

CONTEMPORARY ARCHITECTURE STYLES: EVIDENCE OF ENRICHED SOCIETAL INTELLECTUAL ARCHITECTURE

ESTILOS DE ARQUITETURA CONTEMPORÂNEA: EVIDÊNCIA DE UMA ARQUITETURA INTELLECTUAL SOCIALMENTE ENRIQUECIDA

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Abstract. Contemporary architecture identified by curved lines, rounded forms, unconventional volumes, asymmetry, free-form shapes, open floor plans, large and abundant windows, green roofs and lively walls, integration into the surrounding landscape, integrated smart home technology and integrated customizable LED lighting. Contemporary intellectuals shape public opinion in ways that influence the actions of power holders precisely, building and planning authorities, in the urban set-ups, accepting general vision or specific policies favored by intellectuals. Contemporary architects have the power to have an impact on the physical environment while taking social aspects into consideration. Contemporary architecture communicates goals and identities at the societal level. Society significantly influences structures making the architect very powerful with considerable influence on showing how the structures would have impact on the surroundings creating something from nothing while taking the societal implications into account. They most significantly influence the opinions or actions of those in positions of authority. Government officials compelled to yield to the tide of opinion shaped by them, particularly by the contemporary architects or "public intellectuals". Architecture structures, most precisely contemporary architecture, are always evolving in response to societal intellectual developments. Contemporary architecture was created as a result of architectural evolution influenced by societal demands and preferences. The methodological approach, this research followed, was a thorough study and detailed analysis of the contemporary architecture school of thought exemplified in these eight most renowned ones; Blobitecture, Bionic, Biomorphic, Critical Regionalism, Deconstructivism, Sustainable, Novelty and Warped Architecture affirming the societal intellectuality enrichment of the contemporary architecture structures.

Keywords: Style, Contemporary architecture, Intellectual Architecture, societal intellectuality, school of thought.

Resumo. A arquitetura contemporânea é marcada por linhas curvas, formas arredondadas, volumes pouco convencionais, assimetria, formas livres, plantas abertas, grandes janelas, telhados verdes, paredes vivas, integração ao ambiente natural, tecnologia de casas inteligentes e iluminação LED personalizável. Os intelectuais contemporâneos moldam a opinião pública de maneiras que influenciam ações de autoridades em planejamento e construção, aceitando visões e políticas específicas promovidas por esses intelectuais. Arquitetos contemporâneos têm o poder de influenciar o ambiente físico enquanto consideram aspectos sociais. A arquitetura contemporânea comunica objetivos e identidades no nível social, sendo a sociedade um fator significativo nas estruturas, o que confere aos arquitetos um papel de destaque ao criar projetos que impactam o ambiente e as pessoas. Além disso, a arquitetura contemporânea é uma resposta às demandas e preferências sociais, sendo moldada por uma evolução arquitetônica alinhada aos avanços intelectuais da sociedade. Arquitetos contemporâneos,



frequentemente vistos como "intelectuais públicos", têm grande influência sobre autoridades governamentais, muitas vezes induzindo-as a adotar visões arquitetônicas específicas.

Esta pesquisa seguiu um enfoque metodológico de estudo abrangente e análise detalhada sobre as principais escolas de pensamento da arquitetura contemporânea. Entre as mais reconhecidas estão: *Blobitecture*, *Bionic*, *Biomorphic*, *Critical Regionalism*, *Deconstructivism*, *Sustainable*, *Novelty*, e *Warped Architecture*. Todas essas escolas exemplificam o enriquecimento intelectual e social presente na arquitetura contemporânea, destacando como as estruturas refletem e influenciam o pensamento social.

Palavras-chave: Estilo, Arquitetura contemporânea, Arquitetura intelectual, Intelectualidade social, Escola de pensamento.

Resumen. La arquitectura contemporánea se caracteriza por sus líneas curvas, formas redondeadas, volúmenes poco convencionales, asimetría, formas libres, planos de planta abiertos, ventanas grandes y abundantes, techos verdes y paredes animadas, integración en el paisaje circundante, tecnología de hogar inteligente integrada e iluminación LED personalizable integrada. Los intelectuales contemporáneos moldean la opinión pública de maneras que influyen en las acciones de los que tienen el poder, autoridades de construcción y planificación, en los entornos urbanos, aceptando la visión general as políticas específicas favorecidas por los intelectuales. Los arquitectos contemporáneos tienen el poder de tener un impacto en el entorno físico al tiempo que toman en cuenta los aspectos sociales. La arquitectura contemporánea comunica objetivos e identidades a nivel social. La sociedad influye significativamente en las estructuras, lo que hace que el arquitecto sea muy poderoso con una influencia considerable en mostrar cómo las estructuras tendrían un impacto en el entorno creando algo de la nada al tiempo que toma en cuenta las implicaciones sociales. Influyen de manera más significativa en las opiniones o acciones de quienes ocupan puestos de autoridad. Los funcionarios gubernamentales se ven obligados a ceder a la marea de opinión formada por ellos, particularmente por los arquitectos contemporáneos o "intelectuales públicos". Las estructuras arquitectónicas, más precisamente la arquitectura contemporánea, siempre están evolucionando en respuesta a los desarrollos intelectuales de la sociedad. La arquitectura contemporánea fue creada como resultado de la evolución arquitectónica influenciada por las demandas y preferencias sociales. El enfoque metodológico que siguió esta investigación fue un estudio exhaustivo y un análisis detallado de la escuela de pensamiento de la arquitectura contemporánea ejemplificada en estas ocho más reconocidas: *Blobitecture*, *Bionic*, *Biomorphic*, *Critical Regionalism*, *Deconstructivism*, *Sustainable*, *Novelty* y *Warped Architecture*, afirmando el enriquecimiento intelectual social de las estructuras de la arquitectura contemporánea.

Palabras-clave: Estilo, Arquitetura contemporânea, Arquitetura intelectual, intelectualidade social, escola de pensamento.

1. INTRODUCTION

Style is defined by the Oxford Dictionary as the overall formal appearance of something or the manner in which something is done. The dictionary's definition of the word "fashion," which similarly describes it as the manner something is done or manufactured, is fairly close to this, Hornby (1988). As defined by Hurlburt (1977), Style refers to a specific, recognizable method used in the creation or execution of a work of art. He continues: "A careful distinction is needed between the style arrived at by designers working toward a common objective and the merely fashionable solutions that grow out of imitation."

As was already mentioned, style originates from a particular objective or notion. Both fashion and style are instances of design. As stated by Conway (1994), Styles get their names from architectural details or ornamentation, like the art nouveau movement, historical periods, like the Queen Anne revival style, or geographical areas, like the Indian style. Some trends, like modernism, were well known before they were ever created, but art deco gained its name decades after its peak in popularity. Herbert (1983), affirmed that buildings are categorized



using architectural styles based on their shape, techniques, materials, era, location, and other characteristics.

The study of how architectural history has evolved overlaps with and influences the study of style. For instance, a study of Gothic architecture in the history of architecture would consider every aspect of the cultural context that inspired the design and construction of these structures. Architectural style, which gives rise to terms like Gothic style, is a way of classifying architecture that stresses specific design aspects. In addition to historians, the concept of style in the visual arts, including architecture, is used by anthropologists, sociologists, and philosophers. A major identifying tool for architectural historians is stylistic analysis. There are several publications that focus on particular architectural styles, and the evolution of architectural styles across time is typically depicted in these publications as a sequence of interconnected styles.

Fletcher (1975), in his book *Sir Banister Fletcher's A History of Architecture*, he adopted this strategy. He contrasts the styles, analyses them chronologically, and identifies their unique characteristics. He compares the intricate moldings of ancient Greek and Roman architecture in addition to contrasting the pointed-arched openings of the Gothic style with the round-headed entrances of English medieval cathedrals. A building's style hints that it shares characteristics with other buildings or objects. Not all of the buildings in the group will necessarily have a recognized shape because they may not all share the same defining qualities.

Most of the buildings in the group will have all the components that make up the style, but not all of them. Gothic churches frequently have piers, buttresses, and entrances with pointed arches. Some have curvilinear tracery, while others have plate tracery. Some windows lack tracery and are only lancet. Joining a style frequently just requires a single, complementary physical trait. To put it another way, we cannot say that a building is not Gothic just because it does not include buttresses, or that all buildings with buttresses are Gothic.

Buttresses were utilized in Voysey's home architecture in the late nineteenth century, but his creations are not regarded as gothic. Style is determined by a building's structural or aesthetic features. A style can be identified by its supporting elements, like columns, by its protective elements, such columns that protect openings from the elements, and by its adorning features, like carvings on molding. In other words, while architectural details and decorative accents are characteristics of style, they do not constitute styles in and of themselves. Contemporary architecture describes the architecture that is produced nowadays and as described by Jencks, (1988) considered the most up-to-date architecture, dating from the 1980s until the present. Due to current constraints, contemporary architecture has been forced to keep up with the quick technical advancement in both building materials and design software, which has resulted in the creation of CATIA and other amazing CAD (Computer Aided Design) software.

