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## THE CHILDREN'S UNIVERSITY HOSPITAL IN CRACOW. HISTORY AND ARCHITECTURE

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### UNIWERSYTECKI SZPITAL DZIECIĘCY W KRAKOWIE. HISTORIA I ARCHITEKTURA

#### Abstract

In the common consciousness, the heritage of architecture and urban planning from the period of the People's Republic of Poland is perceived as a legacy of the totalitarian political system, and consequently underestimated and unprotected. One of the interesting buildings coming from this period, the beginnings of which reach back to the 1960s, is the Children's University Hospital in Cracow. In the process of its construction innovative – at the time – architectural and material-related solutions were adopted. The spatial and aesthetic values of the hospital have been preserved to this day, despite its degradation, which has been progressing for some time now and which is to be stopped by renovation and modernisation works undertaken in the hospital. It testifies to its timeless cultural value, both in terms of its formal solutions and materials used, and in terms of its conceptual contents, which are the output of and testimony to the 'difficult' epoch when the hospital was erected.

**Keywords:** hospital architecture, children's university hospital

#### Streszczenie

Dziedzictwo architektury i urbanistyki z okresu trwania Polskiej Republiki Ludowej w powszechnej świadomości postrzegane jest jako spuścizna totalitarnego systemu politycznego, a co za tym idzie jest często niedoceniane i nieobjęte ochroną. Do ciekawych obiektów, pochodzących z tego okresu, którego początki sięgają lat 60. XX wieku, należy Uniwersytecki Szpital Dziecięcy w Krakowie. W trakcie jego budowy zastosowane zostały nowatorskie, jak na ówczesne czasy, rozwiązania architektoniczne i materiałowe. Do dzisiaj zachowane zostały walory przestrzenne i estetyczne szpitala pomimo postępującej od pewnego czasu jego degradacji, której przeciwdziałać zaczęły podejmowane ostatnio na jego terenie prace renowacyjne i modernizacyjne. Dowodzi to jego ponadczasowej wartości kulturowej, tak w sensie formalno-materiałowym, jak i treści ideowej, będącej dorobkiem i świadectwem „trudnej” epoki, w której szpital powstał.

**Słowa kluczowe:** architektura szpitalna, uniwersytecki szpital dziecięcy

## 1. Introduction

In the common social consciousness, Polish architecture and urban planning from the period of 1945–1989 are perceived as the legacy of the People's Republic of Poland, a result of the influence of the ideology of the totalitarian political system, and consequently has been – and still is – often underestimated and unprotected at all. Irrespective of its difficult origins, these valuable buildings should be part of the resources of the Polish cultural heritage and should be covered with relevant protection.

The complex of the Children's University Hospital in Cracow is a valuable structure the beginnings of which reach back to the 1960s. The spatial and aesthetic values of the hospital have been preserved to date, and it still extends its structures and remains an important medical educational, and research centre [1, p. 786; 13, p. 326]. Today, it has nearly 500 beds and it serves children from Malopolska region and from adjacent provinces. Patients from infants to 18-year-olds are treated in 24 wards. The hospital offers treatment in all children's paediatric and surgical specialities, thanks to which it secures full comprehensive treatment. The facility has an entire range of diagnostic and rehabilitation opportunities, as well.

The oldest part of the hospital was designed by Władysław Poray-Biernacki [1, p. 786; 13, p.326], an American architect of Polish descent, and is a very interesting example of the American functionalism from the 1960s imported to the Polish architecture and urban planning. One encounters here innovative – at the time – architectural, spatial, and material-related solutions. For this reason, the protection should cover the initial form and elevations of the facility, as well as its urban composition.

With time, however, the hospital started to slowly degrade, as a result of its technical and functional wear and tear. Constantly undertaken renovations, especially the extensive programme of modernisation of the entire hospital complex implemented in recent years, aim to compensate for this situation. The spatial and aesthetic values of the hospital have been preserved to date. This fact testifies to its cultural value, both in terms of its form and materials used, and in the conceptual contents, which are an output of and the testimony to the epoch when the hospital was erected. Its architecture attempts to combine arts and pure science, but at the same time, it is a place where the reality of illness tries to encounter a healing force of the hospital space.

One question remains: is it a complex which is sufficiently adjusted to the needs of contemporary hospital management? Modernisations forced by the development of medicine consume enormous costs. One could repeat after an English architect, John Weeks: "Hospitals built in the current way are frighteningly long-lasting..." [27; 28]. The durability of a building does not secure the unchangeability of the way it will be used. Structures with rigid spatial layouts are hard to adapt to changing functional requirements [19, p. 253–259]. A hospital, and a children's hospital in particular, should constitute a combination of the state-of-the-art medical technology and the best care possible over a young patient, creating a truly healing space, where even staying in it should foster healing.

