

Cartographic reinterpretation of Central and Eastern Europe in the 16th century

Karol Łopatecki

Faculty of History and International Relations, University of Białystok (Poland), Plac NSZ 1, 15-420 Białystok, Poland



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The article aims to show the changes in the cartographic representation of “Central and Eastern Europe” that took place in the 16th century. After Ptolemy's findings were revised, these areas began to occupy territories many times larger than originally attributed to them. As a consequence, some states became proportionally smaller against the backdrop of the continent (e.g. the German Reich, France, Spain or the Balkans under the rule of the Ottoman Porte), while others became much larger (above all, this concerns the Grand Duchy of Lithuania within its borders until 1569, the Tsardom of Muscovy and the Scandinavian states). The situation was exceptional in the case of the Kingdom of Poland, whose lands grew disproportionately at the beginning of the 16th century, to markedly decrease in area by the end of the century. It should be stressed that the changes that were taking place had nothing to do with territorial changes, but with a new vision of the representation of the

European continent.¹ The resulting maps and chorographic descriptions had an impact on changing the spatial perception of Europe among the elite, although this process was much slower than the development of science.² There is no strong correlation between progress and print in Renaissance cartography. Authors of maps were usually compilers of other people's works, to which at most they added information that they had obtained themselves.³ Consequently, there were visions of Europe developing in parallel; the old Ptolemaic one and the new one, which will be emphasized in the text.

The term “Central and Eastern Europe” that I use in this article is not a geographical concept; it is a metageographical term created for ideological and political purposes. It is therefore an ahistorical term that was not used during the period in question. This category was popularized by Oskar Halecki in 1952, who characterized it as countries of Western civilization that fell under the Soviet influence after the Second World War. This was to be the land between the two seas (Black and Baltic Seas).⁴ This concept can be applied to the early modern period, and by this formula I mean the areas between the German Empire, the Ottoman Empire and the Tsardom of Muscovy.⁵

¹ This phenomenon is described in a different context (the reduction of the spatial role of Europe as a result of geographical discoveries) by: M. Wintle, Renaissance Maps and the Construction of the Idea of Europe, *Journal of Historical Geography* 25 no 2 (1999), 137–165.

² This, in turn, affected metageography, or the group of spatial structures through which people ordered their knowledge of the world. M.W. Lewis and K. Wigen, *The Myth of Continents: A Critique of Metageography*, Berkeley, Los Angeles and London, 1997, IX+. See also: chapter I (The Architecture of Continents): 21–46, where the authors characterize the circumstances of isolating continents.

³ C. Mukerji, Printing, cartography and conceptions of place in Renaissance Europe, *Media, Culture & Society* 28 (2006), no. 5, 651–669.

⁴ O. Halecki, *The Borderlands of Western Civilization. A History of East Central Europe*, New York, 1952, 4–5, 13; W. Wilczyński, Geografia i metageografia ziem dawnej Sarmacji, *Przegląd Geopolityczny* 9 (2014), 9–30. The separating of Eastern Europe as an area did not occur until the 18th century. L. Wolff, *Inventing Eastern Europe: The Map of Civilization on the Mind of the Enlightenment*, Stanford, 1994, 144–194.

⁵ There were closely related terms that were used during the Renaissance like septentrional Europe and Eastern Europe (Sarmatia Europea, European Sarmatia) or Central Europe; however, their referents are not the same as the concept that I am using. An analogous solution is applied by: Z.G. Török, (2007), Renaissance cartography in East-Central Europe, ca. 1450–1650, in: D. Woodward (Eds), *The History of Cartography*, vol. 3, part 2, *Cartography in the European Renaissance*, Chicago–London, 2007, 1839–1851.

E-mail address: k.lopatecki@uwb.edu.pl.

The use of the term “Central and Eastern Europe” is justified from yet another point of view. The term makes it possible to fill a gap in the study of the Renaissance cartography, which during the 19th and most of the 20th centuries was conducted according to an imperial narrative. Thus, the area was on the periphery of the study of German and Russian cartography, which was hardly different from the use of cartography by empires against colonies.⁶ This article is an attempt to present the phenomenon from the perspective of the Kingdom of Poland and the Grand Duchy of Lithuania as subjects of transformations taking place in cartography. I conduct my research in terms of critical cartography, where I treat the map as a cultural text that reflects or perpetuates power relations. When analyzing a map, its rhetoric must be considered, i.e. the selection of essential elements (as well as the omission of superfluous ones), the choice of graphics, font type and size (Figs. 2–5).⁷ Michel Foucault's idea of *pouvoir-savoir* is useful at this point, as this is where knowledge and power are directly intertwined; this is where power uses, builds on, and even reproduces knowledge.⁸ This is particularly evident in Renaissance cartography, where maps were used to show political power in addition to practical tools.⁹ Geographical discoveries led to an unprecedented enlargement of the world known to Europeans, and consequently the minimization of the Old Continent on world maps. Paradoxically, however, the ideological role of Europe was strengthened by the application of experimental mapping rules (where two thirds of the distorted land is at high latitudes), and a process of shifting the borders of the Old Continent further and further east could be observed. In addition, Europe came to be centrally located on world maps by adopting a northern orientation and defining the zero meridian. This arrangement replaced the medieval cartographic vision locating Jerusalem at the centre of the world.¹⁰

In this article I analyze the transformation of the space of “Central and Eastern Europe”. I emphasize the process of Renaissance reinterpretation of ideas about this part of the world, which replaced the old ancient (Ptolemaic) tradition. In order to reflect it, I use the method applied in the traditional history of cartography which consists in showing deformations in the presentation of space (Figs. 6 and 7). The innovation of the proposed activity consists in comparing two old maps, where the older one provides a model spatial reference to the new one. Thus, the created grid of deformations will show how the vision of the presented space changed in the course of several dozen years (Fig. 6). I also cite the accounts by contemporaries that indicate that the issue of changes in the representation of “Central and Eastern Europe” aroused

interest and extreme emotions. I provide all quotes in my own translation into English.

I have conducted a detailed analysis in relation to the lands under the rule of the Jagiellonian dynasty – the Kingdom of Poland and the Grand Duchy of Lithuania. Between 1506 and 1572, the Polish-Lithuanian state was ruled by the last two kings of this dynasty, Sigismund I the Old and his son Sigismund II Augustus. In 1569, the two states merged and, by virtue of the real union, the Polish-Lithuanian Commonwealth was established, with a common ruler and *Sejm* (i.e. the Polish Parliament).¹¹ The area of this state (without fiefdoms – Ducal Prussia, and the Duchy of Courland and Semigallia) in 1580 had an area of about 865 thousand km.² Thus, it was territorially the largest European country after the Tsardom of Muscovy.¹²

In the minds of the contemporaries, the area of these two states was part of the northern (“septentrional”) lands which also included Scandinavia, Denmark, Iceland, Livonia, Moscow and the northern territories of the Reich. They were areas most poorly studied by ancient authors, which was reflected in the Ptolemaic *Tabula Europae VIII* (see Fig. 1). Thus, they remained outside the main circulation of the European cartography revived in the 15th century.¹³ Their common geographical and climatic feature was to be the harsh and freezing climate.¹⁴ Despite this perception, an overly broad approach to the subject does not seem justified in this article. Supplementing, i.e. plotting on the maps the lands not described by Ptolemy, such as the Scandinavian Peninsula, Iceland or Greenland is something entirely different than having to undermine the ancient authority and rectify the shapes given.¹⁵ As K. Piechocki noted, the Renaissance featured a cognitive dissonance concerning this part of Europe. The knowledge presented by ancient authors was often mythical and was subject to negative verification over time.¹⁶ The distinction is all the more well-founded, as there is already research on the mapping of the Nordic countries on 16th century maps showing Europe.¹⁷

On the maps based on the information provided by Ptolemy, this part of Europe did not even come close to reality either in the layout of the coastline, the marked mountains, rivers, or the miniaturized area itself. The land space of “Central and Eastern Europe” was “occupied” by the Black Sea, the Sea of Azov and the Baltic Sea on Ptolemy's *Tabula Europae VIII* (Fig. 1).¹⁸ Also, the depicted tribal-

¹¹ R. Frost, *The Oxford History of Poland-Lithuania. Volume I: The Making of the Polish-Lithuanian Union, 1385–1569*, Oxford, 2015.

¹² A. Jezierski (Eds), *Historia Polski w liczbach. Ludność. Terytorium*, ed., Warszawa, 1994, 14–15. This assessment covered the area of the states in Europe, which in particular refers to the Ottoman Empire, or colonial countries, such as Spain.

¹³ An important period was 1539–1558, when the northern part of the continent was redefined. J. Niedźwiedz, *Poeta i mapa. Jan Kochanowski a kartografia XVI wieku*, Kraków, 2019, 127–146.

¹⁴ H. Kutrzebianka, *Opinie Francuzów o Polakach z czasów elekcji Henryka Walezygo* (1), *Przegląd Współczesny* 15 (1937), 106.

¹⁵ K.A. Seaver, *Saxo Meets Ptolemy: Claudius Clavius and the ‘Nancy map’*, *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography* 67 (2013), no. 2, 72–86; O.A.W. Dilke, *Geographical Perceptions of the North in Pomponius Mela and Ptolemy*, *Arctic* 37 (1984), no. 4, 347–351.

¹⁶ The article characterized such a process with an example of the mythical Riphean Mountains. K.N. Piechocki, *Erroneous Mappings: Ptolemy and the Visualization of Europe's East*, in: K. Newman and J. Tylus (Eds), *Early Modern Cultures of Translation*, Philadelphia, 2015, 76–96.

¹⁷ H.A.M. van der Heijden, *Gedrukte kaarten van Europa vóór Ortelius. Een toevoegsel. Pre-Ortelius printed maps of Europe. Addenda. Belgeo. Revue belge de géographie* 3–4 (2008), 269–286; H. Winter, *The changing face of Scandinavia and the Baltic in cartography up to 1532*, *Imago mundi* 12 (1955), no. 1, 45–54.

¹⁸ J. L. Berggren, A. Jones (Eds), *Ptolemy's Geography: an annotated translation of the theoretical chapters*, Princeton and Oxford 2000; P.G. Dalché, *The Reception of Ptolemy's Geography (End of the Fourteenth to Beginning of the Sixteenth Century)*, in: D. Woodward (Eds), *The History of Cartography*, vol. 3, part 1, *Cartography in the European Renaissance*, Chicago, 2007, 285–364; L. Szaniawska, *Sarmacja na mapach Ptolemeusza w edycjach jego “Geografii”*, Warszawa 1993.

⁶ S. Seegel, *Mapping Europe's Borderlands. Russian Cartography in the Age of Empire*, Chicago and London 2012. Cf. R. B. Craib, *Cartography and power in the conquest and creation of New Spain*, *Latin American Research Review* 35 (2000), 7–36; J.R. Akerman (Eds), *The imperial map: cartography and the mastery of empire*, Chicago, 2009.

