

HISTORY OF COMMUNICATION IN GDANSK

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“The prince gave him a boat and, to ensure safety on his trip, provided him with some thirty knights. He came first to the city of Gdansk...” [1]. This first ever historical information about our town, concerning the events from the year 997, includes at the same time the first information about means of transport. It is significant that it was water transport. St. Adalbert came to the city by boat. Travelling by land, through the woods and swamps, was at that time, especially in spring, much more difficult.

This does not mean that there were no land trails. Since the Roman times merchants came here for amber — *“the gold of the Baltic Sea”*. The roads coming from the south met on Kujawy, to continue in the direction of Gdansk along the so-called kings’ road [2], between the Vistula River and the edge of the upland, with the branch going through Starogard called in 1198 the merchants’ road. It went further to Oliwa, Kolobrzeg, and Szczecin. Another trail went from the west through the Siedlica valley, to the Vistula Sandbar, and further to the Prussians’ land. Gdansk was founded at the crossroads of these two trails, near the Motlawa crossing, whose calm current ensured a safe landing place.

In spite of the fact that the street network comes mostly from the 14th–15th centuries, it is possible to read in it, even today, the original layout of the historical trails. Many researchers [3] see the remains of the Merchants’ Road in the sequence of the streets Garbary — Tkacka — Kolodziejska — Weglarska — Panska, with a continuation along Podmlynska and Rajska. Archeological



Figure 1. A replica of a boat from St. Adalbert's times [J. Litwin: Gdansk Naval Heritage, Gdansk 1988, p. 138]

discoveries show that the part of the trail coming from the west to the east was preserved in Piwna street, whose extension goes exactly in the direction of the old Motlawa crossing, near the present Green Bridge. On an isohypse map we can see that the road led along the ridge of an alluvial fan, which ensured the driest way possible across the marshy territory. The branch on the north side of Podwale Staromiejskie ensured the access to the city in the Motlawa curve, founded around the year 980. The crossroads of this trail with the Merchants' Road was the best place to organize the marketplace — which is functioning up to the present day. The other trade center became the Long Market (Długi Targ).

Marketplaces are the cargo, people, and the need to transport them. In the 13th century there were 3 types of horse carts for land transportation: a small two-wheel cart, called vehiculus, a four-wheel currus, and a freight-plaustrum [4]. To ensure security the carts were grouped to form caravans. Knights traveled on horseback, simple people walked. Some of the roads already at that time were public ones (via publica in 1279), which meant they were maintained by the authorities in such conditions that a horse could travel 40–50 km a day. The carts traveled more slowly.

The discoveries concerning water transport are the evidence of the fact that in the 10th–13th centuries at least five types of means of transport were used [5]: small and big fishing boats, big military boats, big freight boats prepared for sea voyages, and ferries. At the end of the 12th century appears the sea-worthy koga (cog), of up to 400 t of carrying capacity, which was all the time being developed and perfected. This very ship, with a symbolic cross on top of its mast, became the oldest seal symbol of Gdansk.



Figure 2. A koga on a 13th century Gdansk seal

We can get some additional information about the means of transport used in those days from the customs tariff decided by prince Swietopelk between the years 1220 and 1227 [6]: “When they enter [the harbor], the bigger ship [koga] with cloth will pay 10 ells of burnite or frizal [kinds of cloth], a ship with salt will pay two stones [weight unit], a small ship — one stone. One-horse carts will give one mark [about 190 g of silver] to the castellan of each city, and one ell of cloth; from each group of carts they will pay to the chamberlain five ells of cloth or half a mark of silver. On their return, at each city they will pay two scots of silver [1/12 of a fine], except for Gdansk; if they sail back, they pay 1.5 mark from a bigger ship, and three quarters [3/4 of a mark] from a smaller one. All the customs are to be paid in Gdansk”. The income was mostly used for road and quays maintenance.

The Teutonic Knights’ times (1308–1454) brought many changes. A new street network appears. The city development and including larger territories inside the fortifications made it necessary to move the main meridional trail further west. The main streets of the Right (Main) City led to the enlarged harbor on the Motława River. Since those times the most important one is Long Street (Długa). The sequence Long Street — Long Market (Długi Targ) — Milk Vats (Stagiewna) — Long Gardens (Długie Ogrody) becomes the longest monumental city-planning axis of European Middle Ages [7]. Institutions and means of transport develop. The Teutonic Knights’ Commandry in Gdansk becomes a link in the perfectly organized chain of Teutonic mail. The city also has its own messengers (first data from 1399–1403 [8]). The transport expenditures, e.g., “three quarters to the coachman, who brought the cart for Lübeck”, are already mentioned in the oldest Kamlaria

(the city financial office) bills from 1379/80 [9]. The main land routes connected Gdansk with Hamburg (through Szczecin, Lübeck), Poznan, Wroclaw, Cracow and Lwow, and outside the wartime also with Kowno, Wilno, Polock and Riga. Most of the roads leading to the south went through Torun. Water transport is still very important. In 1341 Grand Master Dietrich von Altenburg offers Gdansk the right to collect a so-called pile tax (palowe) — payment for the maintenance of the harbor, from all the goods transported by the Vistula River [10]. The first data concerning the deepening of the waterway in the harbor come from 1421 and 1425 [11]. The number of ships belonging to the Gdansk shipowners is growing. There are 103 of them in 1350 [12]. To sail to Gotland and Bornholm smaller vessels are used (so-called szkuty (barges)), for longer voyages to the west cogs, holks, krajers and carracks are utilized. Their carrying capacity is up to 200 last (400 t), and 38% of them sail under the name of St. Mary's. Also the number of Vistula ferry crossings is growing [13] — in Sobieszewo (opened in 1354), Wisloujscie (1372), Gorki (1379), and those across Motlawa — in Krepiec (1424). Already in 1417 there was a ferry connecting the castle with the Teutonic industrial territories on Szafarnia — the present Olowianka [14]. This crossing was in operation until 1880. Ferries — flat, oval rowing vessels — were also used to transport crops. For example, the dwellers of Krakowiec and Gorki, since 1424 had to deliver five ferries with hay to the castle [15].

Communication inside the city still used horses and private vehicles. A new institution was the mentioned in 1448, but undoubtedly existing already in the 14th century, City Court [16] (Dwor Miejski). These were municipal stables and coach-houses at the beginning of Ogarna Street. The coaches were used by the city authorities, but could also be rented for fees. The Council also owned ships, among other fast sznikas, of 60–100 t carrying capacity, used as police, mail or war vessels, and sailing–rowing barques, carrying up to 160 t [17].

The great period of development of the city after returning to Poland was reflected by the development of communication — first of all — navigation. In the best times about 2000 ships a year come here, and the bulk of grain handled reaches 250 000 t [18]. New types of ships appear. In the 2nd half of the 15th century a very popular novelty are the quick and capacious caravels and carracks with smooth plating (the famous “Peter from Gdansk”). One hundred years later they are replaced by pinkas and galleons. In the 17th century fleutas are becoming more and more popular, and in the 18th c. — the full-rigged frigates. In the coastal navigation burdynas and szmakas were used. Lichtugas were utilized while unloading big ships waiting at the roadstead. The Vistula was sailed by barques, dubas and single-time komiegas, which were dismantled after bringing grain to Gdansk. The trading monopoly, which the city cherished thanks to the Polish kings, and the growing competition on the part of the Dutch caused the 108 ship (1st half of the 16th c.) Gdansk fleet to drop to only 57 ships in 1583, and even to 16 vessels in 1665, and then to grow to 75 in 1696. During the whole of the 18th century it oscillated around 60–70 ships.

