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Qualitative Analysis of Architectural Education in the Protection of a Historic City

Analiza jakościowa edukacji architektonicznej w zakresie ochrony miasta zabytkowego

Keywords: architectural education, protection of a historic city, heritage protection, monument conservation, quality of education

Słowa kluczowe: edukacja architektoniczna, ochrona miasta zabytkowego, ochrona dziedzictwa, konserwacja zabytków, jakość edukacji

Introduction

In the article, it was decided to draw attention to the need for architectural education in the field of protection of cultural heritage, in particular the need to protect the historic city.

Almost every city in Poland has historic structures in its city limits. Many of these cities and towns can themselves be called historic due to both the length of their history and their cultural values.

As per the definitions,¹ a historic town is a town that: is of historical origin, possesses tangible assets in the form of a historic urban complex or its elements, as well as historic buildings or architectural complexes; and/or intangible

assets in the form of, for instance, place-based tradition, a historic name; and/or a historic, man-made cultural landscape consists of panoramas, perspective culminations, visual axes and scale of development. It is confirmed by numerous scientific works on the historic city.²

It is also notable that a historical town, its cultural landscape and elements such as works of architecture are protected under the 2003 Historical Monuments Protection and Preservation Act, as amended, which lists forms of monument preservation such as: placement in the monument register, a cultural park, monument to history and protective measures in a Local Spatial Development Plan (or in the case of the absence of one, in relevant administrative decisions).

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Based on the above, it should be noted that in Poland, in the territory of the Lesser Poland Voivodeship, there are sixty-one urban centers that can be described as historic towns.³ A similar situation is present in many other Polish voivodeships and abroad.⁴ Thus, one can state with a high degree of probability that almost every architect is going to prepare a design of the remodeling or restoration of a historic town, historic space or will design a new building in a historical setting in their conservation career. This is why architecture course graduates should be equipped to prepare such designs, not only factoring in the technical aspect, but also the legal, ethical and doctrinal aspects associated with heritage conservation. They should also be aware of the responsibility they carry. They should know that the architect takes an active part in protecting and preserving monuments as a part of their profession.

Teaching the Preservation of historic urban complexes module to students of the Faculty of Architecture of the Cracow University of Technology can be an answer to the problem presented above. This module is taught as a seminar for second-semester, first-year, second-cycle students, and assumes 15 contact hours of classes. It follows an original curriculum that includes matters of law in heritage protection; the forms of the conservation of historical monuments, the cultural landscape and the its protection, restoration and the protection of historic urban layouts along with an analysis of the state of this preservation in Lesser Poland, archival cartography and iconography as a source of knowledge about the history of a given city or town and positive examples of the protection and restoration of historic towns in Poland and other countries.⁵

It is also notable that other Polish architectural universities and courses also offer modules on protecting the cultural landscape of historical towns and cities,⁶ including the Wrocław University of Science and Technology's Architecture course. Its Architecture and Heritage Conservation specialization features lectures on spatial planning in the context of the transformation of small historical cities and towns.

Goal of the study

The first goal of this study was to determine the state of knowledge of second-cycle architecture students on the preservation of historic urban complexes and their awareness of the responsibility resting with architects concerning heritage preservation.

The second goal was to determine the degree of students' awareness of educational needs in various fields of knowledge that are useful to future architects in their conservation practice. It was assumed that this scope of the study shall allow the author to achieve this goal via the analysis of aspects like: the self-assessment by the study's respondents of knowledge concerning the subject matter of the preservation of historic towns in Poland, understanding what a historic town is, familiarity with the elements that make up a historic town

(citygenic elements), familiarity with elements that characterize a historic town, assessment of the degree of preservation of historic towns in Poland, the significance of the architect's role in the process of protecting historic towns, awareness of the architects' responsibility for the protection and proper restoration of historic towns, the significance of the need to educating future architects concerning various aspects of conservation and restoration.

Method and course of the study

The direct study had a quantitative character. It was based on an individual survey based on an original questionnaire. The study was performed in 2020 on a group of 75 respondents—architecture students. All questionnaires were provided using the community method and collected online. The study was performed on a purposive sample, which comprised second-semester, first-year, second-cycle students (during their penultimate year of study) of architecture who were studying at the Cracow University of Technology. Of the respondents, 79% were women, which reflected the feminization of architecture studies.

