



The concept of developing green areas as an example of creating a social and recreational space

Nina Sołkiewicz-Kos¹, Malwina Tubielewicz-Michalczyk²

ABSTRACT:

The article presents the tendencies consisting in planning an integrated space between the building and the existing surroundings. The coherence of these activities increases the value of built-up spaces, gives meaning to open areas and affects the quality of the human environment.

The spatial composition, being constantly perceived by people, influences their psyche, shapes sensitivity, tastes and aesthetic feelings, and through everyday reception it evokes higher-order sensations in the subconscious, from identification with the place of residence to the sense of identity with it. In everyday life, the correct spatial composition can be a factor that gives a person relaxation and rest. It happens when the composition of the surrounding interiors is adjusted to the user's scale, allowing him to perceive the surrounding space primarily from the ground level. In this article, the authors present current issues regarding the shaping of the spaces integrated between the facility and the existing surroundings within the academic campus of Czestochowa University of Technology.

KEYWORDS:

urban planning; architecture; public space

1. Introduction

Properly developed areas around the institution influence the aesthetics of the city landscape and play a representative role. Currently, city authorities attach great importance to the proper development of the areas around the institution. Architects in the areas surrounding public utility buildings design parks, gardens, lawns, playgrounds, and fill free spaces with appropriately selected vegetation. Automatic irrigation and drainage systems for green areas are installed, and entire areas are diversified by fountains, seats, and walking paths. Much attention is paid to the communication infrastructure in the form of sidewalks, parking lots and convenient access. Another issue concerns the arrangement of lighting in objects. The designed space is complemented by modern sculptures and information boards related to the history of a given institution or town.

Trying to meet these expectations, as part of Architecture Science Club operating at the Faculty of Civil Engineering at the Czestochowa University of Technology, competitions were organized for the concept of developing green areas within the facilities located on the campus.

¹ Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 3, 42-218 Czestochowa, Poland, e-mail: n.solkiewicz-kos@pcz.pl, orcid id: 0000-0001-5477-3891

² Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 3, 42-218 Czestochowa, Poland, e-mail: m.tubielewicz-michalczyk@pcz.pl, orcid id: 0000-0001-6754-9370

Students, having at their disposal the latest solutions in the field of applied techniques and technologies, tried to modernize the facilities, as well as create a recreational and leisure area friendly to both the academic community and the inhabitants of Częstochowa.

2. Composition of social and recreational space

The present times require modern design and furnishing of areas around buildings such as office, academic, industrial, etc., where work, in the era of computerization, has a negative impact on the health of people employed there. During the breaks provided by the employer, employees have the opportunity to leave the building, into the green area, allowing them to rest physically and mentally. Positive aesthetic experiences are evoked, for example, by the sight of decorative elements of small architecture blending in well with the surrounding nature. Both clients of specific institutions and residents walking nearby have a chance to use the attractively designed areas around the buildings [1]. The elements determining the boundaries of individual zones play an important role in the composition of social and recreational space. They are emphasized by introducing various elements, forms, scales, accents and contrasts. The clear composition and hierarchy of the academic campus spatial arrangement, connected with views and accentuated with characteristic places and symbols, facilitate understanding of the surroundings and spatial orientation in it [2].

The aesthetic values have an influence on the interior climate that contributes to the character of the social and recreational space. The appropriate solution of the ground floor level, which is the zone of direct contact between the user and the architecture, is of great importance in the development of the structure of the academic center. The pursuit of diversity, changeability, richness of detail is associated with shaping urban interiors in order to avoid monotony [3]. It is manifested, for example, in solutions related to the surface, the introduction of new forms, lighting solutions.

3. Development of the area around the institution

Taking into account the activities related to the use of facilities on the campus and the spatial structure of their surroundings, the university authorities have undertaken revitalization activities involving the modernization of the university facilities and the space around the buildings. The modernization of the campus facilities was the first step towards a natural transformation process. The modernization activities concerned the adaptation of the facilities to modern utility requirements. The revitalization of the spatial structure of the academic campus concerned activities aimed at the interest of the academic community in the surrounding space in order to use it consciously and actively [4].

