

Cycle of studies: postgraduate

Mode of study: Full-time studies

Field of study: Architecture Specialization/
profile: -

MASTER'S THESIS

Title of thesis: Architectural support for people with cancer and their families. The idea of Maggie's Center in Polish conditions

Title of thesis (in Polish): Architektoniczne wsparcie dla osób z chorobą nowotworową i ich rodzin. Idea Maggie's Center w warunkach polskich

**DECLARATION regarding the diploma thesis titled:
Architectural support for people with cancer and their families. The idea
of Maggies Center in Polish conditions**

Faculty: Faculty of Architecture

Field of study: Architecture

Cycle of studies: postgraduate Mode of study: Full-time studies

Type of the diploma thesis: master's thesis

Aware of criminal liability for violations of the Act of 4th February 1994 on Copyright and Related Rights (Journal of Laws 2021, item 1062 with later amendments) and disciplinary actions set out in the Act of 20th July 2018 on the Law on Higher Education and Science (Journal of Laws 2022 item 574 with later amendments),¹ as well as civil liability, I hereby declare that the submitted diploma thesis is my own work.

This diploma thesis has never before been the basis of an official procedure associated with the awarding of a professional title.

All the information contained in the above diploma thesis which is derived from written and electronic sources is documented in a list of relevant literature in accordance with art. 34 of the Copyright and Related Rights Act.

Date and signature of the student or authentication on the university portal Moja PG

**) The document was drawn up in the IT system, on the basis of paragraph 15 clause 3b of the Decree of the Ministry of Science and Higher Education of 12 May 2020, amending the decree concerning university studies (Journal of Laws of 2020, item 853). No signature or stamp required.*

¹ The Act of 20th July 2018 on the Law on Higher Education and Science:

Art. 312, section 3. Should a student be suspected of committing an act referred to in Art. 287 section 2 items 1–5, the rector shall forthwith order an enquiry.

Art. 312, section 4. If the evidence collected during an enquiry confirms that the act referred to in section 5 has been committed, the rector shall suspend the procedure for the awarding of a professional title pending a judgement of the

ABSTRACT

One of the most serious health challenges of modern times, responsible for a significant number of deaths worldwide and placing an enormous burden on patients and their families, is cancer. The consequences of these diseases include not only physical suffering, but also serious emotional and social problems, which often require a great deal of effort from those affected during this difficult period.

The main purpose of this work is to look at various aspects of support for people facing cancer in Poland and selected European countries. I also analyse whether architecture can support people struggling with the disease. I pay special attention to Maggie's Centre, known for providing psychological and informational support to people struggling with cancer.

Key words: Gdynia Redłowo, support centre, cancer, oncology

TABLE OF CONTENTS

1. INTRODUCTION AND PURPOSE OF THE PAPER.....	7
1.1. Introduction.....	7
1.2. Purpose of the work	7
2. CANCER DISEASE.....	7
2.1. The reality of facing cancer	7
2.1.1 Observations of psycho-oncologist	7
2.1.2. Collected quotes from interviews conducted with people who have struggled with cancer.....	8
2.2. Data/statistics	9
2.3. What is the support for the disease in Poland?	10
2.3.1. Domestic assistance	10
2.3.2 Foundations support	12
2.4. What does support in case of illness look like in other countries?.....	13
2.4.1. Scandinavian countries	13
2.4.2. Germany.....	14
3. WHAT A CARE CENTRE FOR PEOPLE STRUGGLING WITH ILLNESS SHOULD LOOK LIKE	14
3.1. Maggie's centre	14
3.1.1. History	15
3.1.2. Analysis of brief for architects prepared by Maggie's team	16
3.1.3. An overview of examples from England.....	19
a) Maggie's Yorkshire, by Thomas Heatherwick Studio.....	19
b) Maggie's Centre - Gartnavel OMA	21
c) Maggie's Hong Kong by Frank Gehry	24
d) Maggie's Manchester by Foster + Partners	26
e) Maggie's centre Kircadly, Fife, Scotland Zaha Hadid Architects	28
f) Maggie's Aberdeen, Scotland - Snøhetta	29
3.2 Biophilic design as a response to the need for mental well-being	30
3.3. Conclusions from interviews with people struggling with cancer.	30
3.4 What location would be the most convenient for a support centre for people dealing with cancer?.....	31
4. ANALYSIS OF THE PLOT OF LAND SELECTED FOR THE PROJECT AND ITS SURROUNDINGS.....	36
4.1 History	36
4.2 Transportation	37
4.3 Environment	38
4.4 The Surroundings.....	38
5. CONCEPT DESCRIPTION	39
5.1 Project idea	39
5.2 Site development.....	41

5.2.1 Site development - existing condition	41
5.2.2 Site development - designed condition	41
5.3 Building structure.....	42
5.4 Installations	42
5.5 Fire protection	42
5.6 Accessibility for people with disabilities	43
5.7 Room schedule	43
6. REFERENCES.....	45
7. ELECTRONIC SOURCES	47
8. GRAPHIC SOURCES	48
9. TABLES.....	51

1. INTRODUCTION AND PURPOSE OF THE PAPER

1.1. Introduction

One of the most serious health challenges in modern times, responsible for a significant number of deaths worldwide and placing an enormous burden on patients and their families, is cancer. The consequences of these diseases include not only physical suffering, but also serious emotional and social problems that often require tremendous effort on the part of those affected during this difficult time.

1.2. Purpose of the work

The purpose of this paper is to examine various aspects of support for people struggling with cancer in Poland and selected European countries. Considering the forms of support offered by the health care system, as well as the initiatives of foundations and private donors, special attention will be given to Maggie's Centre, which focuses on psychological and informational support for people struggling with cancer. In addition, we will look at biophilic design, which can be an answer when it comes to patients' psychological well-being.

The aim of this thesis is to present the needs and challenges in designing care centres that, as much as possible, respond to the needs of individuals affected by the disease.

2. CANCER DISEASE

2.1. The reality of facing cancer

2.1.1 Observations of psycho-oncologist

There is no doubt that people struggling with cancer and their loved ones face many challenges. Physical symptoms of the disease and side effects of treatment, such as pain, fatigue, nausea, weakness, hair loss or weight loss¹. Often lifestyle changes, as well as social isolation happen. High medical and health care costs can lead to financial problems. It is not easy to communicate with doctors and health care professionals, as well as understanding and absorbing medical information.² All this is followed by fear of an uncertain future and a return of the disease.

¹ Jimmie C. Holland, William S. Breitbart, Paul B. Jacobsen, *Handbook of Psychooncology: Psychological Care of the Patient with Cancer*, Oxford University Press, 2015

² Jimmie C. Holland, William S. Breitbart, Paula R. Sherman, *Psycho-Oncology*, Oxford University Press, 2015

Cancer patients very often must struggle with emotional challenges, such as anxiety, anger, frustration, sadness and uncertainty, which can lead to emotional and mental problems, also in relationships with family and friends, which can result from emotional strain, lack of support and changes in relationships.³

Often the psycho-oncologist is the first person the patient talks to besides the doctor. Patients are at various stages of the disease, some can count on the support of loved ones, but are completely unaware of how to tell them about their illness. Malgorzata Ciszewska-Korona who is psycho-oncologist points out that people often don't know how to talk about our emotions, and that many of us are taught to keep our emotions to ourselves, yet the news about the disease is devastating, no one is ready for it, and often patients are so overwhelmed that after leaving the office they don't know what the doctor actually said.

The presence of another human being is essential, sometimes someone's presence is enough. Unfortunately, often loved ones do not know how to react to a person's illness, so they are afraid to bring up the subject, completely ignorant of how to behave.⁴ The important thing then is to listen to the sick person, follow him and what he wants, we must not impose our help, we must not make the assumption that we know better what is good for such a close person, because then it is not helping, but more making us feel better because we helped the person who is sick.⁵

2.1.2. Collected quotes from interviews conducted with people who have struggled with cancer

To better understand the situation of people who have had to face cancer, I decided to conduct interviews with several individuals about their experiences. Below, I present selected excerpts from their statements, which help to better understand their touching, heavy experiences.

1. *"The news of the diagnosis is like a full force punch in the stomach".*
2. *"A colleague after the diagnosis was in shock and ran away from the conversation, she felt as if she had been thrown into a deep dark hole."*

³ Vicki A. Jackson, David P. Ryan, Michelle D. Seaton, *Living with Cancer: A Step-by-Step Guide for Coping Medically and Emotionally with a Serious Diagnosis*, Johns Hopkins University Press, 2017.

⁴ Mark Clemons, Jeffrey S. Hoch, Ezra E.W. Cohen, *Cancer Supportive Care: Advances in Therapeutic Strategies*, Springer, 2018

⁵ Linda E. Carlson i Michael Spece, *Mindfulness-Based Cancer Recovery: A Step-by-Step MBSR Approach to Help You Cope with Treatment and Reclaim Your Life*, New Harbinger Publications, 2011

3. *"At the moment when the nurses saw from me that I needed psychological help, they called the available psychologist, but it did not give anything".*
4. *"In many matters you have to try to do everything yourself."*
5. *"Fear of the unknown pushes us away from life, in the course of treatment, often somewhere we escape contact with loved ones, and that's when contact with others, conversation is a great support."*
6. *"A lot is given by contact with people who are going through the same thing, for example, parents of sick children met in the evenings at the day care centre to talk to each other. Some could not sleep from stress, so talking to other caregivers who also already understood all the medical terms and knew what stage of illness someone's child was going through gave parents a lot. People who weren't struggling with similar issues didn't seem to understand our problems."*
7. *"One of my friends said he didn't call because he didn't know what to say or how to act, which may show that there is a lot of unknown and not enough being said about cancer in society."*
8. *"My aunt got the test results, but the doctor did not comment on them in a concrete way, I asked a friend whose dad was also involved in the diagnosis, only he explained to me that the results of these tests are very bad."*
9. *"The moment when the hair starts to fall out in handfuls is extremely hard, at first, I did not dare to go out on the street bald, I was very afraid of people's curious stares. For the duration of chemotherapy, I completely cut myself off from people and did not leave the house."*

2.2. Data/statistics

Cancer is one of the leading causes of death in the world, with nearly 10 million people dying from it annually. In Poland, nearly 1.17 million people are living with cancer diagnosed in the preceding 15 years. The 2021 report "Malignant neoplasms in Poland" dedicated to data for 2019 was released.⁶

"In 2019, the National Cancer Registry received information on nearly 171,200 new cancer cases and 100,300 deaths from cancer. In 2019, there was a slight increase in cases compared to the previous year: by 1989 in men and 1783 in women. Compared to the previous

⁶ B. Celejewski K. Łuszczżyńska, *Jak chronić się przed zachorowaniem na nowotwory*, online: <https://www.gov.pl/web/zdrowie/jak-sie-chronic-przed-rakiem>, [access:12.10.2022]

year, the number of deaths due to cancer among men decreased by 993, and among women by seventy-four."⁷ It was estimated that for every 100,000 people in the Polish population in 2019, 446 people will be diagnosed with cancer.

The second most common cause of death in Poland, in the age group from (25-64), was malignant neoplasm. In 2019, it caused death among 25.7 percent of men and 23.2 percent of women.⁸

The most common cancer among men is prostate cancer. For almost 15 years, a decline in the incidence and mortality of lung cancer can be observed, which is attributed to declining smoking rates among men in recent decades. Nevertheless, lung cancer is still the dominant cause of death among men. Colorectal cancer is in third place, with an increasing incidence trend and a stabilizing mortality trend.

