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THE SIGNIFICANCE OF PUBLIC CONSULTATION IN THE DESIGN PROCESS: THE ROLE OF PUBLIC PARTICIPATION IN THE EDUCATION OF ARCHITECTS - THE CASE STUDY OF DEVELOPMENT OF ADAM MICKIEWICZ SQUARE IN OPOLE

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A b s t r a c t

This article explores the significance of public consultation in the design process and its impact on architectural education, using the conceptual redevelopment of Mickiewicz Square in Opole as a case study. Public participation plays a crucial role in contemporary public space design, enabling the inclusion of residents' voices in decision-making processes. The first part of the article establishes the theoretical foundation of public participation, highlighting its influence on the quality and efficiency of design outcomes. This is followed by an in-depth analysis of the case study, focusing on the methods of public consultation employed in the square's development project and evaluating their effectiveness in integrating the local community's needs. The findings demonstrate the substantial impact of residents' input on the final design, offering valuable insights into incorporating participatory practices into architectural education. The article concludes with recommendations for practitioners and educators, emphasising the importance of fostering community dialogue in design processes to address contemporary communities' diverse needs better.

Keywords: participatory design, architectural education, urban planning education, public consultations in public space design, public participation in architectural education, live project, urban square, Opole

1. INTRODUCTION

The contemporary design of public spaces faces several challenges that require a shift away from traditional design methods towards a more inclusive approach, requiring the use of participatory methods to achieve the effect of greater involvement of the local community in shaping public spaces. Public consultation, defined as a multi-directional set of interactions between citizens and other actors

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who collectively produce outcomes [1] relevant to decision-making in shaping their environment, can be crucial in increasing the quality and effectiveness of architectural and urban design projects. This is particularly important in the case of public spaces that perform social, aesthetic and practical functions, integrating the diverse needs and expectations of the local community. Public consultation, by enabling the active participation of residents, is a tool to democratise design processes and build sustainable, durable spatial solutions.

The role of public participation in urban design has been gaining importance since the 1960s. The work of architectural theorists [2], [3], [4] drew attention to the need to include the voices of different groups in design processes to understand the local needs and social characteristics of a given space better. Public consultation, while initially an experiment, became a way of soliciting feedback and fostering a sense of co-responsibility among residents for the space in which they live. Involving the local community in the design process not only strengthens the social acceptance of the project but also allows the space to be better adapted to the users' actual needs and daily practices. This process becomes crucial in the case of projects with a high public profile, such as the development of city squares or parks that function as places for meeting, recreation and social integration.

In the context of architectural education, community consultation is gaining importance as a tool for developing interpersonal skills and understanding the multidimensional nature of design processes. By engaging in dialogue with local communities, young architects learn in practice how design can affect residents' daily lives, the social, ecological and cultural implications of their decisions, and how to build sustainable designs that meet the real needs of users. As a result, public participation enriches the design process and can contribute to shaping more responsible and informed designers.

This article presents research on the use of participatory methods in the education of architecture students in urban design. The method of public consultation, admittedly present in the actual design process as a legally defined element [5], is only sometimes included in the process of educating future designers due to the theoretical nature of most design courses and the great complexity of organising such meetings. Hence, the unique, in the scale of the whole process of educating architects, nature of the method of training in one of the design subjects became a reason to describe the entire process and to analyse the phenomenon in greater depth, together with identifying the limitations and added values resulting from these changes.

2.1. A literature review

The history of architect's connection with the field of participatory design in Europe has already been analysed, as having more than 60 years of history [6]. In the 1960s, universities established Community Design Centers (CDC), offering design and planning services to underrepresented communities and bringing architectural education closer to civil society [7]. This development marked not only a physical but also a conceptual shift in design thinking - from designing 'for' user to designing 'with' users, or 'in dialogue with' them [8], [9]. Crucially, the professional role of the architect lies in incorporating user perspectives into solutions that meet technical standards, comply with legal requirements, and respond effectively to spatial, social, and environmental contexts.

The participatory approach is described in the literature regarding the architectural education process mainly in the context of cyclical or special, often blended, intensive educational programmes. In the case of studying architecture, it includes primarily summer schools and educational workshops of varying lengths, which, in most cases, are not included in compulsory academic programmes [10], [11]. An interesting approach is introducing a separate course within purely academic learning, as Kristina Careva and Rene Lisac described using the course 'Participatory Design of Space' as an example [12].

Sometimes, the participatory approach, especially in a social context, is related to becoming a part of the community, role-playing in action thinking [10]. As a tool for service learning, it has been increasingly incorporated into higher education curricula since the end of the 20th century [13]. Therefore, participatory approach in architectural education can take two complementary forms. In top-down initiatives, students engage as semi-professional designers working under expert supervision to address real spatial challenges involving stakeholders or investors. In bottom-up scenarios, they become temporary yet essential members of community-initiated groups, actively participating in the co-creation of design solutions [8], [14, p. 307]. This type of mutual learning is a core principle of the process and is essential in preparing architecture students to become future professionals responsible for inclusive and context-aware spatial development [9, p. 82], [11], [14, pp. 306-307], [15], [16] (as it was in the 'classical' investment, where the knowledge and main deciding role was dedicated to architects and urban planners).

On the fringes of the whole phenomenon, research highlighting the next step in implementing participatory techniques in education at different levels of training has attracted attention. Participatory activities in the design and, more broadly, in the development (including construction) of buildings for the educational process, whether it is a primary school [17] or a university training future designers [14], have are proven to be important educational tools .While contemporary design education increasingly addresses social aspects through methods such as surveys and user research, participatory processes add value by offering students direct engagement with real stakeholders and tangible involvement in shaping the built environment. This not only grounds the learning experience in real-world contexts but also gives symbolic significance to the physical framework supporting the educational process [18].

Another group of studies includes an attempt to evaluate revitalisation processes in public spaces through user interviews and an attempt to translate the results into the need to change how students, as future designers, are trained to sensitise them to the voice of citizens [19].

Nowadays, we call it more often a 'live project/design' instead of 'participatory design' (PD), juxtaposing them with 'studio design' as the most classical and static method. As Kathleen Watt and Derek Cottrel stated, live projects involving clients and users can enhance student learning in architectural education compared to the traditional studio model [20, pp. 97-99]. It is now even more of a criticism of the hothouse learning conditions in the studio learning environment [20, p. 97], rather than earlier described stigmatisation of the form of involvement in the process of professional initiation [20, p. 98], [21 p. 167], with too much of an impact of authorities such as tutors or local jury, rather than on discussion and quest [20, p. 98], [22]. Therefore, the 'live project' was defined as 'one that exposes students to 'real life' situations, usually including team-work and interaction with clients, community groups or building users' [20, p. 98]. In some cases, it is believed that the best way to develop professional competencies is to embed learning processes in authentic learning tasks and social contexts [23, p. 19].

While participatory methods have been known and used in spatial design before, the consolidation and systematisation of this method have had excellent added effects in professional work, and the teaching of architecture and urbanism only occurred in the early 21st century. An essential publication in this respect is the book by Peter Blundell Jones, Doina Petrescu and Jeremy Till [24], which drew attention not only to the essence of the method in so-called interventional design but also as a method for building civil society [25], [26].