This research provides an in-depth examination, analysis, and explanation of some of the most popular contemporary architectural design movements, including Blobitecture architecture, Critical regionalism, Deconstructivism, Sustainable architecture, Novelty architecture, and Warped architecture. Deconstructivist architects including Frank Gehry, Peter Eisenman, Bernard Tchumi, Daniel Libeskind, Rem Koolhaas, Zaha Hadid, Coop Himmelblau, and many other up-and-coming contemporary architects had an effect on the most divisive architecture of the day, Deconstructivism architecture. Gipe, (2004) affirmed that Sustainable architecture, sometimes referred to as eco-friendly architecture, green architecture, or the most environmentally sensitive design, has gained great significance as a result of "recent pressing and challenging economic and political issues."

To understand why architects felt driven to design structures that so overtly highlight the value of contemporary architecture as illustrated by sustainable architecture, the theoretical underpinnings of sustainable architecture are also thoroughly investigated. There hasn't been much research done on the most recent designs of contemporary architecture, like Novelty and



Warped architecture. Most of the time, what is found might only be fashion, not style. The manner in which something is made or done is the definition of fashion. Hurlburt (1977) defined style as a certain way a work of art is created or carried out.

He goes on to explain the differences between style and fashion, emphasizing how crucial it is to recognize the difference between the style created by designers working toward a common objective and the purely fashionable solutions that come from copying. At this early stage, these and many other current styles may still be in the trial-and-error phase and not yet mature enough to be tested internationally elsewhere other than being tested in Europe and the United States.

1.2. Designing stylishly with the viewer's aesthetic in mind.

Human beings are mostly visual creatures as affirmed by Hutmacher, (2019). In other words, our primary means of thought, reasoning, and imagination is visual. This has always been the case for architects, who primarily create for the eyes of the beholder, according to Bille and Srensen (2018), who mentioned Finnish architect's significant work "The eyes of the skin: Architecture and the senses" Pallasmaa (1996).

According to Pallasmaa (1994), "Our time's architecture is evolving into the retinal art of the eye". All of architecture has been influenced by the art of the printed image fixed by the camera's rapid eye. Renowned Swiss architect Le Corbusier (1991) furthered his unrepentantly oculo-centric viewpoint by asserting that "one needs to see clearly in order to understand", he as well affirmed that "I exist in life only if I can see." He also stated that "I am, and I remain an impenitent visual, everything is in the visual."

Canadian designer Bruce Mau made the following remarks in reaction to the current circumstance mentioning that "We have permitted sight and sound, two of our sensory realms, to predominate our creative design process. In truth, we develop and create nearly entirely for the visual sense when it comes to the culture of architecture and design". Mau (2018). For instance, according to Felleman and Van Essen (1991), the cortex is used to process more than half of the visual information. While other authors disagree, Eberhard (2007) claims that it is closer to one third.

1.3. Designing for a specific societal context.

The relevance of social theory in design, according to some academics, has just recently become apparent. Some designers have altered their focus away from an aesthetics-only, constrained focus and toward a perspective on the language of design. Semiotics and the application of rhetorical principles to design, while offering useful teaching tools for content analysis, do not look at the context in which design conveys cultural meanings. If we want to see more socially succinct design in the future, strategies must be developed to inspire aspiring designers to push themselves to understand how designers communicate and customers receive cultural and social messages through design. With the use of social design, designers now have additional opportunities to advance society. Designers can become more conscious of the societal meanings they build and reproduce. All designers should inevitably take the "socially responsible design" or designs that respond to the requirements of their society (Grant and Fox, 1992; Beirami et al., 2024).

The client, or beholder, of the designer's or problem-solver's work may range from a single person to the entire society. It has long been recognized that architecture is more than simply a gorgeous façade and contributes considerably to the development of our living environment. Along with civilization, architectural styles evolve to reflect the varying needs and ideals of the community. Today, community development, sustainability, and psychological well-being are just a few of the ways that architecture affects society in addition to its aesthetic benefits. This



essay investigates the substantial impacts of thoughtful architectural design in contemporary settings.

1.4. The Impact of Intellectual Architecture on Society.

Architects have the power to bring about change, find solutions, and have an impact on the physical environment while taking social and psychological aspects into consideration. Intellectual architecture, which also promotes healthy lifestyles and emotional expression, creates welcoming spaces for people to live, work, and connect. Buildings and structures communicate goals and identities at many sizes, from the personal to the societal and cultural. It is hard to overlook the significant influence society has on construction. As a result, the Architect is a very powerful user with considerable influence.

The architect, on the other hand, will be the one to show how the structures would impact on the surroundings. He is the kind of guy who invents something from nothing while taking the psychological and societal implications into account. This bolsters the impression of societal change. Humans are forecasters; as a subtle way of expressing ideas, wishes, and emotions, they build structures to support their activities in places for sleeping, learning, shopping, and relaxing in order to promote healthy living.

Multiple systems have consequently developed at the human, social, and cultural levels. Architectural style is always evolving in response to societal developments. When fresh ideas are produced, outdated structures are replaced with innovative ones. Modern buildings are created as a result of architectural evolution influenced by societal demands and preferences. For instance, while Romanesque architecture may have historical significance, modern dwellings no longer favor this style. This adaptability is a perfect example of how futuristic architecture is. Research backs up the notion that buildings influence society and that society influences buildings.

Numerous widely acknowledged studies have shown how appealing and well-designed buildings contribute to a serene environment that fosters wellbeing. However, poorly designed architecture can cause confusion and pain, which is detrimental to mental health. There are various national initiatives aimed at enhancing quality of life through sustainable and well-integrated urban development now that the power of design is being recognized more and more. Several research findings that have appeared in journals like *World Health Design*, *HERD*, and *Environmental Behavior* support the claim that buildings affect society and vice versa.

In dark places, it can be challenging to visualize buildings with appealing structures. On the other hand, beautiful, long-lasting architecture encourages serenity. It is therefore entirely dependent on architectural design. People are becoming more aware of how powerful structures are. A national construction program has emerged as a result of this realization. Everything in natural cities is entangled with the surrounding natural environment. Contrarily, manufactured cities are built from the ground up to raise the level of living in the area (Branko M, 2013; Honga et al., 2024; Hexmoor & Maghsoudlou, 2024).

1.5. Positive Effects of Intellectual Architectural Design

The architectural style has altered to reflect society's tastes as a result of earlier discoveries and practices. While some designs were just transitory fads, others endured and had an impact on even contemporary architecture. People respond favorably to architectural designs because they stand for harmony and order. The ability to see patterns and make predictions was essential to the survival of our ancestors, and these innate cognitive capacities continue to influence us now. Architecture that has been carefully constructed and incorporates logical patterns and natural elements can produce secure and pleasurable emotional responses. Contrary to common



perception, poor architectural design has no detrimental impacts that improve subsequent constructions.

Throughout history, there have been examples of subpar architecture that flouted accepted norms of function, aesthetics, and form. Rapid post-war urban growth led to the proliferation of quickly constructed, unattractive buildings. These structures failed to prioritize the welfare of their occupants because of their reckless design decisions, inefficient use of available space, and lack of aesthetic appeal. Such environments are stressful and uncomfortable, highlighting the negative effects of poor architectural design on mental health. There was a time when the traditionally taught qualities of architecture form, usefulness, and aesthetics were neglected in favor of changing the surroundings, available materials, and craft skills, even though the psychological benefits of attractive structures are now well documented. With more individuals having children after World War II, there was an increase in the need for housing and utilities.

Consequently, there was a rise in the demand for effective and speedy building. Due to the era's limited technology, smaller homes with an emphasis on form, function, and craftsmanship were created. Low-rise housing that was badly planned in terms of the layout of the floors, the utilization of available space, and the aesthetics of the design resulted from the proliferation of tiny, decaying homes due to a lack of resources in the 1950s.

To build a better future, today's architects are more conscious of the psychological implications of design. Environments could be created to encourage happiness and wellbeing by combining this knowledge with cutting-edge construction methods. Architectural settings that are diverse and fascinating inspire creativity and innovation, while monotonous and ugly structures can induce anxiety and discontent. Careful design principles could be used to create environments that support both physical and mental wellness (Branko M, 2013; Sabioni et al., 2022; Agusmidah, & Shalihah, 2023).

1.6. Contemporary architecture as an example of Intellectual Architecture

Contemporary refers to the maximum level of general progress, as of a gadget, technique, or scientific subject, as reached at a specific moment. It is often referred to as "up to date," "high tech," "cutting edge," "leading edge," or "latest." Also used to describe the degree of development attained at any given moment as a result of the typical procedures in use at the time for any product created using the best and most recent technologies.

Antarikananda et al. (2006) claimed that contemporary architecture serves as an illustration of globalism. Eliminating regional traditions from a population that has no distinct identity and no cultural heritage is what is meant by internationalism. The architecture that is created nowadays is referred to as contemporary architecture. As defined by Jencks, (1988). The architecture created in the most recent decades, from the 1980s to the present, is referred to as contemporary architecture. Due to the modern obstacles, contemporary architecture has had to keep up with the rapid technological innovation in both building materials and design software, which has led to the development of CATIA and other incredible CAD (Computer Aided Design) software.