Among women, the most common cancers are breast, lung and colorectal cancer. In recent decades, breast cancer has been characterized by an increasing incidence. The upward trend in breast cancer mortality was halted in the 1990s, with a visible decline in mortality between 1996 and 2010. Unfortunately, between 2010 and 2019, the trend has again turned to the downside.

2.3. What is the support for the disease in Poland?

2.3.1. Domestic assistance

Individuals suffering from oncological diseases are subject to the provisions of the Benefit Law. This means that insured persons are entitled to sickness benefit for 182 days and rehabilitation benefit, the duration of which is a maximum of 12 months. If the patient is still unable to work after this time, he or she can apply for incapacity benefit.

People struggling with cancer are treated in the same way as other sufferers, even though many cancers are devastating. Cancer patients often have to take sick leave to undergo treatment or undergo strict isolation due to a significant decrease in immunity, and often have to abandon work duties due to the severe debilitation they face.

Additional financial support can be a nursing allowance from the Social Insurance Institution (ZUS), which is granted on the basis of an assessment by a medical examiner. As of 1 March 2022, the financial support for people struggling with cancer is PLN 256.44. This amount is exempt from paying income tax and is valorised every year.

⁷ J. Didkowska, U. Wojciechowska, P. Olasek, F. Caetano dos Santos, I. Michałek, *Nowotwory złośliwe w Polsce w 2019 roku*, online: https://onkologia.org.pl/sites/default/files/publications/2022-05/Nowotwory_2019.pdf, [access:12.10.2022]

⁸ *Nowotwory złośliwe w Polsce. Krajowy rejestr nowotworów*, online: <https://www.zwrotnikraka.pl/nowotwory-zlosliwe-w-polsce-krajowy-rejestr-nowotworow/>, [access:13.10.2022]

Adults who became incapacitated before the age of eighteen, or who, in the course of their education or studies, became ill before the age of 25, or who are in the course of doctoral studies or scientific aspirancy, are entitled to a social pension. Such persons may apply for employment, but if they exceed an income of 70% of the average wage in a given month, the benefit will be suspended.

For a period of 14 days per calendar year, care allowance can be obtained when a person is caring for, for example, a child who is over 14 years of age, an adult sick family member (e.g. spouse, parent, grandparent, sibling, father-in-law, stepmother). The monthly care allowance is equal to 80 percent of the sickness allowance.

Cancer patients on low incomes can apply for a medication allowance, but in order to receive it, a single person must not be above an income of PLN 701, in the case of a person in a family, the income must not exceed PLN 528 (2019 figures), with some municipalities applying higher income levels when granting a medication allowance.

Table 1. Oncology centers, and cathedrals and clinics in the Pomeranian region⁹:

1.	Oncology Center at the PCK Maritime Hospital	Gdynia
2.	Department and Clinic of Oncological Surgery	Gdańsk
3.	Department and Clinic of Oncological Surgery, Medical University of Gdańsk	Gdańsk
4.	Department and Clinic of Gynecology and Oncological Gynecology, Medical University of Gdańsk	Gdańsk
5.	Department and Clinic of Gynecology, Oncological Gynecology, and Gynecological Endocrinology	Gdańsk
6.	Department and Clinic of Hematology and Transplantology, Medical University of Gdańsk	Gdańsk
7.	Department and Clinic of Oncology and Radiotherapy	Gdańsk
8.	Department and Clinic of Pediatrics, Hematology, Oncology, and Endocrinology	Gdańsk
9.	Provincial Oncology Center	Gdańsk

⁹Online:https://www.pto.med.pl/wykaz-centrow-onkologii?field_rodzaj_placowki_target_id%5B121%5D=121&field_rodzaj_placowki_target_id%5B120%5D=120&field_wojewodztwo_target_id=114, [access: 25.11.2023]

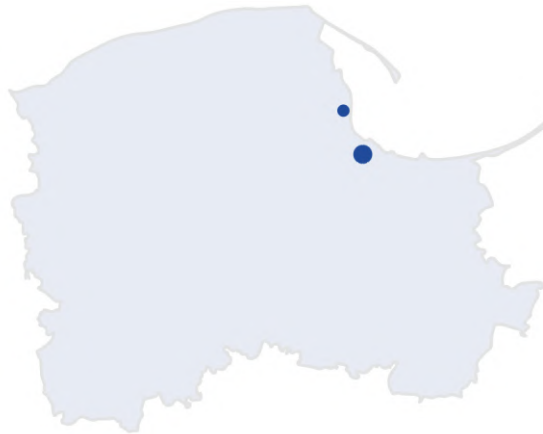


Fig. 1 Oncology centres in the Pomeranian Voivodeship, drawing by author

2.3.2 Foundations support

Below, I present a few examples of foundations that strive to support individuals battling cancer in numerous ways. Some are more focused on younger patients, others on adults, and some specifically on women.

The "Mam Marzenie" Foundation - the foundation volunteers itself and tries very hard to fulfil the biggest dreams of affected children. For example, it could be a trip to Disneyland or a meeting with a football star in Spain.

The interviewee I had the opportunity to talk to wished for a trip to Warsaw, where a visit to the Copernicus Centre was organised for him, which was at his exclusive disposition, an observatory was also specially set up for him, and even his mother's dream was fulfilled, who went to a Chopin concert thanks to the foundation. Throughout the trip, great care was taken for the comfort and well-being of Jakub and his mum. Once a 'dream has been fulfilled', it is usual to take for instance photographs or some kind of documentation, which the investor then uses to promote his company, etc.

"Kawałek Nieba" Foundation, refunded medicines, vitamins and travel to the clinic, which in 2017 amounted to around PLN 1,000 per month. When it comes to the refunds, there is more support for the children. Private collections from people, friends, colleagues were very helpful, if it wasn't for these collections, it would have been very difficult. [...] Another very touching gesture was meeting two women who baked cakes and sold them so that the children could fulfil their dreams."¹⁰

The "Rak'n'roll" foundation was founded by Magda Prokopowicz. Both of her parents died of cancer. She herself contracted cancer at the age of twenty-seven and at the same time found out that she was pregnant. Despite many consultations with specialists in Poland or abroad, she was told that she should terminate the pregnancy and that it would be impossible to carry it to term. Magda, however, was reluctant to accept this solution, and finally one of the oncologists

¹⁰ The quoted excerpt from an interview conducted with a teenage boy, who, along with his mother, agreed to answer questions that related to the time when he was struggling with cancer.

reassured her that, although there was no research on the subject, he himself had been carrying pregnancies to term in women with cancer for many years. Magda started the fight against cancer, despite her condition, and eventually gave birth to a healthy son. The thought that guided her when she set up the foundation was that people need to know that it is possible to reconcile pregnancy and cancer.

One of the “Rak'n'roll” volunteers said that foundation succeeded in disenchanting cancer, that other foundations “were sad”, while the message of “Rak'n'roll” was that cancer doesn't have to be sad, that women don't have to suffer quietly, they have the right to “stomp their feet” to be happy and attractive, they can say out loud that they have cancer so that the word doesn't paralyse anyone.

Unfortunately, Magda Prokopowicz passed away in 2012 at the age of thirty-five. To this day, her foundation has been regularly active in helping those in need, and many programmes have been set up that have a real impact on improving the quality of life of cancer patients. For example, loudly criticised the fact that cancer waiting rooms were depressing, grey, overwhelming, and bad for her wellbeing, hence one of the founder programmes was created to 'humanise' cancer waiting rooms. Magda felt unwell in synthetic, itchy wigs, hence the popular 'give a hair' programme, in which you can donate a braid of your natural hair to the foundation, which will pass it on to Rokoko Wig Shop, which in turn will make a wig from natural hair for a person in need.

2.4. What does support in case of illness look like in other countries?

2.4.1. Scandinavian countries

Norway, as a support to its citizens, offers to cover travel costs related to treatment and, if documented, the costs of treatment-related accommodation, also offers to finance a wig or the cost of headgear, or to cover travel to obtain it. As many patients additionally require dental treatment, they can count on funding for this as well. The country may cover most of the costs of necessary medical equipment and medicines, but if the injury or illness occurred at work, the citizen is fully relieved of the costs, and the same applies to pensioners and children up to the age of sixteen. If medically necessary, women can receive funding for mammograms, breast implants or bras. If the patient does not have enough money for necessary expenses, he or she can apply for social financial assistance. For low-income households, housing support can be applied for.¹¹

Health care in Sweden is subsidised, so you never pay as much as the treatment would actually cost. Medical treatment and medicines are financed. The maximum is SEK 110 per day, which in today's zloty is PLN 47.33. Sweden has a social insurance system. A citizen may be

¹¹ *Økonomisk støtte til kreftpasienter (Financial support for cancer patients)*, online: <https://kreftforeningen.no/rad-og-rettigheter/okonomi/okonomisk-stotte-til-pasienter/>, [access: 22.11.2023]

entitled to numerous benefits in case of illness. If he is employed and obtains sick leave, his employer should pay him 80% of his salary for the first 14 days of illness. If he or she is still sick after this time, this is reported to the social security office, where a sickness benefit is left, usually amounting to around 80% of income. The sick person can apply for a rehabilitation allowance, or additional cost compensation if the sick person has large medical expenses. If a parent is unable to work because they are caring for a sick child, they can apply for parental benefit. In addition, a parent may apply for attendance allowance or additional expense allowance. When a person takes care of a seriously ill relative, he or she may be employed by the municipality, the terms and conditions of employment are different depending on the place of residence.¹²

In Denmark, a patient who has travelled more than 50 km to and from the hospital can apply for a transport allowance to cover the cost of the transport. If the patient has difficulty paying the debt, he or she can apply for a reduction to an amount he or she will be able to pay. Patients and their families can apply for financial support, which is tax-free at DKK 4,000 (approximately PLN 2531.50). Private legal aid offices are also available to the sick. In addition, an allowance for medication is available, especially for those who need more. There is also the possibility of subsidised psychological interviews, dental treatment, subsidised wigs, breast implants and, in the event of the patient's death, the family can also receive financial assistance.¹³

2.4.2. Germany

In Germany, there is a non-profit organisation that has been advising the sick medically, socially, financially or mentally since 1974. Doctor's prescriptions for medicines or bandages are financed by the statutory health insurance. Normally, a German citizen has to pay part of the price - usually 10 per cent, but the additional payment must not exceed €10. It is also possible to apply for a one-off donation, how the donation is used is not verified afterwards, so the money received can be used for whatever is considered most necessary.¹⁴

3. WHAT A CARE CENTRE FOR PEOPLE STRUGGLING WITH ILLNESS SHOULD LOOK LIKE

3.1. Maggie's centre

"Above all what matters is not to lose the joy of living in the fear of dying".

