

Objects of Politics: The Appropriation of Earth Science Collections in Prussia during the Long Nineteenth Century

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Abstract

Research into the history of collections can shed light not only on the epistemic, but also the political and economic dimensions of the objects that museums collect. This article explores these dimensions through the study of acquisitions in the mineralogical collections of the Natural History Museum Berlin. During the nineteenth century, appropriation processes were increasingly shaped by economic arguments and political perspectives. After the German Empire became a colonial power in the 1880s, rocks and minerals from Africa, particularly Namibia and Tanzania, were seized. Ultimately, contemporary museums must take responsibility for their past collecting practices because their collections are built upon those practices.

Key words: economic geology; donations; history of collections; colonial science; mineralogy; earth sciences collection

Introduction

The *Collectible Minerals* exhibition at the Musée de Minéralogie in Paris, on view between September 2023 and March 2024, explained the colonial contexts of the museum's objects for the first time.¹ The curators presented interventions into the museum's permanent collection that explored the social origins and political context of their minerals. In doing so, they were guided by the insight that minerals, like other museum objects, are 'products of historical processes in which scientific knowledge, global trade and often violent forms of colonialism were intertwined' (Weber 2021: 84).

This article follows on from this recent change in perspective on minerals in European museums. As a case study, it examines the political and economic dimensions of the mineral donations received into the Berlin mineral collections during the long nineteenth century (from around the French Revolution to the First World War). It is based on extensive research into the geoscientific collections and the people involved with them, particularly as they relate to colonial contexts. My research uses the Natural History Museum Berlin (Museum für Naturkunde Berlin), with its mineralogical collection of over 200,000 specimens, to examine supposedly 'neutral' objects in the collection and provide what historians call 'historical depth' – a more comprehensive knowledge of the origin, context and motives for the acquisition of the objects. Such depth of focus is a prerequisite for a more sensitive and conscious approach to natural history objects in museums.

This article links the history of collecting with political and economic history. I describe the social and political dimensions of objects in the collections, making the objects 'talk' in the sense described by Bruno Latour, whose actor-network theory is based on the premise that objects can have agency (Latour 2005: 71, 78-82). In doing so, I draw on studies that show that objects circulate as part of knowledge networks and that collections can acquire new meanings through their transfer into the museum (Daston 2004; Thiemeyer 2015; Riello 2022). In this context, the concepts of 'biographies' and the 'itineraries' of objects have a long tradition (Kopytoff 1986; Alberti 2005; Gerritson and Riello 2016). These object studies fall within the field of provenance studies, the first of the two fields of research that I draw upon

and from which I borrow the concept of 'appropriation' that is central to my work.

The term 'appropriation' has the advantage over more neutral alternatives such as 'accession' and 'acquisition' in that its semantics also cover the dimension of power involved in transfers, which can be expressed in political domination as well as colonial injustice. The Merriam-Webster Dictionary defines 'appropriating' as an act of (1) taking exclusive possession of something, (2) setting apart or assigning to a particular purpose or use, and (3) taking or using without authority or right.² The use of this term is consistent with my premise that the transfer of objects is a social act that takes place within structures of power and politics. Finally, on the concept of appropriation, I draw on critical museum studies which understand museums as institutions of appropriation and call for this concept to be reflected throughout their practices (Pearce 1994: 1-2; Hahn and Weis 2013: 3-5; Basu 2021).

The second field of research I follow is the history of science, which examines the relationship between science and politics, not least by focusing on the 'actors' – in this case, the people involved in the development of Berlin's mineralogical collections. The actions of lenders, dealers, barterers, donors and others determine the objects' trajectories prior to their placement in museums (Kohler 2007; Schaffer 2009: ix-x; Wingfield 2011). The people who take objects from nature have imbued them with interpretations and values, as has been discussed in studies of mineralogical collections in the history of science and in studies of the mobility of geoscientific objects in earth sciences (Knell 2000; Fritscher 2012; Klemun 2012; Klemun 2024).

