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***Ad hoc* Prayer Spaces – a Challenge of the Architecture of the 21th Century**

Abstract

This article considers the problem of arranging places of prayer in the vicinity of universities and dormitories. A survey was conducted among students living in the dormitories of the Gdańsk University of Technology in order to determine if there was a real need to arrange such spaces. Subsequently, examples of temporary chapels designed in the last 20 years in Western European countries were presented. Analysis of the selected facilities and discussions based on literature studies made it possible to draw conclusions on the possibilities and ways of shaping temporary prayer spaces in the often historic and crowded university environments. The research included in situ investigations.

Keywords: ecumenical space, multi-faith space, religious architecture, sacral architecture, temporary chapel.

Przestrzeń modlitwy *ad hoc* – wyzwanie architektoniczne XXI wieku

Abstrakt

W niniejszym artykule rozważaniom poddano kwestię urządzania miejsc modlitwy w sąsiedztwie uczelni wyższych i domów studenckich. Przeprowadzono ankietę wśród studentów zamieszkujących akademiki Politechniki Gdańskiej w celu sprawdzenia, czy istnieje realna potrzeba urządzania ww. przestrzeni. Kolejno przedstawiono przykłady tymczasowych miejsc modlitwy projektowanych w ostatnim dwudziestoleciu w krajach Europy Zachodniej. Po dokonaniu analizy wyselekcjonowanych obiektów i przeprowadzeniu dyskusji w oparciu o studia literaturowe, możliwe stało się wyciągnięcie wniosków dotyczących możliwości i sposobów kształtowania tymczasowych przestrzeni modlitwy w niejednokrotnie zabytkowym i zatłoczonym otoczeniu uniwersytetów.

Słowa kluczowe: przestrzeń ekumeniczna, przestrzeń wielowyznaniowa, architektura sakralna, tymczasowa kaplica.

1. Introduction

The current era of global mobility has had a significant impact on changes in our environment. It is not only about material objects such as the increased number of means of transport, but also about changes in the sociological background. A phenomenon that has not yet been found on such a large scale is the mixing of nationalities, and thus, cultures¹. Nowadays, no man's spaces, in literature named "non-places"² occupy a larger area than ever. Examples of these places include airports, hotel rooms, shopping malls, and also student dormitories at universities. This state of affairs is associated with, among others, the growing popularity of student exchange programs. As a result, people with different views or preferences begin to use the same spaces³. The 21st century is trying to live up to this new challenge, however with varying results. An example of spaces that do not fulfill these needs are spaces arranged in non-places – Polish airports⁴. In research which aims to verify if the correlation between the name "ecumenical space" ("multi-faith space", etc.) and the actual arrangement of these spaces in Polish airports appears, it was found out that in only in a few cases can such a correlation be found. In most of these cases, "multi-faith" rooms have been strongly identified with only one religion. Such a picture of the space can enhance the sense of alienation among travelers, as well as rejection by people with other religious beliefs.

Another, but no less important example indicating the need for a deeper analysis of the presence of prayer spaces in non-places, is the problem of foreign students of Nicolaus Copernicus University in Toruń, who ask for breaks during classes and arranging places for this purpose⁵. Many of Poland's leading universities probably face such a problem, because they were mostly established at the beginning of the 20th century (Gdańsk University of Technology – 1904, Wrocław University of Technology – 1910, Warsaw University of Technology – 1915, Jagiellonian

¹ Małgorzata Dymnicka. 2011. "Od miejsca do nie-miejsca". *Acta Universitatis Lodzianensis. Folia Sociologica* 36: 35–52; Małgorzata Dymnicka, Jakub Szczepański. 2016. "Dilemmas of Identity in Contemporary Cities. The City of Gdansk as an Example". *Procedia Engineering* 161: 1225–1229.

² Marc Augé 2019. *Non-places: introduction to an anthropology of supermodernity*. London – New York: Verso.

³ Jakub Szczepański. 2019. "Valuation of architectural heritage by multicultural student groups". *Global Journal of Engineering Education* 21/33: 196–201.

⁴ Agnieszka F. Szuta. 2021. "Architecture of ecumenical spaces in public buildings in the 21st century: Links among the architecture of multi-faith spaces, their names, and the functions they serve in Polish airports". *Frontiers of Architectural Research* 10(2): 274 – 283.

