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TIME PERCEPTION IN GDAŃSK/DANZIG
ON THE THRESHOLD OF THE EARLY MODERN ERA

Time and space are the two basic frames of human existence in every epoch, and the way they are perceived defines, to a large extent, the type of a society's mental horizons. The time in which people live is manifold; alongside the biological time experienced by each individual, there is also the social and the philosophical time. The last two, though intertwining, fall into different categories. J. Le Goff distinguished Church time from time of a merchant¹, and the old Polish–Lithuanian Commonwealth knew also a farmer's time based on the natural rhythm of the seasons². As these categories show, the concept of time is, to a large extent, shaped by the way of life and also by the way it is measured. Prayers lay at the root of the Church's concept of time (*horae canonicae*) while a farmer's time was shaped by the seasons and by the rising and setting of the sun; a merchant's time was measured instrumentally; it depended, to a large extent, on the development of technology and its results, especially on the invention of the mechanical clock.

Mechanical clocks appeared in Danzig as early as the 15th century. The first mention of a clock on the tower of the Main City's Townhall comes from 1460. In 1465 a new more easily seen clock was put on the newly heightened tower. The clock on St. Mary's church was made by the clockmaker Guttheill in 1625.

¹ J. Le Goff, *Au Moyen Age: Temps de l'Eglise et temps de marchand*, "Annales, Histoire, Economies, Sociétés" 15 (1960), N° 3, pp. 417–433.

² M. Bogucka, *Work, Time Perception and Leisure in an Agricultural Society: The Case of Poland in the Sixteenth and Seventeenth Centuries*, in: I. Blanchard, ed., *Labour and Leisure in Historical Perspective, Thirteenth to Twentieth Centuries*, Stuttgart 1994, pp. 45–53.

These two big clocks, visible from far away, governed the time of the city's inhabitants, determining the rhythm of their lives. An important role was also played by the clock inside St. Mary's church. This was the famous astronomical clock made in 1464–1470 by Johann Düringer. This three-tier, several metre high structure was adorned with a figural and ornamental sculptures which imparted solemnity to the measurement of time. The clock, which had two faces, an astronomical and a calendar one, showed the times of sunrise and sunset, the phases of the moon, the paths of the planets known at that time, the dates of movable feasts. Every hour a figure of one of the 12 apostles appeared on the gallery and religious scenes with the participation of Biblical figures, e.g. Adam and Eve³, were presented. The clock united the religious concept of time with the secular concept connected to the achievements of astronomy, and the spectacular way in which the clock functioned made it easier for the viewers to take in both concepts.

Since Danzig was developing quickly in the 16th and 17th centuries, its economic requirements led to the laicisation of the perception of time and increased the role of time keeping in everyday life. The demand for instruments measuring time grew steadily. The period in question was marked by a rapid development of clock- and watch-making in Danzig; the city became famous for its production all over Pomerania; clocks and watches made in Danzig were bought not only by local towns people but also by nobles all over the Commonwealth⁴. What is noteworthy is the diversity and variety of the clocks and watches made in Danzig; the city produced not only tower and hanging clocks but also portable clocks, case clocks, flat clocks, clocks encased in tiles as well as pocket watches, large and small. In addition to ordinary clocks, including striking ones, Danzig craftsmen also made clocks which played various melodies, and alarm clocks⁵.

At that time clocks became an important part of the equipment of every home in Danzig, especially the homes of the élites.

³ Cf. *Gdańsk, jego dzieje i kultura (Danzig, Its History and Culture)*, ed. A. Czeszunisz, Warszawa 1969, pp. 477–478.

⁴ M. Bogućka, *Gdańsk jako ośrodek produkcyjny od XIV do połowy XVII w. (Gdańsk as a Production Centre from the 14th to the Middle of the 17th Century)*, Warszawa 1962, p. 115.

⁵ *Ibidem*.

But according to early 17th century inventories, inhabitants of moderate means had them too. For instance, Anton Gerdson, a merchant, had two clocks, a striking gilt clock and a hanging striking one encased in green wood⁶. Gedeon von Tewelen, a haberdasher, had a gilt brass watch and a striking clock⁷. A striking clock with weights is also mentioned in the inventory of an apothecary, Jakob Haye⁸. The merchant Abraham Simonsen had a striking hanging clock⁹, and Jahn Dircksen, a felt maker, had an undefined watch estimated to be worth 4 Polish Zlotys¹⁰.