## 2. Historical background

### 2.1. The first seat of the Children's University in Cracow

Cracow is a city where, as early as in the 18<sup>th</sup> century, practical classes in paediatrics for future physicians were held at the ward of foundlings of St. Lazarus Hospital at Kopernika street. In 1835, the Obstetrics Institute, under the supervision of Józef Kwaśniewski, was established. In the second half of the 19<sup>th</sup> century, nearly every single field of medical sciences had developed its contemporary foundations. Their development brought about the number of new chairs and departments of Collegium Medicum of the Jagiellonian University [26; 18, p. 104–105; 21, p. 480]. Amongst them, one could also mention the Chair of Paediatrics – separated from the Chair of Obstetrics and Gynaecology – which on the basis of an agreement signed between the Ministry of Enlightenment and the Provincial Department established a separate Paediatric Clinic in 1873. Since the very moment of its establishment, located in very modest premises at St. Lazarus Hospital at Wesoła street, it had to struggle with considerable difficulties referring to the premises allocated to it [26; 18, p. 104–105; 21, p. 480; 7, p. 171].

The need to create a new, specialist children's hospital in Cracow, which would also play the role of a university hospital, had been advocated for a long time then by the then head of the clinic, Professor Maciej Jakubowski [8, p. 45–52]. Thanks to his earnest efforts, on 1 May 1876 an edifice of St. Louis Hospital was put into use on the corner of Kopernika street and Krzyżowa street (today Strzelecka street) [8, p. 172; 11, p. 4; 9, p. 9; 26].

The new edifice was a foundation of the Children's Hospital Care Society in Cracow, established in 1872 upon the initiative of Jakubowski and Princess Marcelina Czartoryska, née Radziwiłł [11, p. 4; 26]. Over a relatively short time the Society collected a considerable amount of money, reaching the sum of 40,000 guildens, and for 9,000 guildens purchased a plot of land in the suburbs called Wesoła, opposite St. Lazarus hospital, and quite close to the other university clinics [10, p. 27; 26]. Right after the transaction, the Society turned to several architects with a request to draw up sketches to the design of the hospital. A work by Vincent Schell was regarded as the most suitable one. Having introduced some minor changes, Antoni Łuszczkiewicz [9, p. 9; 26], a Cracow-based architect, prepared detailed plans.

Right after the opening of the hospital, it turned out that halls for contagiously ill children had not been properly isolated and there was a threat that infections could spread within the hospital. It was decided to solve this problem by building a new pavilion only for patients suffering from infectious diseases. Professor Jakubowski proposed to build a detached, one-floor building within the territory of the hospital garden. He even submitted sketches prepared by Antoni Łuszczkiewicz. The committee of the charity society decided, however, to build another, two-floor pavilion as an addition to the existing one. The preparation of a detailed design was entrusted to Tomasz Pryliński. The building was erected in the years 1881–1882 and consumed the amount of 35,610 guildens [9, p.11; 10, p. 29; 26].

Since the very beginning of the existence of the hospital, its director was its co-founder and the then head of the Chair of Paediatrics, Professor Jakubowski. Wishing to secure the



stable and independent future of the Clinic of Paediatrics, as early as in 1876, he drew up a draft agreement between the Imperial and Royal High Government and the Children's Hospital Care Society in Cracow. According to the contract two patients' rooms (each with 10 beds), one observational room with 4 beds, one lecture hall with benches arranged like in an amphitheatre for ca. 40–50 students, and an office for the professor and accommodation for the assistant were separated in the edifice of St. Louis Hospital for the purposes of the clinic [7, p. 172–173; 26]. The contract stipulating the aforementioned provisions, supported by the university authorities, as well as by the then Ministry of Education, was formally approved only in 1896 [7, p. 172–173; 26; 20, p. 68].

During the first 25 years of its existence, as funds were flowing, St. Louis Hospital was being extended and modernised according to the current possibilities. The most difficult times were brought by the World War II, which caused the biggest losses in people and assets. Within its premises, there were structures and appliances requiring urgent renovation and modernisation. Nevertheless, the general renovation of the hospital was carried out only in late 1950. At the time, besides the 1<sup>st</sup> Paediatric Clinic in St. Louis Hospital, Cracow had paediatric wards in the Żeromski Hospital in Nowa Huta and in the Narutowicz Hospital, but the demand for paediatric beds was constantly growing [24, p. 23]. During the renovation of St. Louis Hospital held in the years 1957–1959, the 1<sup>st</sup> Paediatric Clinic, which had been located there until then, was transferred to the premises of a former municipal creche and pre-school at Powstańców Warszawy avenue. In this location, the 2<sup>nd</sup> Paediatric Clinic started to emerge, with Professor Włodzimierz Mikułowski as its first head [24, p. 23]. After the renovation, both clinics returned to the buildings of St. Lazarus Hospital, where a hospital school for sick children was established, as well.

