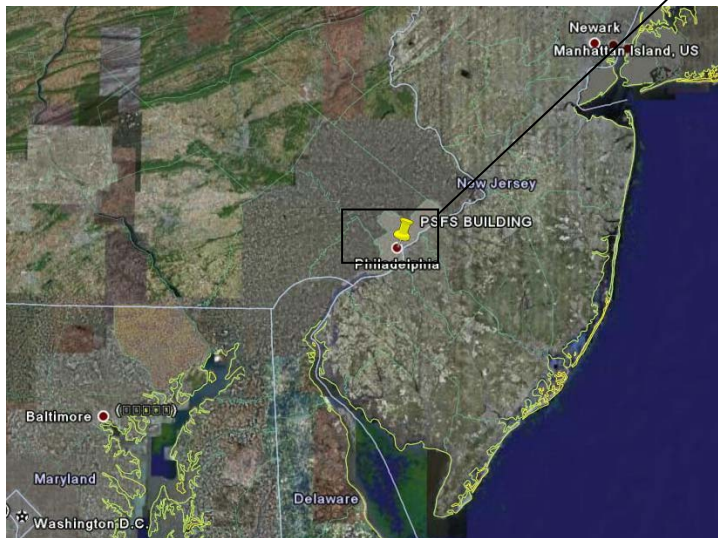
Original Design: **George Howe and Henry Lescowze**

Original completion Date: 1932

Subject site:
Philadelphia,
Pennsylvania

*Image 01: PSFS at Street level from Market and 12th Street
See location plan for photo position*

Image Source: loews.com



Introducing the international style to the US, the Philadelphia Savings Fund Society (PSFS) building is widely regarded as America's first truly Modern Skyscraper, built by America's oldest bank.

Seeking to set itself apart from Philadelphia's traditional banking institutions, PSFS chose a courageous and confident design for their headquarters at 12th and Market Streets. Following themes established on the exterior, the design for the interior reflects the interplay of contrasting form, color and material

Location of Philadelphia on America's eastern seaboard

Image Source: Google Earth

Store Spaces consisted of uninterrupted floor areas that could be subdivided in any way to suit the tenants. The paradigm shift that this building represented and its subsequent importance in the architectural canon is outlined by noted architectural theorist and historian, William Curtis:

"A review of modern architectural experimentation would be incomplete without the PSFS skyscraper by Howe and Lescaze...Here inherent typological thinking about the American skyscraper and the emergent vocabulary of the International style came together in a way which modified each⁶."

⁶ William Curtis, 'The Crystallization of modern Architecture between the wars' Modern Architecture since 1900 (London: Phaidon 1982) 237.



Then and now: Two aerial views show the PSFS shortly after construction (above) and as it stands today (right).

Apart from façade repair + restoration, the building has been virtually untouched on the outside.

Image Source: Philadelphia Inquirer

PSFS was modern to its very bones: in its dynamic spatial concept, its image of urban life, and its formal and structural articulation.⁸

George Howe was trained in the Beaux Arts system while William Lescaze (who joined the project after Howe) had first hand experience of designing with new forms in Europe. With its asymmetrical shape and machine age finish, the building was one of the first skyscrapers to be built in what would be termed ‘the international style’⁷

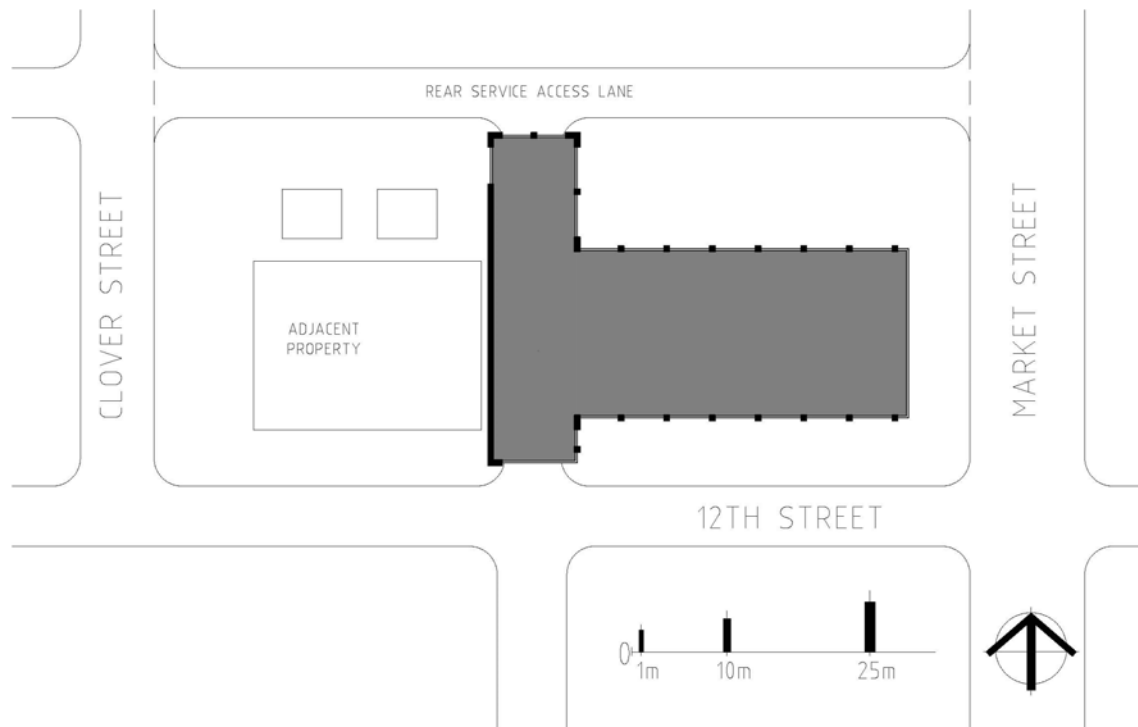
The T-shaped Tower containing twenty seven floors of office space provided the maximum amount of rentable space per floor. The lobby on all floors with elevators on both sides directly interacted with the office space. The block of the building containing the lobby ran across the entire width of the property and provided additional office space.