⁷ J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, ed. P. Laxton, intr. J.H. Andrews, Baltimore and London, 2001, 33–82.

⁸ L. Olivier, *La question du pouvoir chez Foucault: espace, stratégie et dispositif*, *Canadian Journal of Political Science*, 21 no 1 (1988), 83–98; J. Rouse, *Power/knowledge*, in: G. Gutting (Ed.), *The Cambridge Companion to Foucault*, Cambridge, 2005, 95–122.

⁹ The phenomenon shown based on maps painted on the walls of palaces: M. Rosen, *The Mapping of Power in Renaissance Italy: Painted Cartographic Cycles in Social and Intellectual Context*, New York, 2015.

¹⁰ J.B. Harley, *Maps, knowledge, and power*, in: G. Henderson, M. Waterstone (Eds), *Geographic thought a praxis perspective*, London–New York 2009, 129–148; M. Wintle, *Renaissance Maps*, 137–165; J.P. Snyder, *Map projections in the Renaissance*, in: D. Woodward (Eds), *The History of Cartography*, vol. 3, part 1, *Cartography in the European Renaissance*, Chicago–London, 2007, 365–381; D. Woodward, *Reality, symbolism, time, and space in medieval world maps*, *Annals of the association of American geographers* 75 (1985), no 4, 510–521.

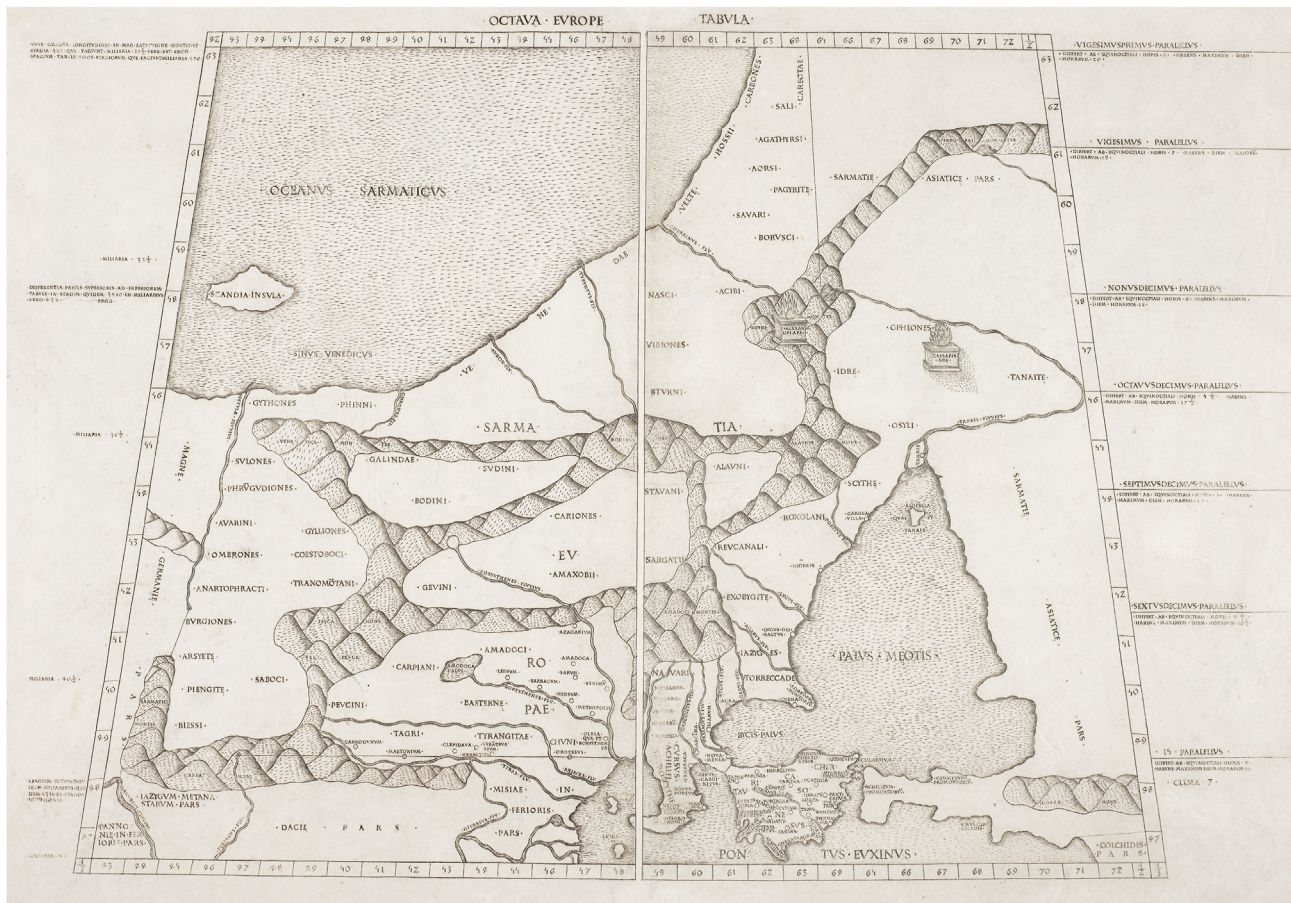


Fig. 1. The Eight Table of Europe (*Octava Europe Tabula*) appended to the work *Claudii Ptholomei Alexandrini. Cosmographia*, Rome 1478, prepared by Conrad Swenhuyem and published by Arnold Buckinck (public domain: https://commons.wikimedia.org/wiki/File:1478_Ptolemy%27s_8th_European_Map.jpg).

state structure (in contrast to other parts of the Old Continent) in no way translated into the political network of the turn of the 15th and 16th centuries. The authors attempting to update information about this part of the world (*tabula moderna*) thus had a tall order to fill. The most reasonable solution would have been to reject all ancient knowledge about the area; it was much easier to re-plot the recognized areas (*terra incognita*) than to modify the perception formed by tradition and reinforced by the authority of ancient authors.¹⁹

Consequently, cartographers, and thus also the European elite, were slow to rectify the correct proportions of the continent. For a long time, the view that the east and north were at least equivalent to the western and southern parts of Europe was not accepted. This was due not only to the authority of ancient writers, but also to the lack of reliable information about this geographic area. The first step was to fill in new geographical data within the contours of the continent established in Ptolemy's works. Thus, towns and lands were plotted on the map, which resulted in a peculiar cartographic

hybrid combining the ancient tradition with new findings (see Figs. 2–4 and 7).²⁰

In order to illustrate this, the frequently analyzed world map *Universalis Cosmographia* by Martin Waldseemüller from 1507 should be recalled (Fig. 2).²¹ It is very interesting because it manifests the shift of the world's boundaries in the west (new geographical discoveries are shown, with the east coast of North and South America), while at the same time preserving the three remaining continents according to the traditional vision of the world.²² Ptolemy's output (Europe, North Africa, Asia) was still the primary source of knowledge, but it was supplemented by Marco Polo's account of Asia, as well as portolan charts and discoveries of overseas lands. Even the north of Europe (Scandinavia, Scotland and Ireland) was modified and supplemented owing to the work of Claudius Clavus.²³ In this set-up, "Central and Eastern Europe" is

¹⁹ On the occurring interaction between authority-based knowledge and empirically collected information: F. Relaño, *The shaping of Africa: cosmographic discourse and cartographic science in late medieval and early modern Europe*, Aldershot, 2002. Cf. progress in the plotting of newly discovered continents: O.A.W. Dilke, M.S. Dilke, *The Adjustment of Ptolemaic Atlases to Feature the New World*, in: *European Images of the Americas and the Classical Tradition*, vol. 1, ed. by W. Haase, R. Meyer, Berlin and New York 2011, 117–134.

²⁰ Cf. R. Skrycki, Na marginesie nowej interpretacji Geografii Ptolemeusza, *Polski Przegląd Kartograficzny* 41 (2009), no. 1, 29.

²¹ E. Harris, The Waldseemüller world map: A typographic appraisal, *Imago Mundi* 37 (1985), 30–53; J.W. Hessler, C. van Duzer, *Seeing the World Anew: The radical vision of Martin Waldseemüller's 1507 & 1516 world maps*, Delray Beach, 2012.

²² M. Small, *Framing the World: Classical Influences on Sixteenth-century Geographical Thought*, Woodbridge 2020. The author presents the history of 16th century cartography as a process of expanding the ecumene.

²³ L. Bagrow, At the Sources of the Cartography of Russia, *Imago Mundi* 16 (1962), 33–35.



Fig. 2. Europe on the world map by Martin Waldseemüller entitled *Universalis Cosmographia Secundum Ptholomaei Traditionem et Americi Vespucii Aliorum[m]que Lustrationes*, [St. Die] 1507, excerpt. Through inverted colors, lands presented according to the ancient tradition are marked, with no attempt to make them more modern. The white colour marks the rhetorical borders of the Kingdom of Poland. Retrieved from the Library of Congress, <https://www.loc.gov/item/2003626426/>. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

the only part of the world that did not see a thorough cartographic reinterpretation.²⁴

It is still a disproportionate area to other parts of Europe, and extended information about the north led to further depreciation of these lands. The situation is even worse in the rhetorical and symbolic sphere. According to the cartographer, the lands east of the Vistula river, located between the Baltic Sea, Black Sea and the Sea of Azov were areas from another era. The lands featured fantastic mountains and rivers still recorded by Ptolemy as well as ancient buildings.²⁵ Only the southern coast of the Baltic Sea was updated with medieval geographical knowledge; as a result, it contained i. a. Gdansk/Dantzig, Królewiec/Mons Regne, Ryga/Riga Metropolis and Talinn/Revalia.²⁶

The remaining space is occupied by ancient tribes: Ambrones/Ombrones, Sulones, Wenetowie/Wenedades, Galindowie/Gallones, Osi/Osili, Alauni/Alaum, Scytowie/Sthytiens, etc. Only the Kingdom of Poland (*Polonia*) is noted, squeezed between the mountains and ancient peoples. It was attributed to

the Western European civilization, with the word “[EU]ROPA” ending at its extremities. In the microscopic area separated in this way, only the capital city of Krakow (*Cracovia*) was noted. Besides, there are two other cities, Gdańsk (*Dantzig*) and Lviv (*Lemberg*), which, however, are not rhetorically connected with the Polish state. To the east of the Kingdom of Poland, the increasingly marginalized ancient land of European Sarmatia (*Sarmatia Europe*) can be found, representing the then frontier of the European continent.

If we look at this source from the perspective of power and geographical knowledge, this map clearly accentuates the two colonial powers, i.e. Spain (actually the Kingdom of Castile) and Portugal. The acquisitions made by these states in Africa and the Americas are marked by flags representing these kingdoms. Also in Europe itself, established European powers such as the German Reich, France, England (and Byzantium, which no longer existed) found their mandate through the coats of arms shown on the map. The Kingdom of Poland was a borderland European country of little importance, deprived even of such a symbol, although it was assigned to Western European civilization thanks to the marked Saint Peter's keys, which are a symbol of belonging to the Roman Catholic Church. The Grand Duchy of Lithuania and the Grand Duchy of Moscow (*Muscovy*), on the other hand, were completely excluded, or rather their presence in the European space had not yet been noticed.