- Maggie Keswick Jencks

¹² online: <https://www.1177.se/uppsala-lan/sa-fungerar-varden/kostnader-och-ersattningar/ekonomiskt-stod-nar-du-ar-s>, [access: 22.11.2023]

¹³ Økonomisk hjælp (Financial help), online: <https://www.cancer.dk/hjaelp-viden/rettigheder/oekonomisk-hjaelp/>, [access: 25.11.2023]

¹⁴ Deutsche Krebshilfe (Cancer support), online: <https://www.krebshilfe.de/>, [access: 25.11.2023]

The Maggie Keswick Jencks Cancer Caring Trust is a network of centres that are charitable in nature, their mission is to provide free psychological support or practical information to both those affected by cancer and their loved ones. The centre is colloquially known as 'Maggie's' after founder Maggie Keswick Jencks, a landscape architect who believed in the healing power of architecture. She described Maggie's as a church that doesn't follow a particular religion, a place where you will find art, but which is not a gallery, a place that resembles a home but is not one, she also referred to people struggling with illness as emaciated, lacking energy, and that architecture has the potential to lift their spirits. Maggie's is meant to inspire and contrast with a clinical facility.¹⁵

3.1.1. History



Fig. 1 Portrait of Maggie Jencks, online: <https://www.dailyrecord.co.uk/scotland-now/first-women-feature-wallace-monuments/>, [access: 25.11.2023]

Maggie Keswick Jencks was born on 10 October 1941 in Scotland, was a writer, artist and garden designer. Maggie was diagnosed with breast cancer at age 47 and five years later in May 1993 was informed by her doctor that she had only two to three months to live. Upon hearing the devastating news, the doctor asked Maggie and her husband to step out into the hallway as

¹⁵ Online: <https://www.maggies.org/>, [access: 25.11.2023]

he had to see more patients. Maggie said that no one should have to deal with the news of an upcoming death, in a grey, sad, windowless corridor. Maggie joined a trial of advanced chemotherapy and lived for another 18 months despite hearing a devastating diagnosis earlier.¹⁶

Maggie thought it was crucial for cancer patients to be well-informed and involved in their medical care and she explored cancer centres globally to discover methods for improving the quality of life for those with the disease.¹⁷

The first building opened in Edinburgh in 1996 and there are now more than thirty in the UK, but further buildings have also been built in Hong Kong, Japan and Spain.¹⁸

*"It's a wonderful feeling when you come to Maggie's and talk to people there who have won against the disease [...] when I was diagnosed with cancer I went to Maggie's for help, which has helped me and my family in many ways. I think art and beauty can really lift your spirits and when you use it in an empathetic way to help people in a way it brings together the best in people."*¹⁹

3.1.2. Analysis of brief for architects prepared by Maggie's team

In most cases, the centre is designed free of charge by exceptionally good, well-known architects who do their best to meet the requirements from the design brief produced by Maggie's team. What we can learn from the brief is that there are no specific technical requirements, what is paid most attention to is the wellbeing of the visitors.

What should Maggie's centre look like²⁰?

- It should always be close to the cancer hospital.
- The building should be informal.
- Patients should be able to access practical and emotional support without an appointment.
- There should be a homely atmosphere.
- The place should be calm and friendly.

¹⁶ Charles Jencks, *Maggie's Cancer Care Centres: A Blueprint*, Frances Lincoln Publishers Ltd, 2009

¹⁷ Charles Jencks, *The Architecture of Hope: Maggie's Cancer Caring Centres*, Frances Lincoln, 2010

¹⁸ Charles Jencks, *Maggie's Centres: Healthcare and Design*, Architectural Review, 2004

¹⁹ Excerpt of movie *Building Hope: The Maggie's Centres* Full BBC Documentary 2016

²⁰ *Maggie's Architecture and Landscape Brief*, online: https://maggies-staging.s3.amazonaws.com/media/filer_public/e0/3e/e03e8b60-ecc7-4ec7-95a1-18d9f9c4e7c9/maggies_architecturalbrief_2015.pdf, [access:04.01.2021].

- Maggie's mission is to help people find a way to live with cancer.
- It offers individual as well as group support. Workshops on aspects of living with cancer or relaxation strategies.
- Buildings need to be welcoming and 'transparent/understandable'.
- Often people who come to Maggie's are frightened, and it takes three or four tries to get in, entering Maggie's often involves accepting that you have cancer, so the building must not be intimidating.
- The building needs to 'shine like a beacon of hope' so that it can be found quickly, associated in advance.
- The building and the garden must invite you in. The path must clearly lead to the front door.
- A pathway can help to de-stress between the hospital and the entrance to Maggie's, it is a moment to catch your breath.
- While buildings are meant to be welcoming and inviting, they must not detract from what people are going through by being 'too cosy', for example. A building should appreciate the challenges a visitor faces, it should be beautiful.
- The Maggie Centre should inspire confidence, it should be joyful but also full of peace.
- Buildings should give users a choice about how they want to use the space.
- There should be as much natural light as possible.



Fig.2 Simple sketches depicting the idea conveyed in the brief for architects made by the author

"People living with cancer need courage, confidence and resources to get on with their lives.... yet courage and resourcefulness crush under the all-too-common attacks of fear, helplessness and intense loneliness that so often come with a cancer diagnosis."

"Even something as small as choosing where you want to make yourself comfortable is important. It is important that you can pick up a chair and move it where you want it. Outside, if it's warm enough; choose a cushion that makes the chair the right height for you."

"All too often the person who turns to Maggie's for help does so because cancer has turned their world upside down. Even if all they want the first time they go in is a small thing, maybe

just a cup of tea and a chance to catch their breath, they still hope for more. Of course, they would like it all to be a mistake and for them not to have cancer."

"We want Maggie's to offer shelter but be open to the outside world, to encourage people to look around to see the outside world,"

The scale of Maggie's is domestic, it is the antithesis of a big, confusing hospital where we often get lost, unlike a hospital there are no signs even on toilets, in our own home we do not have them either.²¹

Maggie's should be important to the local community, people who live near it should know that they have a place to go if they need it. It is also important in terms of funding, because each centre has to 'fund itself'.

The entrance should be very visible, but not overwhelming. there should be a place to hang a coat, perhaps a lobby. Someone visiting Maggie's for the first time should be able to grasp as far as possible the layout of the building, and be an observer who is 'not immediately drawn into the action'. There should be a place where the visitor or their family can sit, a bookcase can stand next to it, so that something can be occupied. There should not be a reception desk as such, the visitor entering the centre should be visible from a discreet study. The kitchen should have a table for twelve and an island, with a few extra chairs, for cooking, workshops and socialising over tea or coffee. The room should allow for the possibility of rearranging the furniture as you wish and need. Ideally, there should be two dishwashers, a large fridge or two smaller ones, a sink, an oven and a hob.

²¹ Laura Mark, Innovative Environments for Cancer Treatment and Rehabilitation: Case Study of Maggie's Centre at the Freeman Hospital, The Journal of Architecture, 2013

3.1.3. An overview of examples from England

a) Maggie's Yorkshire, by Thomas Heatherwick Studio



Fig. 3 Maggie's centre by Thomas Heatherwick Studio, online:

<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Maggie's Centre by Thomas Heatherwick Studio

One of the more interesting Maggie's projects is the one designed by Heatherwick studio. The centre is, of course, near the cancer hospital. The idea behind the design is to have three large 'pots' set on a slightly steep terrain to house the offices, with the kitchen at the heart as a meeting place. Surprisingly, the architect was inspired by a plant-filled bathtub he saw in his grandmother's garden.



Fig. 4 Architect's inspiration for Maggie's Centre by Thomas Heatherwick Studio,

online:<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

The building structure is constructed from prefabricated and sustainably sourced spruce timber. Porous materials such as lime plaster help to retain moisture inside the building. Particular care was also taken to ensure the building's natural ventilation, many prototypes and models of the building form were made to achieve this goal. The architect and the project team made sure that the negative impact on the environment was kept to a minimum here.



Fig. 5 Models of the project, of Maggie's Centre Thomas Heatherwick Studio,
online:<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]



Fig. 6 and 7 Models of the project, of Maggie's Centre Thomas Heatherwick Studio,
online:<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

A garden has been designed on the roof of the building and consists of nearly 40,000 different plants and bulbs specific to English flora, including one that is green all year round and which provides warmth in the winter months. Visitors to the centre are encouraged to enjoy gardening together as a social activity or simply a springboard, also in honour of Maggie, who loved tending her garden. The interiors are designed using natural, tactile materials and provide spaces that encourage socialising.



Fig. 8 Interior of the project, of Maggie's Centre by Thomas Heatherwick Studio,
online:<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

b) Maggie's Centre - Gartnavel OMA

In 2007, OMA was asked to design Maggie's centre located in Glasgow on the site of Gartnavel Hospital. OMA's concept was for a single storey building that wraps around an internal courtyard. Each designed room flows seamlessly into the next, giving freedom of movement for its visitors; there is no definite separation of space, rather it is open except for offices for counselling or private areas to be in seclusion.²² Due to the natural topography of the site, the floor levels vary, and consequently the heights of the rooms are not the same either.

²² Michelle Provoost, OMA/AMO: For the People, Of the People



Fig. 9 Maggie's Centre – Gartnavel by OMA, online: <https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]





Fig. 10 Maggie's Centre – Gartnavel by OMA, online: <https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

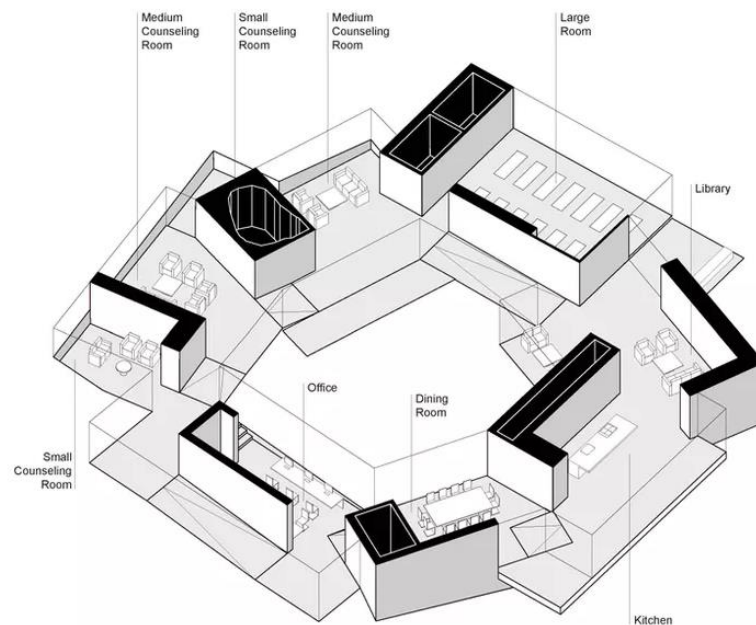


Fig. 11 Scheme of Maggie's Centre – Gartnavel by OMA, online: <https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]



