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Design Concept in Architectural Competitions as means to Classify new trendsin Contemporary Architecture

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Abstract

The contemporary architectural period has produced numerous architectural movements, including evolved trends from previous movements and entirely new ones,these movements have been classified based on the theories and ideas putforth by pioneering architects and theorists.By studying and analyzing some of the works from contemporary and pioneering architectural competitions, we can identify the contemporary trends in design thinking in architecture. We can also classify these trends to understand what is new, modern, and contemporary in architectural production. The research will discuss these points by focusing on contemporary international architectural competitions. Moreover, the research focuses onthe most famous competition to understand the new intellectual trends of pioneering practitioners. aiming to explore the new design ideas of architects who have been influenced by rapid andsuccessive technological changes and the communications revolution more than their predecessors.

Keywords: *Design Concept; Architectural Competitions; Classifications; Trends; Contemporary.*

1. Introduction:

Over the past two decades, it has become clear that the world is heading towards a new global qualitative leap, "the next epoch after modernity", that is more connected to science and a greater understanding and respect for nature, environment, and humanity in all fields, especially in architecture this brought changes that have generated new trends in architectural theory and studies. Therefore, the importance lies in the analysis, study, documentation, and critique of the architectural product, followed by the study, documentation, and classification of architectural trends in thought and design that periodically emerge and change with changing circumstances and events.

2. Research Problem

Through multiple critical readings and literature reviews, it is observed that there are architectural trends that appear without classification in international architectural competitions, and they can lead to the emergence of trends that evolve later to become familiar architectural styles that have not received much study and theorizing.

3. Research Aim

The research aims to study and review different methodologies for classifying contemporary architectural trends to extract a new theoretical approach and demonstrate its applicability to contemporary architectural trends that have emerged in the design concept to identify one of the new trends in contemporary architecture.

4. The Research motivations

4.1. Topic:

The research is an extension of the master's thesis research, which focused on modern architectural trends. However, during the study, the researchers found that other trends appear without classification. This led to a focus on studying this issue to develop a new hybrid theoretical approach that can be applied to new and contemporary architectural trends emerging from international competitions. This is an important field that lacks more classification.

4.2. Case Study:

focusing on international architectural competitions as a special study to extract new trends in contemporary architecture. International architectural competitions are considered a new field for scientific research, rich in many concepts and trends that deserve study and analysis to extract important results for architectural and theoretical research.

4.3. Period:

The period of 2020-2023 for the study is that the period is characterized by rapid technological developments and technological openness that architecture is experiencing, with advancements in design thinking tools and the impact of social media platforms that also greatly affect the rapid spread, change, and development of architectural thinking.

5. Literature Review

5.1. What is the meaning of Classification:

Classification is a method of scientific thinking used to form theories. The theoretical process begins with defining terms, followed by the classification process. It is a crucial element in building a theory where data is gathered and integrated into homogeneous groups according to a specific system, allowing for interpreting relationships between the data (Figure 1). This is a fundamental step in building a theory, to the extent that some consider classification the minimum form of a theory[i]. *(Raghad, 2000)*

5.2 Classifying architectural trends is important for several reasons:

Classification	Objectives	Clarification
What is the importance of Classifying Architectural Trends?	Understanding the Evolution of architecture	Understanding the Evolution of architecture, observe the changes and developments in architectural styles, techniques, and approaches over time.
	Identifying design principles and characteristics	Classifying architectural trends allows the architects to identify repeating design principles and characteristics associated with specific periods or style.
	Communicating and referencing architectural trends	provides a common language for discussing and referencing architectural trends among professionals and students to exchange ideas and knowledge
	Informing design decisions	By understanding different trends and their principles, designers can draw inspiration and make informed design decisions.
	Preserving architectural heritage	It helps in the identification and preservation of historically significant styles, buildings and structures.
	Forecasting future directions	we can anticipate emerging design concepts, technologies, and sustainability practices, allowing us to plan for the future.