It also refers to a variety of modern building designs that frequently differ greatly from one another and occasionally from everything that has gone before. Owing to the numerous advancements in building materials and methods that have enabled contemporary architecture in all of its countless variations to become a reality. The word "Starchitect" appears to have been coined in the 1940s to refer to a movie star who had created a home, but in recent years, it has come to refer to an architect who has achieved celebrity status in popular culture.

Daniel Burnham and Louis Sullivan both may have been regarded as star architects. Starchitects, as those who design the contemporary architecture structures, are typically linked to a distinctive aesthetic or method of building, and everyone who works for them is expected



to follow this aesthetic or building methods as in the case of contemporary architecture. O'Brien, (2019). Its "Starchitects" are renowned for designing ambitious large-scale buildings that are incredibly expressive and portrayed in unusual, perhaps gravity-defying shapes that change the landscape in different parts of the world. Instead of being characterized by a particular style, contemporary architecture is unified by the need to be unorthodox and to depart from the past by using creativity, innovation and imagination rather than copying earlier designs.

Modern architects are no longer restricted to using linear designs because they have access to a variety of cutting-edge building materials and techniques. This includes the capacity to create curves using computer software, or to use 3D printing and laser cutting to construct forms that are more difficult, precise, and unheard-of. With the use of natural and recycled materials as well as attention to environmentally responsible water and temperature control building systems that are ever more seamlessly integrated and addressed, sustainability is a key component of contemporary design. This is crucial in view of the urgent climate change situation that is partly due to the environmental harm that buildings inflict.

2. CONTEMPORARY ARCHITECTURE

2.1. Principal Features of Contemporary Architecture

Contemporary architecture is a free-for-all, with some key elements that might help to identify a contemporary building such as the Curved lines, the Rounded forms, the Unconventional Volumes, the Asymmetry, the Free-form shapes, the Open floor plans, the Large and the Abundant windows, the Green roofs and the living walls, the Integration into the surrounding landscape, the Integrated smart home technology and the eleventh is the Integrated customizable LED lighting. It may be challenging to define contemporary architecture because it is commonly referred to as "Modern." This is most likely due to the fact that modern, a two-syllable word that precisely replaces the five-syllable word contemporary (Qurix and Sagada 2022).

2.2. Societal intellectuality

Intellectuality is the ability to learn and understand or to deal with problems or to solve problems, Hornby (1988). The term "intellectuals" designates a type of workers, including writers, academics, and others, whose primary focus is on ideas and problem solving. The fundamental characteristic of an intellectual is one who deals in ideas, not one who applies ideas personally, such as architects who use intricate scientific principles to construct physical buildings.

Ideas are where an intellectual starts and concludes their work. Intellectuals involved in contemporary architecture, like philosopher Jacques Derrida, Greg Lynch, Gro Harlem Brundtland, Charles Jencks, Robert Venturi, and Denise Scott Brown, have had a significant impact on tangible objects under different ownership. As such, the concepts of these intellectuals serve as not only the foundation for the intellectual's role but also serve as the standard for intellectual accomplishment and the basis of the profession's frequently seductive qualities.

Contemporary intellectuals have shaped public opinion in ways that influence the actions of power holders in their societies, regardless of whether those power holders, building and planning authorities, in the case of architecture, accept the general vision or the specific policies favored by intellectuals or not. This is how they have most significantly influenced the course of events, rather than by influencing the opinions or actions of those in positions of authority. Government officials who harboured hatred or disdain for intellectuals were compelled to yield



to the tide of opinion shaped by them, particularly by the "public intellectuals". Conversely, that doesn't happen with "pseudo-intellectuals" (Sowell 2009).

In addition to examining intellectuals' past advocacy work, intellectuals and society also look at the conditions and forces that gave rise to their ideas and perspectives. One of the most astounding things about intellectuals is how perceptive they are in identifying and addressing societal injustices, and how adaptable their opinions can be when faced with empirical data supporting their claims about social evils.

2.3. Contemporary Architecture schools of thoughts

A "school of thought" or "intellectual tradition" is defined as the viewpoint of a collection of individuals who have similar opinions or perspectives regarding a discipline, philosophy, economics, social movement, art movement, or economics and psychology. The word is used to characterize people who have similar ideas or who concentrate on a single topic. In philosophical architecture, it is customary to distinguish between "classical" and "modern" schools of thought.

A group of individuals committed to architectural design and spatial planning exchange ideas and novel approaches regarding methods of knowledge creation and knowledge transfer, which are reflected in architectural urbanism as evidence of societal intellectualism. This is known as the "Contemporary Schools of Thought." A paradigm change typically includes this dichotomy.

Classical schools of thought derive their names from the external appearance of buildings constructed in a particular style. These styles can be based on historical periods as the Queen Anne revival style or geographical areas as the Indian style, which spans from pre-historic architecture to pre-modern.

In contrast to contemporary architecture, which emerged from schools of thought rooted in societal intellectualism, modern and post-modern architecture produced a variety of movements, such as Art Deco, and schools, such as the Chicago school of architecture, based on their fashionable exterior appearance. (Kaps, et al., 2017). Exemplars of the enriched societal intellectuality of the most renowned contemporary architecture schools of thoughts are Blobitecture, Bionic, Biomorphic, Critical Regionalism, Deconstructivism, Sustainable, Novelty and Warped Architecture.

2.4. Blobitecture architecture as an exemplar of the enriched societal intellectuality of contemporary architecture

Architect Greg Lynn coined the phrase "Blob architecture" in 1995 when he began experimenting with digital design using graphic meatball software. The term "Blobitecture" refers to a structure that have spherical, curving shapes that are supposed to resemble amoebas. Elsayed M., et al (2022).

The CAD software program Digital Project was created by Gehry Technologies, a technology business owned by the architect Frank Gehry, and is based on CATIA V5. Blobitecture is also known as blobism or blobismus, from which the word "blob" was derived. In the mid-nineties, Blobitecture was a vague phrase. For ANY Magazine, Greg Lynn, an architect, authored an article titled "Blobs, or Why Tectonics is Square and Topology is Groovy" in 1995. In 2002, Blobs reappears in the column of author and critic William Safire of the New York Times Magazine under the heading "On language," where he makes a harsh remark in an essay titled "Defenestration."

If blobitecture is viewed from a formal rather than a technological perspective, it is considered to have originated with Antoni Gaudi's organic designs in Barcelona. Few people believe that Blob architecture started with computer software, despite some critics drawing



comparisons between it and curved or strange-looking buildings like Frank Gehry's Guggenheim Museum. The distinctive chimneypots were erected in 1905 on the roof of Antoni Gaudi's La Pedrera (Casa Mila) in Barcelona.

An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Fresh Water Pavilion's where architecture, lighting, projected pictures, water, and music all work together to create a unique, immersive experience. It is possible for two visitors to the building to have entirely different experiences, and for a subsequent return to the Water Pavilion to yield still another set of outcomes.

The electrical interactivity is based on the notion that the system would react both globally and locally. It would react to inactive visitors just as much as it would to highly engaged ones. Three interactive processes are sound, light movement over the central curve, and wireframe projections, all work at the same time. Six wire-frame projections in all four ripples, one blob, and one wave are present. Visitors can trigger the wave by just walking past the infrared sensors that are invisible, the ripples by placing groups of touch sensors, and the blob, which is a game for four players each with a pulling sensor of their own. The wire frames are affected instantly and in real time by all of these manual operations; waves in line or circle patterns are conveyed via the mesh. It's not a movie; instead, the ripples are computed waves that change in real time based on the visitor's manipulation of the sensor. The Fresh Water Pavilion, the first blobitecture structure entirely created using computer generation, was constructed in 1993 by Lars Spuybroek of Nox Architects in Vrouwenpolder, The Netherlands.

The water pavilion is a particularly unique structure for a variety of reasons. It was the first completely topological construction in which there is no horizontal part and curvature extends to the floors as well as the walls and roof. Additionally, the water pavilion was the first completely interactive setting where guests may alter the interior's lighting and audio via a variety of sensors, Spuybreak (2004), figure (1).



Figure 1. The water pavilion was the first completely interactive setting where guests may alter the interior's lighting and audio via a variety of sensors

2.5. Bionic architecture as an exemplar of the enriched societal intellectuality of contemporary architecture

The outdoors was undoubtedly the first formal and structural inspiration for architecture. The study of animal species' internal workings and systems is known as "bionics" in science. "Translating technologies into life-forms" is the purpose of the term "bionics," which is derived from the Greek terms "bios," which means life, and "technics," which means study. It is the study of systems with a biological foundation. J.S. Lebedev's book "Architecture and Bionic" from 1983 developed the thesis that bionic architecture offers "perfect protection" by mimicking the survival mechanisms of biological things, hence eliminating many problems associated with building and design. The Central Research and Experimental Design Laboratory of Architectural Bionics, which later became the main hub for bionic architecture research in the Soviet Union and other socialist nations, was greatly influenced by the

emergence of a new field of study and practice in architecture known as architectural bionics in the late 1980s.