The discussion that took place at the beginning of the 21st century in Great Britain about specific changes to be made in architectural education led to conclusions about the necessity of including more cooperative, small(but still)-group learning experiences in the subject of urban planning [20, p. 98], as offering opportunities to combine discipline-specific and practical skills [27, p. 303].

The studies reported in the literature mainly focus on describing examples or case studies of the method's implementation in scenario-based elective courses, with less actual participation of external stakeholders, and taking place outside of academic classrooms in spaces subject to re-design, taking place repeatedly in a spiral model of distinct stages [28]. Hence, design activities often involve interior design [29], [30], in which furnishings are made and less frequently implemented in open spaces. As for now, Watt and Cottrell have also prepared the most comprehensive work on recently published case studies describing community-based projects involving students, highlighting their generally superficial analysis and rather descriptive character [20, pp. 99-100].

Newman & Thomas [17] consider the effectiveness of several strategies such as consultations, participatory model-making workshops, questionnaires, and facilitated discussion forums. The earlier work by Henry Sanoff described the primary division and techniques of PD into strategic planning, visioning, charrette process, community action planning and participatory action planning [31].

Several key reasons have been identified in the literature for why introducing PD methods is highly beneficial in the educational process [32]. These are reflecting design as a socially-based process, related not only to the designer itself, but - what is most importantly - taking into account the opinions and needs of the stakeholders [33 p. 522]; shaping the design process itself, as well as the project's final outcome by 'the diversity of views expressed by people during the design decision-making process' [33, p. 534] (based on Sanoff's Democratic Theory promoting stakeholder participation in decision-making processes) [32, p. 591], and finally a chance to involve 'mutual learning', a guiding principle underpinning PD [9], [31].

However, scholars also point to risks associated with inadequately implemented participatory approaches. These include the possibility of 'tokenism' - a superficial or symbolic involvement of stakeholders without grating them real influence - along with misinterpretation of user input or unrealistic expectations when dialogue is poorly facilitated or stakeholder roles are unclear [7], [9]. This highlights the essential role of experienced planners and architects in guiding participation and educating stakeholders about spatial and technical realities [9], [31], [32].

2.2. A research niche

Public participation has become an increasingly significant component of contemporary design processes, particularly in the context of public spaces. However, there remains to be a notable gap in the research regarding its integration into architectural education. While much of the existing literature examines the design process itself and its effects on spaces and users, more comprehensive studies are needed to explore how engaging communities in real-world projects influence the development of young architects' professional competencies. Specifically, there is a need to understand how community involvement can serve as an educational tool, fostering technical proficiency and critical skills such as communication, mediation, and ethical decision-making among future architects.

Further research is required to validate the effectiveness of public consultation as a pedagogical approach and propose concrete models and methodologies for its integration into architectural training. Key questions include: How does public participation influence students' perceptions of the architect's role? In what ways does it enhance their critical thinking and empathy? And how can the impact of such participatory experiences on the quality of the spaces they design be effectively assessed? Addressing these questions will contribute to developing educational programs that better equip architecture students to navigate the complexities and demands of contemporary design practice.

2.3. The aim of the research

This research aims to examine the role of community consultation within the architectural education process and its impact on the design of public spaces. Specifically, it seeks to explore how the involvement of local communities in the design process can enhance the education of future architects by fostering their ability to collaborate with stakeholders and adapt projects to the real needs of users. The case study of the redevelopment of Mickiewicz Square in Opole serves as a basis for analysing the influence of community consultation on the final design of public spaces and investigating how these participatory experiences can be integrated into architectural education to benefit both students and the communities they serve.

2.4. The theoretical framework of public participation

Public participation in architectural and urban design traces its origins to the social movements of the 1960s, a period when traditional 'top-down' planning models—where design decisions were made by experts without input from users—began to face significant criticism. A pivotal moment in the evolution of this concept was the critique of modernist urban planning, particularly regarding large-scale housing estates and apartment complexes that often failed to meet the actual needs of residents. Pioneers of public participation, such as Jane Jacobs, challenged these hierarchical approaches, advocating for urban design that prioritises the needs and perspectives of local communities [4]. Over the subsequent decades, public participation became a fundamental aspect of contemporary planning practices, particularly in Western cities. It has since been widely recognised as a means of democratising the design process and as a strategy for achieving more sustainable, functional, and socially acceptable spatial solutions [34]. In Poland, the adoption of participatory approaches developed slower; however, the past two decades, particularly following the country's accession to the European Union, have seen a growing integration of participatory mechanisms into urban planning and architectural processes [35].

Theories of public participation are founded on the principle that residents, as the primary users of their living environments, are the most knowledgeable experts on their needs and should have a meaningful role in decision-making processes related to the design of spaces they will inhabit. One of the foundational theoretical models in this field is Sherry Arnstein's Ladder of Participation, introduced in 1969 [36]. Arnstein identified eight levels of participation, ranging from 'manipulation' and 'therapy' (symbolic or superficial forms of participation) to 'delegated power' and 'citizen control' (where residents hold genuine decision-making authority) [37].

More than fifty years since its publication, this model continues to evolve, with new 'rungs' being conceptualised to address the unique characteristics of participatory behaviour in contemporary urban communities. In Polish context, this evolution must also reckon with the spatial legacy of the PRL era, where large-scale, top-down planning has shaped many of the public spaces that now require redefinition through more inclusive, bottom-up approaches [38].

Another significant framework is deliberative consultation, which underscores the importance of fostering open dialogue between experts and residents. This approach promotes a transparent process in which all participants are provided equal opportunities to express their views, enabling a reciprocal exchange of ideas that influences final decisions [39]. In recent years, the co-design model has gained prominence in contemporary design practices, emphasising the role of residents as active co-creators rather than passive recipients of pre-determined solutions. This model envisions the design process as a dynamic and ongoing dialogue, integrating expert knowledge with user experience to achieve optimal outcomes [40], [41], [42]. The research presented in this study adopts the co-design model in semi-studio design classes as its foundational framework, exploring its application in the participatory redevelopment of public spaces.