Poor inhabitants of the town who could not afford a clock continued to use sand hour-glasses¹¹. But there were also people who measured time by the sun and the sound of church bells or learned the time from the public clocks, those on the Townshall and St. Mary's church. Watches were already popular in Danzig at that time, as is testified to by a widely circulated publication, Stephan Furman's "prognostic key", where it was mentioned how to regulate watches; the leaflet was published in Danzig in 1657¹².

The growing popularity of clocks led to the desacralisation and laicisation of the concept of time and to an increasingly precise measurement of time connected to everyday needs. This was manifested above all with regard to working hours. In the 14th and 15th centuries working hours were not fixed by any precise regulations. Only the 1418 goldsmiths' statute contained a provision that the work in workshops should last from 5 in the morning till 9 at night¹³. In other crafts work usually started at dawn with the first light and lasted until twilight, that is, until sunset, when darkness made it impossible to work. In the 16th and 17th centuries provisions defining when work should start

⁶ Wojewódzkie Archiwum Państwowe — State Voivodship Archives (henceforth referred to as WAP) Gdańsk 300, 5/80, pp. 161–164.

⁷ WAP Gdańsk 300, 5/76, pp. 132 ff.

⁸ WAP Gdańsk 300, 5/82, pp. 1505–1510.

⁹ WAP Gdańsk 300, 5/90, pp. 616a–622.

¹⁰ WAP Gdańsk, 300, 5/70, pp. 122a–124a.

¹¹ WAP Gdańsk 300, 5/71, pp. 128b–129b.

¹² *Klucz Prognozykarsky ... z przydatkiem Słonecznego wschodu i zachodu dla nakręcania różnych zegarków (Prognostic Key ... with the Times of Sunrise and Sunset for the Winding of Various Watches)*, Gdańsk 1657, Ossolineum Library in Wrocław, MS. 7338.

¹³ WAP Gdańsk 300, 0/2000.

and when it should end began to be inserted in statutes issued by the guild authorities¹⁴. In leather workshops the journeymen were supposed to work from 5 a.m. to 6 p.m. (13 hours) in summer and from 5 a.m. to dusk (probably 10–11 hours) in winter. Blacksmiths and knife-makers started work at 6 a.m. and ended it at 7 p.m. (13 hours). Shipwrights worked from 6 a.m. to 7 p.m. (13 hours) in summer and from dawn to dusk in winter; carpenters building homes began work at 5 a.m. and ended it at 7 p.m. in summer (14 hours); in winter they were to work from dawn to dusk. Bricklayers worked from 4 a.m. irrespective of the season until 6 p.m. (14 hours), pewterers from 5 a.m. to 8 p.m. (15 hours), gunsmiths from 4 a.m. to 7 p.m. (15 hours), harness-makers, saddlers and beltmakers from 5 a.m. to 8 p.m. (15 hours) in summer and from 5 a.m. to 10 p.m. (17 hours) in winter, furriers from 4 a.m. to 8 p.m. (16 hours), irrespective of the season, glaziers, case makers and goldsmiths from 5 a.m. to 9 p.m. (16 hours), amber ornaments makers from 4 or 5 a.m. to 9 p.m. (16–17 hours). On Saturdays most workshops ended work a little earlier at 5 or 6 p.m.¹⁵ Some statutes (of bricklayers, carpenters and shipwrights) envisaged breaks for meals, lasting usually 30 minutes for breakfast and supper and one hour for the main meal¹⁶.

Thus at the threshold of the modern epoch precise time rules were established for all kinds of work and the old custom of defining working hours by sunrise and sunset was seldom observed.

The time for entertainment was also defined with growing precision; it too became regulated by the clock. In particular the time when entertainment should end became the subject of many regulations. At first Artus' Court was to close at 10 p.m.; later, entertainment could go on until midnight¹⁷. Family celebrations in private homes had to end at 6 p.m.; after 1628 they could last until 10 p.m. and later (1657) even until midnight¹⁸. Thus,

¹⁴ M. Bogućka, *Gdańsk jako ośrodek produkcyjny*, p. 333.

¹⁵ *Ibidem*, p. 334.

¹⁶ *Ibidem*.

¹⁷ M. Bogućka, *Życie w dawnym Gdańsku (Life in Old Danzig)*, Warszawa 1997, p. 101.

¹⁸ *Ibidem*, p. 144.

despite a certain liberalisation, the principle remained the same: the time for entertainment was to be regulated by the clock.

