



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

p r e c e d e n t s t u d i e s



reconverting space

Buildings often survive their original uses as silent witnesses of the passing of time. Factories, warehouses and depots which have been left to decay are given a new lease of life as towns become centres of leisure, culture and service.¹

The past of historical buildings deserves to be acknowledged and preserved. New opportunities for pulling these structures back into the urban fabric of today can be created without demolishing them to make way for new developments. Many structures are saved from demolition by a process known as adaptive re-use, the process of converting a building for functions other than that for which they were originally designed.



FIG 6.1: Diagram showing add-on buildings to be removed

The 'recycling' of a building is a reaction to the shortage of floor space in the inner city and the problems created when towns spread outwards.¹ The re-use of buildings has important environmental, social and economic advantages for the surrounding areas. It is more cost effective and ecologically sustainable in the long term than the construction of a new building. One of the most important benefits of re-using an old building is the retention of the 'energy within'. This 'energy' is unique to a certain time – the building's heyday – and this time can not be copied or replaced by a new building. Historical buildings have a personality that makes them one of a kind.¹

Carte¹ states the following:

"Socially, the adaptation of abandoned constructions generates dynamism, small concentrations of urban reorganization and an attractive visual variety. The reutilization of a historic building for the future improves the quality of life in neighbourhoods and built-up areas as well as keeping an important part of the town's collective memory alive."

Mostaedi² explains what rehabilitating architecture involves:

"Rehabilitating architecture involves delving into the past in order to rewrite history and give it new life. To restore, preserve, to repair, to reconstruct, to intervene. This family of terms refers to the same practise that seeks to refurbish old spaces in order to give them a new use, whilst safeguarding their historical character and holding back excessive expressions of personality by the designer. It is a difficult balance involving many conflicts over historical research and technical solutions."

1 Carte (2006:11)

2 Mostaedi (2000:7)

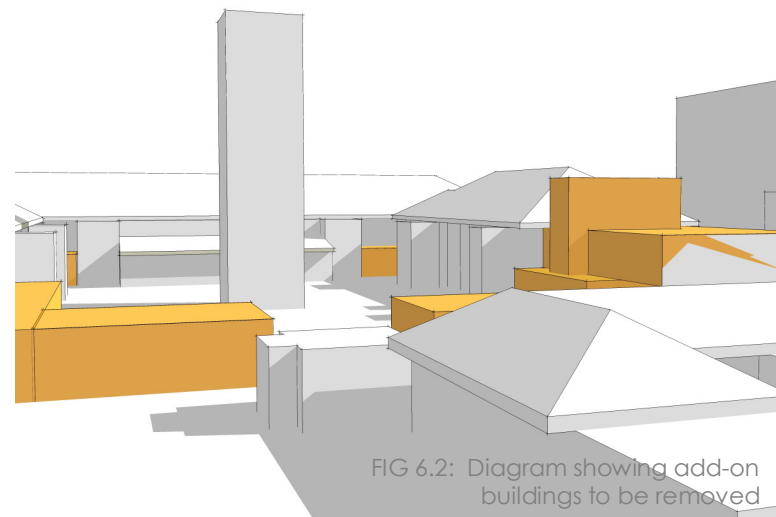
Carte³ supports the option of intervening in disused historical buildings, so that old structures can host different entities or activities. This is in many cases the result of a rational approach aimed at facing the scarcity of space in big cities and the high prices of space generally. A multifunctional solution often allows the final user, by offering different services or options in a given space, to optimize the use of the building.

Historic places embody the traditions and contributions of all who have used them in the past. If the city needs to remain a distinctive place with a high quality of life, then the historic places, buildings, neighborhoods, towns, and landscapes are essential resources for the present and the future. The challenge is to build on these foundations without discarding or demolishing the distinctive legacy of the past. Historic places embody the record of the identity of a society. They reflect tradition and a sense of place. They define quality of life.

The aim of this thesis is the reutilization of the Old Fire Station building to create a node with information and complementary facilities for public use.

The building will accommodate new functions. Alterations with a specific use in mind will transform the existing space to house flexible and multidisciplinary facilities. These will breathe new life into Museum Park, the surrounding area and the Tshwane tourism industry.