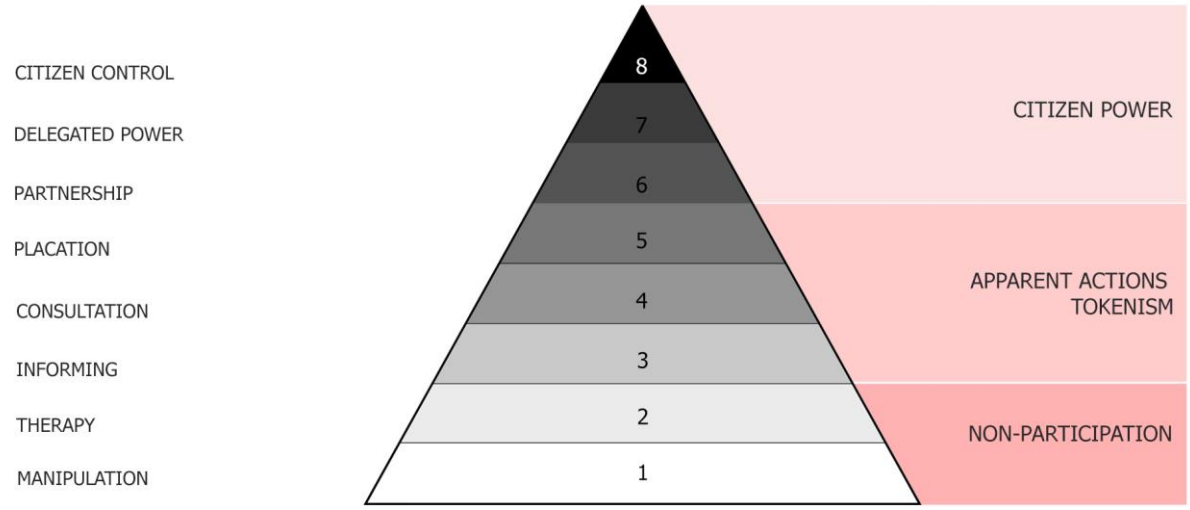

Fig. 1. Sherry Arnstein's Ladder of Participation. Author's own elaboration based on [36]

The contemporary approach to public space design emphasises the critical role of the public in shaping and transforming these spaces [43], [44]. Public spaces—such as parks, squares, streets, and markets—serve as venues for physical activity and as platforms for social interaction, cultural exchange, and local identity construction. As such, the active involvement of local communities in design processes is essential for creating spaces that are both responsive to residents' needs and widely accepted by the public.

Participation in public space design can manifest in various forms, ranging from consultations and workshops to more advanced co-design models, where residents actively contribute to developing specific design solutions. Through such engagement, designers gain a deeper understanding of the actual needs and expectations of the users of a given space. Moreover, public involvement fosters a sense of shared responsibility for the space. Residents who participate in consultations and influence the design process are more likely to engage in the maintenance and sustainable use of the space, enhancing its long-term functionality and success. Additionally, public dialogue plays a crucial role in identifying and addressing potential conflicts of interest, enabling the creation of solutions that accommodate the needs of diverse social groups. This aspect is particularly relevant in complex, multicultural urban environments, where balancing competing interests is critical to achieving equitable and inclusive design outcomes.

2.5. Adam Mickiewicz Square in Opole - a historical context

The development of Opole in the areas east of the Old Town dates back to the second half of the 19th century. Initially, buildings in this part of the city were constructed along pre-existing streets. Urban plans from the early 20th century already illustrate concepts for the layout of new streets in the area bordered by Ozimska, 1 Maja, and Władysaw Reymonta streets, as well as the barracks complex of the 63rd Infantry Regiment. The primary traffic axes of this layout were established by Katowicka Street (running north-south) and Tadeusz Kościuszko Street (running east-west). During the interwar period, a time of intensive development in this area under German administration, the urban design included plans to establish a central location in the eastern part of Opole, featuring significant public facilities located around these main thoroughfares. Among these facilities was a new Catholic parish church, which had already been conceived before World War I. In the 1920s, it was decided to locate the church

on the northern frontage of Karol Miarki Street, with the design commissioned by Berlin architect Arthur Kickton. Constructed between 1923 and 1925, the Church of Saints Peter and Paul was built on an artificial elevation. This three-nave basilica, featuring a transept and a three-sided chancel, was founded on a Latin cross plan [45]. A monumental tower complements its horizontal layout with a distinctive domed cupola, which remains a dominant feature of this part of the city. In front of the church lies a rectangular square measuring approximately 50 x 100 meters and covering an area of about 0,5 hectares. The square's development was realised in the 1930s with the creation of a geometric composition designed to enhance the visibility of the modern structure of the Church of Saints Peter and Paul [46]. This composition, based on a right-angle and axial arrangement, was known as Strassburger Platz and consisted of two distinct parts:

- The more extensive eastern section: A rectangular depression featuring a lawn edged with flower beds, surrounded by alleys with benches and enclosed by slopes planted with shrubs. To the east, this part was bordered by the wall of the church platform, which included terraced stairs, and to the south, by an alley lined with benches and tables.
- The smaller western section along Katowicka Street: A geometric composition at ground level featuring two rectangular lawns, flower beds, and alleys [47].

Fig. 2. View of Mickiewicz Square and the Church of Saints Peter and Paul, depicted on the obverse of a postcard from 1935 [48]

Fig. 3. Location of Adam Mickiewicz Square in the urban context of the Downtown District of Opole. Author's own elaboration

An essential feature of the interwar development of the square was the introduction of two rows of small-leaved linden trees on its northern and southern edges, which helped define and separate the space of the square. Additionally, common yews were planted along the eastern and south sides, forming a natural 'curtain' complemented by stone elements such as retaining walls and terraced stairs. The square, characterised by its recreational function, was further distinguished by diverse greenery, including perennials, flowering plants, shrubs, and trees.

The square was conceived as the final element in the development of this part of the city, following the construction of significant public facilities that formed the new urban centre. Its layout was deliberately aligned with the axis of the Church of Saints Peter and Paul (1923–1925, designed by architect Arthur Kickton), located to the east. Surrounding the square, other prominent buildings included the Higher Real School (1912–1913, now the Faculty of Civil Engineering and Architecture at Opole University of Technology) to the south and the Chamber of Crafts (1927–1928, designed by architect O. Goltz) to the west.

To the north, the square was initially neighbored by the People's School (1909–1910, now High School No. 8). Since the 1960s, this space has been dominated by the modernist NOT building, designed by architect J. Schröter. The square's broader surroundings include residential buildings and additional public facilities, reflecting its integration within a vibrant and multifunctional urban fabric [47].

After World War II, under Polish administration, several decisions and actions were undertaken that altered and, in some cases, obliterated elements of the square's modernist development from the 1930s. In the 1960s, the levee and surrounding slopes were removed, and the originally rectangular lawn was modified with a semicircular ending on the western side. A solitary beech tree was planted on the lawn; however, its placement was misaligned with the visual axis, disrupting the intended composition.

Fig. 4. View of Katholishe Knaben- und Mädchen-Schule Malapener, depicted on the obverse of a postcard from about 1920 [49]

A significant decision that further distorted the original urban concept of the square was the placement of the Adam Mickiewicz Monument Foundation 1965 in the western section of the square not only disrupted the spatial array but also gave rise to the name it is still in use today: Adam Mickiewicz Square. In the 1970s, a fountain was installed on the central axis in the eastern part of the square as part of a social initiative.

In the following decades, limited maintenance led to the gradual degradation of the square's landscaping elements, including the asphalt pathways and other design features. The lack of proper pruning of the yew trees on the eastern and southern edges has obscured the view of the Church of Saints Peter and Paul, while the table sections, once an integral part of the square, have become defunct and were absorbed into the street space. Additionally, the monumental establishment featuring a bust of Adam Mickiewicz, sculpted by 19th-century artist Pius Weloński, has deteriorated and is now in poor technical condition, necessitating urgent renovation efforts.

