Epiphany

I DREAM, THEREFORE I AM AN ARCHITECT

Lamila Simišic Pašić
Meliha Teparić
International University of Sarajevo

Abstract

In this review of the exhibition of the student's research projects in the master's class Digital Design Studio of Architectural Program within the International University of Sarajevo, mentor and curators Lamila Simisic Pasic and Meliha Teparic are giving an analysis of the settings, aims, and purpose of the show. The exhibition is about an attempt to follow the novelties that the 21st century is bringing into the creation process, such as the involvement of artificial intelligence (AI) within creative fields. Students started with discovering, analyzing, and classifying the results of visual impacts from their travel from home to school. The synthesis came out from a mixture of artificial and real. Then, they merged their physical experiences transformed into visual imagery and digital outputs discovered through the lens of AI into one coherent and intuitive experience. Finally, students used machine learning as a direct collaborator for expanding their imaginations, particularly the diffusion model, which visualizes images out of the text, better known as text-to-image or, its extension, text-to-animation! Using these techniques, students reconstructed their voyages into more visionary landscapes, trying to emphasize, bold, and enlarge dilemmas and concerns of nowadays and refract a multisensory experience to tell the story. The exhibition was held in the Art Gallery of the International University of Sarajevo, Bosnia and Herzegovina, at the end of 2022.

Keywords: architecture; exhibition; artificial intelligence; contemporary art; place.

Introduction: A Place Where Contemporary Art and Architecture Merge

An artistic conception of a *place,* as a theme and genre, goes back to prehistoric times; as such, it "is an enduring theme in art". (Robertson & McDaniel, 2010, p. 227.) We encounter the past and *place* our knowledge of the history on the remains, artifacts, images, paintings, stories, and events. Past civilizations left marks not only on the physical world that they experienced but also left the influence of their imaginary world. Ever since, humans have shown a need to express the world through imagination, often combining real and imagined.

[1]The images of the imaginary world are not creations just by chance; they depict some "other world", the world that could not be touched, but the world that feelings could experience.

Followed by technological advances, the notion of a *place* has evolved from painting to digital animation. Therefore, the idea of a *place* encompasses" synthetic environments that exist (Disney World, Las Vegas, Hollywood sets, zoos, habitat displays in natural history museums) and fantasy environments concocted by artists from their imagination, which may blend the fictional and the real" (Robertson & McDaniel, 2013, p. 215).

In contemporary art, the artist refers to the theme of *place* from different perspectives, such as a *place* having a meaning for someone or something, a *place* having some value or significance, private and public *places*; the artist looking at/out of the *places*; and fictional *places* (Robertson & McDaniel, 2013, pp. 193-235). In this regard, "a place is a site of possibility, hypothesis, and fantasy—a somewhere where something might occur" (Robertson & McDaniel, 2010, p. 227). From the artistic point of view, the notion of a *place* is very broad and does not recognize specific physical boundaries. Not only does a *place* have an abstract meaning metaphorically or figuratively in the postmodern world, but it also goes beyond mere horizontal and vertical dimensions and 'unfolds' itself into a new dimension of the digital virtual world. For instance, in the past, an imagined *place* existed in the form of a physical representation, such as a picture as the two-dimensional flat plan that we were looking at it, now the virtual *place* is becoming a '*place*' for physical presence (e.g., video games, internet, etc.) (Robertson & McDaniel, 2010, p. 227). Furthermore, interactivity is one of the essential features of digital media, and it has participatory nature in contemporary art (Lughi, 2012).

[2]Now, we are not only able to participate and interact with virtual places, but we are also able to be present in the virtual place and the physical world at the same time. We are in "a phase of transition to a hybrid culture, where digital space is increasingly just another space we live in" (Robertson & McDaniel, 2010, p. 259), an extended zone of our physical space. Thus, Ferrando (2013) argued that today we live in a 'transhuman' world, a world where our technological inventions blend with our bodies and lives, and that very soon we'll be post-humans, or new species that will be no anymore human, once when we move out to another planet (pp. 26-32).