Fig. 12 Maggie's Centre – Gartnavel by OMA, online: <https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

c) Maggie's Hong Kong by Frank Gehry

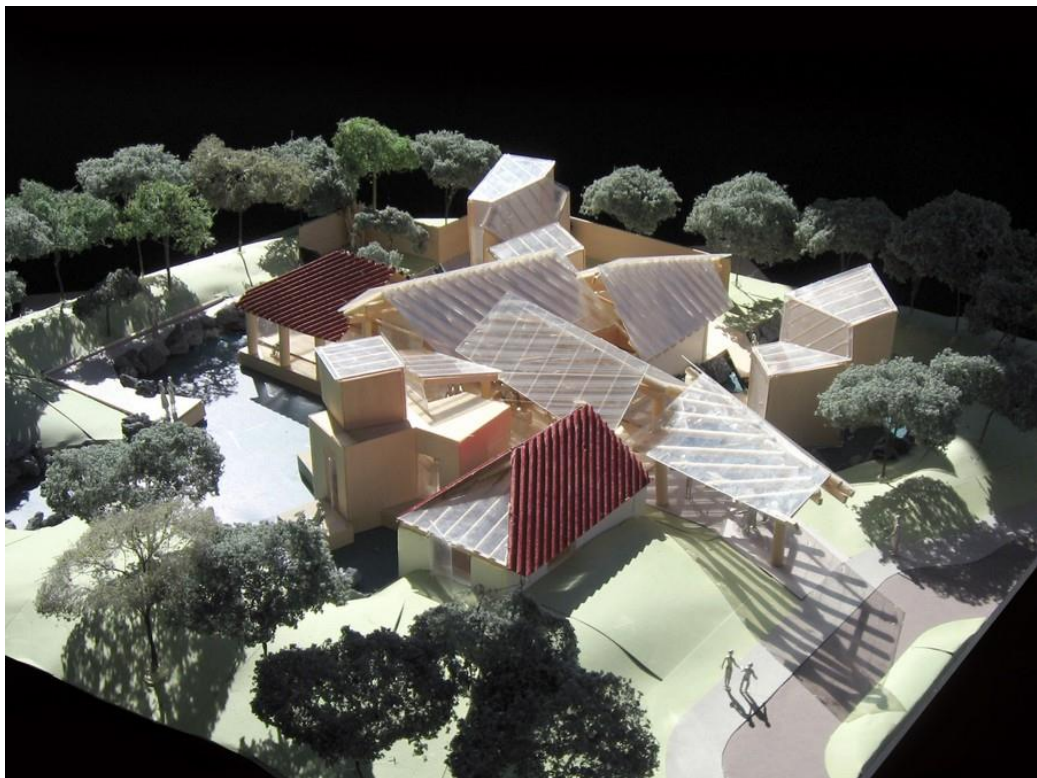


Fig. 13 Maggie's Hong Kong by Frank Gehry, online: <https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>, [access: 25.11.2023]

"I was going through the loss of a daughter while I was designing the Centre. I think you sort of suck it up and hope to make something that is soothing, respectful, and hopeful. There is always hope, it is not a dead end."

-Frank Gehry

Maggie's in Hong Kong is the first centre designed outside the UK. The design features pavilions arranged in such a way as to encourage users to move between the interior and the landscape. Rooms open onto surrounding gardens or private terraces overlooking the pond. The centre of the building is the living and dining area, which is open to the public.²³ The design was inspired by Chinese gardens drawn from the Suzhou tradition. Suzhou gardens originated from the ideas of ancient Chinese intellectuals who wanted to connect with nature, they were meant to be like a microcosm of the natural world, in addition to greenery and water, you can also see buildings influenced by Chinese literature and traditional crafts.

Maggie's programme activities in Hong Kong include support groups, nutrition classes, tai chi, yoga, symptom and side-effect management, relaxation, art, music therapy.



Fig. 14 Maggie's Hong Kong by Frank Gehry, online:

<https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>,
[access: 25.11.2023]

²³Laura Ferguson, Laura Mark, Anne Duffy, Architecture for Cancer Care: The Development of Maggie's Centres, European Journal of Cancer Care, 2014



Fig. 15 Maggie's Hong Kong by Frank Gehry, online: <https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>, [access: 25.11.2023]

d) Maggie's Manchester by Foster + Partners

The building is one storey high and resembles the surrounding buildings in height. A roof (supported by wooden lattice beams) rises in the middle to light up the interior. The shape of the roof allowed for the creation of a mezzanine floor here. The wooden beam structure divides the building into different sections, those that are more private and those that are common, for example, a place to have tea, a gym, or a library. The heart of the building is the community kitchen, complete with a large dining table. An effort was made to create a homely atmosphere in the interiors, so natural materials and touchable, varied textures are evident here. Offices for the staff are located on the entresol level, along with storage areas and toilets. Great emphasis was placed on natural lighting and views of the outdoor greenery. The building plan continues in a straight line, which is separated by internal courtyards. The western façade transitions into a wide veranda.



Fig. 16 Maggie's Manchester by Foster + Partners, online: <https://www.archdaily.com/786370/maggies-cancer-centre-manchester-foster-plus-partners>, [access: 25.11.2023]

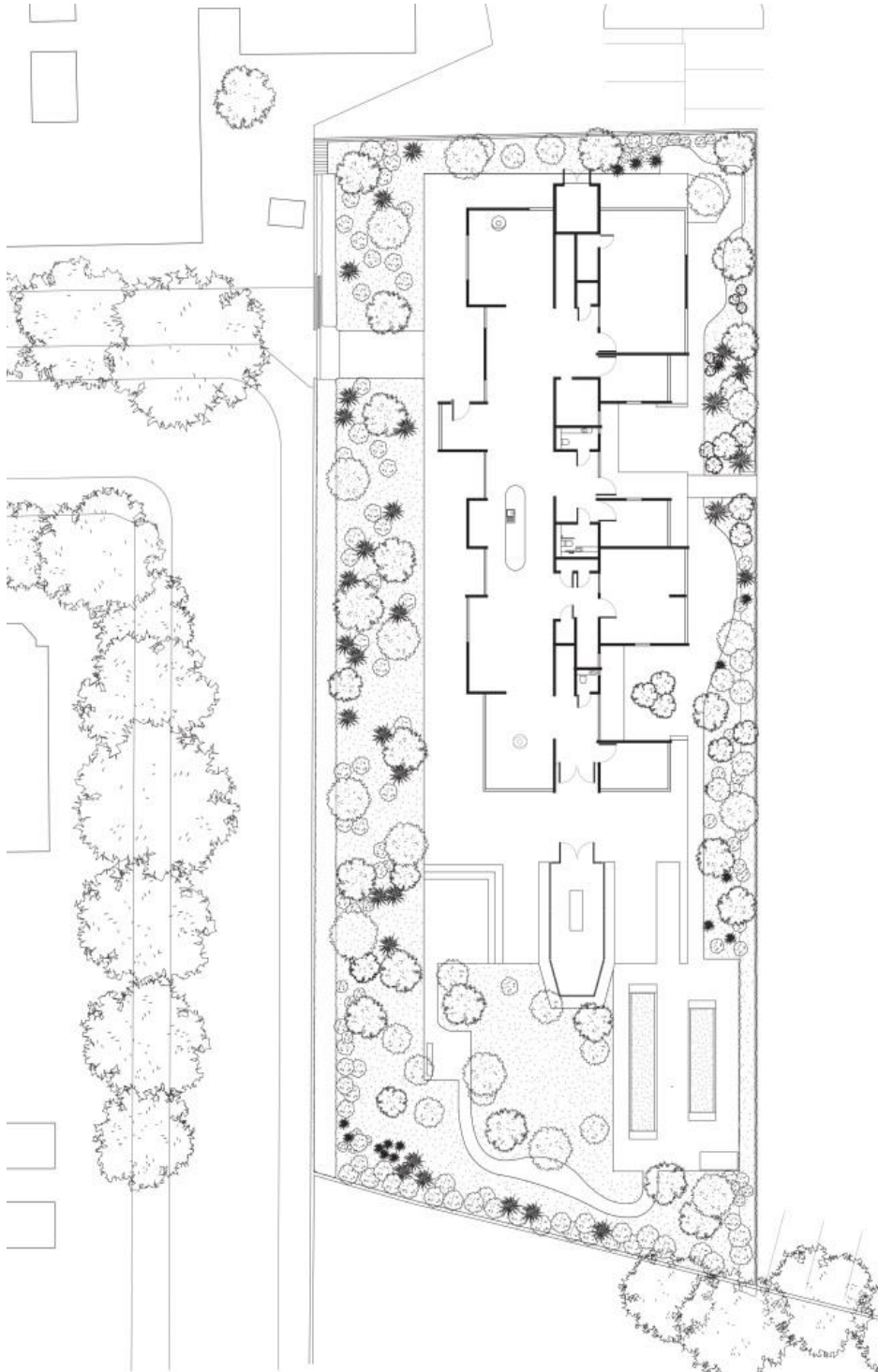


Fig. 17 Maggie's Manchester by Foster + Partners, plan of the building, online:
<https://www.archdaily.com/786370/maggies-cancer-centre-manchester-foster-plus-partners>,
[access: 25.11.2023]

e) Maggie's centre Kircadly, Fife, Scotland Zaha Hadid Architects

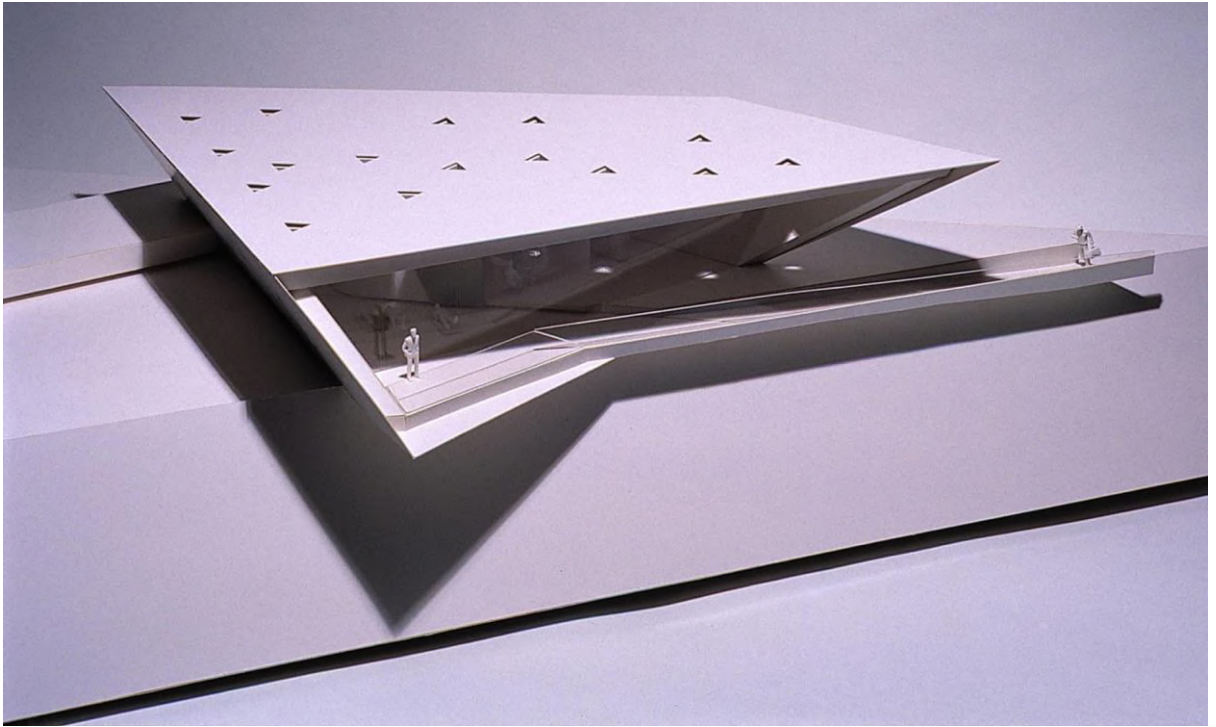


Fig. 18 Mockup of Maggie's centre Kircadly, Fife, Scotland Zaha Hadid Architects, online: <https://www.zaha-hadid.com/architecture/maggies-centre-fife/>, [access: 25.11.2023]

Maggie's centre in Kircadly is the first project in the UK designed by Zaha Hadid Architects. It is a single-storey block that faces in the opposite direction to the hospital with its dynamic shape²⁴; the volume is more enclosed on its side, but opens on the other, south-west side, to the surrounding greenery. The building is set on an area that abruptly slopes down, which in a way gives it even more dynamism.²⁵

²⁴ Susana Rojas-Moreno, Zaha Hadid: An Approach to Form, Architectural Design, 2006

²⁵ Laura Ferguson, Anne Duffy, Laura Mark, The Role of Architecture in the Creation of Therapeutic Environments: A Critical Perspective on the Case of Maggie's Centres, Health & Place, 2012

f) Maggie's Aberdeen, Scotland - Snøhetta



Fig. 19 Maggie's Cancer Caring Center / Snøhetta, online:

<https://archello.com/story/40422/attachments/photos-videos/1>, [access: 25.11.2023]

Located on the south side of the hospital, the free-standing Forester Hill pavilion is surrounded by parkland. From the outside, it shows an organic, soft form that 'looks after' the geometric buildings placed in its centre. The designers proposed communal spaces in the main area and the designed mezzanine floor provides office space. The building overlooks the surrounding fields, and the entrance is preceded by planted beech trees.