The exploration of raw materials in the colonial context has been analyzed by historians of science such as Jakob Vogel (Vogel 2013; Vogel 2019). The extent and pattern of the circulation of natural history objects and the relationship between natural history and colonial science is particularly well illustrated by the work of Londa Schiebinger, who focuses on botany (Schiebinger 2004; Schiebinger and Swan 2005). The extensive project on the history of the collections in the Royal Botanic Gardens, Kew, published in the *Mobile Museum* (Driver et al. 2021), further demonstrates that the development of natural history collections can also follow economic interests. The colonial framing of scientific collections in Prussia is illustrated by Katja Kaiser's research on the Botanic Garden and Botanical Museum in Berlin and the Berlin Natural History Collections (Kaiser 2022; Kaiser 2023). Some more recent research has already reflected the history inscribed on samples in mineralogical collections or objects from mining industries (Gelsthorpe 2021; Siemer 2022; Hearth and Robbins 2022; Price and Rumsey 2023: 65-7; Podgorny 2024).

The research mentioned above shows, from very different perspectives, that the political and economic attributions which were assigned to the minerals and rocks by donors and recipients (members of the colonial administration, government representatives and scientists) were crucial factors in the genesis of collections. These attributions can be traced back to the end of the seventeenth century in Berlin (Knittel 2023). However, as I argue below, they took on new importance in the age of industrialization, national economy building and colonial expansion. Minerals and rocks increasingly served as more than arguments for development and exploitation projects.

The following case study outlines the development of museums and geoscientific collections in Prussia and the German Empire in the long nineteenth century as an intersection of politics, economics, and science. At the same time, I use this historical study of the collections to show that different actors used the Mineralogical Museum for colonial purposes. The first section is devoted to the additions to the Berlin mineral collection in the early decades of the nineteenth century, most of which – as in the rest of the period under study – were donations. It is characteristic of this period that the transfer and labelling of specimens was strongly linked to scientific criteria and systematics.³ The second section covers the decades around the middle of the nineteenth century when the mineral collection became part of an administrative-scientific field, and references to the national economy became more frequent. The third and final section deals with objects from colonial contexts that were increasingly brought to Berlin starting in the second half of the nineteenth century.

Methodologically, the article is based on a comprehensive hermeneutic analysis of the administrative documents produced during the appropriation process, from the collectors to the state actors responsible for the collections. I have systematically investigated how

minerals were transferred before they reached the museum, and also identified and analyzed the interrelationships between politics, bureaucracy, and science in the area of collection development. For example, I supplemented the collection documentation from the Natural History Museum Berlin (including labels, printed inventories, database entries, etc.) with archival documents from the Prussian Ministry of the Interior, the Royal Mineral Cabinet, and contemporary publications.

1. The Growth of the Collection through Scientifically-minded Donors (1810-1840)

The Royal Mineral Cabinet in Berlin was established in 1781 for the Prussian Mining Academy in Berlin. After the founding of the University of Berlin in 1810, Prussian authorities gave it the status of a university collection, making it subordinate to the Ministry of the Interior. In 1817, when the Ministry of Culture became an independent department, the collection was placed under the responsibility of the latter (Schmitt 2019: 21-4).

The first director of the Mineral Cabinet was Christian Samuel Weiss. After his death in 1856, the Cabinet was divided into a mineralogical-petrographical department⁴ at the University of Berlin, headed by Gustav Rose, and a geological-palaeontological department at the Mineralogical Museum, headed by Ernst Beyrich. Both directors received part of their fees from the Prussian mining authorities (Hoppe 2003: 7) – a first indication of an economic framework for mineralogical collecting activities.

The decades between 1810 and 1840 can be seen as the building phase of the Royal Mineral Cabinet, when the foundations of the collection were laid. In addition to many smaller transfers from places such as Iceland and Greenland, as well as Mexico and South Africa, the Mineral Cabinet received ten major gifts comprising an estimated 8,000 specimens. These major donations, in view of their comparatively good documentation, will take centre stage in this article. Most of them came from European areas such as the Bohemian Ore Mountains, the Italian Alps/Dolomites, and the Russian Urals. Director Weiss gratefully accepted them all; his guiding principle was to have as comprehensive a collection as possible (Strauß 2024). As his annual budget for acquisitions was very limited,⁵ he only refused donations if the quality of the samples was unacceptably low, as his reports in the administrative files of the Prussian Ministry of Culture prove.⁶ But who were the donors, and what motivated their donations?

