

# Precedent studies

For one to formulate an effective methodology for design, a proper investigation into past examples is essential. In doing this it is hoped that the methods used to formulate their design methodologies is revealed.

A precedent becomes useful only once a proper investigation into the project has been conducted. Documentation and images of similar projects alone do not aid the investigation. For one to gain any knowledge or guidance from a precedent, one can not merely describe what someone else has done to solve a problem; one has to ask 'how' and 'why'.

It is only in projects similar in typology to the proposed development, that the appropriate influence and understanding needed to develop an appropriate design methodology can be found. The identification of comparable and suitable processes in these precedents that will better the final design solution.

# BBC Music Box, White City, London, England

## Foreign Office Architects

***“The design by Foreign Office Architects majors on openness with emphasis on public space. This will ensure that the Music Box not only becomes a centre of excellence for music making at the BBC but will also be an integral part of our commitment to involve the local community.”*** (John Smith, BBC Director of Finance, [www.arcspace.com](http://www.arcspace.com))

Foreign Office Architect’s design of the BBC Music Box was the winning entry of a design competition for the new home of the BBC Symphony Orchestra, the BBC Symphony Chorus, the BBC Concert Orchestra and the BBC Singer. The project, however never went ahead.

The Music Box was to sit at the centre of the new Media Village, which was to be integrated into the redevelopment of White City and the BBC’s Television Centre. This new development was intended to foster urban regeneration within the area.

The aim of the design solution was to make the Music Box an iconic part of White City and the BBC campus while making an architectural statement that reflected the BBC’s cultural identity.

The form of the building is ribbon-like, and this concept called for the walls and floors to be one continuous element that appears to emerge and flow out of the ground.

The building was designed to be flexible and add to the existing urban fabric of the area. As a result the ground floor houses rentable commercial/retail space that sprawls out onto the existing larger public events space.

According to the BBC, its two basic values are transparency and creativity. When designing the music box, the architect attempted to express these values by exposing and connecting the inside of the studios to the city and local community outside through a glass membrane. The aim was that the public within the public event space would have a view into the campus, and would be able to see into and hopefully understand what was happening inside the building. At the same time, the musicians would feel as if they were playing to an audience, at all times. It was the aim that this visual connection would help to integrate the campus with the local community.

Traditional buildings of this nature tend to be low density in nature and cover a large footprint. However, owing to the limited area of the site and in order to maximise the area of the building, the architects densified the functions of the building, creating a tall structure that would leave its mark on the skyline and further enhance the image of the structure.

The building is divided into two principal performing spaces, each with different capacities. These two principal spaces are joined by a common foyer area that maximises public

interface and social interaction, and reduces the area requirement for circulation and supporting spaces.

Alejandro Zaera-Polo of Foreign Office Architects describes the concept behind the building as follows:

*“Music is a sequence of events in time; its physical notation implies a primarily linear structure – a ribbon or tape. The design of the Music Box alluded to this by using a folding band to envelope the main spaces in the building. The core functions of the BBC are those of content provider and broadcaster. Like the BBC itself, the Music Box was intended to have a double function, dealing with technology as well as the needs of the public. As a result, the design differentiates the façade functionally: windows for music production and screens for broadcasting are defined by the building’s ribbon-like folding band. The screens are formed by the sides of the loops – the usually blank walls of the acoustic box. Conversely, the windows are framed by the ribbon’s loops, ensuring spatial continuity with the urban environment and establishing a direct visual link between the inner life of the Music Box and the public.”* (Zaera Polo, 2009)



FIG 4.1\_Images projected on building facade



FIG 4.2\_Glazed facades of performance spaces



FIG 4.3\_Interior of theatre with glazed backdrop

As mentioned, the southern walls of both studios was to be constructed from a sophisticated transparent membrane. They were designed to provide a number of options for varied visual and acoustic conditions within the studios. By positioning the transparent wall behind the audience, the stage appears to be front lit as in a conventional studio setup. The design also incorporates a variable sun-shading curtain between two panes of glass that enables the studios to function in complete darkness and isolation from the world outside, if required.

The main external cladding of the non transparent surfaces was to have been treated as a broadcasting device, producing a variety of multi-coloured images both day and night. The cladding was to have been constructed from aluminium panels, covered with radiant mirror film, which produces iridescent reflections. During daylight hours, the cladding would appear to change colour. At night however, a grid of colour-changing LED lamps, mounted behind the cladding, linked to a computer system, would turn pitch, rhythm and volume into changing digital patterns of colour and light through a sophisticated audio scan. In

this way, the building façade would visually reproduce the music being played, creating a powerful architectural expression of the activity inside the studios.

