



AREA DEVELOPMENT CONCEPTION OF THE JAGIELLONIAN UNIVERSITY COLLEGIUM MEDICUM – PROKOCIM

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Summary

The main aim of the paper was to elaborate a conception of spatial development around dormitories of the Jagiellonian University Collegium Medicum located in Prokocim – one of Krakow quarters. The area that is being elaborated comprises public space of academic commune which lives there. Lack of possibility to spend free time in the closest neighbourhood together with special landscape values and a very bad state of buildings and also outdated infrastructure became inspiration to create this conception. The task was characterized by works' multi-stages and its main goal was to create favourable conditions of functioning and friendly space for its inhabitants. Special attention should have been paid to demands concerning architecture, environment and landscape values with simultaneous preserving of economic balance while planning the conception. Planned assumption of modernization and development of objects and not only sporting and recreational ones can become a response for inhabitants' expectations and needs in the range of free time realization and spending.

Keywords

conception • development • spatial order • spatial planning

1. Introduction

Spatial development is area shaping which takes architectural and landscape values into account and needs environment protection, cultural heritage protection as well as economic conditions [Hołuj 2008]. So spatial planning and development should be understood as every process regulated by the Act about planning and spatial development which decides about space shape and especially within the way of its development and purpose of given area and in the final effect – its usage. However, demands in the range of spatial order but also urban planning and architecture indicate the necessity to consider rules of construction law and executive decrees including technical and building norms.

Everything around the closest human neighborhood needs to be changed, especially considering the flow of time. All the more, it does not miss areas intensely exploited

by people and demands in relation to these places change. Relating to the object which was subjected to the case study, buildings as well as abutting infrastructure which came into existence in the previous century need modernization definitely. Old architecture with a great number of concrete elements is replaced by more aesthetic ones with proper choice of colours. These changes with help of spatial planning lead to changes of the given area development and also arranging of spatial order there. In case of places where current plan of spatial development exists, definite assumptions concerning space view are realized and in places without such plans there is study and fitting for existing state around researched area that should be relied on.

The task was to elaborate development of the area around dormitories and also physical education and sport study centre which needed preparing a map for project purposes that was made on the basis of properly concentrated direct measurement. All elements of existing state had to be taken into account there. Area measurement had to be performed in the way which enabled later usage of data to prepare a situational and height map as well as area numerical model. It was also important to familiarize oneself with current state and to provide documentary in descriptive, graphic and photographic ways. Development conception was prepared according to assumptions presented by area administration, students' self-government representatives and also dormitories inhabitants council. It fulfilled safety requirements set among others for the width of fire-fighting ways and foot traffic routes and it also considered access of new elements for disabled persons.

2. Characteristics of the object

The analysed area is the Jagiellonian University property situated in the south-eastern part of Kraków in Prokocim quarter. Development area includes three dormitories of the Collegium Medicum campus and the Physical Education and Sport study of total area over 4 ha. The whole object is located in one record parcel No. 165 and it is the urban area of medium urbanization with numerous green grounds surrounding the object. The campus which was built in the 90s of XX century is located about 10 km from the main university centres and from the city centre. Both buildings and surrounding space were designed according to current trends.

Previous development was full of damaged concrete and asphalt elements which were spoiling spatial order. Buildings create regular rectangular figures whereas surrounding area is composed of several concrete pedestrian routes with ruined and full of wastages surface, concrete stairs and big flower tubs with grass and placed on the elevation which makes their keeping difficult. The area around the Physical Education and Sport study building is composed of similar elements: concrete pedestrian routes, sport playfields the surface of which is cracked asphalt and stairs without any lighting which creates danger for users' health and life. The whole needs thorough renovation and development to create additional places of public usage as well as parking places and ramps for the disabled.

3. Measuring method

Elaboration of the situational and height map was the main element of area mapping. The map was made according to current standards of the Geodesic and Cartographic Documentation Centre and was accepted to the National Geodesic Documentation Resources. The map was also prepared for area modernization project aims.