More effective and ecologically friendly building designs are produced by utilizing renewable energy sources like sun, wind, and hydropower along with natural resources like wood, soil, and minerals. Basic characteristics of bionics were described in Janine Benyus' 1997 book "Biomimicry: Innovation Inspired by Nature" as being solar-powered, self-sufficient, combining form and function, beautiful, sustainable, and sustainable. Architects, who possess a deep comprehension of the intricate relationships of form, material, and structure, will employ advanced artificial materials and technologies to make sure that the building's design contributes to a more sustainable environment.

Because of these effects, bionic architecture was able to create landscapes that facilitate a peaceful coexistence of nature and society, thereby bringing humanity back to its anthropocentric surroundings. The physiological, behavioural, and structural adaptations of living creatures serve as inspiration for bionic architects as they design and construct expressive buildings. started to develop in the first ten years of the twenty-first century as a result of society's growing concerns about global warming and climate change. Because the movement wasn't completely evolved until the early 21st century, early designs prioritized study over use.

Developing a building strategy that was driven by both financial and aesthetic considerations was one of the objectives that the movement's early pioneers set for themselves. Through the utilization of renewable resources, bionic architecture primarily supports a more sustainable way of life. It has been heavily criticized for being difficult to maintain due to its technical complexity, but it also allows for higher cost savings due to increased energy efficiency.

An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Seattle headquarters of Amazon. The online giant Amazon built a headquarters that resembles a rainforest to provide its employees a new environment, figure (2). The so-called spheres are composed of three interconnected glass domes. The NBBJ architecture group created 2018, which has a greenhouse-like appearance compared to a typical office. The three glass spheres were made with 620 tons of steel. The building's open-plan interior space is home to roughly 40,000 plants representing 400 different plant varieties. Instead of using closed conference rooms or tables, staff members use their seats and walkways to visit unconventional meeting locations known as "tree houses". These fascinating realms are open to the public year-round.

The corporate community in the city, a few unions, and the adjacent public housing complex, where some residents were optimistic that the project would create jobs, were among the company's other supporters. Two surveys revealed widespread support in the state and city. The corporation is investing billions of dollars and creating 50,000 well-paying jobs in a neighbourhood that will be on par with its home base of Seattle. With over 200 towns submitting bids, the corporation caused a nationwide frenzy when its hiring goals in the Pacific Northwest could no longer keep up with its appetite.

The business still intends to grow, especially in the areas of web services, fashion, and advertising. Amazon divided its headquarters into two locations after determining that no single city could supply the quantity of tech staff it required. The business has a history of accepting temporary suffering in return for continued long-term leverage. As Amazon expanded to become the largest employer in Seattle, ties between the company and government leaders deteriorated. A moonshot released by Amazon in 2019 that has the company's founder, Jeff Bezos, standing atop Amazon Sphere bears striking similarities to the famous Man on the Moon photograph from 1969, Goodman, (2019) and Jeff Jamawat (2019), figure (2).



Figure 2. The online giant Amazon built a headquarters that resembles a rainforest to provide its employees a new environment besides the Amazon's moonshot.

2.6. Biomorphic architecture as an exemplar of the enriched societal intellectuality of contemporary architecture

An architectural technique known as "biophilic design" aims to bring building occupants closer to the natural world. Natural lighting, ventilation, natural landscape elements, and other components are included into biophilically designed buildings to make the built environment for humans healthier and more productive. Biomorphic shapes or ornamental items are inspired by, or bear resemblance to, living things, particularly humans. The three guiding concepts of biomorphic architecture are sustainability, forms, and the utilization of materials and structures.

The visually striking shape, structure, and systems of biomorphic architecture are reminiscent of naturally occurring biological systems. Local materials and supporting materials are used, and light is used as a form structure to reduce the issues with sustainability in building worldwide. Metaphor and biomorphic issue-based ecology have a similar approach to the design process, which serves as the foundation for analysing other related forms.

First, form: the final shape created for Sea World's design based on this topic is shaped like life in the natural world. It can be created by comparing or contrasting natural forms, either the original form or forms derived from a system of natural life that has changed or moved. Because nature is not just an example of form but also of how natural principles may be learnt and used to architectural design, the advancement of digital technology can help architects create complicated shapes.

Second, Materials and Structures: The building and material systems that are appropriate for a given era are always intimately tied to the form and style of architecture. Engineers are given a tremendous opportunity by scientific advancement and educational techniques, whereby the construction is rarely confined again in a wide range of diverse structures in a variety of new Sustainable building materials.

Thirdly: Architectural Principles: Biomorphic design offers the advantages of energy economy and the notion of environmental responsibility, which benefits the structure and the environment for the foreseeable future. This ecological awareness helps to create environmentally friendly architecture that is not only aesthetically pleasing but also demonstrates the sustainability of such nature.

An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Butterfly Pavilion, created by the German design firm 3deluxe. Imagining a captivating

biomorphic Butterfly Pavilion or Butterfly House on Noor Island, a lagoon island in the Arab Emirate of Sharjah, is A Biomorphic Shell Weaved, figure (3).

The minute features that trail a butterfly in a configuration like crystal and covered in a dazzling gold adornment. More than 500 different species of butterflies live in the residence in a special environment. The biomorphic exterior shell, embellished with traditional Arabian ornamentation, tortuously entwines a formal investigation of parametric principles and design methodologies. The curved load-bearing 3D framed roof is knitted with 4,000 golden Aluminium leaves in a multifaceted integration of technology, nature, light, and shadow to dwell on the contemporary structure with complex spatial experience enclosing rare vegetation and enabling residents to explore their city with intellectual and emotional balance. Reminiscent of a tree trunk tapering upward and branching out, the entire building is supported by nine points and three pillars.

The LED lighting emphasizes the meditative nature of the island by creating a magical theatrical experience with smooth, flowing, preprogrammed light patterns that evoke swarming, motion, and butterflies. The pavilion is covered in a durable high-gloss gold paint that can withstand the seaside setting. Beneath the Butterfly Pavilion, in a glass cube, is an artificial rainforest biotope populated by an endless number of butterflies kept within a climate-sealed skin. A spiritual tone is defined by the lush tropical canopy cast by natural light, and vistas both within and outside the building are provided by the naturally curved skylights. Here, kids can discover the amazing transformation of a fuzzy caterpillar into a serene chrysalis and finally an avian marvel—a marvel and a cycle of life and creation that is visible to everybody.

At its most creative. Famous sculptors and artists have produced stunning works of art that interact with the island's surroundings through reflection, light, movement, or concept. The Butterfly Pavilion is designed to resemble a stylized Bedouin tent with floor seating. Tiny lights flicker on the carved ceiling in the nights. They give guests a different experience and mood as they flash like abstract stars. The importance of this pavilion in society, highlighting its functions in nature and how its presence in the environment can affect the quality of life in the preservation and the reproduction of some species, thus bringing butterflies closer to society, integrating the butterfly gardens to nature, to rivers and lakes and to man, figure (3).

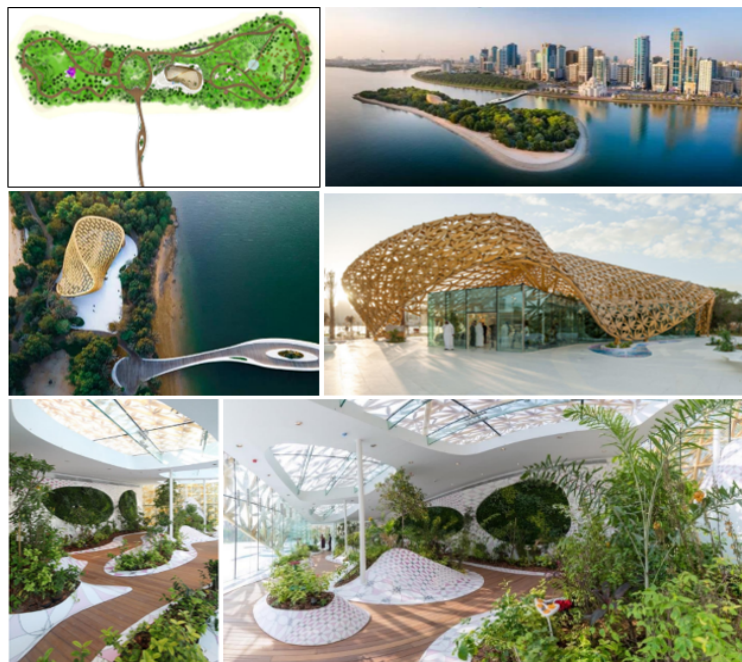


Figure 3. Butterfly Pavilion or Butterfly House on Noor Island, a lagoon island in the capital of the Arab Emirate Sharjah.

2.7. Critical Regionalism as an exemplar of contemporary architecture

The idea that local or amateur builders create their own architecture gave rise to the critical regionalism movement. Bernard Rudofsky organized the exhibition "Architecture without Architects" at the Museum of Modern Art in New York in 1964. The term "vernacular" was originally used in a book by Bernard Rudofsky titled "Architecture without Architects." From this point forward, "Architecture without Architects" can be divided into the following five categories: first, Vernacular Architecture. Oliver, (1971) defined Vernacular architecture as "The architecture of the people, and by the people, but not for the people". Frank Lloyd Wright described Vernacular architecture as "Folk building growing in response to actual needs, fitted into environment by people who knew no better than to fit them with native feeling".