The cycle of transformation activities began with the construction of the lecture hall of the Faculty of Management and the expansion of the academic structure to house the Faculty of Management (Fig. 1a, b). Particular attention is paid to the strongly accentuated entrance zones to the facilities and the relationships between the buildings and the surroundings. The construction of new facilities and the development of the spatial structure around them encouraged further work to improve the quality of the academic community. Subsequent transformation works concerned the modernization of the building of the Faculty of Mechanical Engineering and Computer Science. The Faculty of Mechanical Engineering and Computer Science has the longest history and the richest tradition among the faculties of the Częstochowa University of Technology (the building was built in 1949), (Fig. 1c) [5]. The modernization works included

the superstructure of the building's floor and the correction of functional and spatial solutions of individual floors. The character of the main entrance area to the building has been adapted. It is emphasized by the tectonics of the elevation and the classicising colonnade. In addition to the main entrance stairs, a ramp for people with physical disabilities has also been introduced. The dominant element of the surroundings of the representative part of the building is the parking lot zone. In the future, this space will require adjustments related to the rearrangement of the entrance area.

The building of the Faculty of Civil Engineering is another facility undergoing modernization (Fig. 1d). The architecture of the building is modest and disciplined, with utilitarian detail and practical spatial solutions. The whole concept is emphasized by the gray colors of modest plastered facades with a subtle tectonics. The element emphasizing the simplicity of the façade is the entrance zone in the form of a spatial frame made of architectural concrete, filled with mirrored glazing, which gives lightness to the entire layout. The area in front of the main entrance to the building is emphasized by the writings, a recreational square with benches and a modest parking zone. The architectural form of the building diversifies the space of the academic campus by defining and organizing this fragment of the academic structure of the campus. It is also interesting to see the surroundings of the building on the west side in the form of a park square with a historic willow tree that is the dominant feature of this space (Fig. 1e, f).

The building of the 'Politechnik' Club, erected in the 1960s, and now the Academic Cultural Centre of the Czestochowa University of Technology, continuously activates the academic community, constituting an important platform for contact between the entire polytechnic community and the inhabitants of Czestochowa. The building currently requires modernization (Fig. 1g, h.). Trying to meet these expectations, as part of the Architecture Science Club at the Faculty of Civil Engineering of the Czestochowa University of Technology, a competition was organized for a color concept for the Academic Cultural Centre of the Czestochowa University of Technology. Students, having at their disposal the latest solutions in the field of applied techniques and technologies, tried to emphasize the architecture of the building, the shape of which refers to the best traditions of the modernist period [6, 7].

4. Competition works concerning the development of green areas in the area of the academic campus of the Czestochowa University of Technology

Trying to meet these expectations, as part of the Architecture Science Club at the Faculty of Civil Engineering of the Czestochowa University of Technology, a competition was organized for a color concept for the Academic Cultural Centre of the Czestochowa University of Technology. As part of the competition tasks, students focused on emphasizing the architecture of the facilities as well as functional and spatial solutions inscribed in the urban context of the University of Technology campus. The competition entries were made in the following computer programs: ArchiCAD and Artlantis (Fig. 2 and 3) [8]. An important role in the concept of the competition works related to the academic campus is played by the building's surroundings in the form of communication routes such as internal streets, promenades, and walking paths. They form the layout of the main interiors and the adjoining subordinate interiors, connected with each other by a system of openings and viewing links. The elements shaping their space are the architecture of the academic buildings and their surroundings, introducing significant aesthetic values.



Fig. 1. Design concepts of the 'Politechnik' Club of the Czestochowa University of Technology – works carried out under the substantive supervision of the supervisors of the Architecture Science Club (Nina Sołkiewicz-Kos, Malwina Tubielewicz-Michalczyk): a) Aula of the Faculty of Management; b) Modernization related to the expansion of the Faculty of Management; c) Faculty of Mechanical Engineering and Computer Science; d) Faculty of Civil Engineering; e) Recreational areas within the Faculty of Civil Engineering; f) Communication zone adjacent to recreational areas. Visible building of the academic canteen – currently closed; g) Entrance zone to the Academic Cultural Centre of the Czestochowa University of Technology; h) Buffer zone directly adjacent to the Academic Cultural Centre of the Czestochowa University of Technology, separating the areas of the academic campus from the municipal communication zone

Projekt zagospodarowania terenu kampusu przy Wydziale Budownictwa Politechniki Częstochowskiej

KOŁO NAUKOWE ARCHITECTURY
Katedra Budownictwa i Architektury
PROWADZĄCY: NINA SOŁKIEWICZ-KOS, MALWINA TUBIELEWICZ-MICHALCZUK

PLAN ZAGOSPODAROWANIA



LEGENDA:

1. Wydział Budownictwa
2. Plac, granica opracowania
3. Wierzbka płożąca (Salix)
4. Pawilon
5. Komunikacja
6. Fontanna
7. Zielen niska
8. Zielen wysoka

