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IV

A post-war chapter in the history of architecture and development of the port of Gdynia

ABSTRACT

The port of Gdynia, considered one of the largest civil construction projects of the 20th century in Europe, was built at an express pace for only a dozen or so years from the mid-1920s to the end of the 1930s. Unusual solutions from the construction period in the port engineering category, as well as outstanding architectural works The industrial area quickly became architectural symbols of economic growth and the general rebirth of Poland after 1918. In April 1945, the Poles took over the property of the port after the war found a picture of the ruins and destruction of the port, mainly the result of deliberate plantings carried out on the orders of Adolf Hitler in the last 10 days before the capitulation of the Germans. The devastation of individual elements of the port infrastructure and buildings was assessed at the level from 25% to 100%. Post-war reconstruction of the port from damage, in the years 1945-1947 not only the losses were inventoried, but also significant decisions were made as to whether the building was to be rebuilt or a new investment was planned in its place. Studies on this subject show that the investment reconstruction of the port did not continue the boldly outlined pre-war development plans, but from the point of view of its architecture, a new page in its history definitely opened up for this team.

Keywords: architecture, modernism, Port of Gdynia, 1945–1989, rebuilt after war damage

PORT OF GDYNIA – CONDITION UP TO 1939

In 1939, the port of Gdynia was a modern artificial port on the open coast of the Bay of Gdańsk, whose leading marine and land structures were constructed over a short period between 1924 and 1935. The design and implementation followed clearly defined plans, resulting in a transparent and functional port layout.

Eighty-five per cent of the port quays were built using modern prefabricated reinforced-concrete caisson structures, which were ideally suited for handling deep-sea vessels with, for that time, significant draughts of 8–12 meters. The adequately broad basins and the port channel provided favourable conditions for manoeuvring even the largest ships entering the Baltic Sea basin.

The land-side development, including port–hinterland transport links, ensured efficient preparation and handling of goods. Gdynia also had large, well-equipped warehouses, arranged according to the functional zoning principles of a modern port.

The period of port construction (1924–1937) was also the time when the most architecturally interesting buildings on its grounds were erected.¹ Bold forms characterised the designs, a modern approach to structural solutions, and, above all, exceptionally functional spatial layouts. Thanks to these qualities, many buildings gained the status of 'anticipated' symbols already during their construction, which we would today call iconic structures.

The approval of the contemporary architectural community for the monumental port buildings is illustrated by Jerzy Müller's statement that 'each of them possesses architectural character and expression, is well executed, is matter-of-fact, and determines the overall appearance and impression of its part of the port'.² Among the interwar projects of this kind one should mention buildings and complexes such as: the Rice Mill (1927), the Port Cold Store (1928–30, 1933–34), Warehouse No. 3 (1930), the Gdynia Oil Mill (1930–31), the Fish Hall and Cold Store (1930–31), Warehouse No. 5 (1931, 1934), the Maritime Station (1933), the 'Fruit Auction' and 'Warta' Warehouses (1933), the Customs Office Building (1936), the Grain Elevator (1935–37), Warehouse No. 10 (1937–38), and many others.

The reason for the coherent perception of these buildings—despite their diverse functions—in terms of their aesthetic expression and character lies in their dating from a period of only ten years, as Müller emphasised. This circumstance gave rise to the unified architectural expression of the interwar port of Gdynia.

¹ For a broad treatment of the topic, see: Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk]. See also: Sołtysik, M. J. (1993). *Gdynia: A city of the interwar period: Architecture and urban planning* (pp. 56–65, 110–118, 192–195, 293–294). Wydawnictwo Naukowe PWN; Hirsch, R. (2016). *Protection and conservation of the historic modernist architecture of Gdynia: An outline of issues*. Wydawnictwo Politechniki Gdańskiej.

² Quoted in: Müller, J. (1936). The architectural approach to the port of Gdynia. *Architektura i Budownictwo* [Architecture and Construction], no. 5, 166.

The outbreak of the Second World War and the subsequent years of German wartime occupation left a profound mark on what had been one of interwar Poland’s most significant achievements—the port of Gdynia. The most important sources of damage to the port’s infrastructure and buildings, compared with their pre-war condition, were:

- (1) alterations related to adapting the commercial port buildings for use as a naval base of the Third Reich’s navy (Kriegsmarine) during the war,
- (2) the air raids of 1943 and 1944, and
- (3) deliberate destruction carried out by retreating German forces in March 1945.³

Shortly after seizing the port in September 1939, the Germans began rebuilding and modifying individual structures, adapting them to new purposes and preparing for the transfer of the Kriegsmarine arsenal from Kiel to Gdynia (renamed Gotenhafen by the occupiers).⁴ Most buildings previously used as warehouses, industrial facilities, or offices of the maritime administration were repurposed for military use.⁵

Examples of such changes include the Passenger Hall together with the Transit Warehouse of the Maritime Station, adapted to house offices of the Kriegsmarine arsenal,⁶ and the Customs Office building,⁷ which was converted into a wartime hospital. The entire free-trade zone of the port—covering the Second Inner Basin, named after Minister Kwiatkowski, and the adjoining quays (American, Czechoslovak, Romanian, and Yugoslavian)⁸—was transformed into a vast storage area for weapons and ammunition.

Warehouse No. 6,⁹ located in the northern part of the American Quay and initially intended for storing imported cotton, was subdivided by a grid of reinforced-concrete walls into compartments for storing torpedoes.¹⁰ Warehouse No. 8,¹¹ situated at the

³ Małkowski, K. (2010). Damage to Gdynia caused by bombing, artillery fire and combat from the first to the last day of the Second World War. In M. Gawron & H. Głogowska (Eds.), *Cultural-civilizational identity of Gdynia: Gdynia in the context of contemporary cultural-civilizational unification and diversification* (Zeszyty Gdynskie, no. 5, pp. 77–84). Wyższa Szkoła Komunikacji Społecznej w Gdyni.