The above analysis exemplifies the place of “Central and Eastern Europe” at the turn of the 15th and 16th centuries in the imagination of the European elite. The very fact of the appearance of the Polish Kingdom on the maps of Europe is important, and is the result of the involvement of Nicholas of Cusa (1401–1464). He was the first person to attempt to combine Ptolemaic ideas with

²⁴ For comparative purposes, it should be noted that the mapping of Southeast Europe, despite some simplifications, is rated very positively. The main features of the Balkan Peninsula were successfully shown. Above all, this map drew the attention of the intellectual circles of the period to the area then threatened by the expansion of the Ottoman Porte. M. Grčić, Cartographic image of Serbia and other neighboring countries on the maps of Martin Waldseemüller from early 16th century, *Zbornik radova-Geografski fakultet Univerziteta u Beogradu* 68 (2020), 81–97.

²⁵ K.N. Piechocki, *Erroneous Mappings*, 85–87; K. Buczek, *The History of Polish Cartography from the 15th to the 18th century*, trans. A. Potocki, Wrocław, Warszawa and Kraków, 1966, 17–31.

²⁶ A. A. Bjorubo, C.S. Petersen, *Fyenboen Claudius Claussøn Swart (Claudius Clavus): Nordens ældste*, København, 1904.



Fig. 3. Excerpt from Marco Beneventano's map titled *Tabula moderna Polonie, Ungarie, Boemie, Germanie, Russie, Lituanie* (1507). The Ruthenian province and the two villages important to Bernard Wapowski are illustratively marked (in the rhetorical layer): Wapowice (birthplace) and Radochońce (family nest). Exposed in black are mountain ranges taken from the ancient tradition; see Fig. 1. In the bottom right-hand corner: the division into provinces of the Kingdom of Poland (fully up to date in 1529–1569). Own study.

contemporary data on this part of the continent, based on mathematical foundations.²⁷

The next stage in the reinterpretation of the cartographic depiction of this area is the result of the work by Marco Beneventano (1465–1522), who completed the area marked in Fig. 2 with up-to-date information. This was possible because he was assisted in creating a new map in Rome by a subject of Sigismund I the Old, a talented cartographer, chorographer and chronicler, Bernard Wapowski.²⁸ Consequently, in 1507 the first map was published, which in its title referred to the lands of the Kingdom of Poland and the Grand Duchy of Lithuania (*Tabula moderna Polonie, Ungarie, Boemie, Germanie, Russie, Lituanie* – Fig. 3). It covered the area of “Central and Eastern Europe”; attempts were made to replace the ancient legacy with the current state of political, geographical and settlement knowledge. The map's biggest shortcoming was that the coastline of the Baltic Sea and the Sea of Azov had hardly been changed.

It is to the credit of Wapowski and Beneventano that all ancient tribes were removed and an effort was made to reflect the updated political arrangement of “Central and Eastern Europe”. Eventually,

the Grand Duchy of Lithuania and the Grand Duchy of Moscow appeared, which partly took over the previous area of European Sarmatia. On the other hand, the Kingdom of Poland expanded in an unprecedented way in relation to previous cartographic works based on the findings of Nicholas of Cusa (cf. Figs. 2, 3 and 4). Additionally, the author recognized provinces and regions belonging to Lithuania and Poland. This was thanks to Wapowski, who was a nobleman living in Red Ruthenia (in the south-eastern lands of the Kingdom of Poland).²⁹ He transferred his subjective vision of space onto a map, where he made two small villages situated near Przemyśl and Lviv the centre of his observations: Wapowice (*Vapovicia*), his birthplace, and Radochońce (*Radochońiza*), the family nest³⁰. The greatest expansion of space occurred around these settlements. In addition, his small homeland of Ruthenia (*Gente Ruthenus, natione Polonus*), or rather, the Ruthenian province, were highlighted. The provinces were the largest and most important administrative units existing in the Kingdom of Poland. They had a compact shape, with the exception precisely of the Ruthenian province, since its two parts were separated by the Lublin and Bełsk provinces.³¹ This seemingly unimportant detail

²⁷ S. Alexandrowicz, J. Łuczyński, R. Skrycki, *Historia kartografii ziemi polskich do końca XVIII wieku*, Warszawa, 2017, 52–57.

²⁸ L.A. Birkenmajer, Marco Beneventano, Kopernik, Wapowski, a najstarsza karta geograficzna Polski, Kraków, 1901; C. Chowaniec, The First Geographical Map of Bernard Wapowski, *Imago Mundi* 12 (1955), 59–64; H. Rutkowski, Polska na mapie Europy Środkowej z 1507 roku, in: *O rzeczach minionych scripta rerum historicarum Annae Rutkowska-Plachcińska oblata*, ed. M. Młynarska-Kaletynowa, J. Kruppe, Warszawa, 2006, 281–293.

²⁹ L.A. Birkenmajer, Marco Beneventano, 19–30; C. Chowaniec, *The First Geographical Map*, 59–64.

³⁰ A. Krawiec, Pomerania in the Medieval and Renaissance Cartography – from the Cottoniana to Eilhard Lubinus, *Studia Maritima* 33 (2020), 110–111.

³¹ P. Dąbkowski, *Podział administracyjny województwa ruskiego i bełskiego w XV wieku*, Lwów, 1939.

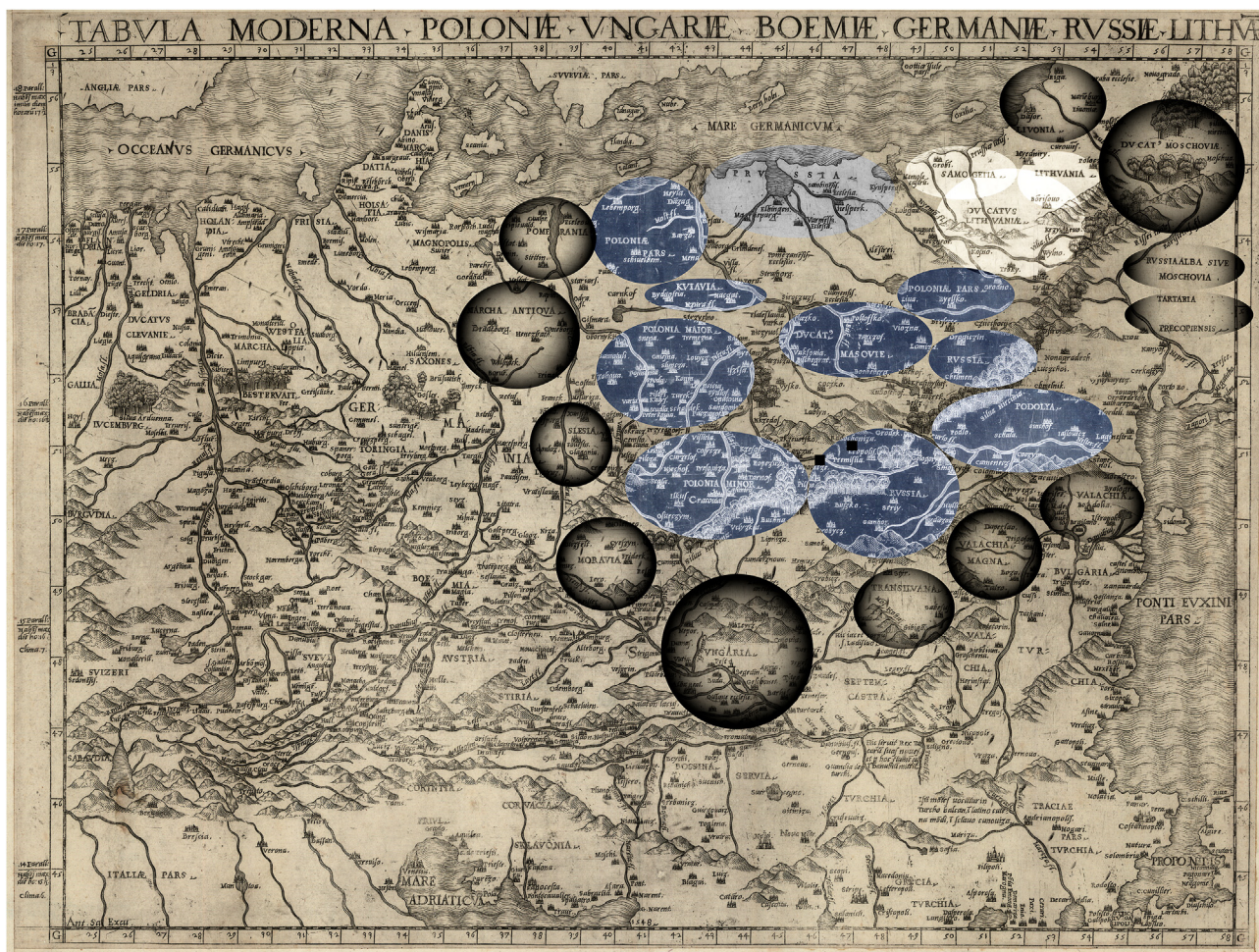


Fig. 4. Rhetorical borders of the Polish-Lithuanian state shown on the map of Antonio Salamanca *Tabula moderna Poloniae, Ungariae, Boemiae, Germaniae, Russiae, Lithuaniae*, Rome 1548, Biblioteka Narodowa, sygn. ZSK 14601, (public domain: <https://polona.pl/item/tabula-moderna-poloniae-vngariae-boemiae-germaniae-rvssiae-lithvae.MTQ4ODM4NTU/#info:metadata>) Map key: lands included in the Crown: areas marked by reversed colors; the fief of Ducal Prussia (from 1525 on): shades of grey; areas of the Grand Duchy of Lithuania: lightning. Bold lines also mark lands belonging to neighboring countries. The two black squares symbolize two marked villages connected with Bernard Wapowski's birthplace and family nest. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

was disproportionately emphasized on Beneventano's map. Together with the aforementioned two villages, this administrative area covers a large part of "Central and Eastern Europe". This is an extreme example, in which the author's subjective feeling led to such a far-reaching disruption of the represented space (see Fig. 3).

The map was a very successful cartographic hybrid combining the old vantage point with the new. As a result, it strongly influenced subsequent cartographic works for more than half a century and became the basis for almost identical repetitions.³² Already six years later Martin Waldseemüller mapped this set-up in his work entitled *Tabula moderna Sarmatie Eur. Sive Hungariae Poloniae Russiae Prussiae et Walachiae*,³³ and after another seven years a map with analogous content by Giovanni Andrea Vavassore³⁴ was published.

