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pages: 19 - 30

## DESIGNING RESPONSIVE ENVIRONMENTS IN THE STARY BROWAR IN POZNAŃ. METHOD AND PROCESS IN CREATING PUBLIC SPACE IN THE CITY

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### PROJEKTOWANIE ŚRODOWISK WYCZULONYCH NA TERENIE STAREGO BROWARU W POZNANIU. METODA I PROCES KREOWANIA PUBLICZNEJ PRZESTRZENI W MIEŚCIE

#### Abstract

In the era of rapid development of digital technologies, designers are faced with the challenge of incorporating the tools of the virtual world into the physical world. The widespread use of new media in design makes it possible to create environments that influence human experience. One of the design methods that have influenced human feelings for several decades is Experience Design - an extremely versatile, immersive method, creating exhibition environments, commercial spaces, urban interiors, and virtual worlds of games, applications and websites. This paper aims to present a design process and effect of an experimental, innovative academic program of semester course "Immersive environments and interactivity in designing architectural interiors and their surroundings"<sup>1</sup> Moreover, the author's didactic intention is to present the application of modern digital technologies in urban space design. Gathering the knowledge about the experience design method and its tool - the experience path fulfils high expectations set on students in their future careers.

#### Streszczenie

W dobie szybkiego rozwoju technologii cyfrowych projektanci mierzą się z wyzwaniem wprowadzania narzędzi świata wirtualnego do fizycznego. Powszechne użycie nowych mediów w projektowaniu umożliwia kreowanie środowisk, które wpływają na ludzkie doświadczenie. Jedną z metod, która oddziałuje na ludzkie odczucia jest Experience Design – wyjątkowo wszechstronna, immersyjna metoda tworzenia środowisk wystawowych, przestrzeni komercyjnych, wnętrz miejskich, jak również wirtualnych światów gier, aplikacji i stron internetowych. Celem artykułu jest zaprezentowanie procesu projektowego i jego efektów jako eksperymentalnego, innowacyjnego programu akademickiego prowadzonego w ramach semestralnego kursu „Środowiska immersyjne i interaktywność w projektowaniu architektonicznym wnętrz i otoczenia”<sup>1</sup>. Ponadto, intencją dydaktyczną autorki jest przedstawienie zastosowania współczesnych technologii cyfrowych w projektowaniu miejskich przestrzeni publicznych. Experience design jako metoda projektowa i związane z nią narzędzia takie, jak np. ścieżka przeżyć, stanowią dopełnienie wysokich wymagań stawianych studentom w ich przyszłej karierze architektonicznej.

Keywords: experience design; public space; urban interior; didactic

Słowa kluczowe: experience design; przestrzeń publiczna; wnętrza miejskie; dydaktyka

<sup>1</sup> Associate Prof. Krystyna Januszkiewicz PhD Sc. Eng. of Architecture – This course was created by Prof. Krystyna Januszkiewicz and has been led by her at the Faculty of Architecture ZUT for the last three years. It is the first educational initiative in Poland aimed at preparing future designers to create attractive public spaces, which will impact brand acquisition by cities. Last year, the subject was guest-led by Krystyna Januszkiewicz at the Academy of Art in Szczecin.

## INTRODUCTION

The global mediatisation of public spaces in the cities poses many challenges of both virtual and physical nature. Modern digital technologies allow for aesthetic and functional enrichment of the designed space and give it features affecting the user's experience. Therefore, designing the experiences has become fundamental in creating websites or computer games and apps. Based on man-machine interaction, one of the key virtual reality researchers – Myron W. Krueger – has developed a concept of a responsive environment by stating that a responsive environment is on which a computer perceives the actions of those who enter and responds intelligently through complex and auditory displays [M.W.Krueger 1977, s.423]. By using numerous digital tools, the maker can create an immersive surroundings including responsive surfaces, which allow a future user to interact with the space itself.

This kind of approach provokes various experiences (visual, aural or even tactile) and poses a current trend in designing on artistic, architectural and city-planning levels. The experience design method aims to manipulate the spectators' experiences via interaction with all senses resulting in their deepened comprehension and awareness of a specific idea and space. Experience Design is a worldwide trend in the presentation of concepts or products, being used increasingly often as an exhibition tool, usually of artistic or educational expression.

In the first paragraph, the authors present an overview of key world examples of responsive environments as a case study research. However, the main part of the article focuses on an academic, semestral project of an interactive public space located within a shopping mall complex Stary Browar in Poznań, Poland. The history of the location and the project itself are presented in paragraphs two and three.

### 1. NEW MEDIA IN THE SERVICE OF ARCHITECTURE AND ART

Buildings have always been used to display cultural psyche, norms and values. In ancient Greece, sculptures enveloping facades conveyed stories of heroism. In Gothic religious architecture, delicate decorations bore a theological message while the grandiosity of Baroque architecture aimed to exemplify power, triumph and wealth. Since the dawn of time, architecture and art have been aimed at influencing human experiences and emotions. Apart from the functional layer of creating space for living, the manipulation of human perception was crucial in both areas. Over the decades, this effect has been achieved using various