⁴ Wagner, H. (1947). Gdynia yesterday. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 11–12, 61.

⁵ The military use of the former commercial port buildings predominated over the areas of the port occupied by German entrepreneurs. Merchants involved mainly in the overseas coal trade and the fishing industry were located on the former Fishing Pier and Coal Pier. The remaining areas of the Port of Gdynia were taken over by the German military.

⁶ Sołtysik, M. J., & Orchowska-Smolińska, A. (2010). *Preliminary conservation guidelines for the functional-spatial layout of the Maritime Station and transit warehouse in Gdynia for their adaptation into the Emigration Museum* [Unpublished manuscript]; Sołtysik, M. J., Orchowska-Smolińska, A., Kriegseisen, A., & Huk-Malinowska, I. (2011). *Conservation documentation of the Maritime Station and the upper floor of the transit warehouse in Gdynia* [Unpublished manuscript].

⁷ Sołtysik, M. J., & Orchowska-Smolińska, A. (2005). *Concept for the conservation revalorisation of the interior décor of the Port Authority building in Gdynia at 9 Rotterdamska Street, together with general recommendations for the revalorisation of the entire complex* [Unpublished manuscript]; Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk] (pp. 153–154).

⁸ The interwar free customs zone within the port was delimited by a designated boundary on the water side and separated from the rest of the port on the landward side by a dedicated fence.

⁹ Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk] (pp. 130–131).

¹⁰ The construction of 2.5-metre-high reinforced-concrete walls of appropriate thickness inside the spacious warehouse was intended to minimise the effects of a potential explosion.

¹¹ Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk] (pp. 139–141).

southern end of the same quay and formerly part of the free-trade zone, was adapted to serve as an artillery workshop.¹²

The rebuilding of the port to meet the needs of the Kriegsmarine base was overseen, from 1941, by the Marinehafenneubaudirektion Gotenhafen (Port Construction Directorate in Gdynia), while the subordinate Marinehafenbauamt Gotenhafen (Port Construction Office) designed and supervised these projects. In addition, between 1941 and 1944, numerous new structures were erected within the port and the Gdynia shipyards (the Old and the New Shipyard), including warehouses, production halls, workshops, air-raid shelters, and barracks for forced labourers and prisoners of war.¹³

Although the first air raids on the Gdynia region by Allied aircraft began in 1942, it was only in the second half of 1943 that the port was subjected to heavy bombing. The most

¹² Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk] (pp. 39–141).

¹³ Inside the warehouse, a portal-crane structure was erected, while one-third of the space was occupied by a three-storey internal block of auxiliary rooms, including offices, washrooms, bathing facilities, and sanitary spaces. The remaining area housed workshops equipped with various types of machinery, including lathes.

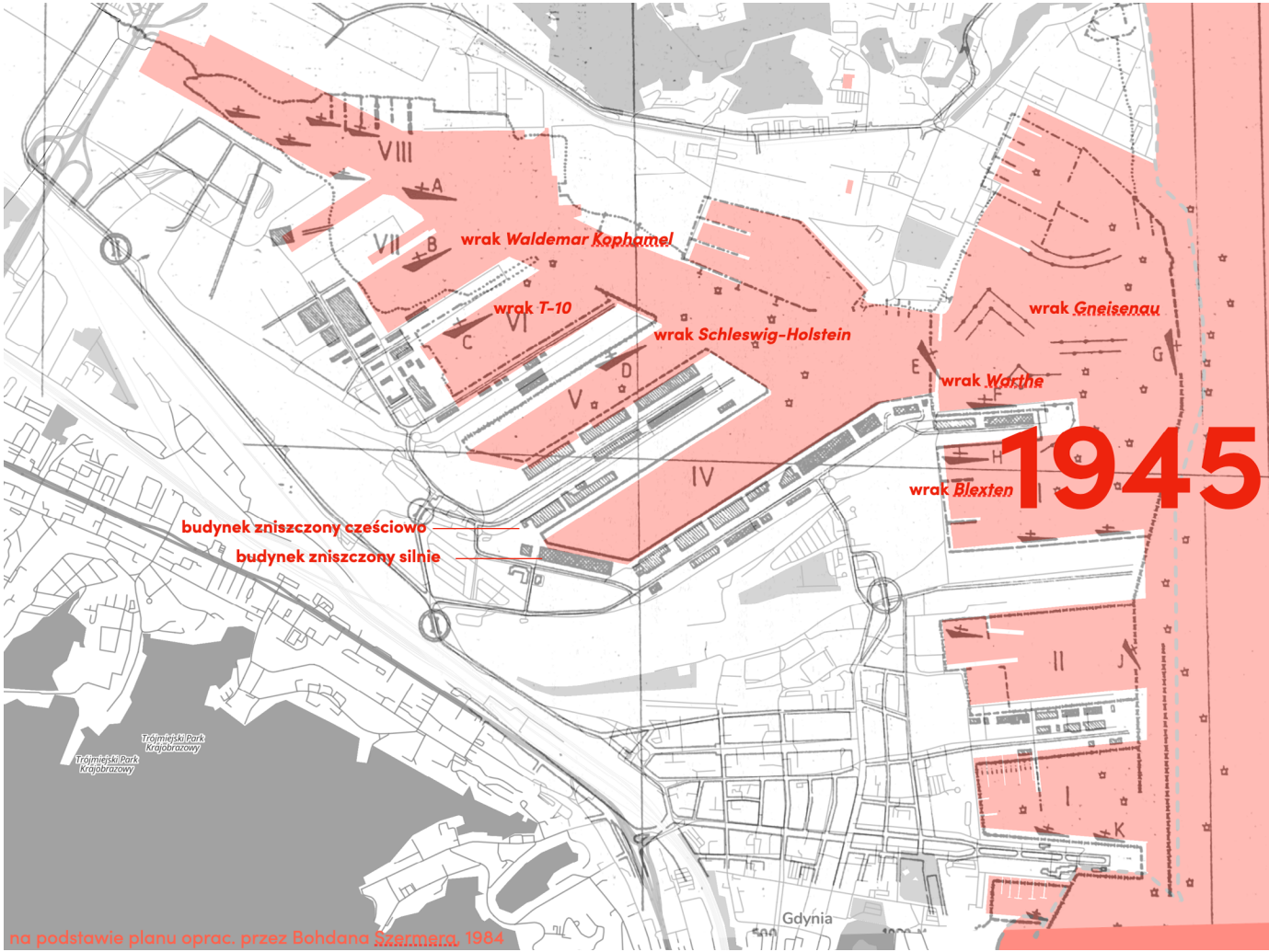


Fig. 1. Plan of the Port of Gdynia as of 1945, author’s study based on a contemporary map of Gdynia and materials compiled by Bohdan Szermer in 1984.