⁵ Adam Willma. 2019. Muzułmańscy studenci z UMK chcą przerw na modlitwę. Centrum Kultury Muzułmańskiej Bez przesady, mogą odrobić (7.12.2020). <https://pomorska.pl/muzulmanscy-studenci-z-umk-chca-przerw-na-modlitwe-centrum-kultury-muzulmanskiej-bez-przesady-moga-odrobic/ar/c1-14593199>; Wprost. Toruń. 2019. Muzułmańscy studenci chcą zmiany planu zajęć. Domagają się przerw na modlitwę (7.12.2020). <https://www.wprost.pl/kraj/10272040/torun-muzulmanscy-studenci-chca-zmiany-planu-zajec-domagaja-sie-przerw-na-modlitwe.html>.

University, University of Warsaw, etc.) and during the process of their design, the arrangement of places of prayer, much less multi-faith, was not planned. An additional unfavorable factor, also affecting the problem raised, is the time of the pandemic, when many people, including students, were forced to stay outside their home country. In their difficult situation, far from their families, finding a space for prayer could help to improve their psychological comfort.

In light of the problem above, the following questions arise: is it possible to provide additional prayer spaces in order to improve the comfort of travelers, especially students on exchanges? Can temporary facilities respond to the current needs of society? Is it possible to create a prayer space in (perhaps seemingly) crowded places? Is there an optimal architectural form for places of focus?

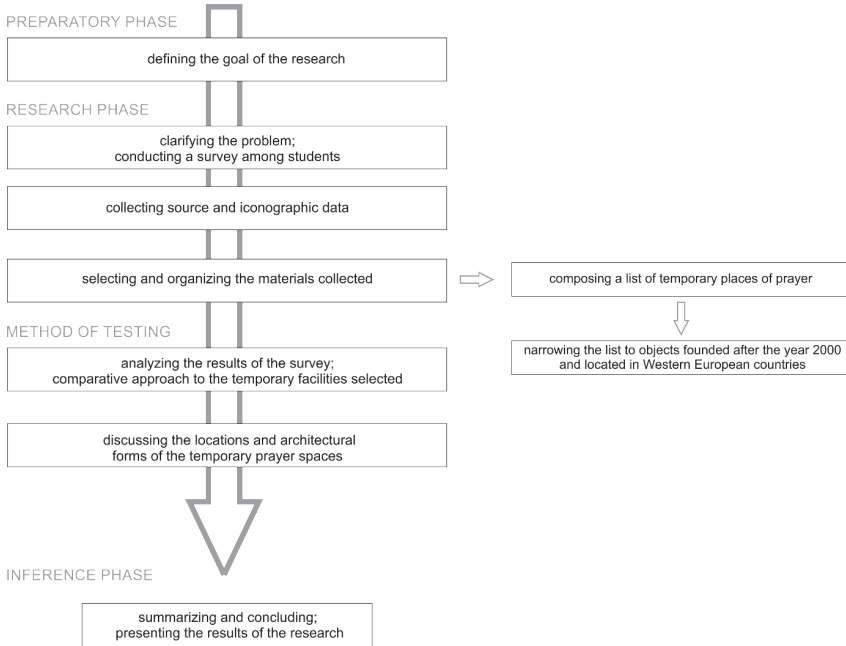
2. Methodology

One of the aims of this study was verifying if a real need to find a place of prayer appears among students. Another purpose was also to check whether it is possible to use prayer spaces in such a way as to improve the comfort of travelers (with particular focus on students), even in crowded or historic surroundings. So, is there a universal architectural form for these buildings? Are there factors that could significantly contribute to the success of the implemented design solutions?

The first stage of the study was to conduct a survey among students to see if the organization of prayer spaces is a real, current need. The next stage of the research were literature studies. Nevertheless, it was revealed that the topic of building temporary spaces for prayer on academic campuses, with particular attention on the global mixing of cultures, as well as in light of the time of the pandemic (and its social consequences) is a new issue. For this reason, this subject has not yet been discussed in literature.

The next step was to get acquainted with the existing implementations and projects of temporary prayer spaces, which could provide a solution for often crowded academic settlements. Subsequently, the collected material was verified and organized. From this group, projects planned during the last 20 years in the Western European countries were selected. These projects are discussed further based on source material, and the photographs inserted in the text become a supplement to the information about the architectural form of the analyzed facilities.