design tools. The progressive rise of digital culture in the late stages of the twentieth century led to certain unexpected usages in different fields such as urban planning, but it also influenced, at its very core, the way we conceive cities and public space today [G. Ethier 2016, p.2]. The rapid development of computerization after 1990, resulting from the creation of the Internet, allowed for the progressive implementation of interactive surfaces and structural elements into all architectural spaces. Simultaneous progress in the design of virtual spaces has led to the creation of computer-aided tools to support such environments as the creation of computer games, web applications or even special effects in films. Thus, designers brought about the inception of immersive surroundings, which lead to the perception of an artificially created, illusory environment as a real one through the use of technologies such as, for example, CAVE (Cave Automatic Virtual Environment) or HMD (Head-mounted display). In terms of sensing the place itself, quoting McCullough - interaction design must serve the basic human need for getting into place. Like architecture, and increasingly as a part of architecture, interaction design affects how each of us inhabits the physical world [M. McCullough 2004, p.172] Digital media expanding the scope of influence of visual arts has opened new research areas on the psychology of perception. The boundaries between what is real and what is virtual got blurred. Art has found itself in a trap between expressing different and complex values and the commitment to create value.

#### 1.1. The idea of responsive environments

Responsive environments are defined as those, which engage interaction with the users of these environments through systems that respond to the audience's behaviour. Technologies used include detection and tracking motion through sensor systems, video cameras and/or body-worn sensors. Audio and video effects are generated according to the actual time of the event by software tailored to the accepted choreography of time and media type. The media choreography software is used to read and process the stimuli sensory input and generate responses in images and sound in real time.

Moreover, such environments may contain interactive tactile devices. Myron W. Krueger is considered the precursor, who, from 1969, worked on „sensitive environments” to create spaces responsive to user's gestures and movement, using a system of sensors and video cameras. As early as 1970, he created installations such as Glowflow, Metaplay and Physic Space using video projections which the viewer could modify, considered a cornerstone of interactive art. Nowadays,

Krueger's concepts are developed and increasingly often become attractive public spaces in the city, organizing the public zone. As a result, these types of installations have become a permanent part of the means of contemporary art's expression. The presented cases of responsive environments demonstrate a new artistic medium based on a commitment to real-time interaction between humans and machines.

This medium consists of sensors, display and control systems. It receives input from or about the participant and then generates output in a way, which can be recognized as a response to its behaviour. The relationship between what constructs an input and an output is arbitrary and variable, allowing the designer to intervene in the participant's action and the results obtained. For example, physical movement may result in sounds or voices used to navigate in a visual space defined by a computer. It is the relationship between the action and response that is important. Visual beauty and auditory response are secondary. The response is the medium!

#### 1.1.1. Designing user experience as design method

The resource's variety of inducing immersive experiences became the reason for the emergence of a new approach to design, known as experience design, spread in Anglo-Saxon circles at the end of the 1990s. Experience design has been described in creative environments as a combination of passive plot handling, non-linear educational experiences and interactive engagement of the recipient [J. Lorenc, L. Skolnick, C. Berger 2007, p. 37]. This approach is based on cognitive psychology and the psychology of perception, linguistics, scientific cognition, architecture, environmental design, industrial form design, and visual information and communication design combined with technique and technology [K. Januszkiewicz 2014, p. 51].

Contemporary customers possess specific knowledge and clear expectations. They are the ones who dictate the conditions, being demanding and aware of what they expect. To predict their choice of a brand, one needs a profound understanding of the ongoing global changes. The most sought-after commodity nowadays is the experience, therefore to make the products appealing, one needs to generate a special scenography around them to celebrate the experience [I. Gałązkiewicz 2018, p. 18]. According to Marc Hassenzahl – the professor for „User Experience and Ergonomics” at the Folkwang University in Essen – the experience can be explained as a remembered history of use or consumption that emerge from how the con-

sumer makes sense of the world and the transformation which changes his lifestyle. Experience or User Experience is not about technology, industrial design, or interfaces; it is about creating a meaningful experience through a device [M. Hassenzahl 2013, p. 2].

Despite the emphasis on the machine, which, in the experience, becomes a generator of impressions, the author leans toward a broader theory describing the experience as an act of triggering impressions without the need to use any particular device. An example of such theory is Cat Café – a global chain of coffee shops where the customers enjoy their drinks and treats surrounded by cats that roam freely around the shop. According to this approach, the experience becomes the process of affecting the consumer's impressions and their manipulation through a series of design measures.

A different example of influencing human experience is a student's project, Puzzle Façade, completed in 2013 on one of the buildings of ARS Electronica – a university complex in Linz, Austria. Surrounded by an open pedestrian space, its exterior surface was covered with a special structure containing a set of LED lights, which projected an RGB series of lights. This process was controlled by a Rubik's Cube, given to people visiting the nearby square. It allowed them to play with the cube by twisting its sectors and simultaneously affecting the change of façade's lights.

Among many other examples of digital technology used to create immersive worlds and manipulate human experiences, a Dune project by Studio Roosegaarde (Fig.1) focuses on almost all the senses – the sense of sight, hearing and touch. A Dutch group of designers work within the field of architecture, interaction and ecology. This mobile installation is the landscape of light, which interacts with human behaviour. Initially designed for Dutch shores to enhance its attractive yet dark line, it was then experimentally located in many different spots, such as pedestrian metro tunnels or church courtyards. It is a hybrid of nature and technology composed of hundreds of fibres that brighten according to the sounds and motions of passing visitors.