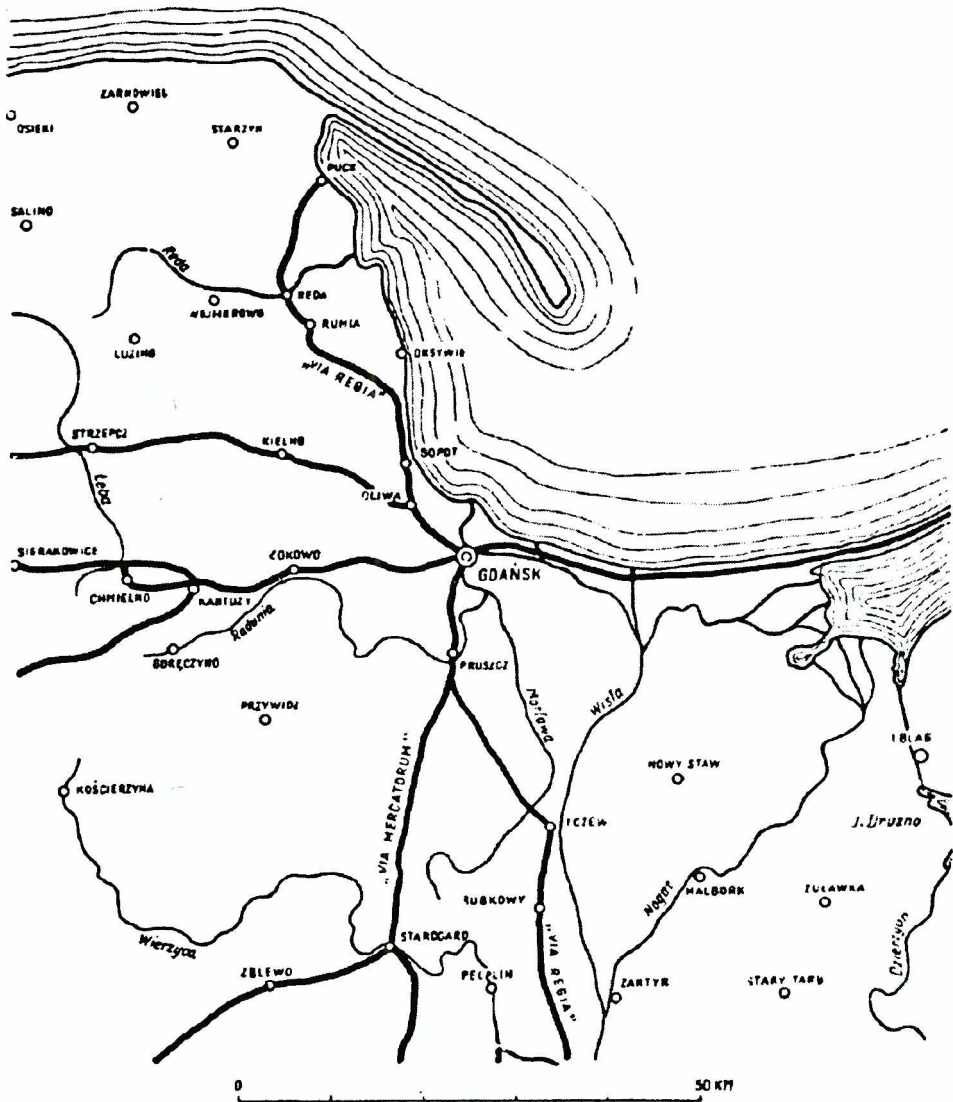


Figure 3. Gdansk city network in the 13th century

The ever growing at that time passenger transport is worth mentioning here. The earliest data comes from 1572 [19]. In 1689 the passenger transport was already so intensive that it slipped out of control and the Council had to issue an ordinance restoring the duty of letting out all the passengers at the “border point” at Wislouiszcie, where they could undergo search. In 1727 a new, more detailed order in this matter was issued.

A real novelty was opening in 1692 a barge pulled by horses [20], following the example of the Netherlands. It went from Milk Peter (Mleczny Piotr) inn (by the

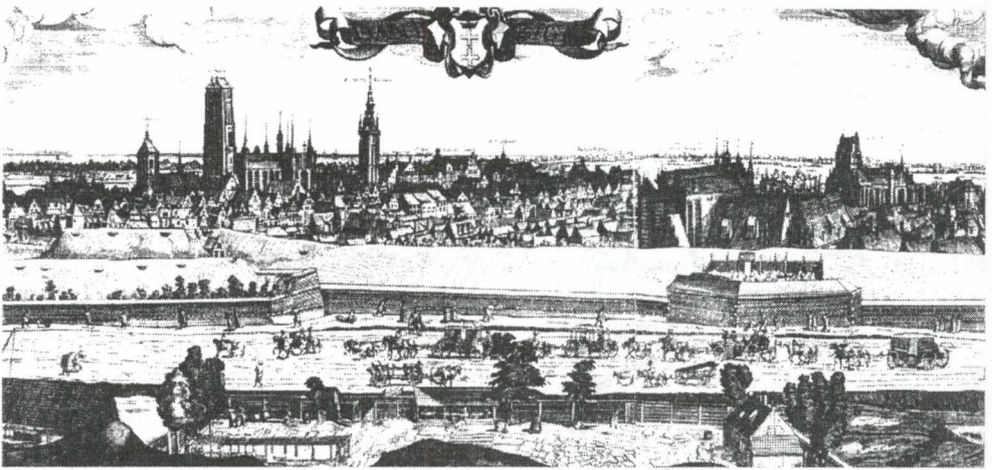


Figure 4. Traffic in front of Gdansk's gates in 1620 (Piscatore's panorama — a fragment)

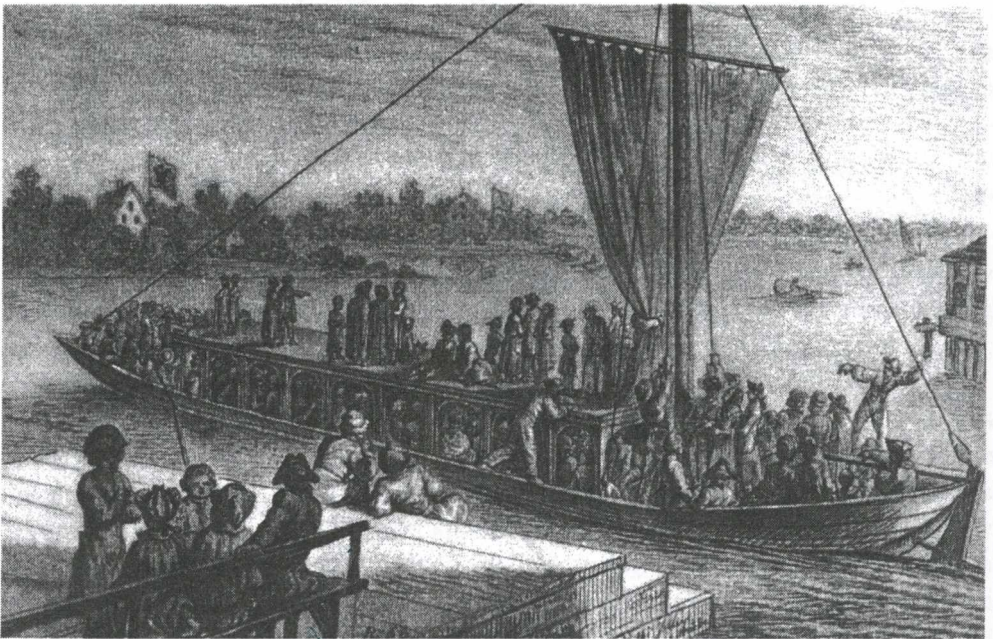


Figure 5. Such szkuta since 1692 sailed to Wisloujscie (Chodowiecki's engraving)