There is no doubt PSFS was a special building. It can be immediately distinguished from those designs which picked up period clichés such as strip windows or streamlined horizontals, and applied them as a form of styling (e.g. Raymond Hoods McGraw Hill Building of 1928-30). Again, Curtis’s succinct passage on PSFS proves useful:



⁷ Given popular currency by the Museum of Modern Arts show on Modern Architecture in 1932 (organized by Henry Russell Hitchcock, Alfred Barr and Phillip Johnson and entitled *The international Style: Architecture since 1922*) the term ‘international style’ was used, and is still used today, to denote modes of architectural expression popular in twentieth Century modernism. As exemplified in the exhibition, this included a conception of architecture as volume (rather than as mass), an emphasis on regularity rather than axial symmetry and material application tendencies such as the prolific use of glass, steel and exposed concrete. Hitchcock and Johnson’s catalogue was hardly comprehensive (by their own restrictive criteria they were forced to exclude Frank Lloyd Wright and Rudolph Schindler, among others) and their critique of current trends was silent on the social content of the new architecture, however the term remains useful as, if nothing more, an umbrella term for a range of practitioners using similar aesthetic tools as part of their design at the same time. The PSFS (which ironically did not make the catalogue due to its only recent completion) fits these aesthetic criteria well, despite being backed by a more rigorous philosophy than that espoused by Hitchcock and Johnson.

⁸ William Curtis, ‘The Crystallization of modern Architecture between the wars’ *Modern Architecture since 1900* (London: Phaidon 1982) 237.



Plan view shows the distinctive t square shape of the building. The services and back of house (including lift bank) are situated on the thinner vertical section of the t (left of image) with the majority of front of house facilities (such as rooms and function spaces on the thicker horizontal right section. This arrangement mimics the delineation in the buildings previous function as a bank and is therefore in accord with exterior materials as well.

Image by Author

The design of the lower portion of the building combined subway access, shops, and a raised level banking floor reached by escalator. These were amplified in scale and treated in dignified materials such as marble veneers and chrome. The upper floors were well lit, open plush offices, conveying an overall image of efficiency and crispness.

The design of the lower portion of the building combined subway access, shops, and a raised level banking floor reached by escalator. These were amplified in scale and treated in dignified materials such as marble veneers and chrome. The upper floors were well lit, open plush offices, conveying an overall image of corporate financial success.

To overcome any possible disadvantage arising from the fact the main banking floor was situated twenty feet above the sidewalk level, an imposing entrance, marked by an electric sign, was provided on Market Street. (see images on previous page) The entrance led to a large vestibule, fifty two feet high. Extending over the vestibule and partly over the ceiling of the banking room were two mezzanines for additional working space, and a safe deposit department in a third mezzanine. These spaces were conveniently accessible from the banking floor by stairs and elevators and also directly from the elevator lobby of the office suite if desired.

Howe and Lescaze designed a suite of special meeting spaces including a boardroom where host of exotic woods for the floors walls and furniture were incorporated. The boardroom on the 33rd floor featured many exotic woods including rosewood from India and Brazil, macassar ebony from the island of Ebony.

The banking room on the second floor, above the stores, had the original appearance of a cube, each side with its own character: glass, marble, brick, white, black.



Left: The main banking floor on Level 2 remains as an open plan space, with interpretive elements such as original bank vaults restored and left insitu The space is used for functions and banquets..

Below: Executive boardrooms on the thirty third floor remain in much the same fashion (and function) as they did previously.