Fig. 20 Maggie's Cancer Caring Center / Snøhetta, online:

<https://www.archdaily.com/437008/maggies-cancer-caring-center-snohetta/52575c23e8e44ecb170007d8-maggies-cancer-caring-center-snohetta-first-floor-plan>, [access: 25.11.2023]

3.2 Biophilic design as a response to the need for mental well-being

Biophilia is otherwise known as a love of nature. Biophilic design stems from the belief, that both the human body and mind evolved in the sensory-rich world of nature. The idea argues that close contact between humans and nature has a highly beneficial impact on his or her health, well-being, emotions, intellect and even productivity. For instance, office with access to natural light, ventilation, and vegetation results in better motivation of its employees, lowering their stress, and increasing their productivity, memory and concentration.²⁶

Quite strong reactions in people are very often triggered by water. This is possibly because, that it is one of the most basic human needs and has been with us since the beginning of our existence.²⁷ On the one hand, water is a powerful element, sometimes frightening, overwhelming. But on the other hand, being by the sea, a person feels space and freedom. The very sound of water is relaxing for people. It is possible to find hundreds of recordings of the sound of water on streaming platforms, lasting for tens of hours, which help people to calm down, relax or simply focus when working.²⁸

One of the critical issues described in Biophilic Design is the identity of the place we live in. We are strongly connected to the natural environment, as well as with the distinctive architecture that surrounds us. During evolution, humans have developed the need to possess his territory, material possessions and provide a sense of security. The genius loci of a place enhance our sense of belonging and identification.²⁹

3.3. Conclusions from interviews with people struggling with cancer.

While conducting interviews with individuals battling cancer, I asked them to consider what they envisioned for a support centre, what they would expect from such a place, and what would be important to them, considering both their experiences and subjective opinions. Below, I present a few selected quotes from my recorded conversations.

1. *"It should be close to the hospital, rather a sheltered place, giving a sense of security and privacy,"*

²⁶ The lecture *'The role of greenery in architecture: biophilic design'* was prepared by M.Sc. arch. Anna Wróblewska.

²⁷ Stephen R. Kellert, Judith H. Heerwagen, Martin L. Mador, *Biophilic design : the theory, science, and practice of bringing buildings to life*, John Wiley & Sons, 2008.

²⁸ Terri Peters, *Healthy Buildings: How Indoor Spaces Drive Performance and Productivity*, Harvard University, 2020

²⁹ Ibidem

2. *"There is a lack of a place where everything is explained in detail, where we learn what to expect. A place where we learn the most important information would save valuable time for doctors, who often have to lecture in detail about what the disease and treatment actually entails."*
3. *"Ideally, such a place would have some sort of distraction from negative thoughts, perhaps where we can cook together?"*
4. *"When I visited my brother at the clinic, I liked how the place was renovated and painted, I liked the graphics on the walls. Then the more often I went there the less and less I liked them, and I thought that my brother, who lives there for days, probably can't look at them anymore, so it's worth it for it to be a place that changes."*
5. *"The most important thing for me is for it to be quiet and clean. I should know where to go, there should be a place for my family I would like to feel taken care of and informed there."*

In addition to the information from the brief to the architects, it emerged from the interviews that some patients care about privacy, a sense of security, and some prefer when the place changes in some way, so that it distracts from negative thoughts. It certainly needs to be easy to keep clean and tidy, as it too plays a significant role in visitors' sense of comfort.

Of course, one of the most important aspects is knowledge and information, which provide a certain level of control and support during difficult times. Therefore, it is important to create places where individuals who need it can calmly obtain all the necessary, professional information without unnecessary pressure.

Additionally, it is important to create spaces where visitors to the facility can freely exchange experiences or observations and simply have the opportunity to spend time together³⁰

3.4 What location would be the most convenient for a support centre for people dealing with cancer?

To find a suitable location for the support centre I am designing, I compared, among other things, the distances of existing Maggie's Centres to the nearby oncology centre, to the nearest public transportation, and to the nearest car parking, in order to get an idea of what distances would be appropriate for the support centre.

³⁰ Andrew Baum, Gayle D. Rubin, *Healing Spaces: The Science of Place and Well-Being*, Wiley, 2009

Table 2 Distances of existing Maggie's Centres to the nearby oncology centre

Name	Distance to oncology facility [m]	Distance to nearest public transportation [m]	Distance to nearest parking lot [m]
Maggie's Edinburgh	170	225	64
Maggie's Aberdeen	650	202	15
Maggie's Barts – London	20	100	38
Maggie's Cambridge	100	150	120
Maggie's Yorkshire	100	227	26
Maggie's Glasgow	482	312	25
Maggie's Manchester	320	160	24
Maggie's Newcastle	50	500	0
Maggie's Nottingham	118	50	40
Maggie's West London	160	280	72
Maggie's Hong Kong	108	53	20
Kalida Barcelona	50	180	80
average	194	203	43

Table 3. Comparison of four potential plots of land where a cancer support center could be built.

Place	Distance from oncology facility [m]	Distance to nearest public transportation [m]	Distance to nearest parking lot [m]	Advantages	Disadvantages
Traugutta 22, 80-221 Gdańsk, Polska	116	145	85	<ul style="list-style-type: none"> proximity to the academic park location in the city center 	<ul style="list-style-type: none"> the plot is affected by road noise from 60-70 dB
Elizy Orzeszkowej 23-27 80-208 Gdańsk, Polska	450	80	10	<ul style="list-style-type: none"> greenery in the adjacent plot on the east side location in the city center 	<ul style="list-style-type: none"> the oncology facility is not in the immediate vicinity the plot is affected by road noise from 60-70 dB
Huzarska, 81-518 Gdynia, Polska	230	70	0	<ul style="list-style-type: none"> forest and nature trail in the immediate vicinity proximity to the sea (approx. 600 meters) there is no noise pollution plot of land is the crown of the road axis 	<ul style="list-style-type: none"> on the plot there is a bus bay with a parking lot
Huzarska 5-7, 81-001 Gdynia, Polska	300	180	170	<ul style="list-style-type: none"> forest and nature trail in the immediate there is no noise 	<ul style="list-style-type: none"> the plot is "hidden"

				<p>pollution</p> <ul style="list-style-type: none"> proximity to the sea (about 600 meters) 	
--	--	--	--	--	--

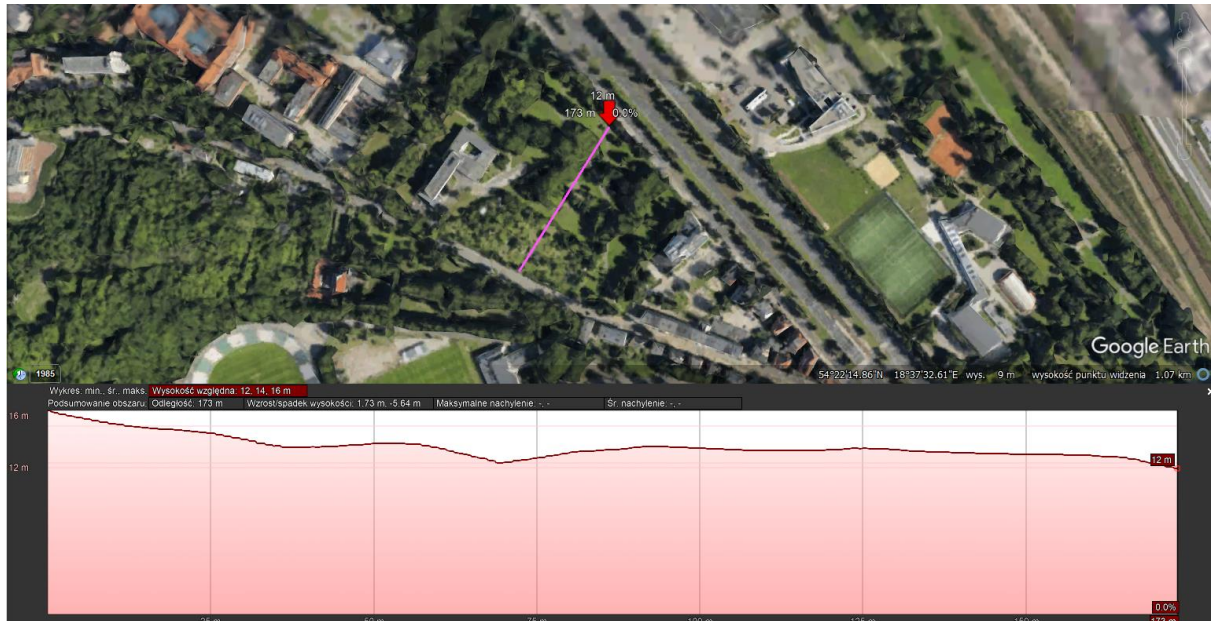


Fig. 22 Google view on Traugutta Street, Gdańsk, [access: 25.11.2023]

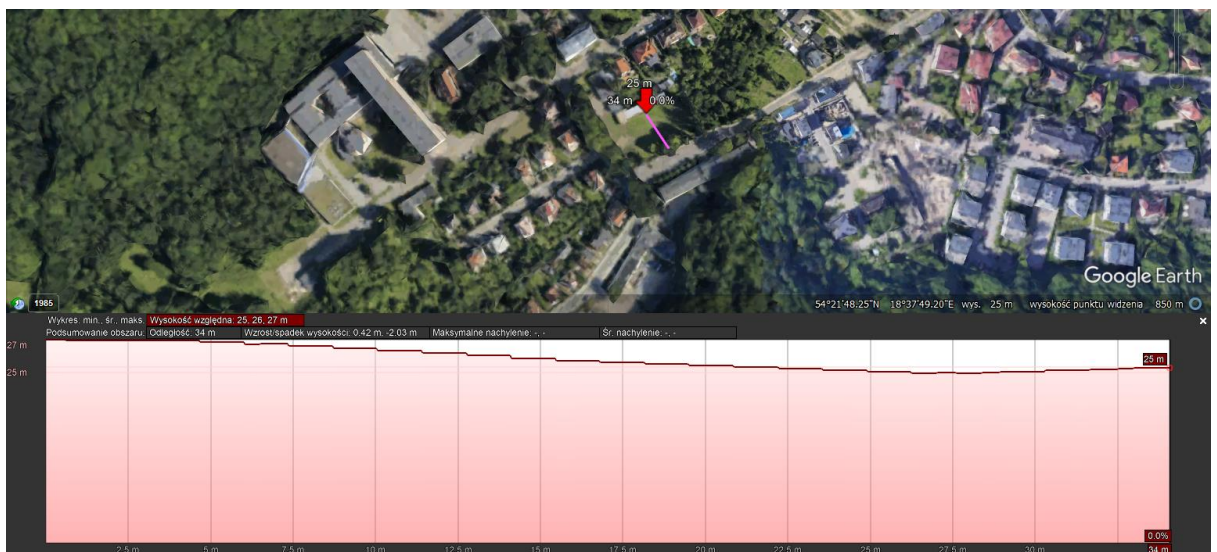


Fig. 23 Google view on Eliza Orzeszkowa Street, Gdańsk, [access: 25.11.2023]