## 2.2. Current seat of the Children's University Hospital in Cracow

There was a growing need for Cracow to administer one large, professional clinical centre for sick children. This case was supported by the Polish community in America, especially by our countryman, American architect, Władysław Poray – Biernacki, who in 1958 convinced a Member of the House of Representatives, Congressman Clement J. Zablocki, and two democratic Senators, Hubert H. Humphrey from Minnesota and Jacob K. Javits from New York, to the idea of building a state-of-the-art paediatric hospital in Cracow [24, p. 23].

The first step was to amend the act that was in force at the time, the so-called *Battle Act of 1950*, which forbade the Government of the United States to spend any funds on investments in the communist part of Europe, including Poland. Simultaneously, an organisational committee was established - the American Research Hospital in Cracow in Poland [17], which got engaged in the collection of funds amongst Polish communities in the United States and Canada. At that time, the Congress of the United States of America also passed a resolution on granting a donation for the purpose of building a hospital in Cracow [17].

The architect of Polish descent referred to above, Władysław Poray – Biernacki, worked on the design of the hospital. At first, he was employed by a design studio operating on the American market, Howard T. Fisher & Associates [The company was set up by Howard T. Fisher

in 1943 r. and operated until 1965]. With time, since 1955, he started to run his own designing activities, also within the scheme of his own business called Biernacki-Poray & Associates [3].

The construction works were commenced in September 1961. Before they were completed, on 1 April 1965, the Institute of Paediatrics of the Medical Academy in Cracow was established, which was to be the beneficiary for the hospital complex in Prokocim [25, p. 48]. The construction process lasted 4 years (1962–1965) and it brought about 6 interlinked buildings, which as of the opening day had the floor area of ca. 100 thousand square metres, administered 312 beds, and an operating wing with 5 operating theatres. One three-floor building with a circular floor plan housed wards of the 1<sup>st</sup> and 2<sup>nd</sup> Paediatric Clinics, the second three-floor central building on a rectangular floor plan housed the Ward of Paediatric Surgery, the Radiology Department, and classrooms, with a lecture hall for ca. 400 people. Another-third – building housed surgeries and consulting rooms, the fourth one – laboratories, the fifth one – animal quarters, and the sixth one – a hospital chapel [24, p. 23]. The opening ceremony of the Institute of Paediatrics in the new facility was held on 11 December 1965, and the first young patient was admitted on 1 February 1966.

The Institute was characterised by modern and original architecture. It referred to the American functionalism – a popular style in the then architecture, urban planning, and applied arts, the main assumption of which was to highlight the role of the function, which dictated technical elements, such as the structure, materials, as well as the aesthetic values, i.e. the form and detail. The design was based on the concept of the so-called pure architecture – free from excessive subjectivism and traditionalism, the goal of which was most of all to satisfy the needs of a sick child and to blur the line between the art of architecture and engineering, which gave positive results in building hospitals. State-of-the-art materials and technical solutions were applied. We find here large glazing almost freed from the structure of the building. The architect freely designed simple elevations and floor plans of the hospital and created interiors which were neutral in colours and modestly furnished. The author paid special attention to the utilitarian problems of the children's hospital and both external and internal architecture was determined by its function. He avoided the use of many colours that were expressed more by the tinge of the materials that were used.

The shape of the building was based primarily on the grid of straight lines (beyond throw so-called rotunda), which was the result of the parameterization in force and technology that was used. Poray-Biernacki created this way a calm and logical architecture, which had to be subordinated to a functional program adapted to a hospital facility.

The building was created in difficult times, which today is usually associated with “PRL's mediocrity” [22, p. 7–8]. At the time, attempts were made to implement modern architecture, which would, however, correspond to the ideals associated with the imagery of a new society propagated by socialist systems. Efforts to create a new architecture realizing the objectives of functional building and at the same time opening to the future, often encountered major systemic and economic difficulties. A customs description of architectural forms that dominated at that time was carried out by Jerzy Hryniewiecki, tying them with the cycles of 5-year economic plans. The years 1961–1965 was “the dominance of urban design projects that take over the theme of the composition and bring the individual buildings to the



simplest form and purely technical functions, limited by norms and realization capacities” [23, p. 5–34]. Despite the atmosphere of that time, Poray-Biernacki realized the modern hospital facility at world level [22, p. 41–46, 164–170]. However, it must be remembered that his extraordinary ally was constant - substantive and financial – support of the foreign organizational committee – the American Research Hospital in Cracow.

The architect met with recognition both abroad and in Poland. For the design of the Cracow-based hospital, Poray-Biernacki was awarded with the Order of Polonia Restituta, one of the highest orders granted to civilians in Poland [6].