#### What is the relevance of this precedent?

Inspiration can be taken from the BBC Music Box on a number of levels. Firstly by opening up the internal spaces to public view through transparent facades, the passing public are teased into experiencing the events taking place inside. Secondly, the design integrates outdoor public spaces and indoor spaces into a congruent site layout, making it difficult to determine where the transition between public spaces and music centre occurs. By approaching the design in this way, any overflow of people from the public spaces, are enabled to experience the music centre and the overflow of people from the music centre to participate in and engage with the public space.

This precedent was chosen to prove that the engagement of the outside public with the world of the performance artist can result in a mutually beneficial relationship. The use of transparent facades in a field usually dominated by enclosure and

isolated spaces, proposes a new way of linking the interior of a public space to outdoor public spaces. This core design response is additionally appropriate to the site of this dissertation as it intends to improve the vitality and character of the area. As this precedent shows, the vitality of the development may be increased by creating transparency in the building form and allowing passers by to engage with the goings on within the building. Shared and multifunctional spaces can enhance the quality of the public spaces within the development and, in a building of this nature where performances are enhanced by post performance discussion, adds positively add to the experience of both the space and event.

The use of the buildings facades to project and display images to the public square is also inspirational.

# Lewis Gluckman Gallery, Cork, Ireland

## O'Donnell and Tuomey

### AWARDS

**RIAI Best Public Building in Ireland 2005**  
**RIBA 2005 award winner European category**  
**2005 Project of the Year, UK Buildings Services Awards**

The Lewis Glucksman Gallery is a cultural and artistic centre, located at University College Cork's main entrance gates. The building houses display spaces, lecture facilities, a riverside café and gallery shop. The gallery was created as a link between the campus and the wider community and has become a space of civic importance in Cork.

Central to the design brief of the building was the provision for the changing exhibitions from the UCC Modern Art Collection, as well as for the display of a range of travelling and special exhibitions. The building also functions as an educational institution that promotes the research, creation and exploration of the visual arts.

The building has been designed so that a 'podium' is the linking element between all the essential building components. It forms the access point up to the gallery and allows access down to the café below the building. The entrance hall to the building also opens onto the podium and it intersects the pedestrian movement between

Main Avenue and the Riverside Walk, encouraging people to enter the galleries. All gallery spaces within the building are interconnected horizontally and vertically in order to provide a variety of scales and lighting conditions that accommodates a range of art works and artefacts. At the centre of the gallery spaces is a series of closed, environmentally conditioned spaces, for museum standard display conditions and multi-media and acoustic performances.

The podium or base of the building is clad in limestone, linking the building to the existing architectural language of the campus. This limestone plinth emerges from the limestone escarpment on which it sits and appears to be manmade extension of the surrounding natural landscape. The timber clad gallery spaces, constructed from Angelim de Campagna, a sustainably sourced hardwood, rise from the plinth and are intended to be understood as a wooden vessel which resonates with the surrounding woodland environment. These timber clad galleries are positioned at the height of the surrounding

trees with the intention of blending the building into the surrounding context while conserving the parkland setting of the University. These timber-clad gallery spaces are supported on a concrete 'table' structure cantilevered from columns to protect the root structure of the surrounding trees. Granite aggregate concrete was used in this application and sandblasted to reveal reflective mica in the surface of the structure. Galvanised steel bay windows were used throughout the building and appear to be peeling out from the wall surface of both the plinth and gallery spaces. Services are housed in thick walls and floors to minimise any visual intrusion into the gallery spaces. The intention behind the use of natural finish materials such as sawn limestone, galvanised steel and untreated timber is that as they age and weather with the landscape, they add to the character of the building.



### What is the relevance of this precedent?

This precedent was chosen as the building deals with the pedestrian circulation in a similar manner to the proposed development in this dissertation. The user can either choose to pass under the building or enter it, whilst becoming part of the space through the experience created by the structure. The building creates a journey through its various exhibition spaces as is the intention of this dissertation and the orientation of various galleries inside the building allows for appropriate lighting qualities. The materiality and selection of materials for the building is also important, as natural materials and their ageing effects can be used to accentuate the changing character of the spaces according to the design outcome of this dissertation.



FIG 4.4\_Access route onto the building's 'podium'



FIG 4.5\_Materiality of the building



FIG 4.6\_Scale of building related to surrounding context

# Walt Disney Concert Hall, Los Angeles, USA

## Gehry Partners

*“The Walt Disney Concert Hall will be a feast for your eyes, ears, and spirits.”* Gil Garcetti

This project began as an invited design competition, and was finally completed 16 years after Frank Gehry was announced the winner. During the 16-year process, many of the fundamental design tenets were established or re-established to include an open and accessible main entrance that is open to the public at all times, the inclusion of the existing Dorothy Chandler Pavilion into the complex, a pedestrian scale frontage along Grand Avenue, the inclusion of a generous, open backstage area and the inclusion of a small state park.