outlet of the Motlawa into the Vistula) to Wisloujscie (earlier the passengers and crew were transported by the fishermen or pilots, and since 1679 by the supervisors of the roadstead, for 1–3 zlotys per person). It was probably the first regular city communication line in Poland. Two barges departed every hour — one from Milk Peter, the other one from Wisloujscie, and passed each other in the middle of the way leading through the Boatswain's Backwater (Lacha Bosmanska), also called the Barge Backwater since then (there is Kashubian Canal in this place right now).

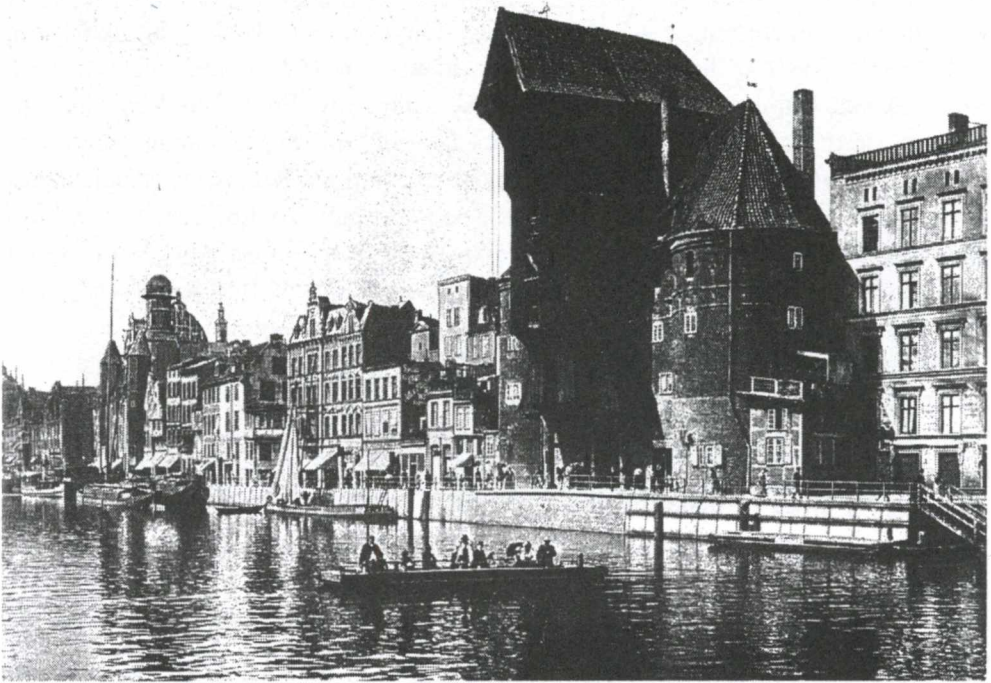


Figure 6. An old rope ferry near the Crane

Since 1694 an additional barge carried people from the city (from the Fishermen's Pier/Rybackie Pobrzeze) to Milk Peter [21]. Transport to Wisloujscie cost 4 shillings (1/15 of a mark). The maximum number of passengers was 25–30, but often there were many more of them: *“the benches [in the cabin] were occupied, and there were people sitting on both sides of the table, with their backs to one another, in places on each other's lap. The stem and stern were full of people standing and sitting. There were at least 100 all together, because there were some even on the roof”*. In these conditions Daniel Chodowiecki arrived in Wisloujscie in 1773 [22]. The Vistula was crossed with the help of oars, and horses were harnessed to the barge on the other bank, which pulled the barge walking along the river to Wisloujscie. The city rented the barge to private contractors for 200–400 zlotys a year. Since 1711 till the partitions the transport was supervised by the Fuhrmann family. In the period under discussion another ferry crossing from the Crane to Olowianka was opened — it is still in operation today. In 1678 the contractor of that ferry paid 100 zlotys a year to the Subsidiary Treasury, the contractor of another — bigger one — from the Castle to the Holm paid 400 zlotys.

In land transportation an important novelty was the appearance of regular mail communication. It is true that the city had kept for a long time foot and horse messengers called in the 16th century “one-horse”, and big companies also had their own mail couriers, yet the messengers and carts were sent irregularly — when they were needed [23]. In 1585 there were permanent connections with Cracow, Poznan, Wroclaw, and Lwow, and of course with Szczecin, Lübeck and Hamburg. In 1604

the City Council issued an ordinance for the messengers and organized, together with the cities interested, regular mail connections with Wrocław — through Torun and Poznan. In 1622 the ordinance was widened. In 1629 communication with Szczecin and Hamburg was regulated in the same way. From Hamburg the trail went to Bremen, Amsterdam and Brügge. Towards the east communication was maintained with Lithuanian Brest and Wilno, and through Krolewicz (Königsberg) — with Memel and Riga. Through Torun communication with Warsaw was also maintained. In 1729 there were immediate mail connections [24] with Berlin (through Szczecin), Krolewicz (through Elblag) and Warsaw (through Torun). The mail was sent twice a week. Ships also carried mail to Stockholm.

The post had at its disposal light one-horse carts with a bench for 2 passengers. At first the fee for one letter of up to a page was 3 groszy (1/10 of a zloty), and from 1 half ounce (1/32 of a pound) weight of a packet — 5 grosz. Carrying people cost much more. In 1729 to travel from Berlin to Gdansk in summer one had to pay 12 thalers 3 grosz (1 thaler was at that time 3 zlotys or 90 grosz), and in winter 14 thalers 2 grosz. To travel from Szczecin to Gdansk the price was 9 thalers 16 grosz. For comparison — to travel by ship from Amsterdam to Gdansk in 1641 Peter Mundy [25] paid 2 thalers a week. The price also included eating “with the captain”. The passengers bringing their own food paid half that price. The average time of such a voyage was at least 2 weeks. Travelling by land from Gdansk to Warsaw took the same traveler 7 days. The mail traveled 8 days to reach Wrocław, and 4 days to Szczecin. In 1787 it took the mail 5 days to reach Berlin.