A concept and design process called “Experience design” has long been a buzzword in the exhibition and environment design fields. It has been used to explain everything from developing products and services around customer behaviour, to developing unique educational models [J. Lorenc, L. Skolnick, C. Berger 2007, p. 36]. Experience design is a method deriving from computer technologies, mainly web design, apps and computer tools interfaces. It is currently one of the most dynamically developing branches of computer science called UX design. The UX design is





**Fig.1.** Dune, detail and a tunnel view, 2019, by Studio Roosegaarde.

used to create products that provide meaningful and relevant experiences to users. It involves the design of the entire process of acquiring and integrating the product, including aspects of branding, design, usability and function [M. Brawne 2003, p. 30]. The method, created during the rapid development of the Internet in the 1990s, quickly became a universal tool in the process of designing interiors with complex scenography of sensations.

Nowadays, every product, e.g. new model of shoes or an existing urban interior, requires the enhancement and a complex scenography for its celebration. The consumer's attention is not generated on the level of the product's quality but rather through a series of stimuli caused by the product during its exhibition. The power of a hitherto unknown or perfected medium of illusion to deceive the senses leads the observer to act or feel according to the scene or logic of the images and, to a certain degree, may even succeed in captivating awareness. It is the starting point for historic illusion spaces and their immersive successors in art and media history. They use multimedia to increase and maximize suggestions to erode the observer's inner distance and ensure maximum effect for their message [O. Grau 2003, p.17]. In time, the method started being accompanied by the interactivity interpreted as a tool that transcended the virtual world and by entering the physical one lead to the integration of intellectual and sensual impressions in order to create a complementary and coherent artefact.

The experience design method is used in museums and commercial places, and in digital spaces

such as video games or online shops. It is often educational, presenting knowledge on a particular subject and/or commercial, presenting a particular brand or service, e.g. a concept store. Thus, its implementation connects two parallel worlds – physical and virtual.

## 1.2. RESEARCH

The didactic program based on design processes created using the experience design method built a semester course lasting from 1 October 2019 to 6 March 2021. It gathered 35 students from creative circles of architecture and interior design departments of the Faculty of Architecture at the West Pomeranian University of Technology in Szczecin. The program was conducted as part of 15 meetings (45 hours) combining theory and practice. The author defined its framework and course based on the evolving global design direction rooted in computer technology and the study of human-machine interaction.

The program study included a number of combined research techniques, respectively: literature and archival research, participatory observations, descriptive analyses of the characteristics of the studied environment, projection techniques (mind maps), lectures and, the main didactic element of the course - design task. The design intention was to use the Experience Design method for design activities within the city's public space. The resulting projects gave an image of the use of the experience pathway as a new creative tool, which enriches and makes space more attractive and allows for the presentation of an idea or product in a multidimensional way, affecting almost all human senses.

In terms of teaching strategy, students were given space for high creative freedom. The author of the article, while leading the course meetings, appeared more in the role of a person accompanying creative processes than indicating concrete solutions. Mark Gelernter suggests that:

*“Integrating theoretical and practical courses into the design studio is one of the most successful teaching strategies because of its significant role and direct impact on teaching architectural courses”*[M. Gelernter 2012, p. 46].

This approach was fulfilled by the initial series of theoretical lectures, explaining the use of New Media in architecture design and the meaning of creating an experience within a particular space. Thus, while the first part of the meeting timetable consisted of theoretical considerations around the method, the second part focused on the practical exercise. In the process of the whole course, the back analysis, questioning of the initial concepts and the implementation of changes were constant, based on the division of the project organization divided into two periods: an analytical period – with brainstorming, discussions, and idea creation; and a working period – with the preparation of the final statement, presentations, performances and others. Between the first and the second periods, a short review of ideas and problems discovered was introduced [Z. Paszkowski, J. Gołębiowski 2020, p.2].

#### GENERAL WORKSHOP OBJECTIVES

- to indicate the method (Experience design) of implementing new media into urban public space and show its ability to manipulate human perception;
- to get acquainted with the design tool in the form of an experience pathway as an universal creative medium. Its extensive use in different practices expands students' future creative skills;
- to focus predominantly on research by learning a methodology and project process. The final project was not the goal in itself, but an effect of a complex, multi-layered way of working on a task as a tool to handle any interior - closed or an urban one;
- to develop the student's ability to plan and understand different stages of designing an experience within a particular space;
- to expand space perception into and within three disciplines: interior design, architecture and art;

