

Scholars and Literati at the University of Cracow (1364–1800)

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This note is a summary description of the set of scholars and literati who taught at the University of Cracow (Kraków) from its inception in 1364 to the eve of the Industrial Revolution (1800).

1 THE UNIVERSITY

Founded in 1364 by King Casimir III The Great, the University of Cracow is the oldest higher education institution in Poland. Its early structure comprised three faculties: liberal arts, medicine and law. After the King's death, the University temporarily shut down and was later refounded by King Vladislaus Jagiełło in 1400 with an additional faculty of theology. The oldest, main college was at first called the Royal Jagiellonian College (Collegium Regium). During the 15th century, the reputable faculties of law, mathematics and astronomy attracted important scholars and international students, such as the astronomer Nicolaus Copernicus, who enrolled as a student in 1491. In the 16th and 17th century, the university experienced a long period of crisis and turmoil following, among several other unfavorable events, the disputes with the Jesuits over the control of education in Cracow. At the end of the 18th century, the university underwent several reforms and replaced the original faculties with two colleges: the Collegium Morale (theology, law and literature) and the Collegium Physicum (mathematics, physics and medicine). This restored the prestige of its faculties and allowed the university to host distinguished scholars in several academic fields.

2 SOURCES

The main source for our dataset comes from *Corpus Academicum Cracoviense* (Baster 2017), which consists of an electronic database of students, graduates, and professors at the University of Cracow during the period 1364–1780. The project to build this database was carried out by the Faculty of History of the University of Cracow (https://en.uj.edu.pl/en_US/about-university/history). We also cross-checked our results from the *Corpus Academicum Cracoviense* with the list of lawyers from the beautifully illustrated book by Ożóg et al. (2015).

3 SOME STATISTICS

Table 1 displays some descriptive statistics. There is a total of 1284 scholars. The fraction of persons with known birth year is rather low throughout the period, with the highest percentage (37%) in the period 1618–1685. Unfortunately, the coverage of information does not increase significantly with time.

Neither the mean age of appointment nor that of death show any clear increase in the last two centuries of our observation window. The same applies for life expectancy (conditional on surviving to age 30), which remains at around 62.3 years. On the other hand, we observe early selection in the share of scholars that left a footprint on Worldcat. The share rises to 65.5 % in the period 1618–1685 and then decreases with time, although it remains quite high. Interestingly, the share of scholars that left a footprint on Wikipedia does not show the same pattern: the percentage is rather high in

Period		nb. obs	% birth year known	mean age at appoint.	mean age at death	life exp. at 30	
Start	End						
1348	1449	121	24.8	36.5	61.4	61.1	
1450	1526	341	20.5	32.7	60.2	60.1	
1527	1617	291	27.8	31.7	61	61.8	
1618	1685	165	37	31.9	63.2	64.2	
1686	1733	133	15.8	38.5	64.2	66.7	
1734	1800	233	27.5	28.1	62	62.8	
1200	1800	1284	25.5	32.1	61.7	62.3	
		% birth place known	median distance birth-institution	% with Wikipedia	% with Worldcat		
1348	1449	91.7	171	35.5	11.6		
1450	1526	93.8	202	15.8	11.4		
1527	1617	86.3	211	15.1	23.7		
1618	1685	63	119	20	65.5		
1686	1733	45.9	0	12	52.6		
1734	1800	78.1	0	9.9	43.8		
1000	1800	80.1	148	16.6	31.3		

Table 1: Summary statistics by period

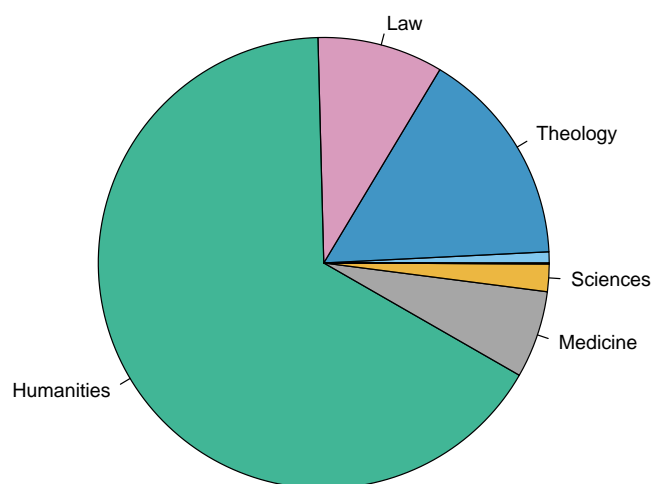


Figure 1: Broad fields at the University of Cracow

the period 1348-1449, but becomes quite low close to the 19th century. Finally, the overall coverage of the place of birth is on average 80.1% and thus very high throughout the period.