Initially, the location of the hospital was a certain drawback. Situated far from the city centre, it lacked any favourable connections. The tram line terminated in the area of the railway station in Płaszów, and there was no public transport from there whatsoever. With time, the line was extended and it reached Prokocim Stary, but the distance to the hospital was still at least one kilometre. The area was dominated by fields and grasslands, as well as dispersed low-rise residential development. Therefore, at the very beginnings of the existence of the hospital, there was no public transport and no illuminated pavements for pedestrians [30, p. 26–27; 24, p. 24].

Since its establishment, the Institute of Paediatrics functioned not only as a specialised children’s hospital, but also as a state-of-the-art teaching and scientific centre. It developed very dynamically, and as early as in 1971, the construction of another building was launched – it was to house administration and hospital laboratories [25, p. 49]. The new pavilion was put into use in 1974. In the same year, having disbanded the organisational committee, which had played such an important role in obtaining funds for the construction of the hospital, the American government established a foundation: Project HOPE, which ever since then was to manage the funds allocated to its further development and the exchange of medical specialists between the Polish hospital and American centres. One of its first decision was a plan to establish the Children’s Medical Rehabilitation Centre, the construction of which was commenced in 1975. For many subsequent years, thanks to this foundation the entire hospital was provided with e.g. medical equipment and relevant spare parts, as well as medical journals and handbooks for its personnel. The foundation also played a significant role in organising numerous courses and conferences addressed to physicians, nurses, and other healthcare professionals, not only from the Institute of Paediatrics in Cracow, but from the entire territory of Poland [24, p. 23]. With time, individual units of the hospital became more and more specialised. Next clinics and medical teams were gradually separated from the existing structures, such as e.g. the Paediatric Surgery Clinic established in 1967, or the Neonatology Clinic with 38 beds, opened in 1968. The diagnostic possibilities of the hospital were likewise growing constantly. In 1974 a new Electron Microscopy Laboratory came into being, and in 1981 a Lipid Biochemistry and Haematology Laboratory was established [24, p. 23–45]. Simultaneously, efforts were made to improve the quality of the medical care offered in the hospital.

The next stage in the development of the hospital in Prokocim was an agreement signed in 1984 between the Project HOPE Foundation and the Ministry of Health and Social Welfare on the construction of a new Klemens J. Zabłocki Children’s Outpatient Treatment Centre (CALD). The previous one, planned to service 25 thousand appointments per year, was not able to cater for the needs of nearly 100 thousand young patients who came to the existing

outpatient clinic every year. Three years later the construction of a new facility, planned to have the floor area of ca. 19 thousand square metres, was commenced by laying a foundation act on 13 April 1987. The design had been prepared by a Cracow-based architect, Jerzy Urbanik, in collaboration with – among others – Krystyna Łyczakowska, Marta Cierniak, and Krzysztof Dobrowolski [The basic design team included also architects: Adam Mróz, Artur Tatka, Andrzej Zajac]. Przedsiębiorstwo Eksportu Usług Technicznych EXBUD-Kielce was the Main Contractor in the project [25, p. 51].

The postmodern architecture of the new building allowed to observe the way in which theories and solutions developed in the West were confronted with technologies available in the twilight of communism and the dawn of the political transformation, as well as complicated state standards applied in Polish hospital building [12, p. 10–30]. The centre, erected on a rectangular floor plan, had 5 internal patios, adding light to the rooms situated around them. The style was based on concrete blocks, glass slats and structural roof coverings. Staircases were separated from the overall body of the building, in the form of rounded avant-corps crowned with conical roofs and equipped with window openings divided to numerous small, square fields, adding light to the interiors. The main entrance zone was emphasised with a structure the form of which was a reference made to an open portico, crowned with numerous triangular openwork roofs. The largest of them was located above the door opening. Two floors of the building housed the admission room, 35 specialist consulting rooms, 6 diagnostic labs, and a Day Hospital Ward, providing top-quality medical care [12, p. 45–46].

The ceremony opening the first CALD unit, which was the Medical Emergency Treatment Ward, was held on 11 December 1993. It was Poland's first unit which provided 24h-assistance in life-threatening conditions, with full operating and resuscitation facilities, as well as a blood centre and a pharmacy [24, p. 30]. In the same year, the institute along with all the other units of the Medical Academy returned under the wings of the Jagiellonian University, and ever since then was called the Polish-American Institute of Paediatrics, Collegium Medicum. Over subsequent years, it developed further, e.g. in 1995, the construction of a three-floor Transplant Centre was launched.