In the city transport the City Court (Dwor Miejski), extended in 1619 by Hans Strakowski, played an important role. Marton Csombor visiting the city at that time described it in the following way [26]: “*the citizens of Gdansk [...] rarely keep horses, yet some several hundred coursers are kept for the city needs; there are many kinds of harness, carriages, carts and coaches, and when someone needs them, they go to the city stables where they — whether poor or rich— can get a horse, a horseman and a cart with their own money*”. The members of the city authorities could use the carts and horses free of charge. Later on some limitations were introduced. To diminish the ever-growing costs in 1750 August III decided [27] “*...to keep only 30 horses — 14 horses and 7 coaches for the mayors and camlers, which can also be used by other councilors; 8 horses to transport building materials and other 8 horses to transport wine...*” (since 1570 Karnkowski’s statute limited the number of vehicles to 6, and of the horses to 12). It was decided to sell the surplus, which was done only partly. The City Court was dissolved in 1806.

As we can see the use of the City Court was very limited. Most of the transport needs were met by private contractors. It was possible to rent a cart, coach or wagon with horses at all times. To settle the inevitable arguments about pay and the condition of service, in 1597 the Council chose from among its members a so-called freight man [28], who in turn called for a transport inspector and a helper (already in 1593 two freight men were called to settle the arguments between the shipowners



Figure 7. A Gdansk's taradajka in 1773 (Chodowiecki's engraving)

and skippers). "Those renting coaches" are also mentioned in the fire ordinances. In case of a fire they had to hurry together with the city coachmen, beer brewers and alcohol distillers and "send horses and equipages to the nearest fire station, and with water tanks and hoses help put it down".

The richest townsmen had their own means of transport. When in 1515 mayor Eberhard Ferber went to the famous congress of monarchs to Preszburg (Bratislava), "he took with him 16 horsemen, 4 beautiful chestnut mares by the coach, 6 horses by the cart with armor and 2 carts with soldiers, tins (cannons) and lances, each cart with 3 horses, and the Council's coach also had 3 horses, which made 35 horses altogether" [29]. His son Konstantin, also a mayor was said "to be a very rich man, always wearing a gold chain and riding in 6 horses". In the inventory enclosed to the last will of mayor Speiman, the owner of Golden House, who died in 1625, there is a mention of a coach, probably the one we can see in the Piscator's panorama [30]. The old panoramas and views of Gdansk — from Möller to Deisch and Chodowiecki — are a very important source of information about what the vehicles looked like in those times. And there were many of them. Carts — simple, heavy and travelling, "cradles", brozeks, carriages, coupes, coaches, chaises and landaus [31] were a proof of the ambitions and wealth of the citizens of the richest city of Polish Republic. Many of them were produced here to be used in the place and exported. In 1654 Robert Bargrave and his friends "rented one of the coaches, which are very beautiful and comfortable here" [32]. Ornamented carriages of Polish noblemen could be noticed in the crowd, which in the 18th century, following the newest Saxon or Berlin fashion, were often pulled by 6 horses, with haiduks standing at the back.

At that time appeared in Gdansk a prototype of what was later known as a cab. It was a so-called taradajka. As described by Chodowiecki [33] in 1773, "taradajka is a pretty, very light, 2 person gig, drawn by two horses, carrying

people in the neighborhood from one locality to another". To be carried in the rain and storm from Great Alley (Wielka Aleja) to Strzyza the passengers paid 2 dudkas (6 grosz). One of the rest areas was Crayfish Market (Targ Rakowy): "*On the ground just outside the Highland Gate (Brama Wyżynna) there are carriages and other light vehicles standing every day, and in winter there are sleigh ready to go, for some small fee, to the neighboring suburbs and further recreation areas. They are called taradajkas*" [34]. The coaches could also be rented for a period of time. In 1773 for half a day one had to pay 3–4 zlotys. In 1812 taradajkas were numbered.

Let's mention another interesting point about communication. To save from vibrations the weak walls of St. John's church, in 1792 the Council repeated its prohibition of fast traffic of heavy carts in its vicinity [35]. A speed limit, probably the first one in Poland, is also included in the oldest known Gdansk wilkierz statute from about 1440 [36]. "The coachmen and servants travelling along the streets should move at a walk and not gallop on the paving-stones, or they shall be punished by paying one quarter".

After the partitions and Napoleonic wars in Europe, the peace returned. A new era began — "the age of steam and electricity". The first steam ships that appeared in the Gdansk harbor in 1827 — "Xiaze Xavery" and "Victory" — were ordered from England for Warsaw [37]. The third one — also English — "Rüchel Kleist" since 1840 carried passengers to Hel, Sopot, Krolewec and Copenhagen. In the same year Klawitter's shipyard alighted the first Gdansk steamship. The next ones "Pfeil" (1841) and "Blitz" (1842) took over the waterway Gdansk St. John's Gate — New Harbor (Nowy Port). They went every hour. All the ships belonged to a created in 1841 Gibsone and Klawitter navigation company, operating till the end of the last war. The voyage in first class cabin cost 21/ 2 sgr (silver grosz = 1/30 of a thaler), and in second class — 11/2 sgr. In spite of such dangerous competition "*modest yet quite ornamented barges*" [38] still worked on the waterway Milk Peter — Wisloujscie till 1860, among other factors thanks to a much lower fee: 1 sgr per person.

After the initial stagnation the harbor traffic started growing systematically. Also the carriage capacity of the ships grew and their structure changed. 1883 was the first year when Gdansk harbor greeted more steamships than sailing ships. The numerical force of Gdansk fleet reached its maximum in 1876 (143 ships) [39] and then started to diminish. Right before the first war there were only 22 ships. The first regular navigation lines appeared. Since 1845 a regular connection with Krolewec was in operation. The line to Petersburg suggested in 1852 by Makowski and Kedzior Company never managed to be opened, so the efforts went in another direction. In 1877 there were already 4 regular lines connecting Gdansk with London and Hull, Antwerp, Amsterdam and Rotterdam, Szczecin. On their way to the North Sea the ships stopped at Danish harbors. More and more numerous small tourist ships carried the guests to the neighboring watering resorts, the earliest one was Sopot — since 1845, not counting some cruises of "Xiaze Xavery" in 1827. At the

end of the century the “Weichsel” company already had 5 side-wheelers and 5 steam ships powered by propellers. There were regular connections to Sopot (3 times a day), Hel — popular since 1896 (twice a day), Puck, Krynica Morska and Pilawa. The most often attended was the line Gdansk — Westerplatte, on which the afternoon cruises were as frequent as every half-hour. Communication was also maintained by the government mail ships. In 1913 the “white fleet” had 79 ships [40], 34 of them belonged to “Weichsel” company, maintaining the lines — Gdansk — New Harbor — Westerplatte — Brzeźno — Jelitkowo — Sopot — Hel, Gdansk — Stogi — Basak (Sobieszewo) — Przegalina — Mikoszewo — Drewnica — Czerwona Buda — Ostaszewo, Gdansk — Pilawa — Libawa, and Gdansk — Sopot — Puck, and special courses to Gdynia, Oksywie, Jastarnia. It is also worth mentioning that the communication between Westerplatte (which in 1837, when the first “saloon” was built, became the favorite spa of Gdansk citizens) and New Harbor was maintained by 3 ferries: opened in 1884 a 100-passenger steam ferry at the beginning of the harbor canal, “station ferry”, and a ferry by the base of the east breakwater. The crossing near Wislouwjskie cost 2 pfennig per person (by the Crane — 1 pfennig), 5 pfennig per horse, 10 pfennig for an empty wagon and 3 pfennig per bike [41]. In winter the ferry leaseholder maintained a skating rink.

