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Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission, you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Victoria and Albert Museum Dundee

The building selected for this assignment is the Victoria and Albert Museum Dundee (V and A Dundee or the museum) designed by Kengo Kuma and Associates and opened September 2018.

The following sections will provide information about:

- The client and why they commissioned V and A Dundee
- The architect and his design philosophy which underpinned its design
- The planning application of the building
- Its location, structure form and construction

Finally, an assessment of how well the V and A Dundee has met its client's socio-economic objectives and the design philosophy of its architect.

The client and why they commissioned V and A Dundee

V And Dundee is part of a 30-year, £1 billion redevelopment of the Dundee's waterfront the City Council started in 2001.

The area had already been the subject of a regeneration in the 1960's when the city's historic central dock had been infilled to make way for the construction of the Tay Road bridge and a large modernist commercial and civic centre which, as **Di Domenico (2007:329)** points out was never fully realised. The failure of this scheme not only resulted in the loss of Dundee's harbour but as **Hassard (2023)**, notes severed the city from its waterfront.

David Duncan, secretary of the University of Dundee and Mark Jones the then director of the Victoria and Albert Museum London pitched the concept an "international centre of design for Scotland which celebrated Scotland's historic importance in design and acted as an outpost museum for the V and A London providing space to display exhibits from the V and A's vast collection to the Dundee Partnership, the regeneration body of the Council in 2007. **(Dundee Council Development Management Committee Report on application ref 13/00224/FULM dated 12/08/2013)**.

The museum would, as Hassard suggests, be "a cornerstone of the reimagining of Dundee's waterfront as a new cultural neighbourhood that reconnects the city to the river" Dundee Council also viewed the museum as an anchor for its regeneration of the waterfront but more significantly an opportunity to deliver wider social and economic benefits to the city of Dundee.

Following a site feasibility study Dundee Council held in 2010 an international architectural competition to design the V and A Dundee. As **Johnson (2018)** states was to design "*an inspirational home for Scotland's first design museum – a building set on the waterfront that would reconnect Dundee to the River Tay and to its maritime history*". From 120 original design concepts submitted, six were shortlisted and were viewed by more than 15,000 members of the public when they were put on display. The feedback from the public was integral to judging process and in November 2010 the Japanese architectural practice Kengo Kuma and Associates was named the winner of the competition.

The Architect and His Design Philosophy



(Architect Kengo Kuma outside the V&A Dundee building he designed. Picture: John Devlin (Oct 2022))

Kengo Kuma (Kuma) is, according to both **Goodwin (2014)** and **Reynolds (2023)**, one of the most popular contemporary architects in Japan but is less known outside of Japan. His most well-known projects include the Japan National Stadium constructed for the Tokyo Olympics in 2019 and the GC Prostho Museum Research Centre Tokyo completed in 2010. Both projects illustrate his philosophy of blending natural with manmade materials; working on the principle that the design should respect the history and features of the location all of which **Reynolds (2023)** suggests makes Kuma's projects unique. This approach creates what **Murray (2008)** describes as a "harmonious and place rooted form of architecture" that rejects the monumental style of many of his western contemporaries, such as Cesar Pelli's and Richard Rogers, whose buildings dominate their surroundings and where function has defined form. Instead, Kuma sees architecture as a subsidiary to nature "it is about how people physically relate to materials, to inhabiting spaces and the feelings they evoke" (**Goodwin 2014**).



Picture Source: V and A Dundee/ Hufton+Crow (september 2018)

The Planning Application

Application (application no. 13/00224/FULM refers). For the V and A Dundee was submitted by Cre8architecture LLP on the behalf of the applicant, Dundee City Council. It was determined by Dundee City Council Development Management Committee on 12th August 2013. The Planning Officers recommendation was to approve the application A subject to satisfying 7 conditions. (as detailed in ***Dundee City Council Development Management Committee Report for 12/08/2013***).

