1. Introduction

Port activity is an important factor of economic growth for coastal towns located in their hinterland. The combination of port activities and the city’s presence in terms of their multidimensional cooperation creates great competitive advantages. Seaports are characterised by their constant development. It involves the development of the port facilities and the diversification of the offered services (Misztal et al., 1988). The primary function of ports is their maritime function. It is related to maritime economy and includes such activities as fishing, cargo handling, shipping and the shipbuilding industry (Palmowski et al., 2001). The processes of port evolution in the context of their facilities, directions of development or implemented solutions constitute an inseparable element of their functioning. Market trends force flexibility in ports activities; therefore, in addition to changes in the services they provide, there is also dynamism in changing their boundaries (Lorens, 2010). Currently, there are ports of various generations, from the first generation – traditional port operation, as a place for reloading goods, to the fourth and fifth category ports, which are characterised by the highest degree of development (Żukowska, 2020). They also achieve the largest transhipment, as expressed in thousands of TEU\(^1\), in comparison to

\(^{1}\) TEU – it is a capacity unit based on a 20-foot intermodal container with the dimensions of 6.10 x 2.44 x 2.59 m.
other ports. In the literature on the subject, there are also sixth generation ports, but they are criticised due to the current disproportionality of profits to the outlays that the ports would have to incur due to internal transformations (Kaliszewski, 2017).

Nowadays, one of the most important urban phenomena is the transformation of quays (Giovannazzi, Moretti, 2010). It is conditioned by changes in the structure of functioning of the ports themselves, as well as in the functional and spatial structure of cities. The dynamics of links between the port and the city, where the waterfront is the area of cooperation or conflicting interests, is a natural aspect of the relationship between these two (Hoyle, 1997/1998). It is the arena of a modern revolution in the approach to the return of the urban tissue to the water area, regaining the multi-faceted identity of the place and strengthening the involvement of various stakeholder groups in the process of its transformation (Yocom et al., 2016).

2. Objective and methodology

The aim of the article is to present synthetically the problem of the changes in the functions of port areas using the example of Molo Rybackie [the Fishing Pier] (locally referred to as the Dalmor quay), which covers the south-eastern part of the Port of Gdynia. In particular, the aspects that have influenced cessation of its basic activity and revitalisation visions of its areas will be discussed. It has been hypothesised that undertaking revitalisation activities of the waterfront not only revives the economic space of the city, but it also cements social relations and recreates the character of central areas.

The research area focuses on the city of Gdynia, which is located on the waters of the Gulf of Gdańsk in northern Poland. It is referred to as “the city of the sea and dreams”, because it was an important place for the development of the maritime economy after gaining access to the Baltic Sea waters, thanks to the provisions of the Versailles Treaty of 1919. Gdynia is an example of a dynamically developing urban structure, which is the central part of the Tri-City Agglomeration. The city of Gdynia also exemplifies a dynamic transformation of the post-industrial economy and the transformation of the former port areas.

The temporal scope of the conducted analysis ranges from the interwar period, which was a period of the beginnings of the development of the economic and spatial structure of Gdynia, to the second decade of the 21st century.

The method of desk research (Czarniawska, 2014) and own observations, based on Polish and foreign literature on seaports and their relations in the urban structure, transformations of the waterfront (in particular revitalisation activities), were used in the study. In the empirical part, planning materials of the Gdynia City Hall regarding spatial planning and development were used.

3. Port-city relations

The relations between the functioning of the port and its hinterland – the city – are subject to changes over time (Lorens, 2013). The issues related to the evolution of port-city relations are visible in contact areas such as the waterfront. The term refers to the border area between a port and a city located on a body of water. This place involves the dualism of the port and the city relationships. It is an area of economic and spatial conflicts and, at the same time, complex economic, spatial and social ties between them (Lorens, 2013). Their attractiveness in terms of investment, history and culture is particularly important. Waterfronts, which are key elements of the city centre space, are particularly prone to transformations of their functions in accordance with local and globalisation trends (Butuner, 2006). Social trends related to the residents’ needs (recreation, housing, entertainment, culture, business) also draw special attention.

