

THERAPEUTIC GARDENS FOR ONCOLOGY HOSPITAL. ARCHITECTURAL STUDENTS PROPOSALS TO ALLEVIATE STRESS IN HEALTHCARE ENVIRONMENT CREATED DURING THE COVID-19 PANDEMIC

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Abstract

The stress in the healthcare environment is a heavy burden on the hospital staff, the caregivers, and the patients. One of the methods to alleviate stress in the hospital environment is a therapeutic garden. This paper presents the proposals for therapeutic gardens for an oncology hospital in Bydgoszcz prepared by the students of Architecture at the University of Science and Technology in Bydgoszcz in the spring of 2020 and 2021. The Design Studio was organized remotely during the COVID-19 pandemic (Emergency Remote Teaching), which might have influenced the design proposals. Each of the students worked individually from home. The final projects were presented online, and the internauts (students, staff, patients, inhabitants, whoever was concerned) voted for the best solutions. The results of the architectural competition may serve as a ground for discussion about Emergency Remote Teaching and the possible evolution of therapeutic gardens after COVID-19.

Keywords: Therapeutic gardens; Architectural competitions; Architectural education; Emergency Remote Teaching; COVID-19 pandemic.

1. INTRODUCTION

There are numerous efforts to alleviate the heavy stress burden which lies on medical staff and patients in oncology departments. One of the proposed solutions is an architectural design promoting contact with nature. The healing properties of nature were known to mankind since antiquity, and are mentioned in the Bible, works of Saint Hildegard of Bingen, etc... Often, in medieval places of care, gardens were established where edible plants and herbs were. Then, with the progress of medicine and the pursuit of sterility of healthcare facilities, these gardens were forgotten. The healing properties of nature become the subject of interest in the scientific community again since the

mid-twentieth century. This was related to medical discoveries that shed light on the need to treat man holistically in the treatment process. That is a plethora of research evidence documenting the beneficial effects of contact with nature on human beings [1–9].

The first notion of therapeutic landscapes appeared in Wilber Gesler's work about healing places which are believed to install health in pilgrims who are visiting them. Gesler coined a definition that stipulated that therapeutic landscapes combine material, social and spiritual values that promote holistic health [10–11]. The theory of therapeutic landscapes sheds light on the necessary qualities of therapeutic gardens and horticultural therapy in healthcare settings. Therapeutic



Figure 1.
Therapeutic garden on the roof. Nursing Home EPHAD Robert Doisneau, Paris, France: Path between the raised beds, source: Author



Figure 2.
Therapeutic garden on the roof. Nursing Home EPHAD Robert Doisneau, Paris, France: Entrance to the garden on the roof, source: Author



Figure 3. Interior garden of L'Hôpital Robert Debré dedicated to the treatment of children, Paris, France: Overview from the lobby, source: Author



Figure 4. Interior garden of L'Hôpital Robert Debré dedicated to the treatment of children, Paris, France: Playground equipment in the garden, source: Author

gardens share values with therapeutic landscapes. They are places that strive to unite material, social and spiritual values to promote the holistic health of patients, visiting families, and medical staff.

Nowadays, medicinal gardens and specialized therapeutic gardens separated from them, designed to support the therapy of specific diseases, exist in many countries around the world. They are constructed in

primary care units, hospitals, palliative care units, nursing homes, etc.

The therapeutic gardens are constructed next to healthcare units – on the ground, on the roofs or inside the buildings, as interior winter gardens with controlled temperature and humidity all year long.

In this study, the case of therapeutic gardens for the Oncology Center in Bydgoszcz, Northern Poland is presented. The therapeutic gardens were designed by an architectural student (6 semester, 3 year) who studied at the Technical University of Sciences and Technology in Bydgoszcz located nearby the Oncology Centre. The design proposals were created individually during the Emergency Remote Teaching period due to the COVID-19 pandemic. The design proposals were presented online and student competitions were organized in two successive years in the spring of 2020 and 2021. The best proposals were granted awards by the internauts. The voting results are the source of information about internauts' preferences for therapeutic solutions and qualities. The results offer insights into the possible evolution of therapeutic gardens after COVID-19.

2. THERAPEUTIC GARDENS – SPECIAL PLACES TO PROVIDE THERAPEUTIC BENEFITS

In theory, every garden can promote human health, but not every garden may become a therapeutic garden. The therapeutic gardens may passively improve human health, while patients are spending time in the garden: strolling, watching nature, sitting on a bench, or more actively, as a place for various types of therapies: physiotherapy, kinesiotherapy, speech therapy, psychotherapy sessions, and hortitherapy – a type of occupational therapy that uses plant material.

The benefices of therapeutic gardens in oncology treatment are connected with:

Contact with nature, the awakening of senses, attention to body and mind,

Psychological recovery, reminiscence or awakening of interest in plants, attention to the passing seasons, Physical activity using intense or fine gestures: digging, cutting, weeding, decorating, etc. [12],

Social contact, paying attention to oneself, to others, and one's environment.

There are two separate notions – that of a healing garden and a therapeutic garden. The healing garden is a more general type of garden where patients, their families, and staff members might seek refuge away from the hustle and bustle of hospital, diagnosis, and

sadness. Therapeutic gardens are special gardens dedicated to the treatment of specific conditions.