In view of the above, and on the basis of extensive literature studies, it has become possible to conduct a discussion concerning the architectural form of the prayer spaces. After comparing the analyzed facilities and conducting discussions, it became possible to draw conclusions, identify factors that could influence the suc-



cess of the designed facilities and obtain answers to the questions posed above. The studies used a comparative approach as well as the method of logical reasoning. All Figure 1. Diagram showing the course of the research. Source: Author’s own studies.

of that was supported by statistical data. The research is enrichment by in situ investigations. The course of the research is shown in the diagram below (Figure 1).

3. A questionnaire

In today’s world of global mobility, “non-places” occupy more space than ever be-fore, thus filling more and more areas of human life. These spaces are important points in the process of colonization of places and are directly related to phenomena occurring in the 21st century – the mixing of cultures, ages, races, and genders⁶. Nowadays, the concept of rooting is changing and the sense of geographical closeness is relegated to the background. Consequently, a need for calmness, complicity, and prayer may grow among travelers. These types of feelings may provoke them to seek quiet places of silence as well as spiritual practice. In the light of the changes taking place in our civilization, numerous questions arise: Are enough places of prayer being designed? Does the architec-

⁶ Dymnicka. 2011. “Od miejsca do nie-miejsca” 35–52.

ture of the existing places of prayer meet travelers' expectations? Are churches as large, single-denominational buildings still needed? Are the small facilities near places with a particularly high extent of mixing of cultures and traditions sufficient? Is it possible to improve the comfort of travelers, especially students, and provide a sufficient number of such places by means of architecture?

As it happens, the architecture of ecumenical spaces in Polish airports fails to meet the requirements of the 21st century. Actually, although practically every airport has a separate place called the multi-faith room, the ecumenical chapel, and so on, the number of rooms in which the correlation of names and functions occurs is alarmingly small⁷. Nevertheless, these spaces were planned into the facilities during the design phases, when their arrangement proved to be problematic. University campuses, however, differ in this regard: many were built at the turn of the 20th century and such spaces were not separated inside the building. This deficiency, for instance, is evident for students of the University of Toruń looking for a place of prayer⁸.

A survey was conducted in order to verify whether a real need to find a place of prayer among traveling students exists. The respondents were residents of one of the academic houses of the Gdańsk University of Technology. The table below (Table 1) presents the results of the survey.

Number of residents:	108		
Number of foreigners:	45		
Number of respondents:	15		
Question	Is there any multifaith space or place of spiritual focus in the vicinity of your dormitory?		
Answer (no. of votes)	Yes: 0	No: 15	
Question	How far are you living from the place of spiritual focus, multifaith space, or multifaith chapel you attend?		
Some of the answers to the question:	<ul style="list-style-type: none"> – “My religion needs no special place of prayer”. – “There is no place of prayer I need”. – “It is about 5 km away”. 		
Question	Would you visit a place of spiritual focus, place of prayer, or ecumenical chapel if one was arranged in the vicinity of your dormitory?		
Answer (no. of votes)	Yes: 8	Maybe: 1	No: 6
Some of the answers to the question:	“Yes, I would. Although my religion needs no special place of prayer, I would love to be able to visit a room of focus”.		

Table 1. The results of the survey.

⁷ Szuta. 2021. Architecture of ecumenical spaces in public buildings in the 21st century.

⁸ Willma. 2019. Muzułmańscy studenci z UMK chcą przerw na modlitwę; Wprost. Toruń. 2019. Muzułmańscy studenci chcą zmiany planu zajęć.

Foreign residents of one of the academic houses of the Gdańsk University of Technology make up about 42% of the total residents. The survey was conducted in a representative group of 15 people from student exchange. As it happens, none of them find a place of prayer the vicinity where they were living and which they could attend.

Question two revealed that only one person travels to a place of prayer, about 5 km from their place of residence. For the others, there is no place nearby that they could visit. One needs no such place. As a response to the last question, 60% expressed a potential desire to attend a place of focus if one was arranged nearby, even if their faith had not needed one.

In sum, the results of the survey ascertained a real demand for an ecumenical space among the residents of one dormitory of the Gdańsk University of Technology and high-lighted a need to arrange one.