tremendous destruction in the city—and even more so in the port—occurred during the raid of 9 October 1943, referred to for this reason as the 'great raid'.¹⁴ During this attack, the Passenger Hall at the Maritime Station was damaged, ranking among the most severe wartime losses to the port's architectural fabric. Other damage within the port and shipyard areas was significant, though not substantial enough to halt the continued operation of the Kriegsmarine base or the repair and production facilities functioning there.

By March 1944, temporary reconstruction of the bomb-damaged buildings had been completed, and operations resumed. However, later that same year, on the night of 18–19 December 1944, another raid took place, causing similarly extensive destruction and sinking many of the vessels moored at the Gdynia naval base (Fig. 1).¹⁵

The most serious wartime losses within the port of Gdynia, however, occurred at the very end of the war as a result of deliberate, organised destruction of port property by retreating German forces. The aim was to prevent the advancing Soviet army from using the port infrastructure for military purposes.¹⁶ According to contemporary accounts, the Germans formed demolition and barrier units within the port, with headquarters located in the former 'American Scantic Line' warehouse at the Polish Quay and in the central part of the port.¹⁷ The destruction targeted various port structures and equipment (viaducts, cranes), but above all, its quays and breakwaters. The method of damaging the reinforced-concrete caissons involved blasting them with explosive charges placed in holes drilled along the quay line. Although the buildings themselves were not the direct target of the demolition, the blowing up of the quays caused severe collateral damage. This included the destruction of the Harbour Master's Office at the Port Quay and the Fish Hall and Cold Store at the English Quay, rendering them eligible for demolition. In other cases—less severe for the structural system but still critical—buildings were demolished due to significant structural weakening, such as the 'Fruit Auction' and 'Warta' warehouses at the French Quay.

Summarising the wartime destruction, Stanisław Hückel and Witold Staniszkis noted that every structure in the port had suffered damage—'there was not a single one that did not require repair!—and that as much as '50% of above-ground structures (...) had been burned down or bombed'.¹⁸

POST-WAR RECONSTRUCTION AFTER WARTIME DESTRUCTION

¹⁴ State Archive in Gdańsk, Gdynia Branch, Directorate of Port Construction in Gdynia, files 1038/1010, 1043–1052, 1939–1945.

¹⁵ Komorowski, A. (Ed.). (2001). *Underwater objects and military relics of the Gulf of Gdańsk* (p. 65). Impuls Plus Consulting.

¹⁶ State Archive in Gdańsk, Gdynia Branch, Directorate of Port Construction in Gdynia, section: Damage Caused by Air Raids, files 1038/1053–1059, 1939–1945.

¹⁷ The decree issued to military commanders on March 19, 1945—known as the Nero Order (Nerobefehl)—required the destruction of anything 'that the enemy could use to continue fighting.'

¹⁸ Wagner, H. (1947). Gdynia yesterday. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 11–12, 64.



Fig. 2. Gdynia, demolition of the damaged Cukroport III/IV warehouse at the Polish Quay in 1946. Through the large breach visible in the warehouse wall, the façade of the Cukroport I/II warehouse can be seen. The works were carried out using temporary rails; source: State Archive in Gdańsk, Gdynia Branch.

Among the three major ports that, after the Second World War, found themselves within the borders of Poland—Gdańsk, Gdynia, and Szczecin—it was the port of Gdynia that suffered the most severe destruction. Owing to its location, it was equipped with an extensive system of quays and breakwaters, which, together with the supporting infrastructure, were particularly vulnerable to wartime damage. Consequently, investment activities in the port of Gdynia in the first years after the war (1945–1950) focused primarily on clearing wartime destruction and creating appropriate port-handling conditions for vessels arriving in Gdynia. Immediately after the end of the war, knowledge of the expansions and transformations of individual maritime industrial facilities carried out by the Germans for military purposes was highly incomplete in Gdynia, as was the assessment of war damage to buildings and their infrastructure.¹⁹

To illustrate the efforts to reconstruct the port of Gdynia, briefly outline those undertaken in the first years after the war. The earliest fieldwork in various coastal areas was undertaken by the Maritime Operational Group,²⁰ whose task was to collect and prepare information on the state of the port and to take over its assets. The group was formed as early as March 1945, and among its priority tasks were the initial assessment of destruction, securing buildings and equipment, and preparing some of them for urgent recommissioning. One such facility was the oil-production plant located at the Indian Quay, whose buildings formed part of the Gdynia Oil Mill complex established in 1929 and, from 1932, operated as the 'Union' S.A. Fat and Oil Industry Works. Other urgent actions included the recommissioning of the municipal waterworks, the partially damaged power plant, the 'Paged' timber works and its carpentry shop, the dairy cooperative, and the printing house. The activities of the Maritime Operational Group, directed by engineer Władysław Szedrowicz, were completed on 30 April 1945 (Fig. 2).