The topicality of this view can be shown by the fact that as late as in 1548 and 1562, Antonio Salamanca (Fig. 4) and Ferrando Bertelli published maps that were almost identical to Beneventano's map. Both were made in copperplate technique, which may have stirred up a sense of modernity in the audience, not only in form but also in content; yet, the authors' contribution consisted only in the addition of a settlement grid in northern Italy.³⁵

Beneventano's map, or rather its impact, completes the first stage of the cartographic reinterpretation of "Central and Eastern Europe". This period saw the replacement of the ancient content described by Ptolemy with current information, particularly in political terms. The remnants of ancient depictions of the interior of this part of the continent are already smaller and mainly concern

³² U. Puckalanka, *Mapy Polski z XVI wieku w zbiorach Biblioteki Głównej UAM: materiały do katalogu zbiorów kartograficznych*, Zeszyty Naukowe Uniwersytetu im. Adama Mickiewicza w Poznaniu. Biblioteka 3 (1963), 120; L.A. Birkenmajer, *Marco Beneventano*, 20–23.

³³ In this work, the settlement grid from the German, Danish and Balkan areas was removed. C. Chowaniec, *The First Geographical Map*, 59–64; [K. Kozica, J. Pezda], *Imago Poloniae: das polnisch-litauische Reich in Karten, Dokumenten und alten Drucken in der Sammlung von Tomasz Niewodniczański*, Bd. 2, Warszawa 2002, 18–21.

³⁴ G.A. Vavassore, *Quot picta est parva Germania tota tabella*, [Venezia 1520] (see https://www.e-rara.ch/bau_1/maps/content/zoom/3945863, accessed 8 July 2021).

³⁵ M. Juda, *Mapy ziem polskich w dawnej typografii europejskiej*, *Studia Źródłoznawcze* 41 (2003), 46. See: F. Bertelli, *Germaniae Omniumque eius prouinciarum, atque Austriae, Boemiae, Vngariae, Carinthiae, Coruatae, Poloniae* (...), Weneja, 1562, Biblioteka Narodowa (Poland), file ref. ZSK 26906 (public domain: <https://polona.pl/item/germaniae-omniumque-eius-prouinciarum-atque-austriae-boemiae-vngariae-carinthiae.MzkzOTM1MzMj/0/#info:metadata>); A. Salamanca, *Tabula moderna Poloniae, Ungariae, Boemiae, Germaniae, Russiae, Lithuaniae*, Rome, 1548, Biblioteka Narodowa (Poland), file ref. ZSK 14601 (public domain: <https://polona.pl/item/tabula-moderna-poloniae-vngariae-boemiae-germaniae-rvssiae-lithvae.MTQ4ODM4NTU/#info:metadata>).

mountain ranges. Subsequent publishers of Ptolemy (such as Giacomo Gastaldi and Sebastian Münster in 1548) followed the established path, where they began to add maps in a modernized version alongside the original ancient maps.³⁶

This new cartographic reality for the inhabitants of the lands of Poland and Lithuania was not at all satisfying; on the contrary, it caused frustrations. This was emphatically expressed in 1517 in the introduction to *Tractatus de duabus Sarmatiis, Asiana et Europiana* by Maciej Miechowita, professor and rector of the Jagiellonian University.³⁷ The author's emotions are clearly evident in the introduction to the work, which is why I am quoting a longer passage: "Many writers have already (...) described the world in their treatises and works without, however, mentioning anything about the Sarmatias, as if they were unknown to anyone. Those, on the other hand, who in their writings and poems attempted to leave for posterity a mention of the Sarmatias under the pressure of the authority of antiquity expressed themselves vaguely and, as it were, wandered in the dark. And it is unbearable that they included in those descriptions many invented stories and tales about things that do not exist at all".³⁸

The complaints were preceded by truly momentous findings that challenged ancient and contemporary Western European authorities describing the area of European Sarmatia (*Sarmatia Europea*) and Asian Sarmatia (*Sarmatia Asiatica*). First of all, the West Slavs were said to have inhabited the Balkans with their southern brethren, and then to have migrated north. In this way, Poles had always (since the Deluge) lived in Europe. Thus, the author unambiguously regards the Kingdom of Poland as one of the European countries, and the relevant territories were to be located between the Oder and Vistula rivers. European Sarmatia, on the other hand, was to include the Grand Duchy of Lithuania, the Ruthenian lands and the Grand Duchy of Moscow, i.e. the areas from the Vistula to the Don rivers. After all, Asian Sarmatia was to be ruled for 306 years by Tatar peoples, who replaced earlier nations, often known from antiquity. The area covered the territories from the Don river to the Caspian Sea.³⁹

He did content himself with these revelations. First of all, he stated that the lands under the Jagiellonian dynasty did not have any giant mountain ranges from which major rivers supposedly flowed: Dnieper, Dvina, Volga, Boh and Don.⁴⁰ The author uses his indigenous knowledge by stating authoritatively: "As experience instructs, all of this is untrue and the news must be rectified as resulting from ignorance. For we know well and can tell for ourselves" where the largest rivers flow from. "As for these

Hyperborean, Riphean and Valdai Hills, we know without a doubt that they do not exist in the territory of Sarmatia, and also the previously mentioned rivers take their origin in an almost flat area of land".⁴¹ This is to emphasize that it was not easy to pose an obvious thesis for the people of the Kingdom of Poland and the Grand Duchy of Lithuania. As an example, the most prominent Polish cartographer of the Renaissance period, Bernard Wapowski, should be mentioned. This educated researcher and resident of Ruthenian lands was unable to question the ancient tradition of locating mountain peaks on these terrains. Thus, the Lublin Upland and Roztocze located between Rzeszów, Lublin and Lviv were disproportionately emphasized in relation to the actual geographic conditions, which, after all, he knew very well because of where he lived (Fig. 3).⁴² Anyway, Maciej Miechowita made an accusation against previous cartographers and writers (including Wapowski), by emphasizing that: "one can conclude that these mountains were simply invented and are nowhere to be found except in the book in which they were described and painted".⁴³

The book by Maciej Miechowita proved to be a breakthrough in the geographical knowledge of Eastern Europe comparable to the great geographic discoveries. The work indicated that there was a vast unexplored area on the continent's borders. "Just as the Portuguese king discovered the southern hemisphere with peoples adjacent to the ocean as far as India, so the Polish king shall venture into the northern hemisphere and reveal and illuminate, through the discoveries undertaken by means of military campaigns and wars, peoples oriented toward the east, living close to the northern ocean". Thus, the author emphasized the vast extent and power of the Crown in the Grand Duchy of Lithuania under Sigismund I.⁴⁴ Besides, throughout the treatise he eagerly describes the area of the lands in question, so spatially depreciated on the existing maps until now. He emphasized their enormous – from the perspective of the time – distances by noting them in miles and days of travel, and even indicated the latitude coordinates of Cracow and Veliky Novgorod.⁴⁵

The author argued that in the study of geography, old texts and authorities should not be relied upon, but proven facts, preferably based on a personal or third-party reconnaissance of the territory.⁴⁶ It should be mentioned at this point that the contents of the book were considered sensational in Europe. The book sparked a discussion that included Jan Magnus, Ulrich von Hutten, Wilibald Pirckheimer, Albert Pighia Campense and Paola Giovia; Emperor Maximilian I, by sending an envoy to Moscow, had the veracity of the revelation presented by Miechowita checked. The book saw at least 20 editions and was translated into German, Polish, Italian and Dutch.⁴⁷

³⁶ J. Niedźwiedz, *Poeta i mapa*, 89–93; J. Keuning, *The History of Geographical Map Projections until 1600*, *Imago Mundi* 12 (1955): 14+; [K. Kozica, J. Pezda], *Imago Poloniae*, 19, 21, 24–26, 30.

³⁷ P. Borek, *Wizja Sarmacji Europejskiej i Polski w dziełach Macieja Miechowity*, in: *Ziemia miechowska w dziejach Polski: dziedzictwo i perspektywy*, Kraków, 2006, 23–39; H. Barycz, *Wstęp*, in: M. z Miechowita, *Opis Sarmacji azjatyckiej i europejskiej*, ed. by H. Barycz, trans. T. Bieńkowski, Wrocław–Warszawa–Kraków–Gdańsk 1972, 5–16; B. Olszewicz, *Geografia polska w okresie Odrodzenia*, Warszawa 1957, 23–26.

³⁸ [M. z Miechowita], *Tractatus de duabus Sarmatiis Asiana et Europiana et de contentis in eis*, Cracovie 1517, [p. 2]; M. z Miechowita, *Opis Sarmacji*, 21.

³⁹ [M. z Miechowita], *Tractatus de duabus Sarmatiis*, k. Aiv, Civ–CiVv; M. z Miechowita, *Opis Sarmacji*, 28, 46–48, 50–51. It is noteworthy that Filip Melanchton, by adding Wacław Grodecki to the map (1558), fully accepts this point of view, reinforcing this belief among European elites. *Vuenceslai Grodecii in Tabulam Poloniae a se descriptam nuncupatoria. Ad Sigismundum II Augustum Poloniae regem. Philippi Melanchthonis in eandem Poloniae Chorographiam Commendatoria Epistola. Accessit index [...], Melanchthon Philipp*, Basileae 1558, k. A5+; J. Król (Eds), *Dedykacja mapy Polski królowi Zygmuntowi II Augustowi i List polecający z wywodem o pochodzeniu Polaków*, Grodziec–Cieszyn 2011, 43–57.

⁴⁰ J. Niedźwiedz, *Poeta i mapa*, 89–93; J. Keuning, *The History of Geographical Map Projections until 1600*, *Imago Mundi* 12 (1955): 14+; [K. Kozica, J. Pezda], *Imago Poloniae*, 19, 21, 24–26, 30; K.N. Piechocki, *Erroneous Mappings*, 76–96.

⁴¹ [M. z Miechowita], *Tractatus de duabus Sarmatiis*, [s. 2–3]; M. z Miechowita, *Opis Sarmacji*, 22.

⁴² The highest elevation of Roztocze is Czartowska Skała, 409 m above sea level. J. Buraczyński, *Rozwój rzeźby Roztocza z mapą geomorfologiczną w skali 1:50 000*, Lublin 2013.

⁴³ [M. z Miechowita], *Tractatus de duabus Sarmatiis*, k. Fiiv–Fiiv; M. z Miechowita, *Opis Sarmacji*, 76.

⁴⁴ [M. z Miechowita], *Tractatus de duabus Sarmatiis*, [p. 3]; M. z Miechowita, *Opis Sarmacji*, 22; cf. K.N. Piechocki, *Erroneous Mappings*, 89–91.

⁴⁵ K. Buczek, *Maciej Miechowita as a geographer of Eastern Europe*, in: H. Barycz (Eds), *Maciej z Miechowita (1457–1523). Historyk, geograf, lekarz, organizator nauki [Historian, geographer, physician, organizer of science]*, Wrocław 1960, 75–166.