4. Temporary prayer spaces

4.1. Temporary chapel for the Deaconesses of St-Loup, Switzerland

The renovation of the entire building of the Deaconess Community of St-Loup, including the main chapel, caused its temporary closure. As a result, the architects proposed the construction of a temporary chapel for the nuns, who were in need for a place for religious activity during the ongoing construction work (Figure 2).

The concept of the chapel was influenced by local, traditional architecture, where wooden structures are used. A facility was built out of timber panels that enables covering large areas with fine sections. The shape of the chapel resembles origami – the sharp edges give rhythm both to the outside façade and interior (Figure 2, 3). This form is the result of important design assumptions: the facility has to be simple, economical and allow for quick assembly. These “origami folds”, alternately pointing up or down, allow the discharge of rainwater on the roof, while the whole building bearing this shape improves the acoustics and lighting of the chapel.

Thanks to the materials used, the chapel blends into the landscape. Moreover, due to the openings on both sides (Figure 3) as well as its position on the east-west axis, natural light flows into its interior. The structure as a whole emphasizes the interior space while creating an atmosphere conducive to reflection (Figure 3). The chapel is uncomplicated, with simple details. Intricate decorations are replaced by the form of the building – each of the folds of the façade reflects light differently, thereby emphasizing the progression and elongation of the volume of the chapel. This temporary chapel is an example of a new in-



Figure 2. Exterior of the temporary chapel for the Deaconesses of St-Loup, Switzerland. On the left: The shape of the chapel resembles origami; on the right: a view of the entrance to the chapel. Source: (ArchDaily 2018).



Figure 3. The temporary chapel for the Deaconesses of St-Loup. On the left: a view to the opening on the façade; on the right: a view from the inside. Source: (ArchDaily 2018).

terpretation of the traditional religious space. This facility is in peaceful harmony with its environment⁹.

4.2. Temporary chapel near the Notre Dame Cathedral, France

In April 2019, the wooden structure of Notre Dame Cathedral set on fire, which caused the collapse of part of the cathedral's roof. Therefore, further use of the cathedral was no longer possible. In this case, as an ad hoc solution, a temporary prayer place near the destroyed cathedral was proposed.

⁹ 2008. Temporary chapel for the Deaconesses of St-Loup – Localarchitecture / Danilo Mondada + Localarchitecture. ArchDaily (10.02.2021). www.archdaily.com/9201/temporary-chapel-for-the-deaconesses-of-st-loup-localarchitecture; Marielle Savoyat. 2017. The Chapel of the Deaconesses of St-Loup at Pompales, Switzerland. In *Advanced Timber Structures. Architectural Designs and Digital Dimensioning*. Ed. Yves Weinand, 22–45. Basel: Birkhäuser.

The international architectural office Gensler proposed a temporary, multifunctional structure – a pavilion in the square in front of the cathedral (Figure 4). The main goal of this idea was to guarantee a place where masses could be celebrated during the renovation works taking place in the cathedral. Moreover, the designers wanted to strike a functional balance between social use, in its broad sense, as well as a reflective and spiritual space. Hence, the project assumed multifunctional use of the space, e.g. as a location for various exhibitions as well.

In order to tie in with the historical cathedral and obtain a similar feeling of the space, the designed pavilion has the same dimensions as the main nave of the cathedral. The structure is designed to be made of deliberately charred timber, as a reminder of the disastrous fire in the cathedral. It is proposed to make both the roof and walls out of light translucent polycarbonate walls, that let in natural light, which emphasizes the character of the place. Behind the altar, an installation of movable panels is proposed, which would allow for a full view of Notre Dame (Figure 4). At ground level, horizontal rotating panels are designed which can open and allow the space of the pavilion to be configured for performances, fairs, etc.¹⁰