It was probably due to these regulations that the perception of time became ever more widespread and concrete in Danzig in the 16th and 17th centuries. Time was becoming an element of existence of which people would be increasingly conscious. It can be seen in the records of the city's Benchers and the Vice-President that in the 17th century the witnesses giving evidence in various cases defined their age precisely and without hesitation (in Warsaw witnesses had still difficulties in this respect)¹⁹. When in the first half of the 17th century a town scribe Michal Hancke, a member of the middle class, recorded in his diary the death of Danzig notables (e.g. of burgomaster Valentin von Bodeck and Eggert von Kempen) he noted not only the day but also the hour of their death²⁰. Reinhold Curicke, author of a 17th century description of Danzig used to note the day and hour of important events in the city (strokes of lightning, fires, etc.)²¹. Recording that on 13 July 1636 a girl from the brewery was struck by lightning near the Holy Spirit Gate, Hancke, too, made it precise, saying that this happened *umb halb drey Uhr des nachmittages*²². He recalls also that because of a thunderstorm and fire on 12 July the same year it was as light at night between 2 and 3 a.m. as in daytime²³. Hancke often noted not only the hour but also the minutes when an event had happened²⁴. This is by no means surprising for the Danzig calendars, one of the most popular publications in the town at that time, used not only hours and minutes but even seconds to define the time of an event²⁵. Danzig inhabitants frequently denoted travel time in hours. This was done at the turn of the 16th century by Martin Grüneweg, a young merchant, later a Dominican friar²⁶, and in the middle of the 17th

¹⁹ Cf. WAP Gdańsk 300, 43/37, pp. 221–221 v., 239; 300, R/VV 128, pp. 5–6.

²⁰ Library of the Polish Academy of Sciences in Gdańsk MS. 915, p. 100.

²¹ R. Curicke, *Der Stadt Danzig historische Beschreibung*, Amsterdam–Danzig 1687, pp. 275, 276, 279.

²² Library of the Polish Academy of Sciences in Gdańsk MS. 915, p. 100.

²³ *Ibidem*.

²⁴ *Ibidem*, pp. 166, 168, 169.

²⁵ K. Kubik, *Kalendarze gdańskie w XVI–XVII w. (Gdańsk Calendars in the 16th and 17th Centuries)*, "Rocznik Gdański", vol. XXXIX, N° 2, 1974, pp. 107–155, in particular p. 120.

²⁶ Cf. Library of the Polish Academy of Sciences in Gdańsk MS. 1300, pp. 177–178.

century by the Danzig councillor Nathanael Schröder when he described his journey through Western Europe²⁷. In addition to notes about the buildings and places he visited, he says that a boat trip from Amsterdam to Haarlem took him two and a half hours and a trip from Haarlem to Leiden and Delft three hours²⁸.

Even though they were so conscious of the passage of time and defined it in precise terms, the inhabitants of Danzig took calmly the Gregorian calendar reform which aroused turmoil in other towns²⁹. Batory's edict of 22 July 1582 was well known in the city³⁰ and as a result of the King's letters of 17 Augustus 1582 to the city's Council, the new dating began to be used in Danzig as early as the first days of October³¹. The acceptance of this "revolution in time" (10 days were struck off the calendar) was probably due to the fact that the new system was already adopted by Danzig's main trading and financial partner, the Netherlands. The use of the same calendar made it easier to check mutual accounts. Nevertheless, the fact that many Protestant countries, such as a large part of Germany, Scandinavia and England, did not introduce the Gregorian reform, and probably also Danzig's attachment to the old system were the reason why alongside the official new dating, the old dating functioned for a long time. Throughout the 17th century the calendars printed in Gdańsk had two separate columns, one with the new time calculation (the calendar) and the other with the old (the old calendar)³². The inhabitants of Danzig followed with interest the disturbances which broke out in Riga and Augsburg after the introduction of the new calendar³³. The reform must have been discussed and

²⁷ Nathanael Schröders *Reisebeschreibung von Danzig nach Holland and Engeland und durch Spanischen und vereinigten Niederlanden*, Library of the Polish Academy of Sciences in Gdańsk, MS. 925a. Schröder left Gdańsk for the fortress at the mouth of the Vistula on 5 July 1600, he left it on 11 July and sailed on, *ibidem*, p. 200.

²⁸ *Ibidem*, p. 200.

²⁹ Even Wałcz Wielkopolski experienced riots over the new calendar in 1589, see J. Dworzaczkowa, *Wprowadzenie reformacji do miast Wielkopolski (The Introduction of the Reformation into Great Poland's Towns)*, "Odrodzenie i Reformacja w Polsce", X, 1965, p. 73, and also F. Schulz, *Geschichte des Kreises Deutsch-Krone*, Deutsch-Krone 1902, p. 132.