There are two types of Vernacular Architecture, a type that is not for the people and another that is built based on the language. Exemplars of the Vernacular Architecture, that is not for the people are the Airif Castle, Hail, Almasmak fortress or Palace, Adiriya, Riyadh, Mahdi tomb, Omdurman, Sudan, clay Obos of the Musgum people in Pouss, Cameroon, Rijal Alma, Albaha, Trulli village, Alberabello, Italy. Exemplars of the Vernacular Architecture built based on the language notion are the South Egypt and North Sudan Nubian rammed earth houses, the Hausa architecture rammed earth houses, and the Arabic language speaking tents made of wool, interwoven dried palm leaves or fondants mats and canvas. Exemplars of the Indigenous Architecture built based on the localized building materials and environmental harmony notion are the Asir region coral reef architecture, Saudi Arabia, stone architecture, deserted farm building, France, Wooden architecture, Finland, Straw-Thatched Roof, Ukraine, thatch roof, Japan, Bamboo buildings in Indonesia, Bali and Ethiopia plated bamboo. Second, Folk Architecture. Folk, the form of a language that a regional or other group of speakers use naturally, especially in informal situations. Buildings by people of the same language referred to as Folk Architecture.

Folk architecture is the same as the Vernacular Architecture that is built based on the language notion. Third, Indigenous Architecture. An indigen is naturally existing in a place or country rather than arriving from another place, meaning to say, is not alien. Indigenous Architecture is the one produced in a place or country rather than arriving from another place, meaning to say, is not alien. Fourth, Traditional Architecture. Tradition, which has persisted for a very long period without altering, is more closely associated with the culture and way of life of the majority or the elites. Traditional Architecture associated with the same attributes of people such traditional cultures. Fifth, Popular Architecture. According to Paul Oliver, in his book *Dwellings*, stating that "... it is contended that popular architecture designed by professional architects or commercial builders for popular use, does not come within the compass of the vernacular".

Professionally planned architecture is distinct from vernacular architecture. It refers to building techniques that meet local demands by utilizing resources that are readily available locally. Rather than being computed using knowledge of geometry and physics, it is often passed down through the generations through trial and error and evolves over time to reflect the environmental, cultural, and historical context in which it exists, Oliver, (2003) [29]. Exemplars of popular architecture are Souq Waqif, popular market, Doha, Qatar, PULI, TAIWAN, temple, a popular Buddhist temple, Qianmen Street, a famous part of Beijing which dates back to the Ming and Qing Dynasties, Barzan popular market, Hail, various famous Saudi popular gathering and celebration places as the Jeddah old market, Almosaukaf popular market and Adiriya, the birthplace of Saudi Arabia, has been inscribed on UNESCO's World Heritage List as a site of "outstanding universal value.", Deera Square or Chop-Chop Square is a former beheading place in the centre of Riyadh, Saudi Arabia is a good exemplar of popular gathering place for the people of Riyadh.



Drawing from the work "Architecture without Architects" by Bernard Rudofsky, which was displayed in 1964 at the Museum of Modern Art in New York, (Rudofsky, 1964); Cob, adobe or Sun-dried bricks, wattle and daub, stabilized earth and rammed earth in bricks and blocks forms are the five building construction techniques used by local builders or the non-professional builders. A region is an area or division, especially part of a country or the world having definable characteristics but not always fixed boundaries. If considered as part of a country then should have the same environmental and socio-cultural values, but if considered part of the world may have some of these values.

By employing power that both formularizes and takes into consideration the place and meaning of architecture, the Critical Regionalism movement makes use of the geographical context of the buildings and does its utmost to combat the placelessness and lack of meaning of modern architecture. Its architecture serves as a vehicle for expressing local identity. The study of a particular place or region's features is known as regionalism. There are numerous ways to characterize these traits, some of which are political, social, cultural, and geographic. Its theoretical foundation was developed in the works of Norwegian architect Christian Norberg-Schulz, including "Intentions in Architecture" (1963) and "Genius Loci-Towards a Phenomenology of Architecture" (1980), as well as in Kenneth Frampton's essay "Towards a critical-regional" (1983) and Thomas Thiis-Evensen's book "Archetypes in Architecture" (1987). Its philosophical roots are in the phenomenology of Edmund Husserl, which was developed by French theorist Paul et al., (2010).

Paul Ricour's concern, "How to be modern and to continue the tradition, how to revive an old dormant civilization as part of universal civilization," is what critical regionalism aims to address. In order to facilitate communication between modernism and regionalism, critical regionalism is viewed as a "reformed modernism" that is present in nations that are regarded as autonomous regions. A strong sense of critical self-consciousness toward vernacular architecture serves as a catalyst for the development of critical regionalism in architecture, which is a result of unique local awareness. Critical regionalism is an architectural movement that opposes both the whimsical individualism and ornamentation of Postmodern architecture as well as the placelessness and lack of identity of the International Style. Kenneth Frampton, a critic, is the most well-known supporter of that, followed by Alexander Tzonis and Liane Lefaivre. The movement's lobbying started in 1983, Vincent B., (2007).

According to Frampton, modern architecture should be critically embraced by critical regionalism due to its universally progressive attributes, but the building's geographic setting should also be valued. According to Frampton, geography, climate, and light should be highlighted. Brick and other conventional building materials are utilized. Brick is cellular by nature. To provide a dynamic and lively surface condition, the bricks were even placed marginally off-line, Kenneth (1983).

Government meetings, official dinners, and cultural events are held in Tuwaiq Palace. OHO Joint Venture, a group made up of Frei Otto, Buro Happold, and Omrania, constructed it in 1985 in Riyadh. Originally planned as a recreational area for embassy staff members and their international visitors, akin to a diplomatic club. The magnificent Tuwaiq Palace was constructed using woven fibre cloth (PTFE) coated in Teflon to create canopies that would reflect summertime sun glare. Covered in sand-coloured limestone, the structure acts as a protective wall, stifling the rich vegetation of the spacious inner courtyard.

The unusual Frei Otto tent structures nestle up against the structure to serve as sun protection and roofing, creating an ambiance reminiscent of an oasis with a hint of a Bedouin camp. An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Tuwaiq Palace, encompassing all the five Architecture without Architects' buildings: Vernacular, Indigenous, Folk, Traditional architecture and popular architecture, figure (5), (Wieringa and Attia, 2005).



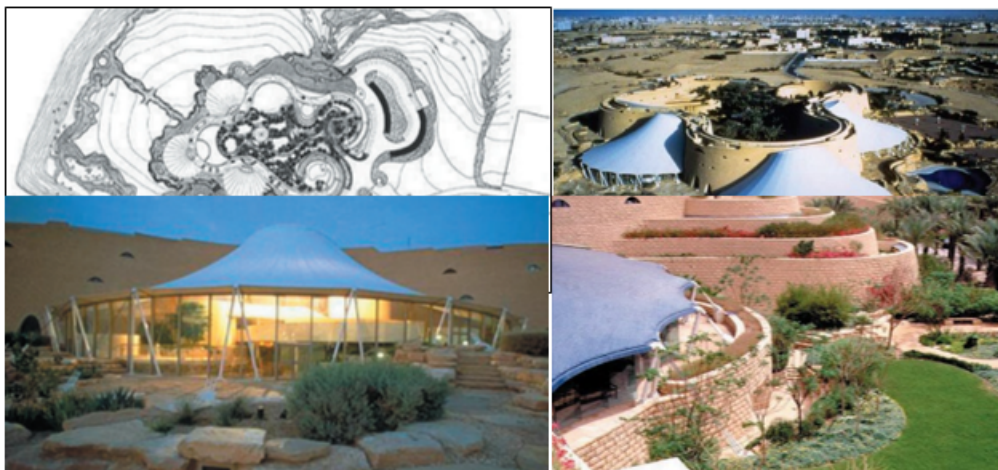


Figure 5. The Tuwaiq Palace, encompassing all the five Architecture without Architects' buildings: Vernacular, Indigenous, Folk, Traditional architecture, and popular architecture.

2.8. Deconstructivism as an exemplar of the enriched societal intellectuality of contemporary architecture

The concept of deconstructivism was first introduced in 1980 by the French philosopher Jacques Derrida. In order to create structures with enormous volumes and distorted architectural components, architects relied on the structural treatment of surfaces as well as the adoption of forms and shapes without linear boundaries. An intellectual revolution seeking novelties in architecture emerged as a result of the monotony and weariness of many repeating building styles.

The only people who could mine pearls from the oceans of ancient architecture that contain a wealth of valuable and rich ideas were architects and gumption intellectuals, (Ibrahim 2016). Tatlin's Tower, also called the Monument to the Third International, was created in 1919 by Russian architect and artist Vladimir Tatlin in the wake of the 1917 October Revolution. This ground-breaking design began as a model and in sketches. A fresh form of art that vehemently disapproved of the past in favour of a brand-new universe that would exclusively focus on the future. It was dubbed constructivism at some point. There would be three glass units in the steel frame: a cube, a cylinder, and a cone.