Figure 1: The importance of Classifying Architectural trends

6. Theoretical Approach and Methodology:

It is a hybrid of ideas and theories from different pioneers and thinkers, including a philosopher, a theorist, and a practitioner. *Philosopher: Jacques Derrida; theorists: Charles Jencks and Mario Carpo; and practitioner: Patrick Schumacher* the new theoretical approach for classifying contemporary architectural trends aims to overcome the limitations of traditional classification methods and deal with the diversity of styles and techniques more effectively. This approach uses common elements between different styles and places them in an organized and logical framework. Additionally, the approach uses the concept of hybridization to classify contemporary architectural trends and considers them as integrated and interrelated elements within a unified framework.

6.1 New Contribution.

New Methodology for Classify the Design Concept in New Trends in International Architectural Competitions

(Hybrid of Philosopher, Theorists, and Practitioner Classification Theories and Methodologies)

Philosopher's Methodology (Jack Derrida)	**Personal hint,** Jacques Derrida is a contemporary French philosopher who was born in Algeria in 1930 and died in France in 2004. He is one of the most influential philosophers of the twentieth century and is considered one of the founders of structural philosophy and the leader of the literary and philosophical movement known as "Deconstruction. [ii]"
	Theory, His philosophy of "deconstruction" emphasizes the multiple interpretations that can be derived from a text or discourse. According to Derrida, there is no single fixed meaning to a text or discourse, but rather a multiplicity of meanings that arise from the interaction between the text and the reader. He argues that language is inherently unstable and that words and concepts have meaning only about other words and concepts, rather than having a fixed or objective meaning themselves[iii]. Derrida opens up new possibilities for understanding how language and meaning are constructed and contested. This approach has significantly impacted literary theory, philosophy, and cultural studies, and has influenced many scholars and thinkers in these fields[iv].
Theorist's Methodology (Charles Jencks)	**Personal hint**, Charles Jencks was a British architect, art critic, philosopher, and author. he was born in 1939 and died in 2019. He is known for writing several important books on architecture, design, and contemporary art. Jencks is considered one of the leading figures in postmodern architecture, focusing in his writings on the relationship between art, architecture, and design. He is also considered one of the founders of what is known as "second modernity" in architecture[v].
	Theory of Classification: The methodology for classifying architectural trends developed by Charles Jencks evolved over a long period and was based on his observation of the development of architecture over time and the various movements that emerged. This methodology consists of "The Seven C's"[vi] and is as follows: **Cosmic**: refers to architecture that is inspired by cosmic, **Communitarian**: refers to architecture that emphasizes community and social interaction. **Communicative**: Refers to architecture that uses symbolism and metaphor to communicate concepts. **Contextual**: refers to architecture that is responsive to its context. **Critical**: refers to architecture that is self-critical and reflective. **Computer**: refers to architecture that is influenced by digital technologies and computational design tools. **Composite**: refers to architecture that combines elements of different styles and movements[vii]. *(Nesbitt,1996).* Jencks' classification also depends on other criteria based on his linguistic vision and structural analysis, which help to classify architectural works, movements, styles, and trends more precisely and comprehensively. These criteria consist of three basic points: Stylistic Features, Ideological Beliefs, and Architectural Expression By using these criteria, Charles Jencks' famous graphical representations of "Six Streams of Architecture" and the "Evolutionary Tree" illustrate his understanding of the evolution of ideas and trends in architecture as an organic flow of undulating points. Here,

he devised a classification that branches endlessly into "Isms and Wasms," which constantly transform as movements and then trends in architecture blend, fade, and leave behind ripples (Figure 2). His diagrams were not only analytical but also speculative, as they were "Chronograms of Architecture [viii]": drawings of time that looked to the past to predict the future. They not only offered predictions but also criticism and diagnosis (Figure 3) of the current state of architecture, as well as a provocation and a call to action to change it.