Adam Mickiewicz Square is one of the largest and most prominent public spaces in the downtown area of Opole, yet its potential still needs to be utilised. For the local community, it serves as a venue for meetings and recreation; however, its appeal needs to be improved by a lack of regular maintenance and outdated infrastructure. Key issues include the deteriorating condition of pathways, damaged small architectural elements, and overgrown vegetation that obscures the Church of St. Peter and St. Paul, limiting the square's spatial and aesthetic qualities. Additionally, while historically significant, the Adam Mickiewicz monument requires renovation and fails to function effectively as the square’s central focal point. In recent years, the Council of District VIII Opole Śródmieście has taken the initiative to revisit the issue of the square's revalorisation, underscoring the need for comprehensive improvements.

Fig. 5. Adam Mickiewicz Monument. Author's own elaboration

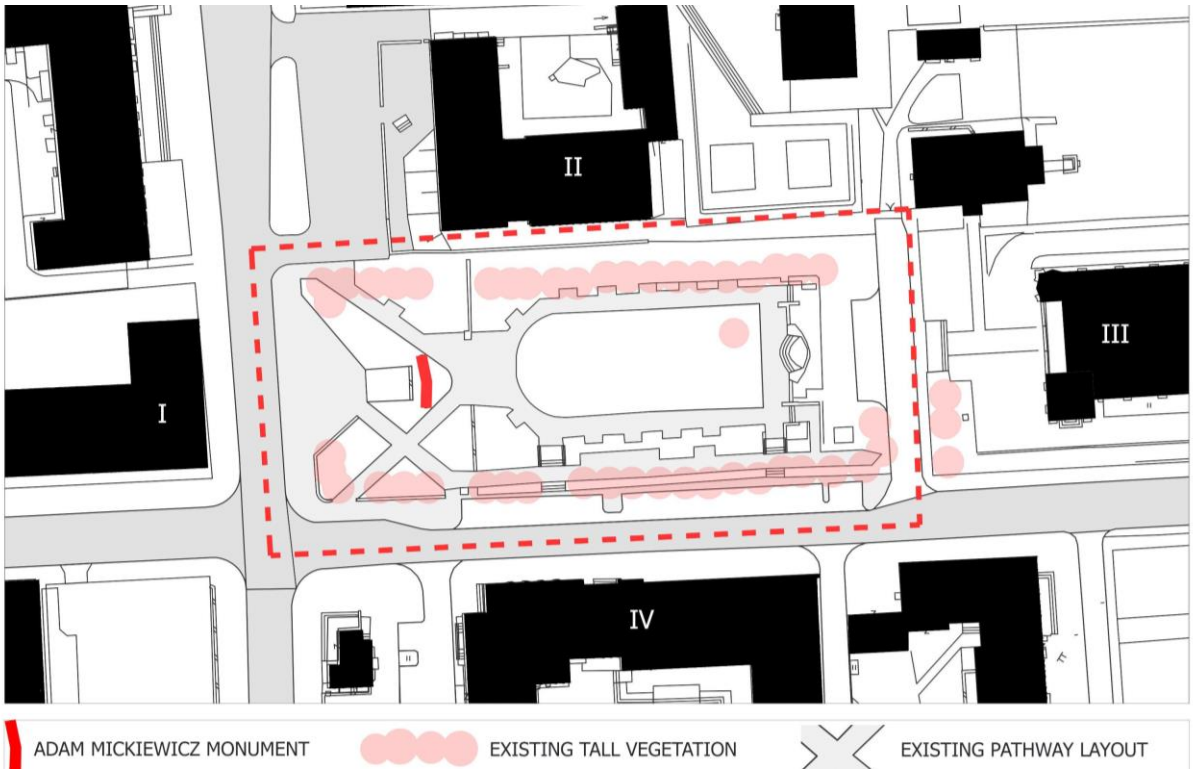

Fig. 6. Adam Mickiewicz Square. Author's own elaboration

Legend: I.. Residential building II. NOT building, Main Technical Organization in Opole; III. Church of St. Peter and St. Paul; IV. Opole University of Technology, Faculty of Civil Engineering and Architecture

Fig. 7. Bird-eye-view of Adam Mickiewicz Square. Author's own elaboration

2. MATERIALS AND METHODS

The materials obtained for the study and the methods adopted were selected in two stages. They included a literature analysis and practical intervention, i.e. the design and implementation of project teaching classes based on the adopted participatory method, that is project -base learning with workshops.

In order to assess the state of research on the analyzed issues, a semi-structured literature review was performed. To identify and preselect the papers for the review, the following keywords were used: 'participatory education' / 'active education' and 'architecture'. A quantitative search was performed to analyse the structure of preselected articles. The number of records was narrowed down by using a contextual search - only articles in the fields of architecture and urban planning were included. A protocol for this study was developed based on the preferred reporting items for the systematic review and meta-analysis (PRISMA) protocol guidelines.

This allowed for the separation of respectively: 17 records from the databases Scite_ai and Elicit.org. For the initial search in the Web of Science Core Collection database, 11 records were listed, 3 of which met the specific criteria relating to factual correctness. This met the total number of 20 papers. The search was restricted to publications written in English, articles published in journals or conference proceedings, and those that were publicly available.

The conceptual design for the development of Mickiewicza Square in Opole was developed within the framework of the contract concluded between the Faculty of Civil Engineering and Architecture of the Opole University of Technology and the City of Opole with the Opole City Hall on the subject 'Designing complex urban layouts' by students of the Master's degree course in Architecture in the winter semester of the academic year 2023/2024. The design was developed individually or in pairs between 01.10 - 06.12.2023.

The subject of the design task was to develop an urban planning concept for the development of Adam Mickiewicz Square in Opole, with the elements of an architectural and structural design for the site development, providing a form of recording the architectural and urban planning concept for the

development, together with areas of greenery, recreation and communication services. The design process included an element of public consultation, which took place on 22.11.2023 with the Downtown District Council in Opole and residents at the university's premises and on13.12.2023 as a form of final revision at Contemporary Art Gallery in Opole (GSW).

A critical element which gives the process its importance was the permanent participation of an external cultural institution, the Contemporary Art Gallery in Opole, as the venue for the introductory lecture given by Prof. Monika Adamska and the final presentation of the results of the student group's work and the handover ceremony of the projects and the meeting with the city and district authorities.

The project was divided into four main stages, including the development of pre-design and design analyses of the area of influence of Adam Mickiewicz Square, the development of draft urban concepts of the designed area, the presentation of draft versions of the projects and public consultations, as well as the final study taking into account the conclusions of the participatory activities carried out.

An essential element of the design was to consider the existing urban context of Opole, especially in the Downtown District, hence the need to refer to the scale of the surrounding development, the existing layout of pedestrian and bicycle routes, greenery and others. The designs were to take into account the individual characteristics of the location the dimensions of the existing and designed elements of street furniture, fit in with the existing buildings, and take advantage of the scenic and landscape qualities of the area under study. The scale of the analyses and the design's scope were adapted to the expected scope and scale of the impact of the proposed function, which was defined based on information obtained from residents during public consultation.

The design of a complex urban layout, including Adam Mickiewicz Square and its relationship to the neighbourhood and the city, will be discussed with the provisions of the planning documents currently in force in the area. Given the square's location, an essential element of the design process is to consider the site's historical context.