These had a conference hall, a legislative chamber, and an information and propaganda hub for the Third Communist International, popularly known as the Comintern. They would alternate annually, monthly, and daily, respectively. In front of a model of his unfinished Monument to the Third International, Tatlin is accompanied by an assistant. The Monument was supposed to contain more office space as well as a telegraph office. It was a 400 million-tall wooden replica of St. Petersburg, Russia, following the 1917 Bolshevik Revolution.

Many artists, designers, sculptors, and architects were inspired by the Third Communist worldwide to create works that were displayed in worldwide galleries. Iron, glass, and steel were to be the industrial materials used in the construction of Tatlin's constructivist tower. It was intended to be a 450-foot-tall, towering emblem of modernity in terms of materials, shape, and function. It would have been much larger than Paris's Eiffel Tower. The primary shape of the tower was a dual helix that spiralled to a height of 400 meters.

Using a variety of mechanical tools, guests would be moved around this structure. There would be four sizable suspended geometric structures in the primary framework. The speeds at which these structures rotated would vary. One year would see a full revolution of the cube at the base of the structure, which was intended to serve as a location for conferences, seminars, and legislative sessions. There would be a smaller pyramid above the cube that would house

executive activity and rotate once a month. Upstairs would be a cylinder that would eventually contain an information centre that would rotate once a day, providing news updates and manifestos via radio, telegraph, and loudspeaker. There would be a radio equipment hemisphere on top.

On top of the cylinder, plans called for the installation of a massive outdoor screen and a second projector that could send messages through the clouds on any cloudy day. Its purpose was to evoke memories of the Tower of Babel dream. Tatlin desired that this expressive structure be used by all nations. Regrettably, this structure was built from cigarette packets and empty tins to demonstrate how mass movement dynamics may be combined with building.

Deconstructivism also expresses the vain and unattainable attempt to generate an incalculable emotion that typifies the current Globalization. The building's function is maintained despite the lack of geometric proportions and unusual shapes that lack symmetry or consistency. All design principles are broken. a deconstruction-influenced architectural movement or style that prioritizes radical form flexibility and the transparent display of building complexity over rigorous adherence to functional requirements and traditional design components like grids and straight angles.

Surface manipulation, fragmentation, and non-rectilinear shapes are its defining characteristics. Developed to counter the ordered rationality of modernism, it is philosophized as "architecture is a language capable of communicating meaning and of receiving treatments by methods of linguistic philosophy." These characteristics distort and dislocate architectural conventions concerning structure and envelope. Its non-linear design and disobedience to symmetrical shapes encouraged the construction of structures with distinctive external features. This movement is marked by fragmented angles and an unbalanced feeling, as if the structure is about to collapse. It is non-systematic and unconventional in style.

The surface of a structure is manipulated in order to further fracture and distort it into a controlled chaos that is unpredictable. Applying geometry to a building's unique features, structure, and function can result in something intricate, thought-provoking, and that emphasizes tension within the design. finishing a rotation on a monthly basis. An information centre was to be located further up in a cylinder. It would rotate once a day and provide news updates and manifestos by radio, telegraph, and loudspeaker. There would be a hemisphere for radio equipment at the top.

Twenty basic flexible office space units are connected based on the demands of the market. Broadcasting telegraph, radio, and loudspeaker news updates and manifestos; this would be done once a day in rotation. On top of the cylinder, a massive outdoor screen, and an additional projector with the ability to cast There is a distinct entrance for each apartment. Perfection in the definition of an "independent office villa" is the building with its view of the shore of the Red Sea. The outcome is a fan-shaped mass that has been sculpted by lane in terms of morphology. Architecture that deconstructs and dislocates architectural standards about structure and envelope is typified by surface manipulation, fragmentation, and non-rectilinear geometries. Disconnected angles, an imbalanced look, and the impression that the entire structure might topple down because of its disconnected construction are characteristics of deconstructivism.

The first formal admission of Deconstructivist architecture is not just an "ism". But neither is it simply seven independent architects and different architects moving in different directions. Johnson and Wigley 1988). Deconstructivist architecture came from an exhibition held in 1988 in New York at the Museum of Modern Art (MoMA). Seven architects' projects were on show in that exhibition. Frank Gehry, Peter Eisenman, Daniel Libeskind, Bernard Tchumi, Rem Koolhaas, Zaha Hadid, and Coop Himmelblau were among the well-known architects who came after them. The collaboration being discussed here is between Helmut Swiczinsky and Michael Holzer, the founders of the company Wolf Prix.



In German, the terms Himmel and blau denote sky or heaven and blue and building, respectively. Therefore, the phrase Coop Himmelb(l)au might imply Sky Building Cooperative and Coop Himmelbau could represent Sky Heaven Cooperative. These architects were drawn together by the Museum of Modern Art's 1988 exhibition "Deconstructivist Architecture," despite the fact that they reject the term even though it is frequently applied to their work.

The Monument to the Third International by Vladimir Tatlin served as the inspiration for the structural and mechanical Constructivism notion that architects of the eighteenth century used in their designs. Tatlin's building served as the model for many subsequent works that used inexpensive, straightforward structural components that were either tightly fastened or not.

This new wave of architecture carries on the ideals of postmodernism. While Deconstructivism architects called for disturbed perfection, buildings that are partially scattered and expressed to come out with vivid architectonic reflecting the random social directions, Post Modernism architects demanded perfection in their architectural works. Tatlin's building reflected this latter idea. Deconstructivism is also a way of expressing the vain and unachievable attempt to generate an innumerable sense that defines the modern global village or globalization.

Post-modernism began to give way to "post-post-modernism," or Deconstructivism, in the late 1980s. post-modernism is the rebirth of the past, whereas deconstructivist architects "explode" the building and its components to create an unorthodox, non-systematic style. Disconnected angles, an imbalanced look, and the impression that the entire structure might topple down because of its disconnected construction are characteristics of deconstructivism. The intellectual revolution that sought out anything novel in architecture emerged as a result of the monotony and weariness of repeating building shapes. The power to harvest pearls from the oceans of ancient architecture that constitute rich and valuable concepts is possessed only by architecture's gumptious thinkers.

Deconstructivism, which became well-known in the eighties due to its quick development, could never be comprehended without a connection to the twentieth modernism of the nineteenth century. This is especially true when examining Vladimir Tatlin's 1919 Monument to the Third International. The theory of deconstructivism in philosophy states that it involves closely examining texts to show that they include meanings that are irreconcilably contradictory rather than being a coherent, logical whole. Architecture, according to French philosopher Jacques Derrida, "is nothing but one of many ways of communication." An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Ten themed gardens at Parc de la Villette are a popular destination for park visitors. The park hosts exhibitions and concerts by regional musicians and artists, serving as a modern melting pot of cultural expression. The Parc de la Villette, which spans 55.5 hectares (137 acres) and is situated on the northeastern fringe of Paris, is the third-largest park in the city. It was built mostly for decorative purposes between 1984 and 1987.

The park was created by French architect Bernard Tschumi, who is of Swiss descent. While preparing his design concept, Tschumi sought the advice of deconstructionist philosopher Jacques Derrida. Since the park's creation, museums, concert halls, and theatres have been designed by a number of renowned contemporary architects, including Christian de Portzamparc, Adrien Fainsilber, Philippe Chaix, Jean-Paul Morel, Gérard Chamayou, and Mr. Tschumi. In reference to issues that had an impact on society, like economic disability, which was represented by a tumbling, unbalanced form that was thought to be a continuation of Russian Bolshevism ideas.

Tschumi's park plan was an idealistic and deconstructivist tactic that had never been implemented to this extent before. He wanted users to the site to feel free and inspired to explore. He scattered ten themed gardens with meandering corridors to promote exploration through serendipitous meetings. Every garden encourages a variety of activities, such as play



and meditation. Two perpendicular pathways raise visitors into the tree line, providing access to various regions of the property.

Tschumi organized the space by placing 35 distinct places, or follies, in a grid that guests can use to find their way around the park. 85 acres of land have been set aside for open space in order to preserve the feeling of solitude that Parisians experience from the metropolis. The orientation matrix seems to be the product of the deconstructivist design. The follies are based on Derrida's philosophy, according to which there are so many possible interpretations that the follies themselves have no real meaning. People do react to the park, though. Most of them either love it or hate it, but they don't understand it. I don't mind if anything is a little too easy to understand. I think it should be a reflection of their questions. This attracts almost every visitor and resurrects the deconstructivist idea of embracing ambiguity. Parc de la Villette boasts activities that appeal to people of all ages and cultural backgrounds, figure (6). (Brown 2014).



Figure 6. Parc de la Villette boasts activities that appeal to people of all ages and cultural backgrounds

2.9. Sustainable architecture as an exemplar of the enriched societal intellectuality of contemporary architecture

Sustainable development, according to Gro Harlem Brundtland (1987), is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." The following six indicators and measurements have been used at the national level to inform the development of the sustainable properties assessment methodologies: Building Research comes first. In the UK, the establishment of the Building Environmental Assessment Method (BREEAM).