Images by Author



Whilst the buildings architectural significance cannot be doubted, the building also possesses special significance because of its namesake; the primary owner and tenant of the building for sixty years, the Philadelphia Savings Fund Society. Founded on December 20, 1816, in Philadelphia, Pennsylvania, PSFS, was the first savings bank in the United States. It catered to low and moderate income depositors, with the explicit purposes of encouraging them to save and better their futures. By the end of the 1800's, the bank was so popular among recent immigrants it became known as the 'Immigration Bank', employing tellers who spoke five languages. The increasing volume of banking business and shift in population made it necessary for PSFS to open four branches in Philadelphia during the 1920's, and in 1929, to commission the construction of PSFS tower. It was a popular building, achieving a 95% occupancy rate in the 1940's. Through the 1950's and 60's, PSFS continued to expand and establish itself as Philadelphia's most venerable bank, however in the late 70's and early 80's, its fortune began to change as a nationwide economic downturn and deregulation of the banking industry led to a nationwide banking crisis. In late 1992, In the midst of financial losses, PSFS closed its doors for business. The PSFS building became just another of the thousands of real estate properties in the hands of the Federal Deposit Insurance Company (the FDIC, a Government body set-up to acquire liquidate and sell off the assets of broke banks). Whilst the building's future looked bleak at this point, all was not lost. The federal government took the opportunity, once the building was in its possession and under pressure from preservation groups, to mark the building for national landmark status.⁹

By the time the building was purchased by the Loews Corporation in 1997 the building was officially registered as a national landmark. When it reopened after a US \$115million conversion as the Loews Philadelphia Hotel in 2000, the significance of this listing and the inherent responsibility taken on by its new custodians was evident.

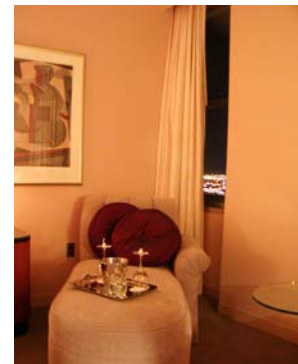
The needs of a bank and the needs of hotel differ greatly, and yet project Architects Power and Company were shrewd in assessing what areas should fall under the category of adaptation (requiring the heaviest modification) and which should be left as extant (or for that matter, restored) as possible. Since its opening in 1932, the PSFS building has sustained a variety of alterations so when Loews took possession, many aspects of the secondary spaces, which included most of the generic above ground tenancies, were already modified.



Images 2 and 3

Apart from clues given by the tasteful furniture and décor, little Of the buildings past can be gleaned from the interior of the hotel suite, where programmatic amenity demanded new partitioning, floor coverings and finishes.

Images by Author



⁹In the U.S.A, 'Land marking' is the government process by which the most important buildings in America are protected. Landmarks are designated by the Secretary of the Interior for a variety of reasons including (but not limited to): sites of national historic significance, places where prominent Americans lived or worked and outstanding examples of design or construction. Given this criteria and the buildings providence it is little wonder that it is amongst the 2500 national landmarks in the U.S (over half of which, like Loews PSFS, are privately owned) See references for sources and further information.

As these areas were deemed of lesser historic significance to the public than the primary areas anyway, their complete razing to make way for the hotel rooms was both necessary and largely innocuous¹⁰. From the vantage point of the rooms the only remnant of the previous building is the inside reveals of the striking brick and glass façade (which has received a refurbishment to bring it back to its original condition). However this major liberation in modification of space is more than made up for in concessions to preservation for almost all other areas of the building.



Image 4: The historic 12th Street Elevator Lobby.

Image by Author

Significant areas involving restoration include the historic meeting spaces on the 33rd floor as well as the recreation of the historic paint scheme for the 12th street elevator lobby (see image 4 right). The original banking hall remains as an uninterrupted space, serving as a ballroom. On the upper floors, the elevator lobbies and corridors and their finishes were preserved.

The elevator lobby and the central corridors forming the original "T" shaped floor plan were retained. The marble walls and terrazzo floors were restored. Over the years, alterations to the storefronts changed the locations of the

commercial entrances. These were relocated back to their original appearance and location based on the single surviving historic storefront and the original drawings.

The signage (see aerial images on Page 8), both on the rooftop and at street level, is one of the major iconic features of the hotel (not to mention an innovation at the time). It was well preserved and new signage was installed in several areas to match the design of the original.

The site chosen for additional meeting space and parking for Loews Hotel guests was a vacant lot to the south of the PSFS building. The impact to the building was minimal due to the largely blank character of the abutting wall.

