# Abusing Climate: The if7os Anomaly and the First Partition of Poland-Lithuania 

Dominik Collet<br>University of Oslo, Department of Archaeology,<br>Conservation and History, Post box 1008, 0315 Oslo, Norway;<br>dominik.collet@iakh.uio.no


#### Abstract

Poland-Lithuania served as Europe's grain basket for centuries, playing a vital role in feeding its neighbours during times of climatic adversity. However, its ecological abundance also attracted hostile intentions. In the early 1770 s, the territory experienced a twin catastrophe: a deep political crisis coinciding with a severe climate anomaly. This paper examines the interaction between climate and conflict during a period typically analysed only from the perspective of political history. It aims to reconnect significant state events, such as civil war, occupation, and partition, with their socioecological context, including harvest failures, famine, and epidemics. This approach challenges deterministic simplifications of climate-conflict relations and emphasises the diverse range of human responses to climatic impacts, ranging from desperation to appropriation.


Keywords: climate-conflict nexus, climate history, famine studies, slow violence, Little Ice Age, First Partition of Poland - Lithuania

The climate-conflict nexus has been studied intensely in recent years. In anticipation of future challenges both past and present events have been re-investigated to establish, disprove, or qualify connections between climatic shocks and instances of violent conflict. ${ }^{1}$ However, the research

[^0]field has been criticised for deterministic reductionism, overreliance on quantitative approaches, and lack of empirical rigor - particularly in its widespread conflation of correlation and causation. Furthermore, it is characterised by its presentism, with limited forays into episodes that lie outside contemporary observation. In this context, studying past events in close-up might provide some necessary nuance. Examining events "after the dust has settled" can facilitate balanced assessments of climate as a contributory or merely coincidental factor of violence and adversity. ${ }^{2}$

The years leading up to the First Partition of Poland-Lithuania (1772) constitute a potential testing ground for such linkages. They can also reveal the potentials and limitations of tele-connecting climate and conflict with the use of fragmentary and sometimes biased sources produced in times of (historical) disaster. So far, the momentous event of the Partition has primarily been studied from the perspective of political history and often approached through an ex-post national lens. However, it coincided with a major pan-European (and likely global) climate anomaly that resulted in famine and distress throughout the continent from 1769 to 1772 . The ecological turbulences initiated by this event, including severe harvest failures, famine, and epidemics, have not been addressed adequately by the major works on the Partition. Potential interactions between ecological and societal stress remain largely unexplored. The same applies to the way that contemporaries experienced, resisted, or appropriated this fatal concurrence of calamities. ${ }^{3}$

These research gaps reflect the ongoing separation into political and environmental history. Natural shocks, even extreme ones, often stand unconnected next to political events. The lack of more integrative approaches also stems from the paucity of research on the historical climate of central Eastern Europe and the Baltic until recently. Meteorological reconstructions for this area have yet to make an impact on historical research. ${ }^{4}$ Additionally, the separation reflects a perspective centred on

[^1]the Polish-Lithuanian setting, where the political-military conflict overshadowed the effects of climatic stress for many contemporary observers. Amid violent turmoil, it was extremely difficult for the local population to assess whether their lack of food was due to civil war and occupation or to larger continental weather conditions. Hunger, violence, and accompanying epidemics were often understood in a biblical sense as closely interwoven "tribulations". ${ }^{5}$ The links between local political events and continental environmental crisis only re-emerge when adopting an ecological rather than a territorial perspective.

This paper aims to demonstrate that the Polish-Lithuanian commonwealth not only experienced the same climatic anomaly as its neighbours, but that the anomalous European weather also catalysed and facilitated the militant intervention of neighbouring powers leading up to the polities eventual partition. Using concepts from environmental history, the area witnessed a coalescence of the "slow violence" of socioecological arrangements and the "quick violence" of militant conflict. ${ }^{6}$ Some partition powers, particularly Prussia, opportunistically exploited the challenging climatic conditions and the ecological vulnerabilities of the region's "grain societies" to advance their long-standing political goals. In place of deterministic chains of effects, this event illustrates the plurality and dynamism of socio-ecological entanglements, often prefigured by long historical pathways. This suggests an understanding of a climatic shock as an enabler, facilitator, and catalyst rather than as a straightforward cause. These interpretations are not modern projections; contemporary newspapers commented on this dynamic with scathing acuteness. A Scottish newspaper remarked for example: "It is a very justifiable cause of a war to invade a country after the people have been wasted by famine.... Poor nations are hungry and rich nations are proud; and pride and hunger will ever be at variance. ${ }^{7}$

In addition, the appropriation of climatic turbulence did not stop at territorial aggression. The partitioning powers - Prussia, Austria,

[^2]and Russia - also instrumentalised environmental stress for domestic policy. While Europe suffered from famine, Frederick II of Prussia used forcibly acquired Polish and Baltic grain to present himself as a prudent patriarch at home, a tactic that contributed significantly to the myth of Frederick II as Prussia's "bread father". ${ }^{8}$ The exclusion of "the Poles" allowed neighbouring rulers to suggest social inclusion in their own territories, often based on expropriated grain. The flows of these resources connected the Polish-Lithuanian commonwealth with the rest of Europe just as the movements of armies or the political debate.

As a case, the Partition event illustrates not only the entanglements of corn and conflict, of climate and control, of slow and quick violence, but also the transnational reach of environmentally saturated histories. Reintroducing an integrated socio-environmental perspective can clarify the timing and regional scope of the crisis, illustrating why it escalated then, and why it occurred where it did. Adopting this perspective can also contextualise its outcomes. Why did Prussia profit to such an astonishing extent while Austria and other parties, hampered by disastrous harvests and starving rioters, did not? Moreover, such a perspective can challenge current trends of climate determinism and indeterminism, which attribute climate either an unwarranted singular agency or no role at all. Instead, a close-up of the Polish case reveals interactions between environmental and societal levels that provide dynamic spaces for human intervention both in the past and in the present.

## THE SOCIO-ECOLOGICAL SETTING:

## A "GRAIN REPUBLIC"

The area governed by Poland-Lithuania occupied a distinct socioecological niche in early modern Europe. The polity encompassed substantial territories that included significant parts of today's Baltic states, Poland, as well as extended areas of present-day Belarus and Ukraine (see Fig. I). From the 14th century onwards, it emerged as a major grain exporter due to a combination of fertile soils, a relatively small population, an efficient manorial system based heavily on serfdom, and an extensive network of navigable rivers connecting its arable regions with the Baltic Sea. The region's role as a crucial hub in a pan-European

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Figure I. Political map of the First Partition of Poland-Lithuania, also indicating major river systems. (Image credit: Maciej Szczepańczyk, CC 3.0)
metabolic exchange was solidified when significant climatic anomalies struck the continent in the I570s and the 1590s. ${ }^{9}$ During the devastating famines that followed, Poland-Lithuania remained the last exporter to supply European cities with grain, reinforcing enduring trade connections. In the aftermath major hubs like Gdańsk provided not only the Scandinavia and the Holy Roman Empire but also England, France, and the Netherlands with large quantities of cereal products. Due to its immense volume and importance economists have labelled this transfer of Baltic grain Europe's "mother-of-all-trades". For the commonwealth of Poland-Lithuania it formed a cornerstone of its economy and constituted by far the most important sector of foreign trade. ${ }^{10}$

9 G. Alfani, L. Mocarelli, D. Strangio. Italy. - Famine in European History. Ed. by G. Alfani, C. Ó'Gráda. Cambridge University Press, Cambridge, 2017, 25-48, here 46. W. Behringer. Die Krise von 1570. Ein Beitrag zur Krisengeschichte der Frühen Neuzeit. - Um Himmels Willen. Religion in Katastrophenzeiten. Hg. von M. Jakubowski-Tiessen, H. Lehmann. Vandenhoeck \& Ruprecht, Göttingen 2003, 51-156, here Isı.
io M. van Tielhof. The Mother of All Trades: The Baltic Grain Trade in Amsterdam from the Late Sixteenth to the Early Nineteenth Century. Brill, Leiden, 2020. The influence of landed gentry and city traders ensured that Poland-Lithuania continued to export through bad times, even though the monarch sometimes attempted to restrict this trade. H.-J. Bömelburg. Zwischen polnischer Ständegesellschaft, 216-22I. While other European territories embargoed grain exports in times of dearth, there had been no more effective export bans in Poland since 1532. See J. Kumpfmüller, Die Hungersnot von 1770

However, this profitable exchange of caloric energy in the form of food not only attracted commercial interest but also political attention. Poland-Lithuania had long been governed as a "commonwealth", uniting the Kingdom of Poland and the Grand Duchy of Lithuania. Its internal governance comprised a combination of republican and parliamentarian elements, with a strong and extended nobility and a weak elected monarchy. Over the centuries, this unique system provided a surprisingly resilient framework well-suited for the elites of the region characterised by their ethnic, linguistic, and religious diversity.