Second are the sustainability rating system Green Star (GS) in Australia and Leadership in Energy and Environmental Design (LEED) in the United States. The third system is Japan's Comprehensive Assessment System for Built Environment Efficiency (CASBEE). The fourth is France's High Quality Environmental Standard (HQE). Fifth, the ITACA protocol, which governs the Italian Conference of Regions and Autonomous Provinces. Sixth, the Canadian Building Performance Assessment System (SBTool).

The efficacy of BREEAM and LEED has been demonstrated through extensive global implementation. Buildings can be sized up in a variety of ways, such as by comparing architectural styles, measuring their height, or analysing their history. However, in the age of climate change, a building's "green" credentials are becoming increasingly important, as environmental considerations influence decisions about operations, design, and construction.

Because of the current urgent and difficult political and economic concerns, sustainable design is an environmentally conscious method of building and the use of materials that meet

this consciousness. the name for a method of designing the built environment that is environmentally and energy conscious. Other phrases for energy efficiency over a structure's whole life cycle are "green building" or "eco-friendly building." Increasing energy efficiency emerges as the primary objective of sustainable architecture. Architects employ a variety of strategies to lower a building's energy consumption and boost its capacity to either produce or absorb energy.

The LEED green building rating system is the most popular in the world. LEED offers a foundation for green buildings that are cost-effective, highly efficient, and healthful for almost all building types. An American company called Green Business Certification Inc. offers third-party credentialing and certification for a number of built environment rating systems. Projects are given points that are equivalent to a level of LEED certification after going through GBCI's verification and evaluation process: Gold (60–79 points), Platinum (80+ points), Silver (50–59 points), and Certified (40–49 points). Location, Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process, and Regional Priority are the nine areas of focus of the LEED rating system.

The most recent iteration of the LEED green building standard, known as LEED v4, is more specialized and intended to improve user experience. Since its introduction in 1998, LEED has completely changed the building industry by becoming the global standard for high-performance green building design, construction, and operation. "Building Design and Construction" is BD+C, which is most comparable to the original "legacy" LEED AP grade. As the name suggests, professionals involved in the design, new construction, or extensive renovation of green buildings are eligible for the AP certificate and the LEED grading system. Experts in the LEED grading system are granted LEED accreditation; LEED AP stands for LEED Accredited Professional. With this qualification, experts are guaranteed to possess the expertise necessary to guide a project through the LEED certification process.

A voluntary benchmark for creating environmentally conscious, high-performance, low-emission buildings is the LEED (Leadership in Energy and Environmental Design) Green Building Rating System. Accreditation for LEED Minimum Requirements adhere to environmental norms and legislation. has to fulfil the floor area criteria. Meet the required minimum user occupancy for the building. Keep your site's boundaries reasonable. be an enduring structure.

Distribute statistics on water and energy usage. The most popular green building rating system in the world is LEED (Leadership in Energy and Environmental Design), a certification program created in 1994 by the U.S. Green Building Council (USGBC), which was established in 1993. Almost all building types can use it to assess a building's environmental performance and promote the shift in the market toward sustainable design. A framework for cost-effective, incredibly efficient, and healthful green buildings is provided by LEED. The financial benefits of earning a LEED certification are also present. LEED buildings "have quicker lease-up rates and may qualify for a host of incentives, like tax rebates and zoning allowances," according to the USGBC. Not to add, their property values continue to rise. The Green Business Certification Inc. (GBCI) offers the LEED Professional Exams to professionals who want to obtain certifications and credentials. Exam knowledge is based on the Leadership in Energy and Environmental Design (LEED) Rating Systems of the U.S. Green Building Council.

The purpose of the LEED professional qualifications is to incentivize professionals working in green building to keep up to date and expand their knowledge and skills. Newly qualified individuals have to keep their credentials current every two years as of 2009; if not, they expire.

The LEED professional qualifications program consists of three tiers: LEED Green Associate is the first tier, LEED AP with specialization is the second, and LEED Fellow is the third. The 100 randomly assigned questions on the LEED Green Associate exam must be



answered in two hours. The exam's material is centered on the LEED project process, covering integrated design, fundamental sustainability ideas, language related to green buildings, and several facets of the LEED rating systems. The LEED Green Associate certification entails the following fees: a \$50 application cost; \$200 for full-time students and national members of USGBC; \$250 for all other individuals; and a \$85 biennial CMP renewal charge.

An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the Diplomatic Quarter, also known as Al Safarat Quarter, is home to numerous embassies and residential complexes along with a wide variety of dining establishments, including high-end Middle Eastern and European eateries and fast-food chains. A walking path that circles the area gives views of the Wadi Hanifah valley and passes through parks like the verdant Tuwaiq Garden.

The King Salman Science Oasis features interactive displays that delve into topics such as biotechnology and robotics. The quarter occupies an area of roughly 8 km² and is situated northwest of Riyadh. International relations and foreign policy are the main topics of discussion in the Diplomatic Quarter. currently includes 114 of Riyadh's embassies. Because it houses the ambassadorial community, the Diplomatic Quarter plays a special role in metropolitan Riyadh. This gives the area a particular quality with political and international significance.

The high level of protection that has been in place since the early 1990s makes its extremely political nature clear. The location and access architecture of the improved security environment have caused a significant deviation from the initial plan in the actual development. Despite having the best possible urban, architectural, and landscape qualities, the Quarter has developed into the kind of enclave that its creators intended to be the exact opposite of their original design. In response to modern socioeconomic circumstances and the state of security, the 1979 master plan addressed transportation, urban design, residential and commercial development, and security challenges.

All the suggestions were combined using an interdisciplinary process to create a revised Master Plan that would serve as a development roadmap for the ensuing 20 years. The High Executive Committee for the Development of Arriyadh requested that the original planners reassess the Master Plan and determine suitable development choices for the ensuing twenty years in response to these developments. The thorough evaluation was intended to look at things like how to incorporate security measures into the urban design, improve the central core's layout, ease traffic congestion, encourage construction, and redefine the usage of vacant lots. Important components included reserving space for countries whose embassies did not exist twenty years prior, presenting creative model solutions to optimize visitor flows to the embassies, and illustrating the changes in draft zoning plans.

The selection of the Al-Safarat district stems from the design criterion's assumption of sustainable urban design principles. It is the Saudi Arabian community's forum for architectural discussion and examination as a trial project. The Al Safarat district is evaluated in terms of the following aspects of sustainable development: social justice, ecological preservation, cultural preservation, and good economic contribution. The results will be used to future development initiatives or utilized as a foundation for designers. The Al-Safarat district of Najdi is home to 14 mosques, as well as international and local schools, a massive sports club, and retail arcades. The majestic Tuwaiq Palace sits by the edge of the valley. The curving western natural border is made up of Wadi Hanifah, which is usually in a cool breeze at twilight, figure (7), Molintas (2017).

2.10. Novelty architecture as an exemplar of the enriched societal intellectuality of contemporary architecture

The first part of the 20th century saw the rise in popularity of

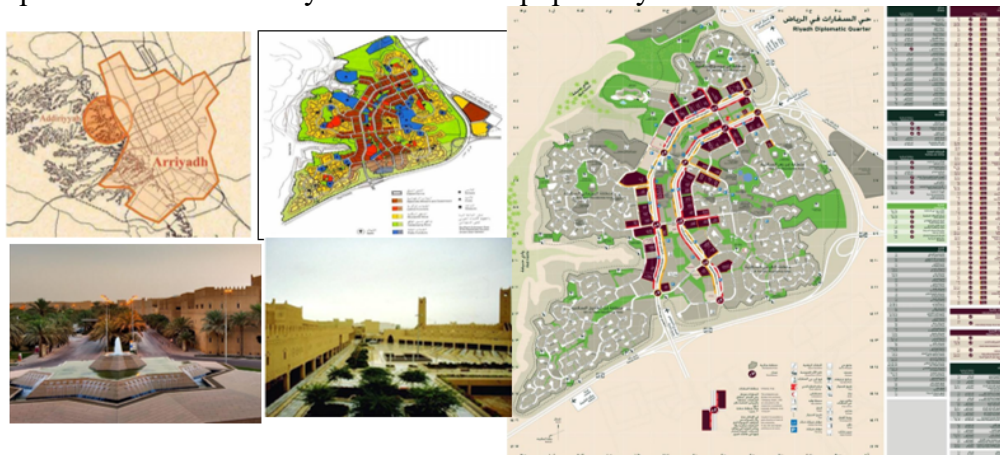


Figure 7. Al-Safarat district, Najdi traditional architecture is composed of 14 mosques, schools both for locals and internationals, a humongous sports club and shopping arcades.

Novel, rejuvenated, innovative, programmatic, scenic-pictorial, and mimetic architecture in the United States. Unusual architectural designs that mirror the functions of buildings or their products were its defining feature. It was used for promotional purposes or to copy famous buildings without intending to be authentic. Novelty architecture can serve a variety of purposes, including advertising, becoming famous and iconic, or simply showcasing the eccentricity and abnormality of the owner or architect. It can also take the shape of the products it houses to draw in bystanders and drive-by clients, or it can mimic the products found in such buildings.

