

Question 2. Consider the term 'organic architecture'? What is your understanding of this term, and does it have any relevance to architecture today? Discuss

Essay plan

Introduction-what organic Architecture is generally about

Discuss key points- Origins and influencer-Frank Lloyd wright, Organic principles/features, Sustainability

Conclusion

Introduction

Organic architecture is considered a harmonisation between people and nature, a movement based on the quality of human life, where art, religion and science are one entity.

Organic Architecture is defined as architecture that has emerged from the earth. The terrain, the vernacular conditions, the nature of the materials and the purpose of the building, must determine its form and character. Organic Architecture is always built to human scale in all proportions, it focuses on interior and exterior, the use of abstract plant geometries, their use of natural, unadorned wood and stone in their most honest state, juxtaposed with contemporary materials.

It is an interpretation of light and shadow, volumes and space compressing and releasing just as in nature.

Organic Architecture can also be seen as Sustainable Architecture that we strive for today with depleted energy resources becoming expensive and problematic.

Origins

Frank Lloyd Wright, known as the 'father' of Organic Architecture, first used the term in an article for the *Architectural Record*, in August 1914. Yet he was quick to add, that he came to realise that Organic Architecture was first phrased 500 years B.C.E, by Lao Tze, an ancient Chinese philosopher and writer, that the reality of the building does not consist of walls and roof but in the space within, to be lived in. (Read in '*An organic architecture, Architecture of Democracy*' by Frank Lloyd Wright, 1941).

Throughout history, Organic Architecture has been present in Egyptian pyramids, Mayan temples and Babylonian Ziggurats, as an expression of the feeling for the human form. It was seen in Gothic Cathedrals and Gothic revival buildings, (spearheaded by John Ruskin in the 1800's), where organic architecture connected with the viewer, where organic ornamentation gave the character and quality.

It was never seen in any Georgian or Classical buildings, no matter the topographical conditions, these styles did not respond to the ground they sat on, the shape and traditions remained the same, striving for superiority and dominance to its surroundings.

Organic Architecture of the past would only truly apply to domestic Japanese buildings, with bamboo structures and sliding screens, bringing the outside space inside.

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Organic principles

Wright's organic principles were about the quality of life, so people could live more generously and fully. Philosophies that he had developed from his time at the Chicago school, as an apprentice to Louis Sullivan, of whom he called the 'Leiber Meister'. Louis Sullivan used natural ornament as a metaphor for a democratic society. He believed that building should respond to its own environment, just as plants would grow naturally out of all its conditions. He rejected the borrowings of Classical and Roman elements popular with other Architects of his day. His twisted, arched organic motifs on terracotta facades and ironwork pioneered Art Nouveau at the turn of the Twentieth Century. (Read in *'The Story of Architecture'* by P.Nuttgens, 1983, Oxford: Phaidon).

Louis Sullivan coined the phrase 'form follows function', whereas Wright followed on from this and wrote,

'As knowledge of the relations of form and function lies in the root', (In the cause of Architecture in 1908).

These words formulated the outline principles for Organic Architecture of Form and Function are one. (Read in *'Frank Lloyd Wright- Natural designs, Organic Architecture'* by A Hess, 2012).

Organic Principles

Simplicity and response

Wright simplified designs of structures, reducing the number of rooms in a building by opening the up as free flowing spaces. The interior space determines the exterior form seen in Unity temple, Oak Park, IL (1908).

Rooms were rarely rectangular in shape, The Hanna House, California (1937) or known as the honeycomb house, was constructed as a hexagonal unit system, which is better suited to human movement than a rectangle.

The furniture should be built in not added, becoming elements of the whole design. The style of the building should respond to the personality of the user.

It was important that the building should look like it had grown easily out of the site, to be shaped as if it were created by nature. Colour should derive from surrounding trees and landscape and needs to blend in with natural forms. It should create a sense of homeliness, comfortable in its surroundings, like it has always been there, its relationship so unique that it would be out of place anywhere else.

Taliesin west, in Arizona built in 1937, is an example of this, it seems to have emerged from the ground, adjusting to its environment and climate with its low overhung roofs and canvas sunshades, red hue, colouration of its surrounding arid topography. The furniture is also designed as part of the whole.

The construction materials

It is necessary for the materials to be expressed in its true honest state, not one material disguised as another. In Organic Architecture only few materials are used for the interior and exterior.

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Building must be a sanctuary, a haven where the user should never feel exposed or unprotected. A shelter against the elements.

Wright's ethos of Organic Architecture runs true today, with the environmental crisis as it did when Wright first applied his principles, in response to the challenges of International Modernism style, technological advances and social change of the era.