However, these opportunities did not extend to the peasant population, who largely lived under conditions of coercive serfdom. They did not share in the benefits offered by this arrangement, which Jan Sowa aptly described as a "biopolitical grain republic". ${ }^{11}$ The demesne system facilitated the appropriation of labour and produce by the privileged nobility. The large size of their estates also allowed them to offset harvest shortfalls through higher market prices. Their labourers, however, bound by rents and corvée (forced labour) and with shrinking private plots, were subjected to the harsh fluctuations inherent in grainbased economies. This form of slow, socio-ecological violence distributed environmental risks extremely asymmetrically. ${ }^{12}$ It has led some scholars to suggest that over time the polity of the commonwealth had become an empty façade with a virtual king presiding over "a void called Poland" at its centre. Its social (and ecological) inequalities foreshadowed the tensions and fragilities that would ultimately lead to its disintegration. ${ }^{13}$

In practical terms, the privileges of extended political participation enjoyed by the nobility resulted in a notoriously complicated electoral process. This arrangement invited foreign meddling and interference. The confederation of Poland-Lithuania experienced a range of periodic interventions, from the Swedish "deluge" in the i7th century to Saxon and Russian electors in the 18th. However, due to its ecological riches, some of its neighbours harboured even more ambitious plans. Throughout the i8th century, Russia had an urgent need for grain from the Commonwealth to supply its armies during the prolonged conflicts

[^4]with the Ottomans. The desire for Polish territory was even stronger in 18th century Prussia. Despite all the enlightened propaganda about improvement and self-sufficiency, Prussia required constant Polish imports to feed its huge standing army, as well as its densely populated province of Silesia taken from Austria in 1742. ${ }^{14}$

Already in his teens, Frederick II, Prussia's long-term ruler, sketched ideas on how to bring the thriving Polish grain trade under his control. He devised plans to intercept the trade along the Vistula River (see Fig. r), which served as the main artery for Polish grain exports via Gdańsk due to the prohibitive costs of road transport at the time. The river could be connected directly and inexpensively to Brandenburg's core territories through its tributaries and a series of short canals. As early as I731, the young Frederick noted down ideas to prevent PolandLithuania's exports along the Vistula through customs duties, trade barriers, or territorial annexation, a move that would subject the entire Poland-Lithuania to complete "dependence on Prussia". These thoughts evolved into comprehensive plans put to paper in his private "Political Reveries" in 1752. ${ }^{15}$ These passages already suggested that his designs were motivated not only by establishing a land corridor between Brandenburg and his Baltic territory of East Prussia but also by controlling the flow of grain, an essential economic, caloric and energetic asset.

By 1768 , just years before the eventual partition, Frederick II consolidated these ideas in his so-called "political testament". ${ }^{16}$ Long before the momentous climate anomaly struck, plans existed among Poland-Lithuania's neighbours that perceived political power and the republic's grain as deeply intertwined. In 1771, when incessant rains, crop failures, epidemics, and political strife converged into a combined socio-natural crisis, the neighbours moved with force to implement these plans. ${ }^{17}$

14 P. R. Rössner. Das friderizianische Preußen (1740-1786) - eine moderne Ókonomie? Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte, 20II, 98, 143-172, here 157.
15 Euvres de Frédéric le Grand. Hg. von J. D. Erdmann Preuß. 30 vols. Decker, Berlin, 184657 , here vol. 16, $3-6$ as well as Die politischen Testamente der Hohenzollern. Hg. von R. Dietrich. Böhlau, Cologne, Vienna, 1986, 375.
16 Die politischen Testamente der Hohenzollern, 509-513.
${ }_{17}$ For the debate on the intentionality of Prussia's expansion in Poland, see H.-J. Bömelburg. Zwischen polnischer Ständegesellschaft, 209-212; H.-J. Bömelburg. Friedrich II zwischen Deutschland und Polen. Ereignis- und Erinnerungsgeschichte. Kröner, Stuttgart, 20II, 16f., and K. Friedrich. Brandenburg-Prussia, 1466-1806: The Rise of a Composite State. Palgrave Macmillan, Basingstoke, 2012, 93 .

## THE I77OS CRISIS: ENVIRONMENTAL STRESS AND SOCIETAL SHOCKS

At the time of the Polish crisis, Europe's food and farming systems were heavily dependent on grain. Throughout the preindustrial period, cereal products constituted the vast majority of the population's caloric intake. This led to the development of privileges and infrastructures tailored to the unique position of grain as the undisputed staple crop of Europe's food system. Various strategies were employed to adapt cereal cultivation to variations in soil, weather, and climate. These strategies included careful local crop selection (primarily wheat, rye, barley, and oats), a combination of winter and spring sown varieties, as well as specialised rotation and field systems. However, the risks associated with anomalous weather or pests remained significant. These risks were accepted due to the relatively high caloric yield of grain and its unique potential to be dried, stored, transported, and - crucially - taxed, controlled, and expropriated by rulers and elites. The resulting food regime of the "grain society" enabled growth and complex hierarchies but also warfare and periodic famines. Consequently, Europe's deeply ingrained cereal dependency has been identified as a "trap", a "tyranny", or the foundation of (slow) "violence". ${ }^{18}$

The inherent vulnerability of grain cultivation to climatic anomalies became particularly evident during the period retrospectively known as the Little Ice Age. This era was characterised not solely by a linear decline in temperature, as the name suggests, but by an increased frequency and severity of extremes (referred to as Little Ice Age Type Events or LIATE). These anomalies impacted Europe's agricultural systems where they were most vulnerable, shortening the growing season through long, harsh winters, affecting maturation and yields through extremely rainy summers and autumns. ${ }^{19}$

The early 1770 os witnessed one of the most severe anomalies of this kind. Unlike its predecessors in 1709 and 1740 , this extreme event affected large parts of Europe for several years, ranging from France to Russia and from Switzerland to Scandinavia (with similar disruptions occurring in India, Egypt, and Central America) from 1769 to 1772. It is perhaps the

[^5]best-documented climatic anomaly of the preindustrial period, triggering intensive contemporary efforts to measure and document both the physical phenomena and the societal reactions to them. ${ }^{20}$ Observations from all over Europe indicate extreme abnormalities, such as snowfall in June and July in temperate zones, roo days of continuous rainfall in some locations, or the freezing of major river systems like the Danube, the Weser, or the Elbe to the ground.

A wide range of instrumental measurements and natural proxies can help to contextualise these anecdotal observations. They reveal a significant, multi-year anomaly characterised by depressed temperatures and hydrological extremes, with rainfall clustering in late summer periods between 1769 and 1772 . While the extent and amplitude of the anomaly are clear, its causation remains uncertain. Reconstructions point to a persistent atmospheric blocking situation (Fig. 2), possibly influenced by irregularities in the North Atlantic Oscillation system (NAO), potentially intensified (but not initiated) by eruptions of the Cotopaxi, Vesuvius, and Hekla volcanoes in the preceding years. The sheer scale and duration of the anomalies overwhelmed the weak temporal and spatial buffering systems in place, such as cross-seasonal storage or regional exchange. In the late 18th century, these meteorological disturbances struck an already vulnerable Europe characterised by rampant inequality, economic exploitation, demographic expansion, and political exclusion. The convergence of biophysical and societal stress in the i77os resulted in catastrophic suffering, ranging from widespread scarcity to severe regional famines, triggering epidemics, protests, and substantial migration flows - cross-European connections that have often been overlooked. ${ }^{21}$

The impact of these events on the Polish-Lithuanian Commonwealth has largely remained obscured by concurrent military conflicts and the fragmented and biased nature of available records. Disentangling natural and societal factors remains challenging: Ongoing violence disrupted many of the contemporary meteorological observations on which reconstructions rely. As a result, a comprehensive study of the European dimension of the climate anomaly was lacking until recently. Within the Commonwealth, rampant requisitioning and political considerations severely affected the reporting of harvest yields, bread prices, and mortality figures. Additionally, the press in the Commonwealth was weak and heavily censored, either through self-censorship or interference from noble sponsors and Russian

[^6]representatives. Uncensored reports by local witnesses could only appear in foreign press outlets. ${ }^{22}$ Due to these challenges in the historical record, it remains difficult to ascertain how ordinary people experienced and coped with the combined impacts of extreme weather and warfare.

Some of the gaps, however, can be filled by relying on the detailed and surprisingly candid observations of external powers. For example, the survival of Frederick II's unredacted cabinet orders (Kabinettsordre or KO's) offers a unique insight into the motivations of an early modern sovereign and the mechanics of his administration directed towards Poland-Lithuania. The British press regularly published unfiltered reports by Polish observers on the extent of the calamities. Occasionally, travellers caught up in the conflict shared their experiences without the need to appease local elites. ${ }^{23}$

Furthermore, recent climate reconstructions of the area have substantiated the significant level of biophysical stress experienced in the region. These reconstructions draw, for example, on extended series of daily weather observations by Gottfried Reyger or Michael Christoph Hanow, who continued to report throughout the troubled period. Their observations have recently been extended, calibrated, and systematized by the team led by Rajmund Przybyl, along with numerous other, more fragmentary records compiled by the group around historian Franciszek Bujak in the 193os.

These observations document that the extreme cold and wet conditions in Europe extended to the Commonwealth, severely affecting the harvest, and driving up prices in parallel to the escalation of military conflict. Winter temperatures dropped by several degrees, resulting in one of the coldest decades of the last 500 years. ${ }^{24}$ Tree-ring data suggest a

[^7]similar drop during the spring and summer. ${ }^{25}$ Price data is less reliable, as it reflects not only the level of harvests but also panic buying, speculation,

July 1771


August 1771


Fig. 2: Reconstructed monthly sea level air pressure fields for July and August 177r indicative of an atmospheric blocking situation. Image credit: R. Brázdil, H. Valásek, J. Luterbacher, J. Macková. Die Hungerjahre 1770-1772 in den böhmischen Ländern. Verlauf, meteorologische Ursachen und Auswirkungen. - Ósterreichische Zeitschrift für Geschichtswissenschaften, 2001, 12, 44-78

Zusätzen zur Danziger Flora. Danzig, 1788, 2-10; D. Collet. Die doppelte Katastrophe, 54-78.
25 D. Balanzategui, A. Knorr, K.-U. Heussner, T. Wazny, W. Beck, M. Słowiński, G. Helle, A. Buras, M. Wilmking, E. Van Der Maaten, T. Scharnweber, I. Dorado-Liñán, I. Heinrich. An 8ıo-year History of Cold Season Temperature Variability for Northern Poland. Boreas, 2018, 47, 443-453; A. Zielski, M. Krąpiec, M. Koprowski. Dencrochronological Data. - The Polish Climate in the European Context, 191-218, here 210. The data on summer temperature and precipitation is less conclusive due to record bias, see ibid., igrf.