Therapeutic gardens are places that are intentionally programmed and designed to offer therapeutic benefits to garden visitors and participants including patients, residents, and clients. AHTA American Horticultural Therapy Association listed seven therapeutic gardens characteristics:

- Scheduled and programmed activities
- Features modified to improve accessibility
- Well-defined perimeters
- A profusion of plants and people/plant interactions
- Benign and supportive conditions
- Universal design
- Recognizable placemaking [9]

First therapeutic gardens were designed using the trial and error approach, the modern follow Evidence-Based Medicine and Evidence-Based Design principles. Usually, the therapeutic gardens provide refuge while other traditional medical procedures are failing, thus are used to support the treatment of dementia, Alzheimer disease, PTSD, burnt-out syndrome, cancer patients, burnt victims, etc. [1–9]

There are a few gardens dedicated to treatment of oncological patients:

- Geisinger Foundation c/o The Henry Cancer Healing Garden, Danville, PA, USA
- The Virginia Thurson Healing Garden, Harvard, MA, USA



Figure 5. Jardin Grain de Vie developed on the roof of l'Hôpital de l'Institut Curie, Paris, France: Sitting arrangement next to a tree, source: Author

- The Children’s hospital at Legacy Emanuel, Portland, OR, USA
- The Gathering Place: Norma’s Healing Garden, Cleveland, OH, USA
- Dana-Farber Cancer Institute, Boston, MA, USA
- Cancer Lifeline’s O’Brien Center Gardens, Seattle, WA, USA
- Contra Costa County Regional Medical Center, Martinez, CA, USA
- Camp Dream Street, Kaplen JCC on the Palisades, Tenafly, NJ, USA
- Cape Breton Cancer Centre Healing Garden, Sydney, Nova Scotia, Canada [13]
- Jardin Grain de Vie, l’Hôpital de l’Institut Curie, Paris, France
- Jardin thérapeutique “Océan Vert”, Caen, France [14]
- Jardin thérapeutique, l’Institut Universitaire du Cancer de Toulouse Oncopole (IUCT-O) France



Figure 6. Jardin Grain de Vie developed on the roof de l’Hôpital de l’Institut Curie, Paris, France: Sitting arrangement next to entrance, source: Author

3. EMERGENCY REMOTE TEACHING

In 2020, the COVID-19 pandemic necessitated a sudden increase in online-based forms of teaching and learning. What is essential in architectural studies is teamwork and belonging to a group. The isolation might hinder socializing and establishing closer relationships. On the other hand, architects can perform most tasks remotely. During the COVID crisis, most architectural practices switched to 100% remote work on design and construction documents. Only the site visits were performed in person, although installing cameras and drones is also diminishing the necessity of site visits. That is the reality of the profession. The capability of performing efficient remote work builds on rel-

evant prior experience, and Higher Education Institutions should include that in professional degrees curriculum. Therefore, even during Emergency Remote Teaching, the architectural students could learn how they work in teams using only remote online tools. Miri Barak [16] confirmed that technology-proficient students who prefer to learn in collaboration reported better resilience and the highest inclination to think flexibly and were less likely to oppose remote learning [16].

The architectural design process is based on a creative phase. Creativity is highly valued, but at the same time, the project must meet all technical and technological requirements. The design decisions are instructed on knowledge, skills, and prior experience. Contemporary goals in higher design education include stimulating the search for creative solutions to problems and giving a solid scientific basis for decision-making processes [17]. Evidence-Based Design is a methodology that facilitates meeting the requirements. Thus, EBD in didactics does not hinder creativity but instead opens ways to a more knowledgeable level of Design. The lectures that accompany the Design Studios may deliver the evidence the Students incorporate into the creative Design during the time dedicated to the design practice. Moreover, Students were encouraged to search for research evidence on their own. Today, architectural practice is highly competitive and has higher design quality. Creativity, understood as bringing forward new ideas, is seen by many as the driving force in the design process. At the same time, Students need to acquire new abilities and attitudes toward resilient Design [17]. What is required is a stimulus for adequate solutions.

Maintaining teaching quality despite the difficulties of Emergency Remote Teaching was a challenge.

Joshua Weidlich & Marco Kalz [18] explained that individual risk factors for University Lecturers include negative self-beliefs and difficulty in asking for help. There are also contextual risk factors, including problems in class management and heavy workloads. On the other hand, some protective factors may include strong intrinsic motivation and self-efficacy, strong leadership, and positive student-teacher relationships.

The Design Studio is one of the paths in architectural education, which seems to constitute an essential element in developing competence and skills [19]. Properly conducted course projects develop the skills and knowledge necessary to exercise the profession. The design studios are a testing ground for all the hustle and everyday issues which are common in professional work. The new generation of architects and



Figure 7. Innovative Medical Forum of the Oncology Centre in Bydgoszcz – Fordon: View of exterior façade and parking lot, source: Author

designers needs to be prepared for the inevitable problems. The question is how to teach resiliency. The students have to investigate the subject, search for a solution, and develop the concept. The studio teaching method relies mainly on the interaction of students with experienced professionals and unstructured discussions concerning the specific, primarily hypothetical, design problems posed [19–22].