4.3. Temporary chapel in Hamburg, Hafencity

In 2008, in the rapidly developing new Hafencity district in the post-port area, at 17 Großer Grasbrook, nineteen Christian churches jointly opened a new small makeshift chapel. Such a large number of ecclesiastical communities participated in the construction and organization of the chapel due to the great religious diversity of Hamburg. In 1995 Hamburg contained 168 temples belonging to 83 different independent Christian communities¹¹. The facility was located between office and residential skyscrapers. The one-story wooden chapel was made of prefabricated elements (Figure 5a), with the use of cheap technology, with a ceiling made of raw OSB boards (Figure 5, 6). The furnishing and fittings were adapted to the needs of Protestant and Catholic users. It offered about 50 seats. This chapel proved popular among employees of local businesses, locals and tourists. It served as a spiritual oasis and a prayer room which was possible to visit during one's lunch break. The aforementioned fea-

¹⁰ India Block. 2019. "Gensler designs Pavillon Notre-Dame as temporary worship space". DeZeen (10.02.2021). https://www.dezeen.com/2019/07/30/pavillon-notre-dame-gensler-temporary-cathedral/?fbclid=IwAR1ycMYmzZ_76gYIJVDA10GAMpO8b0FzHTDX-z3Y_rx4W-2MOV362llRyAyc; Gensler. 2019. "Gensler Unveils Design for Temporary Pavillon Notre-Dame". Gensler (10.02.2021). www.gensler.com/news/press-releases/gensler-unveils-design-for-temporary-pavillon-notre-dame.

¹¹ Wolfgang Grünberg, Dennis L. Slabaugh, Ralf Meister-Karanikas. 1995. *Lexikon der Hamburger Religionsgemeinschaften*. Hamburg: Verlag: Dölling und Galitz, 19.



Figure 4. Proposition of a temporary, multifunctional structure near the Notre Dame Cathedral. On the left: a visualization from the exterior of the designed pavilion; on the right: a visualization from the inside of the designed structure. Source: (Gensler 2019).

tures made this chapel a popular place among employees of local businesses, local residents and tourists. For four years it served as the spiritual center of Hafencity.

The chapel served not only religious purposes but also various other concerned with the general public. It was in accordance with the Protestants' demands for the use of sacral facilities as spaces of broadly understood social life¹². Among others, discussions on architecture were held there, for instance, the public meeting *Visionen für Hamburg. Wie die Stadtplanung urbanes Leben entwirft* (Visions for Hamburg. How Urban Planning Designs Life in the City) arranged in the chapel in June 2009¹³.

In 2012, in the nearby Shanghaiallee district, the Ecumenical Forum, a seven-story building with a separate ecumenical chapel on the ground floor, was opened (Figure 6). As a result, the small chapel in Hafencity was no longer needed. The intention to reuse the chapel was primarily symbolic rather than economic. The material value of this facility was negligible, but its ecumenical use in a prestigious location in Hafencity gave it additional value. A tender for the chapel was launched, which was won by the Church District of North Friesland for a small community in Klanxbüll, which needed precisely such

¹² Wolfgang Grünberg, Ralf Meister. 2003. Thesen zur Citykirchenarbeit. In *Räume riskieren. Reflexion, Gestaltung und Theorien in evangelischer Perspektive*. Ed. Friedrich Brandi-Hinnrichs, Annegret Reitz-Dinse, Wolfgang Grünberg, 154–157. Schenfeld: EB-Verlag; Gisela Groß, Tobias Woydack. 2003. Der Kirchenraum – Thesen. In *Räume riskieren. Reflexion, Gestaltung und Theorien in evangelischer Perspektive*. Ed. Brandi-Hinnrichs, Reitz-Dinse, Grünberg, 151–153.

¹³ Bernhard Winking, Dagmar Bremer, Renate Kammer, Ferdinand Rector, Ullrich Schwarz. 2009. *Raum in der Zeit. Hamburg im Fluss*. Hamburg: Initiative Hamburger Architektur Sommer e.V., 57.