Under the direction of the same expert, one month later—in the second half of May²¹—the Port Reconstruction Office in Gdańsk (BOP) began its work. Technical leadership of the BOP²² was entrusted to engineer Witold Tubielewicz,²³ who had many years of experience supervising the construction of the port of Gdynia. Unlike the Maritime

¹⁹ Hückel, S., & Staniszkis, W. (1946). Guidelines for the reconstruction of Polish seaports. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 1, 6; Hückel, S., & Staniszkis, W. (1947). Guidelines for the reconstruction of Polish seaports: Continuation. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 1, 6–8.

²⁰ Misztal, Z. (1974). *Reconstruction and development of the maritime economy in Poland, 1945–1973* (Part I; B. Gębski, Ed.). Wyższa Szkoła Marynarki Wojennej im. Bohaterów Westerplatte.

²¹ The Maritime Operational Group was established in Bydgoszcz on March 13, 1945, although preparations had already begun in February, when the recruitment of experienced personnel started in Warsaw. Initially numbering several dozen members, the group eventually grew to more than 600 volunteers.

²² The official legal act establishing the Port Reconstruction Office (BOP) was the Decree of the Minister of Shipping and Foreign Trade of May 28, 1946, on the creation of the Port Reconstruction Office in Gdańsk (Journal of Laws, no. 26, item 171). In practice, work had begun less than two months after the occupiers' withdrawal. See: Two years of activity of the Port Reconstruction Office. (1947). *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 6, 14–15; Kwiatkowski, E. (2009). The reconstruction and development of the Polish Coast in the years 1945–1947: Warsaw, November 1968. In M. M. Drozdowski (Ed.), *The maritime archive of Eugeniusz Kwiatkowski: On the 90th anniversary of Poland's return to the Baltic Sea* (pp. 397–409). Wyższa Szkoła Administracji i Biznesu im. Eugeniusza Kwiatkowskiego w Gdyni; Fundacja Gdyńska Inicjatywa Akademicka; Szermer, B. (1984). Concepts and spatial structure of the Port of Gdynia: An outline of transformations. Part 2: 1939–1965. *Rocznik Gdyński* [Gdynia Yearbook], no. 5, 91.

²³ Parallel to BOP's fieldwork in 1945–1946, the Ministry of Industry established the Maritime Compensation Commission within the Maritime Department. Its task was to assess losses and determine wartime damage suffered between 1939 and 1945 by the state and private owners in ports, including coastal areas, maritime transport, and fisheries within the borders of the Polish state at that time. The results were presented in a formal loss report at the conclusion of the Commission's work.

Operational Group, which provided emergency protection of assets and restored only the most essential port functions, the BOP was assigned a much broader scope of responsibilities,²⁴ which can be summarized as follows:

- (a) reconstruction of wartime damage in seaports and along the coast;
- (b) clearing port waters and shipping routes of wrecks and other navigational hazards;
- (c) other port and coastal works commissioned by the Ministry of Shipping and Foreign Trade.

The reconstruction plan included not only repairs but also the construction of several new warehouses and administrative buildings.²⁵ The ease of reconstructing warehouses in Gdynia was assessed positively, mainly because modern skeletal structural systems had been used there, in contrast to, for example, Gdańsk, where many warehouses still relied on, by then, obsolete timber construction.

In Gdynia, priority was given to rebuilding structures located on the outer port piers, in the areas of the Fishing Pier, Coal Pier, and Passenger Pier, as well as in the western part of the Polish Quay, the Indian Quay, and the American Quay. The changes in the built fabric of the port of Gdynia, associated with its transformation in the maritime economy after the Second World War, are clearly illustrated by figures. In 1938, the seaport had warehouses with a total floor area of 316,000 m², whereas in 1946–1947 this dropped to 71,000 m². In subsequent years, the warehouse area increased (105,000 m² in 1950;

²⁴ As early as 1930, the Ministry of Industry and Trade appointed engineer Witold Tubielewicz as construction manager at the Maritime Office in Gdynia. He first served as Head of the Above-Ground Construction Division and later as Head of the Technical and Construction Department.

²⁵ Polish maritime authorities prepared the so-called 'Small Reconstruction Plan,' whose primary aim was to meet the urgent need to restore maritime transport, which was essential, for example, for receiving deliveries from the United Nations Relief and Rehabilitation Administration (UNRRA). A particularly important task was the removal of sunken German ships blocking access to the port. The wrecks were gradually cut up and lifted, steadily increasing the usable area of the harbour. The largest obstacles in Gdynia were the wrecks of the cruiser Gneisenau and the battleship Schleswig-Holstein. Alongside the clearing of the port basins, work continued on restoring transshipment equipment and warehouses intended to receive the first UNRRA shipments. On September 3, 1945, the first American ship carrying UNRRA aid arrived in Gdynia. The plan also included demining the port, both on land and in the water, as well as general cleanup work, consisting of rubble removal in areas where damage did not prevent normal port operations. The Small Plan was completed by the end of 1946.



Fig. 4. Gdynia, 1 Polska Street, southern façade of the Maritime Station in 1945: a) visible alterations to the original layout in the form of window openings made by the Germans during the occupation; b) visible row of windows bricked up during renovation, with blinds left in place; these were removed in 2015 during the conversion of the building into the Emigration Museum; source: State Archive in Gdańsk, Gdynia Branch; photo: W. Glasko.



Fig. 3. Gdynia, 1 Polska Street, Maritime Station in 1946. The damage visible in the north-western corner of the building was caused by the Allied air raid of 1943 and was repaired only in 2013–2015, during the comprehensive conversion of the building into the Emigration Museum. After the war, until 1963, the Harbour Master's Office was located in the Maritime Station; source: Gdynia City Museum; photo: Jan Bułhak.



Fig. 5. Gdynia, English Quay, Cold Store No. 1 in 1949, erected in 1948–1950 on the site of the interwar hall and a surviving fragment of the Fish Cold Store, visible in the rear part of the building. The photograph shows the building before plastering; source: Gdynia City Museum.

151,000 m² in 1960; 169,000 m² in 1970),²⁶ but it never again reached the level achieved in the late 1930s (Figs. 3, 4a, 4b).