The proposed urban planning provisions for the area in each case are the result of the contextual analyses conducted, which provided the basis for the formulating of detailed guidelines for the development of the local spatial development plan for Adam Mickiewicz Square in Opole and its final confrontation with the current legal regulations and the diagnosed requirements of the inhabitants.

3. RESULTS

Table 1. Evaluation of student design tasks developed as part of participatory activities based on three basic categories regarding formal, informal (scientific) and participational issue. Author's own elaboration.
Legend - factor: ○ – not present; ◐ – partially present; ● – present

criteria	**project group number as given in the information brochure [50]**														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
FORMAL															
Filling in the scope of the mid-term review (mid-term participatory design review)	●	●	●	●	●	●	●	◐	●	●	●	◐	◐	◐	●
Filling in the scope of review on December 13 2023 (participatory design final review)	●	●	●	◐	●	●	●	●	●	●	●	●	●	●	●
Filling in the scope of final review (desk-design final review)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

criteria		project group number as given in the information brochure [50]														
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
INFORMAL (scope and quality of design intervention)																
Aesthetisc of the adopted solutions		◐	●	◐	●	●	◐	●	●	●	◐	●	◐	◐	◐	●
Planning of the functional programme	Based on the performed analysis	◐	●	◐	●	●	◐	●	●	●	◐	●	◐	◐	◐	●
	Based on interviews/ surveys/participatory activities/	◐	●	◐	●	●	◐	●	●	●	◐	●	●	◐	●	◐
	Author’s own proposals	●	●	◐	●	●	●	●	●	●	●	●	●	●	●	●
Pro-ecological and sustainable solutions	Preservation of the existing tree stock	●	●	◐	●	●	◐	●	●	●	●	◐	◐	●	◐	●
	Degree of interference with the original landform	◐	◐	●	◐	◐	●	●	◐	●	●	●	●	●	●	●
	The use of small-scale retention	○	◐	◐	●	●	◐	●	●	●	●	●	●	●	●	○
	Solutions to minimise the carbon footprint	◐	●	◐	●	●	◐	●	●	●	◐	●	◐	◐	◐	◐
	Considering the historical context of the site	◐	●	◐	◐	◐	○	●	◐	●	◐	◐	◐	◐	◐	◐
PARTICIPATIONAL																
Consultations held on Nov 22, 2023		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Including comments following consultation on Nov 22, 202		◐	●	◐	●	●	●	●	●	●	◐	●	●	◐	◐	●
Consultations held on Dec 13, 2023		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Including comments following consultation on Dec 13, 2023		◐	●	◐	◐	●	●	●	●	●	◐	●	◐	◐	◐	◐

As a result of the introduction of additional training methods as part of the extension and division of the course subject to include a section on participatory design, much greater efficiency was achieved in enforcing the timeliness and completeness of the design documentation produced by the students. Ultimately, all work was submitted for assessment on time and in complete content.

Adopting the combined teaching model contributed to greater student involvement in project work. The need for greater independence and precision of expression, both graphically and verbally, contributed to a greater sense of responsibility for the spatial decisions and positively impacted the aesthetic level of the solutions adopted and how the content was presented.

The functional programme developed in each case was the result of in-depth analyses. It took into account, at least in part, the results produced during the participatory activities, trying to respond to the real needs of the participants. Importantly, although there was no formal imposition of such requirements, elements of a sustainability policy were included in all studies. Comparing the results of the survey and the arguments used by the students themselves during the public presentations of the projects, this is an element which, according to them, is essential for the real, as opposed to the purely conceptual, transformation of the city's public spaces.

3.1. The adopted design solutions

A key element of all the presented concepts is their effort to reflect the complexity of the history and structure of Adam Mickiewicz Square in Opole. Each project strives to balance multiple considerations: meeting residents' expectations regarding the preservation of parking spaces, maintaining the condition of the high and low greenery that overgrows the square, retaining elements that commemorate the cultural heritage of the site, and adapting the space to the needs of contemporary users. These efforts also account for the square's significance and role within Opole's public space

network. Consequently, a crucial component of all the proposed designs is the analytical phase, which identifies the strengths and weaknesses of the area and informs the selection of the most favourable directions for future design interventions.

The diagnosis of social needs emerged as the most critical factor shaping the proposed design directions. The square's potential user base includes a diverse group, encompassing residents of the Downtown VII district, students from nearby high schools, children from local kindergartens, parents with children, dog owners, students of the Faculty of Construction and Architecture, and passersby utilising the square as part of their daily routes. This wide array of users highlights the importance of creating a space accommodating various activities and needs.

In the student concepts, the square is envisioned as an open, safe, and inclusive space accessible to all. It is designed to serve as an enclave of shade and tranquillity within the urban fabric, enhancing the quality of life for those living and working downtown.

The proposed architectural solutions combine permanent elements, seamlessly integrated into the square's layout, with temporary, adaptable features that allow the space to respond to the evolving needs of its users. This approach ensures flexibility, enabling the square to remain functional and relevant over time while catering to a dynamic and diverse community.

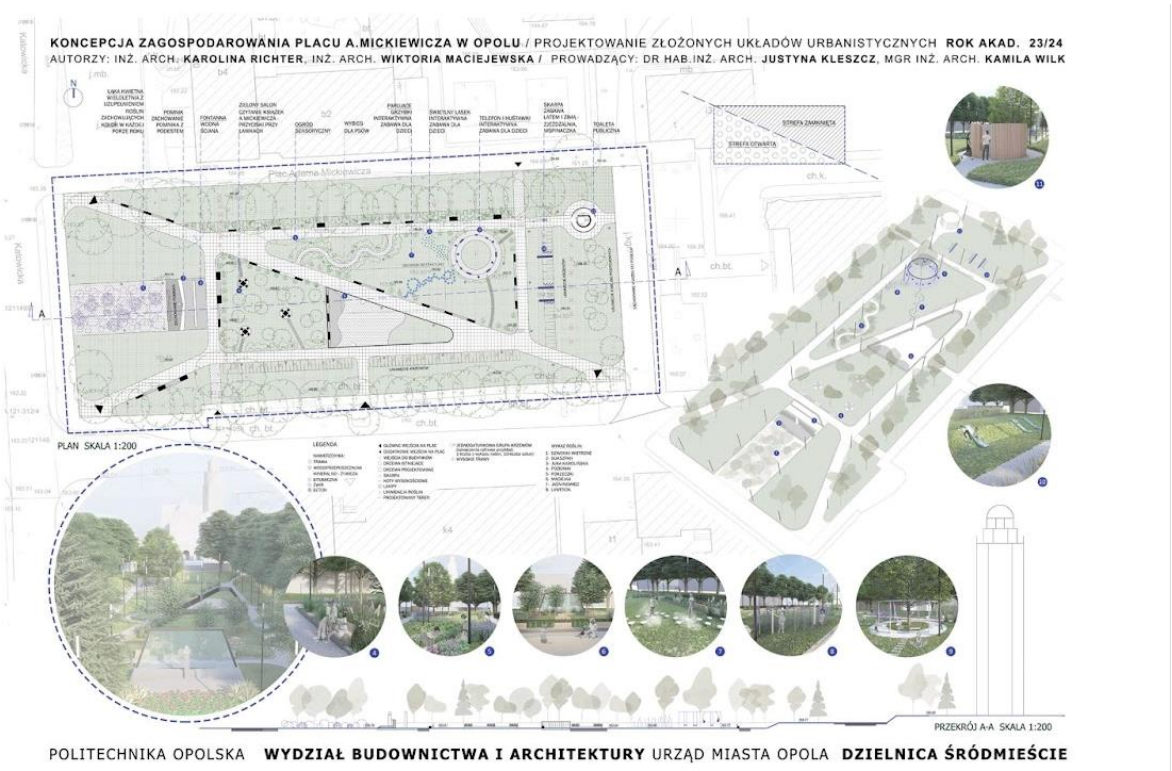

Fig. 8. The final outcome of student design - the top four student projects. Group 7