4 FIELDS

Figure 1 shows the relative importance of academic fields. With a share of around two-thirds, the field of Humanities clearly dominates in Cracow. Theology and Law also represent a fairly large share, while the scientific faculties of Sciences and Medicine are relatively more marginal.

5 PLACE OF BIRTH

Figure 2 is a plot of the places of birth of all the scholars active at the University of Cracow, by period. Throughout the period, the majority of scholars was born in Polish territories. Thanks to a long period of prosperity and prestige, a growing number of international scholars were hired by the University of Cracow between its birth and the first half of the 17th century. The majority of them came from neighboring countries, such as Germany, and fewer from Southern European countries. A period of turmoil was followed by a decline and a fall in the number of international scholars during the 17th and 18th century.

6 HUMAN CAPITAL OF SCHOLARS AND LITERATI

For each person in the database, we compute a heuristic human capital index, identified by combining information from Worldcat and Wikipedia using principal component analysis. We also compute the notability of the university at each date by averaging the human capital of the scholars active in Cracow 25 years before that date. Details are given in RETE in volumes 1–5. Figure 3 shows the names of all the scholars with a positive human capital index.

The orange line plots the notability of the university and clearly documents the rise of the university in the 15th century. Consistent with its history, the university flourished during the 16th and the first half of the 17th century, but thereafter it experienced a persistent decline until the eve of the Industrial Revolution.

7 TOP 5 PROFESSORS

We now provide a brief overview of the five professors with the highest human capital index.

Conrad Celtis (Wipfeld-am-Main 1459 – Vienna 1508) was a well known German humanist and poet. He pursued his studies at the University of Cologne and Heidelberg. He later gave lectures at several universities, including Rome, Florence, Bologna and Venice. He was named *Poet Laureate* and awarded a doctoral degree by Emperor Frederick III in Nuremberg. Between 1489 and 1491, he attended the University of Cracow to study mathematics, astronomy and the natural sciences, while teaching poetry (Schwinges and Hesse 2019). He also founded an academic society called *Sodalitas Litterarum* in several cities, including Cracow, Vienna and Heidelberg. Considered to be the greatest proponent of German Humanism, his main contributions were to the study of classical languages and history. He died of syphilis in Vienna in 1508.

Jan Śniadecki (Żnin 1756 – Vilnius 1830) was an important Polish scholar who pursued his studies in physics and science at the Lubrański Academy in Poznań and at the the University of Cracow, where he obtained his doctoral degree. He furthered his studies in physics, chemistry, history, architecture and humanities in Gottingen, Leiden, Utrecht and Paris. In 1781, he was appointed lecturer in mathematics and astronomy at the University of Cracow and was the first to teach these two subjects in Polish. He also participated in the construction of an astronomical observatory in the Botanic Garden of Cracow.