The following projects act as precedent studies and inspire the design development of the Information Node as adaptive re-use for a public building:



3 Carte (2006:37)

6.1

DAVID ADJAYE

Nobel Peace Centre

2002-2005, City Hall Square, Oslo, Norway

The Centre is located in the Old Vestbanen Station and has strong external form that encloses a number of highly differentiated spaces within a masonry structure. Where the original space is visible, they have been transformed by radical decoration. In other places the interiors have been reoccupied by a series of installations whose materiality and orientation contrast with the enclosing fabric. Whichever approach has been used, the overall intention remains the same: to create a powerful sequence of experiences which illustrate the work of the Peace Prize programme.¹


 FIG 6.3:
 View of site

¹ Allison (2006:24)

² Allison (2006:35)

canopy:

The canopy introduces that a new use of the existing has taken place before entering the building. 'It brings together two architectural elements which normally lead separate lives: the gateway or portal and the type of arching footway which is associated with bridges'.¹

reception:

The area is coloured red, with a resin finish to all surfaces, furniture and storage. The use of colour and new elements contrast with the original building.¹

exhibition space and cinema:

There are two spaces for temporary exhibitions. The larger one is located on axis with the main entrance. The smaller one, for more informal exhibitions, is on the first floor. The windows can be closed off by the full-height pivoting doors. When the windows are not covered, the doors can be placed diagonal to create five separate bays. There is a small cinema next to this space.¹

noble field:

The title refers to the manner in which each of the Peace Prize laureates is represented by a monitor standing on a clear acrylic support. At rest, the monitor displays a portrait of that person, but when approached by a visitor, it switches into a video presentation. The dark blue colour of the floor, walls and ceiling focuses attention on the monitors. This creates a calm atmosphere.¹

café de la Paix:

In contrast to the reception area, the café is painted in different shades of green. The Yellow and Green is a spatial version of the maps on which airlines represent their flights by drawing a line between different destinations. The building is reused by mainly decoration, rather than an installation to preserve the original structure.²



FIG 6.4:
Exhibition space



FIG 6.7:
Register



FIG 6.8:
Nobel Field



FIG 6.5:
Small cinema



FIG 6.6:
Entrance hall



FIG 6.9:
Café de la Paix



FIG 6.10:
View of entrance

Influences on the design approach

- _an existing building is converted to a new usage, without destroying its historical value
- _the position of the building on the site and its scale is consistent with that of the Old Fire Station building
- _the handling of the street front and the introduction of new elements emphasize the entrance
- _the circulation of people between the different functions in the existing building
- _new and dramatic colour usage in the interior that contrasts with the existing
- _the use of new technology as an interactive information medium.

6.2

DAVID ADJYAE

Idea Store Crisp Street

2001-2004, 1 Vesey Path,
East India Dock Road, London.

The shopping centre as Crisp Street was built in 1950's and serves as housing. The site for consisted of an shop unit and the larger deck which previously formed its roof.¹

While sensitive to its location, the exterior of the Crisp Street Idea Store¹ is perceived as a single volume. The quality of light and extensive use of timber create a warm interior. The use of identically coloured glass panels on the two Idea Store is a large-scale graphic device which reinforces the presence of these facilities within the communities they serve.¹

The use of glass in the facades respond to the materiality of the adjacent shop fronts, as well as the requirements for the new building. The front façade is most transparent, allowing the interior to be seen from the outside.²

Influences on the design approach:

- _the use of coloured glass to create a unique identity during the night and the day
- _the use of light as a tool to differentiate between the old and new structures
- _glass facades that create a dialogue between the inside and outside environments
- _public and private spaces differentiated through proportion and scale of elements
- _re-use of an existing building.

1 Allison (2006:163)

2 Allison (2006:172)



FIG 6.11:
South façade with entrance at right



FIG 6.12
Study on eats
facade



FIG 6.13
View across
entrance space



FIG 6.14:
East façade:
day and night view

6.3

DAVID ADJAYE

Thyssen-Bornemisza Limited Edition Art Pavilion

2005, Islands of San Lazzaro degli Armeni,
Venice, Italy.