After designing PSFS, a monument to the international style, architects Howe and Lescaze were committed to providing architect designed furniture that continued their theme of contrasting materials and honest expression of form. Following the precept of austerity, the pieces were streamlined and minimalistic. Many of the chairs were upholstered in form fitting leather on skeletal chrome and wood frames using the same exotic woods employed on the 33rd floor. Following the PSFS bankruptcy proceedings, the Philadelphia Museum of Art agreed to act as the custodian for the collection of furniture during the interim period of building ownership. In order to determine which pieces could be re-

¹⁰ In conjunction with government consultants and in accordance with the guidelines on the buildings national landmark status, Powers and Company designated the areas where the public had, historically, had the most contact with (eg. The main lobby and main banking floor) to be the most significant. High significance was also granted to the upper floor meeting rooms where it was evident Howe and Lescaze's personal predilections in space, finishes and furniture had been realized most. The exterior, including the façade and rooftop signage, were to remain for their architectural significance as well as their cultural public significance as landmarks of the City of Philadelphia. See references for sources and further information.

used in the restoration, a complete inventory and assessment of the furniture was undertaken by Powers and Company.

The 144 surviving pieces represented forty four types of furniture and furnishings. The Loews Hotel repaired, restored and reused more than 48 of the original pieces, locating them in public spaces throughout the building.



Image 7: The 33rd floor showcases modernist furniture classics in their original context. These items are free for the public to use and enjoy.

Image by Author

It is interesting to note that this building is one of the largest, oldest and most historically significant first wave skyscrapers left in USA. Given this, it would seem a major adaptation to change the former bank into a hotel would be almost impossible to achieve with the appropriate degree of sensitivity towards the historic fabric of the building. The Loews Hotel refurbishment of the PSFS building however has received wide praise and little negative criticism from preservation groups, the wider architectural community and the general public alike. Whilst credit has to be given to the designers, clients and consultants, it should be noted that a success such as the Loews/PSFS project is as much contingent on size and scale of the project itself as it is the dedication and skill of the people involved. Additional funds raised by donations, government grants and subsidies might not of been possible with a building of even slightly less significance. Conversely, the Loews Hotel Group, rather than seeming to be taking a risk when investing in the landmarked PSFS, was actually investing in a property with pre-existing history, identity. Everyone in Philadelphia, after all, knows the building by its T-shape and its large neon PSFS signage. Rather than establish themselves in Philadelphia through extensive (and expensive) marketing and advertising, Loews used the pre-existing brand awareness of the PSFS and spent a relatively small amount of money to attach their brand to it (to this day, the Hotel is known as the Loews PSFS and is by staff reports the most successful of the Loews chain). There can be no doubt that history has helped rather hindered Loews, and in recognizing this Loews has , as much as it could, 'helped history', by not only leaving alone aspects of the building, but also restoring some back to their original condition.¹¹

¹¹ The affect and effect of this 'helping' will be expanded on in the conclusion to this essay

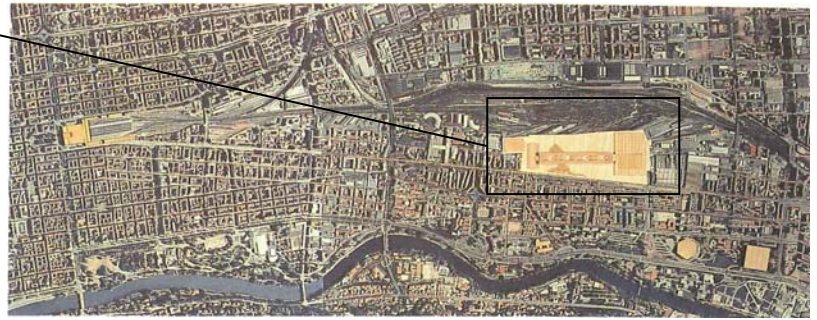
European Counterpoint Case Study

Lingotto Fiat Factory

Location: Turin, Italy

Original Design: Giacomo Matte Trucco

Original completion date: 1923



History

This enormous building, a landmark of Turin, operated as Fiat's major vehicle production facility for over 50 years until it was closed in 1980. Longer than an ocean liner, and with its banked rooftop test track and helicoidal ramps, the Fiat Lingotto Factory was an icon of early modern architecture. No fewer than three photographs of it grace the pages of Le Corbusier's *Verse Une Architecture*.

Trucco, one of Italy's most renowned engineers, developed the reinforced concrete structure based on a continuous vertical manufacturing process (with testing of finished cars on the rooftop track).