In the exhibition "I Dream, Therefore I am Architect" young creative architects are 'looking out for place', in the "new realms of virtual reality" that "have spawned new conceptions of structure, such as *liquid architecture*, a term that refers to structures that mutate or expand into multiple, seemingly non-Euclidean dimensions" (Robertson & McDaniel, 2013, p. 220). If the physical architectural places are "cultural construct" (Robertson & McDaniel, 2013, p. 220) then we can consider virtual architectural places as "a profound cultural shift" (Robertson & McDaniel, 2013, p. 221).

Architecture and Artificial Intelligence

Architects nowadays are facing many challenges. The architecture profession, like everything else, is moving more from an expert system towards a learning system, becoming more transparent towards the other disciplines. One novelty, particularly novel for the 21st century, is the involvement of artificial intelligence (AI) not only in production processes but also in creative ones. Like it was at the beginning of the usage of computers, AI is becoming an inevitable collaborator in creative processes; it is becoming more affordable with interfaces that the architects visually better appreciate. Lamila Simisic Pasic, an Assistant Professor at the Architecture Program of the International University of Sarajevo (IUS), led the class Digital Design Studio where students worked on grasping the benefits of AI in their creative processes. Here she tells their story through the exhibition "I Dream, Therefore I am Architect" with Professor Meliha Teparic, curator of IUS Art Gallery.

To Be Curious Towards Something Different

In the study process named "I Dream, Therefore I am Architect" students shared their enthusiasm towards novelties that might help to re-engage in live shared experiences. As young architects, this group of students might impact what the 21st century will bring to architecture practice.

New tools that are based on machine learning, like text-to-image or text-to-animations, are making suitable fittings for the young generations and what they consider as their culture of living. Their communications are based on texting and sharing information via text prompts.

The short and sharp text translations into visual representations that are used in the novel tools such as [3]Midjourney, [4]StableDiffusion, [5]DreamStudio, and similar are following popular cultures nowadays. These tools give visual results on the text prompt of users' thoughts. The journeys of students' visual thoughts shown in this exhibition present students' intentions towards creating architectural forms and their authentic experience of the novelty in our practice, which is beginning to inform the practice of design itself. Regarding methods used in the creation, students discovered, analyzed, and classified the results of visual impacts from their travel from home to school. They produced short video documents of travels and synthesized creations from a mixture of artificial and real. The merged physical and virtual experiences were transformed into visual imagery and digital outputs, discovered through the lens of AI into one coherent and intuitive experience. Students used machine learning as a direct collaborator for expanding their imaginations, particularly the diffusion models that visualized images from the text! Using these techniques, students reconstructed their voyages into more visionary landscapes, trying to emphasize, bold, and enlarge dilemmas and concerns of nowadays and refract a multisensory experience to tell the story. The results are an amazingly evocative eruption of different views of their intentions to search for the correct answer to nowadays questions.

The Purpose of the Show

The purpose of displaying architectural objects in drawings, models, pavilions, or digital and virtual presentations is vital for communicating architecture to the public. Architecture design is a lengthy process; it takes a long time to make and even longer to build. Displaying architectural projects might supply a view behind the scenes of creating our built environment. The connection between architecture and the public can broaden the public's understanding of its culture, enable a better understanding of how architecture is created, and become an agency for possible discussion and debate toward wellbeing. Architectural exhibitions that display not just the final project's drawings but also thoughts, senses, cognitions, and memories of the creative process, might become a mechanism for the audience to understand their built environment better.

The setting of the exhibition "I Dream, Therefore I am Architect" is that

the exhibition itself becomes architecture. This exhibition functioned as a hybrid performance of architectural thoughts displayed non-traditionally to provoke the audience to think not just about the concerns and topics of projects but about architecture as playfully, creative, and witty. The traditional way of presenting was rearranged into the embodiment of a parallel world displaying multiple ideas, juxtapositions, sounds, and visuals of students' ideas through the lenses of a cooking book, restaurant's menu, futuristic voyages via google maps, videos, or postcards, or children' video book (image 1). All projects in the show envision a world where citizens will live in an integrated, imaginative, and even immersive environment.