MAPA ZASADNICZA



Fot 1. Stan istniejący, mapa zasadnicza

STAN ISTNIEJĄCY



Fot 2. Stan istniejący, widok placu przy Wydziale Budownictwa



Fot 3. Stan projektowany, widok fontanny



Fot 4. Stan projektowany, widok pawilonu oraz wydziału budownictwa



Fot 5. Stan projektowany, widok placu oraz budynku 'Gigant'



Fot 6. Stan projektowany, widok pawilonu



Fot 7. Stan projektowany, widok podestu przy fontannie wraz z ławkami



Fot 8. Stan projektowany, widok wierzyby i szczegół ławki

WYKONAŁA: OLGA NOCUŃ, ROK I, SEMESTR II, STUDIA STACJONARNE II STOPNIA, LUTY 2018

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Fot 5. Stan projektowany, zagospodarowanie terenu



Fot 6. Stan projektowany, szczegół ławki oraz ściany osłonowej



Fot 7. Stan projektowany, widok pawilonu

WYKONAŁ: KAMIL GRZYWA, ROK I, SEMESTR II, STUDIA STACJONARNE II STOPNIA, LUTY 2018

Fig. 2. Design concepts for land development at the Faculty of Civil Engineering of the Czestochowa University of Technology – works carried out under the substantive supervision of the supervisors of the Architecture Science Club (Nina Sołkiewicz-Kos, Malwina Tubielewicz-Michalczuk)

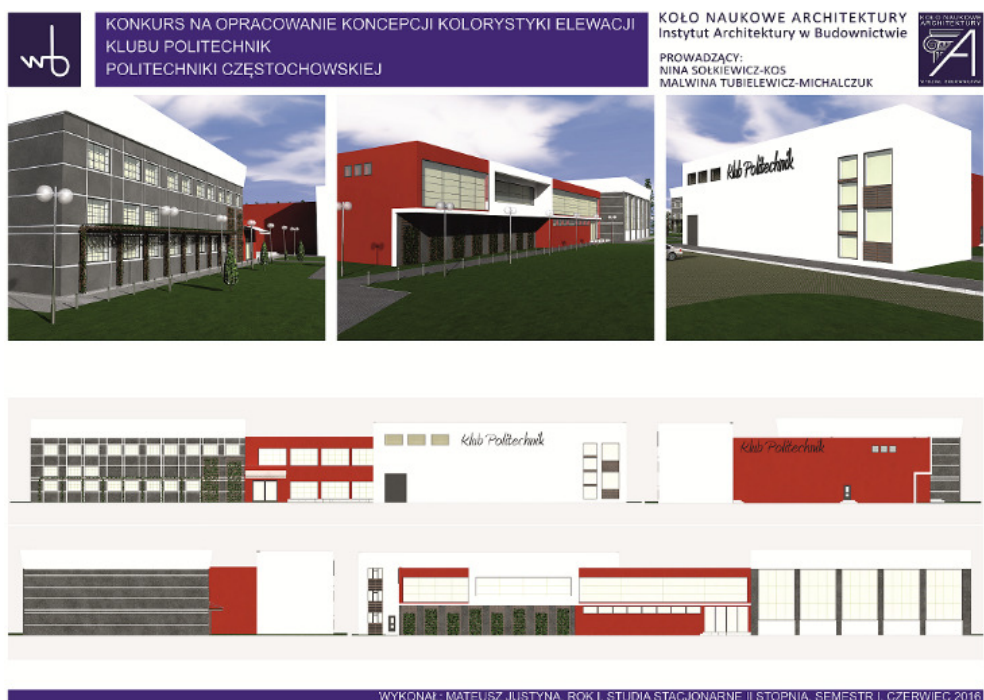
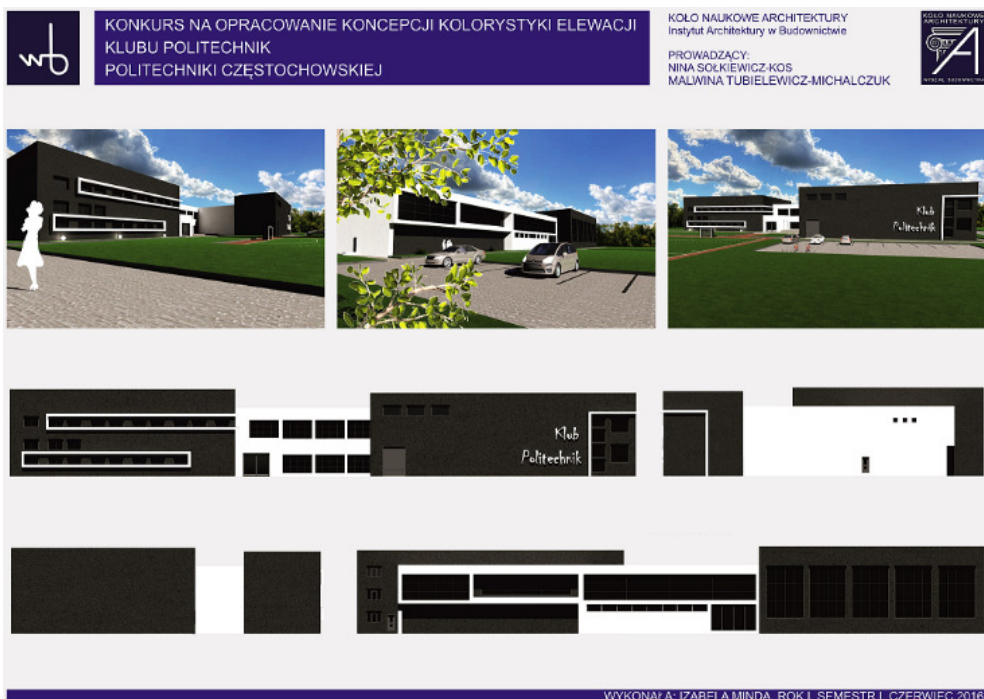