³⁰ Cf. Library of the Polish Academy of Sciences in Gdańsk MS. Uph fol. 26, p. 31.

³¹ Cf. O. Grotfend, *Die Einführung des gregorianischen Kalenders in Danzig*, "Mitteilungen des Westpreussischen Geschichtsvereins", I, 1902, pp. 64–66.

³² K. Kubik, *Kalendarze gdańskie*, pp. 120 ff.

commented on not only by the city authorities but by common townspeople too.

While adopting a practical approach to time as an element of everyday life, the better educated persons reflected on its mysterious nature which was difficult to fathom. In his diary Martin Grüneweg recalls St. Augustine's famous statement on this subject: *In der zeitt sein wir, unde wissen nicht, was die tzeitt ist*³⁴. He also confesses that he cannot explain why he keeps thinking about time. *Wolttest du aber eigentlich wissen, says he to an imaginary reader, worumme ich mich gefallen lasse, so eigentlichen tzeitt und stunden aufzutzeichnen, so lasse den Heiligen Geiste raum der wirt diers breitter beweysen den ichs dier mochtte beschreyben*³⁵. His reflections on time have a clearly didactic aim. Grüneweg realises that time is a valuable thing which is given us for a short while and should be well used. *O warlichenn wen man betrachtett was die tzeitt were, wie theier sie ist, man wurde sie besser anlegen*³⁶. When setting out to design a calendar Martin Grüneweg emphasises the didactic aim of his work: *So du ... begerst den Kalender recht zugebrauchen und die tzeitt deines lebens nutzlichen zuverschaffen*³⁷. He begins his work by making a table with instructions on behaviour³⁸, on how to avoid evil and school oneself to do good, how to make good use of time, do good deeds and fight against Satan. Only then does he make a list of the months and days with their patron saints³⁹, a table with calculations of the length of the days and nights (in hours and minutes) in each month⁴⁰, gives examples of the time of sunrise and sunset (also in hours and minutes)⁴¹, information on the signs of the zodiac, on the vernal and autumnal equinox⁴², divides the year into four seasons and links the season with human "complexion"⁴³. His calendar made people take control of

³³ Cf. Library of the Polish Academy of Sciences in Gdańsk MS. Uph 51 p. 279.

³⁴ Library of the Polish Academy of Sciences in Gdańsk MS. 1300, p. 179.

³⁵ *Ibidem*.

³⁶ *Ibidem*.

³⁷ *Ibidem*, p. 182.

³⁸ *Ibidem*, p. 183.

³⁹ *Ibidem*, pp. 185–196.

⁴⁰ *Ibidem*, p. 188.

⁴¹ *Ibidem*, p. 189.

⁴² *Ibidem*, p. 199.

time, seems to be treating time in a practical, matter-of-fact way, but all the help Grüneweg gives is placed in the religious–philosophical category of time.

The Danzig calendars, probably the most popular publication in the 16th and 17th centuries, are placed also on the border line between a practical perception of time and its religious–magical interpretation. Since their list has been compiled and interpreted by K. Kubik⁴⁴, I will confine myself to a few remarks. What is characteristic of all the calendars published in these centuries is that they combine the measure of time with prognoses; they link practical time of life and work measured by astronomical instruments and clocks with magic time based on astrological and fortunetelling calculations. It is this dual character that made the calendars so popular; they were not only read but also copied⁴⁵. The result was that the inhabitants of Danzig were “immersed” in a time of a dual nature. On the one hand this was rational time, based on astronomical observations and on the invention of the mechanical clock, on the other hand it was a magical time which depended on mysterious conjunctions of the planets and on the impact of supernatural forces. Consequently, there were “good” days and “bad” days, days suitable for starting a venture, a journey, work, blood letting, contracting marriage, and “bad” days when every activity was risky and even dangerous, when it could turn against the doer. Since Danzig calendars marked “good” days and “bad” days, they became guidebooks for the people on how to arrange safely their life in a given year⁴⁶. People firmly believed that there were two kinds of days, as is proved by Martin Grüneweg’s references to “good” and “bad” days, though as a Dominican friar he condemned astrologists and their instructions, regarding them as contrary to the teachings of the Church⁴⁷. But at the same time Grüneweg was convinced that the time when important Biblical events occurred was not coincidental, they were “chosen” days. He cites as examples of

⁴³ *Ibidem*, p. 199.