The questionnaire included ten detailed questions concerning the aspects under study. The substantive part of the study comprised closed-ended questions. The questionnaire was designed to include questions to which respondents could select either a single or multiple proposed answers.⁷ The questions concerning assessment used verbal descriptive scales, which were converted into unipolar numerical scales prior to calculations, where the term “very high” was assigned a value of 5; “high”—a value of 4; “difficult to say”—a value of 3; “low”—a value of 2; “very low”—a value of 1; “none”—a value of 0. For questions concerning alternative assessments, positive answers were given a value of 1; “difficult to say”—a value of 0.5; and negative answers were given a value of 0. Questions which asked respondents to identify elements that made up and characterized a historic town utilized a rating of 1—for correctly identified elements, whereas a value of 0 was given for incorrectly identified elements.

The data obtained using the survey was subjected to detailed statistical analysis with the use of quantitative and qualitative variable analysis, including descriptive statistics and statistical reasoning. The findings were subjected to analysis primarily using two-variable correlation measures (Pearson's r correlation coefficient and the correlation coefficient significance level p).⁸ The author used Statistica 10.0 and Excel 2010 software to perform calculations.

Findings and discussion

The data concerning declarations by respondents as to the assessment of their knowledge on the preservation of historic towns in Poland has been presented in figure 1.

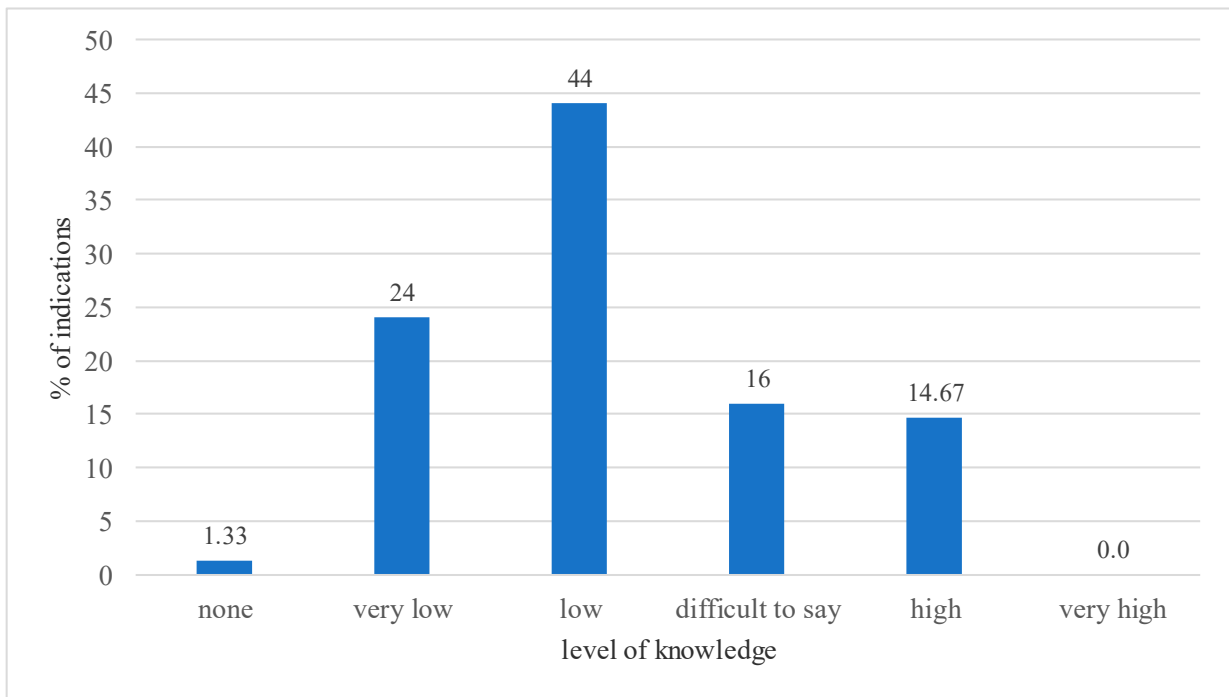


Fig. 1. Self-assessment of the knowledge of respondents concerning the preservation of historic towns in Poland, presented on a verbal scale (percentage of indications).