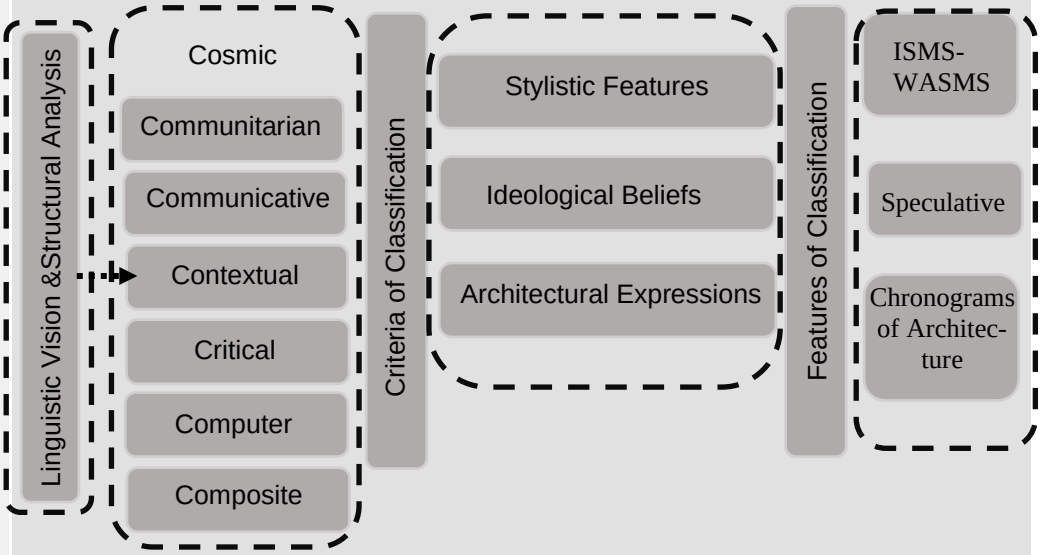

Figure 2: Charles Jencks methodology in Classification architectural trends

Theorist's Methodology (Mario Carpo)

Personal Hint: Mario Carpo is a historian and theorist of architecture and architectural design, and a professor of architecture at Georgetown University in Washington, D.C. He was born in Italy in 1956 and studied at universities such as the University of Florence, Princeton University, and Harvard University[ix].

Carpo is distinguished for his research and teaching in the fields of architecture, architectural design, and architectural history. His work focuses on design techniques and their evolution throughout history, as well as the relationship between architectural design, technology, civilization, and society.

Theory of Classification: Mario Carpo is an Italian architect and academic known for his theory on the classification of architectural trends. His method involves analyzing architecture and classifying it according to three main criteria: historical, functional, and structural[x].

Carpo believes that architecture evolves according to its history and the social and cultural developments that occurred during that time, and therefore focuses on specific periods in the history of architecture in his classification.

In this way, Carpo's theory focuses on the basic concepts of architecture and analyzes them to understand architectural trends and classify them according to specific criteria (Figure 4). His approach is characterized by a significant focus on the historical, cultural, and social factors that have shaped the development of architecture.

Practitioner's Methodology (Patrick Shomachar)

Personal hint: a well-known architect and theorist who works as a partner at Zaha Hadid Architects. Schumacher has developed a methodology and theory for classifying architectural trends based on his broader theoretical framework of parametricism [xi].

Theory of Classification: Schumacher's methodology for classifying architectural trends is closely linked to his theory of parametricism (Table 1), as he believes that the underlying principles of parametric design can be used to analyze and classify different architectural styles and movements. Schumacher's methodology represents a new approach to the history and theory of architecture that emphasizes the use of digital technology and computational design tools to better understand and analyze the form and organization of buildings (Figure 5).

