

Welsh Contemporary Architecture – The Great Glasshouse, National Botanic Garden of Wales

The term contemporary is a form of architecture that constantly evolves in the present time. Its mainly categorised by the use of its materials, styles or techniques that incorporates the 'next generation' designs. It mainly focuses on very simple rectangular or free flowing forms while also making it look sleek and modern within the time its currently at. Wales has a number of great examples of these so called 'modern' structures all over the country including The Great Glass house that is the National Botanic Garden of Wales. Focusing on the importance of the dome being in an organic state and how/why its incorporated into the nature surrounding it. The beauty it holds and shows every visitor that visits this wonderful piece of contemporary structure.

Architecture has a lot of the times been a good reflection of social, economic, and cultural values on the world and society. In many opinions it is an art form that shapes our environment and also influences our emotions and perceptions. The Great Glass House reflects the country's commitment to innovation and sustainability. Located in the National Botanic Garden of Wales in Llanarthne, Carmarthenshire, it is a groundbreaking architectural marvel. Designed by the renowned architects Norman Foster and Partners, this iconic structure was completed in 2000 and has since become a symbol of modern Welsh Architecture. It is as many will agree a fusion of nature and technology, seamlessly blending into its surroundings while providing an innovative and sustainable space for the conservation of rare and endangered plant species.



One of the most striking features of The Great Glass House is its unique design aspect. The structure is an elliptical dome, covered entirely with glass panels, which allows natural light to flood the whole of the interior space within. This design choice not only provides a visually stunning experience for the visitors but also creates an ideal environment for the plants to thrive inside. The glass panels are double glazed, providing insulation and regulate the internal climate, ensuring the plants thrive as if it was their natural habitat. Beyond its aesthetics appeal, The Great Glass House also serves as a model of sustainable architecture. The design incorporates several eco friendly features, making it energy efficient and environmentally conscious. The glass panels are coated with special film that helps reduce solar heat loss or gain, minimizing the need for any extra air conditioning and sun glare. Additionally, rainwater harvesting systems are integrated into the structure, collecting, and reusing water for irrigation purposes. These sustainable features not only reduce the buildings carbon footprint but also contribute to the overall mission of the National Gardens of Wales, which emphasises the importance of conservation and environmental stewardship.

The Great Glass House is not only a wonderful physical feature but also a cultural and educational space. Inside the visitors can explore a diverse range of plant species from all around the world, carefully curated to showcase the beauty and importance of biodiversity. The interior is divided into a different climate zone, each representing a specific geographic region and its unique flora. The immersive experience allows visitors to learn about the various ecosystems and the critical role these plants play in sustaining our planet. The Great Glass House hosts educational programs and events, promoting awareness and understanding of environmental issues among both local visitors and tourists that come to visit this beautiful structure.



When comparing the Great Glass House and the Graz art museum, both structures exemplify the innovative and forward-thinking approach in Welsh contemporary architecture. Firstly, the great glasshouse in Wales is renowned for its seamless integration with the natural landscape. The use of glass panels that allow for an abundance of natural light and a sense of being immersed in the surrounding environment. In contrast, the Graz art museum in Austria stands out for its bold and striking design. The museum's futuristic appearance characterised by its angular lines and metallic exterior creates visual impact like the great glass house. While both structures employ modern materials and techniques, their purposes and functions differ significantly. The Great Glass house primarily serves as a botanical design, providing a space for education and showcase of biodiversity. Its design emphasizes sustainability and energy efficiency, with the use of glass panels that promote natural light and reduce the need for any artificial lighting. On the other hand, the Graz Art Museum is dedicated to contemporary art and acts as a cultural hub. Its design reflects the museum's purpose, offering extensive exhibition spaces and galleries for showcasing artistic work.

While the Great Glass house and Graz Art Museum both represent exemplary examples of contemporary architecture, they differ in their design approach and purpose. The Great Glass house emphasizes sustainability and a harmonious blend with nature, the Graz Art Museum stands out for its bold and futuristic aesthetic. Both structures show the creativity and ingenuity of Welsh and Austrian architects, contributing to the rich tapestry of contemporary architectural marvels.



In conclusion, The Great Glass House stands as a testament for the brilliance of Welsh contemporary architecture. Its seamless integration with the natural surroundings and innovative design captivates the imagination of all who wish to visit this. The use of glass panels not only creates a visually pleasing and stunning experience but also promotes sustainability and energy efficiency. This iconic structure showcases Wales's commitment to environmental consciousness and sets an example for future architectural design concepts not only around Wales but also around the whole world. Moreover, The Great Glass House serves a purpose and special environment for educational and cultural enrichment, emphasizing the importance of biodiversity and environmental awareness. It is a symbol of Welsh creativity and serves as an inspiration for architects and designers all around the world. The Great Glass House is a true marvel of contemporary architecture, representing the beauty and worldwide potential of Welsh design.

References

- Image 1- (Anon, 2017 , The English Garden, <https://www.theenglishgarden.co.uk/gardens/great-glasshouses-to-visit/>)
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- Image 3- (Anon , National Botanic Garden of Wales <https://botanicgarden.wales/garden-areas/the-great-glasshouse/>)
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