The Walt Disney Concert Hall sits atop Bunker Hill in downtown Los Angeles and is a stunning piece of architecture. The building complex has been the recipient of many an estranged metaphorical interpretation, ranging from a blooming flower to a sailing ship.

The main auditorium, designed by Yasuhisa Toyota of Nagata Acoustics, is lauded for its acoustic quality.

According to Gil Garcetti, *“The building has been heralded as a symbol of the area’s diversity and egalitarian qualities, it is a testament to the city’s cultural arrival, and the “crown jewel” of a*

*\$1.2 billion civic redevelopment project planned for the area.”* (www.f-o-a.net)

The Walt Disney Concert Hall (WDCH) is home to the Los Angeles Philharmonic. The 2 265 seat main theatre literally and figuratively sits at the centre of the building. According to Gehry, the WDCH was designed from the inside out. *“The most important issues were that the musicians could come on stage, feel at home, and hear each other, and that the orchestra and the audience would have an intimate connection with each other”* (www.f-o-a.net ). Gehry sought to create a ‘synergy’ through intimacy and inclusion.

The main theatre is essentially a rectangle, but due to the swooping concave interior walls of staggered and sculpted Douglas fir and cedar wood panels the audience does not get a sense that they are essentially sitting in a rectangular cube. The layout of the auditorium drew inspiration from the famous Berlin Philharmonie. The audience surrounds the stage, which is elevated slightly above the adjacent orchestra seats. As a result, the hall feels smaller and cosier than one

would expect for a hall housing over 2 000 seats. In keeping with the open to all credo of the building, Gehry did not include private boxes in the auditorium, He said that: *“While ticket prices may inhibit some potential audience members, exclusive seating will not”* (www.f-o-a.net ).

It has been said that there is not a bad seat in the house, as each location is visually and acoustically unique. To achieve these unique acoustic qualities, a billowing wood ceiling hangs over the auditorium, strategically placed to achieve an early sound reflection that acoustician Toyota deemed so important. The warm wood, the moulded forms, and the resultant vibrancy of sound combine to create the perception of being inside a living creature with the music simulating as its pulse.



FIG 4.7\_ Exterior stainless steel cladding



FIG 4.8\_ Interior of principal performance space



FIG 4.9\_ Concept sketch by Frank Gehry

The WDCH complex houses a multi-storey underground parking garage, a pre-concert foyer, green rooms, two outdoor amphitheatres and California's smallest state park. Gehry, who is a self-proclaimed control freak, stated that he continually strives to "control chaos and relate that to the urban world" and that he "loves pulling these chaotic forces together". In the creation of the music hall, this approach has resulted in the spaces between the principal space being the most engaging and the most awkward at the same time. The spaces between the central auditorium and the spreading curves of the exterior walls house many of the buildings smaller functions, such as the interior BP Hall and the exterior WM Keck Foundation Children's Amphitheatre.

The entry lobby and adjacent restaurant, cafe, and gift shop bustle with energy day and night, as they are open daily to the public and are intrinsically linked to Grand Avenue through the transparent treatment of the façade. As a result these facilities spill onto the street, enticing users into the building. A variety of video screens and audio systems display both rehearsals and performances throughout the building, thus bringing together and

connecting the public with the performers even if the public are not attending a performance

As architecture, the stainless steel exterior forms an organic sculpture set on a deftly planned base of public spaces. As a concert hall, the rich wood interior allows musicians and listeners to dwell inside an instrument of exquisite craftsmanship. As a civic symbol, its very existence is a testament to the commitment of local planners and developers. Even if the neighbourhood never meets the city's utopian expectations for the area, and despite the smattering of awkward spaces, the project will remain a success. For one to dwell on these minor secondary issues would be to miss a more important sensory adventure.

### What is the relevance of this precedent?

This precedent was chosen on the basis of its ability to inspire and to stimulate the senses, and because the building fosters the urban regeneration of the area surrounding it.

The building shows remarkable attention to detail with over 30 000 drawings being produced for its construction, proving that architecture is in the details. The simple rectangular box at its centre is in essence the core of the building, and is a practical example of a construction process/solution for such a space.

The building's connection to the street and open and accessible lobby can also be drawn upon to entice the public into the proposed space. The complex array and inclusion of many smaller performance spaces is masterful and Gehry's placement of these spaces in apparently left-over spaces is carefully thought out and a good design solution to a common problem in a building of this nature.

Gehry's use of light reflections within the spaces, his play on echoes and reverberation through the building, and his use of materials is inspirational to any project of a sensory nature.