Throughout Europe in the long nineteenth century, various social groups collected minerals, rocks, and fossils. In early nineteenth century Prussia, a group of bourgeois and aristocratic collectors played a key role, uniting in associations such as the Berlin Society of Friends of Natural Science (Gesellschaft Naturforschender Freunde zu Berlin) (te Heesen 2004: 113-6). Their motives for handing over items to the Royal Mineral Cabinet were many and varied.⁷ Outwardly, they emphasized their desire to serve science and their interest in the development of scientific systematics, which flourished in the early decades of the nineteenth century. For example, it was important to physician Karl Wilhelm Nose to use his collection in an argument on the then current debate on the origin of the earth.⁸

Many donors were also interested in increasing their visibility among scientists and members of the general public (Corsi 2008: 14-6). Accordingly, Alexander von Humboldt wrote to Johann Carl Freiesleben in 1792:

In order to make scientific knowledge public, I have donated a memento to you in our Royal Mineral Cabinet, which admittedly cost me a lot. I am giving away all my Bohemian [ore mountain] pieces, arranging them according to our journey and placing notes with them [...]. It is a pleasant thought to me to thus donate a memento to both of us in this public place (Jahn and Lange 1973: 181).

The collecting work of von Humboldt and his colleagues was increasingly related not only to scientific but also to national frameworks (Lukić 2022: 8) – as can be seen in the case of a donation by Nose to the Royal Mineral Cabinet in 1814. This collection came from the Siebengebirge mountain range in the Rhineland, which had recently become Prussian territory as a result of the Congress of Vienna. In this respect, Nose's gift can be interpreted as a mineralogical reference to a political triumph of the Prussian state (Rowe 2003: 213-46).

In addition to the scientific, personal, and political framings of the transfer of collections,

perspectives of economics and exploitation also came into view at this early stage; for example, in the case of the collection of specimens donated to Berlin by Alexander von Humboldt in 1805. Humboldt's collection of specimens from South America between 1799 and 1804 was, on the one hand, guided by his perception of scientific discourse when he visited several silver mines, collected pieces and then donated them to the Royal Mineral Cabinet (Hoppe 1999: 19; Damaschun 2019: 102).⁹ However, Humboldt's perspectives also went beyond questions of categories and organization; he gathered information about the practice of developing and extracting raw materials in colonized areas through contextual interviews with engineers and instructors at the mining school (Klein 2012: 65; Anthony 2021: 589). His donation to the Royal Mineral Cabinet was thus also an expression of knowledge and practices to promote the exploitation of territories under colonial rule.

The records of donations are dominated by the scientific attributions made by the collectors and accepted by the museum. In keeping with these attributions, the director of the Mineral Cabinet, Weiss, categorized the gifts according to the scientific and systematic criteria he had inherited from his predecessor, Dietrich Ludwig Gustav Karsten. Karsten divided the Royal Mineral Cabinet into four teaching collections: *oryctognostic* (which deduced the use of minerals from their sensory properties), *geognostic* (which taught the structure and construction of the earth's solid crust), *economic*, and *regional minerals* (Hoppe 1999: 13). This division was based on the systematics of Abraham Gottlob Werner (Guntau 1996; Rudwick 1996: 270), with whom Karsten had studied at the Mining Academy (Bergakademie) Freiberg, as had von Humboldt.

However, categorization only scratches the surface of the appropriation process. The practice of acquisition and donation was primarily an administrative act even though it had several overlaps with scientific practice, as science itself adopted several administrative practices during these decades (Laboulais 2008; Laboulais 2019; Lukić 2022). Prussian officials organized transport, paid shipping costs, and prepared information about the objects in reports. Likewise, the labelling of the objects together with the compilation of collection lists and catalogues was part of the appropriation process (Ette 2022; Bittel et al. 2019; Robbins et al. 2024: 29-42). Just one example of many was the case of a collection of minerals and rocks from the Bohemian Ore Mountains donated by the physician Johann Anton Stolz in 1820.¹⁰ Finally, the process of acquisition also included the practice of appraisals and valuations, which in 1815 led Director Weiss to conclude that the Hungarian rock collection of the teacher Johann Andreas Zipser was worth 250 to 300 Reichstaler – a sum whose purchasing power corresponds to a good 12,000 euros in the present day – and that the collector should not only be paid, but also be awarded the Golden Medal of the Prussian Academy of Sciences (Strauß 2024: 212-5).