⁴⁶ He wrote about this in a polemic (1518) with Jan Magnus regarding Swedish history and geography. The assessment of the reliability of the information is not justified "because the ancients wrote it, but because they wrote the truth and studied the regions of the world, the parallaxes of the sky and the peoples living under this sky. And, as Strabon claims in his work *De situ orbis*, mathematics, geometry, geography and cartography have established this state of affairs and truly passed it on to posterity". M. z Miechowita, *Opis Sarmacji*, 26.

⁴⁷ H. Barycz, *Wstęp*, 5–16; B. Olszewicz, *Geografia polska*, 23–26.

Maciej Miechowita's account is not the only surviving example of recorded impressions from observing and analyzing Renaissance maps. The emotions evoked by such a picture of Europe (and the world) can be recreated thanks to the unique atlas by Battista Agnese, which is now kept in the Jagiellonian Library. The atlas itself is typical, yet it bears unique inscriptions placed on it by the Polish nobleman Ambroży Kotowiecki (Fig. 5). He was in possession of the atlas in the years 1544–1567. We can only guess his frustration while he was studying this source, and his homeland was nowhere to be found. At long last, on one of the maps of the world he finally read the name “polonia”. The owner of the atlas was probably feeling like a great explorer and wrote on the map twice “Polonia” in big letters, and even underlined the second inscription. When he finally decided to give the atlas to King Sigismund II Augustus, he inscribed the whole book with his given name and surname, and the date of the gift, so that no one could doubt whose gift it was. On the most important map, from his vantage point, he put the large inscription “Polonia” for the third time. Looking at the map from the rhetorical point of view, Kotowiecki enlarged his homeland (understood as two states ruled by Sigismund II Augustus), marking its immensity and power, which could not be exposed by the author, as its scope went beyond the area mapped.⁴⁸ This example demonstrates why the inhabitants of the Commonwealth were the ones who were particularly committed to participating in the process of cartographic reinterpretation of “Central and Eastern Europe”.

The next stage was the process of transforming the key element of space, which was the coastline, for which it was possible, among others, to use the portolan charts (see Fig. 3).⁴⁹ Cartographers residing in the Kingdom of Poland began to play a prominent role. First of all, Bernard Wapowski should be mentioned again; he created three maps – of Northern Sarmatia, Southern Sarmatia and the Kingdom of Poland. They were all printed in Krakow in 1526⁵⁰. Unfortunately, the reception of the map was limited because most of its print run burned down in the fire of Krakow two years later. Another author was Wacław Grodecki and Andrzej Pograbka, who published increasingly better maps of the Polish-Lithuanian state in 1558 and 1570.⁵¹ Thanks to these works, the most renowned

cartographers were able to publish maps under their own names that mapped “Central and Eastern Europe” in an improved manner.⁵² Gerard Mercator's output marked a huge advancement: first on the globe in 1541, and then on the map in 1554.⁵³ Giacomo Gastaldi's work also played a significant role; it was published in 1562 and entitled *Il Disegno de Geografia Moderna del Regno di Polonia, e Parte del Ducado di Moscovia*. Yet, the breakthrough came with the publication of the first atlas made by Abraham Ortelius in 1570 and reissued in 1573.⁵⁴ It contained a map of Poland and Lithuania entitled *Poloniae finitimarumque locorum descriptio*, which was an adaptation of a wood engraving by Wacław Grodecki from 1558. Until 1595, this work became the most widely disseminated map of the Commonwealth in Europe.⁵⁵ A map of Europe also comes from the same atlas. This work, referring to the works of Gerard Mercator, generally showed the correct proportions of the Polish-Lithuanian state (Fig. 6). This vision was reinforced by the author's description, in which he explained which areas Europe was made up of (he listed 28 of them). He adopted a political criterion; he assigned Poland with Lithuania and Moscow to the areas in the east.⁵⁶

The enormity of the changes is evidenced by the fact that while the area of the Grand Duchy of Lithuania on maps referring to stage 1 stretched between 52° and 55°30' north latitude and 49° and 54° east longitude, in the later works it was many times larger. For example, in Wacław Grodecki's case it was, respectively, as many as eight degrees wide (from 48° to 56°) and nine degrees long (from 46° to 55°). It can be concluded from this simple relationship that the area of this country was at least quadrupled (see Figs. 4 and 6).⁵⁷

I decided to illustrate the ongoing transformations in the presentation of “Central and Eastern Europe” by juxtaposing two cartographic works representing the Ptolemaic and the modern tradition. The two visions coexisted in parallel, but can be assumed to be about half a century apart. For this purpose, I used the compilation of Ortelius's map of Europe (1570 – Fig. 6) with Beneventano's work (1507) supplemented with the settlement grid of northern Italy noted in Salamanca's work (Figs. 3–5). I correlated

⁴⁸ Biblioteka Jagiellońska, rkps. 1886; J. Bzinkowska, *Old Cartographic Rarities and Curiosities from the Collections in the Cracovian Libraries and Museums*, Kraków 1982, 12; F. Bujak, *Atlas Agnese w Bibliotece Jagiellońskiej*, „Wiadomości Numizmatyczno-Archeologiczne” 13 (1901), no. 3–4, 384–386; J. Niedźwiedz, *Portolan Ambrożego Kotowieckiego (ok. 1540)*, https://blog.bj.uj.edu.pl/kartografia/-/journal_content/56_INSTANCE_gjh937aPNE4h/136002189/139524831 (accessed 4 September 2021).

⁴⁹ Dalché, *The Reception of Ptolemy's Geography*, 314–317, 327+. The divergence of the ancient cartographic vision (popular in academic circles) and that of the modern was connected with creating portolan charts used by sailors, merchants and navigators. Consequently, there appeared coastlines which considerably deviated from those proposed by Claudius Ptolemy. The process manifested itself in preparing maps of the world in the mid fifteenth century (e.g., Fra Mauro), which showed correctly the shape of East-Central Europe, among other places. However, the author aptly observes that this phenomenon should not be treated one-dimensionally: modern portolan charts vs. traditional maps of Ptolemy, for the Renaissance maps referring to Ptolemy used a grid of geographical coordinates, which was the future of cartography. From the perspective of the Commonwealth of key importance was the use of portolan charts of the shores of the Black Sea and the Azov Sea, as well as, the less frequently represented Baltic Sea. See T. Cambel, *Portolan charts from the late thirteenth century to 1500*, in: J.B. Harley and D. Woodward (Eds), *The History of Cartography*, vol. 1: *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, Chicago-London, 1987, 371–463 (especially pp. 409–410).

⁵⁰ K. Buczek, *The History*, 32–40; J. Smółucha, Bernard Wapowski – kontynuator Jana Długosza i ojciec polskiej kartografii, in: T. Gąsowski, J. Smółucha (Eds), *Krakowskie środowisko historyczne XV–XX w. Ludzie – Idee – Dzieła*, Kraków, 2018, 183–194.

⁵¹ S. Alexandrowicz, J. Łuczyński, R. Skrycki, *Historia kartografii*, 83–88, 91–95.

⁵² This was neatly presented by Giorgio Vasari in writing about Ignazio Danti. He painted ‘Ptolemy's maps [in the years 1563–1575]. They are all measured, corrected according to the most recent authors, with maps in accordance with sea travels; with the highest diligence scales, dimensions, grades were shown there, and between them ancient and modern names were inscribed’. G. Vasari, *Żywoty najslawniejszych malarzy, rzeźbiarzy i architektów*, vol. 7, K. Estraicher (Eds), Warszawa and Kraków, 1988, 385.

⁵³ J. Łuczyński, *Ziemia Rzeczypospolitej w kartografii europejskiej XVI wieku (próba ustalenia filiacji map wydanych drukiem)*, *Polski Przegląd Kartograficzny* 41 (2009), 131–132.

⁵⁴ A. Ortelius, *Theatrum orbis terrarum*, Antverpie: Apud Aegid. Coppenium Diesth, 1570. A copy is available online at <https://www.loc.gov/resource/g3200m.gct00126/> (accessed 1 February 2019).

⁵⁵ S. Alexandrowicz, J. Łuczyński, R. Skrycki, *Historia kartografii*, 96–97.

⁵⁶ H.A.M. van der Heijden, *Gedrukte kaarten van Europa vóór Ortelius. Een toevoegsel. Pre-Ortelius printed maps of Europe. Addenda*, “Belgeo. Revue belge de géographie” 3–4, 2008, s. 269–286. Cf. E. Neumann, *Imagining European community on the title page of Ortelius' Theatrum Orbis Terrarum (1570)*, *Word & Image* 25 (2009), 427–442.

⁵⁷ In my calculations I do not use the inscriptions of provinces as in Fig. 4, but include the river network, towns, mountains and forests which can be assigned to the Grand Duchy of Lithuania. Zob. *Vuenceslai Godreccii in Tabulam Poloniae a se descriptam nuncupatoria. Ad Sigismundum II Augustum Poloniae regem. Philippi Melancthonis in eandem Poloniae Chorographiam Commendatoria Epistola*, Basileae, Ioannem Oporinum, 1558; See: [W. Grodecki], *Poloniae, Lituaniae, Russiae, Prussiae, Masoviae et Scopusij chorographia*, Basileae, 1570, <https://id.lib.harvard.edu/curiosity/scanned-maps/44-990088480970203941>. The calculations resulting from Wacław Grodecki's map and from Marcin Kromer chorographic description of the whole Commonwealth are given in: R.T. Marchwiński, *Geografia Polski Marcina Kromera*, Bydgoszcz, 1997, 32–43.

