

# Architectus

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## The role and scope of architectural and conservation research procedures in the process of restoring the splendour of an architectural monument created after 1945 on the example of the Suburban Railway Station in Gdynia

#### Introduction

Gdynia Suburban Railway Station was built in the 1950s (1956–1959) as one of the two buildings belonging to the post-war railway station complex (1950–1959). As a result of intensive use, lasting 50 years, the railway station buildings at the beginning of the 21st century were very worn-out, which was especially visible in the station's public utility interiors. The deterioration in the functional and aesthetic values was influenced not only by the neglect or destruction of the heritage asset but also by the numerous transformations. They took place both in terms of space (additional separations introduced in communication routes) and functionality (changes in the purpose of individual parts of the station) [1], [2, pp. 340, 341]. Poor technical condition, problems with ensuring the appropriate standard of the degraded substance and the common sense of the lack of obvious historic values of the complex resulted in the creation in 2006 of the concept of its partial demolition. Instead, the construction of a modern railway station connected with a shopping mall in its place was proposed. In 2007 the complex was included in the entry of the urban layout of the city centre of Gdynia into the register of monuments [3], however, this did not guarantee full protection of the rich equipment and interior design of the station's public interiors. To prevent the destruction of the historic station, research and development work aimed at documenting the resource,

the state of its preservation and assessment of the cultural potential began [4], [5]. This allowed the Gdańsk Provincial Inspector of Monuments (Pomorski Wojewódzki Konserwator Zabytków – PWKZ) to decide in 2008 to establish legal protection through an entry in the register of monuments [6]. In this case, the conservation protection of the railway station complex not only drew awareness to historic values of the building, but also emphasized the role of architecture in the 2<sup>nd</sup> half of the 20<sup>th</sup> century since it was the first entry in the register of a building erected after World War II in the city. There was no doubt that the railway station's historic complex continues the patterns and architectural traditions of Gdynia.

In 2010–2012, a thorough reconstruction was carried out, along with the renovation of the interior of the main part of the Gdynia station complex and the arcaded connector<sup>1</sup>. They were preceded by a series of research works aimed at defining the conditions for the revalorization of the entire railway station [8]–[10]. The renovation and conservation works carried out at that time brought about new scientific discoveries regarding the details and artistic works left in the building of the Main Railway Station [11]–[13]. However, renovation works did not cover the

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<sup>&</sup>lt;sup>1</sup> The renovation of Gdynia's railway station has diametrically changed the public opinion's attitude towards the accuracy of the decision to protect its historical values. This is evidenced by the survey conducted in June 2012 by the regional internet portal Trójmiasto.pl. To the question asked *Are you satisfied that the Gdynia railway station has been renovated*? readers (1,456 respondents in total) answered: 82% Yes, it's good that its character has been preserved, 10% I would prefer a new building, but it must be admitted that it turned out quite well, 8% No, the old one should be demolished, and a modern building could be erected in its place, which would become a building for the 21<sup>st</sup> century [7].



Fig. 1. The building of the electric railway station in Gdynia, also known as "suburban". View of the façade on a postcard from ca 1960 (photo by K. Woźniczko, Publishing House "RUCH")

 Il. 1. Budynek dworca kolei elektrycznej w Gdyni zwany też "podmiejskim". Widok fasady dworca na pocztówce z około 1960 r. (fot. K. Woźniczko, Wydawnictwo "RUCH")

building of the Suburban Railway Station<sup>2</sup>. The preparatory procedure for the major renovation of a part of the Suburban Railway Station planned for 2022–2023 has become an opportunity to apply specific research methods at the stage preceding the construction project and during its preparation. The article aims to present the procedures used in the development of architectural and conservation documentation for the renovated building of the Suburban Railway Station in Gdynia.

#### Brief history of the Gdynia station complex

The station building complex consists of two buildings – a long-distance station and an electric railway station (Fig. 1), as well as a passage connecting them. The creator of each station buildings was a different outstanding architect. Even though they belonged to different generations of artists, they both designed in the spirit of Modern Movement. The first of them – Wacław Tomaszewski<sup>3</sup> – started

His scientific achievements include the analysis of the needs of railway stations on the example of the railway station in Gdynia (linking his designing activities in the interwar period to leave behind many Gdynia public buildings. His student and associate – Lech Zaleski<sup>4</sup> – took over the mission of his teacher after the war, designing other buildings important for the city in the form of modernism. The master and the student were united by one architectural work – the complex of *Gdynia main station*.

Gdynia Główna railway station, built after World War II, was not the first station in Gdynia in this location. In the interwar period, one facility served as a long-distance and local (suburban) station. It was a railway station designed by Romuald Miller and was constructed between 1923 and 1926. The building was kept in historical forms and referred to the features of Polish architecture combined with regional Pomeranian accents [15, pp. 86, 87]. During the liberation fights at the end of March 1945, the station was set on fire. The provisionally rebuilt building was put into temporary use as early as in 1946, and then a decision was made to demolish it to the basement level [16, p. 16], [17].

The design of a new, larger station was entrusted to Wacław Tomaszewski, an experienced architect, professor at the Faculty of Architecture of the Gdańsk University of Technology and initiator of the Polish school of ship architecture. The construction of the station was carried out in stages, initially, the right wing with the central part of the building was opened (1954), and the following year the rest of the main station building (July 22, 1955)<sup>5</sup>.