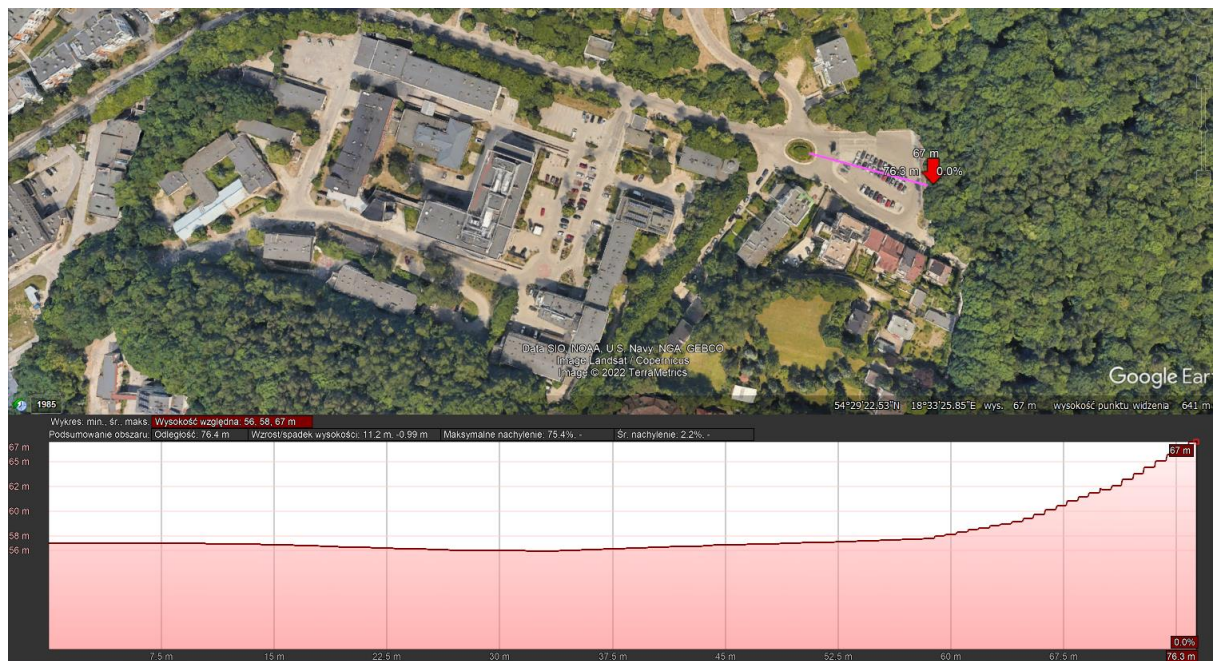


Fig. 24 Google view on Huzarska Street, Gdynia, [access: 25.11.2023]

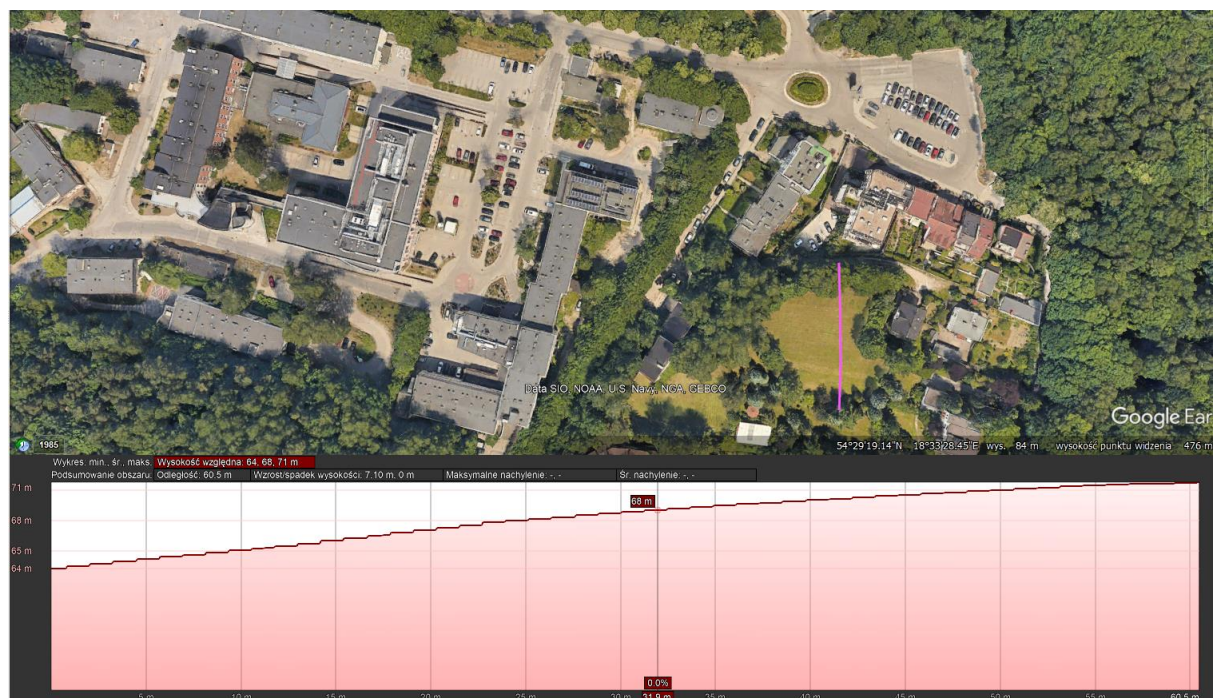


Fig. 25 Google view on Huzarska Street, Gdynia, [access: 25.11.2023]

When choosing a plot for the support center, I considered the pros and cons of each location, but you could say that my choice was largely subtle. The plot on Huzarska Street in Gdynia, near Oncology Center at the PCK Maritime Hospital seemed to have an advantage mainly due to its proximity to nature and the sea, which I believe play a significant role in human well-being. Additionally, its location at the end of the street axis makes the facility visible from afar, which is very important in this case.

4. ANALYSIS OF THE PLOT OF LAND SELECTED FOR THE PROJECT AND ITS SURROUNDINGS

4.1 History

Gdynia's cultural heritage is characterised by great diversity in both historical and spatial terms. In addition to archaeological monuments, it includes objects of diverse metrics and origins. Although Gdynia has a rich but relatively short history, its roots lie in the centuries-old tradition of rural settlements and the shorter tradition of summer settlements. Therefore, the city's cultural resources can be divided into two main groups: architectural and urban planning complexes from the period of the city's construction in the 1920s and 1930s, and pre-urban settlement complexes dating from before the 1920s.

Moving on to the history of the PCK Marine Hospital in Gdynia-Redlowo began on February 23, 1957, when the Navy handed over the site and barracks in Redlowo to the Presidium of the Municipal National Council in Gdynia. On September 30, 1957, a resolution was passed to establish the Gdynia-Redlowo Municipal Hospital on the site. On December 14, 1957, the foundation act was laid, and on November 28, 1958, the hospital was given the name "PCK Maritime Hospital in Gdynia Redlowo".³¹

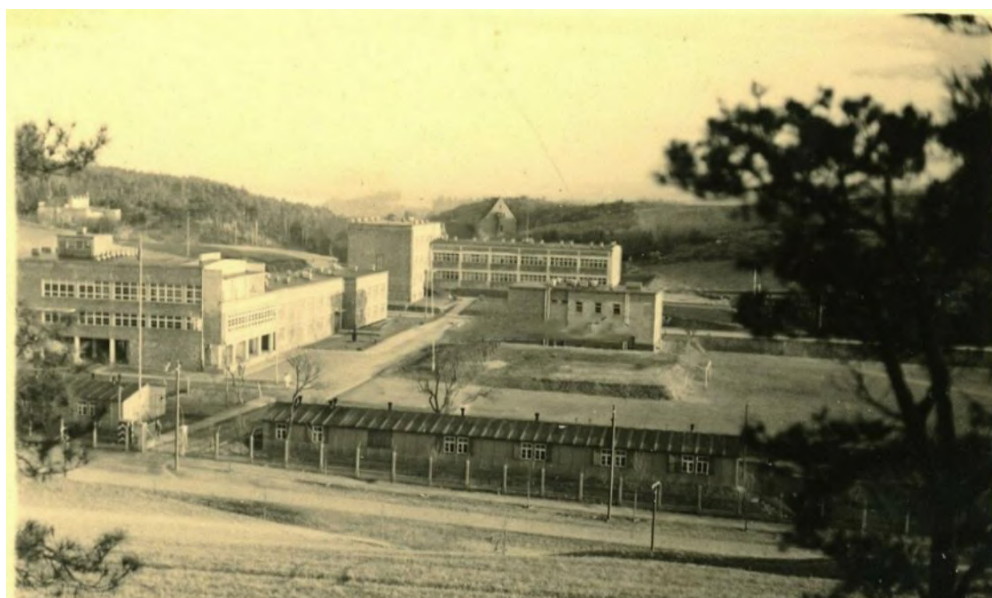


Fig. 26 Hospital building in Redlowo, 1942., online:
<https://fotopolska.eu/1957410,foto.html?o=b214868>, [access: 25.11.2023]

³¹ History of Hospital in Redłowo, Gdynia, online: <https://www.szpitalepomorskie.eu/historia/> [access: 11.11.2022]



Fig. 27 Hospital building in Redlowo, 1942 Before World War II, the barracks of the 2nd Marine Rifle Regiment, which defended Gdynia in September 1939; during the war, Wehrmacht barracks..., online: <https://fotopolska.eu/1851860,foto.html?o=b214868>, [access: 25.11.2023]

Surrounding the Redlowo hospital complex are historical sites such as fortifications from the 1940s and 1950s. These include the coastal batteries in Redlowo and the command post and shelters on the Redlowo Headland. In addition, there are areas nearby that were once home to rural communities, manor parks and farms. For example, there was a habitat in Redlowo from medieval times, which was originally a peasant village and later turned into the seat of a manor farm, but today there are no traces of it.

Also located near the hospital is the Orlowo Rural and Curacian Complex, which consists of the former Adlershorst Inn, the former Orlowo Curacian House and small fishing cottages from the late 19th and early 20th centuries. Stefan Zeromski lived in one of these cottages in 1920, and it now houses his museum. The whole forms a picturesque architectural and landscape complex, located at the beach and fishing station, at the mouth of the Kacza River. The complex is listed in the register of monuments.

4.2 Transportation

As for public transportation, it is very good. There are bus stops right next to the hospital building. At the end of Powstania Styczniowego Street, there is a bus bay along with a parking lot. The nearest Rapid Urban Railway (SKM) station is a 17-minute walk from the hospital. While this is not a great distance, it may be too far for individuals with limited mobility. There are also parking lots for cars on the hospital grounds, and there is also an undeveloped area that could be converted into additional parking spaces.

Additionally, nearby is Provincial Road No. 468, which runs from the center of Gdańsk, through Sopot, Gdynia, Rumia, Reda, and Wejherowo, to the Bożepole Wielkie junction on the S6 expressway.

4.3 Environment

The plot designated for the support center is located near nature monuments dispersed throughout the city, primarily in the forested areas of the edge zone. Among these monuments, there are 5983 trees, 12 groups of trees, 11 erratic boulders, 4 groups of boulders, and 2 climbing plants.