The Venice pavilion³ was designed to present 'Your black horizon', an installation by the artist Olafur Eliasson. In the windowless space, a horizontal line at eye level serves as the primary light source. It is about personal orientation in both inner and outer space.

This pavilion is conceived as a two sided: a pathway leads to a loggia which a view of the Laguna, or access to an impressive art work. As it is constructed of prefabricated components, it is capable of being moved to another location. Timber are the primary material in its construction for economy, lightness and ease of replacing damaged components. It is composed of a gallery that forms the main volume enclosed a column-free space, loggia, and ramped access. The louvers protect the entrance sequence from the glare-inducing view across the Laguna and provide an opportunity for the eye to adjust to light levels inside and outside the pavilion.³

Influences on the design approach:

- _the use of material and structure to create walls that define interior and exterior spaces
- _the use of light as a material art medium
- _the accessibility of the building.



FIG 6.15:
End wall of loggia

FIG 6.16
Entrance ramp

FIG 6.17
View of internal ramp

FIG 6.18
View from timber screen

3 Allison (2006:89)

6.4 PUGH and SCARPA

Jigsaw Studios

2001-2004, Los Angeles, CA, USA

The architects used an industrial warehouse as a container and added two isolated structures.¹ The structures are suspended above a pool of water, a visual paradox which inverts the usual heavy-light order. The rest of the studio is very open, luminous and socially orientated.¹

Two cube shapes welcome the visitor with their translucent screens. Translucent screens of the modules are double glazed windows which are filled with ping pong balls and plastic beads creating a filter to give the soft light needed in the work zones.¹ The café serves as an area for informal meetings and as a waiting room. On the opposite side a continuation of the flooring rises up from the ground to form the reception table.¹

Influence on the design approach:

- _the creative solution of keeping the original structure of the existing building, and inserting free-standing elements (or rooms) with different functions into the space
- _the use of water as a tool for separating zones (private and public) without a visual vertical barrier
- _new uses of materials (like the ping pong balls in double glazing) to create a playful atmosphere.

¹ Carta (2006:37)