Table 1. Shomachar's Classification of Modern Architectural Trends

Epochal Style	Subsidiary Style	Transitional Style
Modernism	Functionalism	
		Postmodernism
		Deconstructivism
Parametricism	Foldism	
	Blobism	
	Swarmism	
	Tectonism	

Schumacher's theory of parametricism is a broader theoretical framework that emphasizes the use of computational design tools and parametric modeling techniques to create highly complex and adaptable architectural forms. According to Schumacher, parametricism represents a new paradigm for building design that is based on the principles of expansion, differentiation, and variation[xii].

6.2 The hybrid and the new theoretical approach that the research puts in place after studying the previous methodologies in the classification:

The approach relies on the philosophical aspect drawn from Jacques Derrida's methodology, which involves multiple interpretations of the design approach to which the studied competition building belongs. As for the theoretical part, it is influenced by Charles Jencks' methodology, which is based on the linguistic approach to classification and also relies on specific criteria that the research is influenced by. These criteria express contemporary architecture more than preceding architecture, which was the subject of Charles Jencks' study. The criteria are divided into main criteria, which are represented by five of the seven C's that are compatible with contemporary trends in architecture. then branch out into subcriteria and become more detailed. Jencks divided the main criteria into three categories: style,
intellectual ideology, and design ideas. The research chose design ideas as the main criterion in the classification because the research primarily aims to study design thinking in contemporary international architectural competitions to understand, study, and classify modern trends in contemporary architecture. The methodology also relies on not only analytical but also predictive or speculative principles, which are also at the core of Charles Jencks's methodology.
The research methodology in this part is also influenced by Mario Carpo's methodology, which involves looking at

(previous trends to synthesize new, advanced, or emerging trends from them).

Finally, to link the research methodology to contemporary technological development, after studying the methodology of Patrik Schumacher, one of the most prominent contemporary theorists and practitioners, the research adopted the idea of using some principles of parametricism as a criterion among the criteria for classifying new trends in contemporary architecture, which must include a significant technological and digital component.

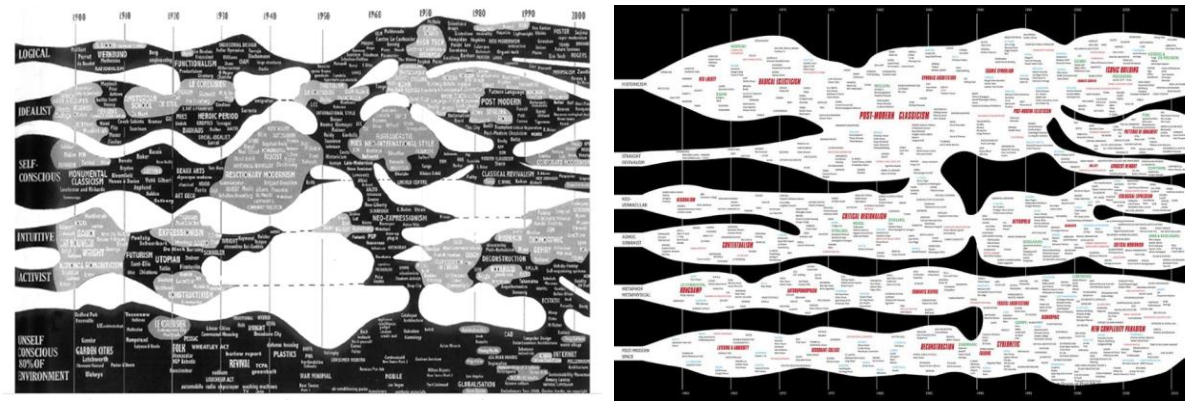

Figure 3. "Evolutionary Tree"by Charles Jenkes
Evolutionary Tree to the Year 2000 – Jencks Foundation 15-5-2023

