

# Modernist Industrial Architecture and its Protection – the Port of Gdynia

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## PORT OF GDYNIA ARCHITECTURE

Situated in north-eastern Gdynia and covering an area of 500 hectares, the commercial port complex is one of most interesting and architecturally rich complexes of modern industrial development. It was designed and constructed in just a dozen years or so in the 1920s and 1930s. The quality of technological and aesthetic solutions of industrial architecture of the Gdynia port became a symbol of technological progress and economic capabilities of that time. The construction project tantamount to building the Polish "gateway to the world" was a national priority, and for its architects the space of the newly-created port was a natural testing ground for their artistic creativity, where they could introduce new aesthetic and architectural trends.

### **The marvel of port of Gdynia construction**

The Polish Government decided to build a port on the land recuperated after World War I in order to provide the country, recovering from many years of subjection, with the freedom of foreign trade and international cooperation<sup>1</sup>.

Several possible sites were taken into account, but finally the area near the fishing village of Gdynia was chosen, as navigation conditions were favourable here and the place offered great development potential<sup>2</sup>. In 1924, hydro-engineering works were entrusted to a French-Polish Consortium, which carried out construction to the designs of Polish engineers and designers, managed and supervised by the authorities of the Maritime Office. From 1926 onward, the pace of construction works increased rapidly. At that time the world coal trading flourished, which created favourable conditions for the development of Polish maritime transport. As a result, the port's operations achieved record values year by year.

### **Spatial layout of the port**

The plans for the port assumed the construction of two essential parts: the outer port – with 4 piers projecting from the coastline – and the inner harbour, initially consisting of 2 quays and adjacent basins dug out and deepened in what was originally land<sup>3</sup>.

Another innovative method was used to construct the wharfs themselves: they were built of prefabricated reinforced-concrete boxes, which were launched, towed to location and

1. The Treaty of Versailles signed 28 June 1919 guaranteed Poland the right to use the port of Gdańsk and its facilities. This, however, did not give Poland a complete freedom of action or opportunity for international trade exchange. Soon after the Treaty was signed, a decision to build „an independent maritime base” was made, and the vicinity of the village of Gdynia was chosen for the site of the new port. On 23 September 1922, Polish parliament (the Sejm) passed a bill on „building a port near Gdynia, Pomerania, as a public port”, and work on detailed plans of the project started.

2. The roadstead is naturally sheltered by Hel Peninsula, and the land is sheltered by ranges of hills in the south, west and north; low waves; easy access from the sea and good transport links through Gdańsk and then by means of the developed Upper Silesia - Gdańsk main railway line – these are some of the factors that made Gdynia a favourable location.

3. The method used consisted in covering the site for the quays with the sand dug out from the sea (silting) and deepening (dredging) the sites for basins.

sunk by being filled with sand. The final stage was to join particular caissons with iron links. In this way a continuous line of solid wharfs was built, marking the border between basins on the one hand, and piers and quays on the other.

The axis of the layout of the inner harbour was the Port Canal, running from the outer port into Gdynia lowland and the Chylonka River. Various harbour basins were constructed on both banks of the canal: in its southern part there was a universal trade port, while in the north there was a naval harbour and an operational base for timber handling.

The investment programme for constructing basins and wharfs, i.e. the skeleton of the port, was financed entirely by the Polish Government, while further works (development of particular plots for investment or lease) were financed, partly or entirely, by private companies<sup>4</sup>.

### **The port's buildings and structures**

Apart from creating a number of basins and wharfs for ships, the works included the equipment of the port area with cargo handling facilities, storage space, necessary infrastructure and other specific investment for cargo traffic. All the facilities in Gdynia port quickly became an efficient, all-purpose

harbour organism: in 1933 it was ready to receive and handle "any cargo"<sup>5</sup> (Fig. 1).

The construction of warehouses and other buildings was a response to diverse character of the cargo handled. Spatial and engineering solutions of individual structures were adjusted to specific types of the cargoes handled there. Apart from handling food and animal products, there were also fuels, chemical products and raw materials, ores, metals, timber and other cargo, both bulk (liquid and dry) and general. Each kind of cargo required individual handling and storage conditions. Moreover, in particular parts of the docks different types of operations were performed and they needed different forms of facilities. For example, in the fishing docks there was a cold store, a fish hall, smoke-houses together with a fish cannery and a herring barrel factory; in coal docks there were belt conveyors for direct ore delivery (transporters), a bunkering station and a modern wagon tippler<sup>6</sup>.