FIG 6.19: (TOP)
Industrial Warehouse before
and after design implementation

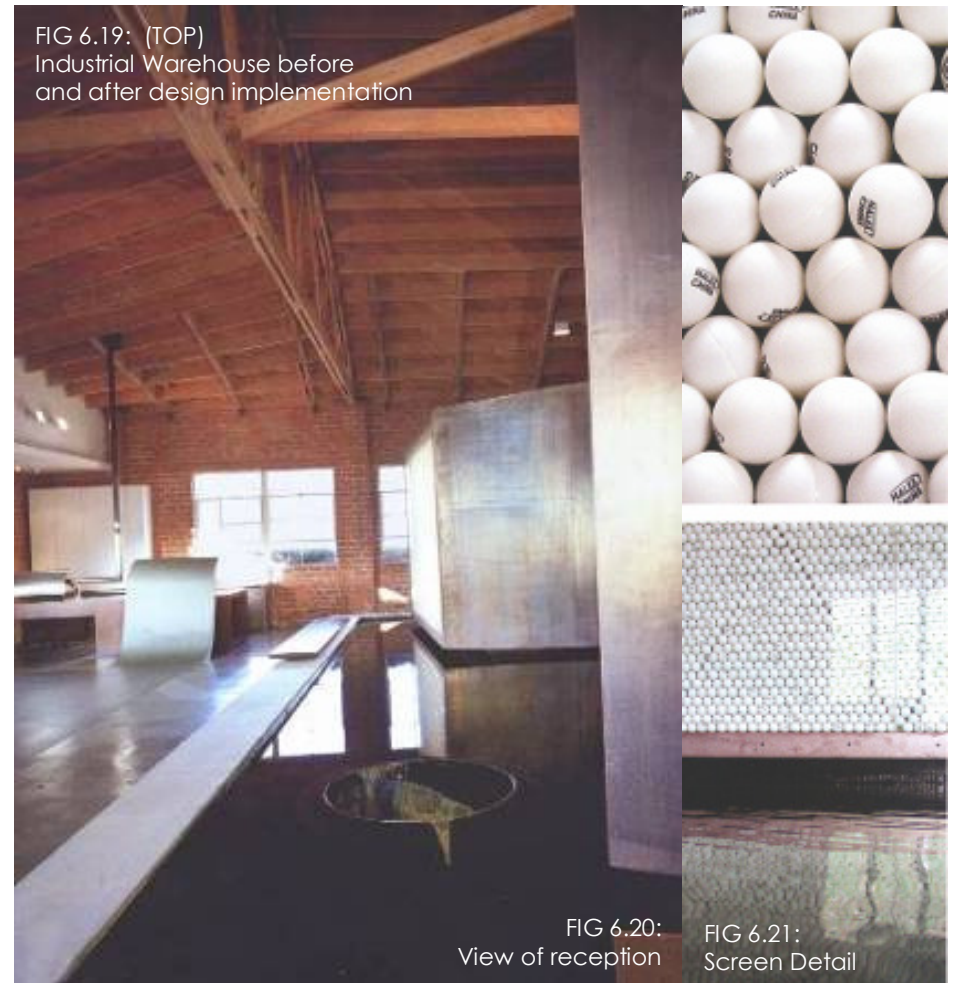


FIG 6.20:
View of reception

FIG 6.21:
Screen Detail



FIG 6.22:
Fire Station before and after renovation



FIG 6.23:
New street facade

FIG 6.24:
Bridge in tower that connects to the floor above

SAUCIER AND PEROTTE

Theatre Sans Fil

Montreal, Canada

6.5

The project involved the renovation of a Fire Station in disuse for an important theatre company from Quebec.² Built in 1914 in the style of the Unity Temple by Frank Lloyd Wright, the building holds workshops, rehearsal room and offices. The architect conserved and restored the characteristic ceramic bricks of the era, adding lightweight elements which contrast well with the brickwork and increase the value of the original construction.²

The extension is integrated within the context of the park. The glass facades lighten the concrete structure and at night transform the space into a light-house, visible from afar.²

The axis of circulation originates from the very high space of the observation tower. As with the hall, the architects built an elevated walkway which link the rooms to the floor above.

Influences on the design approach:

- _ the building's original function is the same as that of the proposed thesis building
- _ the usage of elements, like the training tower and its incorporation into the new use of the building
- _ the contrast of the new additions with the old existing building.

6.6

JFAK – John Friedman, Alice Kimm

L.A. Design Centre

Los Angeles, CA, USA

The need to create an attractive area from where to sell furniture, to stimulate investment and change the neighbourhoods identity in a positive way, led the architects to develop a program in four phases. It involved the conversion of two abandoned industrial warehouses into a showroom, space for renting for design studios and offices. The project needed a striking visual identity but one which could be integrated with the neighbourhood. The solution was to cover the building with a series of diverse layers which partially covered it. Envisaged as a pedestrian zone and social centre of the complex, the space between the warehouses, usually reserved for parking, is a fundamental element of the project. The brick structure of the warehouse was renovated and the interior was minimally equipped in steel, wood and glass, so as not to detract from the furniture exhibited.¹

Influences on the design approach:

- _taking the context and the influence of the neighborhood into consideration when making design decisions
- _the treatment of the street front and parking as a space of interaction
- _branding is incorporated in the layering of the building
- _the use of shading and landscape elements to soften the harsh concrete paving
- _materials chosen to contrast the existing with the new for exterior and interior
- _the simplicity of new elements.

FIG 6.25: Before and after design implementation of the street facade



FIG 6.27: Parking area



FIG 6.26: Layered facade and sunscreens



FIG 6.28: Views of the interior

¹ Carta (2006:166)