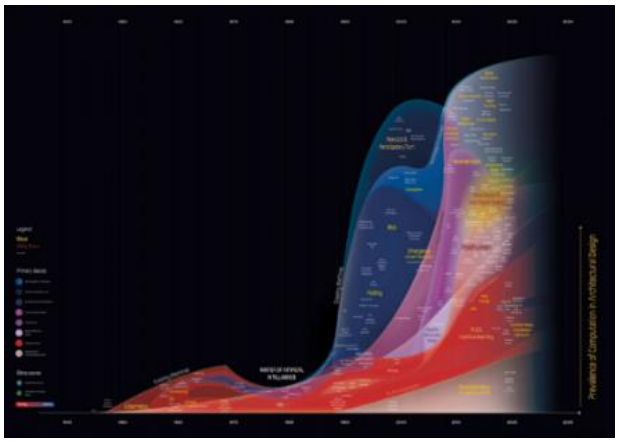

Figure 4. Mario Carpo
Chronograms of Architecture
A short but believable history of the digital turn in architecture (e-flux.com) 15-4-2023

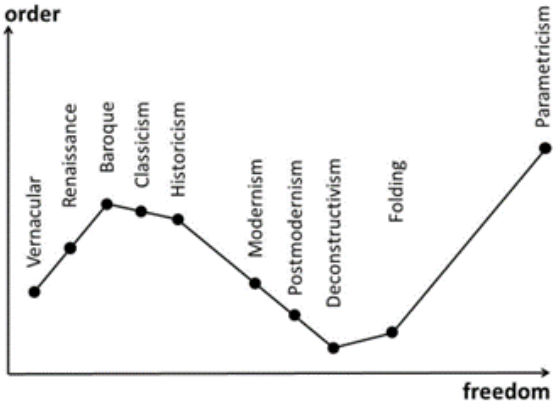

Figure 5. Progression of Styles: Freedom vs Order, graph by Patrik Schumacher
www.patrikschumacher.com 20-5-2023