Fig. 3: Relative increase of grain prices across Europe from 1760 to 1774. Image credit: C. Pfister. Little Ice Age-type Impacts and the Mitigation of Social Vulnerability to Climate in the Swiss Canton of Bern prior to 1800 . - Sustainability or Collapse? An Integrated History and future Of People on Earth. Ed. by R. Costanza, L. J. Graumlich, W. Steffen. MIT Press, Cambridge, MA, 2006, 197-212
and increased demand in connected European markets. However, the timing of the price hikes suggests that weather had an impact (Fig. 3). Even before violence escalated on a larger scale, major export hubs such as Gdańsk experienced steep rises in prices, indicative of reduced harvests. These price increases put local consumers under significant stress even before the military conflict started to escalate. ${ }^{26,27}$

Soon, the initial environmental impacts were exacerbated by political unrest throughout the Polish-Lithuanian Commonwealth. Several years before the crisis, Russia had intervened massively by sending troops and money to support the election of Stanisław August Poniatowski as new King of Poland in 1764. Four years later, numerous nobles formed the Bar Confederation and armed themselves to counter ongoing Russian interference in Commonwealth affairs. The situation escalated when Russian soldiers pursued armed confederates into their refuge on Turkish territory, prompting the Ottoman Empire to declare

[^8]war against Russia, initiating the Fifth Russo-Turkish War (1768-1774) and further destabilising the region.

In late 1769 , just after the adverse weather conditions spread across Europe, Russian troops and irregulars began engaging armed Polish Confederates in skirmishes everywhere, while the Polish-Lithuanian king frantically attempted futile mediation. The outnumbered and poorly organised Confederates resorted to acts of sabotage, increasingly relying on tributes collected from the local population. Furthermore, Russia ceased supplying food to the numerous Russian soldiers stationed in the Commonwealth after the outbreak of war with Turkey, leading these troops to forcibly requisition grain and engage in looting. ${ }^{28}$ Sowing and cultivating grain became almost impossible in large parts of the country, exacerbating the stress caused by the abnormal weather to a catastrophic degree. In 1770 an early report by a correspondent from Gdańsk stated:

> The face of the country where the Russians and Confederates have been engaged, and traversed over in their marches and counter-marches after each other, is so much altered, that desolation itself cannot exhibit a spectacle more horrible. Nothing is so much dreaded by the inhabitants as the almost certainty of a famine the ensuing summer. The little that has been sown, with the vegetables and fruit-trees, are all destroyed. ${ }^{29}$

Following the extremely harsh winter of 1770/1771 and significant flooding due to incessant rain, the Confederates began turning directly against the Russian-backed Polish king. Marauding troops across the country began supplying themselves from meagre grain yields, requisitioning supplies, or destroying crops to harm the enemy. Grain prices doubled in the grain trading hub of Gdańsk, with similar hikes in Kraków and throughout the country. Prices more than tripled in Wrocław and quadrupled in Lviv. Considering that an average household regularly spent more than two-thirds of its income on food, this resulted in catastrophic hardship. ${ }^{30}$ Uncensored reports from eyewitnesses in Poland-Lithuania now regularly spoke of a "general famine". A British

[^9]observer near Warsaw reported that only "emaciated beings" could be seen, too weak even to flee to surrounding towns. ${ }^{31}$ In 1771, after a second catastrophic crop failure, observers all across Europe began to realise that the lack of grain in Poland made famine nearly unavoidable. ${ }^{32}$

Soon after, epidemics began to emerge. Wet weather directly facilitated some of these outbreaks, while others were spread by famished people migrating in search of food and support, as well as by the movement of soldiers. Russian troops were also responsible for introducing a disease that spread from the Turkish border through Russia and finally into Poland. This outbreak is often described as the last occurrence of bubonic plague in Europe. However, due to the unclear symptoms, its identification remained controversial among contemporaries. The epidemic was quickly politicised as references to the plague were strategically used and served to justify coercive measures. ${ }^{33}$

When neighbouring states began occupying parts of PolandLithuania in 1771, catastrophic hunger prevailed in large areas of the country, resulting from an explosive combination of natural and societal factors. Alongside epidemics and military conflict, their interplay would go on to claim tens of thousands of lives. ${ }^{34}$

## USING AND ABUSING CLIMATE

To European observers, the fatal interplay of climate, disease, and war in the Baltic region seemed obvious. Frederick II of Prussia used the term "année calamiteuse" to describe the confluence of natural and societal disasters in the region. ${ }^{35}$ However, this did not prevent him from exploiting the situation; on the contrary. While the situation in the

[^10]Commonwealth appeared extremely confusing even to contemporaries, the attempts by its neighbours to profit from the twin catastrophes of climate and conflict can be traced with some precision.

After the end of the Seven Years War in 1763 Europe had enjoyed several good years and an agricultural boom that had fostered a false sense of security. When famine returned in I770, the continent was ill-prepared. Even in the "granary-state" of Prussia, the magazines lay nearly empty. Frederick II had long promoted these costly buildings as robust security infrastructures, drawing on them to ridicule his neighbours and showcase his foresight. However, when the cold spells began, all his elaborate statistical tables on production, consumption, and storage, along with his intricate provisioning system, proved to be mere information façades. The stocks in his granaries were minimal, partly because their peacetime administration offered little prestige to the military officers in charge and partly because landowners, merchants, and local authorities deliberately deceived the government with misinformation to avoid the costs of storage. ${ }^{36}$ Consequently, when the poor harvests set in, Prussia became dependent on Polish grain almost immediately.

Frederick II personal instructions to his administration - the notorious cabinets-ordre - illustrate the level to which policy was now driven by climatic stress. They also highlight his desire to use and abuse climate impacts on political rivals. In October 1770, rapidly escalating bread prices in Prussia's heartland compelled the distribution of state supplies to commence. However, due to the shockingly low stocks, only select circles could be supported. ${ }^{37}$ Nevertheless, when the Saxon elector requested to purchase some Prussian grain, Frederick II continued to present himself as a prudent ruler, chastising his neighbour for neglecting his granaries and failing his people. ${ }^{38}$

In reality, Frederick II was soon compelled to take military action due to severe shortages. By the end of 1770 , Prussia imposed strict trade embargoes that prohibited the export of grain from its territories. These embargoes, known as Fruchtsperren, were a well-established tool of governmental control in highly stratified societies. They aimed to rebalance the unequal market conditions, securing local stocks for

[^11]groups with less purchasing power than foreign market competitors. ${ }^{39}$ However, given the dire need that now threatened Prussia's neighbours, implementing these restrictions necessitated extensive military deployments at the border and often involved the use of force. ${ }^{40}$ In many respects, these armed missions foreshadowed the Cordon Sanitaire that Frederick later established on Polish territory. The cordon served as a closely related tool of territorial control, eventually leading to physical partition and annexation.

Like the Fruchtsperren, the Cordon Sanitaire had a long and violent history. It was frequently employed to forcibly isolate European regions afflicted by the plague. In 1728, the longest-running cordon sanitaire was established along the military border (Militärgrenze) that separated the Habsburg and Ottoman Empires. By 1770, it spanned more than a thousand miles and lasted well into the 19th century. This borderline already possessed the medical-military characteristics that would define its Polish counterpart established in the winter of $1770 / 7 \mathrm{I} .{ }^{41}$ Publicly, the new Polish cordon was portrayed as a medical tool to contain an epidemic that the Prussian administration readily identified as "the plague". Politically, the Prussian cordon was a response to Austria's occupation of parts of Poland preparing its own territorial annexations. ${ }^{42}$ Practically, however, it served a very similar purpose to the militarized export controls - it aimed to secure grain.

Observers quickly realised that plague prevention was merely a pretext. Immediately after the cordon was established in 1771, Frederick had ordered the acquisition of grain not only in the occupied Polish territories but also on the other side of the cordon. The purpose was to restock the now empty magazines of the Kurmark. ${ }^{43}$ This highly unusual manoeuvre openly contradicted any claim of medical concerns. After all, grain transports carried an extremely high risk of introducing diseases, including the plague. Infected fleas carrying the plague bacterium could hide in the sacks or hitch a ride on rodents hidden in the grain. As a result,

[^12]in Russia, all cross-cordon transfer of grain was forbidden or heavily restricted, with long quarantines imposed in all territories affected by the epidemic. ${ }^{44}$ In Austria, too, the transfer of cereal grain was banned along the sanitary-military border in the South. Consequently, suspicions immediately circulated when the illicit transports of Russian and Prussian occupying forces became public. Observers believed that these movements were responsible for cross-border transmission of the plague and even its original introduction from Russia. ${ }^{45}$ The strategic handling of the epidemic by Russian authorities in their own country, further illustrates that epidemics were recognised as political opportunities in 1771. The use of targeted information on the plague and the associated medical cordons as disciplinary and communicative tools during times of famine were not inventions of Prussia alone. ${ }^{46}$

In early 1771, when the second harvest failure began to have an impact, Prussia assigned ever more soldiers to the cordon. ${ }^{47}$ The transfer of troops to Polish territory was aimed not only at demonstrating military strength but also as a way of providing large numbers of personnel with food, as Prussian soldiers were entitled to the scarce magazine grain while garrisoned at home. ${ }^{48}$ Although sharp letters of protest reached Frederick II from Poland-Lithuania almost immediately, he continued to send more regiments to the region to save on rations. Their provisioning needs grew so rapidly that in May 1771, the city of Gdańsk threatened to