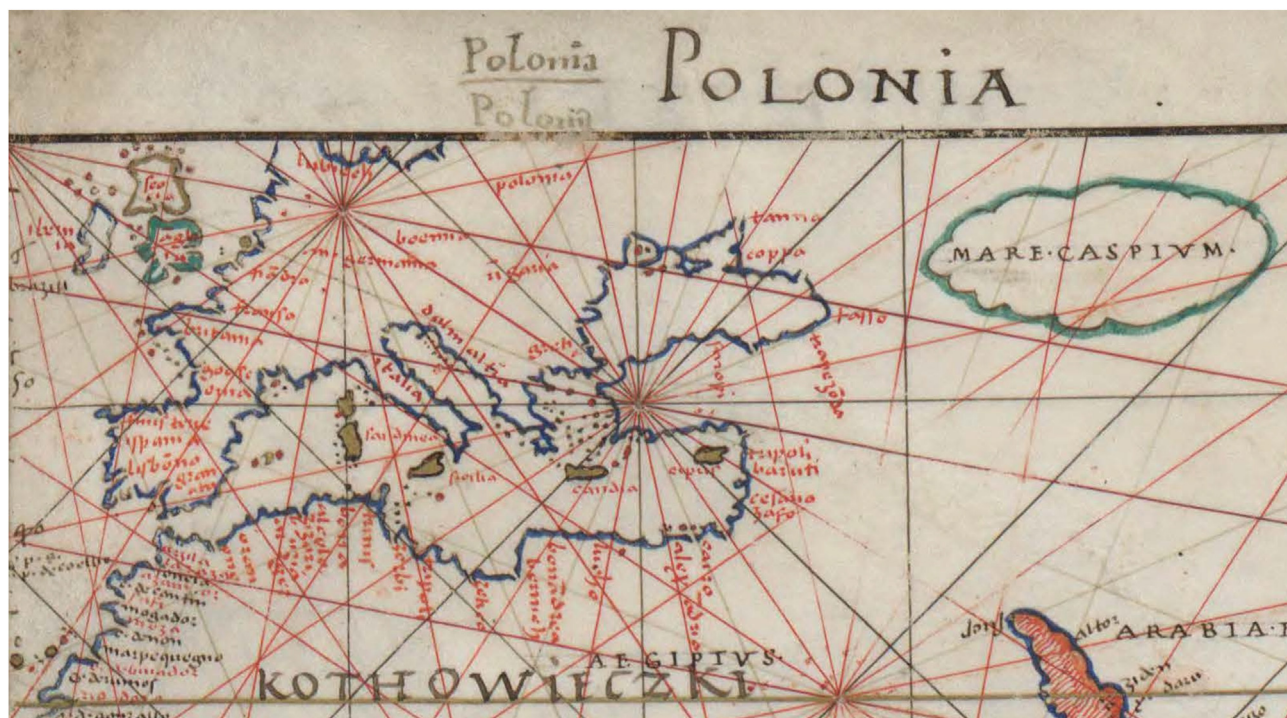


Fig. 5. Excerpt from the world map made around 1540 by Battista Agnese. The copy kept in the Jagiellonian Library, manuscript 1886, p. 6 (excerpt). Secondary inscriptions on the map were made by Ambroży Kotowiecki in the period between 1554 and 1567 (public domain: <https://jbc.bj.uj.edu.pl/dlibra/doccontent?id=159382>).

these cartographic sources with each other based on 110 stable points. I adopted the Beneventano/Salamanca map as a reference work because it reflected the metageography formed by contemporaries regarding the proportions of the various European countries. As a result, I made the distortion grid on Ortelius's map. Hence, a change of the presented space in relation to the Ptolemaic vision can be observed (Fig. 6).

While the area in the central and south-eastern parts of Europe did not change radically in relation to Ptolemaic maps, a huge “space increase” took place in the territories of the former Grand Duchy of Lithuania (within the borders until 1569) and Tsardom of Muscovy. The second feature is the miniaturization of the eastern areas of the Crown (part of Mazovia, Podolia, Bełsk and Ruthenian provinces), which, as mentioned before, was the result of Bernard Wapowski's activity in 1507. This means that in the second half of the 16th century the process of empowerment of the lands of the Grand Duchy of Lithuania and Tsardom of Muscovy took place, along with a significant marginalization of some areas belonging to the Kingdom of Poland. However, in metageographical terms, the balance for the Kingdom of Poland was favourable, as in 1569 it incorporated the previously Lithuanian provinces of Wolyń (40.8 thousand km²), Bratslav (59.5 thousand km²), Kiev (about 200 thousand km²) and Podlasie (12.5 thousand km²).⁵⁸ After the border changes, the Grand Duchy of Lithuania became half the size and covered about 297 thousand km² and the proportions in the area of both countries changed from 1 : 2.5 to almost 2 : 1 in favour of the Polish state.

Intuition tells us that with the atlases and globes of Mercator and Ortelius there was no radical change in metageography. Such processes are always evolutionary and slower than scientific achievement. However, the most recent quantitative research by Genevieve Carlon indicates that the transformation occurred

relatively quickly. This author analyzed the Renaissance (1464–1631) inventories of the inhabitants of Venice (2,350) and Florence (1,001). They recorded 1116 maps (excluding books with cartographic sources), nearly half of which were world maps incorporating the achievements of the great geographical discoveries. The first atlases were also popular. From the material gathered, it appears that Ptolemy's authority was widely challenged, or at least Italian buyers had easy access to new cartographic knowledge.⁵⁹ Of course, as I have already pointed out, it was faster to make new geographical discoveries than to reinterpret the lands described by Ptolemy.

To better understand the displacement of new arrangements by old ones, the treatise of Maciej Miechowita should be recalled again. The revelations contained there became the cause of extraordinary intellectual activity, involving a systematic check of the reliability of the provided information. As mentioned, Emperor Maximilian I used his envoys going to Moscow by having them investigate the issue of mountains and rivers to verify or confirm the concepts of Maciej Miechowita (Figs. 2 and 3). This was done independently by two envoys: Siegmund von Herberstein, who had been in Moscow since 1517, and Francesco da Collo, setting out in 1518, who received the order directly from the Emperor. Da Collo gathered information from well-informed people (he mentioned by name the native Ugrim Bagrakov and medical doctor Nicolo Lubecense, living in Moscow for years) regarding mountain peaks and the location of major rivers. Not being well versed in the distances of the Grand Duchy of Moscow, he stressed information about the mountains to the east (the Urals). He identified them with the Riphean and Hyperborean Hills and reaffirmed his belief that Ptolemy's views were correct. There was even a dispute in Krakow between the two gentlemen on the way back (1519). In the dispute,

⁵⁸ Frost, *The Oxford History*, 482–491; Jezierski (Eds), *Historia Polski*, 14–15.

⁵⁹ G. Carlon, *Worldly Consumers: The Demand for Maps in Renaissance Italy*, Chicago, 2015.



Fig. 6. Grid of distortions put on the map of Abraham Ortelius, *Evropae*, 1570. Own study with the use of the MapAnalyst program, in which the reference point was Antonio Salamanca's map (Fig. 4).

Miechowita stressed that he had gained his knowledge of the Muscovite lands from prisoners' accounts, began to doubt his findings, and was allegedly ready to admit that he was wrong.⁶⁰

Meanwhile, the second diplomat Siegmund von Herberstein, who had served as a diplomat a year earlier, probably learned of the work of Maciej Miechowita by letter.⁶¹ Upon his return, he fully confirmed the words of the professor of the Jagiellonian University. The importance of this opinion was demonstrated by the reaction of the humanist Ulrich von Hutten, who at first did not believe Miechowita's revelations. However, the testimony of Herberstein, who stood up for the treatise (he only verified the error by proving that the Volga river does not flow into the Black Sea) and presented his testimony regarding the lack of mountain ranges in Ruthenia, led the scholar to verify his opinion. This scholarly and erudite man could not hide his elation at living in a time of such advances in knowledge. He wrote: "Listening to this I was almost completely

stupefied that a thing that is so deeply rooted in human consciousness, and that has been sung about to such an extent in the writings of the most famous authors, disappears among nonsense fairy tales, becomes absolute nothingness, and even if it was something, it ceases to exist. If you have leisure time from court activities and all employment, take to the stacks of books and thrash them out to explain to us how things are with these Riphean and Hyperborean Hills". He ends his speech with the joy of new discoveries: "The times! All the learning! How good it is to live! (...) Sciences are developing, talents are blossoming. And you, barbarism, vanish and be banished".⁶³

It is likely that the fact of Herberstein's much earlier arrival in the Reich than da Collo's led to a very rapid and relatively consensual reception of the Krakow humanist's findings. The above example indicates that there was considerable distrust of the new findings, primarily those that violated the previously existing view based on ancient authorities. However, the key issue was third-party verification of the information, which could lend credence to or weaken the existing hypotheses. While in this case, the issue was very exciting and relatively easy to verify, the vast amount of information contained in the maps could not be subject to such quick acceptance by the academia.

⁶⁰ The work was not published until 1603 and did not play a major role. F. da Collo, *Trattamento di pace tra il Serenissimo Sigismondo Re di Polonia, et Gran Basilio Principe di Moscovia*, Padoa 1603 (in particular k. 36v–38, 55v–60v); B. Olszewicz, *Geografia polska*, 26.

⁶¹ Siegmund von Herberstein spent a total of 62 weeks in the Grand Duchy of Moscow in 1517/1518 and 1526/1527. The final result of his observations was *Rerum Moscoviticarum commentarii* (1549), which is the most accurate 16th-century account of the state of Muscovy. By 1606, the work had been published 20 times in Latin, German, and Italian. W. Leitsch, Sigismund von Herberstein, *sem Buch über den Moskauer Staat und seine Beziehung zu Polen*, *Studia Podlaskie* 4 (1993), 5–24.

⁶³ U. Hutten to W. Pirckheimer, Nuremberg 25. 10. 1518, in: U. von Hutten, *Opera omnia*, ed. E. Böcking, Lipsiae 1859, 195–217. This long letter was printed in Augsburg in 1518.

Consequently, in the second and third quarters of the 16th century, worldview syncretism could be observed that applied to “Central and Eastern Europe”. As I indicated, Marco Beneventano's map (1507) had been outdated since the appearance of the treatise of Maciej Miechowita (1517), and with Bernard Wapowski's new map (1526) it became completely obsolete. Meanwhile, cartographers and publishers released increasingly outdated reworkings of maps over the following decades. As late as 1569, Andrzej Pograbka, when creating the dedication for the map published a year later, explains his work by the constantly repeated and erroneous depiction of the Commonwealth on the existing maps. “Among the maps published in Venice that I saw (...) I noticed an incorrect drawing of Poland, our homeland. For two things in the description of countries are required in particular: the naming of places and correct measurement; I can see a deficiency in both of these things”.⁶⁴

A coupling of contradictory visions, Ptolemaic and modern, is most distinctly visible in the chorography of the Commonwealth by Blaise de Vigenère. The work *La description du Royaume de Pologne et pays adiacens avec les statuts, constitutions, moeurs et façons de faire d'iceux* was written in 1573 in connection with the election of Henry of Valois (Henry III) as king of the Commonwealth. The book described to the audience (the French) a distant country in terms of geography, the political system and society. It constituted an element of the propaganda of the House of Valois, but first and foremost it became a kind of textbook in which the basic geographical, political and cultural knowledge about the Commonwealth was accumulated, essential for the future king and his court.⁶⁵

A far-reaching cognitive dissonance is evident in *La description du Royaume de Pologne*. Chorography deconstructs the existing metageography of “Central and Eastern Europe” based on ancient dogmas. This is done by an extreme overestimation of the territorial and demographic power of the Commonwealth. The country was separated by two border rivers, the Oder in the west and the Dnieper in the east. In contrast, the Baltic Sea was the natural boundary to the north and the Black Sea to the south. Hence, the enormous size of the state was emphasized, stretching supposedly from the north to the south and from the east to the west for 300 German miles.⁶⁶ The author thus overstated the extent of the country by about 500–800 km.⁶⁷ He accentuated the huge number of the gentry inhabiting these lands, who could serve the king in wars to the tune of 150 000 soldiers; as a result, the state

maintained its borders despite strong external enemies (Turks, Tatars, Russians). These actions are aimed at empowering the Commonwealth and creating a vision of an equal partner to the kingdom of France.