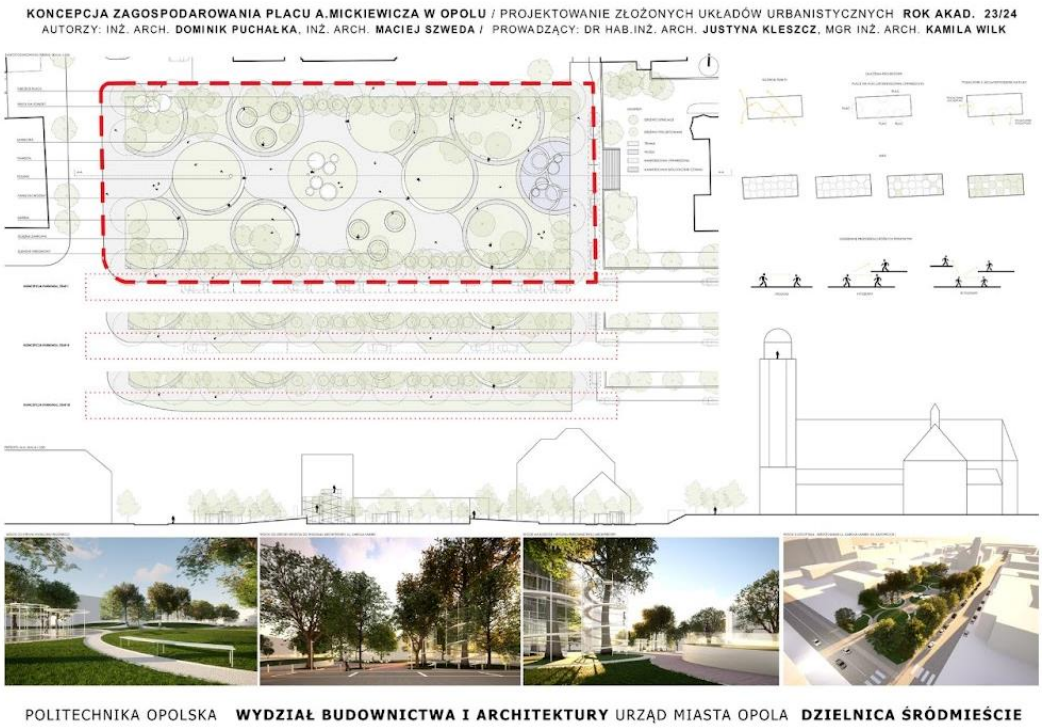

Fig. 9. The final outcome of student design - the top four student projects. Group 5

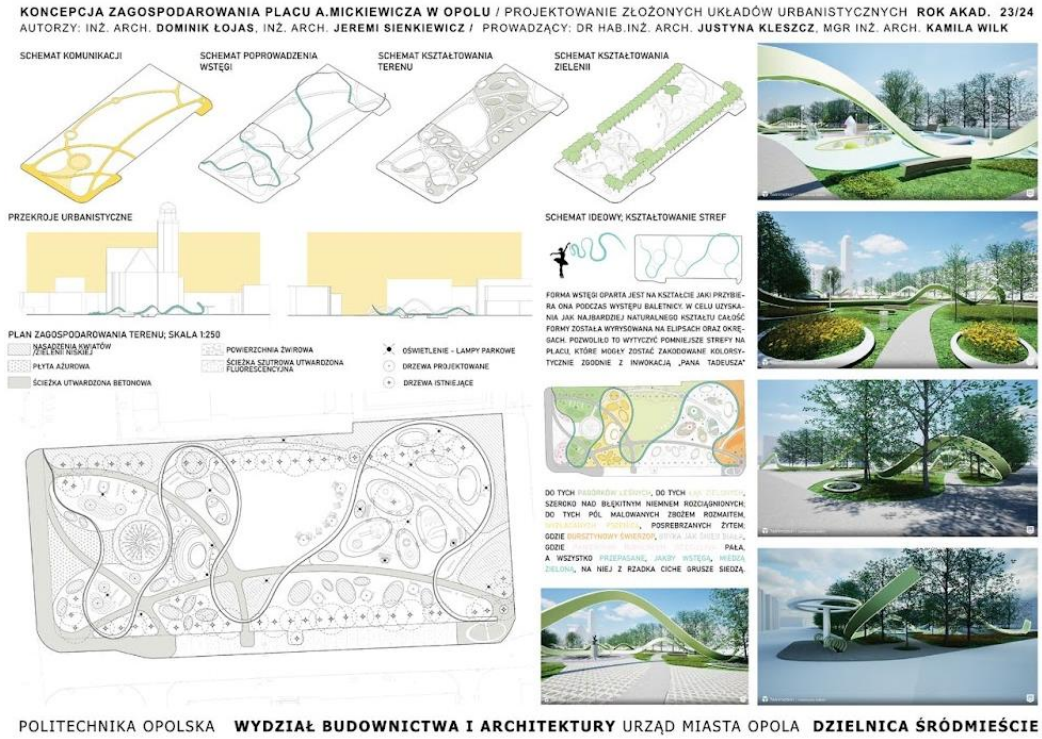

Fig. 10. The final outcome of student design - the top four student projects. Group 4

Fig. 11. The final outcome of student design - the top four student projects. Group 8

3.2. The public consultation process

The adoption of the consultation procedure contributed to the expansion of the entire process associated with the training in the course subject, which, in addition to the typical elements of studio design and workshop design, also included several additional activities not being directly a part of the face-to-face consultation.