Land transport underwent a similar development. For this it was necessary to modernize the road network. An impressive beginning was in 1768–70 opening the Great Alley (at present Alley of Victory — Aleja Zwyciestwa) to Wrzeszcz, which replaced the previous maze of old, damaged roads. To build a 2 km long and 38 m wide (without the crowns of the trees) double lime alley required immense work, which is admired even today. The uneven ground was leveled, trees were planted, ditches were dug by the sides of the roads, ceramic drainage system was installed, the sand surface was evened, and mileage posts were put up — they were unfortunately taken away after the last war. The Great Alley is an example of ideal communication solution, going far beyond those times. The next investment was a beaten tract along the Vistula River to New Harbor, built in 1803–1805 on the expenses of a merchant — Matthias Broschki [42], who had the right to gather fees for using the road. In 1819 a road to the south [43] was opened — the present St. Adalbert’s Road (Trakt Sw. Wojciecha). In 1820 the Great Alley’s surface was hardened, and in 1823 a further part of the Pomeranian (Szczecin) road leading from Wrzeszcz straight to Sopot was built (before that the road went along Polanki — Oliwa, or Nowe Szkoty (New Scotland) — Przymorze — Karlikowo). In 1831 the road from New Harbor to Brzeźno was paved at the expense of the Russians who had their warehouses and quarantine there during the November uprising. In 1840 the road to the east started to be paved — to the ferry crossing in Sobieszewo. At the same time roads to Kartuzy, Bytow (across Lostowice) and Starogard (across Mackowy) were strengthened. In 1846 some unemployed people were hired to build the road through New Szkoty and Zaspą to Brzeźno, which because of its workers was called “hungry”.

Along the new roads new means of transport traveled. Such a novelty was a 6-wheel omnibus taking up to 20 passengers, and called zurnaliera (journaliere).

Regular trips to Sopot [44], twice a day, were started in 1823 — earlier than in Paris (1828), London (1829) or Berlin (1839). Still also mail vehicles carried passengers along that route (since 1820 twice a week). Since 1830 the journalieres went also to Brzezno. In 1842 an omnibus company was created as a joint stock company. They started building vehicles called “claudius” — from the name of a Berlin discoverer [45]. The claudiuses departed in front of “Leipzig” hotel in Long Market (the later “Du Nord” — the present “Jantar”). It cost 5 grosz per person to go to Sopot, and 1 1/2 to Brzezno. To go further it was possible to take a mail-coach. In 1843 the post took passengers every day to Bydgoszcz, Szczecin and Krolewicz, and twice a day to Tczew. Twice a week it was possible to travel by express mail to Szczecin, and with a courier to Berlin.

In 1864 new transport by omnibuses was again organized by Thiel, Holdweid et Hadlich company. There were 3 vehicles traveling on the route to Sopot, taking up to 21 people each. The price to Wrzeszcz was now 2 1/2 sgr, to Oliwa 1/2 guilder (4 1/6 sgr), to Sopot 6 sgr.

As in the old times the guests were taken outside the city in the numbered taradajkas, waiting for them outside the High Gate (Wyzynna) and St. Jacob’s Gate (Brama Sw. Jakuba). To go to Wrzeszcz one had to pay 7 sgr [46]. In 1852 in the city appeared a bit bigger cabs, taking 4 passengers. The fee was 5–10 sgr. Near the morning the fee was doubled. To cross the city one had to pay from 7 1/2 sgr up to 1 thaler — depending on the distance. It was also possible to rent a cab by the time. In 1899 some cabs even had meters. For the first kilometer one had to pay 50 pfennig, for each next 1/2 km 10 pfennig, at night — the sum was doubled. The day trip of a cab without the meter cost, depending on the distance, from 60 pfennig to 2,5 mark.

A revolution in communication was caused by railway connection [47]. Since 1852 trains from Bydgoszcz started arriving at the first station in Torunska Street. In 1867 the first trains started going along the sidetrack to New Harbor. The “Pomeranian” line to Szczecin, built in 1870, facilitated the trips to Wrzeszcz, Oliwa, and Sopot. Since 1877 Gdansk was directly connected (a private line till 1903) with Warsaw through Malbork and Mlawa. The railway line inside the harbor was developed [48], new stations appeared: the Vistula (1889), the Customs (1892), Ostrow (1905), and a switching station in Zaspka (1899). Getting from Przerobka to Ostrow was possible thanks to opening a railway ferry. In 1900 the construction of the perfectly designed Main Station (Dworzec Główny) was finally finished. It was one of the most beautiful ones in Europe. In 1905 the narrow-gauged railway line was opened from Zulawska Gate to Zulawy. In 1913 a line was opened to Kokoszki and Stara Pila [49]. It was important for the connection with the Kashubian region. To consequently close the development of the Gdansk railway network only the connection with Elblag through Nowy Dwor was (and still is) missing. Soon railway became the main means of land transport. In 1906 the Main Station ticket offices sold 1 405 000 tickets, and at both new and old stations there were 805 000 waybills issued. At all the stations (Main, Lower (Nizinna) Gate, Oliwa Gate, Wrzeszcz,

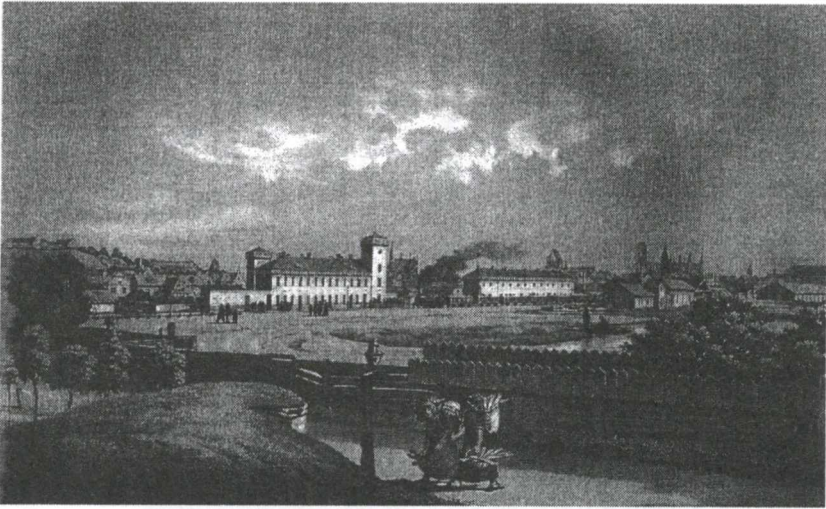


Figure 8. The first train station in Gdansk in Torunská Street (Mann's lithography)



Figure 9. The Main Station in 1900. We can see the beautiful shapes of the roofs in the side wing — not rebuilt until now

Sienna Dike, Ostrow, Vistula, Customs) over 1 836 459 tons of cargo were transported. In 1913 the number of tickets sold went up to 2 309 827.