Wright's sustainable Architecture

Wright re-invented spaces for the way of life as he had concerns about the way people lived without space or natural environments, regarding Urbanisation.

His organic principles created comfortable spaces, peaceful, natural scenes yet he had full control over the environment of the buildings, to work with the sun and climate to create energy efficiency that is necessary today.

We orient our buildings to face South for solar gain, to lower our energy bills and carbon footprint. Wright realised that sunlight was also a material for design, just as stone and wood.

By designing shade and sunlight, he created natural warmth and cooling into his buildings, creating a comfortable ambience, showing people that they can live a better life with the realities of the natural world.

The use of masonry block, for thermal mass, as we do today, absorbs the sun's energy during the day and have it radiate heat in the cooler evenings, he often imprinted patterns for a visual effect, on the masonry walls, as seen at the Pfeiffer Chapel, Lakeland, Florida in 1938.

The waterfall at Fallingwater, Bear run, Pennsylvania in 1935, played an integral role in the cooling system of the house, as well as providing a wonderful visual. A glass enclosure at the bottom of the steps can be opened in summer allowing for natural air conditioning to be generated by the water to raise through the house.

The use of wide eaves to keep the sun from indoor spaces during the heat of the summer, as used in the Prairie houses and Usonian house of Pope-Leighey house, Falls Church, VA in 1939.

The use of ribbon windows to let in the sun to warm the floors and air in winter.

Wright saw the need for the outside to come into the building and for the inside to go out, for the gardens and buildings to be as one, not creating an enclosure.

The lines are blurred between exterior and interior by the use of large, frameless, corner windows, opening up spaces to the surrounding landscape, creating an environment with light, space and atmosphere. He used porches and outdoor spaces integrating them into the living space, all to improve wellbeing of the user.

Skylights and clearstory windows were used to bring in natural light, reducing the need for artificial lighting, as seen in his home studio, Oak Park IL (1939) and Swartz house, Two rivers, WI in 1939. (Read in '*Key buildings of the 20th Century, Plans, section, elevation.*' 2nd edition, by R. Weston 2004, Laurence King: London).

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The mass and use of materials, the shape of the spaces, the flow of air, the orientation of the building on the site, all work together in a unified Sustainable system, respecting the ecosystem and creating a pleasant environment, in all-weather conditions, in the form of Organic Architecture.

Conclusion

Wright looked at the word organic as an entity as opposed to a singular vernacular sense, that our lives can thrive sympathetically with the built world, embracing the landscape, the building and human activity must support one another.

Organic Architecture is a Sustainable system comprising of nature, the built environment and human life, all of which we strive to achieve in resolving the Sustainability issues today. We can learn that solar panels etc. Can be integrated to create a realized piece of Architecture that are inspiring places. Meeting sustainability criteria does not mean an awkward, ill-conceived design with sustainability bolted on at the end.

Question 3. What does the inclusion of 'ornament' actually signify, in Architectural terms?

Discuss

Essay plan

Introduction- what is meant by the word

Key points - Origins through history, influencers and objectors, ornament in contemporary design.

Conclusion

Introduction

It is understood that Ornamentation is an embellishment used on a building or object to enhance its aesthetic appeal. Motifs are drawn from geometrical shapes and patterns, plants human and animal figures.

Ornamentation was always perceived as a sign of luxury, the more embellishment on a building, signified wealth and importance one possessed.

Throughout history, ornamentation was an expression of culturalism, a way for the architect to communicate with the broader public. Ornamentation was originally inspired by Corinthian columns, and there are 3 basic and distinct categories of ornament that has derived from this.

Mimetic or imitative Copying what once was, neoclassical, Gothic or indigenous such as single pole house, an example would be the single pole house by Konrad Wojcik in 2013.

Applied: Adds beauty to the structure

Organic: Part of the buildings function and materials

Mimetic/imitative and applied ornamentation

When Charles Barry and Augustus Pugin were commissioned to design the Houses of Parliament in 1835, the Government had decided that the building was to be in the style thought to represent England at its best, the Elizabethan and Jacobean era. The Gothic exterior and the Classic interior

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expressed wealth and splendour, as the more intricate detail meant more labour-intensive work had gone into its production, and the more expensive it was.

The construction of the Crystal Palace, London in 1851 by Joseph Paxton, housed the great exhibition of 1851. The design of the structure was innovative of its time, a vision of the future, and although it was prefabricated, light and transparent, supported with iron and glass, the whole fabric of the building was ornamental in its own right. The pioneering design, using glass inspired from greenhouse construction, had no conventional style, henceforth, as it had no existing precedent, the concept was continued, the ornately decorated, Neoclassicism and Gothic revival prevailed. (Read in '*A history of Architecture*' 2nd edition, Spiro Kosof, 2004 Oxford: University Press).