In the next stage (1956–1959), the Suburban Railway Station (Fig. 2) and a connector enabling the passage between the station buildings were built using the roof supported by double pillars. The construction of a detached suburban station was related to the idea of improving the service of local rail traffic connecting a group of three cities: Gdańsk, Sopot and Gdynia with the use of electric trains<sup>6</sup>. The completion in 1956 of works related to the construction of the tracks on the sections meeting at the Gdynia Główna Railway Station<sup>7</sup> opened the way for the

<sup>5</sup> The restaurant hall was fully equipped and finished in the form of richly painted decorations only in 1957.

<sup>6</sup> The rolling stock powered by direct current (DC) with a voltage of 800 volts, coming from the Berlin city rail line (*Berliner Stadtbahn*), is designed to handle the passenger movement of SKM in the Tri-City. It was a total of 189 wagons (belonging to three series: ET165, ET166 and ET167) obtained as war reparations [15].

<sup>7</sup> For this purpose, a pair of tracks was designed to run parallel to the existing long-distance lines. The electric line on the section Orłowo – Gdynia Główna was opened on May 1, 1954, and from the Gdynia Główna station to Gdynia Chylonia – on January 15, 1956 [16, p. 23].

<sup>&</sup>lt;sup>2</sup> Individual buildings belonging to the Gdynia Główna railway station complex are operated by various companies of the PKP Group. The entity responsible for the building of the Suburban Railway Station is PKP Szybka Kolej Miejska w Trójmieście sp. z o.o., while the building of Gdynia Główna Railway Station – Polskie Koleje Państwowe S.A.

<sup>&</sup>lt;sup>3</sup> Wacław Tomaszewski (1884–1969) lived and designed in Gdynia from 1928, where he designed a number of residential buildings (villas, tenement houses), administrative and industrial buildings. Some of them are: 1928 – design of the complex of buildings of the School of Maritime Trade and Port Technology and the State Maritime School, 1929 – design of the superstructure and façade decoration of the building of the State Meteorological Institute and the design of the Sailor's House, 1933 – design of the Fruit Auction warehouse in the port of Gdynia, 1935 – design of an office building for the *Bergenske* company, 1936 – design of a residential and office building for the company *Gdynika Maklerzy Ubezpieczeń Morskich*, 1938 – design of the building of The Court of Arbitration at the Gdynia Cotton Association. After World War II, he worked at the Port Reconstruction Office and at the Gdańsk University of Technology, where he was a professor.

the function of the station with the city, especially with the port) and the study of the possibilities of architectural solutions in the art of shipbuild-ing [14, p. 22].

<sup>&</sup>lt;sup>4</sup> Lech Zaleski (1928–1988) worked in the Department of Designing Ports and Przymorze GUT and the Maritime Construction Design Office in Gdańsk. He was a professor at the Gdańsk University of Technology, and in the years 1983–1985, he was the dean of the Faculty of Architecture. From 1987–1988 he was the president of the District Board of the Association of Polish Architects in Gdańsk. Among his architectural realizations in Gdynia are: 1958 – design of the extension of the unfinished Marine Station into the function of the Gdynia Aquarium, 1962 – design of the Gdynia Harbor Master's Office (co-author Janina Roszak), 1965 – design of the boarding house of the National School of Sea Fishing, 1973 – design of the Gdańsk Shipping Passenger Station in Gdynia (co-author: Stanisław Dopierała).



Fig. 2. The new building of the electric railway station in Gdynia under construction, 1958 (KFP) (photo by Z. Kosycarz)

II. 2. Nowy budynek dworca kolei elektrycznej w Gdyni podczas budowy, 1958 (KFP) (fot. Z. Kosycarz)



Fig. 3. The Suburban Railway Station in Gdynia shortly after opening the station in 1959 (KFP) (photo by Z. Kosycarz)

II. 3. Dworzec Podmiejski w Gdyni niedługo po otwarciu w 1959 (KFP) (fot. Z. Kosycarz)

construction of the Suburban Railway Station building. This project was entrusted to an architect of the young generation, only 27-year-old at the time – Lech Zaleski, involved by Professor Tomaszewski in earlier works on the Gdynia Główna Railway Station project.

The shape of the new building fit perfectly into the composition of the entire complex. The ground floor was planned as follows: a spacious checkout hall with a tunnel passage to the platform, a quick service bar ("WARS"), sanitary facilities, and small service points. The 2<sup>nd</sup> floor has been dedicated to a cinema room and a common room for young people. Since the construction of the originally planned large cinema was abandoned, the entire upper floor with the terrace was finally designed as an elegant café. The PKP Restaurant "ORBIS" was established there, as it was then said, "the largest cafe in Gdynia, with a hundred tables, of the highest lux category". The opening of the Suburban Railway Station in Gdynia took place in April 1959 (Fig. 3).

# Architecture and construction of the Suburban Railway Station

Focusing on the architecture of the Suburban Railway Station proposed by Zaleski (Figs. 4, 5), the front of the building introduces a curvilinear entry theme where upper storey got the stepped retraction. The lower, more protruding level conceals the entrance arcade, supported by four pairs of round columns. There are three radially situated entrances with a common vestibule. The arcade was designed along the contour of the entire front elevation. Its layout is emphasized by the full terrace balustrade on the upper floor. The recessed, semicircular part of the building is flanked by lower, rectangular side wings. The horizontal composition was clearly broken by five vertical windows arranged in the central cylinder part of the body. In the axis of the semicircular part there is a top in the form of a raised cornice supported on simple consoles, with a decorative element below - the clock's oculus on a square background, which is clearly a nod to the architecture of the main railway station building. The façade elements and details were accentuated with a smooth plastered mesh painted in a lighter color with a grid of vertical and horizontal grooves – rustication, marking the articulation of the walls. Interestingly, unlike the modernist public buildings of Gdynia erected in the 1930s, which used reinforced concrete, the station building was built using traditional technology. External and internal walls are made of brick, Ackerman's multi-rib ceilings and monolithic reinforced concrete ceilings with profiled gypsum soffit.