Another new means of transport were tramways [50], which gradually replaced omnibuses from inside the cities. The first line of horse trams [51] through Wrzeszcz to Oliwa was opened in 1873 by a company from Berlin. The trip cost 3 sgr. A year later the line was taken over by the Gdansk company of O. Braunschweig and O. Kupferschmidt. The new owners limited the communication to the line Sienny (Hay) Market — Wrzeszcz. In 1878 the line to Orunia was opened, and in 1885 —



Figure 10. Long Market in 1893. On the right — the double decker horse tram, on the left — an omnibus in front of hotel "Du Nord" (Dreesen's photograph)



Figure 11. Traffic in front of the High Gate in 1894 (photographed by Kuhn)

the lines Lakowa — Main Station and Wiosenna (Lower City) — Fish Market, in 1886 Coal Market (Targ Weglowy) — Emaus. The carriages imported from Hamburg were double-decker ones. The lower part, lit by 6 windows on each side, had transverse benches, and the open, upper part (“imperial”), shaded by a small roof, had one double-sided bench along the middle. To get to the top one had to walk up winding stairs from the back platform. There were 18 vehicles, with 46 sitting places each. Later some more were added, having no places on the roof, and 4 windows in the sidewalls. A novelty was a special place for the ticket collector. Altogether they had 16 sitting places and 8 standing places on each of both platforms. In summer there were open carriages with side nets instead of walls. By the time the electric network was opened the numbers of carriages were up to 58. Some of them went on functioning as trailers.

In 1894 AEG Company from Berlin bought out the Gdansk trams and started preparing for their electrification. A power plant was built on Crayfish Market 9 (Targ Rakowy). Two years later in the assessment a test drive we can read: *“the engine works without any noise, no bumping or unpleasant sounds were felt”*. On 12 August a regular passenger line to Orunia and Emaus was opened. The trip from Crayfish Market to the end of the route took 14 minutes. The trams went every 15 minutes. On the line to Wrzeszcz, opened on 27 August, the old 10-minute intervals were observed. A similar frequency of courses had the lines to Zulawska Gate and to the Lower City (Dolne Miasto), which were electrified in the same year. On the line — the Lower City — Crayfish Market through Torunska — Zabi Kruk — Ogarna — Garbary — Szeroka — Grobla — Tobiasza, the trams went every 8 minutes. Conducting the electric traction line through the drawbridges posed a certain problem. A new company: “Gdansk Trams S.A.” opened the line Kashubian Market — New Harbor — Brzezno in 1900. It was soon lengthened inside the city to the Crane. In 1901 the line Brzezno — Wrzeszcz was opened. In 1903 both companies merged under the name of the younger one. In 1908 new lines Oliwa — Jelitkowo and Main Station — Zulawska Gate were built, and the Gdansk network received the shape which fully satisfied the needs of those times. Shortly before the 1st War began, the rolling stock had 98 engine carts and 102 trailers. On 10 lines over 18 million passengers were carried every year. A regular trip cost 10–15 pfennigs.

The collection of Gdansk means of transport was broadened by taxis [52] in 1906. The stops were placed in front of the Main Station and in the Coal Market, and later also in the Long Market. For the first 800 one had to pay 80 pfennigs, for every 400 meters after that — the next 10 pfennigs. At that time the horse cabs had their stops in front of the Main Station, in the Timber Market, Sienny Market, and the Long Market. Their fees were lower: the first kilometer cost 50 pfennigs, every next 500 m — 10 pfennigs.

Political changes together with disastrous inflation slowed down the development of communication in Gdansk in the first years after the 1st War. An exception was navigation [53]. Thanks to the disappearance of the duty barriers between Gdansk and the reborn Poland the harbor turnover in 1921 was 1.7 times higher than in 1913,

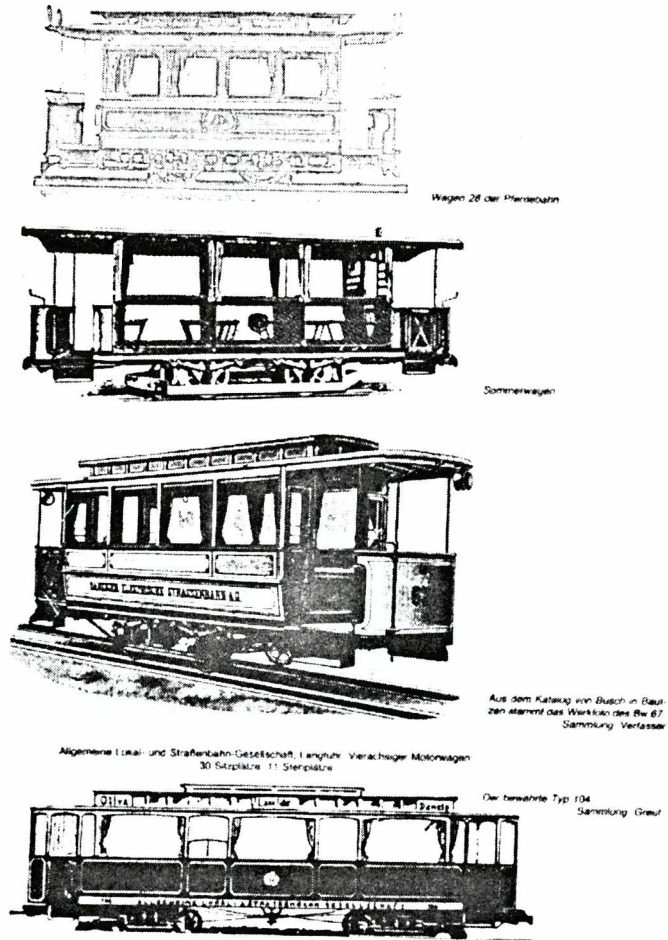


Figure 12. The first trams in Gdansk. From the top: a horse tram (after the electrification — a trailer), summer trailer, winter trailer, a four-person trailer from 1900

and in the record 1928 — they were 4.5 times higher. In 1926 permanent freight and passenger lines connected Gdansk with over 40 harbors of Europe and America, and in 1933 — with 90 harbors all over the world, except Australia. In 1922 91 115 people came to or left from the harbor, in 1930 the number of people crossing was 75 745. The Gdansk shipowners in 1925 had 67 sea ships, of almost 129 000 BRT capacity in all. 11 ships belonging to the “Weichsel” Navigation Society served on short trips. Ships to Elblag left every 2 days near St. Mary’s Gate, to Krolewicz — from the landing near Szafarnia, to Klajpeda — every second Tuesday near the “Vistula” granary (Motlowska 1 Street). It was possible to sail from the Crane to Brzezno — Jelitkowo — Sopot and Hel 10–12 times a day, and to Mikoszewo and Ostaszewo once a day. “Żegluga Polska (Polish Navigation)” main-tained everyday connections with Warsaw by ships leaving initially from Brabank (Old Shipyard Street), and later from Szafarnia. The first class fee was 33 zloty, 2nd class — 19 zł, 3rd class — 14 zł, a sleeping supplement cost 5 zł. The fee to Krolewicz was



Figure 13. An early taxi at the Coal Market

5 guilders, to Elblag — 2.5, to Brzezno, Jelitkowo, Sopot, Hel, Stogi and Sobieszewo — 1 guilder (in 1924 1 guilder = 0.89 zł, since 1931 — 1.74, and since 1935 — 1 zł).