As the proposed development had been subject of considerable public scrutiny in:

- 2010 as part of the competition to design the V and A Dundee
- 2012 when planning consent was granted for the same building but built on piles within the river Tay 2012 (application no. 12/00339/FULM refers) and
- 2013 as part of the Preapplication Consultation process involving the local community.

It is not surprising that no objections were received from the public, although advisory comments were made by some of the statutory consultees which influenced the condition applied to the consent notice. The few conditions are likely to be due to the extensive pre application negotiations between the applicant and key consultees in respect of the design and information submitted in support of the planning application.

Most of the Conditions are “standard” prior to the commencement of development conditions i.e. they are not specific to this project and required:

- The submission and approval of a hard and soft landscaping scheme - in the interests of the visual amenity of the areas (Condition 1).
- The submission and implementation of a remediation strategy to deal with the identified contamination on the site to ensure the site is fit for proposed purpose (Conditions 6 and 7).

- Details of the finishing materials to be submitted to and approved by the Council and a limitation on noise levels associated with the mechanical and electrical plant/services. (Conditions 2 and 3).
- The submission and approval of drainage details to comply with SUDS Guidelines thereby ensuring the water can be drained from the site without causing instances of flooding (Condition 5).

The only non-standard condition, Condition 4, required details of the infill of Craig Harbour to be submitted to and approved by the Council prior to the commencement of development.

The Building

The Site

The site selected for V and A Dundee covers an area of just under 1.3 hectares on the north bank of the river Tay. It is the most prominent position within the Dundee Waterfront, at the axis of Union Street (allowing views of the museum from the city and the river Tay beyond) and Discovery Point the home of the RSS Discovery which adjoins the eastern boundary of the site. Slessor Gardens and Dundee Waterfront Gardens a new public park, adjoins the museum to the west. **McKinlay (2018)** suggest one of the reasons for choosing this location was that the museum was intended to welcome visitors to the waterfront and hence had to be visible from the city and major transport routes.



Picture Source: Rapid Visual Media (September 2018)

This part of the waterfront is framed by the redeveloped railway station located 100m to the east of the museum, which now includes a hotel, Dundee city centre located approx. 170m to the northwest of the museum site, and the northern landfall of the Tay Road Bridge 300m to the northwest. The river Tay forming its southern boundary.

The museum is built on the site of the demolished Olympia Leisure centre and the adjoining Criag Harbour which was infilled to accommodate the museum. It also extends some 20m into the river.

The area around the museum is dominated by hard landscaping features with extensive areas of paving surrounding the museum; And somewhat disappointingly the A85 which runs directly in front of the building, acting as a barrier between the museum and the city centre and railway station located on the other side.

Form

Kuma as quoted by **Merrick (2018)** suggests form should be as subtle as possible so that the natural characteristics of materials can reveal themselves, he often uses the words 'softness' to describe form or materials. These are not words that can be used to describe the exterior of the V and A Dundee. The museum is Scottish example of Kuma's design philosophy of respecting the history and features of the location. In this instance he took his inspiration for the building from the hard craggy sea cliffs of northern Scotland. Like the sea cliffs the museum was located between land and water and takes on the form of an artificial cliff with the cladding formed of lines of precast concrete panels running horizontally around the curving concrete walls – creating patterns of shadows which change with the weather and the time of day. The main access into the building is shaped like a sea cave in the cliff (**Johnson 2018**).



Picture Source: V and A Dundee/ Hufton+Crow (september 2018)

However Kuma also took account of the relationship of the site with the nearby land uses by adjusting the geometry to reflect the two main axis of the city Union Street and Discovery Point which as Kuma states in an article written by **Merrick (2018)**, *“are co-ordinated together in a spiralling motion producing a form which is inherently dynamic as it grows from the street up”*. The resulting form being two inverted pyramids separate at ground floor, and then twisted both horizontally and vertically to connect at the upper galleries floor (**Johnson 2018**). The resulting archway through the middle of the building creates a frame through which to see the city from the river visually achieving the objective of reconnecting the city to the river. Using an analogy from nature, which underpins Kuma’s design, the building functions in a similar way as a shell, in that it is a continuous and interconnected structure. The roof, walls and flooring all work together to make the building stable.