The measured object is an area with great denivelation and surveys of both situational elements such as pavements, playfields, buildings and also the net of height points that give possibility to map the area shape faithfully were required. Tacheometric measurement bound to the points of national measuring framework with use of points of measuring points of GNSS technique was accepted as a measuring method. Used measuring technique together with proper density of measuring points enabled to prepare the map and also an area numeric model. Additionally, while performing an area interview, a photographic-descriptive documentation of the existing state was prepared. In that case, there was no spatial development plan and therefore assumptions concerning area view were determined by the study.

4. Stages of creating development

Preparing of development conception is characterized by many stages. Theoretical and substantial preparing is necessary in the initial preparation stage. The later works are performed in the proper order to receive satisfactory final effect. The works that should be done are as follows:

- to conduct area interview in order to determine the elaboration and later measuring ranges and the measuring method,
- to perform an area mapping (in that case the situational and height map, the area numeric model and also the photographic-descriptive documentation of the existing state),
- to consult with authorities that govern the area and also with the latter area users, in that case with buildings' administration and students' self-government representatives and also dormitories inhabitants council,
- to prepare project assumptions for anticipated elements and to confront them with performance possibility in the field and with demands set by proper norms,
- to elaborate development conception as a flat two-dimensional board and also on the basis of the area numerical model, the whole area three-dimensional visualization as well as of particular elements.

5. Assumptions of conception elaboration

The main project assumption was the smallest possible interference in existing area shape. New elements of both small architecture and pedestrian routes and playfields should have been slotted into existing area.

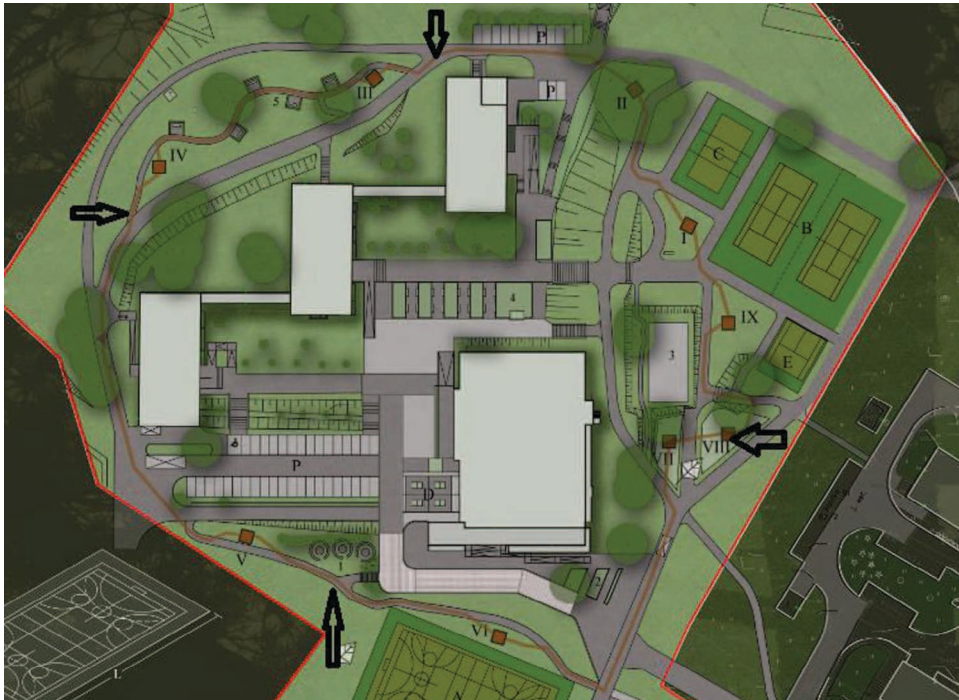
After consulting with students, administration workers and the Physical Education and Sport study workers, when initial proposals of changes elaborated by authors were presented, the list of modifications and new elements for campus area expected by users was prepared. They were as follows:

- planning of a health path running through the whole researched area on the natural surface and including 9 stands for motor exercises in its course,
- a multifunctional playfield with dimensions 50 x 28 m dedicated for basketball, handball, tennis and volleyball. Around playfield – 3 m of protective zone. Surface of the playfield – grass,
- two tennis courts, illuminated and fenced with PCV walls, with grass or brick powder surface,
- a playfield for beach-ball,
- a stand for squash,
- tables for table tennis placed permanently in determined spots,
- a place for a folding stage which enables to organize entertaining events in a safe way,
- modernization of pedestrian routes in order to improve users' safety and to adapt them to be used by the disabled,
- reconstruction of a ramp and stairs to the Physical Education and Sport study together with performing of proper illumination,
- location of leisure-recreational places as wooden tables and arbours,
- modernization of existing parking places with adaptation to the disabled needs.

Various models of leisure preferred in contemporary society were taken into account in the conception so as to prepare recreational area to be – both in the programme and its functions' ranges – the complex that will fully satisfy requirements of the future users. All sport objects, transport routes, ramps for the disabled and the other ones were designed according to directives determined by the law and mainly to the book by Neufert which enables to design even the most complex objects by programme and space. Parking places were designed with help of the guidebook by Korzeniewski.

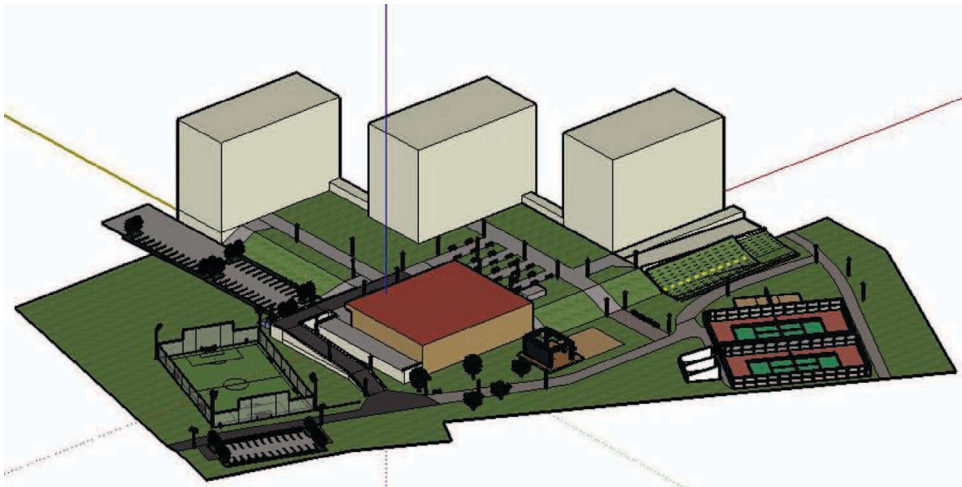
6. Summing up and conclusions

The final effect of the research was to perform development conception of the area of students living and learning in the Collegium Medicum in two- (Fig. 1) and three-dimensional space (Fig. 2). The authorities of the Jagiellonian University were the leading organ to consult and influence the final conception outline and the following area appearance. Safety of the area used by students and workers, framing in the conception objects that serve physical development and possible adaptation of objects to easy running of later conservational works and the ones aimed at preserving it in order were the main aims of the conception. Persons representing Students Self-government



Source: authors' study

Fig. 1. Development conception (2D) of the Jagiellonian University – Collegium Medicum (2014)



Source: authors' study

Fig. 2. Development conception (3D) of the Jagiellonian University – Collegium Medicum (2014)

required that the area would be supplemented with now missing elements. There were mainly places where students' meetings and cultural events might take place. The University authorities did not have concerns regarding places for an arbour, barbecue or stage to be framed in the conception. Linking of spatial development proper solutions such as transport, greenery system or sport buildings is the basis for creating good configuration based on harmony between designed elements and finally providing spatial order for that area without much interference in existing area shape. The elaboration fulfills the highest norms of: safety, fire-fighting and demands for the disabled by adaptation of pedestrian routes and ramps to the buildings.

It should be emphasized that this conception won the 1st place in a competition announced in public by the Jagiellonian University rector and is currently implemented.

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