Fig. 3. Design concepts for the 'Politechnik' Club building (currently the Academic Cultural Centre at the Czestochowa University of Technology) – works carried out under the supervision of the Architecture Science Club (Nina Sołkiewicz-Kos, Malwina Tubielewicz-Michalczuk)

5. Conclusions

The composition of the urban structure of the campus of the Czestochowa University of Technology is closely related to the layout of the urban tissue. The effect of these dependencies is the mutual arrangement as well as the scale and form of buildings in the university. The form of public spaces has a direct impact on the quality of life of local communities. The urban layout has a positive effect on the image and creates a city friendly to residents and the academic community. Design concepts, developed by students under the substantive supervision of teachers (authors of the article), made it possible to create various proposals for design works related to the modernization of the facade of the 'Politechnik' Club.

Modern technologies in material and construction solutions create harmonious forms combining urban development with the surrounding space. Properly selected patterns and colors of the surface, lighting, seats, and properly designed water devices have allowed for greater differentiation of a given urban space.

Currently, computer programs are used in the design process. The presentation of both the buildings and their surroundings in the form of a three-dimensional model and the appropriate selection of materials, urban details and spectacular greenery allows for the implementation of an original design [14].

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Koncepcja zagospodarowania terenów zielonych jako przykład tworzenia przestrzeni społeczno-rekreacyjnej

STRESZCZENIE:

Przedstawiono aktualne zagadnienia dotyczące kształtowania przestrzeni zintegrowanych pomiędzy obiektem a istniejącym otoczeniem w obrębie kampusu akademickiego Politechniki Częstochowskiej. Spójność tych działań ma na celu podniesienie wartości przestrzeni zabudowanych oraz podkreślenia znaczenia terenów otwartych wpływających na jakość środowiska akademickiego.

Mając na uwadze działania związane z użytkowaniem obiektów kampusu oraz strukturą przestrzenną ich otoczenia, władze uczelni podjęły działania rewitalizacyjne polegające na modernizacji zaplecza uczelnianego oraz przestrzeni wokół budynków. Modernizacja obiektów kampusu była pierwszym krokiem w kierunku naturalnego procesu przemian. Działania modernizacyjne dotyczyły dostosowania obiektów do współczesnych wymagań użytkowych. Rewitalizacja struktury przestrzennej kampusu akademickiego dotyczyła działań ukierunkowanych na zainteresowanie społeczności akademickiej otaczającą ją przestrzenią w celu świadomego i aktywnego korzystania z niej.

Wychodząc naprzeciw tym oczekiwaniom, w ramach Koła Naukowego Architektury działającego przy Wydziale Budownictwa Politechniki Częstochowskiej zorganizowano konkursy na koncepcję zagospodarowania terenów zielonych w obrębie obiektów zlokalizowanych na kampusie. Studenci, mając do dyspozycji najnowocześniejsze rozwiązania w zakresie stosowanych technik i technologii, starali się unowocześnić obiekty, a także stworzyć strefę rekreacyjno-wypoczynkową przyjazną zarówno społeczności akademickiej, jak i mieszkańcom Częstochowy.

SŁOWA KLUCZOWE:

urbanistyka; architektura; przestrzeń publiczna