The border between the port and the city has a dynamic character. Seaports located inside the city (for example, the Port of Gdynia) or close to the city (the Port of Gdańsk) move their boundaries depending on development needs. London Docklands are an example of a policy of transforming the waterfront. It covered a vast area of the port of London located on the River Thames. It was described as the largest port in the world due to spatial and transhipment aspects. Technological changes, the management system of this entity, or logistic transformations weakened its position, thus hindering its development (Mironowicz, 2009). Currently, London’s Docklands is a leading financial hub, and is also a showcase for London’s business, despite the extreme sentiment related to conducting revitalisation activities. Additionally, it should be emphasised that the undertaken revitalisation activities constitute the key aspects of socio-economic activities of the British urban policy (Jones, 1998). American cities, such as Baltimore, Boston and San Francisco,

2 The Tri-City Agglomeration consists of three main cities, Gdańsk, Gdynia and Sopot, and 27 neighbouring municipalities.

3 The Inner Harbor Baltimore is an example worth mention-
were examples for European activities in the 1970s on how to transform port areas. On the one hand, they illustrated the success of the undertaken actions and, at the same time, taught lessons about the potential challenges and failures they faced (Jones, 1998). The foundations were a favourable urban policy, numerous investment incentives, as well as expectations resulting from housing needs, residents’ increased awareness of the local heritage generated by ports, development of tourism and openness of cities, struggle to increase the comfort of living in the city, residents and tourists’ entertainment and recreation needs, and expectations regarding the improvement in the natural environment.

In the literature on the subject, the system proposed by B. Hoyle in 1998 (Lorens, 2013) is considered as the main model for shaping the port-city relations. It presents the process of developing relationships between the port and the city. It is noticeable that:

• until around the 1980s, from the initial stage of close functional and spatial relations with the urban tissue the port leaves the city and separates from it,
• since the 1980s, efforts have been made to revitalise the waterfront – integrating them into the urban tissue through new development, as well as recreating the relationships between the port and the city, especially recreating the maritime identity of the place.

In a synthetic approach that defines the phases of development of port and city structures, the following layout is indicated (Lorens, 2013):

• phase I of the development, until the 19th century, waterfronts were operated mainly as reloading sites,
• phase II of the development, covering the period up to the mid-20th century, defines the departure of ports from cities, releasing post-industrial areas at the meeting point with the city,
• phase III, since the mid-20th century, when waterfronts have been adapted to new utility functions. Currently, efforts are being made to revive and develop port-city relations (Magdziak-Grabowska, 2012). It is influenced by the processes of changes in port activities, the release of degraded former port areas or those that no longer fulfil their basic functions. In the urban structure, ports are referred to as key catalysts for sustainable development (Girard et al., 2014). Two strategies of action are noticeable in the policy of seaports: those related to the development of new areas and the revitalisation activities related to the development based on other functions of the port or the city (Pluciński, 2014). The basic aspect is the transformation of the economic structure of cities from the industrial to the commercial one (Butuner, 2006). Post-industrial areas can be a location of important entities from outside the port industry and can be used for tourism, cultural or housing purposes (Turek, 2013). Activities that, despite a changed function, retain their characteristic elements distinguishing them from the urban tissue including, among others, industrial buildings, are essential.

The problems that port cities face in the case of waterfronts are the differences regarding various groups of stakeholders, their mutual relationships, aspects that prevent cooperation, conflicting goals and different visions of the target state (Hoyle, 2000). In this case, there is an attempt to reconcile the different parties, whose final effect is a waterfront corresponding to their needs and attracting persons from outside their group. Adaptation of the former port areas and their rational and sustainable use is a separate issue. Recreating and building relations between the port and the city is a challenge, especially in terms of undertaking revitalisation activities. The excessive domination of the port in relation to the city and the city in relation to the port contributes to the increase in disproportions between them. An additional aspect comes from urban trends, especially those of an extensive character of new buildings in the suburbs. By developing a waterfront, one can reduce the effect of "urban sprawl"4 by complementing the urban tissue (Lorens, 2013). Another aspect is shaping the new character of the place, thanks to which significant added values can be achieved. These include increasing the competitiveness and attractiveness of a port city as a place that implements sustainable and integrated actions, taking into account the social, economic and environmental aspects (Januchta-Szostak, 2012).