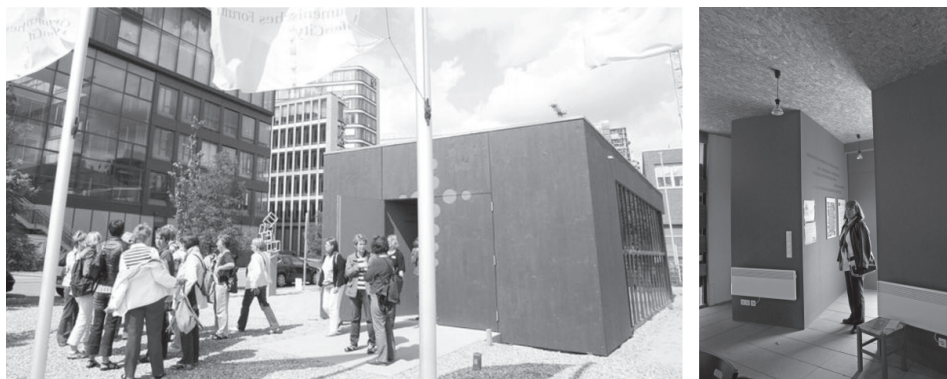


Figure 5. The temporary chapel in Hafencity. On the left: a view from the exterior; Source: (Teggatz 2015); on the right a view from the interior, August, 2010. Source: photo by J. Szczepański.



Figure 6. On the left: the temporary chapel in Hafencity – a view from the interior, August, 2010. on the right: The Ecumenical Forum with a separate ecumenical chapel on the ground floor, May, 2016. Source: photos by J. Szczepański.

a place. However, the Klanxbüll parish gave up the use of the Hamburg chapel. The parish decided to build a community center along with the municipality, and consequently there were insufficient funds to take care of the chapel. Other parishes that were initially interested in the offer also decided not to take over the facility. Currently, elements of the dismantled chapel stand in the parish of Süderlügum. The North Friesland Church District is still looking for a potential user for the chapel¹⁴.

5. Discussion

Recent studies have shown that despite empty temples and a decrease in the number of faithful attending Holy Masses¹⁵, people are still looking for places of focus. However, it turns out that the architecture of places of prayer in non-places is treated marginally. This problem affects not only the topic studied a short while ago, airports¹⁶, but also similar disadvantages exist in the immediate vicinity of universities – in student dormitories (Table 1). In light of this, the design and arrangement of prayer spaces, especially multi-faith prayer spaces on university campuses, is becoming a new important design task.

One of the obvious ideas for improving the comfort of foreign students would be designating a space inside the dormitories and arranging an ecumenical room there. However, due to the current regulations, it turns out that in the era of pandemic, the arrangement of such a space will not be a solution because visitations are strictly forbidden in the dormitories. Even students living in the other dormitories, but in the same estate, are not allowed to visit neighboring students houses¹⁷. In light of such restrictions, the only solution may be an external chapel.

¹⁴ Timo Teggatz. 2015. Hafencity-Kapelle auf Odyssee durch die Nordkirche. Evangelisch-Lutherische Kirche in Norddeutschland (10.02.2021). www.nordkirche.de/nachrichten/nachrichten-detail/nachricht/hafencity-kapelle-auf-odyssee-durch-die-nordkirche; Thomas Morell. 2015. „Ehemalige Hafencity-Kapelle wartet auf neuen Besitzer“. KircheHamburg (10.02.2021). <https://www.kirche-hamburg.de/nachrichten/details/ehemalige-hafencity-kapelle-wartet-auf-neuen-besitzer.html>.

¹⁵ Instytut Statystyki Kościoła Katolickiego. 2018. *Annuario Statisticum Ecclesiae in Polonia*. Warszawa, http://www.iskk.pl/images/stories/Instytut/dokumenty/Annuario_Statisticum_2018.pdf; Donatella Fiorani, Loughlin Kealy, Stefano Francesco Musso. 2017. *Conservation – Adaptation. Keeping alive the spirit of the place adaptive reuse of heritage with symbolic value*. Hasselt: EAAE European Association for Architectural Education; Agnieszka F. Szuta, Jakub Szczepański. 2020. „Striking elements – A lifebelt or a fad? Searching for an effective way of adapting abandoned churches”. *Frontiers of Architectural Research* 9 (2): 277–286.

¹⁶ Szuta. 2021. “Architecture of ecumenical spaces in public buildings in the 21st century”.

¹⁷ Ministry of Education and Science: Ministerstwo Edukacji i Nauki. 2021. Wytoczne MNiSW, w konsultacji z GIS, dotyczące zapewnienia bezpiecznych warunków zakwaterowania w domach studenckich w trakcie epidemii COVID-19. (19.02.2021). <https://www.gov.pl/web/edukacja-i-nauka/wytoczne-mnisw-w-konsultacji-z-gis-dotyczace-zapewnienia-bezpiecznych-warunkow-zakwaterowania-w-domach-studenckich-w-trakcie-epidemii-covid-19>.