4. THE PLACE. THE ONCOLOGY HOSPITAL IN BYDGOSZCZ

The Oncology Centre in Bydgoszcz is one of the best hospitals treating cancer in the country. The patients when asked confirmed that the medical staff is dedicated and caring. The hospital is regarded as technologically advanced. Thus, the ultimate aim of the design competition was to develop an integrated proposal for interior winter gardens and exterior space outside of the Innovative Medical Forum of the Oncology Centre in Bydgoszcz – Fordon. The building is relatively new. It was constructed in 2016, opened in 2018, and houses one of the most innovative laboratories dedicated to oncology treatment, not only in Poland but internationally [22–23]. However, the originally planned space for the winter garden remained

unfinished. Moreover, next to the building, there was a semi-natural forest that could be developed into a healing garden offering multi-sensory paths. In front of the building, there was a vast parking lot that might be turned into a healing garden if the parking space would be constructed underground and the roofs turned into green roofs. The design scheme should have included also a garden pavilion with open space which could house various therapies, i.e. hortitherapy sessions, as well as organized events for former patients, staff members and their families.

5. MATERIALS AND METHODS

In this study, the case of therapeutic gardens for the Oncology Center in Bydgoszcz, Northern Poland is presented. The therapeutic gardens were designed by the architectural student (6 semester, 3 year) who studied at the Technical University of Sciences and Technology in Bydgoszcz located nearby the Oncology Centre. The design proposals were created individually in the spring of 2020 and 2021 during the Emergency Remote Teaching period due to the COVID-19 pandemic. The subject was Integrated Design. The summer semester lasted from February to September. The curriculum stipulated 15 hours of



Figure 8. Innovative Medical Forum of the Oncology Centre in Bydgoszcz – Fordon: View of the interior winter garden, source: Author

lectures and 45 hours of design studio, thus 1 hour of lectures, and three hours of design studio every week or every other week for 15 weeks. The theoretical lectures were intended to provide evidence of the current state of knowledge. The project was developed individually.

6. RESULTS

Students prepared 14 individual proposals in 2020 and 19 in 2021, with 33 competition entries in total. Internauts were invited to vote via a post on the university website, social media, posters located around the University, and email invitations. All were invited to vote – students, faculty, medical staff, patients, their families, inhabitants of Bydgoszcz, architects and landscape designers, and whoever was concerned and wanted. The voting was anonymous, via an online questionnaire that did not reveal identity. Votes were collected within two weeks. Internauts voted in several categories. Each year they voted for the best proposals as well as numerous distinctions.

The voting results are a source of information about internauts' preferences for therapeutic solutions and qualities. The results may also serve as a ground for

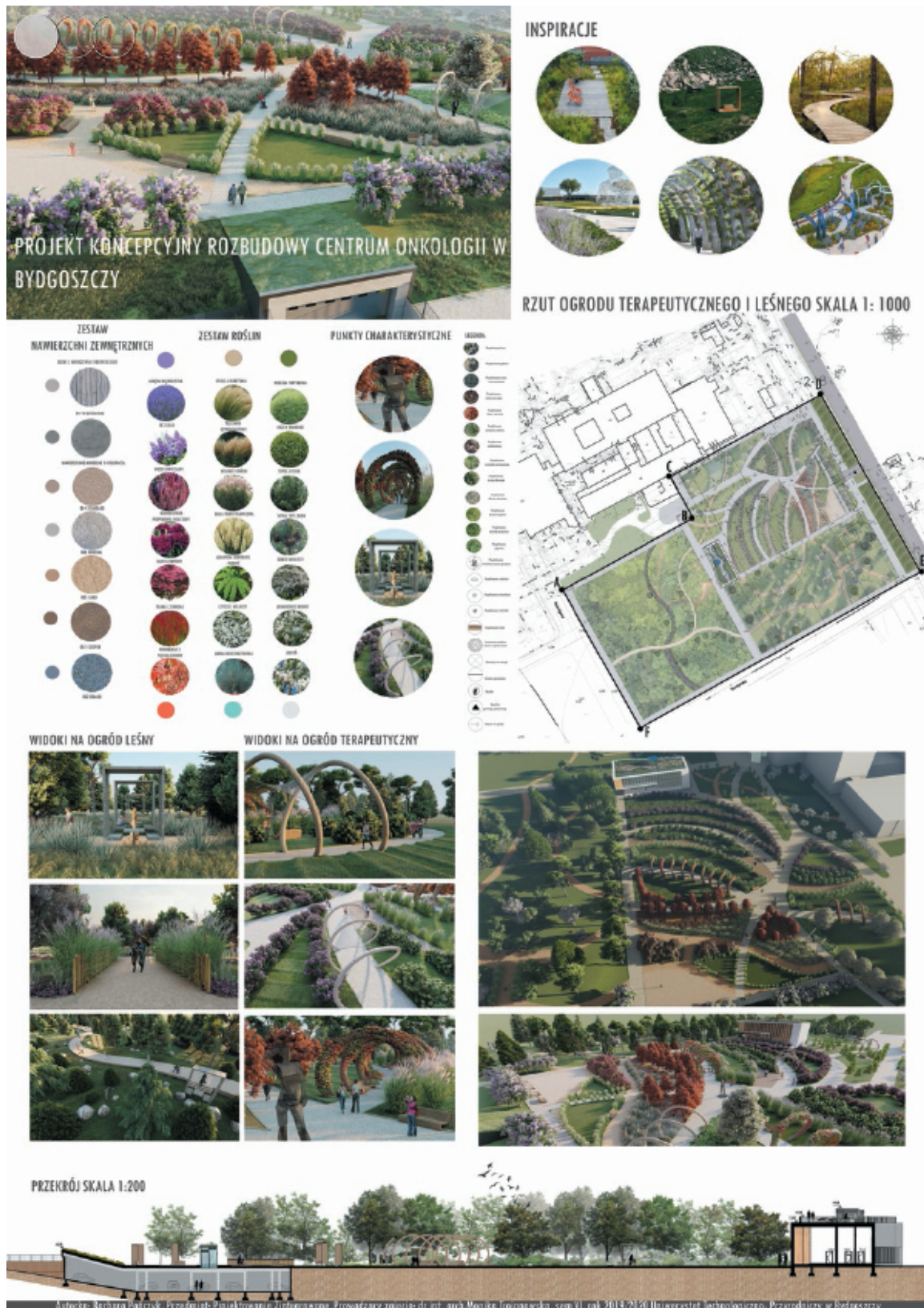
discussion on the possible evolution of therapeutic gardens after COVID-19.