### **Architecture of port buildings**

The first structures built on the newly-erected wharfs did not have any particular aesthetic values. The form of these plain

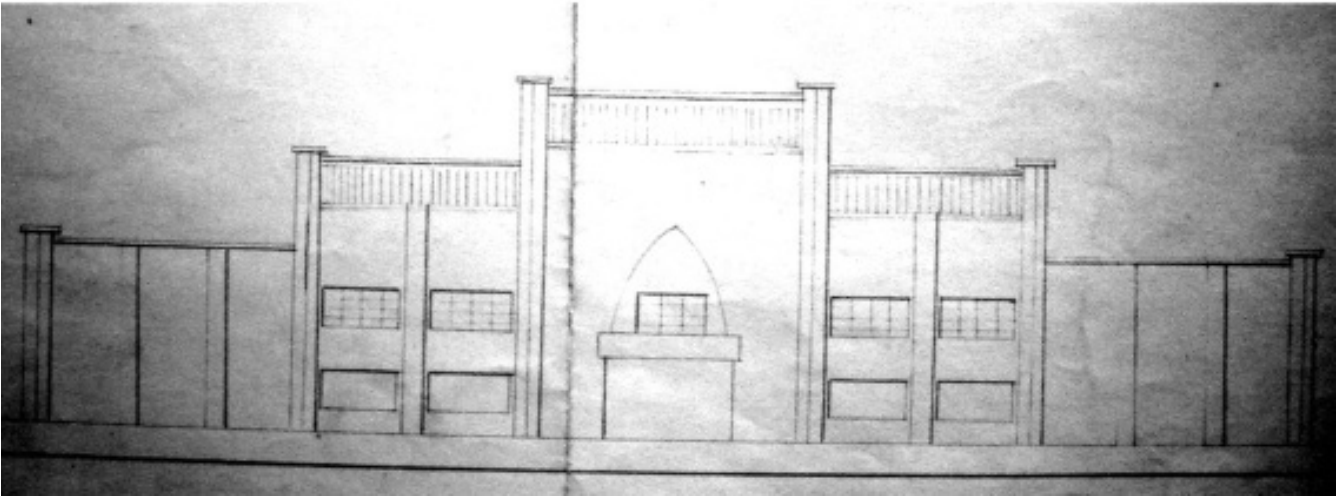
4. Gieysztor Władysław, *Budowa Portu w Gdyni – Referat na I Narodowy Kongres Żeglugi*, Warsaw 1932, p. 10.

5. Dr. G., *Ostatnia faza rozwoju portu gdyńskiego*, [in:] *Wiadomości Portu Gdyńskiego*, Gdynia 1931, No 9, p. 18.

6. A loading facility designed by Polish engineer Wilimek, at that time the only structure of this kind in the world, with loading capacity of 600 ton/h. Koselnik Bolesław, *Port w Gdyni i jego urządzenia*, Gdynia 1934, p. 26.

1. Gdynia port buildings located along the main transport axis, Polska street. Photo by A. Orchowska-Smolińska





2. Warehouse No 6, *Nabrzeże Stanów Zjednoczonych*, completed in 1931. (From Gdynia Museum collection)

warehouses covered with gable roofs was meant to serve a definite purpose, usually a short-term one. With the passing of time, however, when the port's area and its infrastructure were growing, and its prestige increased, big construction companies and design offices were employed to participate in designing particular buildings<sup>7</sup>.

As far as the style is concerned, the architecture of the first port buildings (erected in 1924-1931) showed Historicist influences<sup>8</sup>, but they soon were replaced by novel modern trends and their concepts of simplicity and Functionalism. Architects more and more frequently used modern forms, "natural" for the industrial space, both moderate and avant-garde (mainly Functionalist and Constructivist)<sup>9</sup>.

### Types of buildings in Gdynia port Warehouses

The most characteristic type of harbour spatial and functional building was the warehouse.

7. Müller Jerzy, *Ujęcie architektoniczne portu gdyńskiego*, „Architektura i budownictwo”, Warsaw 1936, p. 164.

8. Examples of Historicist trend: the Water Tower – designed in 1922, built in 1925 (non-existent); Harbour Power Plant – built in 1925 (non-existent); Harbour Master's Office – built in 1926 (non-existent); Customs Office (10 Chrzanowskiego Street) – designed by L. Milewski, built in 1926; Maritime Office (10 Chrzanowskiego Street) – designed by A. Ballenstedt, built in 1927 (See: Sołtysik Maria, *Gdynia – miasto dwudziestolecia międzywojennego. Architektura i urbanistyka*, Warsaw 1993, pp. 61-61, 115-118).

9. Sołtysik Maria, op. cit. pp. 110-116.

Basically, warehouses were differentiated by their operational character and location. In the first line of wharfs, single-storey short-storage warehouses (handling warehouses)<sup>10</sup> were built, while the second line, more distant from the quay, consisted of multi-storey long-storage warehouses<sup>11</sup>. At first, however, each successive warehouse was constructed according to individual design and its structure was matched to land features of the site. This diversity also resulted from the need to create all-purpose facilities that would meet the requirement of storing a variety of goods at the same time<sup>12</sup>.

In the following years, on the basis of previous experience and new trends in harbour architecture abroad, attempts were made to work out a standard design for a single-storey warehouse. The prototype was supposed to be Warehouse No 6 (Fig. 2), constructed at *Nabrzeże Stanów Zjednoczonych* in 1931-32 as cotton storage space in the duty-free zone. Its basic characteristic feature was its cross-section consisting of a nave (12.5 m high at ridge) and

10. Examples of handling warehouses: Warehouse No 3 (18 Polska Street) – built in 1930 (pulled down in 2005); „Cukroport” Warehouses I and II (8 Polska Street) – built in 1930-31.

11. Examples of long-term warehouses: Warehouse No 5 (17 Polska Street) – built in 1931; „Polski Monopol Tytoniowy” Warehouse (7 Polska Street) – built in 1930-31.