The latter example shows that monetary, and subsequently economic and political patterns of interpretation have shaped the building of mineral collections from the very beginning. The Prussian administration embedded the newly acquired rocks and minerals within scientific frameworks, often provided by the collectors, but also linked them to fiscal thinking, to questions of material and symbolic value, and increasingly to political and economic ideas. In the first decades of the nineteenth century, these ideas were steadily and increasingly directed towards the model of the national economy.

2. Appropriation within the Context of an Economic Mineralogy

Influenced by the Enlightenment, the discourses of the Prussian administration and scientific institutions on mining were characterized by concepts of utility and exploitation (Kaplan and Reinert 2019; Klein 2020: 92-110). One example is 'Economic Mineralogy' of 1778 by the previously mentioned Professor Abraham Gottlob Werner, which emphasized the application of mineralogy and linked it to the basic idea of 'utility' (Werner 1778: 410-5).¹¹ In the following decades, this approach was also represented in German-speaking countries by journals and handbooks on 'economic mineralogy'. Consistent with this history of ideas is the fact that from the 1820s onwards, the economic attribution of rock and mineral donations increased. At the same time, the role of scientifically (and prestige-) oriented autodidact donors such as Nose diminished, and the proportion of experts such as von Humboldt grew.

This dual trend is illustrated by a donation made to the Royal Mineral Cabinet in 1828 by the Prussian mining officials Heinrich von Dechen and Carl von Oeynhausens: two years earlier, the pair had collected about 4,000 specimens on a trip to England and Scotland, the pioneers of industrialization in Europe, which had become preferred destinations for German-speaking engineers, scientists, and administrators during these decades (Kirchberger 2014; Tully 2020). Von Dechen's and von Oeynhausens's donations included, among others, coal, limestone, and marble – materials that were instrumental in nineteenth century industrialization. Another example of the collectors' increasing focus on the extraction of raw materials is the donation by Carl Rudolph Mentzel, a mining engineer, official, and director of the Royal Fryderyk Smelting Works in Upper Silesia, who sent a number of metallurgical products to the Royal Mineral Cabinet in 1840.¹²

The growing closeness between the museum, science, and the mining industry in the middle decades of the nineteenth century is epitomized by the aforementioned von Dechen (Westermann 2011: 65–7): in the 1830s, von Dechen first made a career in science, and between 1834 and 1841, he lectured on mining science and geognosy ('Earth-Knowledge') at Berlin University. He ended his lectureship in Berlin when he became Chairman of the Regional Inspectorate of Mines (Berghauptmann) and director of the Rhenish Upper Mining Authority (Rheinisches Oberbergamt) in 1841 (Strunz 1970: 17). This was an outstanding position within the Prussian mining industry and its importance for the developing industrial state of Prussia can hardly be overestimated. Von Dechen adopted ideas from national economic policies, most notably in his book *Die nutzbaren Mineralien und Gebirgsarten im Deutschen Reiche* (*The Exploitable Minerals and Mountain Species in the German Empire*), published in 1873.¹³ In his memorandum *Die geognostische Landes-Untersuchung im Preußischen Staate* (*The Geognostic Land Survey in the Prussian State*),¹⁴ published in 1843, he advocated the establishment of a Prussian Geological Survey, which was finally founded in 1873.

The establishment of the Geological Survey represents a functional differentiation between geosciences and mining in the early years of the German Empire. The scientific collection of potentially economically useful minerals had previously been handled by the Royal Mineral Cabinet, but now a specialized institution was available for this task. Although it was a state research institute, the Geological Survey was subordinate to the Prussian Ministry of Trade. Like the British Geological Survey, founded in 1835, the Prussian Geological Survey produced scientific findings for economic purposes (Ruske 1973: 11; Wellmer and Röhling 2023: 242; Stafford 1984). The Royal Mineral Cabinet was, in an obvious parallel to the London Museum of Economic Geology (Secord 2018; Clary 2020), seemingly reduced to the collection of economically necessary minerals for educational purposes, such as the training of geologists.