The analysis of responses showed that none of the respondents rated their level of knowledge as very high (K), and only a sixth of the students rated their knowledge (K) as high, while 70% declared their level of knowledge to be low or very low. On a five-point numerical scale, a knowledge self-assessment of $K = 2.19$, with a modal value $M_0(K) = 2$ was found. This clearly indicates that students, as future architects, were aware of their lack of preparation for their future work in the context of historic town conservation.

Another crucial aspect featured in the survey was a declaration of understanding what a historic town is, followed by a self-assessment of familiarity with elements that comprise historic towns (citygenic elements) and familiarity with elements that characterize historic towns. As many as three-quarters of respondents declared that they understood what historic towns are. However, all citygenic elements like a historical city hall, historical religious buildings, historical residential development and urban layout, as well as elements that characterize historic towns, such as: historical origins, tangible values, intangible values and a historic, cultural, man-made landscape, were correctly identified by only a quarter of the respondents. The findings were subjected to an assessment of the strength and direction of the correlation between the two variables, namely the declaration of understanding what a historic town is and being able to correctly identify elements that characterize a functioning historic town. Pearson's correlation coefficient and significance level values were calculated and have been presented in table 1.

The correlation coefficient values and significance level concerning the link between declarations of under-

standing what a historic town is and being able to correctly identify elements that a historic town is comprised of, point to a lack of correlation (as per J. Guildford's classification). However, there was a weak correlation between declarations of understanding what a historic town is and the correct indication of elements that characterize such a town.

These results confirm that the level of knowledge presented by students concerning historic towns was low and their declarations of understanding the term was found to lack substantive basis due to their knowledge about citygenic elements.

Due to the abovementioned responses concerning self-assessment about the knowledge on the conservation of historic towns in Poland and understanding what a historic town is and what elements form it and characterize it, the answers of the respondents concerning their assessment of the degree to which historic towns are protected in Poland should be taken as intuitive rather than based on actual substantive knowledge.

Element type	Correlation with the declaration of knowledge about what constitutes a historic town	
	Pearson's r	p
Citygenic elements	0.04	0.731
Elements that characterize a historic town	0.151	0.195

Tab. 1. Values of Pearson's r correlation coefficient and significance level (p) for declarations of understanding what constitutes a historic city and the correct identification of citygenic elements and those that characterize a historic town.