44 J. T. Alexander. Bubonic Plague in Early Modern Russia. Public Health and Urban Disaster. Johns Hopkins University Press, Baltimore, 1980, 103, 250.
45 "... on account of the indespensable communication which the carrying of provisions occasions." London Magazine, September 1770. The assumption proved to be correct. However, the transmission route via the rat or rat flea as carriers of the plague bacterium hidden between the sacks was not yet known. See J. T. Alexander. Bubonic Plague, io8
46 The sanitary cordons around Moscow, for example, served military as much as medical needs during heavily publicised plague uprising of 1771. They were closely linked to the strategic famine policy of the authorities and allowed them to deny the existence of the plague in the bordering counties. N. Kuhl. Der Pestaufstand von Moskau 1771. Volksaufstände in Rußland. Von der Zeit der Wirren bis zur "Grünen Revolution" gegen die Sowjetherrschaft. Harrasowitz, Wiesbaden, 2006, 325-396, here 328; M. Stuber, S. Hächler. Ancien Régime vernetzt. Albrecht von Hallers bernische Korrespondenz. - Bernische Zeitschrift für Geschichte und Heimtakunde, 2000, 62, 125-190, here 177. The conflation of medical and military terms is now so engrained that during the current Russian aggression against Ukraine, President Putin called for a "sanitary zone" to be established on (occupied and then annexed) Ukrainian territory. https://www.reuters.com/ world/europe/putin-says-ukraines-losses-are-vast-so-far-failed-counteroffensive-2023-06-13/ (accessed $13 / 6 / 2023$ ).
47 A. Skalweit. Die Getreidehandelspolitik, 275f.
48 On the use of the occupation to provide food for the soldiers ("Natural-Verpflegung an Brod und Fourage"), see Cabinet order to Major Generals Alvensleben and Belling of 9/12/1770, in: A. Skalweit. Die Getreidehandelspolitik, 275. Prussian soldiers were automatically allocated magazine grain when prices surpassed a fixed price, an allowance also meant to feed their families. Major General von Billerbeck therefore remarked "that if the Commißbrod [granary rations] should cease, the misery here is likely to become indescribable". The shortage in Prussia was so dramatic that soldiers on leave returned voluntarily to duty in order to "share in this beneficium of bread". In many Prussian towns, the families of soldiers constituted a considerable proportion of the population. Ibid., Io7.
petition Holland, France, and England for "intercession". ${ }^{49}$ In response, Prussia reiterated their public announcements that the cordon was solely intended to protect against the plague. ${ }^{50}$ However, the European powers sharply criticised the blatant plundering of Poland-Lithuania under the pretext of preventing epidemics. ${ }^{51}$

With the third harvest failure in autumn 1771, Prussia's dependence on Polish grain reached a critical point. By June, the stocks of the city magazine in Berlin were depleted. The price of bread rapidly rose and could only be brought down again ten months later through Polish requisitions. Simultaneously, desperate news reached Frederick II from the Prussian countryside, reporting that his subjects were now resorting to consuming bark. Privately, he expressed his fear that they would soon have to rely on acorns and even more desperate forms of famine food. ${ }^{52}$ When the Austrian Emperor requested access to Polish grain, Frederick II responded abruptly and candidly, stating, "The shortage of grain is as severe in my provinces as it is in Bohemia, and Poland is the only resource I have left to address it." The desperate delegate from Saxony, where large numbers of people were now dying from starvation, was met with similar words. Even as the situation escalated from scarcity to famine throughout the Polish lands, the king responded to Saxon pleas for food imports, stating, "... we are dependent on Poland. You yourself know very well that too many buyers only make the price more expensive." ${ }^{53}$ Polish grain was now firmly established as the central instrument of Prussia's provisioning system.

By March 1771, Frederick II privately acknowledged that famine had become a reality in large parts of Poland-Lithuania. Nevertheless, he continued to demand ever-increasing supplies from the region. ${ }^{54} \mathrm{To}$ this end, the king explicitly encouraged the strategic use of rumour,

[^13]military pressure, and targeted disinformation. He instructed the governors (Kammerpräsidenten) in neighbouring Silesia and East Prussia, Hoym and Domhardt, to exaggerate the imminent danger of civil war factions plundering any remaining stocks of grain, to "encourage the Poles to sell it at very cheap prices, in order to withdraw their grain from Confederate robbery." ${ }^{55}$ In September 1771, Domhardt was also ordered to spread the rumour in the border regions "that the operations of the Russian troops are now directed towards that area". ${ }^{56}$ Confederate retaliatory actions against Prussian occupation and requisitioning were quickly used by the Prussians as a pretext to penetrate even deeper into Commonwealth territory. ${ }^{57}$ By extending the "sanitary" cordon all the way to the river Vistula in the winter of $1771 /$ 1772, Prussian troops were also able to implement Frederick's youthful designs and block Poland's most important export route. Prohibitive duties were now imposed on grain in Kwidzyn (Marienwerder) to prevent any further transportation downstream. Frederick firmly rejected the angry Polish-Lithuanian protests, replying: "The shortage in my country is too great. So for now, I do not see how I could do this differently." ${ }^{58}$ Throughout the occupied area, soldiers now sought to "inhibit or impede to some extent the transport of grain on the Vistula to Gdańsk". ${ }^{59}$

Such blatant disregard for political and medical pretences was not without political risks. The European powers closely monitored the ambitions of the Commonwealth's neighbours, weighing their options from covert intervention to military interference. In the lead-up to the 1772 partition agreement, any overt overreach risked antagonising competitors and other European powers. However, faced with a disastrous climatic anomaly, the king decided in favour of such hazardous actions. He instructed his generals to proceed "insofar as it can be done covertly without causing a stir, but by no means through explicit prohibitions and public measures". The cordon was now to be fully opened for grain transports diverted from the Vistula, "underhand and discreetly". ${ }^{60}$

Despite the political risks, Prussian troops also began using direct military force in autumn 1771 to meet the king's escalating

[^14]demands for grain. By now it had become impossible to purchase grain in Poland for the initial price of 20 groschen per bushel that he had set. Instead, General Belling led armed expeditions deep into Polish territory to requisition grain by force, "under the pretext of ensuring the subsistence of the troops". ${ }^{61}$ The Confederates strongly opposed these forced levies, and isolated attempts to establish a counter-blockade against Prussia and attack grain transports are documented. However, given the military disparities, they remained largely symbolic. ${ }^{62}$ Belling continued to requisition grain extensively in Poznań (Posen), Gniezno, and the voivodeship of Kujavia, providing only nominal compensation well below market value. When landowners refused to surrender their stocks, he confiscated their livestock or imprisoned those who objected. The angry protests against the controversial incarceration of the head of the Jesuit college in Poznań were dismissed by Frederick II with the blunt statement, "They must deliver, it cannot be otherwise. The quickest thing is for them to deliver the quantity, and then the rector is free." He also took the opportunity to sharply reprimand Belling for the "obnoxious slowness" of the urgently awaited rye deliveries. ${ }^{63}$ When Frederick II was forced to reject an increasing number of desperate pleas from his starving Prussian subjects, he bluntly stated, "My warehouses are empty. There is nothing available." ${ }^{64}$

It was only when a riot broke out in Gdańsk in the spring of ${ }_{1772}$ over the levies that Frederick II finally deemed it expedient to relieve General Belling. In a cynical move, he then had several Jewish merchants arrested as scapegoats for the price hikes. As Governor Domhardt reported, Belling's troops in "Pomerellen [Pomeralia]" had by that time already caused such devastation that the inhabitants had neither bread nor seed grain left. Yet Frederick did not attribute these "excesses" to his enormous demands for grain but rather to Belling's poor leadership, which is why the soldiers were to be disciplined not through punishment but through "harsh exercise".

The Prussian king persisted with forced requisitioning until his troops eventually withdrew in the summer of 1773 , although in the lead-up to the territorial Partition agreement, he preferred such actions

[^15]to be enforced "through other more subtle means". ${ }^{65}$ To the end, he continued to confront the stubborn Polish-Lithuanian resistance with brutal resolve. ${ }^{66}$ Characteristically, the king dismissed desperate requests for reduced contributions at the height of the conflict, with a simple terse statement: "My troops must live." ${ }^{67}$

## POLAND-LITHUANIA'S TWIN CATASTROPHE

For the population of Poland-Lithuania, these brutal actions resulted in catastrophic hardship. The equally violent behaviour of the Russian side further exacerbated their suffering. Alongside other neighbouring countries, large parts of Ukraine as well as adjacent Russian territories had experienced similar crop failures between 1770 and 1772 , leading to famines. ${ }^{68}$ The Russian administration therefore required equally massive quantities of Polish grain. These supplies were intended to feed the Russian borderlands, the occupying soldiers within the Commonwealth, and notably the troops engaged with the Ottoman army. The scale of these deliveries was immense already in 1770 , after the first harvest failure. Johann Jacob Lerche, a German doctor in Russian service, reported from the border region that "several thousand Polish wagons [were sent] to the first army with flour, three sacks on each". A letter from Elbing stated: "the Russian army, under Count Romanzow, is now in full march. His grain reserves are immense. Poland is taxed to provide him with 55,000 bushels of oats, 3,084 lasts of wheat, the latter consisting of sixty measures, and 25,000 carriages." ${ }^{69}$

The example of the third partitioning power, Austria, demonstrates that these enormous numbers were not simply military propaganda. Empress Maria Theresia moved equally vast quantities of grain to alleviate the extreme need of her citizens. Thousands of wagons of grain were ordered to be sent to the starving citizens of Prague in a dramatic

[^16]rescue operation. Each day, one hundred carriages left Vienna together, using an improvised pontoon bridge to cross the Danube, which was heavily flooded due to incessant rainfall. However, this intervention depleted the Austrian supplies to such an extent that its administration lost almost all ability to effectively intervene in the conflict over the Commonwealth. ${ }^{70}$ The Viennese administration was occupied with alleviating the catastrophic situation in Bohemia and Moravia. Unlike the Habsburg hereditary lands in Austria proper, these regions could not directly obtain supplies from Hungary via the Danube. As a result, the Viennese Chancellery received gruesome reports from these regions, describing horrific deaths from starvation and roaming bands of famished children surviving on grass and carrion. ${ }^{71}$ Eyewitnesses reported that faced with dire starvation, Bohemians were practically "begging for the plague". In their agony, they hoped for an end to their suffering through the epidemics that had crossed the politically expedient but medically ineffective cordons.