#### 1.2.1. Design process and methods

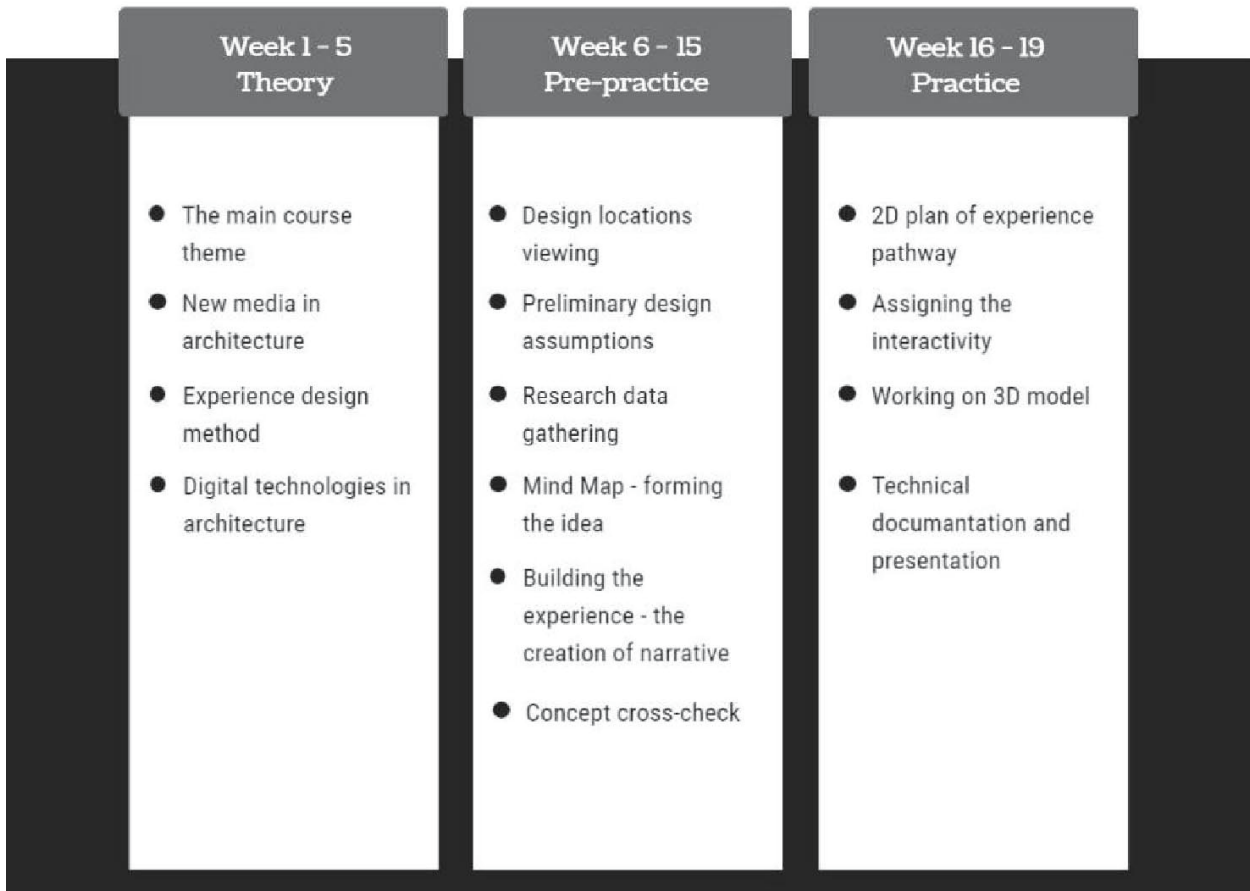
The prospect of using innovative didactic programmes in research or teaching projects is currently

one of the most desirable postulates of the academic world. Crossing disciplines' methodological and epistemological boundaries is a proven practice that yields revolutionary results in the conducted research or didactic process [A. Rek-Lipczyńska, I. Kozłowska 2020, p. 2]. The implementation of the didactic program based on experience design method is sporadic and mainly connected to computer sciences such as computer programming. Among the schools that introduced experience design as a regular course, the College of Arts, Media and Design in Northeastern University in Boston is worth mentioning. However, one can observe a lack of practice in spatial design in favour of behavioural analysis of its user. According to the guidelines, Experience Design is a holistic and integrative approach to design that focuses on the quality of the human experience in concrete situations. It employs investigation, analysis, creativity and technology as tools to understand human goals, needs, and desires and mediate the human experience. The Experience Design program at Northeastern University embraces research-driven design thinking for entrepreneurship and innovation, focusing on critical global challenges of today [14]. The author developed a two-stage didactic process during the semester course, including the introduction to Experience Design and a main didactic task (Diagram 1). The students, coming from the Faculty of Architecture and Interior Design, are acquainted with the premise and the process of Experience Design during four lectures. It has become essential to indicate multimedia techniques currently used in the design of existing urban spaces, such as Lighting Control Engines used on facades, sensory systems reacting to human exposition, DMX control software, timer activated networks and others. Wide area of issues related to computer technologies and the brand-new tool in the form of AI required deep research during the early stages of the design process. Among multimedia tools, it was also important to explain the systems initially described by Kruger in 1969, who worked over so-called responsive environments - spaces reacting on human gestures and movement using sensory and video-cameras systems [H. Ranzenbacher, H. Hoertner 2003, p.298].

The second part of the course started with a thorough explanation of the design task. Then, the students were able to divide into groups of two or work under the exercise individually. Finally, they were allowed to choose a particular public space, an urban interior within the city of Szczecin. Afterwards, the participants chose the core subject of their experience path created with the experience design method, which was the most crucial part of the practice activity within the course.

Diagram 1. Progress of a design process. Theory and Practice parts of the course

## Progress of a design process



Source: prepared by the authors

## 2. RESULTS

Within almost four months of the overall designing period, students presented a variety of concepts. The chosen urban interiors differed in function and the type of space limitation. Some were confined by a square net of trees, while others presented a clear border of building's facades surrounding the chosen interior. A complex square arrangement surrounded by many old buildings such as the Academy of Arts has been presented by a group of students – Julia Klein, Laura Koperska and Anna Hardziej (Fig. 2). Apart from a modular design of stand-alone, multifunctional forms with integrated lighting, the students also proposed a 3D mapping activated by the dance moves on a special floor covering located nearby.

The concept referred to the history of the Academy of Art's palace, which was originally a place of birth of tsarina Maria Fiodorovna. Students also focused on creating immersive environments for children (Fig. 3). A semi-open public space nearby a puppet

theatre *Pleciuga* has been a backdrop for an interactive playground, allowing the visitors to play with both touch and sound.