Both the elevations and the interiors of the Suburban Railway Station building were solved with great attention to the quality of the art solutions. Zaleski used a similar set of decor elements as Professor Tomaszewski at the Main Railway Station. These were, for example, coffered ceiling decorations with the use of indirect light, a corresponding floor composition made of multi-coloured stone slabs, wooden cladding on walls and pillars, lamellar radiator casings, fittings for cash desks, retail outlets, and many others. However, they are characterized by a much more moderate style than the building of the main railway station (Fig. 5). This can be associated both with the different preferences of the architects behind the projects, as well as with the time at which each of the projects was created and carried out. It should be borne in mind that from the mid-1950s onwards, the rigorous rules outlined by the socialist realism in force in Poland from 1949 were loosened. Even though the complex was created in the period marked by this doctrine, the architecture of the station buildings, is in the first place an example of the pre-war design experience of the main architect - Wacław Tomaszewski. He used typical for his previous works modernized historical forms which correspond perfectly to the times of the postwar railway station. Quoting Anna Cymer, Tomaszewski [...] modified the imposed aesthetics of socialist realism in his original way, creating an elegant building with rhythmic divisions and classic detail [18, p. 85]. The architecture of the second building - the Suburban Railway Station



Fig. 4. Front elevation (south-east) of the Gdynia Główna Suburban Railway Station, June 2022 (before the start of restoration works) (photo by A. Orchowska-Smolińska)

II. 4. Elewacja frontowa (południowo-wschodnia) budynku Dworca Podmiejskiego Gdynia Główna, czerwiec 2022 (przed rozpoczęciem prac rewaloryzacyjnych) (fot. A. Orchowska-Smolińska)

– clearly shows the intention to continue the master's creative contribution in parallel with the desire to simplify the form and move towards modernity.

Although, as Robert Hirsch rightly wrote, *The modest solids of the railway station buildings hide an exceptionally rich interior design, somewhat historicizing in character, but full of individual details* [2, p. 339], it is thanks to the restrained architectural form of the solids that the station complex has perfectly fit into the architectural language of Gdynia. By using the fragmentation of solids characteristic of modernism, a contrast of cubic and cylindrical forms, flat roofs and expressive geometric articulation, the architects continued the patterns of local architecture that emerged in the heyday of modernism, initiated in the 1930s.

#### Earlier state of research

The Suburban Railway Station in Gdynia is part of a larger station complex - Gdynia Główna, therefore this monument and the aspects of its conservation should be considered in the broader context of the entire building complex. For the first time, the architectural values of the post-war Gdynia Railway Station were noticed in the mid-1990s. At that time, an article by Dr. Eng. arch. Marek Stepa appeared, presenting the station in the context of the heritage of technology [19]. In the description of the catalogue of historical railway facilities located in the city of Gdynia prepared in 2002 by the Pomorskie Towarzystwo Miłośników Kolei Żelaznych [Pomeranian Society of Iron Railway Enthusiasts], we can read the recommendation to put a dozen or so of the most valuable buildings under conservation protection, including the Gdynia Główna Railway Station [16]. The first conservation recognition



Fig. 5. Side elevation (north-east) of the Gdynia Główna Suburban Railway Station, June 2022 (before the start of conservation work). Visible, clear references to the shapes of vessels typical of the architecture of the interwar period (hull, ship's superstructure, decks, sides and rails) (photo by A. Orchowska-Smolińska)

II. 5. Elewacja boczna (północno-wschodnia) budynku Dworca Podmiejskiego Gdynia Główna, czerwiec 2022 (przed rozpoczęciem prac konserwatorskich). Widoczne czytelne odwołania do charakterystycznych dla architektury Gdyni okresu międzywojennego kształtów jednostek pływających (kadłub, okrętowa nadbudówka, pokłady, burty i relingi) (fot. A. Orchowska-Smolińska)

of the value of the railway station complex was carried out in 2006 as part of the procedure for entering a monument into the register of monuments. At that time, as a result of the preliminary historical evaluation, the study entitled Główny Dworzec Kolejowy w Gdyni. Rozpoznanie architektonicznokonserwatorskie zespołu budynków [The Main Railway Station in Gdynia. Architectural and conservation reconnaissance of the complex buildings] [4] was created. The premise of this study was to identify basic attributes of the monument, pre-determine the state of its preservation, and also indicate elements that cause disharmony and degrade the historic structure of the station. The following year, at the request of the City Conservator of Monuments in Gdynia, a monument record (inventory) was drawn up, presenting the architectural concept and rich decor of the Gdynia Railway Station [5]. Based on the previous knowledge about the railway station complex in Gdynia and field research carried out in 2008, the first large research project concerning the station complex in Gdynia was carried out. As a summary of the project, Wytyczne konserwatorskie rewaloryzacji Dworca kolejowego Gdynia Główna [Conservation Guidelines for the revalorization of the Gdynia Główna Railway Station] [8] were prepared, which became the basis for the development in 2009 of Program prac konserwatorskich zespołu budowli kolejowego Dworca Głównego w Gdyni [The programme of conservation works for the Railway Station complex in Gdynia] [9]. The research conducted at that time was a preparatory stage for the implementation of the investment by the company PKP Dworce Kolejowe under the name of Reconstruction of the Gdynia Główna railway station complex (2010–2012). Even though the restoration works did not cover the building of the Suburban Railway Station, the types and scope of conservation works