6.1. Edition 2020

The summer semester lasted from February 2020 to September 2020. The curriculum stipulated 15 hours of lectures and 45 hours of design development practice, thus 2 hours of lectures, and six hours of design studio every other week for 15 weeks. The project was developed individually. The studio teaching was based on regular meetings with each of the students -individually for 15 weeks. Each person presented the progress and proposed solutions remotely. In the middle of the term presentation of the work in progress followed by a discussion was scheduled. In this study – the resulting 14 projects – are analyzed and compared.

Over a hundred internauts voted. Each of the projects received votes, therefore all were awarded a distinction for the promotion of universal accessibility. There was an award for the best project (Fig. 9) and six distinctions for the creation of new spatial quality, innovative ideas, and individual parts of the project: the best winter garden, the best forest garden, the best garden on the roof, and the best pavilion.

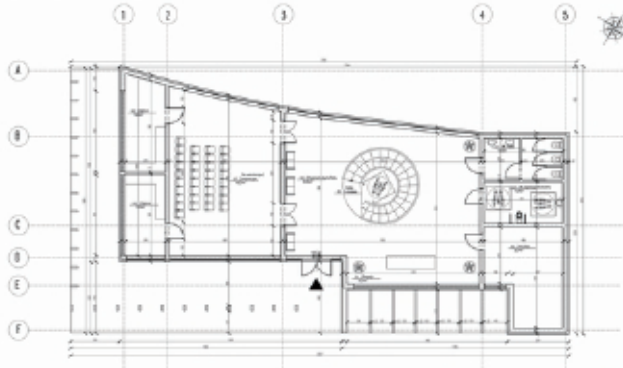
Figure 9.
The best project – edition 2020. (author: Barbara Pańczyk)



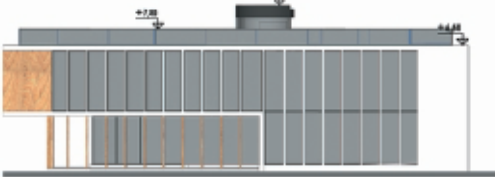


PROJEKT KONCEPCYJNY ROZBUDOWY CENTRUM ONKOLOGII W BYDGOSZCZY

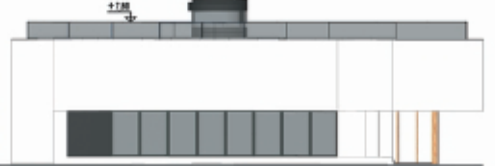
RZUT PAVILONU SKALA 1:100



ELEWACJA FRONTOWA SKALA 1:100



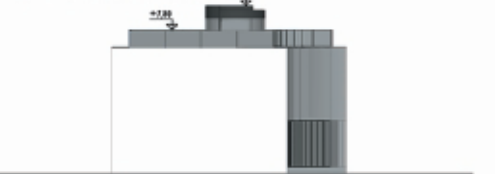
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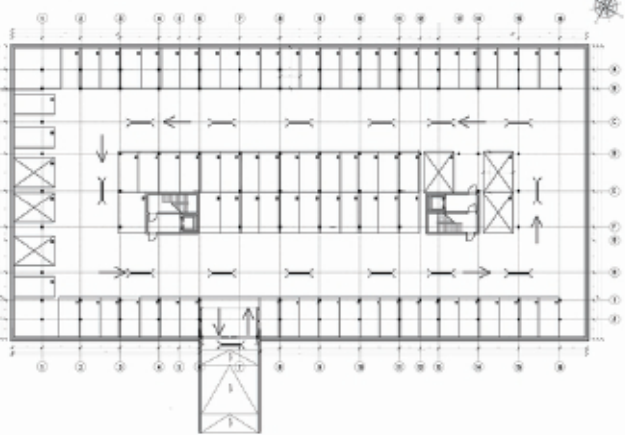
ELEWACJA BOCZNA SKALA 1:100