The majority of projects were characterized by a public function – entirely open for any kind of visitor. Most of them included a certain path of experiences. However, one was exceptionally well thought out in terms of human-machine response. Yelizavieta Yatsiuk, a student of the Faculty of Architecture, has chosen an urban interior of a specific nature and transformed it by adding a series of action sensitive systems reacting to the passer-byes.

### 2.1. Stary Browar – Old Brewery – an art and shopping centre

Stary Browar in Poznań is a contemporary shopping centre and a centre of culture and education. Its history started in 1849, when Poznań belonged to a territory of Prussia under the name – The Grand



Duchy of Posen and kept arousing the interest of German investors. One of them – a German brewer Ambrosius Hugger – opened his first brewery at Woroniecka Street and, as the production in the brewing business had its time of breakthrough by the invention of automatic and steam machines, he opened another brewery at St.Wojciech Street. The Hugger brothers kept expanding the factory's area by the successive buyout of surrounding buildings: a cooling house, two dwelling houses at the corner of Półwiejska Street etc. Brewhouse, Maltings and Drying house with their characteristic chimney were built during Hugger Brewery's extension. The Brewery's architecture is in accordance with the arcadian style (*rundbogenstil*) typical of industrial architecture of the time, with elevations made of facing red brick, semicircular windows and simple brick decorations. In September 1939, the Brewery fell under German management, and the production of beer lasted until 1944 when Germans transformed the cellars and vaults of the Brewery into bunkers and shelters. The Brewery was vastly destroyed during the battles of Poznań. After the II World War, the Brewery was taken over by the Brewing Companion, and the company was

nationalized. After the closing of the brewery in 1980, its buildings gradually deteriorated. A small company producing fizzy water functioned there until 1997. However no renovation works had been carried out. A company called Fortis "Nowy Stary Browar" owned by Grażyna Kulczyk bought real estate at Półwiejska Street from brewing company Lech Browary Wielkopolskie. After acquiring adjacent estate from the Military Property Agency and private entities, Fortis began working on a project, Business and Art Centre 50 50. The investment was due to be finished at the end of 2003. 1999-2002. The area was cleared and made available to theatres. Shakespeare's "Coriolanus", Bizet's "Carmen", Verdi's "Macbeth", and "Rigoletto" were subsequently staged. In 2002 Atrium Wing, with more than a hundred stores, restaurants and office space was opened. Stary Browar is among 20 buildings constructed after 1989 that join the famous exhibition "Poland. Architectural icons". In addition, the Courtyard of Art, a crucial part of student's projects, was opened. The event is accompanied by the exhibition of works by world-class Italian designer and architect Alessandro Mendini. In 2005, Stary Browar won the title of the best shopping



**Fig. 2.** Concept of a public space design; authors: Klein J., Koperska L., Hardziej A.



**Fig. 3.** A concept of interactive playground; authors: Stojalowska K., Orłowska A.

centre in Europe and was chosen by the International Council of Shopping Centers (ICSC) as the best shopping centre in the world. The jury of this prestigious competition appreciated the architecture of buildings and, most importantly, the unique combination of cultural and commercial activities undertaken there.

## 2.2. A semestral project

Based on the aforementioned didactic program, a semestral design task resulted in students' various concepts and ideas. A unique public interior located within the area of Stary Browar (Fig.4) appeared to be an inspirational public space, with its combined function of an outdoor square and a roofed open space available for all visitors. It is usually used as an exhibition and event area while connecting two main buildings of a shopping complex.

One of the students – Ms Yelizavieta Yatsiuk – embedded her project in an initial, detailed analysis of the place and needs of its users. She coined the main design idea by answering such questions as:

- Users - Who are the users of the space? Citizens of Poznań or tourists?
- Time - How often do they visit Stary Browar? Are they here just for a quick visit, or is it their everyday shopping/meeting spot?
- Needs – What is this place missing? What are the unfulfilled, additional needs of its users?

Recreating an original model of the inner public space of Stary Browar was an initial step for developing the further design concept (Fig. 5).

The main idea was to create an environment in which participants could immerse themselves and experience the beauty of nature by the use of digital technology. The park, located next to the facility, is the only green area. However, there is a noticeable lack of vegetation within the shopping centre's borders. The student referred to the seasons as a comprehensive symbol of the flora's development stages. Therefore, the concept of interactive surroundings reflecting seasons on the facades of Stary Browar was created. Based on the map of associations, the student assigned certain impression characteristics to the seasons.

- Winter (Fig. 6) – associated with snow and frost. Walking the streets, the sound of creaking snow and the soft wind, playing snowballs, going sledging, cold, blue tones of light. The field of experiences focuses on the floor (a layer of snow).
- Spring (Fig. 7) – an outburst of colours, warm palette associated with magnolia flourishing in March and April, trees blossoming. The field of experiences focuses on the walls (flower petals).

- Summer (Fig. 8) – plants are in full bloom: green palette, seed dispersal, a slow withering of plants. The field of experiences focuses on the walls (wind-dispersed pollen).
- Autumn (Fig. 8) – days getting shorter, warm palette – red and gold, sunsets, nature's twilight. The field of experiences focuses on the walls (falling leaves).