During the Industrial Revolution, with the use of machine production, decoration became cheap as mass produced, repeat patterned perfect copies of cut materials had never been achieved before as seen at the stone entrance of the Natural History Museum in London, by Alfred Waterhouse in 1880, done in the Gothic revival style, by precision detailing with use of machinery.

The speed and accuracy of machines made products available to the general public, lessening its value as it no longer becomes a luxury item, the ornate, decorated object or building could no longer exploit its wealth to society.

Organic ornamentation

During this time in America, Louis Sullivan was using natural ornament as a metaphor for a demographic society. He applied the aesthetic effect of an organic pattern directly onto the terracotta material, using the material that served as decoration rather than requiring additional ornament, connecting the building to the natural world. Louis Sullivan rejected the borrowings of Classical and Roman elements that were popular with other Architects at that time. His twisting, arched, organic motifs on terracotta facades (Prudential (Guaranty) Building in New York 1894-6) and ironwork pioneered Art Nouveau at the turn of the 20th Century, as seen on the façade of Carson, Pirie and Scott Department store in Chicago in 1849. Frank Lloyd Wright, whom worked for Sullivan applied ornamentation into his organic Architecture such as Gammage Auditorium, Arizona State University, Tempe in 1964, based on conceptualized Opera house in Bagdad. (Read in '*A history of Architecture*' 2nd edition, Spiro Kosof, 2004 Oxford: University Press).

William Morris and John Ruskin opposed the advancement of the Industrial Revolution by establishing the Arts & Crafts movement. Ruskin (1849-1900) was an advocate for Gothic Architecture and his writings influenced Neoclassicism through his essay on the *7 lamps of Architecture* in 1849, expressed the importance of ornamentation as being strictly decorative and devoid of any functional aspect. He stressed the importance of handcrafted products, that there was great beauty in ornamentation drawn from nature and buildings to be made from skilled, human hands. These principles were the foundation stones to the Art & Craft Movement. (Read in '*The Story of Architecture*' by P. Nuttgens, 1983, Oxford: Phaidon).

Opposing this Adolf Loos, in his book *Ornament and Crime* (1908), believed ornamentation was a crime against the national economy, it was waste of human labour, a waste of money and material. He pointed out that ornament is no longer organically linked with culture as it historically did, it is no longer an expression of culture or devoid of purpose. He encouraged modern people to move on, and a freedom from ornament would signal spiritual strength. (Read in '*Programmes and*

Manifestoes of the 20th Century, by Ulrich Conrad 1971, p.20-22, Cambridge, Massachusetts: MIT Press).

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Loos, a radical purist, formed the basis of Modernism with this book, causing ornamentation to fall out of favour from major buildings in the 1920's and 1930's.

Ironically, Robert Venturi stated, as a key crisis in the contemporary form of Modernism, leaves nothing to provoke the eye,

"When Modern Architects righteously abandon ornament in a building, they unconsciously design a building that are ornaments" (in *Complexity and Contradiction in Architecture* 1966).

Ornamentation did reach a revival stage at the Postmodern movement, as it celebrated the use of ornament to communicate with the viewer such as John Outram's, pump station with columns and pediments as Mimetic ornamentation interpreted in a different way. (Liz Walder's lecture on Ornamentation, March 2022).

A leap forward from the mimetic, applied and organic forms of ornamentation would be contemporary designs using digital computer programmes, such as the design of Ravensbourne college, Greenwich built in 2010, by Foreign Office Architects (FOA). Ornament was used as an integrating, functional building component using fabrication technology. Composing 28,000 anodised aluminium tiles in three different shapes and colours to its façade.

Conclusion

Ornamentation has fallen in and out of favour with Architects and the public alike throughout history, yet there are no architectural rules on when and where ornamentation should be applied, it is not essential in architecture, it is a matter of personal taste. Ornamentation can hold the viewers interest, allow the viewer to study the fine details, play games and conjure up questions and opinion and provoke the eye.

Ornamentation can be adapted, applied using different methods whether it is the brickwork or added vegetation, the word ornamentation is limitless in Architecture.

Question 6. a) Conservation/restoration b) renovation c) refurbishment? Discuss these ideas in terms of architectural philosophy when acting as an architect working with historic buildings.

Essay plan

Introduction-

Key topics- what each mean in relation to SPAB, Cadw, Historic England and ethics around demolition and the integrity of a Cadw listing.