Considering only the losses of architecturally valuable structures in the port of Gdynia, one must conclude that these losses were not substantial in the post-war period. Among the buildings not reconstructed after the war, only two are noteworthy from an architectural standpoint: the 'Fruit Auction' and 'Warta' Warehouse at the French Quay (1933, designed by Wacław Tomaszewski) and the 'Pantarei II' Warehouse located in the second row of the Polish Quay. Both warehouses featured expressive forms in a modernist style—the former distinguished by vertical accents and Art Déco elements, and the latter by functionalist architecture.

POST-WAR ARCHITECTURE OF THE PORT – SELECTED NOTABLE EXAMPLES

Cold Store No. 1

Shortly after the end of the war, in July 1945, the remains of the destroyed Cold Store and Fish Hall at the English Quay (also referred to as the Auction Hall)²⁷ were almost entirely demolished. Although cold storage appeared first in the building's name, before the war it had, in fact, been an auxiliary function to the primary purpose of the Fish Hall complex, designed in 1930 by engineer Juliusz Mrozowski. The dominant element of its massing was the tower section, over 18 meters high, and the conception of the whole form was based on a striking contrast between the smooth, light-coloured plaster façades, the horizontal strip windows of the residential floor, and the vertical openings in the upper part.²⁸ This bold and most recognisable feature of the pre-war Fish Hall remains today the oldest preserved structure of the former architectural complex of the pre-war Fishing Pier.

During the post-war reconstruction, the surviving tower section was incorporated into the new cold store (Cold Store No. 1) built between 1948 and 1950 on the site of the demolished Fish Hall. The authorship of the design of Cold Store No. 1—built at the English Quay and placed into operation in 1952—is unknown.²⁹ Its imposing mass fits perfectly within the architectural principles expressed by its older neighbours: the Herring Cold Store to the east (constructed 1935–1936, extended 1960–1965), and the aforementioned preserved fragment of the former Fish Hall.

²⁶ The second stage of reconstruction, undertaken after the most urgent needs had been addressed, was carried out under the 'Three-Year Port Reconstruction Plan.' Its overall objective was to adapt the ports to new economic conditions. The investments covered the years 1947–1949. More labour-intensive tasks, such as the reconstruction of quays and breakwaters in Gdynia, were postponed to this stage because of their scale and complexity.

²⁷ Data based on the Statistical Yearbooks of the Maritime Economy in: Misztal, Z. (1974). *Reconstruction and development of the maritime economy in Poland, 1945–1973* (Part II; B. Gębski, Ed.). Wyższa Szkoła Marynarki Wojennej im. Bohaterów Westerplatte.

²⁸ For a broader discussion, see: Orchowska-Smolińska, A. (2018). Port cold stores in Gdynia: A case study of interwar industrial port architecture. In M. J. Sołtysik & R. Hirsch (Eds.), *Modernism in Europe: Modernism in Gdynia. 20th-century architecture: Its protection and conservation* (pp. 92–93). Urząd Miasta Gdyni; Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk] (pp. 123–125).

²⁹ The longitudinal openings covered with a louver system ventilated the drip-condenser unit located on the top floor of the building. See: Stokowski, B., & Dadlez, J. (1933). *The cold store and fish hall in Gdynia*. Morski Instytut Rybacki.

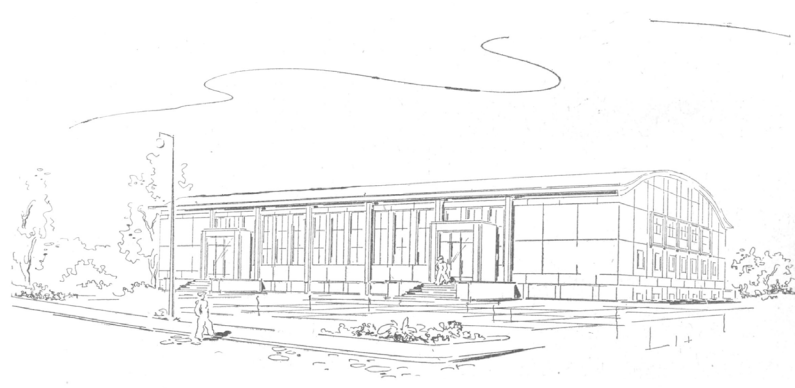


Fig. 6. Gdynia, 32 Polska Street, Portorob port workers' distribution point, architects Kazimierz Biszewski and Romuald Połujan, Maritime Construction Design Office in Gdańsk, 1951: a) conceptual perspective published in the Bulletin of the State Office of Maritime Construction Designs; source: Technika Morza i Wyrzeża [Technique of the Sea and the Coast], no. 3/4, p. 46; b) the building in the 1950s; source: Facebook, Gdynia – plan miasta, miejsca..., accessed September 22, 2021.

In the case of the post-war Cold Store No. 1 (Fig. 5), we may speak of a masterful use of the structural language of architecture, dominated here by a monumental vertical rhythm of pilaster strips. Centrally placed on the main façade is a risalit containing the principal staircase. It features rounded corners as well as a dome-like half-cupola crowning. Remarkably, the roof covering of this element was made of sheet metal imitating fish scales—an unusual solution for industrial buildings. Considering the fish-processing purpose of the cold store, this appears particularly original.

Equally interesting is the interpretation of historical architecture apparent in the building's crowning, executed in the form of a modernised attic or crenellation. Along the side façades, protruding overhangs supported by decorative brackets appear, evoking the character of medieval machicolations with walkways and openings in the floor. These architectural elements—drawing from Polish Gothic and Renaissance traditions—lend the cold store's mass a distinctive and refined character.

In summary, this bold post-war cold store exemplifies the architectural 'transitional period': no longer pre-war modernism, though clearly rooted in its tradition, and not yet under the influence of socialist realist doctrine.