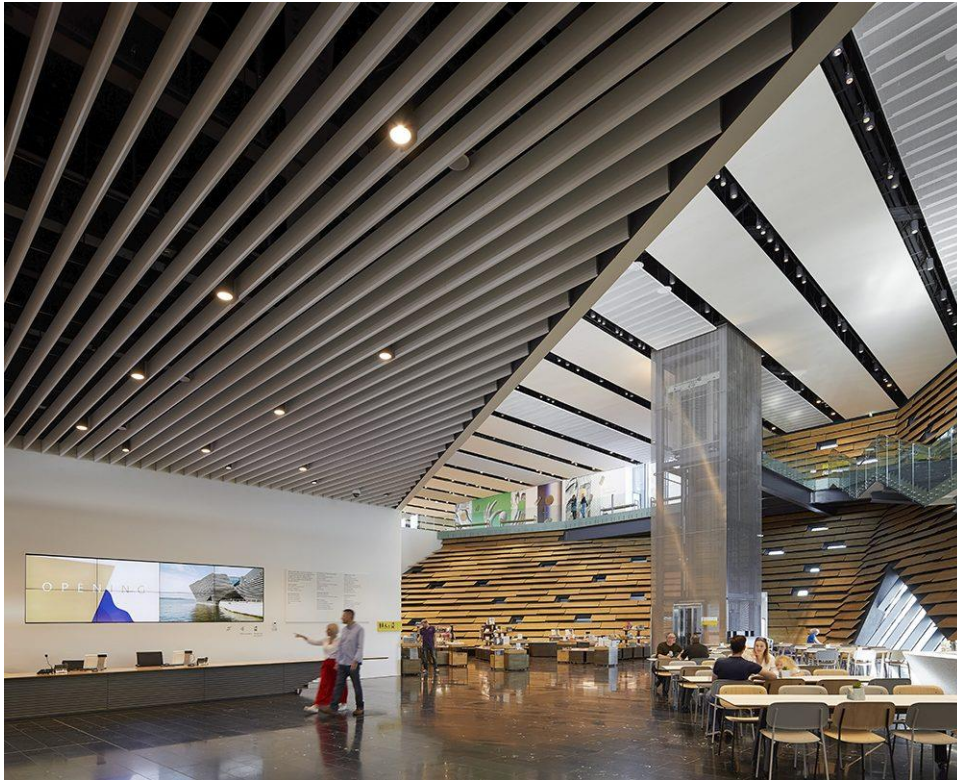
Picture Source: V and A Dundee/ Hufton+Crow (september 2018)

The resulting 3-storey building approx. 18.3 m high with a floor area of 8,445 sqm. remains true to the design that won the competition.

Internal layout

Kuma proclaimed his building as “the living room of the city which would bring the wider community of Dundee together. (**McKinlay 2018**) believes his metaphor was inspired by the need for the museum to recreate the environment of a living room for households to gather. The large triple height flexible open space that occupies most of the ground floor of the museum could be viewed as Kuma’s living room allowing a space for the community of Dundee to gather and socialise.

The first floor accommodates a variety of ‘back of house uses’ whilst the second floor is occupied by exhibition galleries and the permanent Scottish Design Galleries educational spaces and a restaurant. Out of hours the restaurant and educational zone can be accessed via an independent entrance.



Picture Source: V and A Dundee/ Hufton+Crow (september 2018)

V and A Dundee has a floor area of 8,445 metres² which is arranged as two separate buildings which join on the second floor.

The materials used on the interior of the museum are more soft and natural than those used on its exterior, reflecting Kuma's style of mixing natural materials with manmade; For example as **Reynolds** notes the stepped interior walls are lined with hanging oak-veneered panels, floors are finished in Carlow Irish Blue limestone, a dark stone with fossil detail chosen to continue the connection to sea and nature throughout the building. Whilst white concrete missed with mussel shells used in the café and restaurant paying homage to the River Tay's endangered freshwater pearl mussel.