Image 8: Aerial View of the Lingotto circa 1930

Image Source: Lingotto Interpretive Centre

Image 9: Historic Image of Rooftop test track

Image Source: Lingotto Interpretive Centre

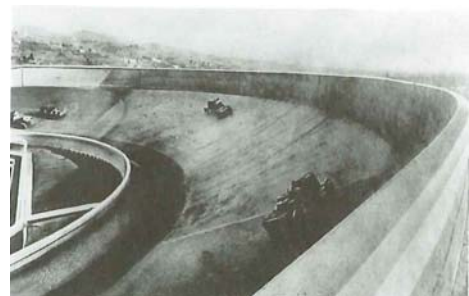


Image 10: Clerical Operations at the basement of the Lingotto

Image Source: Lingotto Interpretive Centre



Image 10: Comparisons in scale between extant factory fenestration (first floor and above) and Piano's kit of parts

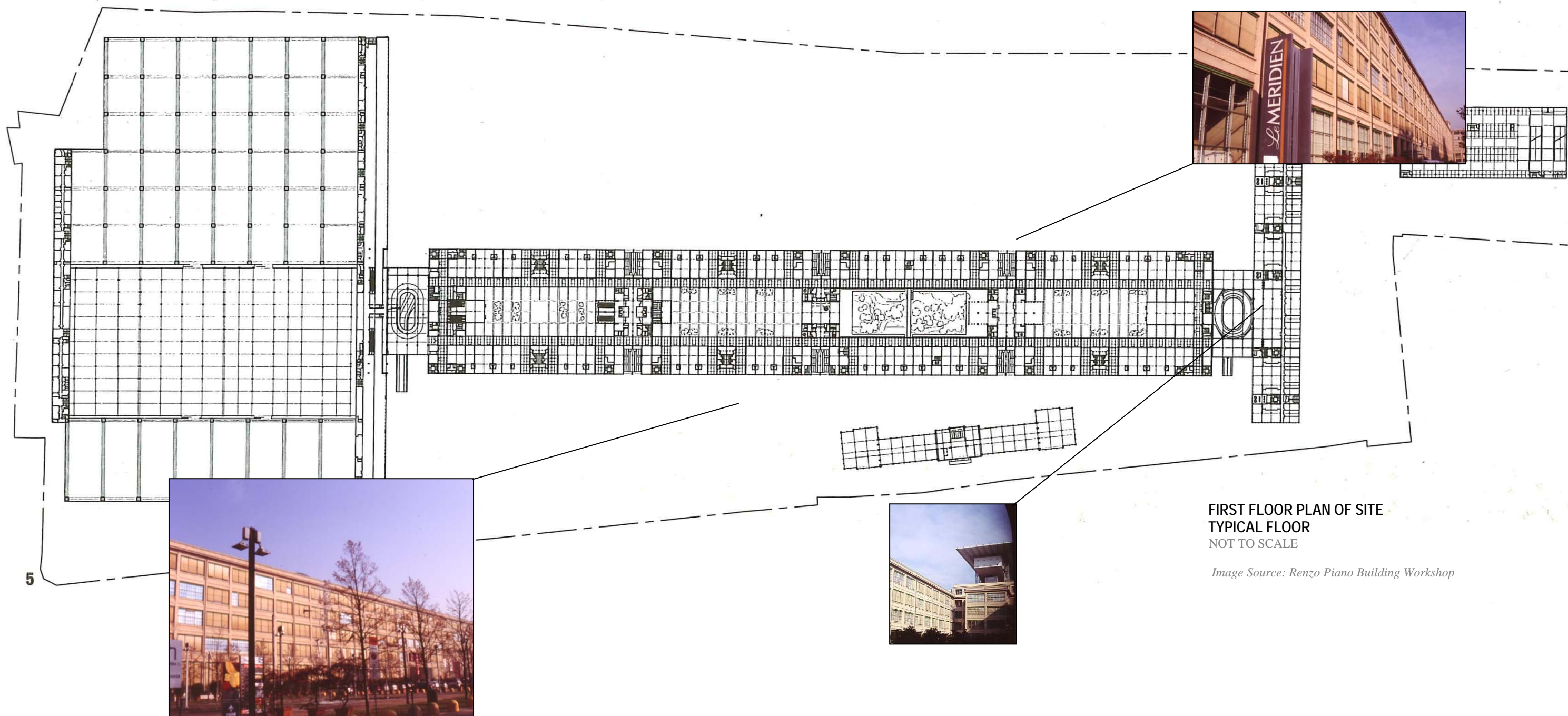
Image by Author

But after six decades of continuous use, automated techniques rendered it obsolete as a factory. However, no single function can be found today to fill such an immense structure, so Fiats idea was to convert it into a multi-functional resource which, besides continuing to play a vital role in the economy of the city and its region, would contribute significantly to local and national cultural life. Initially, a consultation exercise was organized in which proposals for the building were sought from an international range of selected architects. Piano's entry for the competition advocated the idea of using the centre for technological innovation, and entrepreneurial initiative, as well as for cultural events. Pianos initial proposals for the conversion made liberal use of landscaping and tensile structures supporting tented roofs. The space liberated by the removal of the railway marshalling yards to the west of the main assembly building, and the demolition of later accretions around both it and the original administration block to the east, was given over largely to landscaping, which in turn concealed new ancillary structures, including a parking garage, alongside the old factory. But as the Lingotto design evolved, the tent structures were dropped in favor of a more restrained approach, better suited to the sobriety of the original factory.