12.2. The new methodology formation

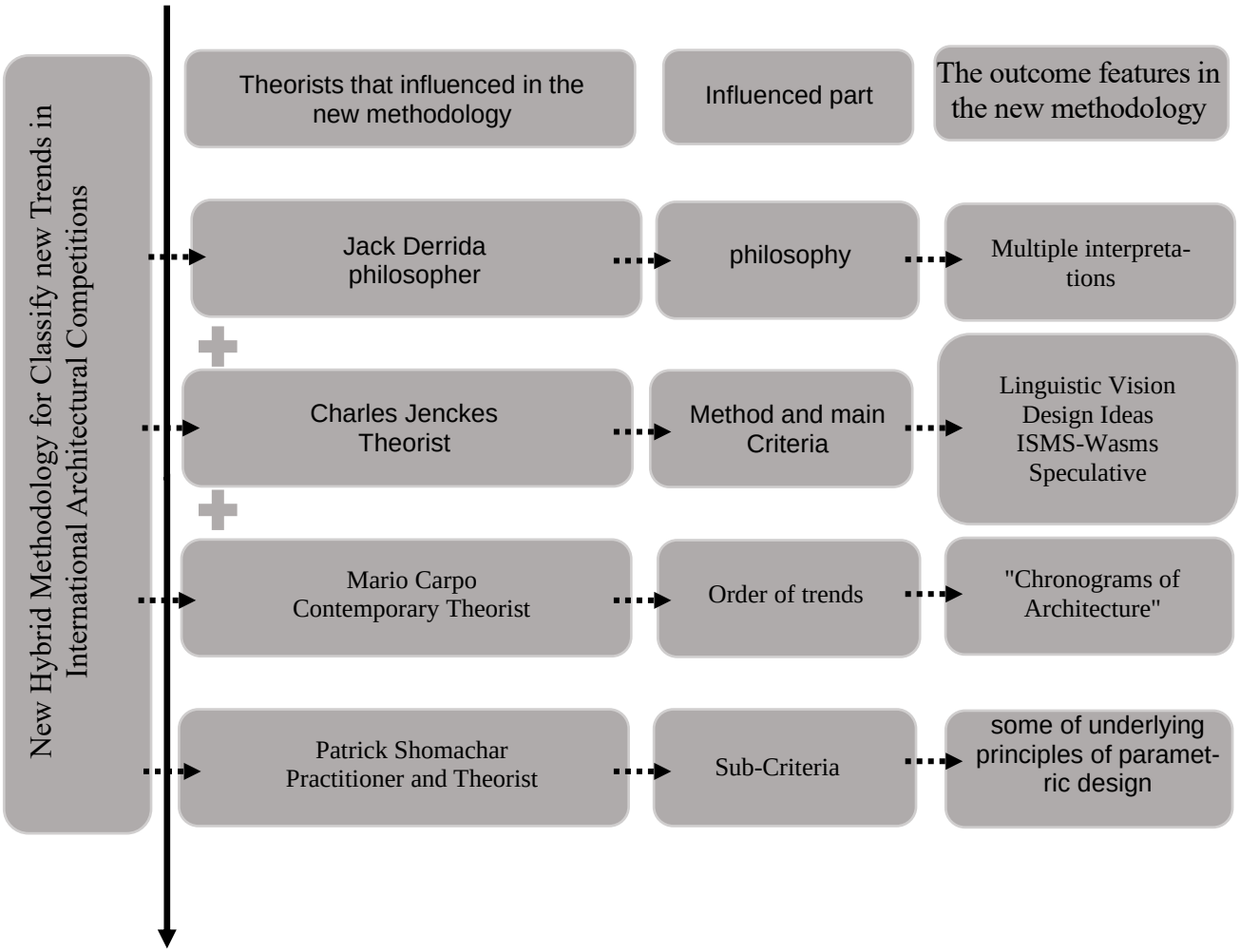

Figure 6. The new methodology formation

Case Study: An example of contemporary competition building:

BIG's winning entry for Vltava Philharmonic Hall is a cascading concert of columns.

Location: Prague, Czech Republic.

Client: Prague Institute of Planning and Development

In August 2021, the City of Prague announced the start of a competition for architectural design for the Vltava Philharmonic Hall. The building will emerge as a landmark icon and the new heart of a future district [1].

Design concept: The building, the plaza, and the riverbank are all in continuous formation (figure 9), which is considered a development of the Frank Gehry concept in design (figure 8), with the building's design originating from the banks of the Vltava River and rising in successive volumes. The public spaces that fill the building's exterior constantly engage with the structures sporadically raised and lowered corners to link the environment to every part of the city, which expresses the continuity that was the main principle from The form emerges in the form of cascading roofs that transition into ramps and balconies topped with bold colonnades that continue the same design language from the riverbank to the roof. Prague's architecture has always told stories, but in the Vltava Philharmonic Hall, BIG's installation visually illustrates an instrumental symphony that begins at the river and ends at the city's skyline and speaks to the city's changing skyline (the design concept). In the 1930s, Frank Lloyd Wright designed a private house in Pennsylvania, which demonstrated the principles and potential of organic architecture (Figure 10) and also provided imaginative solutions for the surrounding public space. The research investigated the Philharmonic Valtava building design concept, which is the development of the same concept for the continuity concept that came from the principles of organicism. The contemporary concept in design envisages making the riverbank accessible and opens up the Philharmonic Hall's outdoor terraces, including the roof, to the public (Figure 11). The continuity in "the building itself will be accessible from all directions and levels, " says Michal Sedláček, chairman of the competition jury[xiii].

The authors have perfectly understood the place where they are putting the building, but they have come up with a completely new approach to public space in Prague. They make us think more about it and bring us closer to our river. I am looking forward to the BIG concert," adds Petr Hlaváček, First Deputy Mayor for Spatial Development and the Land Use Plan[xiv].