Is the V and A Dundee a success?

A successful building design is measured not only by its visual appearance but also how it fulfils its intended function. In respect of V and A Dundee this can be assessed by how well it meets Dundee City Council's objectives and Kuma's design philosophy.

Dundee City Council's objectives outlined in the report to the Council Development Management Committee of 12th August 2013 are wide ranging. Not only was the building expected to work successfully as a museum, which it does, it was also expected to be the catalyst for the regeneration of the waterfront, attracting visitors and investment, providing job opportunities, and raising skill levels. Changing perceptions of the city for both visitors and residents and encouraging social inclusions and engaging with people from diverse backgrounds. **Clive Gillard referenced in Hassard 2023** call this Bilbao syndrome after the Guggenheim Museum which is often viewed as a prime example of a museum being responsible for the socio-economic regeneration of a post-industrial city.



Picture Source: V and A Dundee/ Hufton and Crow (september 2018)

Mike Galloway executive director of city development on the city council (quoted by **Meyrick 2018**) believes it has achieved these objectives he states; *“Now that we have completed the project, it is clear to me that not only has the building delivered for us in every way we sought and anticipated, it has also surpassed our expectations in the clear, positive effect it has had on Dundee’s image and economic future”*.

As the museum only opened in 2018 this comment may be a little premature. **Hassard (2023)** is slightly less enthusiastic in suggesting although the impact the museum has had upon the regeneration of the city is significant noting that the museum has been a key constituent of regenerating the waterfront and met its economic objectives it has not achieved social inclusion goal as it does not engage with the people of Dundee. **Hassard (2023)** and **Oston (2019)** suggest the museums is both distant and disconnected, not just physically, from the communities it needs to engage with to deliver this objective; The Guggenheim according to **Kent (2005)** experienced similar criticism for not supporting the community and culture in Bilbao. **Kostof (2010:745)** notes *“Architecture alone does not bring about social change “without the support of powerful economic, political, and social forces “the architect is helpless to affect society.”*

The conclusion being that although V and A Dundee can act as the catalyst for economic and social regeneration it cannot achieve Dundee Council’s objectives on its own.

Kuma objectives are much more tangible; he was seeking to design a building that respected the history and features of the location, that reconnects the city to the river and would bring the wider community of Dundee together.



Picture Source: V and A Dundee/ Hufton and Crow (september 2018)

Kuma's inspiration for the museum a sea cliff reflects the grey harsh environment of the north coast of Scotland and how it connects the land to the sea. The museum's external appearance cannot be described as soft or subtle words Kuma has used to describe the form and materials used for many of his buildings. The building's design is more characteristic of northern Scotland than it does of the more urban waterfront environment of Dundee. This is not necessarily a criticism as evidenced by the public support Kuma received the people of Dundee identified with the "Scottishness" of its design which allows the building to stand out rather than blend in with its more urban surroundings.

The siting of the building on the axis of Union Street which led directly into the city centre and the archway through the middle of the building creating a frame through which to see the city from the river. So, in the design and setting of the building Kuma has successfully achieved his objectives.

The objective of the museum functioning as the "living room of the city" based on the conclusions of the paragraphs above has not been so successful but for the reasons **Kostof** mentions above this is something Kuma's cannot achieved just by designing the V and A Dundee.

Conclusion

In conclusion the Victoria and Albert Museum Dundee is a symbol of modern architecture in the city of Dundee which embraces its location modelled after the rich history of Scotland's cliffs and Dundee's harbour, while also incorporating the vision of a "living room of the city" from the architect Kengo Kuma. While it successfully revitalises the waterfront by bringing a new economic growth to the area as well as a harmonious presence to the area. Finally, it stands as an urban renewal to show the harmony between architecture, society, and nature.

References

Spiro Kostof A history of Architecture Settings and Rituals Oxford University Press 2010 page 745