In 1771, the Austrian court rightly feared an imminent "uprising of the rabble". A petrified chancellery observed the growing wave of Bohemian famine refugees arriving daily in the capital, a movement that increasingly took on the form of a hunger march. ${ }^{72}$ The extent of the climate anomaly and the severity of the famine meant that even the thousands of cartloads of grain failed to substantially alleviate the situation. However, they did result in catastrophic fiscal deficits. Moreover, the relief stocks had to be taken from dedicated army supplies. In consequence, Austrian army supplies collapsed just as the political wrangling over Poland reached its peak. ${ }^{73}$ Faced with extremely limited room for manoeuvre, the court followed the Prussian example and resorted to a symbolic display of paternal concern. These efforts culminated in the highly publicised journey of the young (co-)Emperor

[^17]Joseph II to the Bohemian disaster areas, where he presented himself as the protector and advocate of his people. ${ }^{74}$

Due to the precarious situation at home, the Viennese Court exerted little active influence on developments in Poland. Like the French, Dutch, Swedish, and British administrations, it was engaged in the political and fiscal fallout of the European famine leaving ample room for its competitors to act. ${ }^{75}$ However, the fact that the Austrian soldiers occupying southern Poland now also had to feed themselves off the land had a significant impact. By the middle of 1772 , the already starving Commonwealth had to provide for approximately 130,000 foreign soldiers alongside their entourage. ${ }^{76}$

The burden of Prussian and Russian requisitions, combined with the feeding of foreign soldiers and Confederate levies, would likely have overwhelmed the agricultural potential of Poland-Lithuania even in average years. During the Europe-wide climatic anomaly of the I77os, it spelled disaster. In addition, considerable quantities of Polish grain continued to find their way abroad, both legally and illegally, despite the political embargoes. ${ }^{77}$ Due to the pressures of the ongoing conflict, there are few reliable observations from the region. In the absence of further studies, the agency and the suffering of the Polish population remain veiled by the political power play. However, after the third harvest failure in 1772, many non-partisan European newspapers, circulated horrific numbers of casualties based on eye-witness reports. An English journal reported: "The mortality in Poland is dreadful, where it is computed that 84,000 persons have died ..., a famine, the consequence of their civil dissensions, is the cause." ${ }^{78}$ Other sources mentioned 150,000 to 300,000 additional dead or missing people. They also described signs of social breakdown, such as the introduction of summary courts against alleged "sorcerers" or the abandonment of the sick and dying by their

[^18]families. ${ }^{79}$ Modern research has yet to confirm or disprove those numbers, but in Bohemia, reliable censuses before and after the event confirm a population loss of 250,000 people ${ }^{80}$ Moreover, the effects of the Prussian grain embargoes and requisitions extended far beyond Poland-Lithuania itself. Contemporaries correctly suspected that Prussia's blockade of Polish exports significantly exacerbated hardships in the rest of Europe. ${ }^{81}$

Even at the end of the 18th century, violent expropriations at the height of a famine required justification. For the Prussian king their rationale resulted from his view of grain as a weapon. In the spring of 1771, when the struggle for the best starting positions in respect to an impending partition of the Commonwealth made a conventional war between Prussia and Russia and Austria seem likely, Frederick II wrote to his ambassador in Vienna, Jakob Friedrich von Rhod:

We also have so much snow here and the same fears for the winter grain. All these circumstances may further the shortage of grain which is felt everywhere, and give me reason to think that the court where you are will have far more difficulty in sustaining its magazines than they have hitherto supposed. These obstacles will only increase if they attempt to move troops from Flanders and Italy to Bohemia [through starving Europe], for should their march take place, they would have infinite difficulty in securing their subsistence. ${ }^{82}$

Frederick had learned about the central importance of grain for the new, more mobile warfare from his earlier campaigns. ${ }^{83}$ In response, he implored his diplomats to inform him about the filling levels of his competitors' magazines and to find out whether they were truly destined for welfare and not for war. ${ }^{84}$ However, due to his Polish supplies, he remained unfazed by Austrian threats of war. At the end of September

[^19]177, Frederick confidently announced: "Should the harvest in Bohemia not have turned out better than in Saxony, it can hardly be assumed that the Austrians would even dream of erecting magazines in this province this year, or that they would be in a position to start a war, however much they might want it." ${ }^{\text {" }}$

British secret reports shared these suspicions. ${ }^{86}$ When the transfer of Austrian troops from Flanders finally took place, it caused massive unrest in the affected transit zones. ${ }^{87}$ Additionally, the lack of "sufficient forage" in starving Poland-Lithuania was considered the main obstacle to the mobilisation of Russian soldiers. ${ }^{88}$ In confidential letters from Spring ${ }_{1772}$ Frederick II assessed the respective grain supplies of the competitors as the decisive variable in the upcoming conflict. ${ }^{89}$ International observers held similar views. The Annual Register in London judged Frederick II's "use of hunger" as strategically motivated and saw the European famine as the crucial variable in the struggle for the Partition of the Polish-Lithuanian Commonwealth:

The King of Prussia has filled his magazines with a sufficient quantity of forage and corn, for carrying on the war for two years. The Emperor, on the other hand, who has undoubtedly the finest army in Europe finds his magazines quite empty, and even his subjects in danger of perishing by famine at the critical moment he intended to enter upon action. This manoeuvre will probably secure to the King of Prussia his proportion of Poland without bloodshed. ${ }^{90}$

[^20]Frederick himself shared this assessment and remarked with some cynicism: "The famine, which is now making itself felt everywhere, is an almost insurmountable obstacle to the establishment of grain stocks [for the armies], and is perhaps the best negotiator and promoter of peace [i.e., land gains]."91

During the winter months of $1771 / 1772$ Russia and Prussia reached a surprisingly quick agreement on partitioning Poland-Lithuania by transforming their sanitary cordons into permanent territorial acquisitions. Previous meetings had explored such a development, but it was Prussia's privileged access to Polish grain during a severe climatic anomaly that now bolstered its negotiating position. The Austrians, faced with famine and revolt, grudgingly acceded to the agreement. Frederick's far superior provisioning situation lent credibility to his confident and carefully orchestrated threats of war. In February 1772, Maria Theresia abandoned her former non-intervention policy and consented to a partition, afraid of losing out completely should direct military conflict ensue amid a famine in large parts of Bohemia. ${ }^{92}$

The quickness with which the Prussians reacted to the Partition agreement, also illustrates how intricately their famine policy was connected to territorial gains. At the beginning of 1772 , pre-empting the formal partition pact, Frederick had had the Noteć-Vistula (NetzeWeichsel) waterway surveyed. At the time the works still proceeded under the guise of helping against flood damage. When the annexation was agreed work on the final canal link between Brandenburg and the Vistula could start immediately. Just months later, it made his long-planned riverine connection a reality. ${ }^{93}$ The canal link was accompanied at once by customs stations on the Vistula, aiming to permanently prevent further exports downstream to Gdańsk. The establishment of a chancellery office in Kwidzyn (Marienwerder), coupled with the construction of an immense granary building, was therefore one of the first tasks in the annexed area now rebranded "West Prussia". Subsequently, Prussia controlled large parts of the Polish grain trade and was able to dictate prices. Since then, the supplies for Prussia's colossal main-magazines originated almost entirely in Poland. ${ }^{94}$ Even half a century later, when

[^21]another climatic anomaly hit Europe in the aftermath of the 1816 eruption of Mt Tambora, Prussia was still far better supplied with grain than any of its neighbours. ${ }^{95}$

In Poland-Lithuania, on the other hand, the twin catastrophes of famine and partition imprinted itself on collective memory. In a poem written around i8oo the popular Polish author Franciszek Karpiński looked back on the momentous conjunction of weather and war. In his poem he lamented:

Beautiful soil, stained by blood
Fattens the horse and its barbaric rider
While a mother teaches her hungry children
The language of the despot
It is, as harsh sentence has dictated:
Foreigners were entrusted, Poland was obliterated! ${ }^{96}$
For the polity and population of Poland-Lithuania, the intersection of famine and war, of climate and conflict, ended in disaster. The Prussian administration, on the other hand, succeeded in using Polish grain not just for military but also for social control. Frederick II demonstratively staged direct contact between sovereign and subjects in Prussia with the help of the grain requisitioned in Poland. He personally dealt with his subject's requests for grain, which in turn were addressed directly to him. The flow of (Polish) grain from the king to the subject was matched by a flood of supplications in the opposite direction. The magazines provided both sides with a direct channel of communication, bypassing the usual chains of command and communication. This new link helped to stabilise governance in times of crisis. ${ }^{97}$ Emperor Joseph II also invited the population to such "empowering interactions" of sovereign and subjects at the expense of the local administration while journeying through the Bohemian disaster areas. However, in the absence of Polish grain, he achieved considerably less success. ${ }^{98}$

To strengthen the inclusionary power of his exploits in the Commonwealth, Frederick II made use of popular "asymmetrical counter-concepts" (Koselleck) to provide orientation in the crisis and to

[^22]limit contingency. The king chose to reduce the multi-ethnic population of the Polish-Lithuanian Commonwealth to the simple figure of the "Pole". He used these demonstrative demarcations to the outside world - against the proverbial "Polish economy", the foreign 'Corn Jews' or the careless "Saxons" - to cover up the deep social inequalities within. ${ }^{99}$ Through the grain embargoes and the cordon sanitaire, these mental demarcations could also be materialised physically. Their dual, political character is reflected in the recurring complaints from the Commonwealth population about deliberately rude searches and degrading treatment. ${ }^{100}$

This "moral economy from above" encouraged his subjects to perceive their own hardship as less severe by comparing themselves to the excluded Polish foreigners. The Prussian magazines concealed many glaring contradictions. ${ }^{101}$ They obscured the fact that the Prussian government, too, had been hardly more prepared or effective in securing provisions than its supposedly negligent neighbours. In reality, it had to rely on the very people it officially ridiculed, the supposedly ineffective Polish peasants. The programmatic exclusions masked the fact that the magazines would have stood almost empty without compulsory levies in Poland. ${ }^{102}$ The enthusiastic reactions to Frederick's policies in his territories, as well as the long myth of Frederick as the "bread father" and the Prussian "security state", testify to the success of such an "inclusion through exclusion". ${ }^{103}$ They also live on in the fact that the perspective

[^23]and agency of the marginalised population of the Commonwealth during the climatic anomaly largely remains an object of future study.

## CLIMATE AND CONFLICT

In 1771 Poland-Lithuania experienced a twin disaster of climatic shocks and societal conflict. The slow violence of fragile ecological arrangements and the quick violence of military intervention reinforced each other. However, the interplay of conflict and climate, of war and grain, cannot simply be reduced to rigid chains of cause-and-effect. The ecological risks inherent in grain monoculture, the Prussian territorial ambitions and the Confederate uprising all had long pre-histories. These pathways were deeply embedded in regional riparian infrastructures, agricultural practice, resource allocations, and political ideologies. In these historical assemblages, climatic shocks should be seen as a facilitator with the potential to accelerate and facilitate societal developments.