Building of the Port Workers' Dispatch Centre 'Portorob'

After the Second World War, the participation of architects working within independent studios and private design offices in projects carried out within the port significantly decreased, as private companies were no longer permitted—as they had been before the war—to lease industrial lots within the port area or to undertake investments there. Design work within the port, now subordinate to the Ministry of Shipping, was instead entrusted to the state-run Office for Maritime Construction Projects in Gdańsk (established in 1948 at the Ministry's request, later known as Projmors). Its responsibilities included the comprehensive preparation of technical documentation in the fields of hydraulic engineering, architectural and building design, structural engineering, mechanical and electrical installations, cost estimation, and functional and spatial planning of ports.



Fig. 7. Gdynia, 43 Polska Street, "Baltona" warehouse and office complex in the 1960s; source: Facebook, Gdynia – city plan, places..., accessed September 22, 2021.

The multifunctional auxiliary building for port workers, known as 'Portorob' (figs. 6a, 6b), was erected in 1951 at 32 Polska Street, on a large plot bordered by Czechoslovak, Polska, and Celna streets. The design was prepared within the Maritime Construction Projects Office by two pre-war graduates of the Faculty of Architecture of the Warsaw University of Technology—Kazimierz Biszewski and Romuald Połujan—both of whom were associated with the Gdańsk University of Technology after the war.

Located near a central transport hub, the building was intended to support port cargo-handling operations by organising and dispatching port workers to various tasks. To this end, the design included a large assembly and dispatch hall for 600–700 people, served by a suite of office rooms with service windows, as well as a buffet hall, a standard room, and sanitary facilities.

The building employed an interesting structural solution combining brick walls with a roof formed as a reinforced-concrete shell supported by tension rods. Its streamlined shape, along with the façade treatment featuring a grid of vertical and horizontal plaster profiles imitating stone slabs, made it stand out among other contemporary projects.

In subsequent decades, the building housed, among other functions, a library and an auditorium for events organised by the Cultural Centre of the Gdynia Maritime Trade Port Authority, as well as a large retail store. The building was demolished around 2010.

'Baltona' Warehouse and Office Complex

The company Baltona's building complex, designed in 1958 (Fig. 7),³⁰ was constructed in the western part of the commercial port at 43 Polska Street, between the street and the port railway station. The ensemble consists of a six-storey warehouse block and a three-storey administrative block, connected by a low linking structure. Architecturally, the complex exemplifies the pronounced shift 'towards modernity' that took place in the second half of the 1950s.

In this project, the warehouse portion — a rectangular, remarkably restrained volume — clearly dominates. Its most distinctive feature is the horizontal articulation of all four façades, emphasised by continuous horizontal window bands flowing smoothly around the perimeter of the building. Functionally designed structural canopies shelter the loading ramps, located both on the railway side and at the vehicular entrance.

Facing Polska Street, the building's front is accentuated by the administrative block attached to the main volume, marked by the vertical rhythm of inter-window piers and a recessed entrance sheltered by a column-supported canopy. These elements — which appear visually freestanding — are tied together by the single-storey link.

The shape of the plot, defined by railway tracks on one side and the street on the other, dictated the layout and mutual arrangement of the complex's volumes. Within

³⁰ The new postwar fish cold store in the Port of Gdynia appeared as the only example of postwar Gdynia architecture in a publication on the urban and architectural development of the Gdańsk-Sopot-Gdynia complex. See: Stankiewicz, J., & Szermer, B. (1959). *Gdańsk: Urban and architectural development and the formation of the Gdańsk-Sopot-Gdynia complex*. Arkady; Chrzan, A., & Tomaszek, S. (1964). *Port architecture of the Gdańsk Coast. Architektura* [Architecture], no. 12, 487–497; Szopowski, Z. (1959). *Seaports: Design and operation*. Państwowe Wydawnictwo Naukowe.

the C-shaped plan, a small trapezoidal courtyard is formed. Particularly striking are the architectural elements projecting above the roofline: the lift machinery room with rounded corners, and a dynamic, yacht-bridge-like raised structure.³¹

The design of this Gdynia-based Baltona complex – strongly influenced by Bauhaus principles – was created by architects Józef Kopeć and Czesław Maciuszewski, together with structural engineer Jerzy Jamroz. The project was prepared at the Gdańsk Office for Industrial Construction Projects.

Warehouse 'W'

The complex of general-cargo warehouses forming the second row behind the Polish Quay, shaped in the 1930s, was supplemented—and partly replaced—during the 1950s and 1960s by bold architectural projects that continued the achievements of interwar designers. Among the interesting post-war port reconstruction projects was the now-demolished Export Enterprise for Fruit and Vegetable Products in Gdynia, known as Warehouse 'W' (figs. 8a, 8b), constructed in 1962–63 at 19a Polska Street. The project was prepared by the Warsaw Office for Fermentation Industry Projects, headed by engineer A. Urbankowski; the architect responsible for the design was Janusz Pukaczewski, and the structural engineer was Józef Stępkowski.

The warehouse, eight storeys high, had a relatively compact footprint measuring 40 × 20 meters. The southern, eastern, and western façades were marked by characteristic horizontal bands of glass-block strip windows. These glazing bands were divided by small ventilation windows with protective hoods arranged in an alternating pattern. The north façade, facing Polska Street, was smoothly plastered, accented in its central section by a vertical strip of glass-block glazing flanked by small loggias.

A striking architectural feature at the ground level was the trio of V-shaped columns supporting an overhang above the ramp area. The main entrance was highlighted by vertical glazing along the staircase and a reinforced-concrete, accordion-shaped canopy supported by steel tension rods. The upper part of the building was adorned with a distinctive attic composed of diagonally arranged panels.

The building served its intended function until 1988, when it was taken over by the Gdynia Port Authority. At that time, thermal insulation works were carried out on the façades (1989), and subsequent use involved storing raw wool. The warehouse was demolished around 2015 to make way for new investments in the port area.