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PARKING SKALA 1:200



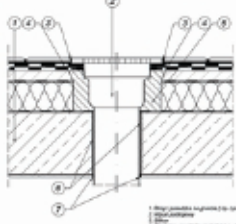
INSPIRACJA 1



INSPIRACJA 2



DETAL ODWADNIANIA SKALA 1:10



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Autorem: Barbara Anielska, Przemysław Patkowiak, Jolanta Kowalska, Przemysław Tomaszewski, Michał Marcin Tronowski, s.c. ul. 2018/2019 Uniwersytet Techniczny, Przemysław w Bydgoszczy



WIDOK OGRODU ZIMOWEGO



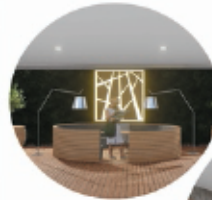
RZUT LOBBY I OGRODU ZIMOWEGO



INSPIRACJE



WIDOKI LOBBY



Autor: Barbara Polczyk, Przedsiębiorstwo Projektowe Zinfocore, Prowadzący zespół: dr inż. arch. Monika Trojanowska, sem. VI, rok 2013/2014 Uniwersytet Techniczny w Bydgoszczy

Figure 10.
The best project – edition 2021. (author: Oliwia Fiołek)

**PROJEKT KONCEPCYJNY
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PLAN ZAGOSPODAROWANIA TERENU OGRODÓW
TERAPEUTYCZNYCH ZEWNĘTRZNYCH 1:500

LEGENDA:

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- Strefa zielona
- Strefa niebieska
- Strefa szara
- Strefa czerwona
- Strefa fioletowa
- Strefa żółta
- Strefa brązowa
- Strefa zielona ciemna
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OPIS ZAŁOŻENIA

Skonceptualizowano i zaprojektowano park o powierzchni 10 ha, który ma być miejscem spotkań i rekreacji dla pacjentów i ich rodzin. Park ma być miejscem, gdzie pacjenci mogą wypocząć, spacerować i cieszyć się naturą.

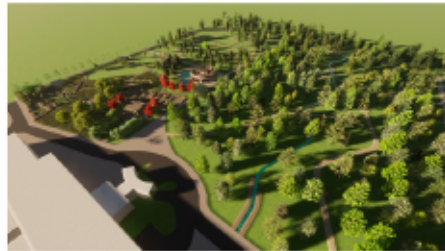
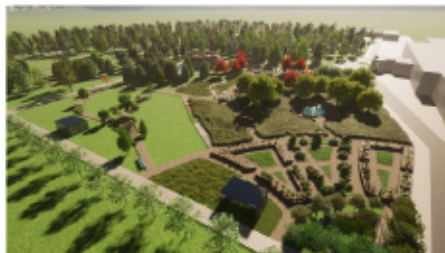
Zaplanowano ogólny kształt parku z uwzględnieniem funkcji i potrzeb użytkowników.

Pracujemy nad stworzeniem bezpiecznych miejsc, bez barier i z łatwym dostępem dla każdego użytkownika. Cechujemy się jako zespół z wieloletnim doświadczeniem.

INSPIRACJE



WIDOKI Z LOTU PTAKA



WIDOKI - OGRÓD LEŚNY I RUCHU



WIDOKI - OGRÓD SENSORYCZNY

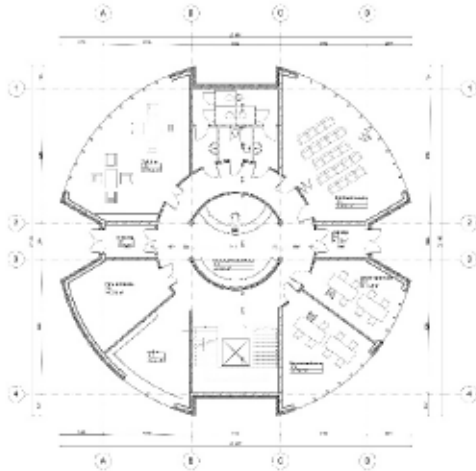


Autor: Oliwia Fiołek, Prowadząca dr inż. arch. Monika Trójgajewska, Przedmiot: Projektowanie Zintegrowane, Architektura 20/21 sem. VI, Uniwersytet Techniczny w Bydgoszczy