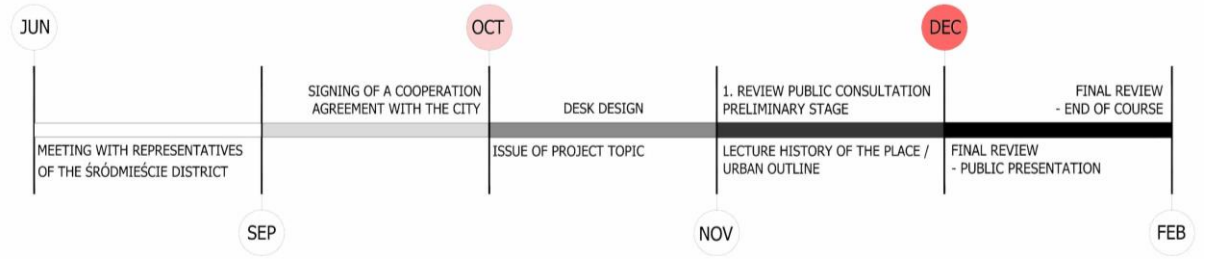

Fig. 12. Timeline of the participation process at Adam Mickiewicz Square in Opole. Author's own elaboration

3.2.1. Step 1 - theoretical introduction

The public consultations themselves on the development of Adam Mickiewicz Square in Opole began with a meeting with representatives of a group of councillors from the Downtown District of Opole, who came up with the initiative to cooperate with the Opole University of Technology in developing a variant concept for the development of Mickiewicz Square. The next step was a lecture by Monika Adamska, which took place at the Contemporary Art Gallery in Opole and was aimed at residents and

interested parties, i.e. future stakeholders in participatory activities. It included an introduction to the history of the site and the urban context of Mickiewicz Square in Opole. It was intended to increase the level of awareness of the local community about the importance of the area in the context of urban development and to inspire future activities, as well as to provide a historical introduction for students as future authors of the concept of development of the area.

The next stage of activities that followed such an introduction was the preparation of preliminary analyses and concepts for the development of the square by student groups.

3.2.2. Step 2 - preparatory stage

The next step of the undertaken activities was to conduct a site visit combined with an unstructured questionnaire and to develop the analytical part concerning the current state of development and the level of use of Mickiewicz Square. These activities took place in the form of desk design classes as part of a design course in the Master's degree programme 'Urban Planning: Complex Systems', under the supervision of Justyna Kleszcz and Kamila Wilk.

The student analyses were prepared in terms of several key aspects:

- the historical context of the area under study,
- analysis of the existing greenery within the square,
- analysis of pedestrian and car traffic within the square; attention was paid to the organisation of traffic and the availability of parking spaces, as one of the demands made during initial discussions with residents and users of the space,
- the functionality of the space: how the residents use the square and its current limitations were examined,
- the needs of the local community: the needs of different groups of residents were identified, including young people, students and mothers with children.

3.2.3. Step 3 - consultation process

Consultation with residents and other stakeholders took the form of open meetings where participants could present their opinions and suggestions on the preliminary design proposals. The workshops were held in workshops where preliminary concepts were presented in an established, structured form and scale. A discussion with councillors also took place. Councillors of the Downtown District, as representatives of the local community, were actively involved in the conceptualisation stage, pointing out key issues such as:

- the need to increase the number of parking spaces,
- the improvement of the traffic connection to the adjacent Peter and Paul Church,
- creating a youth- and mother-child-friendly space.

The gathering of residents' opinions took place during several visits to the study site. Residents could express their expectations and ideas directly, which were included in the consultation protocol.

The unstructured survey conducted by the students was carried out as part of the public consultation on the development of Mickiewicz Square in Opole. The study aimed to collect opinions, expectations and ideas about the future appearance and function of the square. As part of an on-site activity, it was in the form of open questions, which allowed residents to freely express their thoughts and ideas without the restrictions imposed by specific categories or rating scales. Students encouraged participants to share their experiences of the square, stories, and subjective views, as well as their suggestions for improving the functionality and aesthetics of the place.

Topics covered in the survey also included the question of overall impressions of the square. Residents were able to describe what they liked about the current design and what they considered problematic, as well as to make suggestions for the planned development of the space. As a result of these discussions, the participants suggested several new functions for the square, such as a meeting place, recreation area or space for children and dogs.

The needs of the local community were also taken into account. The survey included questions about the critical needs of the residents, including aspects related to the accessibility of the public square space and safety, as well as the current fields of integration of different age groups within the district's public spaces. The aesthetics of the accessible public space was also an essential element of the interviews. Participants in the survey expressed their opinions on the existing materials, colours, and vegetation that they think should be included in the new concept.

The collected responses were included in the consultation protocol, and students analysed them to draw critical conclusions. The open nature of the survey made it possible to capture a diversity of opinions and ideas, significantly enriching the design process for Mickiewicz Square.

The unstructured survey, designed as a standard set of input data for all student groups, was an essential element of the public consultation, enabling residents to participate actively in the planning process. It enabled the local community's voice, understood more broadly than just representatives of local authorities, to be heard and incorporated into the concept, helping to better match the square's future development to the residents' actual needs.

At the end of the consultation process, the students prepared the final version of the concept. In the end, 15 designs were developed. When developing specific design solutions, students were divided into teams of 2 or 1 (6 single-author and nine double-author works). As part of the final review of the works at the municipal authorities, the best three works were selected for the next stage of the proceedings. Design tutors, residents, and district councillors took part in the decision.

The city of Opole launched a tender for the development of Mickiewicza Square, and the contract specifications were prepared based on conceptual materials and analyses created by students. In this way, the residents had a real influence on the formulation of the terms of reference, enabling them to actively participate in increasing their living space. The concepts prepared thus had a tangible impact on the place's future.

The final version of the concept was presented to the residents at the Gallery of Contemporary Art in Opole on 13 December 2023. The event had an open character. The exhibition, where the local community could see the effects of the work and make any comments, became a very media-savvy event, arousing the interest not only of the local community but also of residents of the entire Opole, as an unprecedented activity on a city scale. In addition, the final draft was produced as a brochure, which was handed over to the Mayor of Opole. The brochure contained a summary of the consultation, the conclusions of the analysis and recommendations for further project activities in the area.

An essential element of all the concepts presented is to show the complexity of the history and structure of Adam Mickiewicz Square in Opole. All concepts attempt to balance the desire to meet the expectations of residents in terms of preserving the number of parking spaces, the condition of the high and low greenery overgrowing the square, leaving elements commemorating the cultural permanence of the place, and the need to adapt the space to the needs of current users, taking into account the rank and role of the square in the structure of Opole's public space. Therefore, an essential element of all the presented works was the analytical part, which made it possible to determine the strengths and weaknesses of the analysed area and select the most beneficial directions for design activities.

In this case, diagnosing social needs becomes critical in determining the accepted design directions. Among the broad group of potential users of the square in its everyday and uncommon use are the residents of Śródmieście VII district, young people studying in the neighbouring secondary schools, children from the neighbouring kindergartens, parents with children, dog owners, students of the Faculty of Construction and Architecture, as well as random passers-by using the space of the square. The square in the student concepts became an open, safe and accessible space for every user, providing an enclave of shade and tranquillity within the neighbourhood structure, significantly improving the quality of life in the city centre.

The proposed architectural solutions present both elements permanently integrated into the square's space and temporarily and changeably in time, enabling the space to adapt to the changing needs of its users.