12. The first 18 warehouses, erected till 1931, were characterised by this kind of spatial and formal diversity. They were mainly located along the wharfs: Polskie and Rotterdamskie.

two lower aisles (7.4 m at side walls)<sup>13</sup>. This layout enabled the introduction of additional strips of windows in upper walls that let more daylight into the wide (50 m) warehouse. The open-plan space was covered with a wooden roof truss<sup>14</sup> and had a significantly limited number of reinforced-concrete load-bearing pillars. In spite of advanced technological solutions, however, the gable walls were designed in the spirit of the previous architectural epoch, i.e. in a historicist convention, with neo-gothic motifs. The stepping elevation, covering the gable roof with a small parapet wall, was divided by lesenes, and an ogival niche was inserted in its middle part.

This kind of spatial model proved good, and was widely used, with some modifications, in later warehouse buildings.

The second line of the wharf was often composed of buildings which combined the function of storage area with office, social and other functions, depending on the type of operations of their user. One of such warehouses was the building at 21 Polska street (Fig. 3), designed specifically to suit the needs of the "Bananas –

Polski Przemysł Owocowy Sp. Akc." company. It was designed and built (1938-39) by the company of Eliza and Oswald Unger, an architect and an engineer respectively, in cooperation with architect Bronisław Wondrausch<sup>15</sup>.

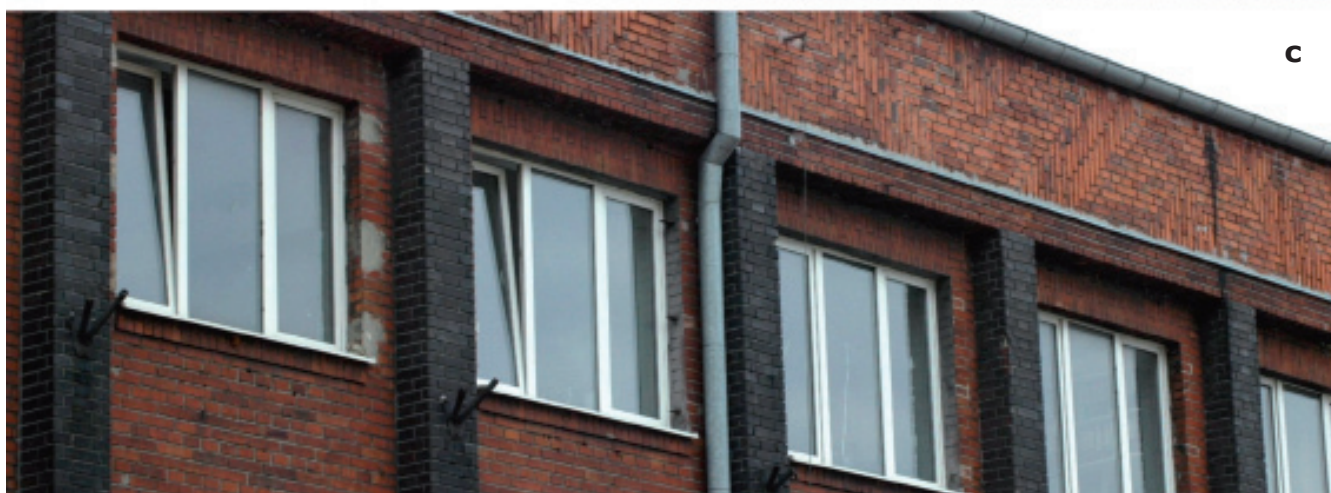
The architecture of the building is interesting. It is a two-storey building with a basement, and with a compact, symmetrical body. It used to house a ripening room, storage rooms, cold rooms and offices. Initially, the upper floor housed operational rooms, managers' and other offices. A unique solution was a skylight in the central section, with an atrium space (9.0 x 4.15 m) running through the attic till the first floor.

Two twin staircases lead to the first floor, each of them adjacent to a side wall. They are preceded by attractive recessed porticos supported by columns. Unique entrances, distinctive lighting by means of vertical "thermometer" type window strips and porthole-like windows, two-coloured terrazzo floors and railings – all this resemble meticulous artistic

13. Wł. G., *Tegoroczny sezon budowlany w porcie*, [in:] *Wiadomości Portu Gdynińskiego*, Gdynia 1931, No 10, p. 17.  
14. „POL-STEPHANA” system.

15. State Archives Records, Gdańsk, the detailed design for a ripening room, a warehouse and offices of the „Bananas” company, within the Maritime Office Complex in Gdynia, Catalogue No 1044/121.

**3.** "Bananas" Ripening Room, warehouse and cold store (now office and storage building) at 21, Polska street, erected in 1939 by architect E. Unger, engineer O. Unger and engineer B. Wondrausch; **a.** view from Polska street; **b.** fragment of staircase; **c.** brick detail – arrangement of lesenes in central part of façade. Photo by A. Orchowska-Smolińska





4. Herring Cold Store, Nabrzeże Angielskie, constructed in 1935-36 (Stage 1) and 1960-65 (Stage 2); **a.** the 1930 archive photograph (from Gdynia Museum collection); **b.** view on Cold Store from the wharf; **c.** a grid of reinforced-concrete framing filled with brickwork – fragment of side wall of the Cold Store. Contemporary photographs by A. Orchowska-Smolińska

solutions often found in buildings in Gdynia.