The outcomes, however, were specific rather than categorical. In other regional constellations the i77os climate anomaly gave rise to new forms of cooperation rather than conflict. In Saxony it triggered a continental wave of cross-confessional support that can be read as the beginning of modern humanitarianism. In the territories of the German Empire, it paved the way for a customs union and increased collaboration. Elsewhere in Europe, the climate anomaly spurred education reforms, agronomic innovations, and even the development of modern meteorology. ${ }^{104}$

These disparities can remind us that only through an integrated perspective on a local level can the actions of contemporary actors be understood as what they are: choices. In the case of Poland-Lithuania such an approach emphasises that the intervention of the Partition powers was a conscious appropriation of climatic turbulences, selected from a range of available options.

In contrast, a purely quantitative analysis of the Polish-Lithuanian case from the birds-eye view often employed by climate-conflict studies would probably confirm the notion of an almost inevitable connection.

[^24]The Polish case would fit comfortably into the field's highly aggregated "catalogues" of climate shocks and interpersonal violence that disregard peaceful and cooperative outcomes elsewhere due to confirmation and selection biases. ${ }^{105}$ While this perspective would confirm the Partition as an example of strong correlation between meteorological and societal stressors, it would strip the events of their complicated prehistory, intentionality, and contingency.

Pursuing an integrated, locally grounded climate history instead, can help safeguard against those reductions that obscure choices, responsibilities, and options. In 1770 os Poland-Lithuania, the climatic shock was certainly not the cause of the conflicts the region experienced. Rather, it acted as a catalyst. It can help explain the timing, regional scope, and outcome of the crisis and remind us of the socio-ecological settings that prefigured the escalation of violence.

# KLIIMA ÄRAKASUTAMINE. I770. AASTATE KLIIMAMUUTUS JA POOLA-LEEDU ESIMENE JAGAMINE 

## Dominik Collet

Eeldatavat seost kliima ja konfliktide vahel on viimastel aastatel palju uuritud. Tänapäeval eesseisvateks katsumusteks valmistudes on taas vaatluse alla võetud minevikusündmused, et kindlaks teha, ümber lükata vôi kinnitada vôimalikke kliimamuutuse ja vägivaldsete konfliktide vahelisi seoseid. Poola-Leedu ühisriigi esimene jagamine (1772) on selliste seoste uurimiseks väga sobiv juhtum. See riik oli sajandeid Euroopa viljaait, mängides heitlikes kliimatingimustes eluliselt tähtsat rolli oma naabrite toitmisel. Kuid Poola-Leedu ökoloogiline küllus tekitas ka vaenulikke kavatsusi. I77o. aastate alguses tabas riiki kahekordne katastroof: sügav poliitiline kriis koos tugeva kliimaanomaaliaga. Siinne artikkel käsitleb kliima ja konfliktide vahelist suhet ajavahemikul, mida tavaliselt on analüüsitud ainult poliitilise ajaloo vaatepunktist. Artikkel seob olulised riiklikud sündmused, nagu kodusôda, okupatsioon ja riigi jagamine, nende sotsiaal-ökoloogilise kontekstiga, sealhulgas saagikoristuse

[^25]ebaõnnestumine, nälg, epideemiad ja üha intensiivistuv põllumajandus. Artikli vaatenurk vaidlustab kliima ja konfliktidega seotud deterministlikud lihtsustused ning rõhutab inimeste mitmekesist reageerimist kliimamõjudele, alates meeleheitest kuni omastamiseni.

Poola-Leedu valitsetud territoorium oli hôivanud varauusaegses Euroopas erilise sotsiaal-ökoloogilise niši. Kuna see oli suur teraviljakasvatuspiirkond, oli see koduks Euroopa „kõigi kaubanduste emale" (van Tielhof) - Läänemere teraviljakaubandusele. Selle üliolulise energiaressursi tagatiseks oli „biopoliitilise teraviljavabariigi" (Sowa) pôllumajandussüsteem. Kuna see põhines suuresti pärisorjusel, jaotati riske äärmiselt asümmeetriliselt „üha kasvava survestamise" (Nixon) vormis. Seesugune kasumlik pôllumajanduse korraldus oli juba aastakümneid tekitanud naabrites, eriti Preisi- ja Venemaal, vaenulikke plaane. I77o. aastatel, kui kogu Euroopas olid äärmiselt külmad talved ja vihmased suved, viidi need plaanid ellu. Kuna kliimaanomaalia, väikese jääaja tüüpi sündmus, pôhjustas saagikaotust, hinnatốusu ja lõpuks ka nälga suures osas Euroopas, paigutasid hilisemad ühisriigi jagajad katku vastu sanitaarkordoni loomise ettekäändel oma väed Poolasse. Nad kasutasid ära riigi sisemist konflikti, mis oli alguse saanud Stanisław II Augusti tormilisest valimisest kuningaks i764. aastal. Nüüd kasutasid Austria, Venemaa ja Preisimaa Poola territooriumi oma armee toitmiseks ning nôudsid teravilja ka oma kodupiirkondadesse saatmiseks. Ajaloolised allikad, eriti Preisimaa kuninga Friedrich II korraldused näitavad, et toitluse, meditsiini ja poliitikaga seotud eesmärgid käisid käsikäes. Valitsejad olid teadlikud kliima (ära)kasutamisest ja sellest, et Poola teravili ei olnud pelgalt toitluse, vaid ka sójaline ressurss. Selle kättesaadavus määras territoriaalsete saavutuste ajastuse ja ulatuse, mis Poola esimese jagamisega 1772. aastal muutus püsivaks.

Niisiis saab 1770. aastatel Poola-Leedu ühisriiki tabanud klimaatilist ja poliitilist topeltkatastroofi siduda pikaajaliste ökoloogiliste tingimuste ja territoriaalsete ambitsioonidega. Sellises vaates ei olnud kliima mitte konflikti põhjus, vaid katalüsaator, mis soodustas môningaid arenguid, pärssides samal ajal teisi. Võrdlus ülejäänud Euroopaga, kus samasugune kliimamuutus käivitas ka koostööl põhinevaid lahendusi, paljastab Poola-Leedu jagamise kui kavatsusliku valiku. Selline integreeritud vaatenurk vôib seega aidata kaitsta kliima ja konfliktide deterministliku taandamise eest lihtsaks pôhjuslikuks paratamatuseks. Selle asemel paljastab see kliima ja ajaloo póimumise ühe konkreetse tee, valikud ja vastutuse.


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    I3 J. Sowa. Fantomowe ciało króla.

[^5]:    I8 On the concept of the grain society and its socio-ecological vulnerabilities and affordances, see D. Collet. Die doppelte Katastrophe. Klima und Kultur in der europäischen Hungerkrise 1770-1772. Vandenhoeck \& Ruprecht, Göttingen, 2019, 41-54.
    19 On "Litte Ice Age Type Events", see R. Brázdil, C. Pfister. Social Vulnerability to Climate in the "Little Ice Age". An Example From Central Europe in the Early I77os. - Climate of the Past, 2006, 2, 115-I29.

[^6]:    20 Ibid. For a comprehensive study of the event, see D. Collet. Die doppelte Katastrophe.
    21 Ibid., 54-78.

[^7]:    22 J. Łojek. Prasa w życiu społeczeństwa polskiego w epoce rozbiorów. - Kwartalnik Historii Prasy Polskiej, 1982, 21, 133-144, here 138.
    23 See, for example, the travel report by John Marshall in: G. W. Strobel. Die wirtschaftlichen und sozialen Verhältnisse in Polen am Ausgang des 18. Jahrhunderts. - Die Erste Polnische Teilung 1772. Hg. von F. B. Kaiser, B. Stasiewski. Böhlau, Cologne, Vienna 1972, 49-74, here 67.
    24 R. Przybylak, P. Oliński,W. Chorążyczewski, W. Nowosad, K. Syta. Documentary Evidence. - The Polish Climate in the European Context, 167-190; J. Filipiak, R. Przybylak, P. Oliński. The Longest One-man Weather Chronicle (1721-1786) by Gottfried Reyger for Gdańsk, Poland as a Source for Improved Understanding of Past Climate Variability. - International Journal of Climatology, 2019, 39, 828-842. Reyger in Gdańsk described these years as extraordinary in his detailed observations. For 1770 he noted an extremely long winter with snow turning into incessant rain only in May 1770, resulting in "grass only appearing at the end of the month [April] due to the bad weather". This was followed by an extremely "wet year" with endless rains in late summer and the harvest period and another "very strong and long winter" with frosts deep into May 1771 and a spring "even colder and later than 1740", a notable extreme event throughout Europe. According to his observations the cold anomaly continued into 1772 with yet another "long and strong" winter, conditions that could be observed throughout central Europe. G. Reyger. Beschaffenheit der Witterung in Danzig. Zweyther Theil vom Jahr 1770 bis 1786, nebst

[^8]:    26 See the price data derived from the earlier surveys of Julian Pelc and Tadeusz Furtak (1937/38) in: B. van den Hout. Historical Prices and Wages Dataset, 2023, https://hdl.handle.net/ro622/VY7 $\mathrm{UY}_{3}$, IISH Data Collection, $\mathrm{V}_{2}$, UNF:6:qqYoGqaCWwQNiryDLIbJ4w== [fileUNF] (accessed ${ }_{13} / 06 / 2023$ ). The visualization in Fig. 2 relies on additional price data collected initially by Wilhelm Abel.
    27 G. Reyger, Beschaffenheit der Witterung in Danzig. Zweyther Theil vom Jahr 1770 bis 1786, nebst Zusätzen zur Danziger Flora. Danzig, 1788.