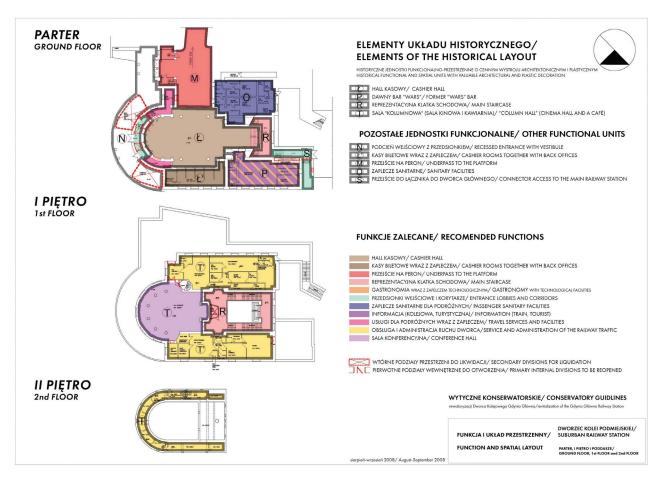


Fig. 6. Conservation guidelines for the renovation of the Gdynia Główna Railway Station related to the building of the Suburban Railway Station. The initial decisions and indications concerning the historical revalorization of the substance of the station building, 2008 (source: [8]). Explanations: Maintenance guidelines – function and spatial arrangement. Elements of historical layout (functional and spatial units with a valuable architectural and/or artistic design: Ł, P, R, I, N, Ł, M, O, S). Recommended functional program and secondary divisions of space to be liquidated and primary arrangement to be restored (elaborated by A. Orchowska-Smolińska)

 II. 6. Wytyczne konserwatorskie rewaloryzacji Dworca Kolejowego Gdynia Główna w odniesieniu do budynku Dworca Kolei Podmiejskiej. Wyjściowe decyzje i wskazania w odniesieniu do rewaloryzacji historycznej substancji budynku dworcowego, 2008 (źródło: [8])
 Objaśnienia: Wytyczne konserwatorskie – funkcja i układ przestrzenny. Elementy historycznego układu (zespoły funkcjonalno-przestrzenne o wartościowym projekcie architektonicznym i/lub artystycznym: Ł, P, R, I, N, Ł, M, O, S). Zalecany program funkcjonalny i drugorzędne podziały przestrzeni do likwidacji i pierwotny układ do przywrócenia (oprac. A. Orchowska-Smolińska)

undertaken then, became the basis for further research work for Suburban Railway Station (SKM) building. They have been listed in the *Dokumentacja prac konserwatorskich wykonanych w ramach projektu Przebudowa Kompleksu dworcowego Gdynia Główna* [Documentation of conservation works carried out as part of the project – Reconstruction of the Gdynia Główna railway station complex] [12].

#### **Research method used**

Since the establishment in 1988 of the International Working Party for the Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement, called Docomomo for short, the mission of preserving modernist monuments has focused on the issues of documentation and protection of works of architecture of the modernist movement. Using the research philosophy promoted by this organization, as well as using numerous experiences from the conservation work of modernist buildings<sup>8</sup>, including mainly the revalorization of the Main Railway Station carried out in 2010–2012 [12], [13], the principles adopted in the conservation of the historic building of the Suburban Railway Station were developed. The following were adopted as the basic principles: (1) placing special emphasis on detailed research on the object undergoing restoration works, (2) meticulous documentation, reading and understanding of the designer's intentions, (3) delaying the history of the construction of the object, taking into account the time and circumstances of its construction, (4) learning the history of the building's use, (5) determining the future func-

<sup>&</sup>lt;sup>8</sup> The dilemmas related to the adaptation of objects of the Modern Movement were discussed and analyzed by researchers, historians of architecture and practitioners of conservation of modernist buildings. All sort of problems conservators have to deal with were presented, among others by Wiek Röling [20], Luc Verpoest [21], Małgorzata Omilanowska [22], Bogusław Szmygin [23]. Scientists agree that modernist buildings require a very individual approach during research and conservation work.

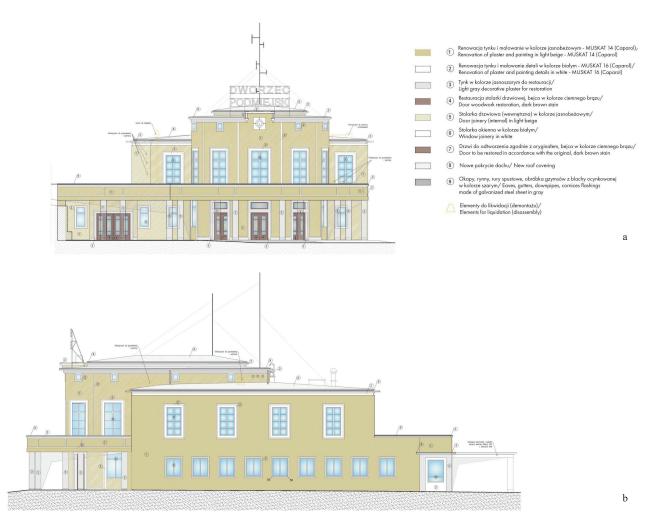


Fig. 7. Concept for the renovation of the façade of the suburban railway station building in Gdynia, 2016: a) front elevation (south-east), b) side elevation (north-east) (source: [20], [21])

II. 7. Koncepcja rewaloryzacji elewacji budynku dworca podmiejskiego w Gdyni, 2016: a) elewacja frontowa (południowo-wschodnia), b) elewacja boczna (północno-wschodnia) (źródło: [20], [21])

tional program recommended from the point of view of the history of the object, or (6) determining conservation recommendations and warranted interventions.