Beside the description, the author included a map of the lands of the Commonwealth (Fig. 6).⁶⁸ The choice of the source was surprising. Blaise de Vigenère used a map based on ancient models, the prototype being the work by Johannes Stumpf from 1548, which included a wood engraving entitled *Sarmatia*.⁶⁹ Thus, the work was out of step with the state of the art of geography and completely contradicted the content of the treatise. It is true that the Riphean and Hyperborean Hills were removed in line with the claims of Maciej Miechowita (1517), but the new shape of the Polish-Lithuanian state, which was first presented by Bernard Wapowski (1526), was no longer included. In other words, half a century after the radical improvement of space in “Central and Eastern Europe”, old patterns were still being followed (see Figs. 3 and 7).

In order to show the enormity of the underestimation of the Eastern European areas, I made a distortion grid with a side of 50 km on Blaise de Vigenère's map (Fig. 7). I used Stumpf's map to identify unnamed (or misread) towns in the work from 1573. The result confirms the phenomenon described in the article. Both Lithuania proper and the Ruthenian lands incorporated into Poland in 1569 were spatially marginalized⁷⁰. The hypothesis of an accidental choice of the map should be rejected; in 1573, other depictions of the Commonwealth were easily available. This example testifies to the unfinished processes of changing the perception of Europe by the elite of the time.⁷¹ This contradiction, however, can be explained by the fact that the woodcut engraving locates the Commonwealth in Ptolemy's *Geography*, which was firmly established in the consciousness of the European social elite. Thus, the readers were able to spatially locate the described country. In addition, the map included a basic orientation of the various lands and regions, and major cities. In fact, for a 16th-century French reader, this knowledge was quite sufficient to discover a previously “unknown” world. It should be stressed, however, that it was one of the last maps presenting the Commonwealth in this way. The cosmography of the eminent French cosmographer André Thevet, written two years later, already contains a map of Europe in accordance with Ortelius's publication (Fig. 6).⁷²

I believe that the process of replacing the previous perception of “Central and Eastern Europe” ended in the 4th quarter of the 16th century. Undoubtedly, cartographic progress played a key role, but no less important was the great interest at European courts in the Crown and Grand Duchy of Lithuania. This was due to several

⁶⁴ A. Pograbka (Pograbius Andreas), *Partis Sarmatiae Europae, quae Sigismundo Augusto Regi Poloniae potentissimo subiacet Nova Descriptio*, [Wenecja] 1570. A copy held at: the Royal Castle in Warsaw – Museum, dr Tomasz Niewodniczański's collection, TN 2369.

⁶⁵ J. Kłoczowski, Polska w opisie francuskiego humanisty z XVI w., in: M. Kamler (Eds), *Władza i społeczeństwo w XVI i XVII w. Prace ofiarowane Antoniemu Mączakowi w sześćdziesiątą rocznicę urodzin*, Warszawa, 1989: 95–101; R. Mazzei, Una strategia di comunicazione nella Francia del 1573: l'immagine della Polonia all'indomani dell'elezione di Enrico di Valois, in: M.D. Garfagnini (Eds), *Strumenti e strategie della comunicazione scritta in Europa fra Medioevo ed età moderna*, Firenze, 2017, 69–75.

⁶⁶ The author specifies elsewhere that the German miles are twice as long as the French leagues. B. de Vigenère, *La description du Royaume de Pologne et pays adiacens*, Paris: Jean Richer, 1573, I, LXXXVIII. On the basis of distances noted on the territory of Germany I have calculated that in writing the German mile he understood the distance of c. 8.8 km. However, probably he provided data in Polish miles, considerably shorter, which I calculated from the distances noted on the territory of the Commonwealth as c. 7.5 km.

⁶⁷ The given value was obviously exaggerated, which was meant to show the power of the state. Marcin Kromer, writing at the same time, estimated the distance from Parnawa (today Pärnu) to Pokucie as 200 miles, and from east to west it was to stretch for 240 miles. M. Kromer, *Polska, czyli o położeniu, ludności, obyczajach, urzędach i sprawach publicznych królestwa polskiego, księgi dwie*, transl. S. Kazikowski, ed. R. Marchwiński, Olsztyn, 1977, 19.

⁶⁸ Vigenère, *La description*, after p. VIII. In France using the cartographic achievements in literature was very common. Actually, it was inconceivable for a chorography published in Paris not to have a map. Cf. N. Bouzrara, T.J. Conley, *Cartography and Literature in Early Modern France*, in: J.B. Harley and D. Woodward (Eds), *The History of Cartography*, vol. 3, part 1, 427–437.

⁶⁹ J. Stumpf, *Gemeiner loblicher Eydtgnoschafft Stetten, Landen vnd Völckeren Chronick würdiger thaaten beschreibung*, Zurich: Christoffel Froschouer, 1548, 3v.

⁷⁰ The collation shows that an important mistake violating the whole spatial structure of the map was the mutual situation of Vilna and Grodno. In reality Grodno is located southwest of Vilnius, and not southeast, as was presented in the map.

⁷¹ Cf. F. Banfi, The Cartographer “Stephanus Florentinus”, *Imago Mundi* 12 (1955), 96–97. The author points out the painting cartographic works of Stefano Buonsignori, who included the Kingdom of Poland in the map of Germania (1577), abandoning the idea of his predecessor Ignazio Danti, who wanted to complement the Ptolemaic maps in this region with two or three additional maps. Danti painted a map of Lithuania and Livonia, as well as the of the Duchy of Muscovy; probably he also wanted to compile a separate map of the Kingdom of Poland.

⁷² d'A. Thevet, *La cosmographie universelle*, vol. 2, Paris: Pierre Huillier, 1575, after the preface. The edition prepared by Guillaume Chaudiere published in the same year has an analogous map missing.

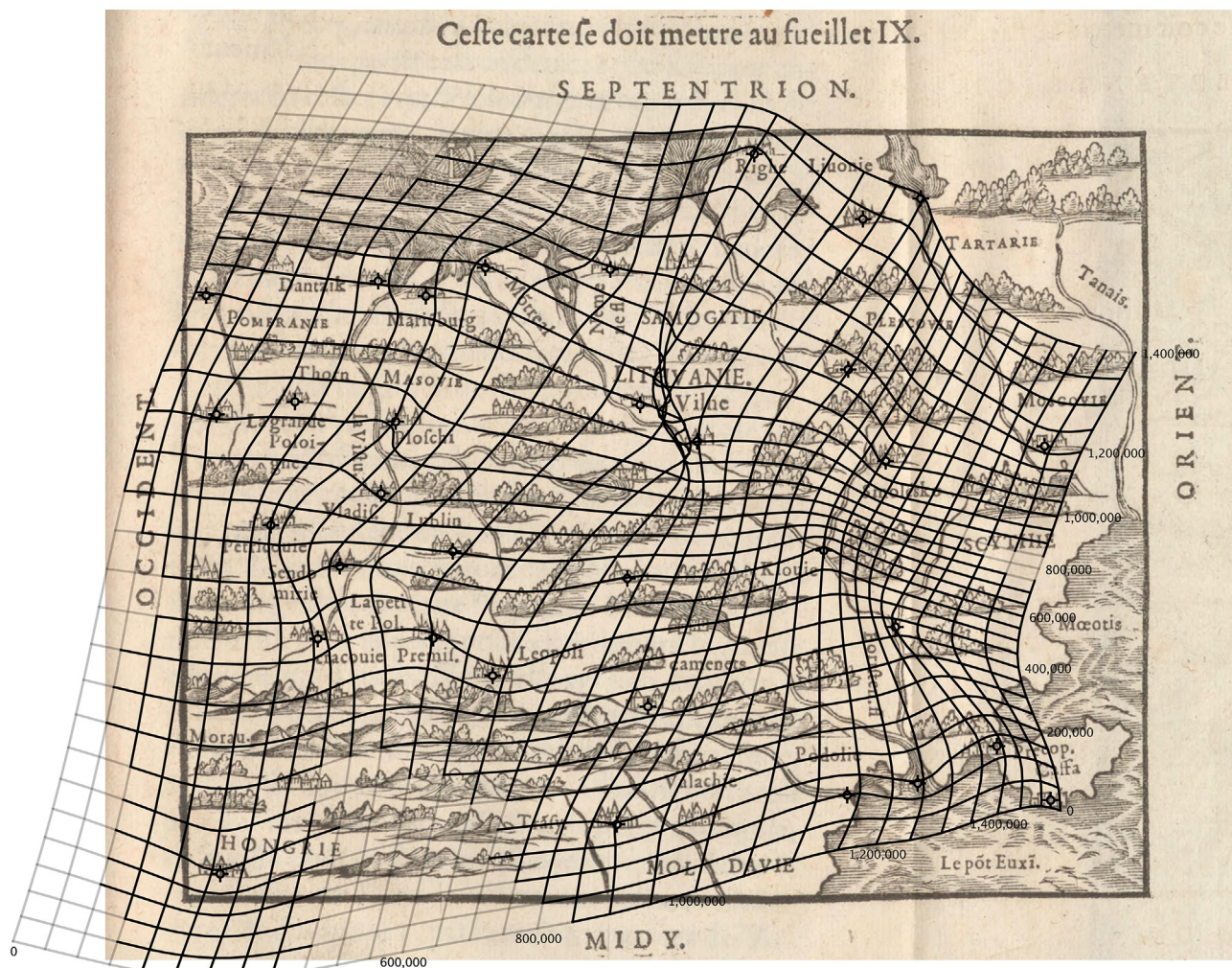


Fig. 7. Grid of distortions with a side of 50 km put on the map of the Commonwealth: prepared by the author with the program MapAnalyst. Blaise de Vigenere, *La description du Royaume de Pologne et pays adjacens avec les statuts, constitutions, moeurs et façons de faire d'iceux ...*, Paris 1573, on page VIII (public domain: <https://www.dbc.wroc.pl/dlibra/publication/8468/edition/7667/content?ref=L3B1YmxxpY2F0aW9uLzE5MTMwLzVkaXRBR24vMTY4MzZm>; Zakład Narodowy im. Ossolińskich, sygn. XVI. Qu.1803 adl.).

interrelated factors. First, in 1569, the two states united in a real union – the Polish-Lithuanian Commonwealth was established. Sigismund II Augustus, the last king of the Jagiellonian dynasty, died three years later. Under the terms of the union, the gentry was to elect a king each time. The possibility of peacefully taking over a vast European state generated great interest, especially since the first ruler so chosen was Henry of Valois, later King of France (Henry III).⁷³ This in turn accelerated the reception of the new cartographic imagery among the European elite.

While in the first half of the 16th century dissatisfaction with the cartographic coverage of the Polish-Lithuanian lands was evident among the inhabitants, the second half of the 16th century increasingly saw just the opposite. Maps showing the vastness of the country were a source of pride. This was most vividly depicted by political writer Krzysztof Warszewicki, who described the state of the country after the death of King Stephen Báthory (1586). During a speech at the Mazovian electoral assembly, he used a map of the Commonwealth to illustrate the power and size of the state.