[^9]:    28 For a history of the main political events, see J. Lukowski. The Partitions of Poland, 52-81, here 44-48.
    29 Ipswich Journal, 7-4.1770.
    30 P. Miodunka. Krakowskie ceny zbóż a ruch urodzeń w parafiach na południe od Krakowa od XVII do XVIII wieku. - Przeszłość Demograficzna Polski, 2016, 38, 7-35, here 17. P. Miodunka. Kryzysy żywnościowe a anomalie klimatyczne od XVII do połowy XIX wieku na przykładzie Małopolski. - Historyka. Studia Metodologiczne, 2016, 46, 209-227; C. Weikinn. Quellentexte zur Witterungsgeschichte Europas von der Zeitwende bis zum Jahre 1850. Hydrographie: Teil 4 (170I-1750). Borntraeger, Berlin, 1963, 149-151; W. Abel. Massenarmut und Hungerkrisen im vorindustriellen Europa. Versuch einer Synopsis. Parey, Hamburg, 1974, 203.

[^10]:    31 Pirnaisches Gemeinnütziges Wochenblatt, 16, 21/4/1770, 252. Travel report by John Marshall in: G. W. Strobel. Die wirtschaftlichen und sozialen Verhältnisse, 67.
    32 Bath Chronicle, I/8/ı77.
    33 On the socially mediated nexus between climate and disease in the 1770 and the identification of the plague, see D. Collet. Die doppelte Katastrophe, 279-295.
    34 In I77I uncensored British newspapers reported I60,000 deaths from plague and famine in Poland. In the Podolian town of Kajanez alone, 1,200 inhabitants had supposedly perished. Bath Chronicle, I/8/1771; Scots Magazine, I/1/1771. Similar mortality figures are given by F. S. Bock. Versuch einer wirthschaftlichen Naturgeschichte von dem Königreich Ost- und Westpreussen. Bd. I. Buchhandlung der Gelehrten, Dessau, 1782, 817. Due to the fragmented record modern research on the demographic impacts is limited. Comparative studies and occasional information on baptisms seem to confirm the notion of a substantial crisis. Cf. P. Miodunka. Famines in the Manorial Economy of the Eighteenth-Century. - Rural History, 2022, I-20, doi: Io.IoI7/So956793322000206, and Id., Krakowskie ceny zbóż a ruch urodzeń w parafiach na południe od Krakowa od XVII do XVIII wieku. Przeszłość Demograficzna Polski, 20I6, 38, 4, doi: Io.18276/pdp.20I6.4.38-oI.
    35 Politische Correspondenz Friedrichs des Großen. Hg. von G. B. Volz et al., 48 Bd. Duncker \& Humblot, Berlin, 1879-2015, Bd. 31, 268, 307.

[^11]:    36 D. Collet. Storage and Starvation.
    37 The beneficiaries included above all the soldiers, the colonists in the Oder reclamation areas and the population of Berlin. Geheimes Staatsarchiv Berlin (in the following: GStA), PK, I. HA, Rep. 96b, No. 139, fol. 305r, 315 r .
    38 Frederick II to Legationsrat Borcke in Dresden, I5/9/1770, in: Politische Correspondenz Friedrichs des Großen, Bd. 30, 142. The king regularly repeated these accusations, which supported his view of Saxon decadence and Prussian prudence. Ibid., vol. 31, 179, 529, 706, 770.

[^12]:    39 The embargoes initially applied to the grain producing areas of Magdeburg, Halberstadt and East Prussia. Shortly afterwards all other Prussian territories were added. Cf. F. Magen. Reichsexekutive und regionale Selbstverwaltung im späten I8. Jahrhundert. Zur Funktion und Bedeutung der süd- und westdeutschen Reichskreise bei der Handelsregulierung im Reich aus Anlass der Hungerkrise von 1770/72 (Historische Forschungen 48). Duncker \& Humblot, Berlin, 1992, 2If.
    40 Cf. for example on the armed border conflicts with Saxony: GStA PK I., HA Rep. 4I, No. 1316-1318.
    41 G. E. Rothenberg. The Austrian Sanitary Cordon and the Control of the Bubonic Plague: 1710-1871. - Journal of the History of Medicine and Allied Sciences, 1973, 28, 1, 15-23; R. Reith. Umweltgeschichte der Frühen Neuzeit. Oldenbourg, München, 2oil, 21.

    42 J. Lukowski. The Partitions of Poland, 7o; M. G. Müller. Die Teilungen Polens, 36 .
    43 A. Skalweit. Die Getreidehandelspolitik und Kriegsmagazinverwaltung Preußens 1756-1806 (Acta Borussica, Getreidehandelspolitik 4). Parey, Berlin, 1931, 275f.

[^13]:    49 A. Skalweit. Die Getreidehandelspolitik, 276.
    so "The King of Prussia has notified in form to the States-General, that the reports propagated concerning his designs upon Dantzick and a part of Poland are void of all foundation; that the great force which he has spread along the confines of Poland was merely to prevent a communication of the plague." Scots Magazine, I/3/1771.
    51 "The Prussians, who first under the pretence of forming a line to prevent the spreading of infection ... had sent several considerable bodies of troops into Regal or Polish Prussia, was oppressive and arbitrary in the highest degree; excessive contributions [of grain] were raised." Annual Register, 1771, ch. 8, 86.
    52 A. Skalweit. Die Getreidehandelspolitik, iı2f. Politische Correspondenz Friedrichs des Großen, Bd. 3I, 50.
    53 Politische Correspondenz Friedrichs des Großen, Bd. 31, 46I and 396 (all translations from Frederick's correspondence in French are by the author unless otherwise indicated).
    54 GStA PK II. HA, Gen. Dir. Ostpreußen II, No. 3522: Instructions to Kammerpräsident Domhardt as well as letter to the Legationsrat Benoit in Warsaw dated $17 / 3 / 1771$, in: Politische Correspondenz Friedrichs des Großen, Bd. 3I, 28f. By autumn at the latest, Friedrich acknowledged that the hunger in Poland was not solely due to the actions of the Confederates, but also the result of weather-related crop failures. Ibid., 382 .

[^14]:    55 GStA PK I. HA, Rep. 96B, No. 72 (1771), here p. I46: Cabinet order to Johann Friedrich Domhardt of $14 / 4 / \mathrm{I} 771$ and to Karl Heinrich Graf von Hoym of 29/7/1771. A. Skalweit. Die Getreidehandelspolitik, 282.
    56 GStA PK I. HA, Rep. 96B, No. 72 (1771), p. 342.
    57 Berlinische Nacbrichten, 24/3/1772.
    58 A. Skalweit. Die Getreidehandelspolitik, 302.
    59 GStA PK I. HA, Rep. 96B, No. 72 (1771), p. 333.
    60 GStA PK I. HA, Rep. 96B, No. 72 (1771), p. 6I. A. Skalweit. Die Getreidehandelspolitik, 75.

[^15]:    61 A. Skalweit. Die Getreidehandelspolitik, 77.
    62 Scots Magazine, $1 / \mathrm{I} / \mathrm{I} 77 \mathrm{I}$, 42. A. Skalweit. Die Getreidehandelspolitik, 77. GStA PK I. HA, Rep. 96B, No. 72 (1771), p. 324.
    63 A. Skalweit. Die Getreidehandelspolitik, 78 f. On the Russian and Polish protests, see Politische Correspondenz Friedrichs des Großen, Bd. 31, 733.
    64 A. Skalweit. Die Getreidehandelspolitik, 299; Politische Correspondenz Friedrichs des Großen, Bd. 31, 268.

[^16]:    65 A. Skalweit. Die Getreidehandelspolitik, 79f.; M. Bär. Westpreussen unter Friedrich dem Grossen. 2 Bd. Hirzel, Leipzig, 1909, Bd. 2, 17 ff .
    66 See Politische Correspondenz Friedrichs des Großen, BD. 32, 233: "[As I see from your report] that many Poles, and especially Prince Sulkowski, show much ill will in this, there is no other means than to impose execution on the recalcitrant without exception." The term "execution" here probably refers to implementation, but shootings were also used on occasion; see ibid., 287.
    67 Quoted in A. Skalweit. Die Getreidehandelspolitik, 82.
    68 J. T. Alexander. Bubonic Plague, 249. Reports from Petersburg and Warsaw in: Leeds Intelligencer, 30/6/1771 and 5/ii/1771; Scots Magazine, 1/1/1771, 42.
    69 J. J. Lerche. Lebens- und Reise-Geschichte von ihm selbst beschrieben. Curts Witwe, Halle, 1791, 424; Scots Magazine, 1/5/1771.

[^17]:    70 On the one hundred carriages that set out daily from Vienna under military protection on pontoon bridges over the flooded Danube, see E. Weinzierl-Fischer. Die Bekämpfung der Hungersnot in Böhmen 1770-1772 durch Maria Theresia und Joseph II. - Mitteilungen des österreichischen Staatsarchivs, 1954, 7, 478-514, here 495f. Supply from Poland was impracticable in view of geographical barriers.
    ${ }_{71}$ On the situation in Bohemia, see E. Weinzierl-Fischer. Die Bekämpfung der Hungersnot; R. Brázdil, H. Valásek, J. Luterbacher, J. Macková. Die Hungerjahre 1770-1772 in den böhmischen Ländern. Verlauf, meteorologische Ursachen und Auswirkungen. - Ósterreichische Zeitschrift für Geschichtswissenschaften, 2001, 12, 44-78. On the Austrian Erblande, see J. Kumpfmüller, Die Hungersnot von 1770 in Österreich.
    72 E. Weinzierl-Fischer. Die Bekämpfung der Hungersnot, 486, 492f., 5ı.
    73 Ibid., 491, 493, and J. Kumpfmüller, Die Hungersnot von 1770 in Ósterreich, 59, 69-71, 120-I23. After violent riots the population in Prague was supplied from the military granaries on the direct orders of Joseph II. Shortly afterwards, another million guilders had to be withdrawn from the treasury for those war magazines to feed the starving population of the city. See F. X. Huber. Neue Kronik von Böhmen vom Jahre 530 bis 1780 [...]. Schönfeld, Prague, 1780, 406; J. Kumpfmüller, Die Hungersnot von 1770 in Österreich, 58.