Image 1. The image shows the interior of the exhibition "I Dream, Therefore I am Architect. Photo courtesy of Haris Heljo.

Students' Testimonies on "I Dream, Therefore I am Architect" [6]
The project aim of "Picturesque Collage" (image 2) by Bakir Tanovic was to show through graphic illustration and morphosis the way from his home to the university. Through this picturesque collage, he expressed his feelings

and odd things occurring on the road and environment, which for him are everyday occurrences. The work is shown as video art.

Image 2. The image shows the envisioned world named "Picturesque Collage" by Bakir Tanovic. Photo courtesy of Haris Heljo.

The concept of Erna Preljevic's "The Path of Changes" (image 3) was based on the road from the core of Sarajevo's industrial zone through industrial, residential, and commercial areas, mixed in the whole region until the area of educational institutions and hotels, which is still an area in development. The representations of future development follow the style of Tadao Ando's architecture. The concept of Tadao Ando is mixed with glances of brutalism, but both concepts still keep glimpses of existing greenery. This transformation represents the slow development of this region into an industrial zone. The student detects an area that needs to be in balance regarding the construction and the way of future development. However, going further in the direction of the city, student experiences excellent potential for a serious industrial zone but keep the sense of a mixture of

uses and styles. Erna imagined a sense of hope for futuristic sustainable development. Further on the road, as we enter the area of the roman bridge, the only thing she thinks of is the Roman bridge which is imagined as being made of silk and stone. Later as we enter the residential zone of Ilidza, we can sense the area of high socialization as if the whole environment is dedicated to people. The final is the path near the river Zeljeznica which is open and with a couple of buildings, but it gives a sense of living with nature integrated with the constructions. The final purpose of the whole path is an imagination of the future Zen living, integrated living with nature.

Image 3. The image shows the postcards designed for the project named "The Path of Changes' by Erna Preljevic. Photo courtesy of Haris Heljo.

Zeynep Nihan Yılmaz in her children's audiobook named "Futuristic Mushroom Houses" (image 4) reimagined the part of Sarajevo Canton, Sokolovic Kolonija, a neighborhood characterized by dull and uniform houses, using pneumatic architecture to inflate the façades and give them a convex, mushroom-like appearance, drawing inspiration from the styles of

Thomas Heatherwick and Iris Van Herpen. Her project explores artificial intelligence's potential and sparks ideas for future works through the forms and compositions it generates. As a child, she was fascinated by unusual shapes and forms in architecture and the fantastic, utopian worlds depicted in animated films and cartoons. The concept of futuristic mushroom houses reminded her of the mushroom houses in Smurf Village. It motivated her to create an audiobook for children, which will educate them about architecture and appeal to the inner child in older audiences.

Image 4. The view of the screen of the audiobook "Futuristic Mushroom Houses" by Zeynep Nihan Yılmaz. Photo courtesy of Haris Heljo.

Architecture and food connection were present in the works of Amina Likic and Selinay Erdeniz. Likic's "Edible Architecture: Recipe Book" (image 5) aimed to create Architecture so small it fits right on your dessert plate! The concept of "edible architecture" reflects on food and architecture: With "Edible; Amina wishes to question the extractive, consumptive, and contaminating nature of the built environment and envision an architecture

that produces resources, digests its waste, and self-decomposes. The edible architecture was made to honor the creation and unveiling of an entirely new type of design- artificial intelligence. The concept is based on interpretations of edible architecture, taking buildings on the way from home to school as a reference example for meal transformation. Inspired by the Disney movie from her childhood, Cloudy with Meatballs, this book's oeuvre includes edible buildings made of pasta, stretchy dough, and gluten mycelia, through egg-shaped objects in the Gaudí style, all the way to a Guggenheim pavlova cake and chocolate brutalist cake made of zicht concrete. There is no doubt that this book, which has over 100 AI illustrations generated using Midjourney, will find something suitable for the palate of any reader, taster, architect, or foodie. These captivating parametric meals celebrate the discovery of AI creation - a celebration of architecture, technology, and geometry worthy of our admiration and appetite.

