V&A Dundee Competition, 2010

DESIGN RESEARCH

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Sutherland Hussey Architects
General Description

Date 2010
Location Dundee, Scotland
Awards Short listed finalist

Exhibitions 2011 V&A Dundee Museum-Exhibited in Dundee and at the Scottish Parliament

Project description

In 2009 the V&A advertised an international competition to design a new Museum for Dundee. We were delighted to be the only Scottish firm to be selected amongst an international stellar cast of Architects (the others being Snohetta from Norway, Kengo Kuma from Japan, Rex and Seven Holl from New York and Delugin Meissl from Vienna).

The competition called for a new Museum to be located on the River Tay at the centre of a new business district within the city centre. The Museum is to act as a catalyst to attract inward investment to a city that has suffered more than most in the last fifty years.

The brief called for Museum space, for both permanent and temporary collections, cafe and bar facilities, education rooms and ancillary spaces all to sit on an extremely challenging site (on the water) and to meet an exacting budget. Moira Gemmill, the V&A director of design described the project as “the opportunity to show that good design can transform the image of a city”
Research Questions

1. A Question of identity - What is an appropriate identity for such a building given the limitations of budget?

2. To explore the use of artificial lighting to create a unique night-time experience
Aims and Objectives

1. *A Question of identity - What is an appropriate identity for such a building given the limitations of budget?*

The British Isles is now littered with public buildings that were instigated with the best of intentions, to create the ‘Bilbao effect’ – i.e. to give the city an international status and to act as a catalyst for regeneration. However in almost all cases, these have tended to be disappointing. More often than not the complexity of the designs has not been aligned with the financial constraints and the result is a dumbing down to the point where the final outcome is a letdown and can no longer meet the original objective. One only needs to look at other waterfront cultural projects such as the Armadillo in Glasgow, the Sage in Gateshead or the Imperial War Museum in Salford to see how the complexity of form making has had a detrimental impact on materials and detailing. We believe that this building had to be beautifully crafted to truly reflect the V+A ideals and to this end felt it imperative to have a simple, compact form as a starting point for the design in order to avoid ‘value engineering’ at the expense of quality of materials and detailing.

We felt the building needed to be timeless and not at the mercy of changing fashion and should reflect the lasting quality of its contents. It needed to be a timeless classic.

The site is extraordinary, the sheer scale of the water and the horizon is unique and very powerful. To place a building in this setting is challenging – it must be able to stand its ground and yet be deferential to its location. To feel part of the setting rather than to vie with it.

However even though the uniqueness of site demands a building of unique expression we felt that there was also an opportunity for the building to respond to the urban fabric in a very direct way and to contribute to defining a new civic space. The scale of the building in its relationship to the city fabric is critical. We tried to balance a compact footprint with a height that it is compatible with the surrounding scale, so that the building does not impose on its neighbours but does acknowledge its civic status. Our design is monumental without being big. The tripartite arrangement of skirt, aperture and lantern obscures the number of levels within and monumentalizes the building which we believe is appropriate to the building’s civic and cultural significance within the city.
2. *the use of artificial lighting to create a unique night-time experience*

The use of light, both natural and artificial plays a critical part in the experience and appearance of the building.

As the design developed we became interested in creating a very simple glazed envelope that could change and adapt to different climatic conditions.

When the sun hits the façade directly there will be a high level of reflection and with it opacity. In dull or misty weather the screen becomes translucent and hints at the activity behind.

By night it becomes transparent and the use of artificial light becomes very important. Artificial lighting will be used both as a means of creating dramatic reflections upon the water and as a beacon for the city.