At its core, the Stary Browar square project was created to allow every passing person to become a participant in the interactive space. When entering the area, interactive floor panels and a 3D mapping on facades are triggered (waves of different colours and shapes depending on the current season). At the same time, motion sensors build a map of each person's movement, located on an interactive panel on one of the facades of Stary Browar. The map is refreshed every 5 seconds reflecting the arrangement of specific shapes (visitors). A separate animation is shown on the façade of the Tower – a centrally located building. It displays a series of longitudinal elements falling down the surface of the façade. Sensors that sense a human movement allow for free play with the elements – catching them, stopping their movement etc.

The 3D mapping on all facades presents a certain symbol of the season and depends on the number of participants; in addition, the number of graphic elements will increase or decrease depending on the number of people passing by. Moreover, by entering the interactive floor panels, people trigger soft music playing, the sound waves are shown on the columns and the chimney.

## CONCLUSIONS

The experimental program of semestral workshops based on the innovative method of experience design exhibits high educational value in creative processes. It has demonstrated the possibility of joint, multilayered discussion on currently important aspects of shaping the public city space using interactive systems combined with a broad design method. Students' creativity has been expressed in various forms, such as sketches, mind maps, working models, renderings, performances, and presentations. Its universal character allows for creative freedom, however, it is worth mentioning that subjects chosen by the students were ideological. None of the students chose the leitmotif in the form of a real, material product to create a narration of the experience path. Using this method in architecture carries the risk reallocating creative actions towards art and creating an urban sculpture lacking both utilitarian and interactive functions. Moreover, during



DESIGNING RESPONSIVE ENVIRONMENTS IN THE STARY BROWAR IN POZNAŃ ...



Fig. 4. Stary Browar - view from the perspective of an inner public space; prepared by Yatsiuk Y.



Fig. 5. Stary Browar – early stages of a public space's model; prepared by Yatsiuk Y.



Fig.6. Winter scenes; prepared by Yatsiuk Y.



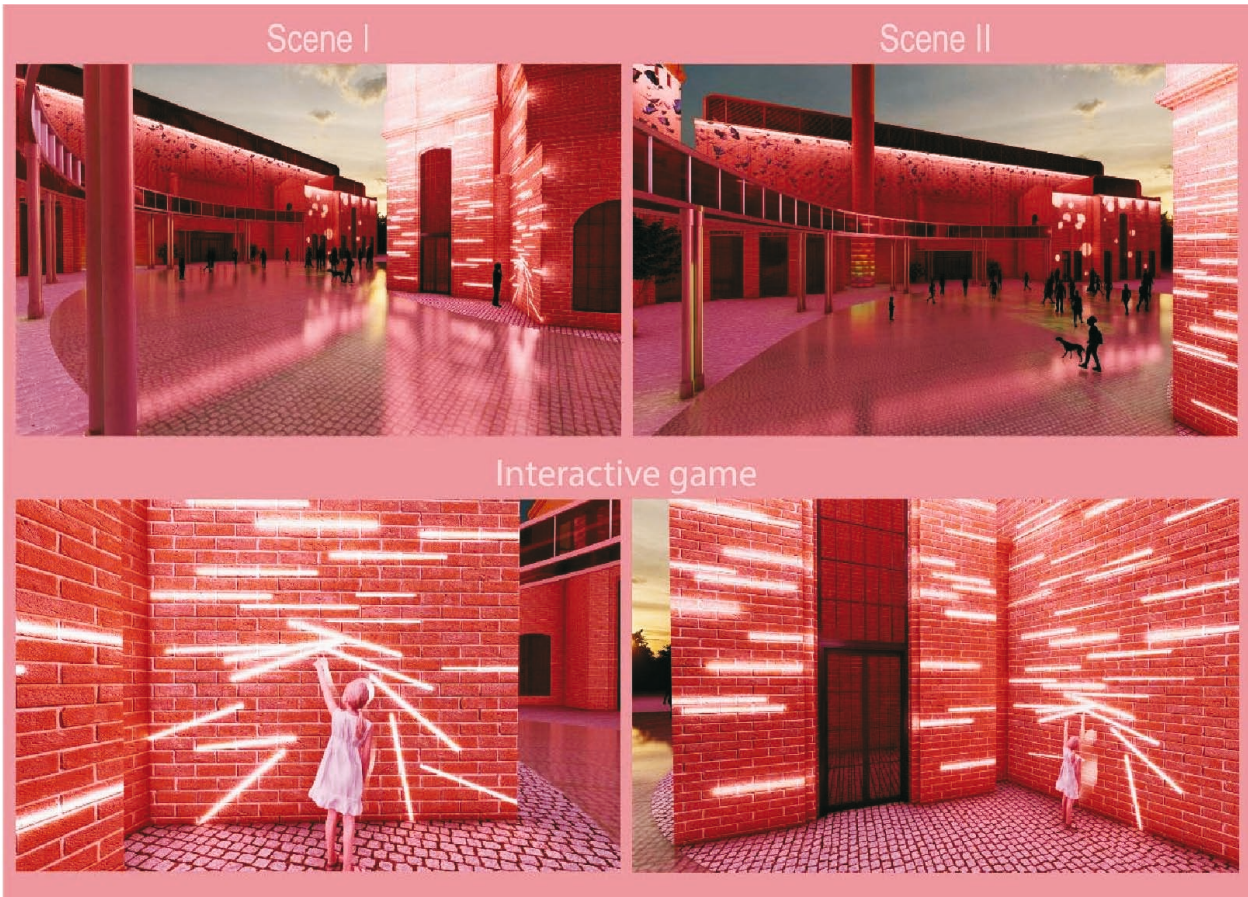


Fig. 7. Spring scenes; prepared by Yatsiuk Y.