Conclusion

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Introduction

Our historic environment is crucial to the cultural identity of Wales, and is vital that it is appreciated, protected and accessible for everyone, now and in the future.

Historical buildings shape our towns and villages, adding to our culture and society, without sympathetic Conservation/restoration, renovation and refurbishment Welsh historic buildings will be forgotten vestiges of our past.

The meaning of restoration is the act of returning something to its earlier good condition, returning it to new through repair and maintenance. Conservation means that without conserving our historical buildings, prolonging its integrity and character, they wouldn't be accessible or enjoyed, and lay unused.

According to SPAB (The Society for the Protection of Ancient Buildings) Restoring a building is a destructive method. It may leave a building without any signs of age or evidence of past interaction with people. Their approach is to repair and conserve what exists as restoration sets out to re-create the past.(<https://www.spab.org.uk>)

The SPAB manifesto was written by William Morris and Phillip Webb, both influential during the Arts and Crafts movement, in 1877, in response to the destructive work of Victorian Architects, whose enthusiasm for harmful restoration caused irreparable damage to historical buildings.

SPAB principles work on the basis of that all old buildings have a future regardless of status and is based on the protection of the 'fabric', the material of which the building is constructed from, using practical repair techniques for conservation.

Documents show that Eglwys Brewis in the Vale of Glamorgan, was repaired under the guidance of SPAB co-founder Phillip Webb, using SPAB principles as early as 1900. SPAB believe that a missing element of a building does not need replacing unless there is a functional need. Restoring for the sake of making the building look nice is not art of their approach.

With essential work only, a building can be conserved without restoration of lost detail. The use of conservation repair techniques as opposed to restoration, will retain as much of the historical fabric as possible, matching existing materials and choosing compatible alternatives.

SPAB philosophies believe that it is best to match new materials with old, in terms of breathability. Alternative materials can distinguish the old and the new, assisting with retaining of the fabric, without the need for restoration work, and creating a striking contrast between the two elements.

According to Historic England, they define restoration as a way of returning a building to a 'known earlier state, on the basis of compelling evidence, without conjecture'. They also understand that renovation is acceptable when restoring buildings that a new layer will add another layer of history to the fabric and does not diminish the value of the fabric only improves its condition and the sustainability of the building. Showing that there is a fine line between Restoration and renovation.

Renovation is the process of changing the structure, such as altering floor layouts, removing or replacing defective sections, converting the building or adding an extension.(<https://www.historicengland.org.uk>).

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SPAB agree that by substantially changing the structure with new work, such as an extension should be modest and sympathetic. SPAB recognise that in order to continue to use old buildings, renovation by means of and extension is acceptable. The extension must not mimic the old materials, not try to look old or pretend to look historic. The two structures must contrast and compliment each other.

Refurbishment is less invasive than renovation. It is concerned with repairs or restoration of the appearance and condition of the building, such as replacing a window, plastering a wall or cleaning done to make the building look new again. Examples of conservation and refurbishment work can be seen at the Grade I listed, Cardigan castle and the Brutalist Museum building at St Fagans, Cardiff. (<https://www.architecture.com>)

Conservation/renovation, refurbishment and restoration of any Historical building requires Authority approvals. It is a criminal offence to alter or change any part of a historical building without prior consent.

Cadw, are the Welsh Governments historic environment service. They work to protect historical buildings and structures, landscapes and heritage sites in Wales, and it's they're approval is what's needed for historical work to be done.

Cadw have a listing system that identify buildings which are of Architectural and historical importance and give the buildings legal and ethical protection (<https://www.CADW.gov.wales>).

Under section 1 of the Planning (Listed Building and Conservation areas) Act 1990, Wales ministers are required to compile and maintain this list. There are over 30,000 listed buildings in Wales and they're all listed as Grade I, II, II* (one, two, two star).

Grade I- are historical buildings of exceptional interest.

Grade II- Particularly important

Grade II are of specific interest, which is the most used.

They are all treated equally in the Planning system, when applying for Listed Building Consent on an historical Building.

Planning Authorities can issue building preservation notices to protect unlisted buildings which they think are in danger of demolition or if alteration will affect the character of the building.

Listed building varies from medieval churches, castles, phone boxes to modern commercial premises. Or if they are rare examples of a particular type of work, such as Ty Bronna in Cardiff, built in 1903-06, a Grade II listed, as the only design in Wales by internationally important Architect, CFA Voysey.

Buildings are chosen for listing if they were built before 1700, that survives in anything like its original form, is listed. Most buildings between 1700-1840 are listed, depending how much of the original form and fabric survive.

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After 1840 only buildings that define quality and character are listed, due to the mass of buildings that were built after 1840 and much survived, making selection process of the best examples.