The New Harbour Master's Office

One of the most important buildings for the functioning of the port of Gdynia that suffered severe wartime damage was the Harbour Master's Office, located at the base of the Port Channel. Built in 1927 to a design by engineer Jan Broda of Toruń, the building displayed a traditional formal aesthetic and a massing composed of steeply pitched

³¹The limited liability company Baltona, established in 1946 to supply ships and operating from 1949 as Baltona Ship Supply, primarily served the maritime sector.



Fig. 8. Gdynia, Polska Street, Fruit and Vegetable Industry Export Products Store, known as Magazine "W", architect Janusz Pukaczewski, Fermentation Industry Design Office, 1961–1962: a) eastern elevation according to design documentation; source: archival collection of the Port of Gdynia Authority; b) view of Magazine "W" in 2015; photo: Anna Orchowska-Smolińska.

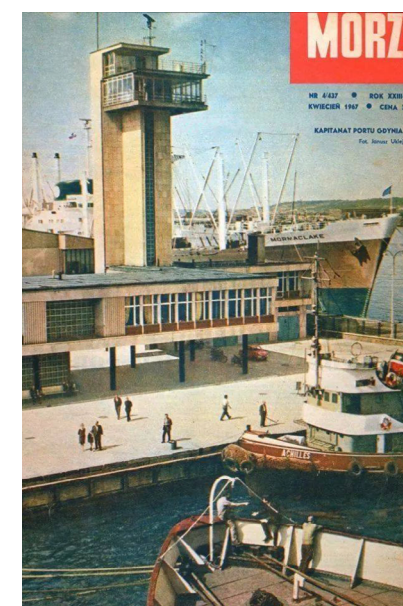


Fig. 9. Gdynia, Polska Street, New Harbour Master's Office in the mid-1960s, architects Lech Zaleski and Janina Roszak: a) view of the eastern façade from the French Quay; source: *Morze* [Sea], no. 4, 1967; b) view of a fragment of the Harbour Master's Office from the south; source: postcard entitled Gdynia. *Monument to the People of the Sea*, published by RUCH, 1965–1966, photo by A. Stelmach.

roofs. It featured a six-storey tower with a viewing terrace on the north side. The facility functioned as the Harbour Master's Office until the end of the German occupation.³² Damage inflicted by the retreating Germans on the two neighbouring quays—the Finnish Quay³³ and the Port Quay—compromised the building's structure, leading to a decision to demolish it with explosives; the structure was dismantled entirely in July 1945.

For the next eighteen years, the port of Gdynia lacked a suitably representative building for the prestigious function of the Harbour Master's Office. The design guidelines for a new headquarters, prepared by the Gdańsk Maritime Office based in Gdynia, were approved as early as mid-1959,³⁴ and the completed building entered service in 1962. Two alternative solutions were initially considered: a building raised on pilotis with an open ground floor and a footprint of 520 m², or a compact three-storey structure with a 275 m² footprint. Both variants included a 24-meter observation tower. Ultimately, the version with an expressive cantilevered volume—providing an open view toward the outer harbour and the breakwater—was selected for execution.

The design of the Harbour Master's Office was prepared by architect Lech Zaleski together with architect Janina Roszak, both working under the direction of department

³²A pokładówka (deckhouse) is a low deck superstructure on a yacht, raising the height of the interior space below deck. It usually has narrow, fixed porthole-type windows on its sides and skylights or other openings on top. In the Baltona building, the slanted wall of the superstructure incorporated an impressive ribbon-shaped window.

³³From 1945 (when the port resumed its function) until 1963, the Harbour Master's Office operated from the Maritime Station building. However, increasing passenger traffic in the Gdynia port required the Harbour Master to vacate these spaces by the late 1950s.

³⁴The Finnish Quay was called the Pilot Quay until 1939. After 1945, the name Pilot Quay referred to the western side of one of the wartime-added breakwaters.

head Alfred Chrzan at the state design office Projmors in Gdańsk.³⁵ Construction was carried out by the Gdańsk Industrial Construction Enterprise.

The design of the New Harbour Master's Office (Figs. 9a, 9b) had to respond to complex functional requirements, divided into three principal zones: representative-administrative, service, and observation-control. This functional triad was reflected in the Z-shaped composition of the volumes. Particular attention was devoted to the interior design, which included detailed furnishing and layout solutions for multiple rooms of the building (the Harbour Master's office, the secretary's office, entrance hall, cloakroom of the club annexe, and numerous rooms for pilots, boatswains, duty officers, traffic controllers, port officers, security staff, and others).³⁶

The façades were finished with small-format sandstone slabs resistant to harsh maritime conditions, while some walls incorporated glass blocks. The entire building was characterised by a strong aesthetic expression and a sophisticated interplay of textures and colours, resulting from the quality of the materials used both externally and internally.

The boldly articulated three-dimensional form of the Harbour Master's Office, however, did not withstand the test of time. In the early 21st century, the expressive cantilevered volume—initially elevated on pilotis, giving the impression of the building 'hovering' above the ground—was infilled with an additional mass, eliminating this distinctive visual effect. Likewise, the elegantly finished façades were altered and clad with contemporary materials (aluminium panels) in two dominant colours: yellow and blue.³⁷

Studies of post-war developments within the port of Gdynia show that, in terms of investment policy, reconstruction after the wartime destruction did not continue the boldly defined pre-war development plans. Formally, however, this period opened the port to new architectural ideas that harmoniously aligned with the modernist stylistic explorations of the interwar era.

The architectural examples presented in this article represent only a small selection from a much larger group of port buildings constructed up to 1989, all of which are firmly rooted in modernism. The issues outlined here aim to contribute to a better understanding of the architecture of the port of Gdynia in the second half of the 20th century—an essential component of modernist heritage.

³⁵ Documentation of the sessions of the Expert Committee for Investment Project Evaluation at the Ministry of Shipping and Water Management on the Concept and Preliminary Design of the Harbour Master's Office in Gdynia; based on archival research by Bartłomiej Ponikiewski for the exhibition Lech Zaleski. Designing from the Sea; in the collections of the Gdynia Maritime Office Archive.