The plot is directly adjacent to the "Kępa Redłowska" Nature Reserve, which covers an area of 121.91 hectares and is one of the oldest in the country. The reserve encompasses the eastern slopes of Kępa Redłowska and the undercut cliff edge. It is also situated near the special habitat protection area "Klify i rafy kamienne Orłowa" (Orłowo Cliffs and Stone Reefs).

Kępa Redłowska is characterized by a diverse range of vegetation, including beech forests, oak-beech forests, and pine forests. Particularly valuable are the coastal vegetation communities, such as xerothermic grasslands. Many protected plant species can be found here, including the sea holly and the early marsh-orchid.

The reserve's fauna includes a rich variety of bird species, both breeding and migratory. Mammals such as wild boar, roe deer, and foxes also inhabit the area. The reserve is a popular spot for walking and recreation, offering numerous hiking and biking trails, as well as viewpoints with spectacular views of the Gulf of Gdańsk.

Nearby, there is also the famous Orłowo Pier and the picturesque Orłowo Cliff, which further enhances the attractiveness of this location.

4.4 The Surroundings

The functions of the buildings in the immediate vicinity of the selected plot, aside from the hospital complex, are primarily residential. In my opinion, this residential area is currently quite chaotic, which somewhat discourages the introduction of construction that would strongly contrast with the rest of the surroundings.



Fig. 28 Adjacent building at 2/2 Powstania Styczniowego Street in Gdynia, photo by author

Fig. 29 Adjacent building at 1 Huzarska Street in Gdynia, photo by author

Fig. 30 Adjacent building at 1C Huzarska Street in Gdynia, photo by author

Fig. 31 Adjacent building at 1D Huzarska Street in Gdynia, photo by author

5. CONCEPT DESCRIPTION

5.1 *Project idea*

The subject of this study is the conceptual architectural design of a psychological and informational support center for individuals struggling with cancer, located near the hospital in the Redłowo district of Gdynia. Additionally, the project includes a concept for a bus bay, with the support center planned to be built on its current site.

The main principles guiding my design were to create a space as harmonious as possible, culminating in a vista leading to it. It was important to me that visitors had as easy access as possible to the soothing presence of nature, aiming for a sensation that it pours into the building. Its 'arms' adapt to the directions of the neighboring buildings, engaging in a sort of 'dialogue' with them. Additionally, these 'arms' symbolize openness to what both the forest and the sea, a 15-minute walk away, have to offer. Furthermore, the existing roundabout in front of it influenced the shape of the building. The structure conforms to its curved shape, evoking open, inviting arms.

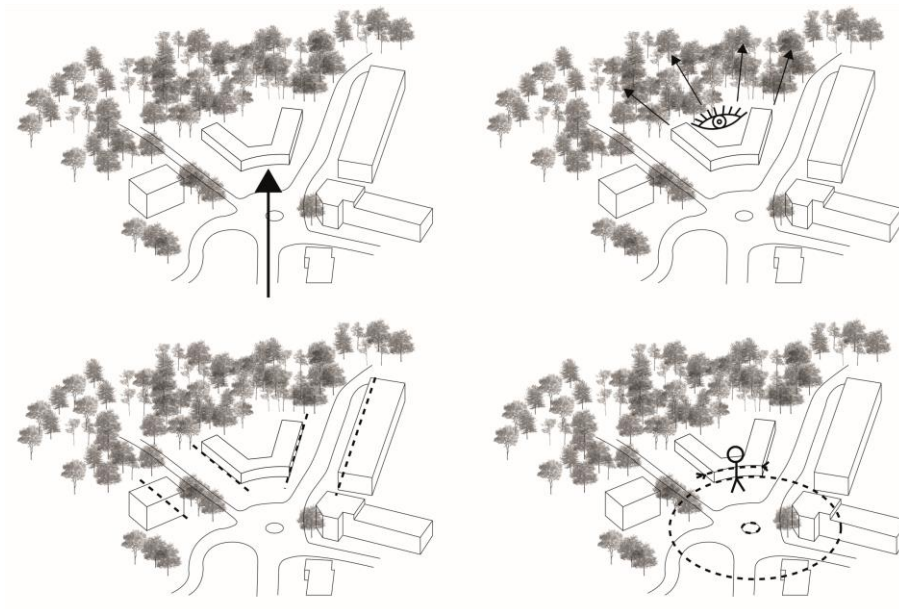


Fig.32 Conceptual diagram of the form, created by the author.

The building consists of three floors, one of which is an underground parking area with technical rooms and an art space. On the ground floor, after entering the building and passing through the vestibule, we find an open space where we are greeted by a tree, and right behind it, a staircase and an elevator. On the right side, there is a niche where you can leave your outerwear and move further into the building, passing by the restrooms and changing rooms, heading towards a room designated for group activities such as yoga. After passing this space, we can move into an open space that can be used for consultations or simply for conversation. If we turn left from the entrance, we can see an informal space for the building's staff, who monitor who enters the building. A bit further, there is an open space resembling a living room with a library, behind which there is a discreet descent to the lower level directly to the art space. Behind the living room, there is a patio with a tree growing in the centre. Further inside the building, there is an open kitchen with an island and a dining area, from which there is access to enclosed outdoor nooks. Behind the kitchen, there is a small pantry and then a restroom. Beyond them, there is a small open room for art therapy. At the far end of the building, there are two enclosed consultation rooms.

On the upper floor, there is a small room where the "crown of the tree growing on the ground floor" extends, serving both as a group therapy room and a consultation room. The room is open towards the street, but it offers a view of greenery in the form of the crowns of planted trees. On the ground floor, to give people in the centre more privacy from the street and neighbours, the amount of glazing has been limited. However, on the side facing the forest, there is a lot of glazing so that people in the centre feel as if nature is pouring inside, allowing them to admire its changing qualities and even spot forest animals. This allows people staying there to have a sense of space and openness.

To give the building a certain balance in its volumetric and glazing composition, cubes have been added above the yoga room and the kitchen area. These cubes are closed on the

garden side and open/glazed on the neighbor's side, without compromising privacy, they serve to provide additional lighting to the areas beneath them.



Fig.33 Ground floor of the support center, created by the author.

5.2 Site development

5.2.1 Site development - existing condition

The project is located at the end of Powstania Styczniowego Street in Gdynia, near the roundabout. The project is located at the end of Powstania Styczniowego Street in Gdynia, near the roundabout on plot number 1869, with a size of 2000 m², Redłowo precinct in Gdynia. It is currently occupied by a bus bay, along with a small shed for bus drivers, in addition to which twenty parking spaces for cars have been designated on the site, including two for people with disabilities.

The second plot to which the bus bay is to be moved is located on the other side of the traffic circle, its number is 1443/6. It is currently unused. It contains 18 trees.

5.2.2 Site development - designed condition

To facilitate access to the center, a space has been designated near the roundabout where individuals can conveniently be dropped off by car. Additionally, bicycle parking spaces have been provided at the entrance to the center building. After exiting the roundabout onto Huzarska Street, a pedestrian-cyclist path is being designed, from which one can access the car-

elevator leading to the underground parking lot, which will accommodate twenty-seven parking spaces, including one designated for people with disabilities.

Right next to the entrance gate to the elevator leading to the underground floor, there is a closed room for waste storage. Behind the entrance to this room, there is an opening through which one can access the rear garden of the support center, which is not fenced.

The entrance to the building is via a paved pathway surrounded by lush vegetation, which covers a shallow (30 cm deep) water tank serving as a buffer zone between the exterior and the proposed building.

On the other side of the roundabout from the support center, a bus bay has been designated, which previously existed at the location of the proposed building. This space is created thanks to the designed retaining wall. At this location, parking spaces are provided for at least three city buses, facilities for bus drivers on break, and terraced stairs that shorten the passage from Powstania Wielkopolskiego Street to Powstania Styczniowego Street. Additionally, an elevator is planned to facilitate access for individuals with limited mobility to overcome this height difference. Eighteen existing trees on the plot will be designated for cutting, and three trees are planned to be planted on this plot.

5.3 Building structure

The planned building consists of two above-ground floors and one underground. The foundations will be made using the white tank technology, which ensures high resistance to water and moisture. The walls and columns that will support the transfer slabs will be made of reinforced concrete.

5.4 Installations

The designed facilities will be serviced using connections to existing networks. Technical equipment and ventilation units will be located in technical rooms on the underground floor. Sewage will be discharged into the municipal sanitary sewer system, while rainwater will be drained into the stormwater sewer system.

5.5 Fire protection

The support center building is a low-rise structure, classified as a ZL II human risk category with a fire resistance class of "B". The stairwell leading from the underground level to the ground floor has been designed as an evacuation staircase, enclosed with fire separation walls and equipped with fire doors. A smoke vent is planned to be installed on the roof above the stairwell. Additionally, an evacuation exit is envisaged from the north hall. The bus bay facility

along with the drivers' amenities is also a low-rise structure, classified as a ZL III human risk category with a fire resistance class of "C".

5.6 Accessibility for people with disabilities

The facility has been adapted for use by people with disabilities by removing any architectural barriers that could hinder their movement. Entrances to the building are located on the ground floor and have no thresholds. In order to provide access for wheelchair users, elevators have been installed for vertical transportation. Additionally, toilets adapted for wheelchair users have been designed.

5.7 Room schedule

Table 4. Room schedule

Level -1

No.	Room	Area
1.1	warehouse	37 m2
1.2	art space/gallery	140 m2
1.3	ventilation room	39 m2
1.4	utility room	31 m2
1.5	anteroom	9 m2
1.6	staircase	22 m2
1.7	utility connection room	19 m2
1.8	car elevator	23 m2
1.9	magazine	32 m2
1.10	garage	925 m2

Ground floor

No.	Room	Area
2.1	consultation room	26 m2
2.2	consultation room	28 m2
2.3	east hall	25 m2
2.4	toilet	5 m2
2.5	pantry	9 m2
2.6	art. space	16 m2

2.7	north hall	36 m2
2.8	kitchen/dining	44 m2
2.9	south hall	30 m2
2.10	patio	31 m2
2.11	central space	61 m2
2.12	east hall	27 m2
2.13	vestibule	12 m2
2.14	foyer	65 m2
2.15	south hall	53 m2
2.16	toilet	4 m2
2.17	changing room	8 m2
2.18	toilet	4 m2
2.19	changing room	8 m2
2.20	toilet	5 m2
2.21	north hall	45 m2
2.22	yoga/group space	44 m2
2.23	consultation room	13 m2
2.24	waste rom	13 m2

Bus bay

No.	Room	Area
2.25	toilet	6 m2
2.26	corridor	4 m2
2.27	vestibule	3 m2
2.28	staff room	8 m2
2.29	elevator	6 m2