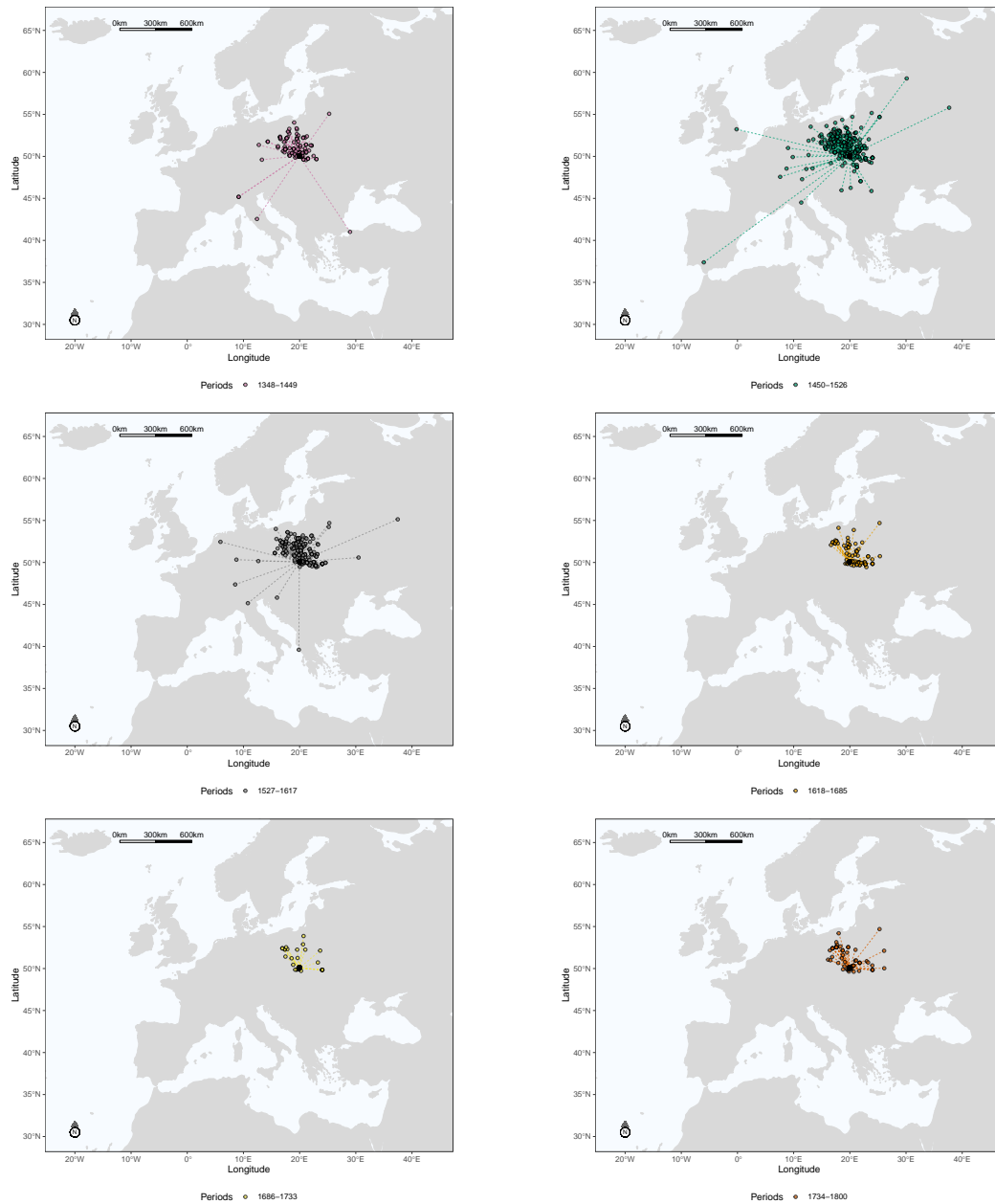


Figure 2: Places of birth of the scholars and literati at the University of Cracow