4 The term “urban sprawl” refers to uncontrolled urbanisation of suburbs and rural areas, with depopulation of city centres. It results from an increased demand for cheaper real estate, thus generating environmental, communication (congestion) and infrastructural problems.
neighbouring coastal towns and villages (Balicki, Makać, 1988). After World War I, local deep-sea moods arose, which involved the expansion of the boundaries of fishing activities beyond the Baltic Sea waters, extending its range of fishing, among others, to the North Sea (Ropelewski, 1991). From the 1930s to the 1940s, several fishing companies operated in Gdynia. One of them was the Dutch Mopol, which had eight sailing ships (herring luggers). The company initiated this form of activity in Poland and additionally started the construction of a fishing base on land at Nabrzeże Angielskie [English quay] – Molo Rybackie. It was located in the fishing port, and since the 1920s in the area of the Gdynia Sea Port still under construction (Czerwińska, 1980). Another enterprise was the so-called Mewa [Seagull], which conducted its activities with 15 sailing ships. At Nabrzeże Angielskie, it undertook the construction of an office and administration complex with a processing part (a warehouse and tanks for salting herring). At the end of the 1940s, the company Pomorze [Pomerania] was established in Gdynia, which did not operate traditional sailing ships, but trawlers, which were the largest fishing vessels in use in the country (Ropelewski, 1991). The company used the existing land base of Molo Rybackie. The highly developed fishing base also included other fishing companies, such as: Korab, Ławica and Delfin. During World War II, German occupiers used the deep-sea fishing base located in the fishing port. Seeing its growing potential, they undertook the expansion of processing, storage and cooling facilities.

On January 29, 1946, Przedsiębiorstwo Połowów Dalekomorskich “Dalmor” [the Dalmor Deep Sea Fishing Enterprise] was established. During the people’s regime, a period of national socialised economy, Dalmor was a state enterprise. In the late 1940s, the United Nations Relief and Reconstruction Organisation (UNRR) allocated additional fishing units to it to support the reconstruction of Polish fishery (Ropelewski, 1991).

The potential of Gdynia’s Dalmor (Fig. 1) as the basic entity developing the sector of fishery in Poland was manifested, among others, in activities such as opening its branches in Szczecin and Świnoujście. It also showed an intention to expand its functional zone to include Gdańsk in the event of its inclusion to the fishing functional zone to include Gdańsk in the event of its inclusion to support the reconstruction of Polish fishery (Ropelewski, 1991). The main activity undertaken by the management of training activity was a significant contribution of the company to the development of domestic fishery. It offered six-month training for maritime staff. Initially, Dalmor fished mainly in the North Sea, but thanks to new trawlers, it was able to expand its ranges into the waters of the Barents Sea. The company’s high development tendencies, as well as prospective plans were the basis for extending the fishing zones to the waters of the Labrador, far away from European waters (Misztal, 1980). The development of deep-sea fishing also had an impact on the Polish shipbuilding industry, which became involved in the production of modern fishing vessels with appropriate storage and processing equipment. The industry itself initially supplied Dalmor with about 14 such fishing vessels, and their stock was systematically increased. The use of modern fishing techniques and vessels adapted to deep-sea fishing was conducive to the development of fishing routes into the sub-Arctic waters, the Central Atlantic, and also West African waters (Misztal, 1980). Since the 1970s, the Dalmor company, enriched with incorporating the Arka fishing entity, maintained the increase in catches and also developed the base of Gdynia’s deep-sea fishing. This was approved by the political authorities; therefore, Dalmor obtained financial support for further modernisation of its facilities and the purchase of electronic equipment – modern network echosounders and vertical-horizontal echosounders (Misztal, 1980). In the period of its greatest development, the Dalmor fleet was equipped with 59 specialised fishing vessels and reached catch levels of over 200,000 tons of fish per year. The company employed 7,000 staff, of whom approx. 60% were fishermen (Palmowski, 1998).