Figure 8: the Continuity in design in Guggenheim museum in New York by Frank Lloyd Wright https://toward-beauty.org/2022/07/27/frank-lloyd-wrights-guggenheim-museum 2-2024

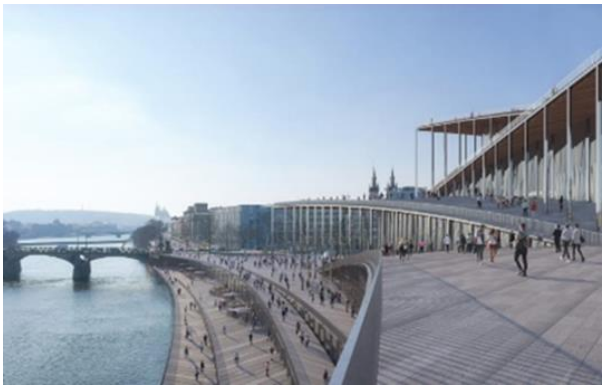

Figure 9: the new Continuity in VLTAVA PHILHARMONIC HALL IN PRAGUE www.designboom.com/architecture/bjarke-ingles-group-big-vltava-philharmonic-hall - 5-2022

Figure 10: Organic design in Kaufmann house Fallingwater by Frank Lloyd Wright https://archeyes.com/the-guggenheim-museum-in-new-york-by-frank-lloyd-wright/2-2024

Figure 11: New Organic design in Valtava philharmonic building https://www.designboom.com/architecture/bjarke-ingles 5-2023

Figure 12: Deconstruction design in Denver Art Museum, by Daniel Libeskind Denver Art Museum / **(Denver, Colorado)** Studio Libeskind | ArchDaily 2-2024

Figure 13: New Deconstruction design in Valtava Philharmonic hall https://www.designboom.com/architecture/bjarke-ingles-group-bigPhilharmonic hall-vltava-philharmonic 5-2023

Figure 14: Tectonism in king Abdullah petroleum studies & Research center, Riyadah, Saudi Arabia https://issuu.com/accpublishinggroup/docs/tectonism_blad 1-2024

figure 15: Tectonsim in Valtava philharmonic building https://arqa.com/en/architecture/vltava-philharmonic-hall 1-2024

Tectonism: The principle of 'form follows function' asserts that the form of a building should be mainly based on its intended function. So, the tectonic form of a building should reveal its structural and functional rationale. https://architizer.com/blog/inspiration/stories/meaning-of-tectonic-in-architecture-today 1-2024

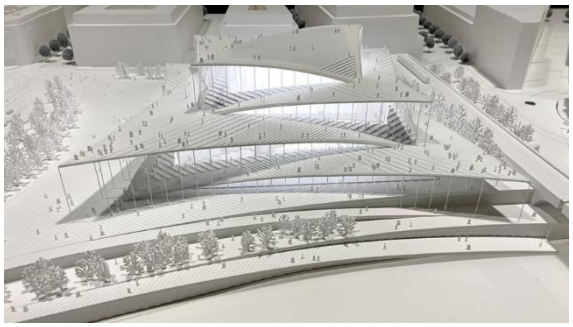

figure 16: the new main Architectural trend in the building is the new organicism
https://iprpraha.cz/page/4093/from-the-river-to-the-roof-the-winning-design-for-the-vltava-philharmonic-hall 2-2024

6.3 An Example of a preliminary method for Analyzing and Classifying new Architectural Trends (table 2)

Table 2. Proposed Classification Method

Major & second-ary Criteria	Design Concept	Common Con-temporary Trends	Uncommon Con-temporary Trends	New Contem-porary Trends
Communitarian		Functionalism Green	Ultra Modern	
Communicative	From the river to the Roof	Metaphoric Symbolism	Biomimicry	New organicism
Contextual		**Deconstruction** **Organicism**	Biophilic	
Computer		Parametricism **Smart Architecture**	**Tectonism** Foldism Blobism	
Composite		Postmodernism	New postmodernism	