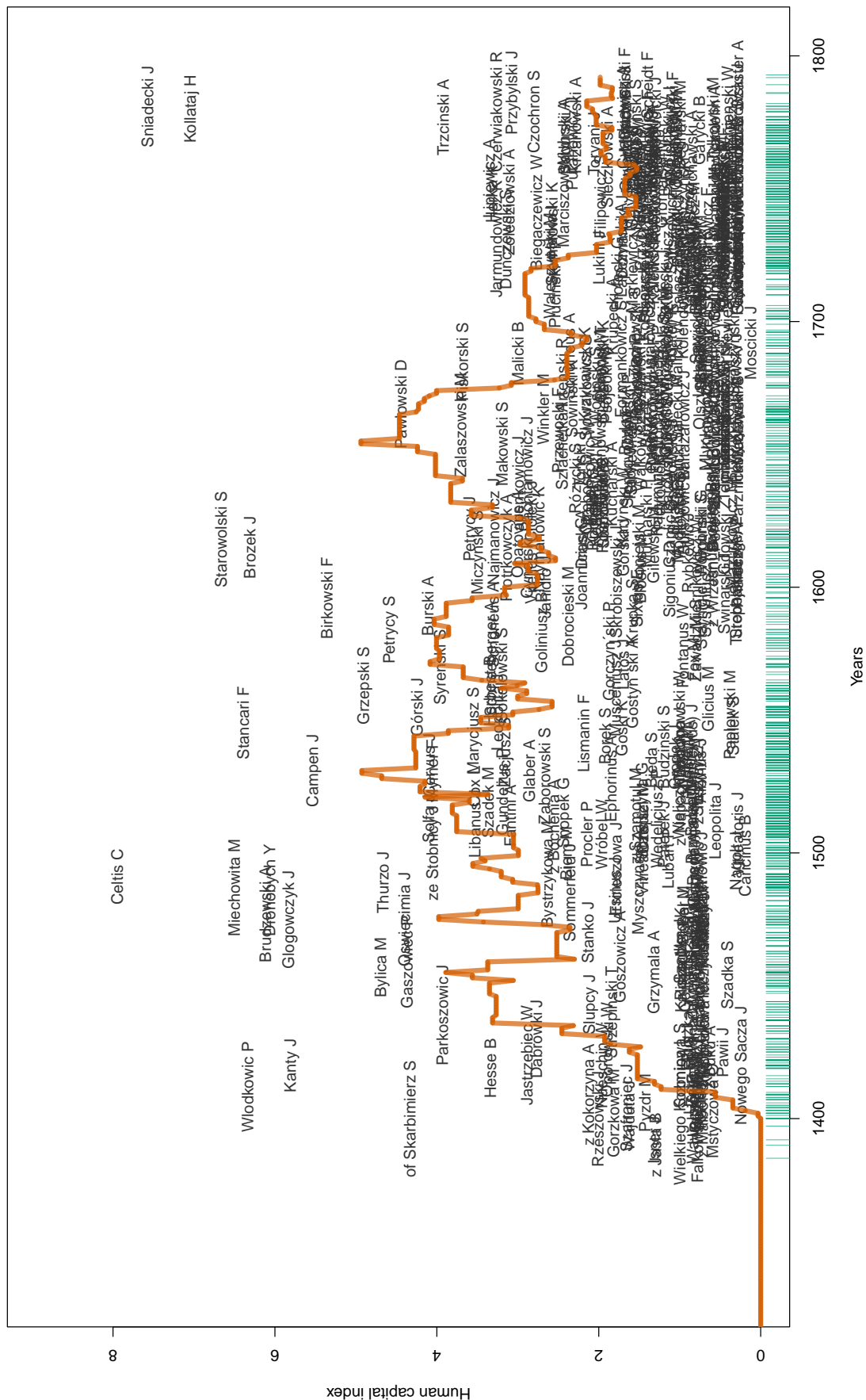


Figure 3: Famous scholars and university notability (orange)

Hugo Kołłątaj (Dederkaly 1750 – Warsaw 1812), a prominent Polish political activist, pursued his studies at the University of Cracow, in Vienna and Rome, where he obtained his doctoral degree in Law and Theology. He then became Canon of Cracow and rector of the University of Cracow between 1782 and 1786, where he implemented several bold reforms, including new courses in science and literature for the first time in Polish and not in Latin. For this he was excommunicated by the Church and became extremely active politically. First head of an informal group that was on the radical wing of the Patriotic Party, he coauthored the Polish Constitution of 1791 and advised the King during the Polish- Russian War to seek a compromise with the party which meant to bring down the Constitution. He then was exiled and spent several years between Germany, Austria and Russia, where he was also imprisoned. During this period, his political ideas became even more radical. He managed to return to the University of Cracow during the last years of his life, and died in Cracow in 1812.

Szymon Starowolski (Stara-Wola 1588 – Cracow 1656) was a Polish scholar. After completing his studies in liberal arts at the University of Cracow, he tutored the children from very affluent families and traveled with them around Europe, including a visit to the University of Louvain. After returning to Poland, from 1612 to 1619 he studied and taught at the University of Cracow. In 1655 he also became Canon of Cracow (i.e. a member of the chapter of the cathedral). His main contributions are in the fields of history, geography, law, theology, literature and politics.

Maciej Miechowita (Miechów 1457 – Cracow 1523) was a Polish Renaissance scholar. He pursued his studies in medicine first at the University of Cracow and then in Italy. He became a lecturer in medicine in Cracow and was appointed rector between 1501 and 1519. His work *Tractatus de duabus Sarmatiis* (Treatise on the Two Sarmatias) is considered the first accurate geographical and ethnographical description of Eastern Europe.

8 WHO'S WHO ON THE MOON

Another way to measure the notability of individuals is to look for signs of recognition such as street names, names of schools, research institutes, prizes and lunar crater names. A crater on the moon (and an asteroid as well) was named after Professor Jan Śniadecki, whose life was described in the previous Section, in recognition of his contribution to the sciences.

9 FAMILIES OF SCHOLARS

We counted eight professors whose father was also professor at the University of Cracow.

10 UNIVERSITY NETWORK

Here, we assume that when a professor occupied a position in more than one university over their life, this established a link between those universities. The universities with which Cracow was linked in each period are displayed in Figure 4.