To clarify, an ad hoc solution could be a temporary one. The facilities described in Chapter 4 could provide valuable inspiration and guidance for designers as well as investors.

Each of the chapels discussed in Chapter 4 have been designed as a temporary object. Despite this assumption, their designs have nevertheless been thought out in as much detail as permanent facilities, thus showing no less value in material or functional context than permanent facilities. In each case, the designers tried to preserve the value of the place and recognize the historical contexts, as well as the sentimental values of the surroundings. What is more, they even tried to emphasize them, for instance in the case of the temporary chapel at the Notre Dame Cathedral. The chapel in Hafencity also fits in with the surroundings. Made of prefabricated elements, it represented a coherent urban landscape with buildings in the vicinity. Moreover, the chapel turned out to be an environmentally friendly area, because when the ecumenical center was built and the chapel was no longer needed, it was packed and transported to another parish. The third of the discussed chapels was built as a result of the renovation of a monastery – the necessity to find an external place for prayer appears, so a solution was to build a temporary place of prayer. The chapel, due to the use of neutral geometric forms and natural materials, interacts with the extensive green areas in the immediate vicinity.

Apart from the fact that all of the analyzed facilities fit the surroundings, their common feature is the lightness of the structure and the unobtrusive appearance. It can be noticed that the designers avoided icons and symbols and replaced them with a thoughtful and skillful use of natural light. Although the location and neighborhood of each of these spaces differs a lot, it turns out that these facilities have many common features. So, do they confirm the existence of a universal ecumenical chapel?

In the external form of the analyzed facilities, it is possible to draw an analogy with the way of designing internal multi-faith spaces. Internal ecumenical spaces could be deco-rated in two types: negative and positive. In the first type, unity is created by exclusion, while in the second, unity is created through union¹⁸. Therefore, the facilities analysed in Chapter 4 may be considered as belonging to a positive type – where the design assumes the use of a variety of materials, forms and natural elements that are mixed and intertwined with the environment. Due to such measures, these structures are not alienated elements in the structure of a city or village. It is noted that the building materials used affect the aura of the place. Usage of natural materials and colours is a ref-

¹⁸ Krystian Kaluża. 2019. “Dialog religii a dialog kultur. (Dialogue Of Religions And Dialogue Of Cultures)”. *Roczniki Teologiczne* 9: 63–77.

erence and a reminder of the universal respect for nature, which is common to different religions¹⁹.

Studies that have been conducted so far show the relationship between place and religion – it turns out that it is religion that could strengthen attachment to the place. At this point, the place begins to form an integral part of many religions, and the faithful become actively engaged not only through the symbolic meaning of the place, but also by the location, architectural design, layout and aesthetics²⁰. K. Johnson and P. Laurence²¹ prove that the key to success in designing multi-faith spaces might be searching for the deep roots of faiths and finding their common points. The element which links religions – perhaps banal and therefore easy to overlook – is mystery and admiration. One of the tasks of places of focus, regardless of religious beliefs, is to move the visitor's mind to a place of worship. This is an essential criterion in building a space of prayer for every religion, and at the same time, a huge challenge. Therefore, understanding the issues, expanding knowledge and raising awareness of other faiths are fundamental elements which must be considered before undertaking the project work²².

There are many rituals, religious rites and their variations, so it is difficult to unequivocally define the optimal form or shape for a temporary chapel on university campuses. Nevertheless, after careful consideration of the points raised above, versatility seems to be a key element. There is probably none, and it will be difficult to create, a perfect ecumenical space, but appropriate studies combined with the experiences of other designers²³, could significantly bring the designer closer to achieving all the intended goals simultaneously.

6. Applications and summary

The 21st century – the time of global mobility – creates significant impact on the increasing religious diversity, which has become an important catalyst for social

¹⁹ Andrew Crompton. 2013. "The architecture of multifaith spaces: God leaves the building". *The Journal of Architecture* 18: 474–496; Karla Johnson, Peter Laurence. 2012. "Multi-Faith Religious Spaces on College and University Campuses". *Religion & Education* 39 (1): 48–63.