Considering the above, the functional recommendations developed in 2008 for the historic building of the Suburban Railway Station (Fig. 6), which is part of the Gdynia Główna railway station complex [8], became the basis at the stage of detailed research and preparation of implementation projects. Research and design works related to the renovation of a part of the suburban station were carried out in 2016 and 2021<sup>9</sup> at the request of the investor as part of the process preceding the renovation and modernization works (Fig. 7). The initial design stage consisted in elaborating a design concept, the essential part of which was the development of the utility program for the station building.

**Stages of research and design activities** during the development of the renovation project of the Suburban Railway Station in Gdynia were carried out in the following sequence: (I) Documentation and research of the resource, (II) Conservation assumptions for the renovation of the building, (III) Functional and spatial concept for the modernization of the building, (IV) Conservation research, (V) Program of conservation and restoration

<sup>&</sup>lt;sup>9</sup> The investment under the name of *Construction of an integrated* safety monitoring and information management system on railway line No. 250 along with the modernization of the building of the Suburban Railway Station in Gdynia and the SKM platform, commissioned by PKP Szybka Kolej Miejska w Trójmieście sp. z o.o., and implemented by T4B sp. z o.o. and MAXTO Technology sp. z o.o. The ARCH-DECO sp. z o.o. was responsible for the design documentation. The research process was conducted in 2016 by A. Orchowska-Smolińska on the basis of which Założenia konserwatorskie do rewaloryzacji budynku dworca kolei podmiejskich w Gdyni [Conservation assumptions for the revalorization of the suburban railway station building in Gdynia] [24] were

developed and then Koncepcja funkcjonalno-przestrzenna modernizacji budynku Dworca Podmiejskiego Gdynia Główna [Functional and spatial concept for the modernization of the Gdynia Główna Suburban Railway Station building] [25] by architects from ARCH DECO. In 2021, research work was continued in the team of A. Kriegseisen and A. Orchowska-Smolińska who developed Program prac konserwatorskich i restauratorskich. Budynek Dworca Podmiejskiego Gdynia Główna [Program of conservation and restoration works. The building of the Gdynia Główna Suburban Railway Station] [26].

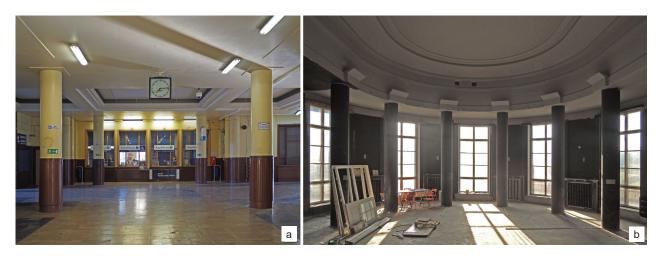


Fig. 8. The interiors of the Gdynia Główna Suburban Railway Station, 2021/2022 (before the start of conservation works): a) view from the passage to the platform towards the cash desk, on the ground floor, b) the column hall on the first floor of the station building (photo by A. Orchowska-Smolińska)

II. 8. Wnętrza Dworca Kolei Podmiejskich Gdynia Główna, 2021/2022 (przed rozpoczęciem prac konserwatorskich): a) widok z przejścia na peron w kierunku hallu kasowego, w części parterowej, b) sala kolumnowa na piętrze budynku dworcowego (fot. A. Orchowska-Smolińska)

works and (VI) Detailed design for the modernization of the historic building.

Procedures aimed at restoring the splendour of the historic complex of the Gdynia Główna Railway Station and the Suburban Railway Station began with listing historical functional and spatial units with valuable architectural and artistic decorations and formulating recommendations related to the utility program. The study was supplemented with indications of ahistorical elements, disharmonizing the historical structure, along with the guidelines for restoring its integrity. These were the secondary divisions of the space to be liquidated, as well as the changed original layouts to be opened<sup>10</sup>.

For the protection of the historic SKM Station, an important issue is **the maintenance of the authenticity** of its original architectural form, details, and finishing materials. It is these elements that are the carriers of the historic values of the building in the case of the architecture of the modernist period and more recent. The protection covers the architectural form of the building, the form of the façade and architectural detail, the layout and size of window and door openings as well as the building's structural layout. Therefore, the guidelines for restoration work for the façade of the station defined the instructions regarding individual elements<sup>11</sup>.

The conservation assumptions of the Suburban Railway Station restoration project were formulated concerning the actions and solutions necessary to be implemented as part of maintaining the integrity of the body and façade composition, required to obtain the functional and utility conditions of the building, as well as the rules of conduct in relation to the layout, elements of equipment and interior design. Despite the numerous previous reconstructions of the station building, the spatial layout of the main interior of the public utility - the main hall connected with a representative staircase, remained clear in its basic functional solution (Fig. 8). The initial guideline of the railway station restoration project was the preservation of the original functional solution along with the restoration of the spatial layout elements that have lost their legibility. The developed principles of introducing new functions to the space inside the station building assumed the adjustment of each of the adaptation plans to the following guidelines: (1) obligatory preservation of the integrity of the public space in the suburban station hall, without introducing any additional divisions, (2) preservation of all permanent elements of the historical interior design and (3) adjusting the newly designed elements to the historical composition, layout and style of the interiors, leaving a clear distinction between new and historical elements.