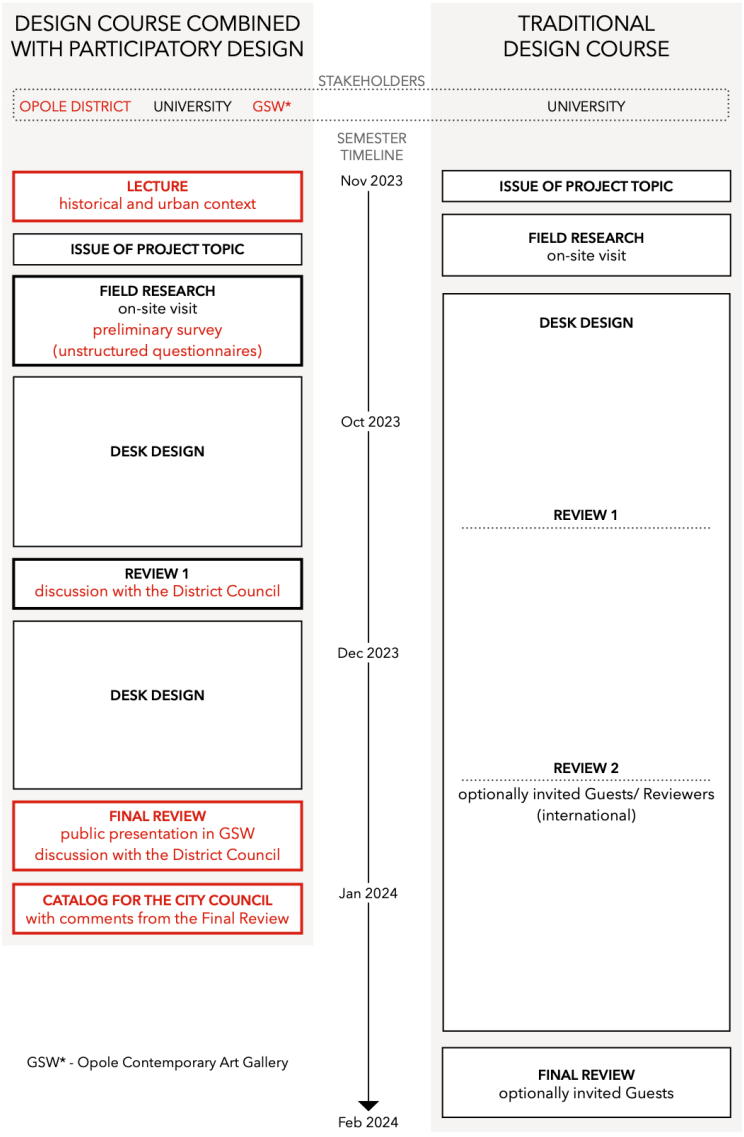

Fig.13. Comparison of traditional and participatory design courses scenario. Author's own elaboration

Above is a diagram illustrating a comparison between a traditional design course and a course with participatory design. The latter is distinguished by the involvement of local stakeholders, such as the Councillors of the Downtown District or residents, which enables students to better understand community needs and the project context. It includes additional steps, such as field research, surveys, and public consultations, which enrich the traditional design process. The schedule of the participatory course is more varied, and its results have practical applications. In the present case, with the city government in mind, a brochure summarizing the project was produced. The participatory course promotes dialogue between students, the community, and experts, offering a more holistic approach to the training of architects.

4. DISCUSSION

Participatory methods in architectural education offer substantial educational and social benefits. Foremost, involving real stakeholders in the design process enables students to gain a deeper understanding of user needs and fosters their ability to empathise. As Dhadphale and Wicks observe, stakeholder engagement enriches the educational experience while enhancing students' competencies in integrating technical and social aspects of design [32]. Similarly, Sanoff argues that community participation in the design process cultivates a sense of responsibility among participants and improves the acceptance and sustainability of proposed spatial solutions [31]. Burke and Könings, as well as Ducci et al. further emphasise that the active involvement of end-users and the integration of diverse perspectives result in spaces that are more functional, usable, and aligned with community needs [51], [42]. In the Mickiewicz Square project, residents were actively involved in discussions surrounding student proposals, which not only provided valuable insights into the design process but also strengthened their sense of ownership and responsibility for the future of this public space.

It is essential to highlight the shifting role of lecturers within participatory processes, where they transition from traditional authoritative figures to mediators or ‘independent consultants’, guiding students in independently making design decisions. In this case it is worth noticing the indisputed role of the lecturer as the individual, influencing the educational process. While in the traditional educational model in design learning he serves as an authority and the source of knowledge, his role in partipatory teaching methods shifts towards accompanying and targeting the undertaken activities. Therefore, it seems that these methods make the learning process more independent of the individual attitudes of teachers. However, this requires further evaluation. Careva and Lisac argue that this shift strengthens students' autonomy and enhances their capacity for critical thinking [12]. Participation in such processes also demands that young designers develop essential skills in negotiation, argumentation, and teamwork, as noted by Xie et al. [52]. Furthermore, this approach significantly improves students' communication skills — an indispensable aspect of architectural practice — while deepening their understanding of the social and cultural contexts that shape spatial design.

A critical issue in the participatory education process is the question of adaptation to local legal conditions, both in terms of spatial planning and building regulations, as well as national or regional requirements for conducting participatory activities. For this reason, it has not yet been possible to develop a universal approach to participatory architectural education as a general rule for design teaching in design schools.

The practical application of theoretical knowledge constitutes a vital component of the participatory process. Salazar Ferro and co-authors highlight that integrating local contexts and engaging directly with stakeholders enable students to better understand user needs while fostering adaptability [16]. By adopting this form of collaboration, universities reinforce their societal role as active

participants in urban development processes. Offering tailored participatory courses closely aligned with real urban challenges can significantly enhance the appeal of academic programs, making them more engaging and practice-oriented. As demonstrated by previous projects, innovative teaching methods, such as workshops and design competitions, positively impact students' creativity and ability to work collaboratively [53].

5. CONCLUSIONS

Integrating participatory methods into the training of architects has a significant and unequivocally positive impact on both the efficiency of the educational process and the quality of the design solutions produced. This approach facilitates a synergy of outcomes whereby students acquire valuable knowledge, design concepts are developed to enhance the quality of public spaces (benefiting residents, municipal authorities, and students), the university's visibility and reputation among residents are elevated, and students' self-awareness as space-shaping designers is heightened. The latter outcome aligns with the findings of Dhadphale and Wicks, who emphasise the transformative potential of participatory processes in fostering a deeper understanding of future architects' social and spatial responsibilities [32].

The application of participatory methods in architectural education requires specific adjustments to the curriculum. This includes clearly prioritising design-focused courses over other forms of education and introducing greater flexibility in scheduling significant projects. Adequate time should be allocated to the preliminary analysis phase, such as extended surveying and diagnosing local issues and residents' needs. Student projects should not aim for direct implementation; their primary value lies in the analytical phase, which involves diagnosing user needs, verifying various location, function, and volume options, and exploring potential solutions within a given space.

Additionally, incorporating a prototyping stage, including creating physical or digital mock-ups, could replace the time-intensive refinement of final designs, further emphasising the practical dimension of architectural education. An attractive extension of this method could involve the participation of students from other universities through inter-university workshops, such as summer design schools. This approach would enrich the process with diverse perspectives and foster the exchange of experiences.

Participatory methods in architectural education provide significant benefits, fostering the development of students' design, social, and organisational competencies. Their integration enables a deeper understanding of the social dimensions of design while building lasting relationships with end users, thereby preparing future architects to address the complex challenges of contemporary urban environments. Despite organisational and communication challenges, the educational value of participatory methods and their potential for enhancing the design of public spaces remain indisputable.

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