²⁰ Shampa Mazumdar, Sanjoy Mazumdar. 2004. "Religion and place attachment: A study of sacred places". *Journal of Environmental Psychology* 24: 385–397.

²¹ Johnson, Laurence. 2012. "Multi-Faith Religious Spaces on College and University Campuses" 48–63.

²² Wojciech Necel. 2017. "Duszpasterstwo lotnictwa cywilnego. Wskazania pastoralno-kanoniczne". *Prawo Kanoniczne* 60 (2): 21–34.

²³ Crompton. 2013. "The architecture of multifaith spaces : God leaves the building" 474–496; Johnson, Laurence. 2012. "Multi-Faith Religious Spaces on College and University Campuses" 48–63; Christian Norberg-Schulz. 2000. *Bycie, przestrzeń i architektura*. Warszawa: Wydawnictwo Murator.

change. Different kinds of religious pressure on the wider society influenced architecture as well, with public facilities particularly reflecting these societal changes. As a consequence, ecumenical spaces have already begun to be envisaged in the design phase of founding brand-new buildings, for instance, airports and shopping centers. However, it is also important to guarantee places of spiritual focus within existing groups of facilities, such as university campuses. The ongoing social changes require new steps to be taken and the religious community should adopt a new, bold approach to a multi-religious reality. Therefore, architects are facing a new task: the design of facilities enabling dialogue between different religions, thus providing respect and tolerance in often-difficult surroundings.

Because the issue of locating chapels as temporary facilities on university campuses – as well as of the pandemic itself and its impact on our society – is relatively new, the problem of designing multi-faith spaces, within such an approach, has not been discussed in the literature. Nevertheless, the confirmation of the above is a need for a place of prayer voiced by students of the University of Toruń, as well as a survey conducted among the residents of the student houses of the Gdańsk University of Technology for the purposes of this article. There are, perhaps, many more such cases than this paper presents because, apart from the bold movements of students from Toruń, many have not been widely publicized, as our case of surveyed students of Gdańsk.

Another research goal was to verify whether it is possible to arrange a prayer space in such a way as to improve a traveler's comfort, paying particular attention toward students, even in crowded or historic places. For this purpose, basing on the literature and iconographic studies, places of focus intended to be temporary in the last two decades were selected. In this group, facilities in Western European countries were analyzed. These examples showed various solutions for the arrangement of prayer spaces, which, after analysis and discussion, allowed for conclusions to be drawn on the process of designing places of spiritual focus. The process of designing such spaces should:

- preserve the values and the identity of the place, recognizing its sentimental values, as in the case of designing the historic vicinity of Notre-Dame;
- use delicate, subtle materials for various religious structures and use natural materials with an allusion to nature;
- strengthen the sense of acceptance with simple geometric patterns, colors, and bright features;
- avoid bias to any one faith, allowing followers of all religions to feel comfortable;
- replace icons and other religious symbols with light;
- use the lightness of the structure and an unobtrusive appearance;

- possibly reuse existing materials or facilities as an environmentally friendly solution, as in the case of Hafencity;
- conduct actions as part of the design process thoughtfully and in a well-rounded fashion to increase the attractiveness of the place.

Is there, thus, a universal architectural form for these facilities? Apparently, numerous solutions exist, and religious diversity, contrary to appearances, may become a factor stimulating the designer's creativity. The location of the place of prayer largely defines its nature, but some factors have been shown to be able to significantly contribute to the success of the implemented design solutions.

Because architecture may inspire kindness and understanding among people, regardless of faith, it is worth drawing from the experiences of other countries and taking inspiration from analyzing these examples. Multi-faith rooms may become places to break barriers between people of different faiths. However, countless arrangement solutions may be implemented, for instance, at university campuses.

The attention of a wider group, especially architects, should be drawn to the issue concerned with designing multi-religious spaces in non-places. Places of prayer play a crucial role in the reality of the 21st century, teaching tolerance as well as making others aware of religious pluralism. Places of spiritual focus should gather and inspire understanding in people, so that no one feels excluded, as well as provide a sense of comfort, especially in students outside their home country. The conducted studies may provide an indication for the rearrangement of places that already exist and those that have just been designed. Nevertheless, it becomes important to find the golden mean and a good balance, as it is difficult to find a clear answer to what will work and what will not. This remains the challenge of design in the 21st century, the time of global mobility.

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