**Detailed conservation guidelines** for the restoration of the Suburban Railway Station were based on the preservation of the historical architectural form of the building and restoration of the full integrity of the substance elements. This, in turn, has been deprived of it as a result of transformations, improper use or neglect in the current maintenance of proper condition. Particular attention was paid to the nature of the historic building and all elements of its equipment and decor. It was necessary due to the specificity of the architecture of socialist realism and post-war modernism, including the characteristic aesthetic and material solutions used in that period. Standard

<sup>&</sup>lt;sup>10</sup> Scientific research became the basis for the detailed design (Executive design) *Modernizacja budynku Dworca Podmiejskiego w Gdyni oraz peronu SKM na stacji Gdynia Główna* [Modernization of the building of the Suburban Railway Station in Gdynia and the SKM platform at the Gdynia Główna station] developed by architects from the ARCH DECO [27].

<sup>&</sup>lt;sup>11</sup> It is worth noting that the archival documentation of the building is only fragmentary. For the building erected relatively recently, only single inventory drawings made by the Student Work Cooperative TECHNO SERVICE in the 1980s are available [28]. Nevertheless, they fully confirm the image of the façade obtained during the research before they were subjected to the most radical transformations in the 1990s.

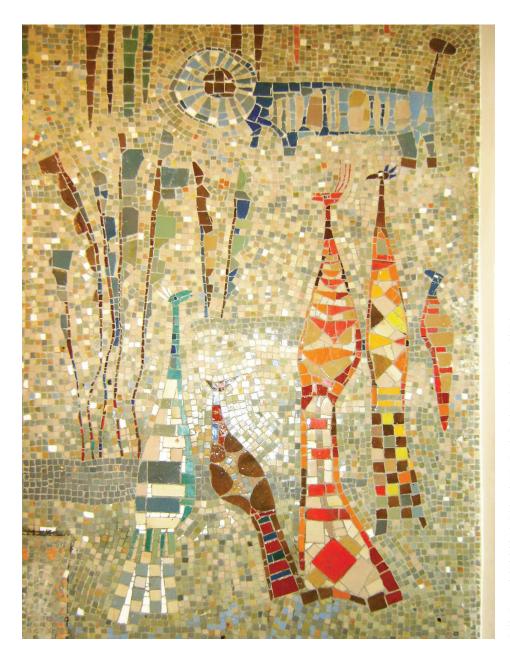


Fig. 9. The only wall mosaic made of glass tiles preserved in the interiors of the Gdynia Główna Suburban Railway Station. Designed by Teresa Pągowska mosaic depicting fantastic animals is hidden in the former "WARS" fast food bar (room currently inaccessible to the public), 2016 (photo by A. Kriegseisen)

II. 9. Jedyna mozaika ścienna wykonana ze szklanych płytek zachowana we wnętrzach Dworca Kolei Podmiejskich Gdynia Główna. Zaprojektowana przez Teresę Pągowską mozaika przedstawia fantastyczne zwierzęta, "ukryta" jest w pomieszczeniu dawnego baru szybkiej obsługi "WARS" (obecnie pomieszczenie jest niedostępne publicznie), 2016 (fot. A. Kriegseisen)

conservation documentation was prepared for this building in a simplified form, treating it as contemporary architecture, therefore with uncomplicated conservation issues. In these relatively recent buildings such as railway station complex in Gdynia, however, historical inquiry and detailed analysis of transformations were extremely important.

Both buildings have a common feature – careful design of expressive interiors using relatively cheap and ordinary finishing materials. That is plywood, wood-like furniture veneers, domestic limestones – "Morawica", "Bolechowice"<sup>12</sup>, as well as decorations using various paint coatings and made with stucco methods. In the so-called column hall, for example, the columns were finished with gypsum plaster and covered with paint, which was then polished. The colour of the coating matched the colour of the large window sills. These, in turn, were made of limestone plates from "Morawica".

In both station buildings, there are wall decorations in the form of mosaics. In the SKM building, a mosaic depicting fantastic animals is hidden in the room of the former "WARS" fast food bar. The display of mosaics in the public parts of the Main Railway Station after conservation works did not cause any problems. However, the decision not to restore the function of the gastronomic rooms in the SKM Railway Station meant that they will not be displayed to the public at present (Fig. 9).

Particular attention should be paid to the details of equipment and decor in the revitalization activities. It is impossible to present them all in this article, but it is worth focusing on the chosen ones. Important elements designed

<sup>&</sup>lt;sup>12</sup> "Morawica" limestone is one of the most popular and most frequently used varieties of the Świętokrzyskie marble in the last century. This variety, geologically representing Upper Jurassic limestones, was commonly used for floors, wall cladding and window sills in the Polish construction of the 20<sup>th</sup> century. The stone from the Bolechowice deposits is a long-used variety of the Świętokrzyskie marble. This is evidenced by stone products made of this marble in monuments from the turn of the 16<sup>th</sup> and 17<sup>th</sup> centuries, as well as in monumental construction of the 20<sup>th</sup> century.