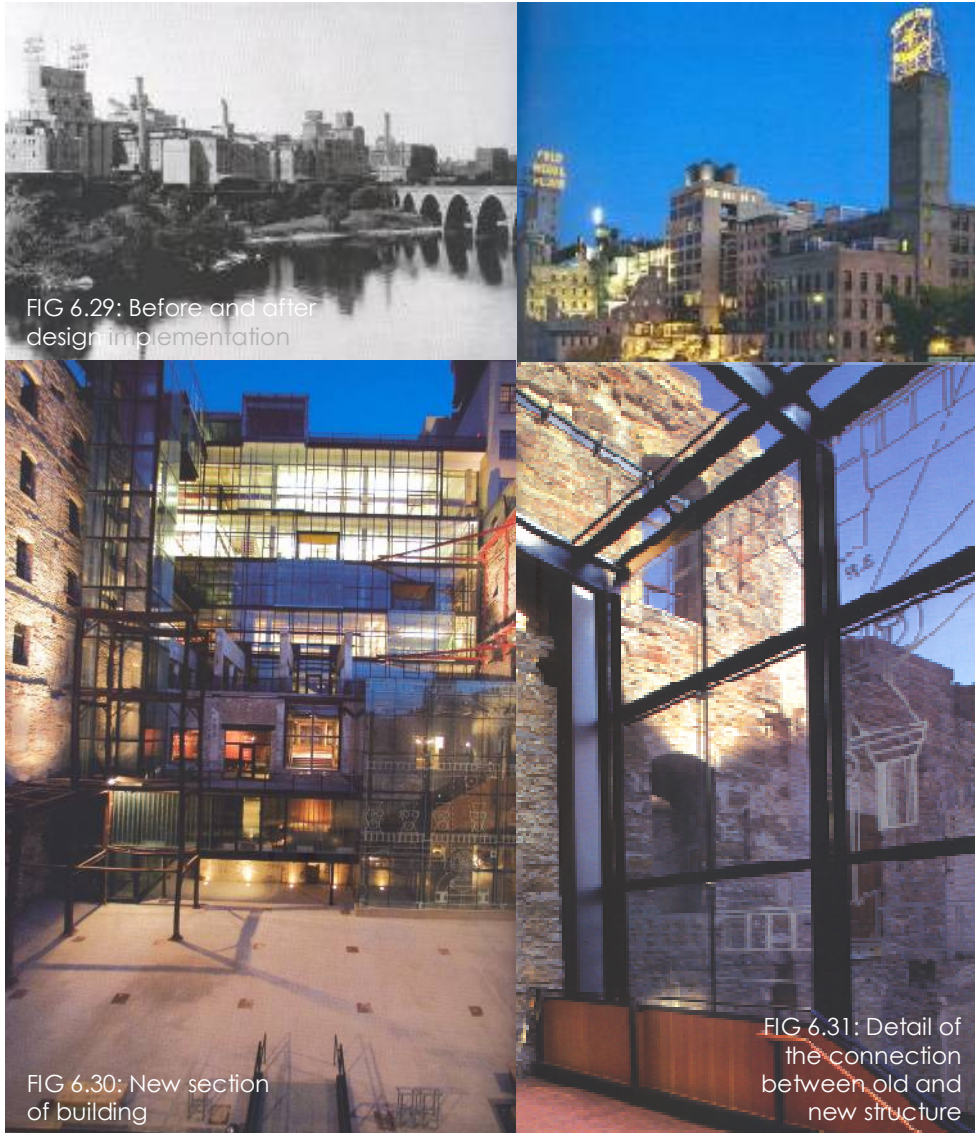


FIG 6.29: Before and after design implementation

FIG 6.30: New section of building

FIG 6.31: Detail of the connection between old and new structure

MS & R – Meyer, Scheirer and Rockcastle

Mill City Museum

Minneapolis, MN, USA

6.7

Built in 1874, the headquarters of General Mills² was one of the greatest flour factories of the world. Despite being declared a site of national interest, the building has been in disuse and later a fire destroyed the whole interior.² The museum, an independent space of glass and steel, has been carefully integrated into the remains of the complex with great success. In addition, the project includes the conversion of the silos and the transformation of the factory's old offices into shops, small offices and lofts.²

To benefit from the situation on the shores of the Mississippi, the architect created various accesses and walkways so that the flour complex works as a passageway link between the centre of town and the river. The decision to leave the remains of the burnt building and introduce a luminous glass space creates a balanced complex with an attractive contrast between the new and the old.²

Influences on the design approach:

- _the dynamic addition of the 'light box' inserted between the old and new buildings creates a new awareness of its historical value
- _the use of a glass and steel structure that is not dependent on the original structure of the existing building
- _the creation of a multi-functional building that responds to the context and its systems.