With time, in 1997, under a decision of the Minister of Health, another change of its organisational structure was introduced. The teaching scientific activities got separated from the medical ones. The Institute became a unit of the Faculty of Medicine, Collegium Medicum, Jagiellonian University, and the medical function was taken over by the Children's Clinical Hospital of Collegium Medicum, Jagiellonian University [24, p. 35; 25, p. 53]. The end of the 1990s also saw the end of the financial support from the Project HOPE Foundation, and the funds for the operation and development of the hospital started to be obtained most of all from the state budget and from independent charities. New wards and medical units, as well as multi-speciality surgical teams, still managed to be established. In 1999, the Radiotherapy Centre was launched, and in 2002 – the Transplant Centre. The Paediatric Burn Centre was established in 2003, the state-of-the-art Neonatal Pathology and Intensive Care Ward started to operate in 2007, and eventually, the new Nutritional Treatment Ward opened in 2008 [25, p. 54–56]. Simultaneously, renovation and modernisation works were undertaken in individual existing units.



In the early 21<sup>st</sup> century, the university hospital had operated already for 35 years. The constant and growingly fast development of medical sciences brought about the establishment of new, highly-specialised hospital wards and laboratories; nevertheless, the existing complex of buildings, despite all the renovation works undertaken, did not provide a proper location for them and its thorough and comprehensive modernisation was becoming more and more imperative.

### **3. Issue of protection and modernisation of the Children's University Hospital in Cracow**

The Children's University Hospital in Cracow was founded at the time when the standards of treatment, and most of all opportunities offered by medicine, were completely different. In the 21<sup>st</sup> century, a properly operating children's hospital stands not only for well-equipped operating theatres and rich diagnostic facilities, but also for safe and functional space, creating favourable working conditions for the medical staff and good healing climate for young patients. Today, the hospital should be adjusted to the contemporary technical and sanitary requirements, but also to the EU regulations. Failure to undertake modernisation works or further delay in this respect may lead to gradual degradation of the existing hospital buildings. For this reason, in 2000, the then management of the hospital, led by Maciej Kowalczyk, brought into being the Hospital Revival Action, which got engaged in – without limitations – diversified marketing and information activities, thanks to which the need to modernise the hospital started to be supported by the then authorities and more and more members of the society.

The stock-taking of the unit carried out at the time revealed that the entire building, apart from the newest part of the Children's Outpatient Treatment Centre (CALD), first of all, requires an urgent renovation, and secondly a thorough modernisation [25, p. 2]. Most of all, the entire hospital infrastructure had suffered natural wear and tear: floors, ceilings, walls, water supply, sewerage, electrical and heating installations. The need of changes was dictated not only by their condition, but also by the more and more restrictive standards in force, to which the facility had to be adjusted so as to make it satisfy the requirements of the contemporary academic hospital management. Simultaneously, the demand for next medical units furnished with the most advanced equipment was constantly growing.

Modernisation of the Operating Block and the Intensive Care Ward was the most urgent. Regrettably, there was always the problem of lack of funds, due to which many new concepts and designs were developed, but none of them was ever implemented. Eventually, an opportunity to obtain a financial support from the European Union and the Ministry of Health appeared. The total amount of the subsidy which was obtained at the time was nearly PLN 50M. The first works conducted by Mirbud were launched on 1 September 2009 [25, p. 5]. In two years' time, in September 2011, the unit was put into use. In 2010 funds were obtained (also from the European Union) for the renovation of the Surgery Ward.

Despite the unquestionable success in the gradual modernisation of the hospital, the pace of the works was so slow that all the necessary investments would take an incredibly long time. Hence the management was making efforts so as to draw up a comprehensive schedule

of modernisation of the entire hospital and to secure the relevant funds. A preliminary design of its reconstruction was developed as early as in 2009 by architect Katarzyna Grychowska, employed at the time by Healthcare Design and Investment Office in Katowice. The programme and spatial concept covered the floor area of ca. 75 thousand square metres and the space of ca. 35 thousand cubic metres [4].

After a period of great efforts on the part of the management of the hospital, with considerable support from the municipal and regional authorities and from the Jagiellonian University, as well as Deputies and Senators of the Republic of Poland, on 24 May 2011 the Council of Ministers approved the Programme of Reconstruction of the Children's University Hospital in Cracow for the years 2011-2016 and allocated PLN 201M to this purpose [25, p. 7]. The investment was planned to be implemented in stages, and its most important assumption was to adjust the facility to contemporary standards and technical requirements, as well as to create better conditions for hospitalisation and treatment of sick children.

It was necessary to reorganise the functions of the hospital so as to make sure that the passageways for hospitalised patients would not intersect with those intended for visitors and for patients of numerous consulting centres of the hospital. It was also planned to separate the access road for ambulances from that for vehicles of the staff and carers, as well to build a helipad on the roof of one of the extended buildings, for patients to be transported to emergency departments. Electrical, water supply and sewerage, heating, and air-conditioning installations were reconstructed in compliance with the contemporary requirements. The hospital wards were provided with a new interior design so as to create favourable conditions for sick children and their guardians.