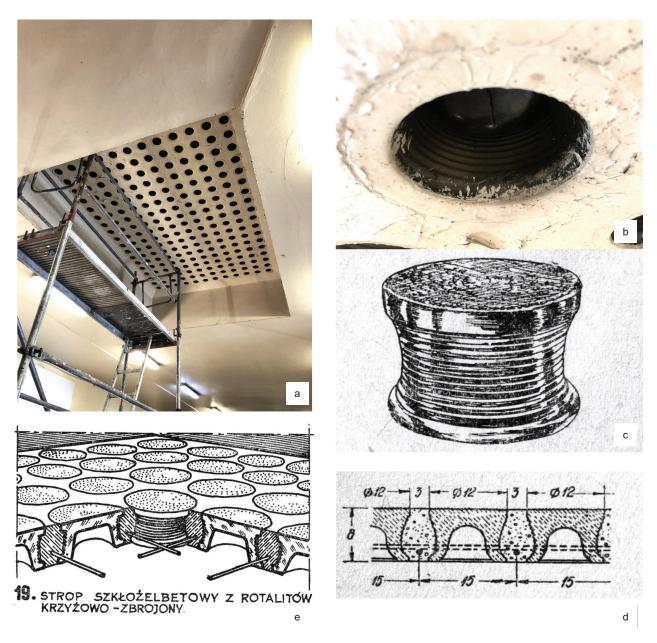


Fig. 10. The ceiling recess of a skylight function located in the passage from the main hall to the platform of the suburban train:
a) view of ceiling recess having dimensions (364 × 351 cm) located centrally in the hall axis (photo by A. Orchowska-Smolińska, 2016),
b) embedded in the ceiling, a "glass prism", the so-called rotalit, seen from below (photo by A. Orchowska-Smolińska, 2021),
c) a single glass piece with a specially developed top surface roughness, which allows the use of the so-called rotalites in ceilings intended for pedestrian traffic. In the case of the discussed suburban station in Gdynia – in the surface of the terrace (source: [25, pp. 266, 267]),
d) reinforced concrete ceiling made of rotalites – cross-section (source: [25, pp. 266, 267]),
e) meandithia engent cases structure the principle of areas reinforcement (source) [26, draving insert X])

e) monolithic concrete glass structure, the principle of cross reinforcement (source: [26 drawing insert X])

II. 10. Wnęka sufitowa o funkcji świetlika położona w przejściu z hallu głównego na peron SKM:

a) widok wnęki sufitowej o wymiarach 364 × 351 cm usytuowanej centralnie w osi hallu (fot. A. Orchowska-Smolińska, 2016),

b) osadzony w stropie "szklany pryzmat", tzw. rotalit, w widoku od dołu (fot. A. Orchowska-Smolińska, 2021),

- c) pojedyncza kształtka szklana ze specjalnie opracowaną chropowatością górnej powierzchni,
- co umożliwia zastosowanie tzw. rotalitów w stropach przeznaczonych dla ruchu pieszego; w przypadku omawianego dworca podmiejskiego w Gdyni – w płaszczyźnie tarasu (źródło: [25, s. 266, 267]),

d) strop szkłożelbetowy z rotalitów – przekrój (źródło: [25, s. 266, 267]),

e) monolityczna konstrukcja szkłożelbetowa, zasada zbrojenia krzyżowego (źródło: [26, wkładka rysunkowa X])

especially for the station building and manufactured to order were window and door woodwork as well as wooden furnishings in public interiors (e.g. wall paneling). Until the research was developed, only the windows in the semicircular part on the first floor (column room) have survived. These are wooden windows with a loom structure. Their poor technical condition (degraded wood with a washed surface, the delaminated stiles, devoid of most of the fittings, painted many times) made it necessary to replace them with wooden windows, with divisions reconstructed according to preserved designs, archival design drawings and conservation research guidelines (colours of wooden joinery). All the other windows, replaced with PVC, were also to be reconstructed.

Another worth mentioning element of the historic postwar interiors often used in the period of the construction of the SKM Railway Station, and now rarely preserved, are glass fittings as fillings for ceilings [29], [30]. Such was used in the station hall in the form of a ceiling skylight (Fig. 10). It allowed natural light to enter the interior, which was made possible by glass elements embedded in the ceiling – round, hollow prisms ("Rothalit" type<sup>13</sup>). The substance of the glass-reinforced concrete ceiling has survived, but the functionality related to transmitting light through it – unfortunately not. As part of the renovation works, the skylight will regain its original purpose, and the glass fittings and ceiling filling will be subjected to conservation.

#### **Conclusions**

Changes in the specificity of passenger traffic on the railways that have occurred since the construction of the Gdynia station are difficult to question. The development of the utility program for the modernization project and its adaptation to the historical functions was not a serious problem that could threaten the integrity of the monument. The project respects and in many places restores the functions indicated at the stage of conservation assumptions and revitalisation concepts. Of course, due to the modern function of the station, it is not possible to fully restore the original interiors. In today's conditions, there is no place for the "WARS" bar or a cinema in the column room. Nevertheless, the values of this great architecture will be exposed thanks to renovation and conservation works.

The least durable turned out to be functions not directly related to passenger transport, i.e. accompanying services. With the loss of utility, in the place of the former fast food bar "WARS", auxiliary and administrative rooms of the SKM (now Passenger Service Department)<sup>14</sup> were arranged. It proved impossible to restore the bar's function in its historic location, despite the mosaic wall decorations inside the bar. The resignation from the function of a cafe (originally a cinema hall) in the column hall took place relatively soon after the station was open<sup>15</sup>. The two-storey high hall, atypical in its layout, has not been used for a long time. Restoration of the gastronomic function in this location of the station was ruled out by the investor.

Due to the insufficient space for the operation and technical supervision of SKM within the historical substance of the station, the adaptation of the column hall to the "Monitoring Center"<sup>16</sup> was a necessary compromise.

#### Summary

One of the basic conditions for the renovation of the postwar Modern building of Gdynia Suburban Railway Station was to restore the integrity of the monument by removing any secondary elements that disrupted its historic character. This applied primarily to kiosks and other stalls (commercial or gastronomic points), built in the front elevation arcade, in the vestibules of entrances or along the walls of the cashier's hall. Also, all air conditioning units ware to be dismantled from the façade, roof and terrace visible from the platform side.