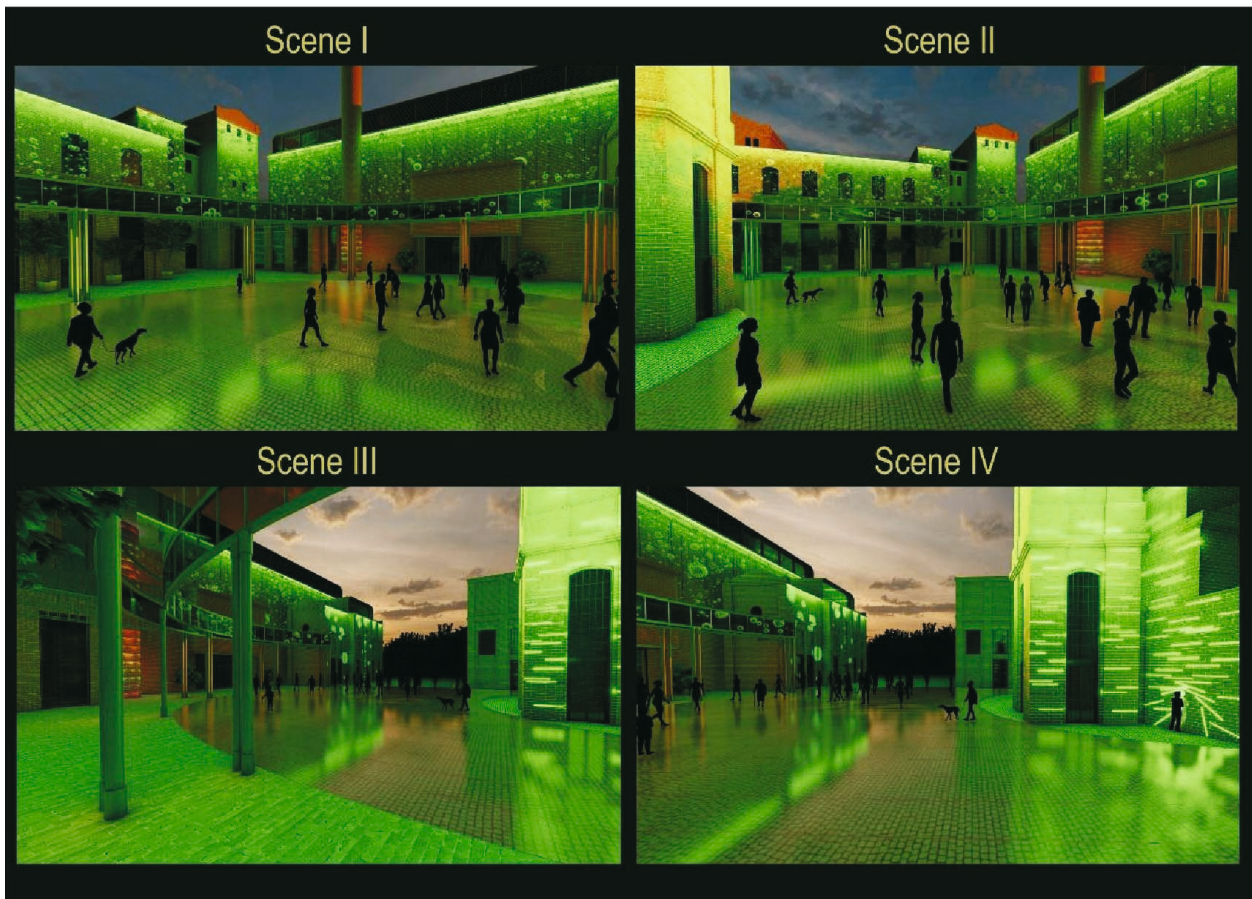


Fig. 8. Summer scenes; prepared by Yatsiuk Y.