Image 10: : Aerial View of the Lingotto circa 1930 .Length of building is accentuated by Roof top testing track

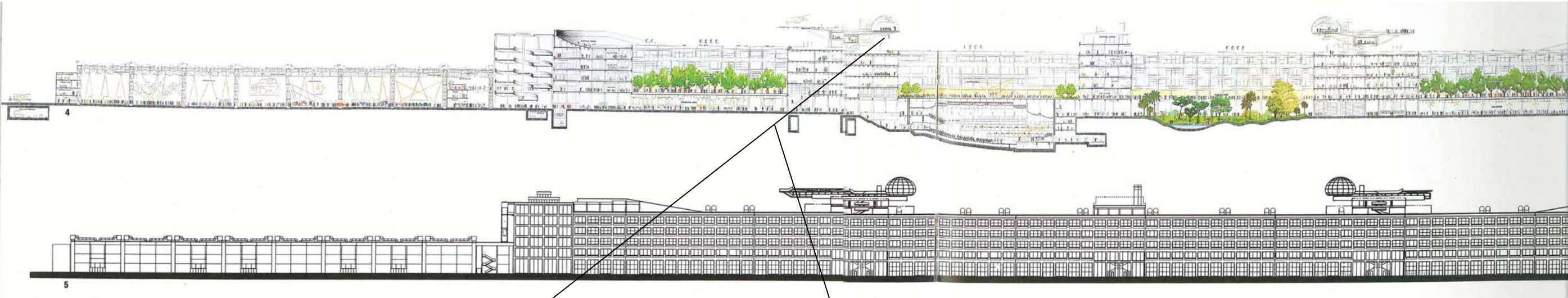
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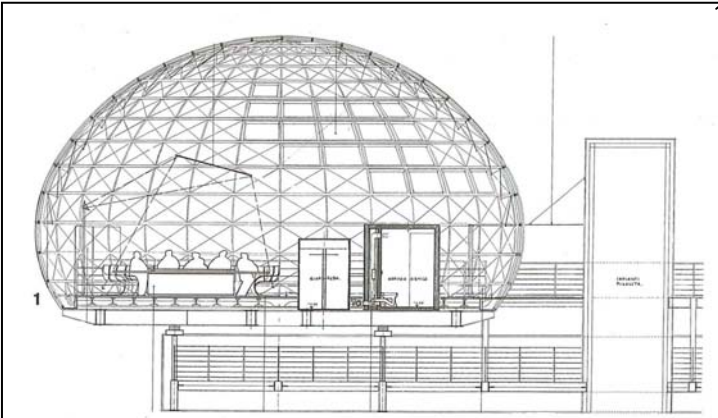
The first floor is designated as the main level of public circulation, conceptually piano envisaged this area as 'a piece of the city', a fragment of Central Turin that has found its way into the old factory. This floor is occupied primarily by shops, organized along internal malls. Where these malls pass the paved roofs over the new halls, which fill the bottom of the southernmost courtyards, they open up to become arcades. Below this level reside the activities which generate the heaviest public circulation and require regular vehicular access.

Beyond the southern end of the main block, the old press shop (where steel body panels were once pressed) has been partially demolished and rebuilt as a large exhibition facility.