Another striking feature of this building is the refined pattern of brick elevation (very rare in Gdynia), with decorative under-eaves, a set of lesenes between the windows, rhythmically arranged in the central part of the façade, and a number of other subtle details made of darker-shade clinker brick. The whole building follows the tradition of moderate Modernism.

### **Industrial buildings**

Apart from warehouses, there were other buildings constructed in the harbour area, e.g. industrial plants which constitute a very important group of buildings. Three of them, i.e. the Rice hulling milling Plant, "Union" Oil Mill and Grain Elevator, were located in a complex at Nabrzeże Indyjskie, while another two, i.e. Cold Store and Herring Cold Store, at Nabrzeże Polskie and Angielskie, respectively.

The building of Herring Cold Store (Fig. 4) is the least known in this group yet well noteworthy. It was built at Molo Rybackie by the Sea Fisheries Institute, and its construction was

performed in two stages<sup>16</sup>. It is a cuboid with a plan of 35 x 35 m and very few windows. Its facade, without any ornaments whatsoever, were composed of textural combination of a grid of reinforced-concrete framing and brick wall face filling. The interior layout was adjusted to the specific function of the building. The cold rooms were situated centrally, with access from the outmost hallway which, in turn, was accessed from four corner freight lifts. The Gdynia Herring Cold Store represents the avant-garde modern trend proclaiming the unity of form and structure, i.e. Constructivism.

### **Public buildings**

One of the most interesting public buildings in Gdynia port is the Customs Office building (Fig. 5) at the corner of streets Rotterdamska and Celna (9, Rotterdamska), erected in 1935-36<sup>17</sup>. The design by Warsaw architect

16. Stage 1 (1935-36) – up to the 4th floor, Stage 2 (1960-65) – another three floors.

17. State Archives Records, Gdańsk, the detailed design of Customs Building within the Maritime Office Complex in Gdynia,



a



b



c



d

**5.** Customs Building (now housing Port of Gdynia Authority S.A.), 9 Rotterdamska street, erected in 1935-36, architect Stanisław Odyniec-Dobrowolski;  
**a.** "tower" part of the building (the 1940s archive photograph from the writer's collection); **b.** top fragment of the "tower" part of the building; **c.** present appearance of the building; **d.** flooring in the vestibule. Contemporary photographs by A. Orchowska-Smolińska

Stanisław Odyniec-Dobrowolski, was the winner of a nationwide architectural competition<sup>18</sup>. The U-shaped structure consists of the central 4-storey office building and two wings housing a clearance room and apartments for office workers. The asymmetrical composition of the structure (different shapes and heights of its respective parts) refers to the principles of Functionalism, while vertical layout and the plastic art of the décor of the corner "tower", with stripes of slender windows separated by protruding pillars, bear the features of moderate Modernism<sup>19</sup>. While making the detailed technical drawings, the architect slightly changed the original design of the façade in order to give the building more elegant, stately appearance. As a port administration building, it was appropriately equipped with details like a relief depicting the

national emblem, placed on the façade axis, and a flagpole with a "basket" meant to imitate the captain's bridge. The value of the building is determined by mostly original décor of public spaces preserved, the most interesting of which are three-coloured mosaic floors in the vestibule and staircases.

#### **Welfare facilities for port workers**

Apart from large-size warehouses, short- and long-term storage rooms, huge buildings and industrial plants, smaller structures were erected as well, with auxiliary, office and welfare functions. The most remarkable structure of all the port welfare facilities was the building housing baths and locker rooms called "Stone Corner" (Fig. 6), located at the junction of Duńskie and Szwedzkie wharfs. Its specific function was to provide appropriate working conditions for dockers handling coal. The building was constructed in 1931-32 in line with moderate modernist convention; its symmetrical

Catalogue No 1044/73, 77.

18. Tenders were invited by the Military Housing Fund through Z.S.A.P. in 1934.

19. Sołtysik Maria, op. cit. pp. 333-335.

composition has the T ground plan. The central, two-storey entrance part was a projection from the face of the flanking wings. The façade décor was based on a horizontal pattern and the use of different textures: it was composed of brick ribbons bordering the windows, with stripes of smooth plaster in-between. The composition was supplemented with cornices topped with a plain parapet wall hiding the roof slopes.

### Conclusions to Part I

As far as function, scale and formal solutions are concerned, the industrial architecture of the Gdynia port shows notable diversity. What is exceptional about it is that the whole port is composed of structures erected in a very short period of time, and their modern forms reflected the industrial character of the port space. A coherent aesthetic picture, appealing even today, was achieved thanks to thoughtfully chosen architects, design teams and construction companies as well as carefully-planned efforts

to create a homogeneous port and industrial organism with well-organized space. It must be added, however, that the preserved Modernist architecture, valuable both historically and culturally, is still an area of present-day port activities. Operational needs, very different from the original ones, make it necessary to adapt the space together with its resources to new realities, which poses a number of threats to these historical buildings.