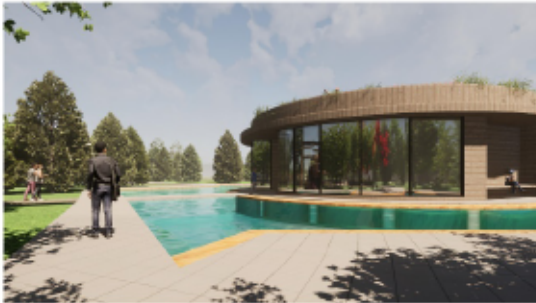


**PROJEKT KONCEPCYJNY
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RZUT PRZYZIEMIA PAVILONU 1:100



WIDOK NA PAVILON OD STRONY SZPITALA



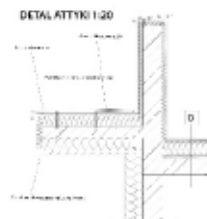
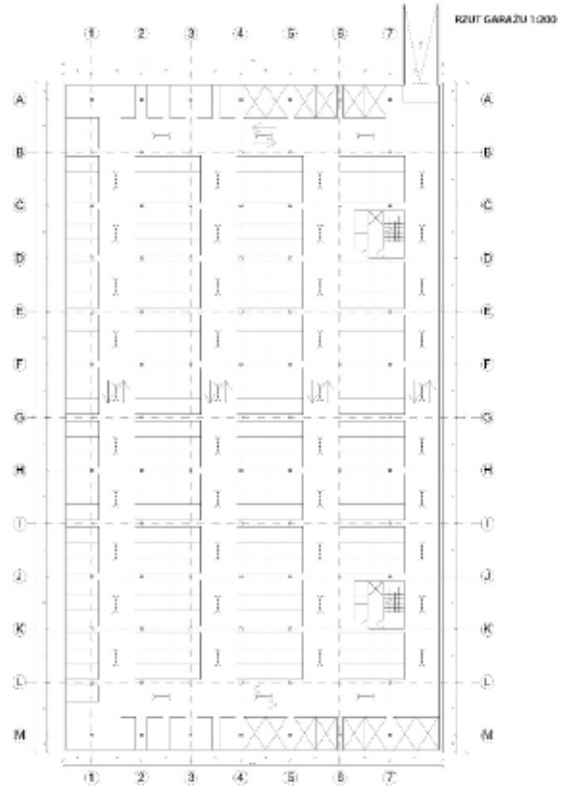
WIDOK NA DACH PAVILONU



WIDOK Z LOTU PTAKA NA DACH PAVILONU



Autorka: Oliwia Fokiel, Prowadząca dr inż. arch. Monika Trojanowska, Przedmiot: Projektowanie Zintegrowane, Architektura 20/21 sem. VI, Uniwersytet Technologiczno-przemysłowy



INSPIRACJE



**PROJEKT KONCEPCYJNY
ROZBUDOWY CENTRUM
ONKOLOGII W BYDGOSZCZY**

OPIS ZAŁOŻENIA OGRODU ZIMOWEGO Z LOBBY

Głównym założeniem było przekształcenie istniejącego, surowego wnętrza na bardziej komfortowy i przyjazny użytkownikom.

Ogród zimowy:
Różne gatunki paproci w betonowych donicach, miejsca wypoczynku wpisane w kształt donic. Bluszcz pęczy się po ścianach wnętrza ogrodu.

Lobby:
Recykling istniejących mebli. Zielone ściany wewnętrzne. Zakłone wyspy z miejscami siedzącymi. Wysoka różnorodność w donicach. Bluszcz na słupach konstrukcyjnych.

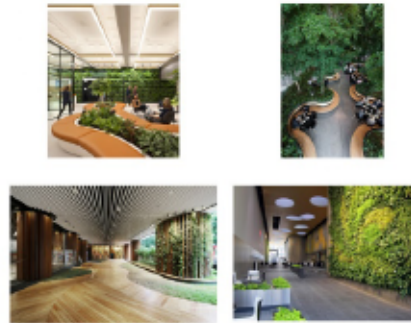
WIDOK NA LOBBY



REZULT OGRODU ZIMOWEGO WRAZ Z LOBBY 1:100



INSPIRACJE



WIDOK NA OGROD ZIMOWY



Autor: Oliwia Piolet, Prowadząca dr inż. arch. Monika Trojanczka, Przedmiot: Projektowanie Zintegrowane, Architektura 20/21 sem. VI, Uniwersytet Techniczny przyrodniczy





Figure 11.
Proposal for therapeutic interior garden (author: Paulina Bobrowska) View of interior winter garden sitting area



Figure 12.
Proposal for therapeutic interior garden (author: Paulina Bobrowska) View of the interior winter garden green walls

6.2. Edition 2021

The summer semester lasted from February 2021 to September 2021. The curriculum stipulated 15 hours of lectures and 45 hours of design development practice, thus 1 hour of lecture, and three hours of design studio every week for 15 weeks. Each of the students worked individually and presented the progress and proposed solutions remotely. The studio teaching was based on regular meetings with each student. A mid-term presentation of the work in progress was organized. The final presentation included 19 projects.

In 2021 the competition was even more popular and even more internauts voted. Similarly to 2020, all projects were awarded a distinction for the promotion of universal accessibility. There was an award for the best project (Fig. 10) and six distinctions for the creation of new spatial quality, innovative ideas, and individual parts of the project: the best winter garden, the best forest garden, the best garden on the roof, and the best pavilion. The results of the competition were published in the architectural press by A&B, *Architektura i Business*, a monthly architectural magazine, popular in Poland [24].

7. FINDINGS

The projects were interesting, and they can provide insights into what the young generation of architects

proposes for therapeutic gardens (Figs. 9-10). All projects catered for: Flexibility of design, Inclusiveness understood as catering to various social groups' needs, and full Accessibility. The therapeutic gardens were to become a place of refuge inclusively designed for all.