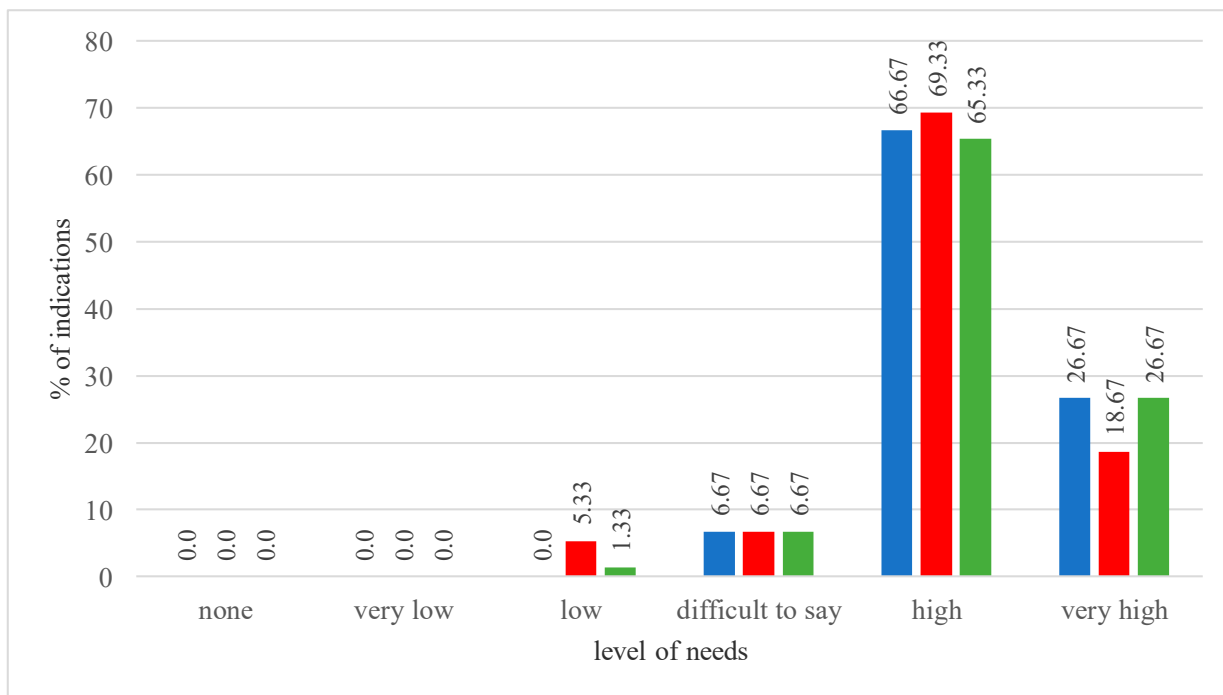


Fig. 2. Educational needs of future architects in terms of different fields of knowledge about the conservation and restoration of historic towns on a verbal scale (% of indications), Legend: blue—legal aspects; red—historical and urban studies; green—model solutions.

It should be noted that over 37% of respondents rated the protection of historic towns as satisfactory. The assessment of the degree of protection (P) on a numerical scale was 2.77, with a modal value M0 (P) of 2.

From the standpoint of the goal of the study, the respondents were to define the role of the architect in the process of protecting historic towns. The analysis of ratings reported by respondents concerning this subject signifies a high level of awareness of the role and responsibility of architects in their conservation-related conduct. Around 90% of the respondents stated that the role of the architect in the process of protecting historic towns was significant or highly significant. The rating of the role (R) as reported by the entire population of respondents was 4.15 points, and the modal value M0 (R) was 4 points. The percentage of respondents who gave an affirmative answer to the question about the responsibility of architects for the conservation and proper restoration of historic towns, only 8% gave a negative answer, while 16% did not have an opinion. Pearson's r (0.292) and p (0.011) signified a weak, yet statistically significant correlation between the rating of the role of architects in the conservation of historic towns and their responsibility for conservation and restoration.

To determine the respondents' level of awareness of educational needs in various fields of knowledge useful to future architects in their conservation practice, the survey asked about the degree of the need for education in: legal aspects, historic and urban studies of historic towns and cities and model solutions associated with the conservation and restoration of historic towns.

Data concerning the appropriate needs in each of the fields of knowledge under analysis point to a high degree of awareness of educational needs. Data concerning respondents' declarations about the degree of educational needs of future architects in various fields of knowledge about the protection and restoration of historic towns have been presented in table 2.

The analysis of student responses justifies the statement that, depending on the field of education, for between 88 and 93% of respondents, the rating of the need for education was declared to be either high or very high. On a five-point numerical scale, the rating of the need for education on the legal aspect was (ENL) = 4.20 points, concerning historic and urban studies amounted to (ENH) = 4.01 points, while for model solutions associated with conservation and restoration it was (ENM) = 4.28 points. This clearly indicates a high degree of student awareness of the fact that education in this field is necessary for their preparation for conservation practice as future architects. The findings were subjected to an analysis of the direction and strength of the correlation between two variables, namely the assessment of the role of the architect in the process of the conservation of historic towns and the assessment of the need for education in each of the areas under analysis. The Pearson's r correlation coefficient and p significance degrees calculated for this purpose have been presented in table 2.

The parameters concerning the link between the analyzed variables point to a negligible level of dependency between the assessment of the architect's role in conservation work and the need for education in the

Scope of educational needs	Correlation with the assessment of the architect's role	
	Pearson's <i>r</i>	<i>p</i>
Legal acts associated with conservation and restoration	0.223	0.05
Historic and urban studies of historic towns	0.038	0.749
Model solutions associated with conservation and restoration	0.170	0.145

Tab. 2. Pearson's *r* correlation coefficient and significance level (*p*) for responses about the role of the architect in the process of the conservation of historic towns and the degree of educational needs in the different fields of knowledge.