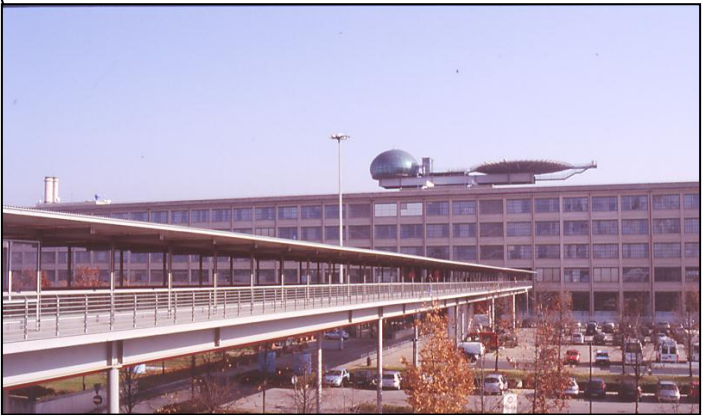
MAJOR LONGITUDINAL SECTION
+ ELEVATION
NOT TO SCALE

Image Source: Renzo Piano Building Workshop



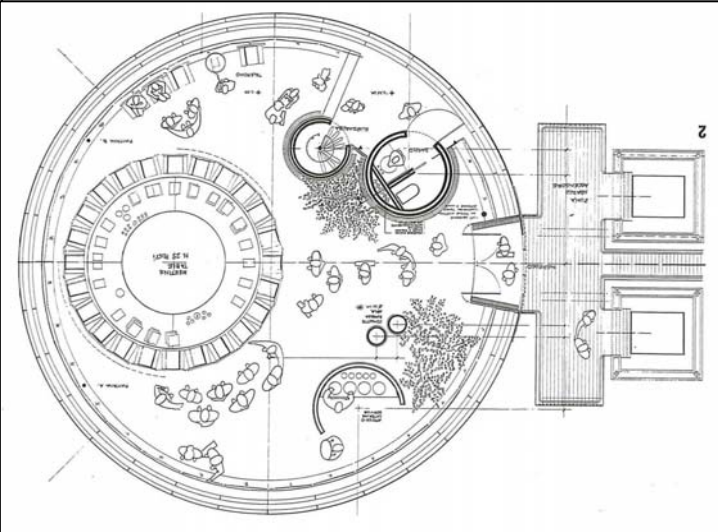
Left: one of two new follies atop the Lingotto, the conference
Centre Bubble

Image Source: Renzo Piano Building Workshop



Right: Gallery and Conference Centre from Elevated Transit Shuttle
Towards rail link

Image Source: Renzo Piano Building Workshop

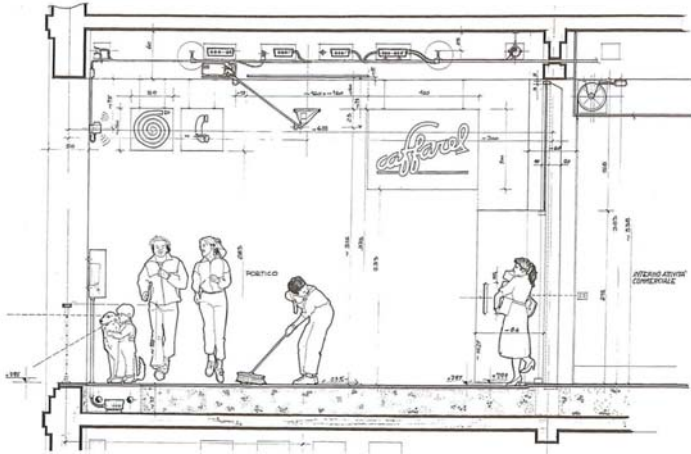


The ground floor of the southern end of the main block itself, and the roofed over bottom of the southernmost of the courts, has been converted into a large gallery. The bottom of the court adjacent to the gallery has been excavated to accommodate a 2000 seat concert and congress hall. Much of the rest of the ground floor is refurbished as workshop spaces, suited to research and manufacturing.

The upper levels of the main building house facilities which generate less intense public vehicular traffic. These facilities include a business centre, a four star hotel and four departments of the Faculty of Science of the University of Turin. Serving all these facilities, and projecting above the old service cores that separate the courtyards, are the helipads and globular conference rooms. These will have independent structural supports standing in the corners of the courtyards. To retain some consistency between the different kinds of spaces being created, as much of the conversion as possible was executed using elements from a pre-designed kit of parts. This kit includes partitions and raised floors, windows and light fittings. The affect of this kit of parts had been a strong delination between old and new elements within the building. By most accounts of best practice and normative positions within the industry, this differentiation between old and new is perceived as highly desirable. Whilst one could argue for creative affordances when this need for differentiation is jettisoned (as perhaps, it could be argued is the case in PSFS) in the Lingotto the buildings aesthetic benfits from the old/new dichotomy.

This is exemplified in the glazing system with its ultra contemporary internal stiffening elements and external roll down blinds.

With its huge scale and rich mix of activities, and as by its helipads and globular conference rooms held aloft above the old stair towers, this respectful conversion of a historic monument may prove ironically to be the first real mega structure ever realized. For Piano, a major challenge of the project had been to retain the identity of the old building while inserting and expressing the presence and mix of its new accommodation, thus linking Lingotto with the City market on the far side for the tracks is an elevated public transit shuttle (see image previous page).



Left: Concept sketch outlining Pianos attempt to interiorize the city street. The internal courtyard is at the left of the image, the retail tenancy to the right and the carriageway of human traffic in the centre

Image Source: Renzo Piano Building Workshop

Below: The Interior Street as it is expressed in reality. Tenancies are to the left of image with the artificial outdoor to the right. Whilst there are issues of glare and connection from left to right, the broad walkway allows for mediated widow shopping or solar and green relief as the pedestrian may choose.