7.1. The proposals

7.1.1. The interior winter garden

What was striking was the students' inclination towards high-profile design. The proposals for interior winter gardens had a lot more in common with elegant cafes and office lobbies than gardening sheds. It was a far cry from the typical down-to-earth vernacular aesthetic of interior gardens. Fashionable details, furniture, fixtures, and lighting design are all provided for sophisticated interiors with additional living plants. Some proposals included small-scale waterfalls and interior water features. Background music was mentioned by a few designers. The student's own experience of the COVID-19 crisis might have stimulated the care for details and comfortable interior spaces.

7.1.2. The forest garden

The forest paths were amended to guide the visitors into the woods, where sitting places were designed.



Figure 13. Proposal for therapeutic forest garden (author: Agnieszka Myk) View of the forest garden



Figure 14.
Proposal for therapeutic forest garden (author: Agnieszka Myk) View of the forest garden

Most of the proposals included small plazas and new colorful planting beds. The strive to provide intimate sitting areas inside the forest along comfortable paths meandering between the tree trunks was visible in all of the projects. Various types of garden furniture mostly wooden was proposed in both editions.

7.1.3. The garden on the roof

The parking space was shifted underground and a new garden was created on the rooftop. The garden on the roof was destined to become more of a healing garden open to all than a therapeutic garden for oncology patients. Various attitudes towards that space – play areas for children, sensory gardens with flowering plants, and rise planting beds for hortitherapy were noted. What was also interesting was a preference for straightforward planning for the garden on the roof. The strive to facilitate orientation and provide legible design was noted in all of the projects.

7.1.4. The pavilion

What was interesting about the pavilion most of the students opted for sculptural forms. Some of the proposals concentrated on rectangular forms with sculptural details, while others designed geomorphic shapes. In all of the designs, the pavilion was

designed to provide a point of interest in the peaceful and quiet architecture of the hospital. Mostly natural materials, wood, and stone were used for the facades.

7.2. The designer point of view

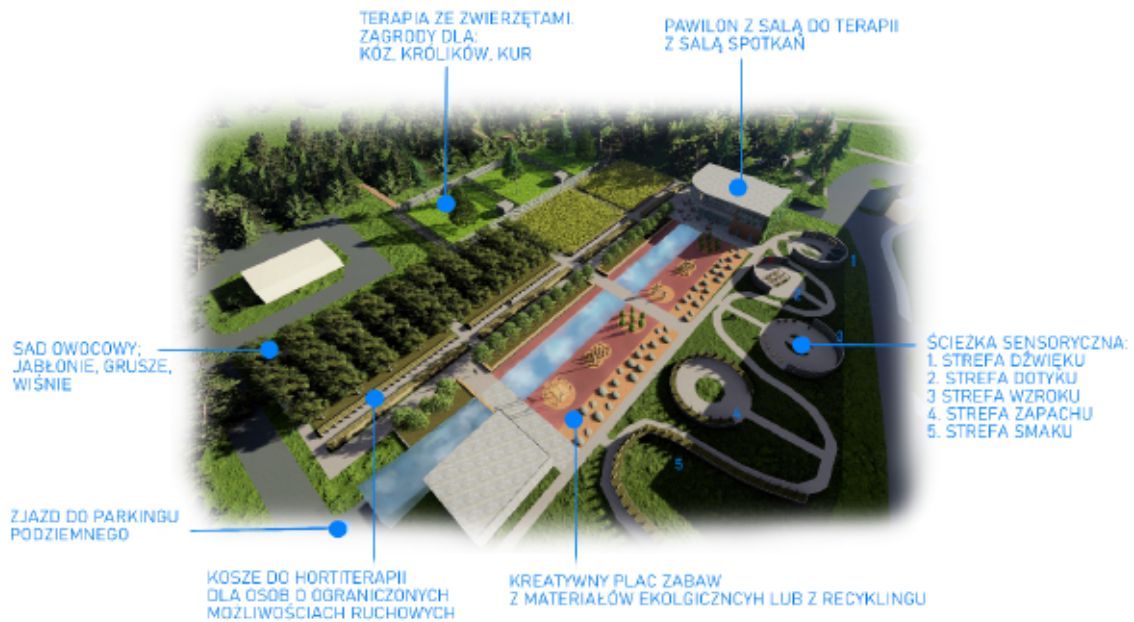
It is interesting to listen to the opinions of the architectural students about their work. Their descriptions revealing what were their inspirations and objectives provide numerous pieces of information. The young designers were asked to provide a written description of their projects which is a source of valuable insights into the design process. The following excerpts represent the authors' descriptions of the project:

7.2.1. The process

The entire design process was performed remotely, which might have been an unusual experience. It requires certain resourcefulness from the students.

The project was carried out in the era of a pandemic, so I set myself the task of putting myself in the role of the patient, family, and friends visiting the patient and the employee of the Oncology Center in Bydgoszcz.