Scope of educational needs	Correlation with knowledge self-assessment	
	Pearson's <i>r</i>	<i>p</i>
Legal acts associated with conservation and restoration	0.226	0.051
Historic and urban studies of historic towns	-0.032	0.783
Model solutions associated with conservation and restoration	0.204	0.078

Tab. 3. Pearson's *r* correlation coefficient and significance level (*p*) for responses concerning the self-assessment of knowledge of respondents on the conservation of historic towns in Poland and the degree of educational need in the different fields of knowledge.

field of historical and urban studies of historic towns. A correlation was found between the low rating of the role of the architect with the assessment of the need for educating future architects both in legal aspects and in model solutions associated with conservation and restoration. The dependency between the assessment of the level of educational needs of future architects and the level of students' knowledge on the conservation of historic towns in Poland was analyzed as well. The relevant Pearson's *r* correlation coefficients and significance levels have been presented in table 3.

Analysis of the correlation coefficient and significance level for these variables justifies the claim that the higher the self-assessed level of knowledge, the higher the awareness of the need for education both in legal aspects and model solutions associated with conservation and restoration. However, it should be added that the correlation here is weak, similarly as in the case of the need for education and the assessment for the role of the future architect in conservation.

Conclusion

The survey study performed among second-cycle architecture students of the Faculty of Architecture of the Cracow University of Technology, which preceded teaching the Preservation of historic urban complexes module, allowed the authors to achieve the planned research goals. First, it allowed for determining the students' state of knowledge of the conservation of historic urban complexes and the level of awareness of the responsibility that rests with architects in the context of heritage protection. Second, it allowed the identification of the level of awareness of educational needs concerning different fields of knowledge useful to future architects in their conservation practice.

It is satisfying to see that the awareness of the role and responsibility resting with architects in their con-

servation practice is high among students. However, the low-rated self-assessment of the level of knowledge concerning the conservation of historic towns in Poland and a lack of knowledge about citygenic elements and those that characterize historic towns fully justifies teaching the Preservation of historic urban complexes module.

The study points to a high level of students' awareness that education in the field of legal aspects, historical and urban studies and analyses of model solutions associated with the conservation and restoration of historic towns is necessary for them to be prepared for conservation practice as future architects. The lower interest in historical and urban studies in education displayed by students points to a need to raise their interest in this subject during History of urban planning modules, due to their integral connection with conservation of and respect for cultural heritage.

In light of the above, it can be said that the substantive assumptions of the module are correct. It is imperative to ensure a high quality of his education. This module is intended to sensitize future architects to the problem of protecting the cultural landscape of historic towns. Work based on the formula of the seminar as a part of the module is intended to teach them how to work as a team, perform studies of the literature and archival collections, perform field studies and evaluate historic resources, and, as a consequence, analyze the collected materials and prepare a comprehensive vision of the development of a historic town that would utilize its history, tradition and monuments.

It also appears justified to carry out similar studies among architecture graduates, members of the Chamber of Architects who have begun their professional careers and must face design tasks sited in historical cities and towns.

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³ Ibidem; D. Kuśnierz-Krupa, *XIV-wieczne układy urbanistyczne*

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Abstract

This paper presents the findings of a study in which students of architecture schools rated their need for education about the scope of conservation and respect for the historical cultural landscape, primarily including the values of historic cities and towns. This subject appears to be highly essential as historic cities and towns, particularly smaller ones, are currently under the risk of losing their values due to development pressure that is often uncontrolled. It should be noted that architects who design new buildings in historic city and town centres often have contribute to this phenomenon. Therefore, in the authors's opinion, the education of architecture school students on the need to respect and conserve historic towns can be seen as an essential issue, as well as its quality level.

Streszczenie

W artykule przedstawiono wyniki badań dotyczących oceny przez studentów uczelni architektonicznych potrzeby edukacji w zakresie ochrony i poszanowania historycznego krajobrazu kulturowego, w tym przede wszystkim wartości zabytkowych miast. Przedmiotowa problematyka wydaje się bardzo istotna, gdyż miasta zabytkowe, szczególnie te mniejsze, są obecnie – w wyniku presji inwestycyjnej, często niekontrolowanej – narażone na utratę swoich wartości. Należy zauważyć, że niejednokrotnie w procesie tym mają swój udział architekci, projektujący nowe obiekty na terenach historycznych centrów miast. Zatem, zdaniem autorów, zarówno edukacja studentów uczelni architektonicznych w zakresie potrzeby poszanowania i ochrony miasta zabytkowego, jak i jej poziom wydają się niezwykle ważne.