13. Results and Conclusion

The research tried to put forward a new methodology to classify one of the most important competitions in contemporary architecture based on the main previous theories in classification. The research tried to depend on the development of common and uncommon trends that were classified previously in architecture as indeed significantly influenced by the changes of time, especially the era of technology and openness, as well as the era of environmental awareness and understanding of the importance of energy and the surroundings. With the noticeable technological advancements that have emerged over the past few decades, new trends have emerged across all fields. Technological advancements themselves continue to evolve, crystallize, deepen, and surpass many things. Based on the analysis of this architectural example, it

can be concluded that there is a clear evolution in both common and uncommon contemporary architectural trends that have emerged previously. Furthermore, there are new trends that have appeared in contemporary architectural competitions that have not been classified yet. This is reflected in the design thinking of contemporary architects, and as this change manifests itself in various and diverse ways, it is evident that development is not only a tool for change in architectural production but also impacts the architect's personality, talent, environment, constraints, possibilities, and surroundings. All of these factors create different new trends that deserve to be studied, analyzed, and classified. This allows the observer, practitioner, and even architectural students to understand and keep up with the changes at all levels.

- [1] Mofed, R., 2000, Criticism and theory in architecture: towards the framework of architecture theories and measuring the degree of their support [Ph.D. thesis] Faculty of Engineering, Cairo University, Egypt.
- [2] Lamichhane, S. (2024). A COMPARATIVE ANALYSIS OF JACQUES DERRIDA IN THE CONTEXT OF MARXISM. Spring Journal of Arts, Humanities and Social Sciences, 3(2), 35-39.
- [3] Orchard, V. (2017). Jacques Derrida and the Institution of French Philosophy. Routledge.
- [4] Leonard, M. (2010). Derrida and Antiquity. OUP Oxford.
- [5] Jencks, C. (2006). The iconic building is here to stay. *City*, *10*(1), 3-20.
- [6] Gold, J. R. (2000). The Power of Narrative: the early writings of Charles Jencks and the historiography of architectural modernism. *Twentieth-Century Architecture and its Histories*, 207-21.
- [7] Nesbitt, K. (1996). Theorizing a new architectural agenda: an anthology of architectural theory: 1965-1995. Princeton Architectural Press.
- [8] Jane, P. (2008). Delivery without discipline: Architecture in the Age of Design Dean, ProQuest Dissertations Publishing, University of California, Los Angeles.
- [9] Carpo, M. (2017). The second digital turn: design beyond intelligence. MIT Press.
- [10] Q&A: Mario Carpo on architecture's digital past and present. Metropolis. (2022, April 9). https://metropolismag.com/viewpoints/qa-mario-carpo-on-architectures-digital-past-and-present.
- [11] Poole, M., & Shvartzberg, M., (2015). The politics of parametricism digital technologies in architecture. Bloomsbury Academic.
- [12] TECTONISM - YouTube. The USA. Retrieved June 20, 2023.
- [13] Patrik Schumacher – Zaha Hadid Architects (zaha-hadid.com) 6-2023.
- [xiii] https://visualio.space, V. (n.d.). From the river to the roof: The winning design for the Vltava Philharmonic Hall by the Bjarke Ingels Group will be alive 24 hours a day, 7 days a week. IPR. https://iprpraha.cz/page/4093/from-the-river-to-the-roof-the-winning-design-for-the-vltava-philharmonic-hall-by-the-bjarke-ingels 12-2023.
- [xv] https://visualio.space, V. (n.d.-a). From the river to the roof: The winning design for the Vltava Philharmonic Hall by the Bjarke Ingels Group will be alive 24 hours a day, 7 days a week. IPR. https://iprpraha.cz/page/4093/from-the-river-to-the-roof-the-winning-design-for-the-vltava-philharmonic-hall 2-2024.