5. Transformation of Dalmor

The basic aspects that weakened Dalmor’s position in the 1980s–1990s involved restrictions on fishing opportunities by introducing 200-mile economic zones for coastal states, including Poland. The Russian lobbying against Polish fishing in the Bering Sea was an additional aspect (Palmowski, 1998). Consequently, in the 1990s, the deep-sea fleet and employment decreased (by over 40%). The recession of fishing activities triggered taking restructuring measures (Klasa, 2007). The company structure was gradually transformed into a holding form, which included several companies. They offered processing services (Dal-Pesca), refrigeration services (Dal-Mors), handling of cargo units (Dalmor-Port) and services related to cutter fishing in the waters of the Baltic Sea. The basic entity developing the sector of fishery in Poland was manifested, among others, in activities such as opening its branches in Szczecin and Świnoujście. It also showed an intention to expand its functional zone to include Gdańsk in the event of its inclusion to the fishing
the enterprise was the commercialisation of its facilities – real estate (Zalewski et al., 1997). The privatisation of Dalmor began in 2004, when two companies came forward during a purchase attempt – one from the property development industry and the other from the processing industry (Romanowski, 2012). The transaction did not take place, but six years later, the sale was resumed. Only the development company was interested in the purchase offer. The sale was suspended due to a low proposed amount for the purchase of Dalmor. Finally, it was included in Polski Holding Nieruchomości [the Polish Property Holding], which specialises in investment activities in the commercial real estate sector.

The construction of the seaport in Gdynia focused most of the activities related to the proper development of land for port functions. Much more land was allocated to equip the port space than it had initially been planned, with negative consequences for the urban space. The solution to the indicated problem of the port-city relationship was to change the port boundaries in favour of the city. In 2003, following the ordinance of the Minister of Infrastructure, the port boundary was moved, thus excluding unused port areas with a surface of approximately 53 ha (Karzyński, 2015). They also included the attractive waterfront areas of Molo Rybackie (10.5 ha), located at Basen I (Prezydenta) [Basin I (President Basin)]. The disappearance of one of Gdynia’s traditional functions – fishery and the development of the disused areas was a significant problem and, at the same time, a challenge in the development of the waterside areas. Currently, Gdynia’s spatial policy in the city centre is facing urban challenges that include the reintegration of the commercial and housing space that has been moved to the peripheral areas of the city (Lorens, 2010). The tourism and maritime function is also an integral part of the space, especially in the waterside areas, whose gradual restoration will have a positive impact on recreating the city’s maritime identity. Molo Rybackie (the Dalmor quay) and the surrounding areas of the Sea Towers or Kościuszko Square belong to the so-called Coastal Zone of Urban Prestige, the most attractive and at the same time highly representative area in the city.

The transformation of the former port area of Dalmor included the construction of the Gemini commercial centre and was a spatial dominant of the Gdynia waterfront (Fig. 2). The 36-floor apartment and commercial complex Sea Tower, located between two piers – Molo Rybackie and Molo Południowe [the South Pier] (extension of the Kościuszko Square, which is the main axis of the city), turned out to be a special spatial dominant.

The two-year work allowed for the preparation and adoption in 2010 of the local spatial development plan (MPZP) for Śródmieście district (the city centre) in Gdynia – the area of Molo Rybackie (Uchwała…, 2010).

Fig. 1. Molo Rybackie, the 1960s
Source: fotopolska.eu
Fig. 2. The location of Molo Rybackie in the centre of Gdynia
Source: Own elaboration based on Google Earth Pro.

Fig. 3. The state of development of Molo Rybackie in 2019
Source: Own study based on: Google Earth Pro.
The location of Molo Rybackie close to the city centre brings with it certain expectations in the context of introducing a new method of spatial development and creating a representative urban waterfront area (Fig. 3, 4). The spatial development plan for the area of Molo Rybackie provides for the introduction of multi-family housing (MW3) and low-rise multi-family housing (MW2) up to four floors, where commercial facilities (U) will be located on the ground floor from the side of public-access streets. The commercial facilities include, among others, cultural and tourism services (UK, UT), commercial facilities with a sales area of over 2000 m² and sea tourism services (hotel, catering services). Organised green areas (ZP) will be located between the quarters of residential and commercial development. Additional elements include grey – technical infrastructure (for sewage disposal and treatment and electrical power equipment).

Shaping the spatial order in the newly formed city centre complex and the preservation of the spatial structure drawing on the neighbouring urban areas, designed in the interwar period, is the basic planning aspect for the waterfront. In the social context, it is important to create generally accessible public spaces. In this case, the strip surrounding the quay (in Fig. 4, marked in orange) is an element of shaping the generally accessible water spaces; this is a place intended for sea tourism services, which includes the marina with accompanying services. In the southern part of the waterfront (Nabrzeże Kutrowe [the Cutter Quay]), a fixed marina and a marina consisting of floating jetties with accompanying services are to be built. Green areas will constitute an essential element of the new development due to their high landscape and scenic value. The eastern end of the waterfront is to be the site of the museum of sailing that would give the place a maritime character. A publicly accessible city park at the end of the waterfront would be a destination for visitors to the Dalmor waterfront, especially that they could use the commercial space located on the ground floors of the new development along the way. Activities aimed at preserving the elements of the identity of the place and its industrial character are an important aspect of shaping the waterfront space. In this context, there is an emphasis on the preservation and adaptation of post-industrial sites that are elements of Gdynia's cultural heritage – two fish cold stores (Karżyński, 2015).