³⁶ Project engineers: structural design — Eng. Jerzy Grabowski; water-sewage and heating installations — Eng. Ryta Chrzczonowicz; electrical installations — Eng. Marian Witecki; communications — Eng. Maria Młynarska; radio-radar systems — Eng. Henryk Redzinski. See: Architecture. (1964). The harbour master's office in Gdynia. (12), 496–497.

³⁷ Gdynia Maritime Office Archive. (n.d.). Technical-working design of the interior of the Harbour Master's Office in Gdynia—Port; Architecture. (1964). The harbour master's office in Gdynia. (12), 496–497.

BIBLIOGRAPHY

Archiwum Państwowe w Gdańsku, Oddział w Gdyni [State Archive in Gdańsk, Gdynia Branch], Directorate of Port Construction in Gdynia, files 1038/1010, 1043–1052, 1939–1945.

Archiwum Państwowe w Gdańsku, Oddział w Gdyni [State Archive in Gdańsk, Gdynia Branch], Directorate of Port Construction in Gdynia, section: Damage Caused by Air Raids, files 1038/1053–1059, 1939–1945.

Chrzan, A., & Tomaszek, S. (1964). Port architecture of the Gdańsk Coast. *Architektura* [Architecture], no. 12, 487–497.

Hirsch, R. (2016). Protection and conservation of the historic modernist architecture of Gdynia: An outline of issues. Wydawnictwo Politechniki Gdańskiej.

Hückel, S., & Staniszkis, W. (1946). Guidelines for the reconstruction of Polish seaports. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 1, 3–6.

Hückel, S., & Staniszkis, W. (1947). Guidelines for the reconstruction of Polish seaports: Continuation. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 1, 6–8.

Komorowski, A. (Ed.). (2001). *Underwater objects and military relics of the Gulf of Gdańsk*. Impuls Plus Consulting.

Kwiatkowski, E. (2009). The reconstruction and development of the Polish Coast in the years 1945–1947: Warsaw, November 1968. In M. M. Drozdowski (Ed.), *The maritime archive of Eugeniusz Kwiatkowski: On the 90th anniversary of Poland's return to the Baltic Sea* (pp. 397–409). Wyższa Szkoła Administracji i Biznesu im. Eugeniusza Kwiatkowskiego w Gdyni; Fundacja Gdynńska Inicjatywa Akademicka.

Małkowski, K. (2010). Damage to Gdynia caused by bombing, artillery fire and combat from the first to the last day of the Second World War. In M. Gawron & H. Głogowska (Eds.), *Cultural-civilizational identity of Gdynia: Gdynia in the context of contemporary cultural-civilizational unification and diversification* (Zeszyty Gdynińskie, no. 5, pp. 77–84). Wyższa Szkoła Komunikacji Społecznej w Gdyni.

Misztal, Z. (1974). *Reconstruction and development of the maritime economy in Poland, 1945–1973* (Part I; B. Gębski, Ed.). Wyższa Szkoła Marynarki Wojennej im. Bohaterów Westerplatte.

Misztal, Z. (1974). *Reconstruction and development of the maritime economy in Poland, 1945–1973* (Part II; B. Gębski, Ed.). Wyższa Szkoła Marynarki Wojennej im. Bohaterów Westerplatte.

Müller, J. (1936). The architectural approach to the port of Gdynia. *Architektura i Budownictwo* [Architecture and Construction], no. 5, 166.

Orchowska-Smolińska, A. (2013). *Architecture and spatial layout of the Gdynia Port in the interwar period as cultural heritage* [PhD dissertation, University of Gdańsk].

Orchowska-Smolińska, A. (2018). Port cold stores in Gdynia: A case study of interwar industrial port architecture. In M. J. Sołtysik & R. Hirsch (Eds.), *Modernism in Europe: Modernism in Gdynia. 20th-century architecture: Its protection and conservation* (pp. 85–94). Urząd Miasta Gdyni.

Sołtysik, M. J. (1993). *Gdynia – miasto dwudziestolecia międzywojennego: Urbanistyka i architektura* [Gdynia – a city of the interwar period: Urban planning and architecture]. Wydawnictwo Naukowe PWN.

Sołtysik, M. J., & Orchowska-Smolińska, A. (2005). *Concept for the conservation revalorisation of the interior décor of the Port Authority building in Gdynia at 9 Rotterdamska Street, together with general recommendations for the revalorisation of the entire complex* [Unpublished manuscript].

Sołtysik, M. J., & Orchowska-Smolińska, A. (2010). *Preliminary conservation guidelines for the functional-spatial layout of the Maritime Station and transit warehouse in Gdynia for their adaptation into the Emigration Museum* [Unpublished manuscript].

Sołtysik, M. J., Orchowska-Smolińska, A., Kriegseisen, A., & Huk-Malinowska, I. (2011). *Conservation documentation of the Maritime Station and the upper floor of the transit warehouse in Gdynia* [Unpublished manuscript].

Stankiewicz, J., & Szermer, B. (1959). *Gdańsk: Urban and architectural development and the formation of the Gdańsk-Sopot–Gdynia complex*. Arkady.

Stokowski, B., & Dadlez, J. (1933). *The cold store and fish hall in Gdynia*. Morski Instytut Rybacki.

Szermer, B. (1984). Concepts and spatial structure of the Port of Gdynia: An outline of transformations. Part 2: 1939–1965. *Rocznik Gdyniński* [Gdynia Yearbook], no. 5, 91.

Szapowski, Z. (1959). *Seaports: Design and operation*. Państwowe Wydawnictwo Naukowe.

Two years of activity of the Port Reconstruction Office. (1947). *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 6, 14–15.

Wagner, H. (1947). Gdynia yesterday. *Technika Morza i Wybrzeża* [Sea and Coast Technology], no. 11–12, 62–68.

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