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**6.** Locker Rooms and Baths for dockers, Danish Wharf, 1 Warsztatowa street, constructed in 1931-32;  
**a.** the view from Danish Wharf; **b.** central entrance part; **c.** the front view. Photo by A. Orchowska-Smolińska



## **PROTECTION OF MODERN INDUSTRIAL ARCHITECTURE OF THE PORT OF GDYNIA**

For conservators of historical buildings, the port of Gdynia is a very unique complex. This huge industrial concept built in the 1920s and 1930s is in good condition in spite of being in operation for over 80 years. The industrial architecture survived in a historically-shaped, clear-cut spatial layout, bearing witness to technology and aesthetic trends of the two decades. The complex is unusual both on regional and national scale: it was built in a relatively short time, its architecture is of high quality, and the historical fabric of its spatial tissue has been preserved. However, conservation and protection an architectural complex of this size is a real challenge for both administrators and conservators. The port can be a good illustration of the numerous problems that emerge while attempts are made to preserve and conserve modernist industrial architecture.

### **Issues in the protection of pre-WWII industrial monuments**

The problems of protection of industrial architecture created in the 1920s and 1930s are not restricted to the planning and execution of construction work, or to the technology and techniques of conservation. The most vital decisions - whether a historical industrial structure will disappear from the cityscape or survive (in what shape?) are made outside the designer's and conservator's offices. Most often social and economic conditions play a key role in preservation and conservation of technological monuments.

A major problem that affects conservation activities is often caused by the fact that the users of industrial buildings do not realize their historical value. People tend to think a historical building must be a church, a mansion (although without its park) or a tenement house, while industrial buildings, if they do not have any special features regarded as historically valuable (e.g. timber-framed walls), do not belong to this category. The problem is even more distinct when it comes to the architecture of the 1920s and 1930s, regarded as relatively recent. Naturally, according to architectural historians, the fact that the building was constructed in the 20<sup>th</sup> century

does not mean it cannot be of historical value<sup>20</sup>. In public opinion, however, the building's short history – shorter than the histories of many people still alive – makes it difficult to qualify it as a monument<sup>21</sup>. The conservator faces a very difficult task having to convince the owner of a more recent industrial building, unaware of its historical value, that it must be protected – for our common good...

In an industrial plant, another important issue is the isolation of the historical building in an area that is closed to the public. Because of this, industrial architecture is not widely known; it lies off the beaten tracks and is not easily accessible (e.g. entering the premises of the port of Gdynia, which is an operating enterprise, is only possible with a pass, and visits are subject to some restrictions resulting from work in progress). Therefore, the port monuments are absent from public awareness as they are neither widely-known nor recognised as valuable and worth visiting<sup>22</sup>. Although there are many societies of enthusiasts of "niche" categories of monuments in Poland, they focus on military or railway engineering structures rather than purely industrial ones, especially those constructed in the 1920-30s. Moreover, the isolation of industrial architecture is an obstacle to effective administrative supervision by the preservation officer. In the cityscape, any changes made to historical objects by their owners are easily noticed.

Another circumstance specific to port buildings is that they are under a constant threat of radical redevelopment, or even destruction on account of modernisation. From the conservation point of view, the original function of the historical building is the most desirable. However, maintaining it usually leads to frequent modernisation of the machinery, the body of the building or even its demolition to give way to new buildings. It is obvious that the port was

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20. According to Michał T. Witwicki, a monument can be any building, irrespective of its age, if it is historically valuable (Witwicki Michał T., *Kryteria oceny wartości zabytkowej obiektów architektury jako podstawa wpisu do rejestru zabytków*, [in:] *Ochrona zabytków*, No 1, 2007, p. 81). See also: Biegański Piotr, *Potrzeba zachowania obiektów architektury czasów najnowszych*, [in:] *Problemy ochrony architektury najnowszej (1850-1939)*. (Post-conference materials – Poznań, 19-20 November 1970), Warsaw 1971, pp. 9-13.

21. The problem is certainly much more complex (e.g. the issues related to migrations of people after WWII and their attitude towards their new cultural environment, as well as to present education in the area of protection of cultural heritage), and this paper only indicates its existence.

22. Obviously, this can be changed by making them more popular, which we do hereby.



meant to operate as a modern enterprise geared to constant modernisation, which means that the basis for the port architecture's existence is its economic profitability as usable buildings suitable for contemporary, constantly upgraded, technologies of production, transport, storage, etc. What seems obvious with currently built structures, gives cause for concern when it comes to protection of historically valuable port architecture.

The owner's economic calculations for repair works pose another threat: it is usually cheaper to demolish the building and erect a new one than to make repairs and conserve. A common excuse for demolition is bad technical condition of the building. A question could be asked here: Where was the owner responsible for its maintenance when the building was deteriorating? Preventive maintenance at the right time, a cleanup, a coat of paint or the right function is usually enough for the building to survive. The listing of the building in the register of monuments will not save it by itself. The preservation order will not work miracles, if the owner, the administrator or the user are not willing to save the building.

### **Legal protection of historical monuments in the port of Gdynia**

Neither legal protection nor the preservation officer's executive decisions will substitute the owner's care for the industrial monument. However, statutory forms of monument protection<sup>23</sup> give preservation officers tools for taking action, and owners of historical buildings gain prestige and a possibility of various forms of financial support. In Gdynia port, five structures are listed buildings: Passenger Terminal, Grain Elevator, Cold Store and the long-storage Warehouse "H" were listed in 1990, while in 2007 an executive decision concluded the listing proceedings for the complex of Rice Hulling Mill<sup>24</sup>.