# Museum of Contemporary Art, New York, USA

## SANAA

***“A transparent building in the sense that we are not hiding what is happening behind the surface of the structure.”***

Kazuyo Sejima + Ryue Nishizawa

In summation of their design approach for the New Museum of Contemporary Art, SANAA said: *“The solution emerged through an extensive period of trial and error. We made numerous study models based upon the New Museum’s program and the demands of the site. First we arrived at the notion of the boxes themselves; each one represents a specific piece of the program developed by the Museum. Then we tried shifting the boxes to render the inside of the building more accommodating and open, with more possibilities for daylight to enter spaces and views to appear at various points in the interiors”.* (<http://www.newmuseum.org>)

As stated, the building was designed from the inside out, based upon the architect’s understanding of the museum’s needs. Because of the nature of the art and artefacts displayed at the museum, the design called for a flexible, simple space, without columns. The architects intended that the building would not overwhelm or compete with the artworks within it. The programme called for open and flexible gallery spaces, with varied height, volume and atmosphere requirements.

In order to meet the requirements of the programme whilst avoiding the creation of a monolithic, dark, and airless structure, the architects assigned key programmatic elements to a series of seven levels (boxes), then placed these boxes atop of on another in accordance to the needs and circulation patterns of the users, finally pulling the boxes away from the central supporting core of the building. This results in its stacked appearance.

The shifted-box approach resulted in a variety of open and fluid internal spaces of varied proportions, each with its own unique characteristics. The interior of the building exposes the way the building works. The architects didn’t want to hide anything behind gypsum board; they wanted to show what the building was made of and to maximise the feeling of openness. The buildings guts are exposed, as the ducts, the sprinklers and the fireproofing material are all open to public view.

On entering the building the visitor gains a sense of inclusion in the design of the space by being able to choose from a variety of paths upward or downward through the building. The museum houses three levels of extraordinary

galleries between the building’s second and fourth floors on a variety of scales, each gallery with its own unique atmosphere.

SANAA has stated. *“With the galleries in this building, we tried to play with dimensions and the way daylight falls in the spaces. This allows the visitor to experience art in slightly different conditions on different visits, at different times of the day, in different spaces, without impeding the qualities of the art.”* (<http://www.newmuseum.org>)

The building façade is clad in aluminium sheets which are fixed onto a translucent polycarbonate backing, giving the building a glow instead of the usual the harsh reflection usually associated with metal surfaces. This glow, combined with the changing daylight conditions, means the building changes appearance in different conditions. Windows are just visible behind this surface. The dynamic and animated building is an appropriate visual metaphor for the openness of the New Museum and the ever-changing nature of contemporary art.





FIG 4.10\_Clean uncomplicated interior



FIG 4.11\_Landmark building as a result of luminescence

### What is the relevance of this precedent?

This precedent was chosen due to the unique treatment of the skin of the building. The skin is the building's signature design feature, yet it came about in response to the programme of the building and not merely for aesthetic purposes. The treatment of the internal spaces expose's the guts of the building, which could be argued is the correct approach to a building that deals with the experience of spaces. In order to properly experience a space, the viewer has to properly understand how the space was manufactured and constructed.

The introduction of a choice of movement paths through the building allows users to feel part of the decision making process of the building and therefore feel part of the space.



FIG 4.12\_Seven 'boxes' stacked atop one another



FIG 4.13\_Glow of exterior skin in early evening

# South African State Theatre, Pretoria, South Africa

## Hans and Roelf Botha



The State Theatre is the only other large complex of theatres and performance spaces situated within Tshwane. It is within a reasonably close proximity to the site of the dissertation.

The State Theatre complex is housed on four levels, with parking and services housed in the basement. The Complex houses six performance spaces:

- The largest, the Opera House, has a seating capacity of 1 300 patrons, and is arranged on three levels. The orchestra pit can accommodate up to 60 musicians.
- The Drama Theatre is continental style with seating for up to 640 people on one level.
- Two cabaret/revue venues, each seating 120 at separate tables in a night club like setting.
- The Arena doubles as a rehearsal space for the main opera. This theatre is fully equipped with computerised lighting and sound control rooms.
- Rehearsal studios and offices that are available for rental.

Even though the State Theatre houses world-class venues, it stands in isolation and has no relationship with its surrounding context. Due to its monumental nature, the building dwarfs and ignores the pedestrian and passer-by. Although it evokes an image of grandeur and importance, the true nature of the function of the building is not evident from its exterior. Coupled with the absence of a public interface, this creates a space that is only ever entered by people who wish to view a specific performance.

### What is the relevance of this precedent?

It can be said that even though the building performs its desired function, it acts poorly as a public building, as it discourages the everyday passer-by from interacting with the space.

One might deduce that the inaccessibility of this 'old-style' and 'traditional' theatre has contributed to dwindling attendance over the years. The singular use nature of this building will ultimately lead to its demise.



FIG 4.14\_State Theatre Logo



FIG 4.15\_Uninviting exterior