The order of the modernisation works was dictated by the need to maintain the continuity of the hospital's operation. Such a situation always causes a lot of problems in the activities of such a big medical facility. Therefore, the first stage comprised covering the terraces of the main building in order to provide premises for the administration staff. The previous office space was allocated to the extension of the paediatric wards of the hospital. Next, it was planned to create a new Emergency Department along with a helipad and to reorganise the Children's Outpatient Treatment Centre, which after the completion of the modernisation was to be a place occupied by subsequent wards renovated at the time, located in the 'round building', as well as the 'rehabilitation building'. The last works to be performed were the works relating to the so-called street architecture – the hospital garden, pavements for pedestrians, car parks for the staff and patients, and fencing around the entire area.

Already in 2014, the reconstruction of the building housing a central server room, a technical control room, and a transformer station, was completed, thanks to which the hospital got equipped with a modern electrical network. In 2015 the thoroughly modernised Surgical Ward with 69 beds was open. It was equipped with new furniture and specialist medical equipment, and its internal functional organisation was changed, as well. At the same time, the reconstruction and renovation of the lecture hall, classrooms and offices was completed in the oldest part of the hospital. The renovation covered also the Cardiac Surgery Ward and the Dissecting Room. An additional lift shaft was built in the building of the Children's Outpatient Treatment Centre, which in turn was linked with the renovated



Admission Room. The extension and the renovation of the building housing the new Emergency Department with state-of-the-art medical treatment rooms, a waiting room for the patients, and physicians' rooms along with a locked driveway for ambulances and a helipad, was completed. The hospital pharmacy obtained a completely new look – it got equipped with a state-of-the-art automatic drug preparation system, and so did the kitchen, furnished with the most advanced cooking and food distribution system.

The next in line was the reconstruction and extension of one of the oldest hospital buildings, the so-called 'round building', housing paediatric wards of cardiology, gastroenterology, rheumatology and environmental diseases, oncology and haematology, and nutritional treatment, comprising the total of 200 beds for sick children. The facility was also equipped with a new wing, housing auxiliary and social premises. The investment was crowned with a gala opening of the building held on 23 January 2017. One of the most characteristic and valuable elements of the architecture of the hospital received a new life and became more functional and friendlier for the patients and the staff.

Since ca. 2011 to 2017, paediatric wards with nearly 300 beds for patients were renovated, and additional floor surface of ca. 1000 square metres was obtained and allocated to new medical treatment rooms, physicians' rooms, offices, utility rooms, and – most importantly for the patients – play and education rooms for children, as well as rest and refreshment rooms for their guardians, and a new Emergency Department with a helipad. All this was the result of the first stage of the modernisation of the Children's University Hospital in Cracow-Prokocim completed in the beginning of 2017. The entire modernisation is (re)planned to be completed by 2018 [Initially the modernisation of the hospital was to be completed by 2016].

The modernisation of the children's hospital is still in progress. The management succeeded in obtaining another PLN 9M from the EU funds for the launch of a new Traumatology Centre, which is to be one of twelve centres of the kind to be opened in Poland. First, six such centres will be launched, and the one in Cracow will be one of them. For the centre to be opened, it is necessary to have a helipad, the most advanced diagnostic equipment, and trauma teams on duty 24h a day – groups consisting of e.g. an emergency medicine specialist, an anaesthetist, a general surgeon, an orthopaedist, and a neurosurgeon. The hospital in Cracow satisfies these conditions, and the money from the Ministry of Health and the European Union will be used to organise a seat for the new unit and to purchase state-of-the-art medical equipment necessary for it to operate [5].

Thanks to the funds obtained both from the state budget and from the EU, and thanks to the support of many foundations, so far more than a half of the hospital has been modernised, which in fact stands for a new life for this facility. The former hospital buildings no longer satisfied the requirements which have to be fulfilled by such facilities, and due to the more and more rapid development in medical sciences, this specialist university unit, which combines therapeutic functions with those relating to the education of future physicians and medical staff, faced new challenges.

In case of former valuable complexes, which the Children's University Hospital in Cracow undoubtedly is, the revitalisation process is particularly important. The hospital had to be revived by adjusting its oldest buildings to the requirements posed by the contemporary

hospital management and introducing to their interiors modern functional systems and the most advanced equipment. Both these measures called for considerable changes in the spatial structure of the entire hospital. The reconstruction and extension of its hospital buildings could be regarded as successful modernisation projects or simple renovation measures, depending on their scale. However, one question remains: how far can we go in our interference with the structure of the facility so as not to deprive it of its initial value?