The city had 9 ferries [54] which transported up to 9 500 people a year. In 1924 the old crossing by the Motława outlet in the Vistula was replaced by a new steam ferry “Troyl” (Przerobka), carrying 150 people. It cruised along a triangle — Milk Peter — Przerobka — Ostrow. The “Weichselmunde” ferry introduced a year later for New Harbor — Wisloujscie crossing took up to 190 people. It was additionally adapted for putting out fires. The modernized “Westerplatte” ferry went along a new route — Mlynska — Ostrowia Promontory — Emperor’s Harbor (Port Cesarski) (the present Kashubian Canal, the Chemists’ Wharf). The old ferry by Sobieszewo was replaced by a new, motor one. There were also plans to “mechanize” the most popular Gdansk ferry near the Crane to Olowianka, carrying 3 500 passengers a day. It is worth noticing that apart from the city ferries there were also 35 other ferries in Zulawy, within the Free City borders. The following numbers are the proof of the intensity of inland navigation: in 1925 — 5 142 river ships arrived in Gdansk, of the carriage capacity of 430 556 t, and 116 rafts.

The creation of the independent Poland and new borders made it necessary to reorganize the land communication routes, which was quite easy, as the railways started to be governed by PKP. In the rail transport the transportation between Polish territory and the harbor prevailed. For the passenger transport the routes to Warsaw, Berlin and Krolewiec were among the most important ones. At the same time both lines to Kartuzy lost their importance, as they were cut by the national border. To facilitate the suburban transport, a new rail line was built from Gdansk to Sopot [55]. In 1925 a sidetrack was constructed to a transit depot at Westerplatte which was given to Poland. In 1930 — another sidetrack to the timber warehouses by the new basin for bulk commodities was built. All Gdansk ticket offices together

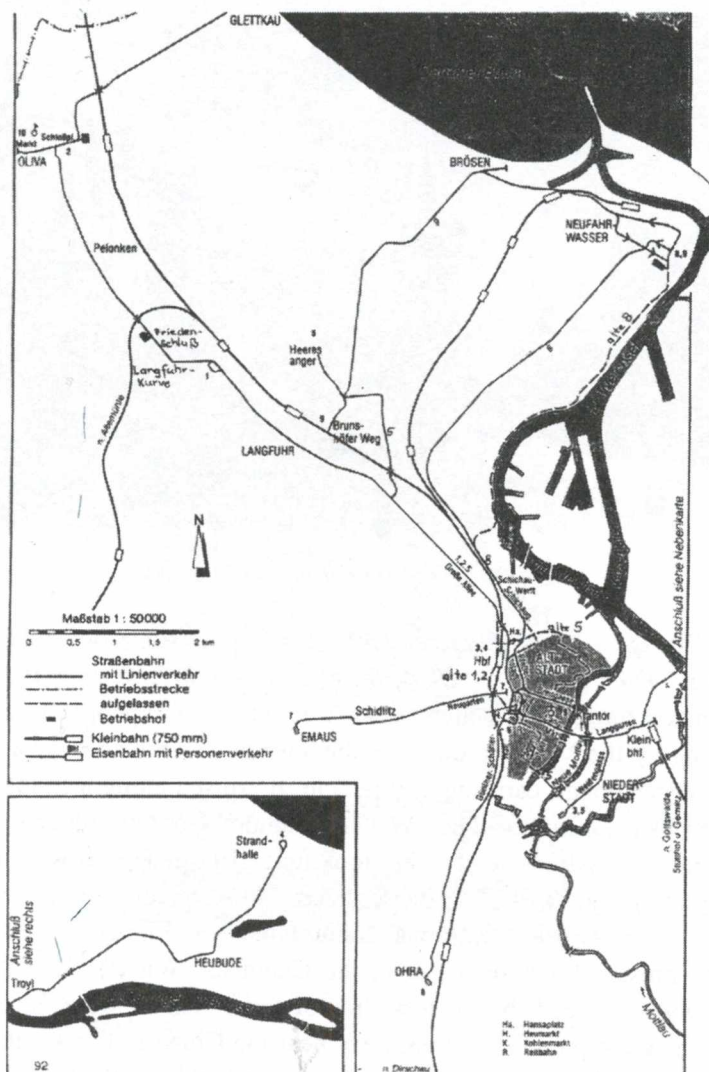


Figure 14. Gdansk train and tram railway network before the war

in 1925 sold 6 163 089 tickets — over 4 times as many as before the war. For comparison: the sea ships carried then 66 511 passengers — most of them on the coastal lines.

Changes in the tram transportation were small [56]. In 1923 the losing line from the Main Station to the Lower City was closed. In 1927 the long planned line to the beach in Stogi was finally opened. In 1928 the trams to New Harbor were opened along the new Paul Beneke Street (at present Polish Navy–Marynarki Polskiej). In 1928 the route to Oliwa was shortened by building the Frederick's Alley — the present Polish Army (Wojska Polskiego). The rolling stock was modernized all the time. In 1939 it consisted of 104 motor carriages, 99 trailers, 2 cargo and 26 technical carriages. The numbering of the carriages went in 1945 up to 439. Per



Figure 15. One of the first buses in Gdansk

43.5 km of rail routes, 28.9 km were double-track. The number of passengers in 1938 went over 30 million. Since 1924 the whole network was centrally powered from the city power plants. In 1935 a modern depot was opened at Mirow (Friedenschluss) — still working today.

Tram communication was supplemented by buses. In 1921 a newly created Polish joint stock company “Autobus” maintained the lines Gdansk — Oliwa — Sopot and Gdansk — Stogi [57]: “*Fashionably decorated motor omnibuses*” left every half an hour in front of the Main Station. Four years later there were connections maintained by different companies with Wejherowo, Gdynia, Kartuzy, Kosieczyna, Malbork and Elblag, and several border towns of the Free City [58]. In 1929 there were 18 outside city lines, it was even possible to go to Berlin by bus. The main transport agent was “Gdansk Communication Association” (Gdanskie Towarzystwo Komunikacyjne) existing since 1926. In 1933 it was taken over by “Gdansk Electric Trams” (Gdanskie Tramwaje Elektryczne). Inside the city the lines were conducted in such a way as to incorporate those streets that didn’t have trams before: Walowa, Aksamitna, Lagiewniki, Stolarska, Grobla, Weglarska, Kolodziejska, Tkacka, Garbary, Ogarna, Mnisia (the present Pszenna), Szopy, Podwale Przedmiejskie, Lastadia, Zabi Kruk, Torunska, Jalmuznicza, Sluza and Dolna. In 1939 on 15 lines — mainly outside the city — there were dozens of buses, transporting nearly one million passengers a year [59].

Shortly after the Free City was created air communication started developing [60]. In 1920 “Gdansk Air Mail” started flying to Slupsk. The aviation base was placed in the old army airfield (opened in 1912) at the verge of the so-called Great Exercise Field (Wielkie Pole Cwiczen) with the hangar in the area of today’s Kilinskiego and Nad Stawem (Kosciuszki Street did not exist in those days).