Thanks to thorough stratigraphic research, it was possible to determine the colour palette for both the hall and staircase, as well as the column hall and external walls of the SKM building.

Conservation guidelines also took into consideration the issues of adapting the facility to new necessities. These were the fire safety requirements (locations of hydrants) or the needs of people with reduced mobility, the blind and the deaf (textural paths, attention fields, warning stripes). Another important issue was the elimination of barriers for the disabled inside the building (location of the lifting platform). These necessary elements did not obliterate the character of the original architecture of the station.

In such facilities as the Gdynia Suburban Railway Station, conservation research, identification of various types of wall/ floor materials and finishes, colour scheme and interior details, are as important as in buildings with a more complex history. Transformations and accidental repairs of both the façade and the interior blur the original, careful and valuable concept. Recognition of the design concept and technology of implementation is the basic goal of research and development of guidelines and programs for conservation work.

Due to the fact that at the time of writing the article, renovation works in the station building were still in progress, the final results have yet to be seen. Only then, on completion of the renovation works, will it be possible to summarize the research and design process as well as the execution works of restoring the building.

> Translated by Anna Orchowska-Smolińska

<sup>&</sup>lt;sup>13</sup> As we find in Jerzy Nechay's practical guide to the use of concrete in construction, a new round shape of glass elements in the interwar period with the trade name "Rothalit" for glass-concrete applications, had a French patent [29, p. 266].

<sup>&</sup>lt;sup>14</sup> The latest renovation works on the premises of the former "WARS" bar were carried out in 2016 as part of another project. It envisaged, among other things, the liquidation of the original joinery of the entrance to the former bar, with its replacement with a new one. The doors are designed to resemble the carpentry used in the main station, while the style of the original window joinery of the suburban station is completely different. The project was approved by PWKZ. The investor excluded the previously renovated rooms from the current project, and thus the development of the conservation project and the planned restoration.

<sup>&</sup>lt;sup>15</sup> In the inventory from the 1980s, the column hall together with the catering facilities of the former café was described as a "meeting room" [28].

<sup>&</sup>lt;sup>16</sup> In detail – an adaptation of rooms for the needs of monitoring service stations and technical supervision in the so-called "Center" with the modernization of the Monitoring and Dispatching Office of the SOK, creation of a server room and the necessary backup facilities. The planned adaptation and modernization included the construction of a mezzanine in the staff cloakroom and the column room, openwork steel stairs based on the mezzanine beams and on the existing ceiling, openings for door openings in the load-bearing walls, entrance to the monitoring room and conference room, installation of ventilation units on the +level 2, the introduction of a lifting platform for the disabled, making openings in ceilings and walls for building installations, introducing an antenna mast on the roof.

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#### Abstract

# The role and scope of architectural and conservation research procedures in the process of restoring the splendour of an architectural monument created after 1945 on the example of the Suburban Railway Station in Gdynia

Modern Movement buildings, despite their relatively recent construction, are sometimes affected by radical transformations of layout and form. The railway stations being one of the most important public buildings in the city are a special group of them. Due to long-term and intensive use they may bear the signs of exploitation of parts of its substance and have secondary transformations disharmony with the building. The subject of the article are architectural and conservation studies of the Suburban Railway Station in Gdynia, built in the mid-1950s. The authors of the article set themselves the goal of presenting the research procedures developed for it in the years 2016–2022, which are an introduction to revaluation process. The research methods used during the field work made it possible to identify the originally used techniques of execution and finishing methods and to determine the procedures for their reconstruction using conservation methods. The results of the conducted research became the basis for determining the scope of conservation protection of the station building, as well as the possibility of interfering with its partly "functionless" substance through adaptation and modernization activities.

Key words: architectural and conservation documentation, program of conservation and restoration works, architecture after 1945, revalorization, Gdynia Suburban Railway Station

#### Streszczenie

#### Rola i zakres architektoniczno-konserwatorskich procedur badawczych w procesie przywracania świetności zabytku architektury powstałej po 1945 r. na przykładzie Dworca Podmiejskiego w Gdyni

Budynki modernistyczne pomimo względnie nieodległego czasu powstania bywają dotknięte radykalnymi przekształceniami układu i formy. Szczególną ich grupą są dworce, które jako jedne z najważniejszych budynków publicznych miasta z powodu długotrwającego i intensywnego użytkowania mogą nosić znamiona wyeksploatowania fragmentów substancji oraz mieć wtórne nawarstwienia dysharmonizujące z obiektem. Tematem artykułu są badania architektoniczne i konserwatorskie powstałego w połowie lat 50. XX w. Dworca Podmiejskiego w Gdyni. Autorki artykułu postawiły sobie za cel przedstawienie opracowanych dla niego w latach 2016–2022 procedur badawczych stanowiących wstęp do działań rewaloryzacyjnych. Zastosowane podczas prac terenowych metody badań pozwoliły na identyfikację oryginalnych technik wykonania i metod wykończenia oraz określenie procedur ich odtwarzania metodami konserwatorskimi. Wyniki przeprowadzonych prac stały się podstawą wyznaczenia zakresu ochrony konserwatorskiej budynku dworcowego i określenia możliwości ingerencji w jego częściowo pozbawioną funkcji substancję za pośrednictwem działań adaptacyjnych i modernizacyjnych.

Slowa kluczowe: dokumentacja architektoniczno-konserwatorska, program prac konserwatorskich i restauratorskich, architektura po 1945, rewaloryzacja, Dworzec Podmiejski w Gdyni