⁴⁴ Cf. fn. 25.

⁴⁵ In his notebook *Hancke* cites an astrological–astronomic prognostication for 1637 from Peter Krüger’s publications which were very popular at that time, Library of the Polish Academy of Sciences in Gdańsk MS 915, pp. 166–178.

⁴⁶ Cf. K. Kubik, *Kalendarze*, pp. 121, 138, 140.

⁴⁷ Library of the Polish Academy of Sciences in Gdańsk MS 1300, p. 179.

“chosen” days the days of the birth and of greatest achievements of St. Medard and his twin brother: they were born, ordained bishops and died on the same day⁴⁸. The lives of two Dominicans, Peter and Arnold, also twins, were also marked by a cycle of “chosen” days: born on the same day, they were sent to Paris to study on the same day, were nominated professors, became monks at Montpellier and finally both died on the same day. After describing this extraordinary coincidences, Grüneweg says: *welches betrachtende, mus man undereines bekennen, das solches alles aus wunderbarlichen versehen Gottes, unde nicht aus ungefehr sich tzuetruege: unde ist derhalben nicht unbillig bisweillen die tzeit ansehen*⁴⁹. Thus according to him, there are special, “chosen” days, but they are not chosen by the planets and their position but by God. God’s designs are realised through time. The magical nature of time is given divine affirmation by Grüneweg.

In the mind of Danzig inhabitants time was inseparably linked with death because its *stundt ist uns verborgen*⁵⁰. Each hour may be the last one and this is why good use should be made of the time of life in order to gain salvation. This is the firm conviction of both Grüneweg and Hancke, a Dominican friar and a Calvinist. *Brauche also dein lebenszeit, das du erlangest die ewige freude*, writes H a n c k e⁵¹ and quotes a melancholic poem at the beginning of his diary:

*Ich lebe undt weis nicht wie lang
Ich sterbe undt weis nicht wan,
Ich fahre und weis nicht wohin
Mich wundert, das ich frolich bin ...
Mich wundert das ich traurig bin*⁵².

Further on he says:

*Alles verschwindet, geschwindt
Gleich wie der rauch in den windt*⁵³.

Nearly identical formulation can be found in Grüneweg’s diary: *Das Lebens kurtzigkeit, welches ist — Schwecher den das glas, Leichter den der rauch, Schneller den der windt*⁵⁴. Speaking about

⁴⁸ *Ibidem*, pp. 180–181.

⁴⁹ *Ibidem*, p. 181.

⁵⁰ Michał H a n c k e, Library of the Polish Academy of Sciences in Gdańsk MS. 915. p. 77.

⁵¹ *Ibidem*.

⁵² *Ibidem*, p. 2a.

⁵³ *Ibidem*, p. 73.

the day of death Grüneweg says that this is the moment *über welchen ist nichts gewissers, nichts ungewissers, nichts bitterlichers*⁵⁵.

No wonder that Hancke, realising that life lasts but a short while, was fascinated by longevity. In his notebook he mentions people who were said to have lived several hundred years; he affirms that a certain courtier of Charlemagne was 372 years old when he died and that a 335-year-old man still lives in East India⁵⁶. Hancke was most impressed if longevity was combined with the capacity to beget children⁵⁷. Such legends, which must have been well known in Danzig, reflected its inhabitants' longing for victory over time, for overcoming the inevitable passage of time. As the perception of time deepened, the wish to escape from it intensified. Seemingly tamed by the mechanical clock, time served the people of Gdańsk as a tool for organising work and leisure, but simultaneously it was their enemy on the philosophical, religious level. It was time that brought destruction: death, war, riots, bad crops, hunger and pestilence. The horrifying "gifts" of time are more frequent in the calendar prognostics than predictions of favourable events. This dual perception of time constituted an important element of the mentality of Danzig inhabitants as the threshold of the early modern era, giving it the stamp of constant perplexity and anxiety.

(Translated by Janina Dorosz)

⁵⁴ Library of the Polish Academy of Sciences in Gdańsk MS. 1300, p. 183.

⁵⁵ *Ibidem*.

⁵⁶ Library of the Polish Academy of Sciences in Gdańsk MS. 915, p. 92.

⁵⁷ Constance, mother of the emperor Frederick, was supposed to be sixty years old when she gave birth to him; in Stockholm under Gustavus Vasa, a 100-year-old man married a young girl and had offspring by her, *ibidem*, p. 103.