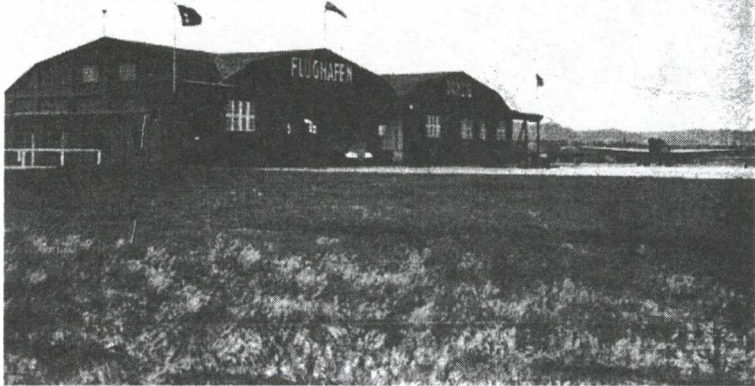


Figure 16. Airfield in Zaspá in 1927

Because of the Poznan Fair in 1921 a Polish company “Aerotarg” opened a connection with Poznan. In 1922 Polish “Aerolloyd” inaugurated flights to Warsaw and Lwow — sustained next by PLL “Lot” till 1935 (later Polish planes flew from Gdaynia–Rumia). Since 1921 German agents carried passengers along the route Berlin — Gdansk — Krolewec. Also a connection with Szczecin worked in 1922. In 1923 the airport was enlarged and the equipment modernized. A temporary airport building appeared. Next year a new hangar was built. In 1925 4 German companies and 1 Polish one maintained flights to Berlin, Szczecin, Stockholm, Krolewec, Malbork and Warsaw. Within 5 years the number of passengers checked out went from 3325 to 5190. In Gorki Wschodnie a haven was created for hydroplanes working on the Stockholm line. In 1926 the Malbork line was lengthened to Olsztyn. The planes took from 5 to 12 passengers. The German contractors joined the newly created Lufthansa. In 1927 a radio station in Jelitkowo was built to serve the traffic. Successively lengthened runways reached 1 400 and 1 800 m. A viaduct over the railway was built (near the present station Gdansk — Zaspá). In 1930 the line to Bucharest was opened, and in 1938 — the one to Salonika. In 1934 a new airport was built. The number of passengers grew to 7 637.

All the time the number of cars was growing [61]. In 1925 there were 1246 mechanical vehicles registered in Gdansk (including 672 passenger cars), in 1927–2 785. Already in 1938 the traffic was so heavy that the city authorities had to issue a special act regulating it. The “Motorist’s Guide” [62] published at that time showed one way streets, parking places (the Main Station, square by St. Elisabeth’s church, Garncarska Street, Timber Market, Coal Market, Sienny Market, Holy Spirit Street, Long Market, Ogarna Street by the Cow Bridge), and places in which it was forbidden to stop.

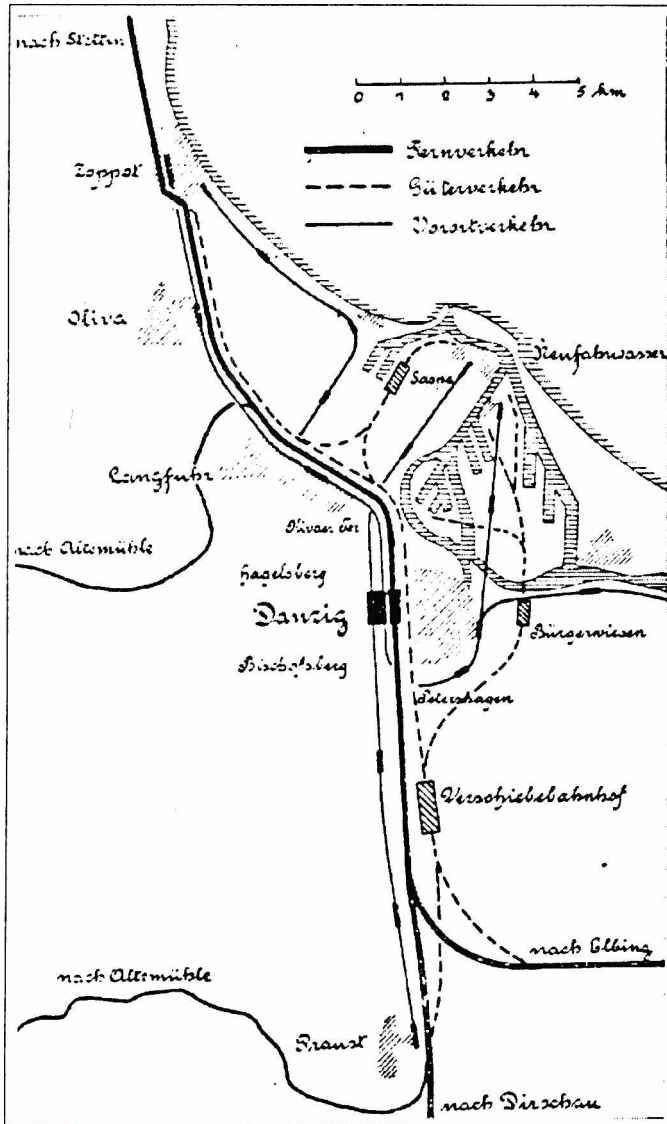


Figure 17. Development of Gdansk communication according to the 1927 prognosis

The prognosis for traffic development and suggestions for solving the growing problems could be interesting for the present day specialists in communication. Richard Petersen, professor of the Technical University of Gdansk, researching those problems wrote in 1927 [63]: “In general Gdansk represents the most modern form of settlement: around the main city there are drop-like housing estates divided by empty spaces”. “Gdansk is first of all a sea harbor and a trade city, and only then an industrial city”. “For the future housing estates there are first of all the areas to the north of the city, the area between Sopot, Oliwa, Wrzeszcz and the sea, then the upland area to the west of the city”.

“Modern tendencies in the development of the city went into supporting small houses with gardens and stopping mass tenement houses. It is easier in Gdansk than in most large German cities”. “The main condition for (constructing) new residential areas is the creation of public communication which would meet all the needs”. “As means of communication the following have to be concerned: trams, buses, and a fast rail line separated from the area of the streets”. The means of transport have, according to the author, the following priority:

1. harbor facilities and waterways;
2. train railways for goods transportation;
3. long-distance passenger trains;
4. local and suburban trains;
5. fast city trains;
6. trams;
7. road network for traffic not connected with trains, roads for cars, dividing communication arteries and inner suburban streets.

There were plans to construct new harbor basins between Wisloujscie, and Stogi and Przerobka. To service them the new railway line was to be built on both sides of the final part of Dead Vistula (Martwa Wisla). Instead of a train ferry to Ostrow there were suggestions to construct a drawbridge. The main railway network leading through the Main Station was to be widened to 10 rails, 16 at the Station area, with a collision-free long-distance and local traffic division-through Zaspas and Jelitkowo to Sopot, through Mlyniska to New Harbor and through Olszynka and Przerobka to Wisloujscie, with branch lines through Blonia and Plonia to Sobieszewo. On both sides of the main meridian line there were planned cross-country roads. The sequence of streets New Gardens (Nowe Ogrody) and Kartuska was to serve as the main road to the west. To the east there were plans to construct a ring road outside the fortifications (digging out a road to the east through the historic city center was decided to be impossible). Buses were considered to be *“a means of communication prior to the tram lines in going to the suburbs, and, on the other hand, a supplement or even a replacement of trams in the narrow labyrinth of the streets in the center”*.

This is the closing sentence of that study: *“although today in the field of communication we can only construct what is most urgent, it is still important and possible to plan the work in such a way as not to close the way for the future communication solutions”*. This statement is still an important mission for today.

Translation: Anna Kucharska-Raczunas

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