[^18]:    74 The emperor even had a patent drafted declaring the complete abolition of serfdom to get control of the situation. See D. Collet. Die doppelte Katastrophe, 197-199.
    75 Britain had to finance the acquisition of the bankrupt East India company and save a range of banks collapsing under caving consumer demand. In Sweden, the famine provided the backdrop to Gustav II absolutist coup. In France riots proliferated preventing the King from leaving Versailles in summer and even in the Dutch Republic the administration lived in feared of uprisings. See D. Collet. Die doppelte Katastrophe, iro-ir6.
    76 Derby Mercury, 10/7/1772.
    77 On Polish exports to Swabia and Würzburg, cf. Anonymus. Lesenswürdige Beschreibung von der Theurung. Die sich von anno 1770. bis 1772. fast ganz in Europa zugetragen dergleichen bey Mannsdenken nicht erlebt worden, welches man zu einem eigen Andenken dem geneigten Leser beysetzen wollen, mit dem Wunsche, daß unsere Nachkommen dergleichen Jammer und Elend nimmer mehr erleben, viel weniger erfahren dürften. Johann Georg Bullmann, Augsburg, 1773, o. P.
    78 Bath Chronicle, 18/6/1772.

[^19]:    79 J. T. Alexander. Bubonic Plague, Io5-107.
    8o P. Miodunka. Famines in the Manorial Economy; R. Brázdil, H. Valásek, J. Luterbacher, J. Macková. Die Hungerjahre 1770-1772, 63.

    8i Annual Register, 1771, ch. 8, 84: "... the king of Prussia in the beginning of the year, purchased prodigious quantities of corn to supply his magazines and had afterwards, upon the same account, prevented or impeded the conveyance of corn by the Vistula from Poland to Dantzick. Both these circumstances contributed much to the general distress of Germany." Even Adam Smith suspected similar knock-on effects for the whole of Europe: A. Smith. An Inquiry into the Nature and Causes of the Wealth of Nations. 2 vols. Strahan, London, i776, vol. I, 249.
    82 Politische Correspondenz Friedrichs des Großen, Bd. 31, 63. See also ibid., 98, and J. Lukowski. The Partitions of Poland, 74-77.

    83 L. Atorf, Der König und das Korn. Die Getreidehandelspolitik als Fundament des brandenburgisch-preußischen Aufstiegs zur europäischen Großmacht. Duncker und Humblot, Berlin, 1999, 182, 214.
    84 Frederick II converted reports of Austrian purchases of Hungarian grain into troop contingents in his head immediately and ordered his ambassador in Vienna: "I can only attribute this enormous accumulation of grain to secret military intentions, which you must undertake to reveal completely." Politische Correspondenz Friedrichs des Großen, Bd. 31, 584.

[^20]:    85 Politische Correspondenz Friedrichs des Großen, Bd. 31, 396. Numerous similar statements in: Ibid., vol. $32,242,298,400,416$ as well as Müller, Teilungen, 38 .
    86 "The [Austrian] troops will probably march some weeks later, as there is a difficulty in forming the necessary Magazines in Hungary, since the large Exportation of corn from thence for the relief of Bohemia and Moravia." (Ciphered) report of the British Ambassador in Vienna, David Murray, Viscount Stormont, 19/4/i771 in: National Archives London (NA in the following), State Papers 80/209, no. 19.
    87 On the transports that could not be kept secret due to the supply problems, cf. NA, SP 81/ro9, reports $17 / 3 / 1771$ and $31 / 3 / 1771$ as well as NA, SP $80 / 209$ report on $10 / 4 / 177$ I. In May and June 177 I alone, 2,200 soldiers passed through the starving city of Regensburg. K. Beck, Regensburg. Sammelstelle der Auswanderer nach Südosteuropa und Rußland im i8. und frühen 19. Jahrhundert, 2 vols. Roderer, Regensburg 1996/2000, vol. I, 137f.
    88 Pirnaisches Gemeinnütziges Wochenblatt 16, 21/4/1770, 250. The Saxon troops did not seem ready for action due to their poor supplies. NA, $\mathrm{SP}_{\text {103 }} / 88$, report on $7 / 7 /$ 1771.
    89 "Should a general war be inevitable, it seems to me that the greatest obstacle would be the construction of magazines for the maintenance of the troops until the next harvest. The famine is already felt in various countries, and according to the news from Saxony, it has risen to the point that the people in the neighbourhood of Pirna are digging up dead dogs for food." Politische Correspondenz Friedrichs des Großen, Bd. 31, 640.
    90 The Newcastle Courant, 14/12/1772. The Annual Register, 1771, ch. 8, 85. saw a similar connection between the supplies and Prussia's bargaining power: "Things carried much the appearance of war both at Vienna and Berlin at the beginning of the year.... Everything bespoke some great event at hand. It is not improbable that the great scarcity of corn, and the public calamities which afterwards took place, contributed to the preservation of the general tranquillity. It was said that the king of Prussia was beforehand with the Emperor in filling his magazines, a measure which the later afterwards found impracticable."

[^21]:    91 Letter to the Minister of State von Rohd in Vienna, 23/9/1771, in: Politische Correspondenz Friedrichs des Großen, Bd. 31, 472. According to eyewitnesses, the French military was similarly inoperational during the crisis: H . Pleschinski Nie war es herrlicher zu leben. Das geheime Tagebuch des Herzogs von Croÿ. C. H. Beck, Munich, 201ı, 25 I.
    92 The political struggle around the agreement is described (without reference to grain or famine) in: J. Lukowski. The Partitions of Poland, 71-8I.
    93 M. Bär. Westpreussen unter Friedrich dem Grossen, Bd. I, 33 and Bd. 2, 60-63. The last sections of the connecting Bromberg canal were completed in 1774.
    94 Ibid., Bd. I, 86; L. Atorf. Der König und das Korn, 226; W. Naudé. Deutsche städtische

[^22]:    Getreidehandelspolitik mit besonderer Berücksichtigung der Stettiner und Hamburger Getreidehandelspolitik. Duncker \& Humblot, Leipzig, 1889, 387 f .
    95 A. Stollenwerk. Der Regierungsbezirk Koblenz während der großen Hungersnot 1816/17. Jahrbuch für Geschichte und Kunst des Mittelrheins und seiner Nachbargebiete, 1970/71, 22-23, 109-149, here in9f.
    96 F. Karpiński. Poezje wybrane. Wybór: T. Chavhulski. Zakład Narodowy im. Ossolińskich, Wrocław, 1997, 193. Translation by Ada Arendt.
    97 D. Collet. Die doppelte Katastrophe, 253-263.
    98 E. Weinzierl-Fischer. Die Bekämpfung der Hungersnot, sII.

[^23]:    99 On Frederick II's use of Jewish grain merchants as scapegoats, see D. Collet. Die doppelte Katastrophe, 259-264. On his anti-Judaism and his creation of anti-Polish images, see M. Gailus. Die Erfindung des "Korn-Juden". Zur Erfindung eines antijüdischen Feindbildes des 18. und frühen 19. Jahrhunderts. - Historische Zeitschrift, 2001, 272, 597-622, here 608; H.-J. Bömelburg. Friedrich II. zwischen Deutschland und Polen. Ereignis- und Erinnerungsgeschichte. Kröner, Stuttgart, 2011, 78-89. Polish Jews became favourite targets of abuse in Europe. As Jews, they were considered usurers and profiteers, and as Poles, they were suspected of transmitting the plague. See F. S. Bock. Versuch einer wirthschaftlichen Naturgeschichte, Bd. I, 8ı7. Churbaierisches Intelligenzblatt, 31/10/1770, 281, 285. On the concept of "asymmetrische Gegenbegriffe", see R. Koselleck. Vergangene Zukunft. Zur Semantik geschichtlicher Zeiten. Suhrkamp, Frankfurt a. M., 1989.
    ıoo See J. Lind. Letters concerning the present state of Poland. Payne, London I773, 3.
    ioi On the very real crisis in Prussia, see U. Kluge. Hunger, Armut und soziale Devianz im 18. Jahrhundert. Hungerkrisen, Randgruppen und absolutistischer Staat in Preußen. - Freiburger Universitätsblätter, 1987, 26, 61-91. Irrespectively, luminaries such as Friedrich Nicolai proclaimed that the famine of $1771 / 72$ had turned him from a critic into an admirer of Frederick II, since he "managed to get advice from his stores to the smallest towns; so that the misery among us, although very great, was nevertheless by far not so terrible". F. Nicolai. Anekdoten von König Friedrich II. von Preußen. Bd. i. Nicolai, Berlin, Stettin, 1788, XII.
    102 In the period 1764 -1784, almost two-thirds of all magazine grain originated not in Prussian territories, but in Poland. A. Skalweit. Die Getreidehandelspolitik, IOO-IO2.
    103 U. Frevert. Gefühlspolitik, ıoıf. On a "Song of the People, When the King let the Poor have Bread, and the Farmer Seed. 177ı", see H. Böning, R. Siegert. Volksaufklärung. Biobibliographisches Handbuch zur Popularisierung aufklärerischen Denkens im deutschen Sprachraum von den Anfängen bis i850. Bd. i. Frommann-Holzboog, Stuttgart, 1990, 442. On the similarly strategic use of anti-Polish resentment in Austria, see the

[^24]:    remarks by Ambrosius Zesch, who uses the exclusion of Poland as that "corner of Europe [where] infernal discord emerges from its steaming maw" to celebrate Maria Theresa as their "bread mother". A. Zesch. Kanzelrede [...] an dem Dankfest gesprochen [...] in der Stifft- Pfarr- und Mutterkirche für die von Ihrer Röm. Kaiserl. und Apost. König. Majest. Marien Theresien in der Zeit der Hungersnoth empfangenen Getraidhülf vor dem Altar Gottes am I4. August 1771 ist erstattet worden. Burggau, 1771, io, 19.
    Io4 D. Collet. Die doppelte Katastrophe, 264-345.

[^25]:    ros See, for example, the use of historical data and conflict series in: S.M. Hsiang, K. C. Meng, M. A. Cane. Civil Conflicts are Associated with the Global Climate. - Nature 476, 20II, 438-441.