Image 5. "Edible Architecture" is a recipe book by Amina Likic. Photo courtesy of Haris Heljo.

The healing restaurant menu by Selinay Erdeniz (image 6) also finds its inspiration in the unique style of Antonio Gaudi, which is characterized by natural, organic design and a mixture of materials. The main element of

the concept is the Romanesco Broccoli, which contains fractals as patterns. Since the appearance of this fractal vegetable, it is mainly presented as "small Christmas trees", especially to the kids. The color of this vegetable can be green, orange, or violet, which is used in the design to create the pattern and emphasize elements within the theme. Through the concept and design, it aims to emphasize the importance of the healing environment and healing design, which is one of the critical and active topics. Healing building design and landscape are the major positive impact on society's psychological and physical health. Selinay has used previously mentioned natural elements to achieve a green healing environment and sustainable design to gain this.

Image 6. Setting for displaying the healing restaurant menu by Selinay Erdeniz. Photo courtesy of Haris Heljo.

Student Amina Habul in her project for the future city, used AI to show a new, better, and futuristic city (image 7), which will serve nature and citizens at the same time. Her main idea was to design a new smart and sustainable city in an inclusive, collaborative, and equitable way. Amina wanted to create a city that would be beneficial firstly for the citizens of Sarajevo and, of course, to the world's well-being, regarding the constant climate change. While promoting sustainability across their environmental, economic, social, and cultural dimensions, she provides the necessary conditions and infrastructure to enhance the capabilities of the citizens to contribute to and enjoy the benefits of a more liveable, resilient, and sustainable urban development. The city enables the meaningful participation of citizens in fulfilling their right to the city; Amina focuses on making the city more prosperous, equitable, comfortable, and innovative; addressing social needs and making sure housing and urban services are high-quality; fulfilling the needs of the vulnerable and those with disabilities. This proposal is also gender-sensitive and responsive, acknowledging the different and changing

needs of residents at various stages of their life.

Image 7. The view of "Future City" by Amina Habul. Photo courtesy of Haris Heljo.

The overall goal of the project "Real Estate EH" by Ermin Halicevic was to demonstrate how AI can be used to create and generate ideas for a wide range of projects. In Ermin's case, it inspires him to develop futuristic Sarajevo designs and 3D models. The project's premise is the real estate agency EH (Ermin Halilcevic) (image 8), which sells apartments in Sarajevo.

Image 8. The display of the real estate agency "EH" promotion by Ermin Halicevic. Photo courtesy of Haris Heljo.

This study aims for the project "People, Nature, Future" (image 9) by Esra Nur Erdogmus to prevent the possible disaster that may occur in the future by showing it. In a world where green spaces are destroyed, and buildings are built in their place, people are preparing for their own demise. This work aims to show people the way by telling the truth and raising awareness as a result. Many disasters occur because of the occupation of green spaces. Increasing precipitation cannot be absorbed by the soil and floods occur. Many people die in these floods. Also, although trees prevent landslides, thousands of trees are cut down, and, in the end, hundreds of people lose their lives in these natural events. One of the reasons for the increasingly polluted air is the destruction of green areas and the factories built in their place. The damage done to nature and trees is done by people themselves.

Image 9. The view on the results of the study "People, Nature, Future" by Esra Nur Erdogmus. Photo courtesy of Haris Heljo.