Level +1

No.	Room	Area
3.1	consultation room/group space	64 m2

6. REFERENCES

1. Stephen R. Kellert, Judith H. Heerwagen, Martin L. Mador: *Biophilic design: the theory, science, and practice of bringing buildings to life*, John Wiley & Sons, 2008.
2. Christine Nickl-Weller: *Healing architecture 2004–2017*, Braun, 2017.
3. Giovanna Borasi and Mirko Zardini: *Imperfect Health: The Medicalization of Architecture*, Lars Muller, 2012.
4. Sobol Adrianna, A. Witkowicz-Matolicz: *Oswoić raka*, Społeczny Instytut Wydawniczy Znak, 2020
5. Neufert Ernst: *Neufert. Podręcznik projektowania architektoniczno-budowlanego*, Arkady, 2011
6. Walter Meyer-Bohe; współprac.: Thomas Meyer-Bohe i Jürgen Dettbarn-Reggentin: *Budownictwo dla osób starszych i niepełnosprawnych*, Arkady, 1998.
7. Pallasmaa J: *The Eyes of the Skin: Architecture and the Senses*, Instytut Architektury, 2012.
8. Zumthor P: *Thinking architecture*, Karakter, 2010.
9. Michelle Provoost, *OMA/AMO: For the People, Of the People*
10. Holmes Jeremy, Storr Anthony: *Storr's Art of Psychotherapy*, Taylor&Francis Ltd., 2012
11. Jimmie C. Holland, William S. Breitbart, Paula R. Sherman, *Psycho-Oncology*, Oxford University Press, 2015
12. Jimmie C. Holland i Sheldon Lewis, *The Human Side of Cancer: Living with Hope, Coping with Uncertainty*, HarperCollins Publishers, 2000.
13. Jimmie C. Holland, William S. Breitbart, Paul B. Jacobsen, *Handbook of Psychooncology: Psychological Care of the Patient with Cancer*, Oxford University Press, 2015

14. Vicki A. Jackson, David P. Ryan, Michelle D. Seaton, *Living with Cancer: A Step-by-Step Guide for Coping Medically and Emotionally with a Serious Diagnosis*, Johns Hopkins University Press, 2017
15. Linda E. Carlson i Michael Spece, *Mindfulness-Based Cancer Recovery: A Step-by-Step MBSR Approach to Help You Cope with Treatment and Reclaim Your Life*, New Harbinger Publications, 2011
16. Mark Clemons, Jeffrey S. Hoch, Ezra E.W. Cohen, *Cancer Supportive Care: Advances in Therapeutic Strategies*, Springer, 2018
17. Susana Rojas-Moreno, *Zaha Hadid: An Approach to Form*, Architectural Design, 2006
18. Charles Jencks, *Maggie's Cancer Care Centres: A Blueprint*, Frances Lincoln Publishers Ltd, 2009
19. Grace Gawler, *The Healing Space: Understanding the True Nature of Cancer*, Outskirts Press, 2013
20. Wojciech Solarz, *Przewodnik przyrodniczy po Trójmieście i okolicach*, Via Medica
21. Terri Peters, *Healthy Buildings: How Indoor Spaces Drive Performance and Productivity*, Harvard University, 2020
22. Charles Jencks, *The Architecture of Hope: Maggie's Cancer Caring Centres*, Frances Lincoln, 2010
23. Laura Ferguson, Laura Mark, Anne Duffy, *Architecture for Cancer Care: The Development of Maggie's Centres*, European Journal of Cancer Care Rok publikacji: 2014
24. Roger S. Ulrich, Vincent D. Duffy, *A Review of the Research Literature on Evidence-Based Healthcare Design*, The Center for Health Design, 2010
25. Andrew Baum, Gayle D. Rubin, *Healing Spaces: The Science of Place and Well-Being*, Wiley, 2009
26. Esther Sternberg, *Well-Being*, Harvard University Press, 2009

27. Laura Ferguson, Laura Mark, Anne Duffy, *Architecture for Cancer Care: The Development of Maggie's Centres*, European Journal of Cancer Care, 2014
28. Charles Jencks, Maggie's Centres: *Healthcare and Design*, Architectural Review, 2004
29. Laura Ferguson, Anne Duffy, Laura Mark, *The Role of Architecture in the Creation of Therapeutic Environments: A Critical Perspective on the Case of Maggie's Centres*, Health & Place, 2012
30. Laura Mark, *Innovative Environments for Cancer Treatment and Rehabilitation: Case Study of Maggie's Centre at the Freeman Hospital*, The Journal of Architecture, 2013

7. ELECTRONIC SOURCES

1. B. Celejewski K. Łuszczynska, Jak chronić się przed zachorowaniem na nowotwory, online: <https://www.gov.pl/web/zdrowie/jak-sie-chronic-przed-rakiem>, [access:12.10.2022]
2. J. Didkowska, U. Wojciechowska, P. Olasek, F. Caetano dos Santos, I. Michałek, Nowotwory złośliwe w Polsce w 2019 roku, online: https://onkologia.org.pl/sites/default/files/publications/2022-05/Nowotwory_2019.pdf, [access:12.10.2022]
3. Nowotwory złośliwe w Polsce. Krajowy rejestr nowotworów, online: <https://www.zwrotnikraka.pl/nowotwory-zlosliwe-w-polsce-krajowy-rejestr-nowotworow/>, [access:13.10.2022]
4. List of Oncology Centers, online:https://www.pto.med.pl/wykaz-centrow-onkologii?field_rodzaj_placowki_target_id%5B121%5D=121&field_rodzaj_placowki_target_id%5B120%5D=120&field_wojewodztwo_target_id=114, [access: 25.11.2023]
5. Økonomisk støtte til kreftpasienter (Financial support for cancer patients), online: <https://kreftforeningen.no/rad-og-rettigheter/okonomi/okonomisk-stotte-til-pasienter/>, [access: 22.11.2023]
6. Deutsche Krebshilfe (Cancer support), online: <https://www.krebshilfe.de/>, [access: 25.11.2023]

7. Health care in Sweden, online: <https://www.1177.se/uppsala-lan/sa-fungerar-varden/kostnader-och-ersattningar/ekonomiskt-stod-nar-du-ar-s>, [access: 22.11.2023]
8. Maggie's centre, online: <https://www.maggies.org/>, [access: 25.11.2023]
9. Architects' Approaches to Healing Environment in Designing a Maggie's Cancer Caring Centre, Valerie Van der Linden, Margo Annemans, Ann Heylighen, online: <https://www.tandfonline.com/doi/abs/10.1080/14606925.2016.1149358?journalCode=rdj20> [access: 11.11.2022]
10. What makes an environment healing? Users and designer about the Maggie's Cancer Caring Centre London, Margo Annemans, Chantal Van Audenhove, Hilde Vermolen, Ann Heylighen, online: <https://cadeinterior.files.wordpress.com/2018/05/what-makes-an-environment-healing-maggies.pdf> [access: 11.11.2022]
11. The Maggie's Centres Full BBC Documentary 2016, online: <https://www.youtube.com/watch?v=QkVcZuAikrI> [access: 11.11.2022]
12. NN, Maggie's Architecture and Landscape Brief, online: https://maggies-staging.s3.amazonaws.com/media/filer_public/e0/3e/e03e8b60-ecc7-4ec7-95a1-18d9f9c4e7c9/maggies_architecturalbrief_2015.pdf [access: 11.11.2022]
13. History of Hospital in Redłowo, Gdynia, online: <https://www.szpitalepomorskie.eu/historia/> [access: 11.11.2022]
14. Home and/or Hospital: The Architectures of End-of-Life Care. Available from: https://www.researchgate.net/publication/310315342_Home_andor_Hospital_The_Architectures_of_End-of-Life_Care [access: 11.11.2022]

8. GRAPHIC SOURCES

Fig. 1 Oncology centres in the Pomeranian Voivodeship, drawing by author

Fig. 2 Simple sketches depicting the idea conveyed in the brief for architects made by the author

Fig. 3 Maggie's centre by Thomas Heatherwick Studio, online: <https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Fig. 4 Architect's inspiration for Maggie's Centre by Thomas Heatherwick Studio, online:
<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Fig. 5 Models of the project, of Maggie's Centre Thomas Heatherwick Studio, online:
<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Fig. 6 and 7 Models of the project, of Maggie's Centre Thomas Heatherwick Studio, online:
<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Fig. 8 Interior of the project, of Maggie's Centre by Thomas Heatherwick Studio, online:
<https://www.heatherwick.com/project/maggies/>, [access: 25.11.2023]

Fig. 9 Maggie's Centre – Gartnavel by OMA, online: <https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

Fig. 10 Maggie's Centre – Gartnavel by OMA, online:
<https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

Fig. 11 Scheme of Maggie's Centre – Gartnavel by OMA, online:
<https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

Fig. 12 Maggie's Centre – Gartnavel by OMA, online:
<https://www.oma.com/projects/maggie-s-centre-gartnavel>, [access: 25.11.2023]

Fig. 13 Maggie's Hong Kong by Frank Gehry, online:
<https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>,
[access: 25.11.2023]

Fig. 14 Maggie's Hong Kong by Frank Gehry, online:
<https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>,
[access: 25.11.2023]

Fig. 15 Maggie's Hong Kong by Frank Gehry, online:
<https://www.metalocus.es/en/news/frank-gehry-designed-maggies-centre-opens-hong-kong>,
[access: 25.11.2023]

Fig. 16 Maggie's Manchester by Foster + Partners, online:
<https://www.archdaily.com/786370/maggies-cancer-centre-manchester-foster-plus-partners>,
[access: 25.11.2023]

Fig. 17 Maggie's Manchester by Foster + Partners, plan of the building, online:
<https://www.archdaily.com/786370/maggies-cancer-centre-manchester-foster-plus-partners>,
[access: 25.11.2023]

Fig. 18 Mockup of Maggie's centre Kircadly, Fife, Scotland Zaha Hadid Architects, online:
<https://www.zaha-hadid.com/architecture/maggies-centre-fife/>, [access: 25.11.2023]

Fig. 19 Maggies Cancer Caring Center / Snøhetta, online:
<https://archello.com/story/40422/attachments/photos-videos/1>, [access: 25.11.2023]

Fig. 20 Maggies Cancer Caring Center / Snøhetta, online:
<https://www.archdaily.com/437008/maggies-cancer-caring-center-snohetta/52575c23e8e44ecb170007d8-maggies-cancer-caring-center-snohetta-first-floor-plan>, [access: 25.11.2023]

Fig. 21 Oncology centres in the Pomeranian Voivodeship, drawing by author

Fig. 22 Google view on Traugutta Street, Gdańsk, [access: 25.11.2023]

Fig. 23 Google view on Eliza Orzeszkowa Street, Gdańsk, [access: 25.11.2023]

Fig. 24 Google view on Huzarska Street, Gdynia, [access: 25.11.2023]

Fig. 25 Google view on Huzarska Street, Gdynia, [access: 25.11.2023]

Fig. 26 Hospital building in Redlowo, 1942., online:
<https://fotopolska.eu/1957410,foto.html?o=b214868>, [access: 25.11.2023]

Fig. 27 Hospital building in Redlowo, 1942 Before World War II, the barracks of the 2nd Marine Rifle Regiment, which defended Gdynia in September 1939; during the war, Wehrmacht barracks, online: <https://fotopolska.eu/1851860,foto.html?o=b214868>, [access: 25.11.2023]

Fig. 28 Adjacent building at 2/2 Powstania Styczniowego Street in Gdynia, photo by author

Fig. 29 Adjacent building at 1 Huzarska Street in Gdynia, photo by author

Fig. 30 Adjacent building at 1C Huzarska Street in Gdynia, photo by author

Fig. 31 Adjacent building at 1D Huzarska Street in Gdynia, photo by author

Fig. 32 Conceptual diagram of the form, created by the author.

Fig. 33 Ground floor of the support center, created by the author.

9. TABLES

Tab. 1. Oncology centers, and cathedrals and clinics in the Pomeranian region

Tab. 2 Distances of existing Maggie's Centres to the nearby oncology centre

Tab. 3 Comparison of four potential plots of land where a cancer support center could be built.

Table 4. Room schedule