At its early stages the university network of the University of Cracow only included neighboring universities (Panel a). From the second half of the 15th century to the first half of the 16th century (panel b) its network expanded considerably, comprising several universities in Germany and the University of Bologna (Italy). Matching the trajectory of the university itself, the network began to shrink from the second half of the 17th century onward, when again it only included two surrounding universities, with the exception of Rome in the period 1618-1685 (panel d). The two surrounding universities are the Lubransky College (De la Croix 2021) and the University of Zamość (*Academiae Zamoscensis*).

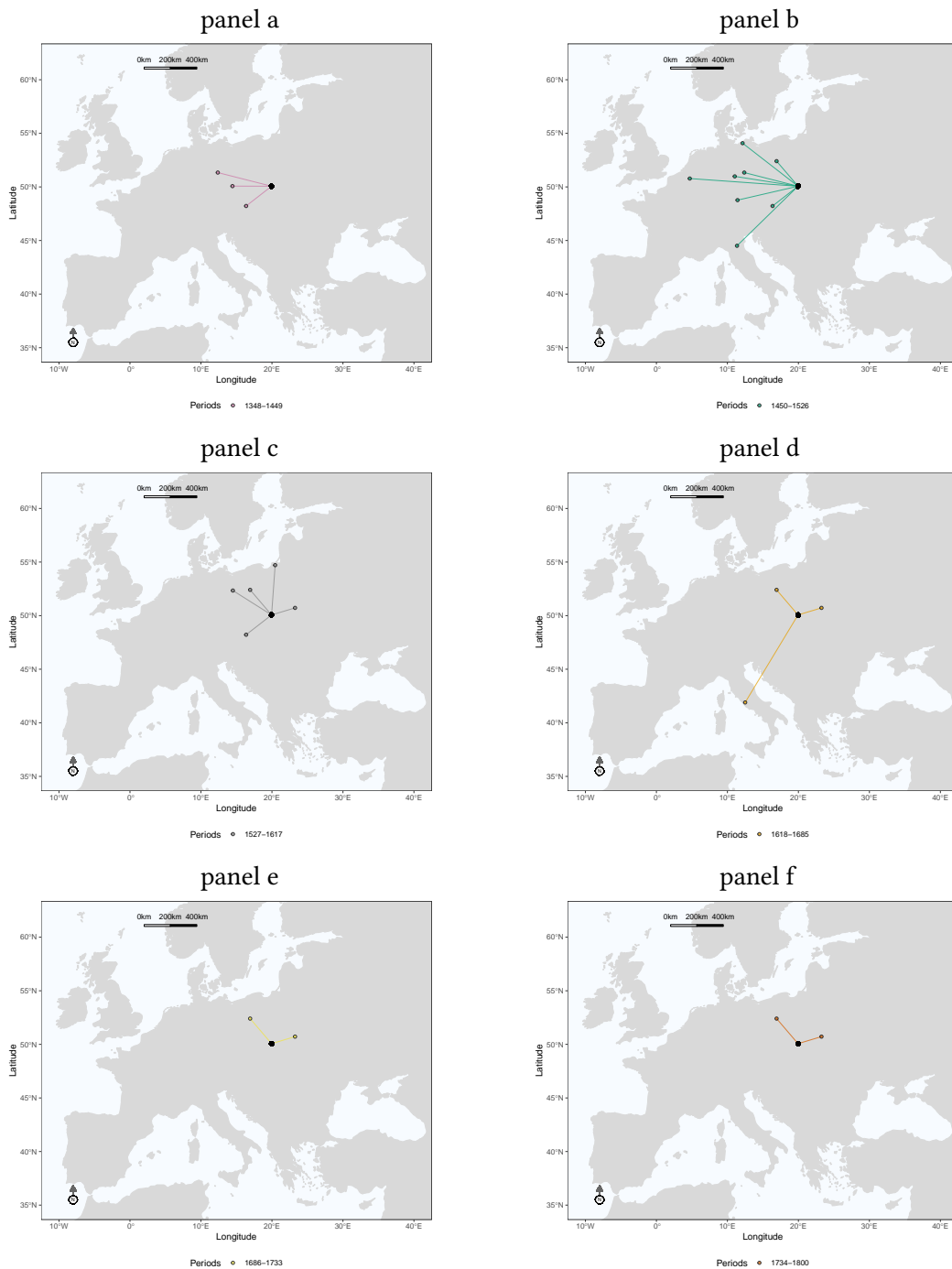


Figure 4: Links between Cracow and other universities through scholars' mobility, by period

11 ANECDOTES

In 1786, Professor Jan Śniadecki built the first hot-air balloon in Poland, a year after the Montgolfier brothers.

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