The focus of the concept for the project of Anela Sudzuka named "A Balloon Land" (image 10) was the city of Sarajevo and its image. Since it is known as a foggy place which often is presented as colorless, we clearly see that it affects the population, psychologically and physically. Depression and anxiety are common psychological issues seen in the population nowadays. This is a good example showing that the environment affects our mental health. It is in our power to turn these negativized elements into positive and beneficial ones by making some specific changes and reorganizing the surrounding. Therefore, the concept is made to give the whole city a bit of happiness and positive textures. The main elements used in the design are colorful balloons, which are used as decorative elements. By this approach, we can cure ourselves when we cure and change our environment. The design approach of the concept promotes mental well-being, as well as high-quality living.
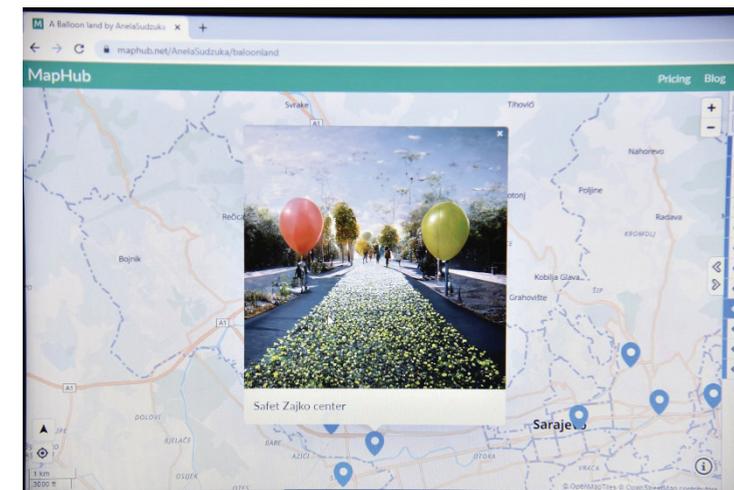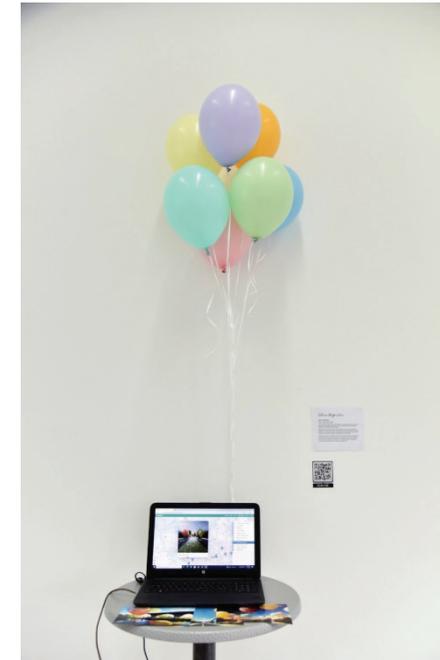

Image 10. The view on "Balloon Land" by Anela Sudzuka. Photo courtesy of Haris Heljo.

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Endnotes

[1]"There is a long line of artists who depict their own invented dream scenarios and fantasy places (often concocted from observed elements, as well as imagination), encompassing artists such as Hieronymous Bosch, Caspar David Friedrich, J. M. W. Turner, and Yves Tanguy." (Robertson & McDaniel, 2013, p. 217)

[2]The term virtuality refers to "an image or space that is not real but appears to be. Virtual reality most commonly refers to a simulated, computer-generated environment. (Robertson & McDaniel, 2010, p. 259.)

[3]Midjourney is an independent research lab exploring new mediums of thought and expanding the imaginative powers of the human species. We are a small self-funded team focused on design, human infrastructure, and AI; Retrieved from: https://docs.midjourney.com/; 04/02/2023.

[4]StableDiffusion is a latent text-to-image diffusion model capable of generating photo-realistic images given any text input, cultivates autonomous freedom to produce incredible imagery, and empowers billions of people to create stunning art within seconds. Retrieved from: https://stablediffusionweb.com/; 04/02/2023.
[5]DreamStudio is the front end of StableDiffusion;Retrieved from: https://beta.dreamstudio.ai/generate

[6]This chapter includes students' explanations of their exhibited projects: Esra Nur Erdoğmuş, Amina Habul, Amina Likić, Ermin Halilčević, Bakir Tanović, Selinay Erdeniz, Zeynep Nihan Yilmaz, Erna Preljević, and Anela Sudžuka.This chapter includes students' explanations of their exhibited projects: Esra Nur Erdoğmuş, Amina Habul, Amina Likić, Ermin Halilčević, Bakir Tanović, Selinay Erdeniz, Zeynep Nihan Yilmaz, Erna Preljević, and Anela Sudžuka.