Considering the fact that there is no valid precise list of assets of the contemporary culture, comprising all important examples of hospital architecture from the second half of the 20<sup>th</sup> century, only preservation maintenance seems to be an effective form of protecting these facilities against too far-fetched changes and transformations. On the other hand, the experience of recent years shows that valuable hospital buildings erected after the war – if they want to maintain their therapeutic activities – more and more often are subjected to intensive transformations, which result from necessary comprehensive modernisations. Due to their specific characteristics, hospitals are particularly sensitive to all sorts of ‘renewals’ which are to adjust them to the needs of the contemporary hospital management.

Summing up, valuable hospitals erected in the difficult period of communism in Poland, and the Children’s University Hospital in Cracow among them, as assets of the contemporary culture should be covered with relevant protection the areas of which must be, however, specifically determined. In case of some facilities, such protection could cover only their most valuable elements. In case of complexes of buildings or urban and landscape projects, it is necessary to demarcate limits of the area which is to be protected, although it may turn out that the entire area should be protected instead. In order to make sure that such measures will be effective, it is necessary not only to precisely determine the limits of this protection, but also to support it with a detailed analysis of the values to be protected. The criteria for assessment of these values should be based on the definition of - first - artistic values representing original artistic solutions, creatively addressing contemporary stylistic tendencies in architecture - second - uniqueness and innovativeness in creating architectonic and spatial, or technological solutions - thirdly - novelty in realizing projects - fourthly - historical significance through e.g. an eminent artist or an outstanding document of the epoch [29, p. 7–14; 15, p. 38–50].

Under no circumstances, however, should the existing valuable tissue be destroyed, and all new additions should be combined with it in a collision-free way. It is very important to protect the authenticity of an object when over time it undergoes changes unforeseen by its creator. The Children’s University Hospital in Cracow has specific function and form, was created with specific materials, technologies and construction methods. Preservation of the authenticity is equivalent to the conservation of characteristics comprising the object’s existence. The individual features differ in their significance, and the loss of some of them doesn’t endanger the integrity of the entire object [14, p. 79–90].

Skilfully conducted modernisation measures in Prokocim’s hospital additionally provide its users with an opportunity to get closer to the history of hospitals. They provide a chance to protect a valuable building, to develop a common urban space, and to transform it so as to make it satisfy the needs of the community that uses it. Pragmatism, but also the creativity of such decisions, foster the creation of a balance between the application of the most



advanced material-related and technological solutions, and the need to protect the identity of the building, which is a part of our cultural heritage.

Nowadays hospital architecture should draw inspiration from its long traditions, as well as from the latest achievements of science and technology. On the one hand, it should search for new patterns of shaping space – its functions and forms, and on the other hand, it should adapt and modernise former concepts based on recognised and proven canons. It should constantly follow the transformations in medicine, but at the same time, it should become architecture which is more and more friendly for a sick person, whose sense of well-being fosters the healing process.

Undoubtedly, the atmosphere of the hospital space has its effect on its users. It should be a healing space at all levels: mental, spiritual, and physical, and architecture and interior design influence each of them [16]. Reduction of the patient's sense of alienation and stress, boosting their satisfaction with professional treatment, and promotion of the healthy lifestyle should constitute a priority in designing the new and modernising the existing health architecture, the best example of which are the aforementioned measures undertaken in the Children's University Hospital in Cracow.

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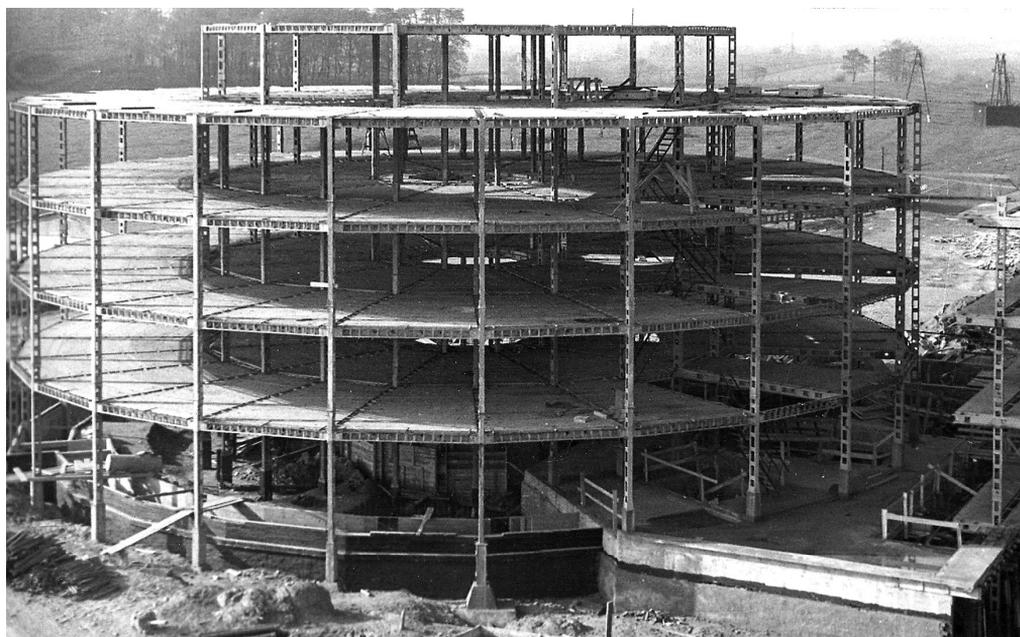