The register of historical monuments should include only selected, most valuable structures. However, other historical buildings must not be left without protection; they may be less valuable but still worth preserving due to their historical

values. In 2005, Gdynia City Hall had records of the port's historical buildings prepared<sup>25</sup>. The records of 140 buildings are of no legal validity, but merely documentation, information and preliminary identification of historical resources until preservation of the buildings is introduced in the local plan. The general land use plan for the port area had expired by the end of 2003, when a new law on physical planning came into force. A new land-use plan has not been established yet<sup>26</sup>. Therefore, we can only hope that the port administrators will be sensitive enough not to let the recorded historical buildings deteriorate.

### **A review of listed buildings in the port of Gdynia**

Unfortunately, uncontrolled and often devastating changes affect not only the 140 buildings from the City Hall list, but those classified as monuments as well. Their example can be used to identify the threats they are exposed to, but also to indicate conditions for their good functioning.

One of the most interesting historical objects in the port is the complex of Rice Hulling Mill (Fig. 7), constructed at Nabrzeże Indyjskie in 1927-28, most probably designed by a Cracow architect. The Functionalist Mill was one of the first buildings erected in this part of the port, clearly visible from the city and the sea<sup>27</sup>. All the elements of the complex (production building, warehouse, office-residential building, workshops, stable, porter's lodge demolished last year and the enclosing wall) were given stylistically uniform facades, being a kind of national manifestation<sup>28</sup>: the facades were composed of horizontal stripes of white plaster and red brick. The pre-war milling machines did not survive, but the warehouse retained its unique

25. It was then that Anna Orchowska-Smolińska wrote her monograph *Ewidencja historycznych budynków na terenie portu w Gdyni*, Gdynia 2005.

26. Proceedings have been taken to draw up a local plan for the area of Międzytorze (an area at Jana z Kolna and Portowa Streets). In this area, however, there are only few of the buildings included in the list.

27. Sołtysik Maria, *Gdynia. Miasto dwudziestolecia międzywojennego. Urbanistyka i architektura*, Warsaw 1993, pp. 112-115; Orchowska-Smolińska Anna, op. cit. Card No 94; Jaśkiewicz-Sojak Anita, *Łuszczarnia ryżu, Gdynia* (architectural and building monument register card), Gdańsk 2005.

28. Specificity of Polish Functionalism see: Olszewski Andrzej K., *Dzieje sztuki polskiej 1890-1980 w zarysie*, Warsaw 1988, pp. 64-65. See also: Sołtysik Maria, op. cit. pp. 112 and 115, and Störtkuhl Beate, *Architektura wystawowa jako metoda narodowej prezentacji. Wystawa Wschodnoniemiecka (1911) i Powszechna Wystawa Krajowa (1929) w Poznaniu*, [in:] *Naród. Styl. Modernizm*, [ed.] Jacek Purchla, Wolf Tegethoff, with co-operation from Christian Fuhrmeister and Łukasz Galusek, Kraków-Munich 2006, pp. 249 and 256.

23. Under Article 7 of the 23 July 2003 Act on Monument Protection (Journal of Law 2003, No 162/1568), there are four forms of monument protection: listing a structure, giving it the status of a historical monument, creating a culture park and establishing its protection in the local plan.

24. Source: *Rejestr zabytków województwa pomorskiego* (materials of the Regional Monument Preservation Office, Gdańsk).



**7.** Rice Hulling Mill at 2, Celna street and 7, Indyjska street (part of the warehouse); **a.** view of the complex in 2005, before the production building was extended; **b.** view of the complex, 2007; **c.** front façade of the warehouse, view from Nabrzeże Indyjskie; **d.** warehouse interior, timber load-bearing structure. Photo by A. Jaśkiewicz-Sojak

wooden load-bearing structure. The Mill complex is an example of devastating modernisation: the production building has been extended with a structure not only completely different in style, materials used and colour scheme, and covered with metal roofing sheets, but overwhelming the original building as well. The warehouse is threatened with demolition on account of its bad technical condition and storage conditions which do not meet current standards.

Another significant listed building, the Grain Elevator (Fig. 8), represents a combination of Functionalist and Modern Monumentalist styles. It was erected at Nabrzeże Indyjskie in 1935-37, to the design of engineer Michał Paszkowski and architect Bolesław Szmidt<sup>29</sup>. At that time, it was a state-of-the-art building in terms of style, construction process, machinery and equipment.<sup>30</sup> In 2003, due to bad condition of the façade cladding, renovation works started<sup>31</sup>. Originally, the Elevator's walls were finished with cement tiles painted brown in the ground part and light-grey in the upper part. Material and technological problems emerged during renovation works. Because of mould, salt efflorescence and fungi under the cladding, causing the walls to peel off, there was a risk that

29. Sołtysik Maria, op. cit. pp. 293-294; Orchowska-Smolińska Anna, op. cit., Card No 98.

30. Specialist literature presented the Gdynia Elevator as very modern and matching the latest technologies even 20 years after its construction (Nowacki Witold and Dąbrowski Ryszard, *Silosy. Metody obliczeń i konstrukcja*, Warsaw 1955, pp. 333-339).