PROJEKT OGRODÓW TERPEUTYCZNYCH W CENTRUM ONKOLOGII W BYDGOSZCZY
 OGROD NA DACHU PARKINGU



KLAUDIA SZOSTAK, kier. Architektura, WBAiIS, PBS daw. UTP w Bydgoszczy

Figure 15. Proposal for therapeutic garden on the roof of an underground parking garage (author: Klaudia Szustak) View of the garden on the roof

PROJEKT OGRODÓW TERPEUTYCZNYCH W CENTRUM ONKOLOGII W BYDGOSZCZY
 OGROD NA DACHU PARKINGU



WIDOK NA PAWILON I NA KREATYWNY PLAC ZABAW

KLAUDIA SZOSTAK, kier. Architektura, WBAiIS, PBS daw. UTP w Bydgoszczy

Figure 16. Proposal for therapeutic garden on the roof of an underground parking garage (author: Klaudia Szustak) View of the garden on the roof



Figure 17.
Proposal for therapeutic garden pavilion (author: Katerina Holovchenko) View of the pavilion



Figure 18.
Proposal for therapeutic garden pavilion (author: Katerina Holovchenko) View of the pavilion

7.2.2. Universal accessibility

One of the major goals was to cater to the needs of all the patients, visitors, and staff, so the universal accessibility of all the spaces was an important topic right from the start.

The project aimed to create an integrated sensory garden project in the place of the existing parking lot (...) The priority was to preserve as many green areas as possible and create safe places, without barriers and with easy access for every user.

A garden for spending time with relatives (...) possibility of easy and trouble-free participation in conversations for people in wheelchairs the width of the passages in the winter garden ensures freedom of movement for people with various types of disabilities.

7.2.3. Sensory experiences

Therapeutic gardens provide a healing environment and one of the means of influence is the multi-sensory experience. That subject was brought by the students.

Therapeutic garden has been divided into zones stimulating all the senses.

The ascetic and legible layout, with pro-ecological architecture, at the same time, emphasizes the character of the place through a stylish contrast (...) where subjective boundaries divide the spaces into individual functions.

7.2.4. A place of refuge

The therapeutic gardens could fulfill many roles – a place to rest in solitude, a place to gather with family and friends. A place for the medical students and staff to gather during the breaks.

It is also a place where you can actively spend time during your stay in the hospital and forget about matters related to the disease for a while.

The garden also has a relaxation zone where one can relax in solitude

8. DISCUSSION

The results of the competition for the therapeutic gardens for the Oncology Hospital in Bydgoszcz-Fordon comply with the current trends in hospital design which are focusing the attention on a friendly, homey design. Today the hospital room looks more like a hotel room with an elegant lobby than the lab-

oratory of the XX century. The therapeutic gardens, apart from serving strictly medical procedures via various forms of therapy it is facilitating are also a place of refuge for the patients, especially these who stay for months in the same hospital, their families, and staff members.

8.1. The therapeutic gardens for the medical staff. Prevention from burnout disease

The medical staff, as much as other caregiving professions are prone to burnout diseases. That is also true for the oncology treatment staff who is facing a terminal illness that modern medicine sometimes fails to treat. Therefore, a place for a break, like a therapeutic garden is important. The innovative therapy for burnout victims proposed in the garden at Alnarp, Sweden uses hortitherapy and mere stay in the garden to treat the condition [25]. It is better to prevent than to cure, therefore therapeutic gardens should be omnipresent in hospitals, especially oncological units.

The Innovative Medical Forum of the Oncology Centre In Bydgoszcz – Fordon is a place for medical students to learn. The therapeutic gardens are located next to the conference hall where lectures are offered. The therapeutic gardens might also serve medical students. They are also endangered by burnout disease. Moreover, it would be a method to teach best practices and familiarize students with garden therapies and might serve to teach students about the importance to have a place of refuge inside the hospital for long-term patients and staff members.

8.2. The therapeutic gardens for the patients. Maintaining self-esteem and energy to fight for healing

Accessible space which does not look like a hospital and is a place of refuge is important for the patients. Some of them spend long months in the hospital, initiating each day as a new fight against their medical problems. For those who cannot leave the hospital ground, it is a place to escape the constant immersion in thoughts about their medical conditions and enjoy contact with nature. Therefore the visual aspects are important for maintaining self-esteem. The idea to design the interior gardens as a welcoming lobby is noticeable in the contemporary design of interior therapeutic gardens [1–9, 26].

8.3. Future of Emergency Remote Teaching

What is interesting is the future of Remote Teaching in architecture. The results of the Integrated Design Studio, which was 100% online, are very encouraging for the future. While some subjects still require class presence, the design studios and lectures seem to be highly effective when taught online. The reason might be that the entire architectural profession is gradually shifting towards online working. BIM technology and modern software are facilitating the exchange of information. The option to share a screen is advantageous in architectural consultations.

9. CONCLUSIONS

The students' visions were restricted to one location but the competition results and the voting preferences open a new field in studies on therapeutic gardens and more broadly therapeutic landscapes. It seems that the architecture, urban planning, and landscape design might not be the same after the prolonged sanitary crisis. The temporary, low-cost solutions for interior design might not be accepted anymore, as people are aware that they could be condemned to spend weeks if not months confined to the interiors of their buildings, without the possibility to go out. That draws special attention to the implementation and the design of therapeutic gardens in long-term healthcare units.

The students' decisions to provide a place of refuge, accessible to all, which offered a multi-sensory experience, along with the voting preferences expressed by the internauts offers a valuable opinion about the importance of therapeutic gardens and the demand for high-quality design. The concept of therapeutic landscapes is evolving to reflect society's current values.

Moreover, this study demonstrates that it is worth applying resilient thinking about vital architectural design studio pedagogy. Emergency Remote Teaching proved effective and might be a valuable lesson for future professionals.

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