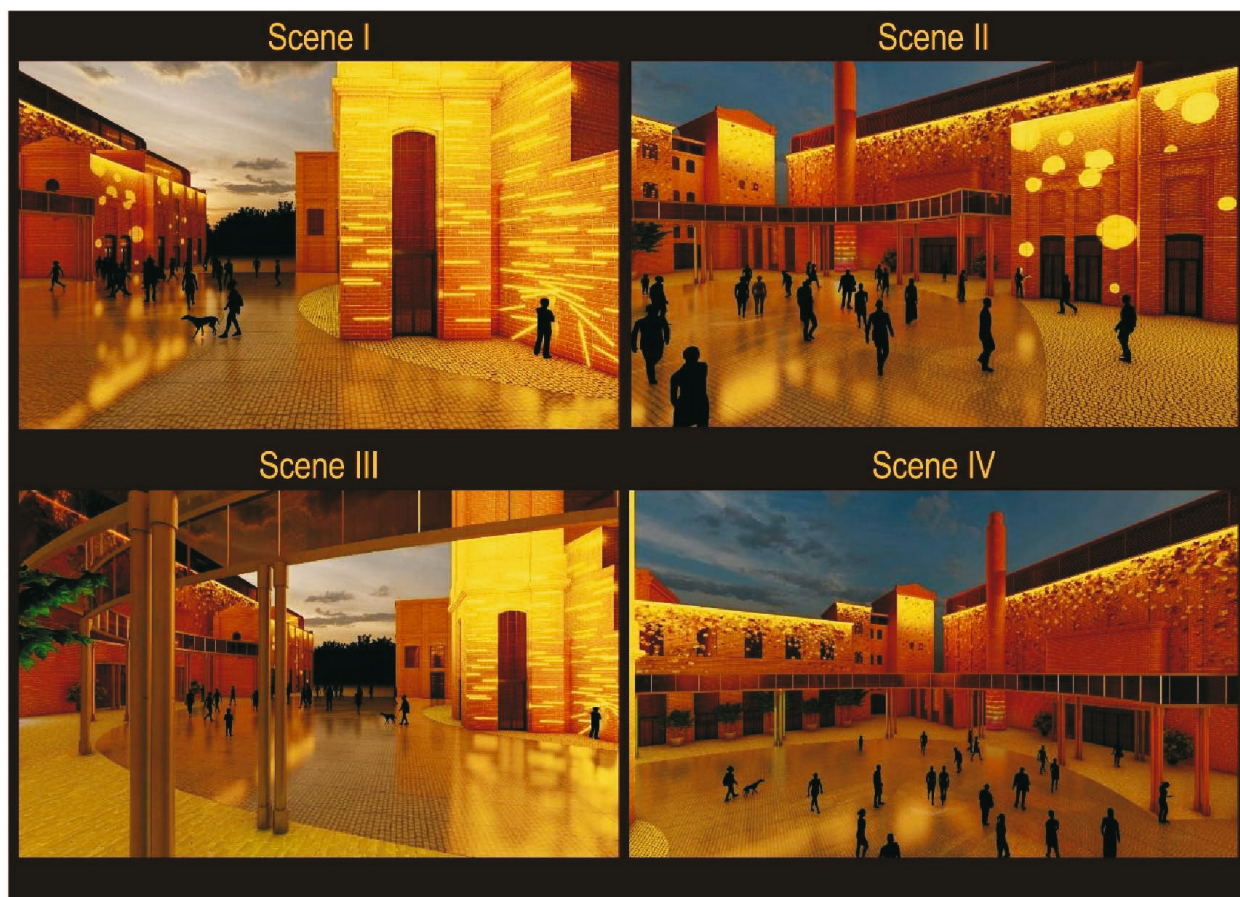


Fig. 9. Autumn scenes; prepared by Yatsiuk Y.

the educational process, it was noticeable that the students omitted the commercial aspect of the designed form. Any attempts to emphasize the real process of cooperation between the designer and the investor and turn the attention to potentially generating an income by using the designed space by the customers were met with incomprehension among the participants and required further explanation.

The experience design method is currently a valuable design tool in a wide range of disciplines focused on broadly understood creation. In the time of simultaneous development and permeation between the real and virtual world, the described method seems to be uniquely valuable and effective in all design processes. Its implementation gives the most desirable results in creative actions on the border of architecture and art. Digital technology radically changed the way we teach and learn architecture in the context of creating certain experiences within a space.

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#### LITERATURE

1. **Brawne, M. (2003)**, *Architectural Tough: The Design Process & the Expectant Eye*, Architectural Press, Oxford.
2. **Ethier G. (2016)**, *Connecting the Dots: How Digital Culture Is Changing Urban Design* *Contour Journal*, 1, p.2.
3. **Gałązkiewicz I. (2018)**, *Projektowanie doświadczeń*, Wyd. Słowa i Myśli, Lublin 2018, p.18.
4. **Gelernter M.**, *Reconciling Lectures and Studios*, "Journal of Architectural Education", 41 2, p. 46-52.
5. **Grau O. (2003)**, *Virtual Art. From Illusion to Immersion*, The MIT Press, Cambridge, Massachusetts.
6. **Januszkiewicz K. (2014)**, *Psychologiczne aspekty oddziaływań środowisk interaktywnych i immersyjnych – kultura mediów elektronicznych*, „Archivolta” Vol. 61, No 2, 2014, p. 48-53.
7. **Hassenzahl M. (2013)**, *User Experience and Experience Design*, in: Soegaard M., Dam R.F. (eds.)



- The Encyclopedia of Human-Computer Interaction*, The Interaction Design Foundation.
8. **Krueger M.W. (1977)**, *Responsive Environments*, Proceedings of the June 13-16, 1977, National Computer Conference, Dallas, Texas, p. 143.
  9. **Lorenc J., Skolnick L., Berger C. (2007)**, *What is exhibition design?*, RotoVision 2007, Essential Design Books.
  10. **McCullough M. (2004)**, *Digital Ground: Architecture, Pervasive Computing, and Environmental Knowledge*, The MIT Press, Cambridge, Massachusetts 2004, p. 172.
  11. Northeastern University, College of Arts, Media and Design, 29 April 2020, <https://camd.northeastern.edu/program/experience-design/>
  12. **Paszkowski Z., Gołębiewski J. (2020)**, *The international design workshop as an intensive form of architectural education*, "World Transactions on Engineering And Technology Education" Vol.18, 1.
  13. **Ranzenbacher H., Hoertner H. (2003)**, *Sensory Environments - Immaterial Interfaces*, "Ars Electronica", Hatje Cantz Verlag, Linz, p. 298.
  14. **Rek-Lipczyńska A., Kozłowska I. (2020)**, *The assumptions of interdisciplinarity in the education of interior designers*, Conference on Engineering and Architecture Design Education.