31. Source: Design documentation for the renovation of the grain elevator facade made by Kenton-Arch company (Małgorzata and Rafał Ickiewicz).

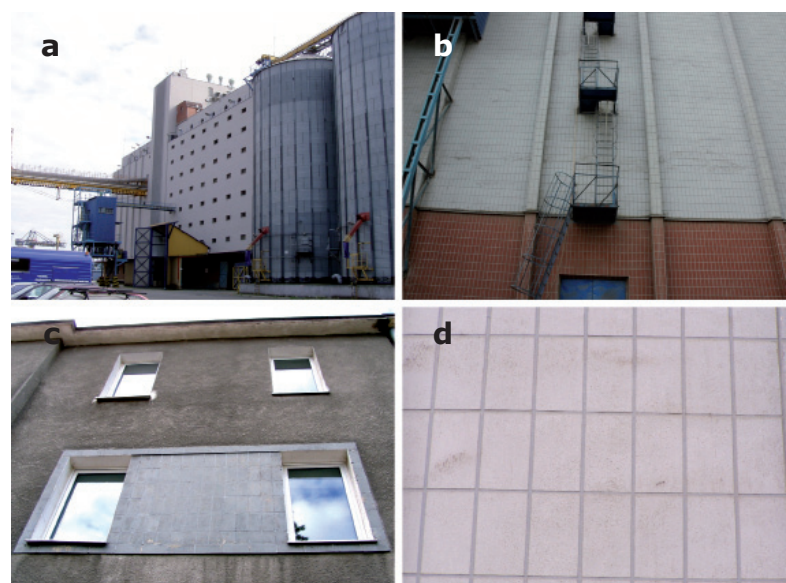
they would reappear after new tiles had been laid. After some tests, designers suggested the walls should be covered with plaster with a grid of dyed grooves imitating tile joints. The original colour scheme was preserved. The assembly of scaffolding appeared to be difficult, too. For economic reasons, the Elevator's operation was not suspended, and the appliances working on the outside of the wall made it impossible to erect scaffolding on the ground. Therefore, special scaffold trusses were constructed, and the works were carried out in stages so that they would not interfere with grain transshipment. (When plaster was about to be laid, its manufacturer changed its recipe, and so another kind of plaster had to be found to ensure a proper texture...)

The Passenger Terminal (Fig. 9), in a moderate Modernist Style, was built at the present-day Nabrzeże Francuskie for ocean liners sailing to America. This extremely interesting building was designed by "Dyckerhoff & Widmann" team from Katowice, and constructed by "Spółka Techniczno-Budowlana Skąpski, Wolski, Wiśniewski" in 1932-34<sup>32</sup>. The hall was roofed with a quadrangle thin-walled reinforced-concrete dome with a skylight. Today, the main problem with the building is that it lacks a proper function. When regular transatlantic passenger sailing stopped, the huge Terminal became useless. Its fine main hall is empty, office rooms are let to various firms, and the spacious check-in and customs-clearance hall (re-partitioned) houses a furniture shop...

The Functionalist food Cold Store at Na-

32. Sołtysik Maria, op. cit., pp.192-194; Orchowska-Smolińska Anna, op. cit., Card No 70.

**8.** Grain Elevator, 1 Indyjska street; **a.** façade in Indyjska street; **b.** side elevation; **c.** original concrete tile cladding of the baths and locker room building, near Grain Elevator; **d.** renovated façade. Photo by A. Jaśkiewicz-Sojak





**9.** Sea Passenger Terminal, 1 Polska street; **a.** façade; **b.** side elevation, a warehouse in the ground floor, and former check-in hall above it; **c.** the Terminal's main hall; **d.** former check-in hall converted into a furniture shop. Photo by A. Jaśkiewicz-Sojak



**10.** The Port Cold Store at 20, Polska street; **a.** view from Nabrzeże Indyjskie; **b.** façade; **c.** view from Polska street (photo by A. Jaśkiewicz-Sojak); **d.** brickwork detail. Photo by A. Orchowska-Smolińska

brzeże Polskie (Fig. 10), built in 1928-30, has retained its original function. Its architects, "Atelier B. Lebrun, Société Anonyme, Nimy (Belgique)", designed it to house an innovative refrigerating system. After being extended in 1932-34, the building became the most advanced and one of the biggest cold stores in the world<sup>33</sup>. Unfortunately, it no longer contains its original machines or refrigerating system, but its technical condition is good.

The port building which was listed most recently is the long-storage Warehouse No 5, called "H" (Fig. 11). It represents a combination of moderate Modern Movement and Constructivism. The engineering firm "Biuro Inżynierskie K. Jaskulski i K. Brygiewicz" started construction

works in 1931, erecting the first two floors, and in 1934 another three floors were added<sup>34</sup>. At present, the whole building has storage rooms for rent, in line with its original function. The building is in operational use, its interiors have been renovated, the elements of décor preserved (staircases, freight lifts, steel sliding gates). The only thing that raises some reservations is its façade which needs to be renovated.