And we were interested in developing further the potential for the building to be a canvas for the digital technology industry that has flourished in Dundee over recent years and as a means for expressing the phenomenon of tidal change – a barometer for the city with both narratives we were interested in how digital information can be converted into light readings to create a dynamic effect.
Research Methods

5.0
EXHIBITIONS

2007  The project was exhibited in the Scottish Parliament

AWARDS

2007  International competition - Finalist

PUBLICATIONS

27.05.2009  AJ Magazine-V&A names Dundee Contenders by Tim Soar & Peter Durant
28.10.2010  BBC news-Dundee V&A museum designs unveiled
01.10.2010  BD-Dundee proposals revealed by Anna Winston
28.10.2010  Herald Scotland-'Outstanding' designs for new Dundee museum are unveiled by Chris Watt
01.2011    Wettbewerbe Aktuell (WA)-V&A Museum Dundee
30.09.2010  AJ Magazine-V&A lets loose on the river tay
29.10.2010  Scotsman-In pictures: The stunning designs proposed for Dundee museum
Esteem Indicators

7.0

In September 2010 the six submissions were unveiled on the BBC with Mike Galloway, Head of Dundee City Council quoted "Our shortlist features some of the brightest names in world architecture and design and I think they have shown with these designs why they are so highly rated".

Commenting on the designs Mark Jones, the then director of the V&A, said:

'Fantastic designs from brilliant architects. It's great to see that the competition for the V&A at Dundee has attracted such a strong international response.'

Rowan Moore, Architecture critic for the observer wrote of our submission:

It is tempting to urge the plainest project on the jury, which is designed by the only Scots on the shortlist, Sutherland Hussey. But it is not without its own fussiness, with much-repeated vertical lines, and the public is bound to compare its boxy form to a power station. The trick is to be simple but not harsh and Sutherland Hussey hasn't quite pulled it off."
Early Design Strategies

A pier

A harbour
An Island
Design Concept
Site Plan
A Lantern

The upper part of the building is clad in a layer of insulating glass. The glass is a run-off screen and serves as a rain-screen and environmental buffer to the accommodation below. By day the solid base is contrasted by the structural system, which will be fully visible, and by night the lighting of the skin structure will create a dynamic light through the insulating skin whilst the taper and casing function will offer different lighting conditions for different seasons.

Around the upper Gallery level we propose that lighting be positioned behind the columns around the perimeter of the entire building and that this will be connected to take from the solar energy collection and then monitor and control the light collection and intensity varying according to local weather and tidal conditions. The building effectively becomes a large generator of weather and daylight changes and a beacon for the city.

An Inhabited Roof

Positioned at the top of the building, Galleries, it will have maximum sustainability potential and here lies the potential to be totally self-sufficient.

The four vertical service shafts located along the length of the building support a network of services located within the depth of the building. The clear spanning height length of the building, combined with each corner to allow the light to enter via windows and/or elevators, create a view of the horizontal space, allowing for natural ventilation across the fifth.

A Raised Ground Floor Entry Level

All accommodation above is located on this level to ensure that there is no risk of flooding. The building and service areas are set on this level, which allows for easy access to the service and delivery units. The main stairway is immediately below this area and is reached from the lobby via a large processing area.

A Perimeter 'Skirt'

The structural slab supporting the building is concentrated below by a perimeter edge in 'V' of construction, pre-cast concrete, allowing a wide edge with sufficient depth to allow the uninterrupted flow of water but close enough together to allow the building to have a strong relationship to the water.

Key
1. Gallery 1
2. Gallery 2
3. Gallery 3
4. Restaurant
5. Office
6. Floor
7. Reception
8. Entry/foyer, Forecourt
9. Shop
10. Cafe
11. Shop
12. Central Learning Zone
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Plan, Level 4
1. Gallery 1 - 800 sqm
2. Gallery 2 - 400 sqm
3. Foyer - 61 sqm
4. Plant
5. Loading area

Plan, Level 3
1. Foyer - 61 sqm
2. Office - 284 sqm
3. Kitchen - 45 sqm
4. Void

SUTHERLAND HUSSEY ARCHITECTS
Facade Reference
Detail

Study of the external skin
External Views

View from water’s edge

View from the city
night view

V&A DUNDEE COMPETITION

SUTHERLAND HUSSEY ARCHITECTS
Internal Views
View from foyer
Interior view of main gallery space
Model view of top Galleries

Model view of lower level accommodation