Image by Author



Conclusions on the Modernizing the Modern

Before the issue of how successful the case studies presented herein are can be addressed (and how that success might be applied closer to home), it is probably worth revisiting the criterion we have for such success. All three examples, in differing contexts, espouse at least at some of the tents of three 'I's' I invoked at the beginning of this essay, those being Integrity, Integration and Interpretation. Whilst I do not pretend this encompasses the full spectrum of analysis one could undertake in regard to the value of the case studies, it does provide I believe, an adequate measure for worthwhile discussion. I deliberately re-iterate my initial questioned in regard to these 'three I's' as I have learnt through my travels the questions reveal as much as the answers themselves.

Integrity + Integration: How much of the original fabric has been left intact and remaining? Has the historic fabric been considered as part of the new building, or as a necessary preservation separated from the parameters of any new design?

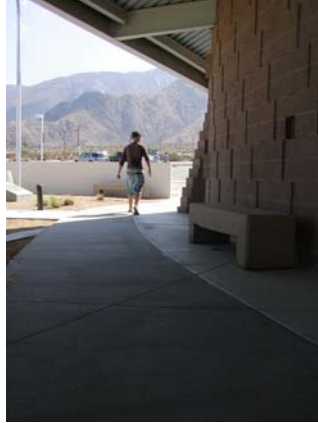
These two questions presuppose a value judgment of two things. Firstly, that leaving a large proportion of the fabric intact is a desirable thing, and secondly that 'relevance' of said fabric to the new function is also desirable. I believe both of these to be truisms, by and large, in the practice of adaptive re-use. Whilst it might seem obvious to some that where possible, fabric should be left alone, this is not often the case, particularly in an environment which fetishizes the smooth and clean and white as is often the case in a place like Sydney. In adaptive re-use original fabric is often only tolerated if it is used to create juxtaposition with new fabric. Whilst this does have the affect of re-contextualizing and thus re-invigorating the old fabric, it so often seems to come off as a cheap trick. But why keep old fabric anyway? I believe we should preserve because the current imperatives on energy cost savings and sustainability bound us to as much, if not more, than any historic value a building or its fabric might have in telling us something about our past. This was certainly the case at both the Lingotto and the PSFS, where huge savings in Co2 emissions and embodied energy of new materials were made by utilizing the old (not to mention savings in demolition costs). On this account all three examples perform well. They are bereft of the spaces which seem to have been preserved or restored because they had to be left, and instead an integration of the existing fabric within the new program is evident. It is however, probably least successful in Palm Springs, where (perhaps because of scale) one gets the sense that the building shell has become something of a floating signifier for the City, a shell ready to be re-inhabited and re-imaged at a moments notice (perhaps this is a strength ;adaptability will ensure its future survival)

Interpretation: How easily read are the buildings new and old elements in the final building? Does the adapted building present itself as a historically layered 'palimpsest', or has a 'blurring' of old and new occurred, and if so, how has this blurring affected public and private interactions within the space⁵?

Again, a normative position regarding best practice can be detected here regarding interpretation between old and new. I already, in my short career, have been heavily influenced by a notion that a 'high degree of interpretation' between old and new (in other words, being able to tell the difference between the two) was a good thing, which an Architect in the field of adaptive re-use should wish to strive for. Texts such as *The Burra Charter* (a document which forms part of National and international methodologies) proscriptively outline how this can be accomplished, and in the current paradigm of a neo-modernist aesthetic we are often offered the 'high contrast' technique. However, I have found through my travels and investigations into the case studies that this does not work in this context. One cannot 'contrast' modern with modern, after all. The blurring that occurred as a result of this conundrum, however, produced what I believed to be some of the more interesting spaces and places on my journey. Walking through the lobby of the PSFS Hotel, for instance, it was difficult, even for an educated observer such as myself, to determine where old (polished steel and marble) stopped and new (another type of polished steel and marble) began. I felt I could almost oscillate between the two possibilities (old and new) and experience the space in a completely different way. Similarly at the Lingotto, it seemed for

all Piano's attempts at juxtaposing (if that is the right word) modern industrial fabric with post modern industrial fittings, I was utterly confused as to which was which, and happier for the feeling of it.

Whilst I am not advocating a post modern 'free for all' where 'the blur' is encouraged at all times, I merely posit that it is a) somewhat unavoidable given the stylistic similarities between the then and the now and b) perhaps this might provide new affordances (both here and abroad) for engaging with our recent past.



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Other Resources/Acknowledgements

Informal interviews were conducted and recorded via notebook with staff, tenants and building managers of all three case studies between October 2005 and January 2007 (my period of travel). A debt is owed as well to the interpretive areas (such as posters and plaques) at both the Lingotto and the PSFS, which formed an important reference. It should be noted only Architects involved with the PSFS were communicated with in the research process (via brief telephone interview). Last but not least I wish to thank the significant contributions (and patience) of my traveling companion and soulmate, Jemma Cook.