Known as "Ducks" because they are precisely what they seem to be, Robert Venturi and Denise Scott Brown coined the term in *Learning from Las Vegas*. These structures project their meaning literally rather than through architectural metaphors. Numerous ones appeared next to interstate roads, like doughnuts or dinosaurs and interspersing road trips throughout the United States. Locations such as Macau and Las Vegas have forged their identities in the literal and kitschy language of architecture; these "Ducks" are structures that literally display their meaning as "Duck" or Novelty Architecture. Even if they are reduced to one of the most bizarre postmodern age appearances, ducks continue to occur in modern contexts, such as the enormous Macbook ceiling of the Chicago Apple Store. Ducks are playful elements found in modern Novelty architecture.

There are many odd and amazing instances of novelty architectural structures that have made a name for themselves by being just what they ought to be. It all began at Big Duck, Long Island, New York, USA. The word "duck" in architecture was first used by Robert Venturi in his 1972 book *"Learning from Las Vegas"* to refer to the Big Duck Long Island. It was constructed in 1931 by duck farmer Martin Mauer to sell eggs and ducks. Because of its unique shape and strategic position, it attracted a lot of consumers. Built along a busy street in Riverhead, New York City, the duck had a nomadic life, moving several times before settling 6 km down to the small town of Flanders.

The building, which had a roly-poly proportion and was almost entirely made of wire mesh and concrete, was intended to be a gift shop. It was modelled after a Pekin duck. In addition to being preserved by Venturi's work, the Big Duck made architectural history in 2008 when it was added to the US National Register of Historic Places. Giant fruits, plants, animals, and

buildings, as well as exact reproductions of well-known structures, are examples of novelty architecture. Other examples include structures with strange shapes or odd materials.

An exemplar of the enriched societal intellectual contemporary architecture is evidenced in the High-Heel Wedding Church, in Budai Township, Chiayi County, Taiwan, referred to locally as "pinyin" in Chinese, 2017. The church with the shape of a high heel was certified by Guinness World Records as the largest high heel shoe-shaped building in the world. A reference to a local legend about a girl who contracted Blackfoot and had to have her lower legs amputated; as a result, her engagement was called off and she lived alone in a church for the remainder of her life. Thus, it is constructed as a memorial to the 1950s Blackfoot epidemic outbreak in Taiwan.

The interior of the worship shoe includes about 100 aspects that appeal to women, such as love seat benches, biscuits and cakes, and maple leaf decorations. It caters to weddings and photo sessions to become female-centric architecture. In 2017, the Tai Tourism Bureau began a campaign of church promotion and renovated the surrounding facilities. The Southwest Coast National Scenic Area Administration is in charge of overseeing it. The church is 17.76 meters high, 11.91 meters wide, and 25.16 meters long. It is designed like a high-heel shoe. The High-Heel Wedding Church, also known as "pinyin," is well-known for being a popular wedding location for Taiwanese, foreigners, and tourists. It is made up of more than 320 pieces of blue-tinted glass and can hold 100 people, figure (8). Despite being referred to as a "church" informally, the structure is unconsecrated and has no religious purpose. It is also referred to as the "Cupid-last wish-Church," the "Giant Glass Slipper Church," the "High-Heel Wedding Church," and the "Giant Cinderella Slipper."

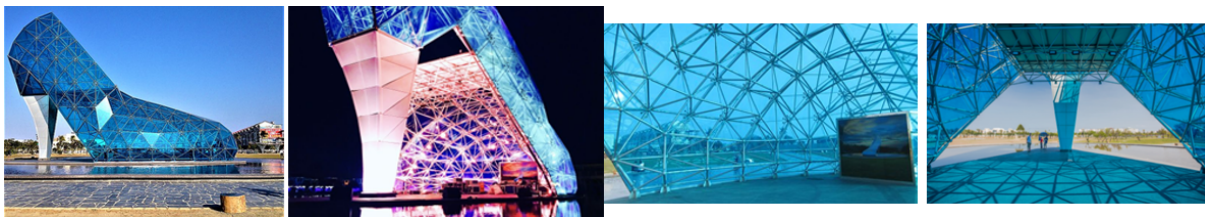


Figure 8. The High-Heel Wedding Church or "pinyin" is composed of over 320 pieces

2.11. Warped architecture as an exemplar of contemporary architecture

The word "warped" describes something that has been bent or twisted out of form, usually due to the effects of dampness or heat. Architectural constructions that are twisted or deformed provide far more abstract and eye-catching patterns that people would have valued. Though intentionally lopsided and twisted buildings can have a wonderfully mesmerizing and attractive exterior impact, warped images and shapes are often associated with things that have not been properly built or structured. These aesthetically disorienting designs include structural elements such as twisted outer surfaces, curved frames, spiralling forms, and even abstract allusions to extraterrestrial life.

These buildings serve as examples of how architecture can be found in a wide range of shapes, styles, and schools of thought. One of Asia's top garden destinations, Gardens by the Bay, is created and maintained by an independent group called Gardens by the Bay. A vast tropical garden with greenhouses fashioned like shells, man-made waterfalls rising to a height of thirty meters, and towering trees designed by British architects Wilkinson Eyre and landscape architects Grant Associates have been finished in Singapore. Situated on reclaimed land next to the marina in downtown Singapore, Bay South is the first and largest of three landscaped gardens that will make up the 100-hectare Gardens by the Bay.

Supertree Grove exhibits horticulture and garden artistry that presents the plant kingdom in a whole new way, entertaining and educating visitors with plants rarely seen in this region of

the world. The gardens function as vertical gardens that generate solar power, act as exhaust air towers for nearby conservatories, and collect rainwater. Thousands of plant species climb the vein-like cladding of the 18 "Supertree" constructions, which reach heights of up to 50 meters.

They are joined by bridges that are 20 meters above the ground, and the highest one has a bar at its summit. Each of them has pumps and rainwater collection tanks to cool the two enormous greenhouses next to them as well as themselves. Designed by landscape architects Grant Associates, Supertree Grove, also known as the Gardens by the Bay, is a Singaporean resort integrated within the Marina Bay Sands hotel in the Downtown Core of the Central Area. Each super tree, which ranges in height from 25 to 50 meters, has a variety of ferns and tropical flowers clinging to its steel structure.

The 18 Super trees in the Supertree Grove, which reach a height of 50 meters, are famous giants that offer shade during the day and a thrilling light and music display at night. The "City in a Garden" idea depicted the busy metropolis hidden beneath a carefully planned canopy of tropical plants. By incorporating the residents in the long-term maintenance and administration of this extraordinary tropical city's green spaces, the aim of the Gardens by the Bay is to both maintain the natural inheritance and cultivate a sense of collective ownership among the local population, figure (9).



Figure 9. The aim of the Gardens by the Bay is to both maintain the natural inheritance and cultivate a sense of collective ownership among the local population.

Public education is provided by The Gardens by the Bay through school programs that teach about biodiversity and conservation, plant and landscape interpretation, and exhibitions that cover these topics as well as climate change, sustainability, horticulture, and other related topics. There is both official and informal education. The two Gardens collaborate with the Ministry of Education to provide educational resources for school groups that visit them as part of the official education system, which takes the shape of school programs. In a similar vein, 32,000 kids participated in Gardens by the Bay's school program. Numerous school groups also visit the Gardens and run their own programs there.

Audio commentary, smartphone apps, and interpretative panels are examples of informal and adult education. Through interpretative panels, films, and interactive exhibitions, the "Domes" at Gardens by the Bay also feature substantial presentations on biodiversity, conservation, climate change, and sustainability. It is hoped that by educating and inspiring the public about plants, biodiversity, and the need of sustainability and conservation, we would raise up the next generation of supporters of these causes, both in Singapore and outside. In addition, there are themed gardens at Gardens by the Bay such as, a lake, walks bordered by trees, a playground, and an area for events where guests can have fun and learn, fig 10.



Figure 10. There are themed gardens at Gardens by the Bay such as, a lake, walks bordered by trees, a playground, and an area for events where guests can have fun and learn

3. CONCLUSIONS AND RECOMMENDATIONS

The thorough study and detailed analysis of the eight most renowned contemporary architecture school of thought; Blobitecture, Bionic, Biomorphic, Critical Regionalism, Deconstructivism, Sustainable, Novelty and Warped Architecture affirmed the societal intellectuality enrichment of these most renowned eight contemporary architecture school of thought. The contemporary architecture school of thought's societal intellectuality enrichment was evidenced in all the eight contemporary architecture structures which are just exemplars to all other such structures.

For architects to consider themselves as contributors to the contemporary architecture school of thought so as to be regarded as contemporary architects, societal intellectuality should have been vividly evidenced in the structures they have to design and construct.

The more the contemporary architecture societal intellectuality extends beyond the consideration of the occupants, including a sizeable number of users beyond the nearby communities reaching to a larger size of the far-reaching communities and visitors reaching to tourists coming beyond borders to such iconic contemporary architecture structures making them true edifices of contemporary architecture school of thought.

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