"Look at how great and wide a country this is, what lands it is enlarged with, what riches and affluence it is adorned with (...). On one side the Tatra Mountains, on the other the Livonian sea borders your country; on one side the Oder, on the other the Dnieper rivers; from here the Baltic Sea, from there the Black Sea surrounds you (...). Just look at the map where there is your state and kingdom painted, the map which is copied from that owned by the king, and was afterwards to be issued in print, for the benefit of the Crown, and as an immortal memorial".⁷⁴

Each of the maps showing a new view of the place of the Commonwealth in Europe evoked similar feelings. When issuing a map of Poland in 1558, Wacław Grodecki included a letter in which he stressed that "Contemplation of the Homeland brings joy in itself"; at the same time, he was tempted to make the bold assessment that "Poland is superior to most other countries in Europe". On the other hand, in the song found in the map legend, he added a passage: "Admire, then, reader, this image of Poland, bestowed

⁷³ E. Dubas-Urwanowicz, *Koronne zjazdy szlacheckie w dwóch pierwszych bezkrólewicach po śmierci Zygmunta Augusta*, Białystok, 1998, 276–281; M. Serwański, *Henryk III Walezy w Polsce. Stosunki polsko-francuskie w latach 1566–1576*, Kraków, 1976.

⁷⁴ Chryzostopa Warszewickiego po śmierci Króla Stephana na pierwszym y głównym zjeździe Mazowieckim Mowa, Kraków 1587, k. Eii-Eiiv. The Mazovian general convened on 22 December 1586, the Mazovian voivode Stanisław Kryski to Warsaw for 10 January 1587. A. Pieńkowska, *Zjazdy i sejmy z okresu bezkrólewia po śmierci Stefana Batorego*, Pułtusk 2010, 85–86.

with such great gifts,” which of course referred to the new place on the map of Europe.⁷⁵ In Grodecki's work there is a trace of the work of Maciej Miechowita and his way of verifying space.⁷⁶ Therefore, the author offered this map to King Sigismund II and emphasized that the ruler knew his country not only from maps, after all, but through constant movement and travel with his court throughout the country.⁷⁷ Thus, the credibility of the map in the eyes of the reader became much greater.

The 16th century was a period of intense cartographic reinterpretation of the world, including “Central and Eastern Europe”. The great geographical discoveries were eagerly plotted on newly created maps, thus including the areas unknown to ancient geographers. The circumstances were completely different for “Central and Eastern Europe”, where the achievements of the ancient authors, cartographically visualized on Ptolemy's *Tabula Europae VIII* had to be completely negated. (Fig. 1). The authority of ancient authors was very strong, and reliable accounts and maps made by the inhabitants of these lands were missing too. As late as the beginning of the 16th century, the ancient vision of this part of Europe prevailed, particularly in the area known as European Sarmatia. The Kingdom of Poland was a spatially marginal area located on the borderland (Fig. 2). Significant changes occurred in 1507, when Marco Beneventano, with the help of the Ruthenian nobleman Bernard Wapowski, created a map of these lands (Fig. 3). This is an excellent example of the creation of a cartographic hybrid, a compromise of appreciating the authority of Ptolemy while updating the content. Hence, the space was filled with new geographical data; mountains, rivers and forests were rectified, and the settlement grid was added. This intermediate form coexisted with the new messages until the early 1570s.

Just 10 years later, after the publication of the map *Tabula moderna Polonie, Ungarie, Boemie, Germanie, Russie, Lituanie*, it became obsolete in form. This was due to Maciej Miechowita, who wrote a treatise on the two Sarmatias (1517), in which he questioned the existence of the Riphean, Hyperborean and Valdai Hills. In doing so, he presented a transparent geographical division, in which the Kingdom of Poland belonged to Central Europe and was located from the Oder to the Vistula rivers, while European Sarmatia included the Grand Duchy of Lithuania and the Grand Duchy of Moscow, whose territories reached as far as the Don River. The author's actions were lined with strong emotions involving a complete misconception of the space of Poland and Lithuania. The marginalization of the space of “Central and Eastern Europe” caused disbelief and puzzlement among the political elite, as exemplified by Ambroży Kotowiecki, recalled above, and also caused the desire to counteract, which could be seen in the work of Polish 16th-century cartographers.

There was still the issue of mapping the coastline of the Sea of Azov and the Baltic Sea, which led to the minimization of this part

of Europe (Figs. 1–4, 7). The output of the authors of portolan charts (Fig. 5) enabled native cartographers to recreate “Central and Eastern Europe” in the shape close to reality and developed with the settlement grid, river networks, forests and mountains. Thanks to Bernard Wapowski (1526), Wacław Grodecki (1558) and Andrzej Pograbka (1570), enough patterns were created, which were then gradually disseminated among other European authors. This, of course, had its upsides (these works are much more reliable, as they are partly based on empirical data) but also its downsides. The latter category includes the generally smaller pan-European (global) impact and the subjectivity of the message. Polish Renaissance authors – often educated at Western universities and with an extensive network of friends being intellectuals throughout Europe – broke the monopoly of knowledge. This was possible because they published their works and maps in the key European printing houses (Basel – 1558, Venice – 1570), and the poor reception of the 1526 maps published in Krakow seems symptomatic in this context. Their work was then acquired by cartographers who were recognized (popular) in Europe.

As a consequence, the lands of the Grand Duchy of Lithuania (within its borders until 1569) and the Tsardom of Muscovy were enlarged in an unprecedented way (Fig. 6). Much of Lithuania in cartographic terms grew almost tenfold. More complicated was the presentation of the Kingdom of Poland. From 1507 onwards cartographers tried to make room for the increasingly studied Kingdom of Poland. As a result, in the Ptolemaic contours of Europe, the space belonging to the countries located in the east was “appropriated” (Figs. 2 and 4).⁷⁸ Owing to such procedures, the proportions with the countries of Western and Central Europe were preserved. However, the cartographic verification carried out in the third quarter of the 16th century led to a huge “shrinkage” of the eastern areas belonging to the Crown, which concerned in particular the provinces of Mazovia, Podolia, Podlasie, Beisk and Ruthenia (Fig. 6). This was a consequence of the actions of Beneventano and Wapowski, who in 1507, being quite acquainted with the Ruthenian lands within the borders of the Kingdom of Poland, “appropriated” the vast majority of the lands belonging to the Grand Duchy of Lithuania. The incorporation of vast areas of Lithuania into the Kingdom of Poland in 1569 partially compensated for the cartographic changes.

The cartographic output coupled with the political situation gave rise to changes in the perception of the Polish-Lithuanian Commonwealth established in 1569. The geographical empowerment of the Commonwealth took place, and in terms of space it could be placed on a par with other European powers. The process was accelerated by increased interest in the newly formed state and the election of a new ruler (Henry of Valois – 1573) after the death of Sigismund II Augustus (1572).⁷⁹ From the third and fourth quarters of the 16th century, examples of accentuating the power of the Commonwealth are known through a medium externalizing this fact, as emphasized by Wacław Grodecki and Krzysztof Warszewicki, among others.

It is of utmost importance to verify the new information entered into circulation. Researchers were skeptical and automatically gave no credence to the revelations shattering the order developed by widely recognized authorities. Such was the case for Maciej Miechowita and his treatise. Challenging the mountains that had

⁷⁵ *Monumenta Poloniae Cartographica*, vol. I, compiled by Buczek, Kraków 1939, table VI. The publication was almost entirely burned down by the Germans during World War II, and only a few copies exist in Polish libraries (the Jagiellonian Library, the libraries of the Polish Academy of Sciences (PAS) and the Polish Academy of Arts and Sciences (PAU) in Krakow). There is the only known reproduction of the first edition of Wacław Grodecki's map there; its only known original was also destroyed during the war.

⁷⁶ *Vuenceslai Grodecii in Tabulam Poloniae*, k. A₂–A₄v; J. Król (Eds.), *Dedykacja mapy Polski*, 33–41.

⁷⁷ A distinctive feature of ruling the vast Polish and Lithuanian states was the permanent and regular tour of the countries between royal residences and the sites of the Sejms, i.e. assemblies. Consequently, Sigismund II stayed in Krakow for 13% of his reign, in Vilnius for 32%, in Warsaw for 16%, and in Piotrków being the seat of the Sejms for 10%. The remaining 29% was dedicated to his constant travel not only between the main centres of power. M. Wrede, *Itinerarium króla Stefana Batorego 1576–1586*, Warszawa 2010, 34–35.

⁷⁸ Along with the cartographic transformations one can observe Polish poets seeking to create a Septentrional language, empowering the North among European elites. See J. Niedźwiedz, *Poeta i mapa*, 23–24, 127–137, 261.

⁷⁹ R. Mazzei, Una strategia di comunicazione nella Francia del 1573: l'immagine della Polonia all'indomani dell'elezione di Enrico di Valois, in: M.D. Garfagnini (Eds.), *Strumenti e strategie della comunicazione scritta in Europa fra Medioevo ed età moderna*, Firenze, 2017, 57–75.

existed for millennia, introducing the idea that large rivers could originate in lowland areas caused distrust. Fortunately, the then very strong diplomatic contacts between the empire and Moscow made it possible to verify these arrangements, which took place between 1518 and 1519. Interestingly, two diplomats, Siegmund von Herberstein and Francesco da Collo, returned with dissenting opinions. The former fully confirmed the Krakow professor's revelations, while the latter denied the hypotheses. Thanks to the earlier return of the former, a widespread and fairly consensual acceptance of the theses presented in the treatise was possible. However, it was much more difficult to verify dozens or even hundreds of pieces of information, which were much less spectacular. In addition, self-censorship existed then. With this I associate the attitude of Bernard Wapowski, who in 1507 did not dare to question the ancient mountain peaks covering the Kingdom of Poland, despite the fact that he lived exactly in the area of the mountain ranges marked on the map (Fig. 3). Even so, he chose not to make the adjustment or was unable to convince Beneventano. For these two reasons, in my opinion, a long process of reception of cartographic concepts was necessary.

Therefore, conflicting visions concerning the area of the Commonwealth permeated each other and coexisted for a long time. The power of the influence of traditional imagery is demonstrated by the work of Blaise Vigènere, *La description du Royaume de Pologne* (1573). It is a work summarizing the state of geographical knowledge about the Commonwealth in Western Europe. The author creates the image of the Commonwealth as a country comparable to France. However, this excellent expert on the Polish-Lithuanian lands used a map showing the Commonwealth on the

Ptolemaic contours of Europe (Fig. 6). He did so not because he was unfamiliar with the latest studies and cartographic sources, but he wanted his readers to be accustomed to this type of maps and thus better understand where Poland and Lithuania were located in Europe. This work is therefore an example of syncretism, combining divergent views on the area of “Central and Eastern Europe”.

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