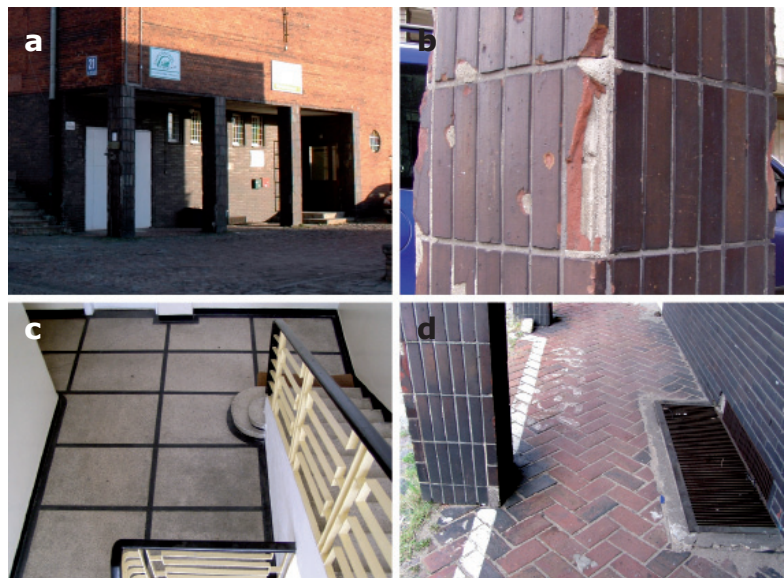
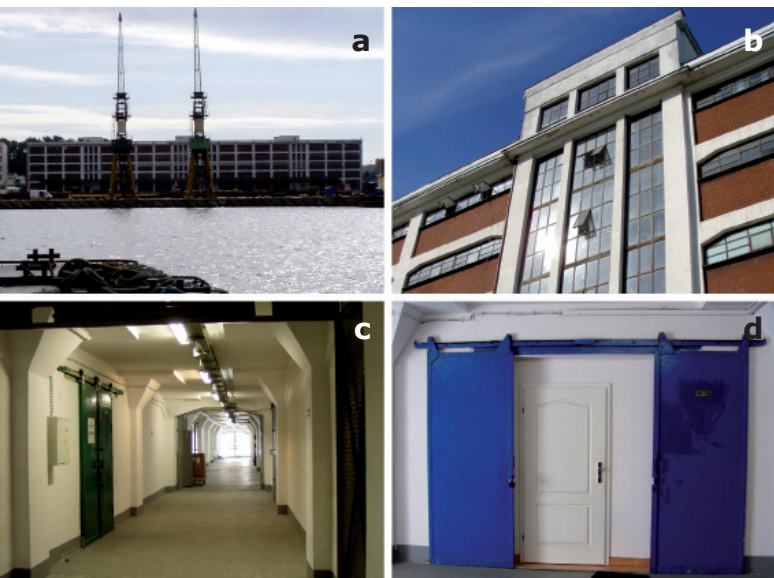
In conservation and repair works of port structures, the conservation of their original finishing materials and architectural details is relevant (Fig. 12). This issue has already been mentioned, but it actually refers to all the recorded buildings earmarked for protection. The biggest problem is that building materials

33. Sołtysik Maria, op. cit. pp.113-115; Orchowska-Smolińska Anna, op. cit., Card No 82.

34. Sołtysik Maria, op. cit., pp. 192 and 194; Orchowska-Smolińska Anna, op. cit., Card No 80.

**11.** Long-storage Warehouse "H" at 17, Polska street; **a.** view from Nabrzeże Indyjskie; **b.** fragment of façade; **c.** interior, hallway of repeatable floor; **d.** entrance to one of the storage rooms, adapted to current needs, the original steel gate preserved. Photo by A. Jaśkiewicz-Sojak

**12.** Office building, 21 Polska street; **a.** fragment of side elevation; **b.** clinker cladding of the pillar of the side wall portico; **c.** interior, staircase; **d.** side wall portico flooring. Photo by A. Jaśkiewicz-Sojak



produced in the 1920-1930s were different from those produced today; face brick, clinkers, interior and exterior tiles, and terrazzo – all were different in quality, texture and colour. Another problem is the shortage of skilled craftsmen and selection of suitably qualified engineers. The filling in of the missing parts of the original wall face is often conservation rather than just repair.

Yet another problem is the colour scheme of the façade. Instead of reconstructing the original plasterwork colours, designers invent new ones, thus showing no respect for their predecessors' works and ignoring the building's environment. A real plague of today is foamed polystyrene insulation, which irreparably destroys the original façade and details.

### **Summary**

Considering the fact that the port is in operational use, the protection of its 1920-30s industrial architecture is a real challenge. Every time a conservation problem arises, conservators and users have to work out a compromise. And there is always a question of what modifications, alterations or demolitions can be carried out and what must be prevented to protect heritage. A port in operational use cannot be converted into a museum, but, after all, this is not the aim of historical building protection. The port is an important part of the city and an inseparable element of Gdynia's history. Through its architecture and planning, it bears witness to the past, the progress of building arts and the history of industry. Therefore, it must be stressed that preservation of this unique historical port complex is not only a conservator's concern, but its administrator's and users' as well.

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