Cadw also support historic building repair schemes which give new lease of life to listed buildings that benefit Welsh communities. The repair and renew ethos, driven by SPAB policies, help secure historic buildings which would otherwise be vulnerable to neglect and decay.

Cadew do claim to have legal power to protect historical buildings, but they do get demolished, especially Brutalist buildings, being the most controversial architectural styles. An example is the Brynmawr Rubber Factory in Gwent, 1945, a grade II* listed building. Hailed as the masterpiece in modernism, it was demolished in 2001, and replaced by a mundane residential development. It seems that the land beneath it was more lucrative than what was on it.

Conclusion

It is essential that we adhere to SPAB's principles of repair and maintain and conserve historical buildings instead of restoring, refurbishing and renovating., to preserve our culture yet there will be a time where repair buildings will be unusable. And need restoring and renovating. Unless a building is lived in, then it does not serve a purpose. As discussed, it is not unheard of to demolish a listed building, how many more buildings will we lose because it doesn't fit in to the Government s 'building better, building beautiful' schemes, favouring traditional architecture. It comes down to opinion of what stays, and how lucrative the land is.

Question 4. As an architectural student, what do you think about the two UK channel 4 television programmes, Grand designs and amazing spaces? Discuss

Essay plan

Introduction

Key words- What both programmes are about, opinion, realistic

Conclusion

Introduction

Grand designs, presented by Kevin McCloud, an Architect, whom was made an RIBA honorary fellowship in 2006, has been on the tv for 21 years and with over 200 episodes the programmes have somewhat changed over the years with bigger ideas, bigger budgets and bigger egos and of course the use digital software to impress.

Amazing spaces, presented by George Clarke, also an Architect, has been on the TV since 2012. The theme of the programme is people that use unconventional objects such as buses, boats, garden sheds and change them into amazing spaces.

I feel that the clients that feature on this programme are mostly un-realistic, a lack of self-aware, unknowledgeable about any type of construction or design and armed with only an exuberant budget and a digital 3D render. Yet I do feel compelled to watch the outcome.

They do not cover the realistic side of the design process, the client changing their minds, the process and the problems with Planning Authority or any other approval needed.

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It would make better viewing if we saw more of what hinders a build rather than just the effect of weather and marital issues. For instance, the producers could be more informative by giving us the reasons why delays happen, Ecology, Listed building applications, feasibility issues etc. The real nitty gritty not just the beginning, a bit in the middle and then a fantastic building at the end. When the buildings are done, we tend never to see them lived in, truly lived in. The defects, the problems, the mess. They tend to replicate hotels or museums, never homely or cosy, lacking in personality and comfort. I spend my time throughout looking for little issues to amuse me, such as an argument or a wrongly placed tile on the roof, just to know that it is real. We need to see a re-visited episodes more often, to see how things have worked out for the owners, I would like to hinder a guess that the majority gave sold due marriage breakup or bankruptcy! A more sustainable use of materials and energy sources could be improved.

On the positive flip side, it is refreshing to see designs which are not housing development typology, that ruin our communities, but the planning authority approve allow buildings that are not conventional, somewhere. As a student, the designs are inspirational and I do appreciate an exciting result, the use of virtual reality has also kept me interested and I'm always well informed with new materials and methods, it is educational at some level.

Grand Designs, although controversial, it is a completely opposite type of programme to Amazing Spaces.

It is unrelatable and incomparable with 'Amazing spaces', which is relatively small-scale builds, with little or no budget, with themes that the viewer can relate to, and broadens the mind to what architecture could mean in the future, with the current housing crisis, a converted bus in the garden may be the way forward, unlike Grand designs, where economic crisis of the Uk, does not hinder or influence budget, and gives the 'rubs your nose in it,' feeling.

Amazing spaces shows us how small spaces can be adapted to usable living areas, with lots of outdoor themes, inspiring the inner DIY and of course inspiring myself as a student to look beyond a pristine box. Amazing spaces are relatable, and at times the buildings completely strange, with George Clarks enthusiasm is always enlightening. I do think that Gorge Clark does cover a lot of themes during the programme and can sometimes be a little frantic, but at most, it does broaden the mind to new ideas, something to tale forward into my career, how clients can do more with a small budget.

Conclusion

Both programmes are inspiring to me as a student, I do not have a preference to which I prefer as they are in contrast with each other. I would like to see Grand designs could do a series on smaller scale designs and Amazing Spaces could tone down on some of the outrageous ones.

Keeping everything realistic and relatable, and use of more sustainable materials and renewable energy, I would like to see use to improve both programmes.