Fig. 1. The Children's University Hospital in Cracow, archival photography of the construction of the hospital, 04.11.1962 (source: Archive of the Children's University Hospital in Cracow)



Fig. 2. The Children's University Hospital in Cracow, archival photograph of the construction of the hospital, 31.05.1965 (source: Archive of the Children's University Hospital in Cracow)



Fig. 3. The Children's University Hospital in Cracow, view of the Children's Outpatient Treatment Centre (CALD) from beginning of 90. and the oldest part of the hospital after renovation and modernization (photo by E. Waszczyszyn, 20.04.2017)



Fig. 4. The Children's University Hospital in Cracow, the entry to the Children's Outpatient Treatment Centre (CALD) (photo by E. Waszczyszyn, 20.04.2017)

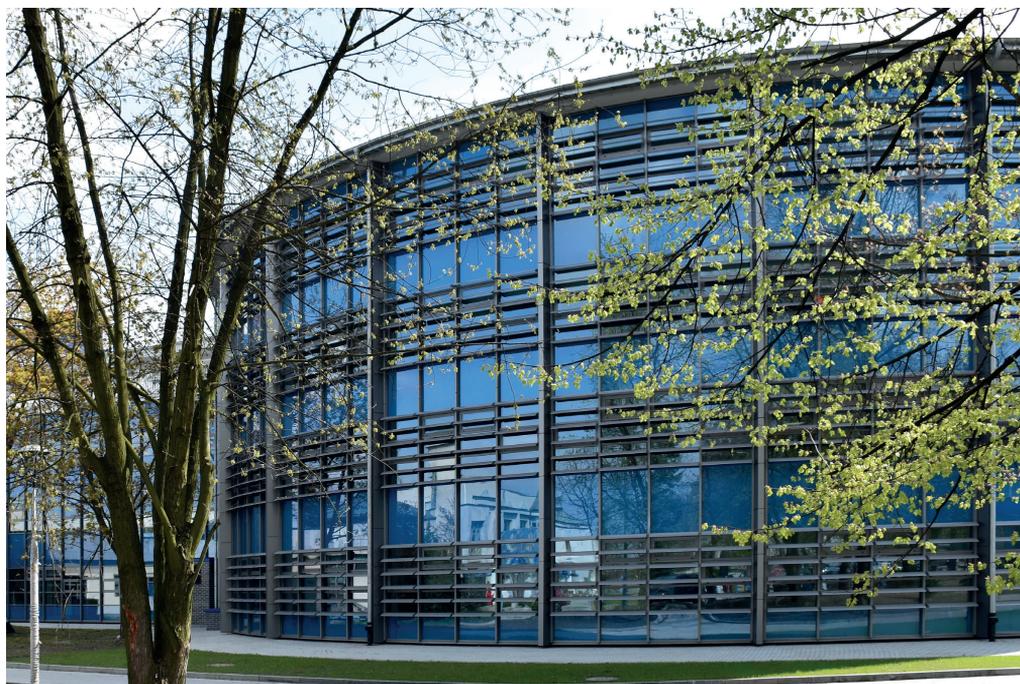


Fig. 5. Children's University Hospital in Cracow, view of the oldest part of the hospital after renovation and modernization (photo by E. Waszczyszyn, 20.04.2017)



Fig. 6. Children's University Hospital in Cracow, view of the oldest part of the hospital after renovation and modernization, window detail (photo by E. Waszczyszyn, 20.04.2017)



Fig. 7. Children's University Hospital in Cracow, view of the oldest part of the hospital after renovation and modernization and after covering of the terraces of the main building (photo by E. Waszczyszyn, 20.04.2017)



Fig. 8. Children's University Hospital in Cracow, view of the expanded part of the oldest part of the hospital after renovation and modernization (photo by E. Waszczyszyn, 20.04.2017)



Fig. 9. Children's University Hospital in Cracow, view of the interior of the oldest part of the hospital after renovation and modernization, hospital corridor (photo by E. Waszczyszyn, 20.04.2017)



Fig. 10. Children's University Hospital in Cracow, view of the interior of the oldest part of the hospital after renovation and modernization, rest area for sick children (photo by E. Waszczyszyn, 20.04.2017)