At the turn of 2016 and 2017, works on the construction of a modern residential and commercial complex called Yacht Park (srodmiesciemorskie.pl) began at the waterfront (Fig. 5). It is intended to be a highly representative area of the developed
Gdynia Maritime City Centre⁶, which is the pride of the city, as well as an example of rational activities in the field of spatial development of disused port areas. Yacht Park will consist of six apartment buildings with commercial space located on their ground floors. Next to the complex, there will be a marina with a capacity of 120 vessels. It will be complemented by a hotel and a conference complex for sailors. The openness of the complex is to be manifested by generally accessible boulevards, parks and squares (Śródmieście Morskie, n.d.).

The new development of the former Dalmor port areas will significantly contribute to increasing the city’s waterfront potential, opening the public space to the vicinity of water. It constitutes a special aspect of strengthening the link with the maritime character of the city and its return to its roots. The Dalmor waterfront with the surrounding Sea City areas is to play a dominant role in the commercial and representative sphere of the city, attracting numerous investors, tourists and residents. In this case, space opens up to people through generally accessible green areas. However, this may lead to some degree of alienation in terms of shaping the social structure (Drzewicki, Romański, 2016). Considering the high level of attractiveness of the area under analysis, the costs of the offered services may be a high barrier to using them. Another issue is commercial prices of property in development complexes, which may be unaffordable. There are no activities in which real-estate developers offer some premises that can be designated for social use in exchange of providing them with attractive waterside spaces in the city (Drzewicki, Romański, 2016). In this way, positive interpersonal relations could be shaped and they could counteract social polarisation. This would also be a good example of learning to respect each other and also of including the holistic aspect of revitalisation activities (Drzewicki, Romański, 2016).

6 Śródmieście Morskie in Gdynia [Gdynia Maritime City Centre] is also referred to as Sea City. It consists of former port areas in which the port functions have been limited or have completely disappeared. The newly created district includes the waters of Basen Prezydenta [the President Basin], the Dalmor quay and the areas of Stocznia Remontowa Nauta SA [Nauta Shipyard] (Śródmieście Morskie, n.d.). The total area is 71 ha.

6. Summary

Seaports have played a significant role in the development of coastal towns. Their city-forming and region-forming potential was conducive to social and economic growth. Mutual port-city relations
are becoming an important topic of discussions and research in the context of directions of their mutual development or limiting aspects. Revitalisation of disused quays is one of the most important challenges facing port cities. They concern introducing new development in areas where port activity has been shut down. Such a situation occurs when port activities are transferred to further hinterland, thus freeing disused space at the meeting point of the city and the port. Another reason is the economic aspects and political and economic transformations, which lead to limiting or stopping port activities.

A similar situation has occurred with Gdynia Dalmor, which in its heyday was described as a strategic company for the development of Polish fisheries. The gradual phasing out of its activities was influenced by the limitation of the fishing possibilities of the most efficient fishing grounds, the introduction of 200-mile economic zones for coastal countries and negative Russian lobbying in the context of Polish fishing activities. As a result, its activity was gradually slowing down, and at the beginning of the 21st century, due to numerous unsuccessful attempts at economic resuscitation of the company, it took the direction of property development. The ceased port and industrial functions began to be replaced by residential and commercial, cultural, recreational and industrial functions began to be replaced by residential and commercial, cultural, recreational and industrial functions.

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The introduction of the new development of the Dalmor quay gives a chance to return to the shaping of a water-oriented city centre, which is an attempt to return to the basic development assumptions of the city from the interwar period. The new development is to constitute a coherent whole with the neighbouring areas being part of Sea City, where the accessibility of its spaces is a vital element. In line with the above, considering the hypothesis presented in the introduction, it should be considered as confirmed. The rational shaping of the city centre space, where the boundary between urban and port areas becomes blurred with time, thus creating a coherent whole, is also important for the city.

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