A case from 1891, however, illustrates not only the extent to which economic thinking shaped government collecting practices in this period, but also the continuing close collaboration between the Mineralogical Museum (formerly the Royal Mineral Cabinet) and the new Geological Survey. When the military attaché of the Chilean embassy in Berlin offered a collection of ores to the Mineralogical Museum, the museum's director at the time, Carl Klein, rejected it. Instead, he warmly recommended giving it to the Geological Survey; although, as the Minister of Trade and Industry, Freiherr von Berlepsch put it, 'the ores that have been donated [...] were of little mineralogical value', they nevertheless 'clearly showed the type of gold and silver deposits in the areas of origin'.¹⁵ In other words, the ores were not included in the Geological Survey's collection for their own sake, but as an indication of economic mining opportunities. From today's perspective, this pattern shows that the composition of European mineral collections may reflect the mining ambitions of past times and should be presented as such.

Institutionally and in terms of personnel, scientific collecting and mining became increasingly intertwined. It is significant that the two directors of the Prussian Geological Survey – Heinrich Ernst Beyrich and Wilhelm Hauchecorne¹⁶ – headed the newly-established Mining Academy, which was responsible for the training of mining officials.¹⁷ Beyrich was a student of the Mineral Cabinet Director Weiss and was seconded to the land survey in Silesia under von Dechen in 1841. Moreover, in 1875, he was appointed the first director of the Mineralogical Museum and head of the geological-palaeontological department at

Natural History Museum Berlin.¹⁸ Beyrich's biography shows that the Geological Survey and all of the museum departments that emerged from the Mineralogical Museum were located within the same scientific-economic-administrative field, within which the staff could switch back and forth between the institutions. For today's museums, this is yet another reminder to take the economic framing of their mineralogical collections seriously and not adhere to the established narrative of them being purely 'scientific' rocks. This is especially true for minerals that entered collections in the age of imperialism.

3. Specimens as Arguments for Colonial Expansion (1888-1914)

From the second half of the nineteenth century onwards, the Mineralogical Museum Berlin and the Prussian Geological Survey increasingly received rock and mineral samples from overseas. One example of the colonial mineral and rock collectors is Hermann Theodor Wangemann, who travelled to the Transvaal and Namibia in the 1860s. As a cleric, Wangemann had an educated bourgeois background. However, the extent of his scientific knowledge remains an open question. In his role as director of the Berlin Missionary Society, which carried out missionary work among indigenous peoples in colonized territories, Wangemann can be seen as an 'agent of colonial penetration' (Reinhard 2013). His travel reports are characterized not only by religious but also by racist discourses (Wangemann 1866: 100-2). Wangemann appears to have been particularly drawn to sites which represented the geological and mineralogical exploitation of Africa; he visited the mines in Tsumeb, Namibia, and recorded his visit to Kimberley in South Africa in October 1866 in his travel diary: 'After breakfast we went to the main laundry of the French Diamond Company, one of the largest of the companies that extract the glittering stones from the depths' (Wangemann 1866: 51). A detailed description about sifting and sorting the diamonds follows:

The supervisor showed me a larger diamond and a lot of small and very small diamonds that had been sorted on the various tables from a mass of small stones, among which [...] there were also small rubies and garnets and ores. All this other material was thrown aside as worthless, and only the diamonds were collected in small boxes, with an indifferent expression (Wangemann 1866: 52).

The 'glittering stones' seem to have appealed to Wangemann; he added three kimberlites to his collection of African minerals. Kimberlite is a very hard rock named after Kimberly, where it was found. It is the most important source of diamonds and symbolizes South Africa's exploitation of mineral resources (Press 2021: 39-42). Whether Wangemann, who interpreted his findings in this political-economic sense, took the samples with him cannot yet be answered on the basis of historical sources.¹⁹

Other collectors were much more aware of the fact that government institutions in Germany were waiting for African minerals and rocks. One such collector was Paul A. Neumann, who in June 1902 approached the Berlin Foreign Office with a request for a ministerial passport²⁰ for his planned trip to South Africa. Neumann based his request on his past achievements in geological collecting: during his 'many years of travelling in South America', he argued, he had already collected geological objects and donated them to the Natural History Museum Berlin. He now intended 'to donate to the Museum of Natural History the scientific objects which I shall collect in South Africa'.²¹ His request shows that collecting minerals in colonial territories was perceived as a practice that was in the interests of the state.

Another collector who saw the appropriation of 'colonial rocks' to be in the national interest was Tübingen professor Carl Uhlig. In May 1905, he sent 15 rock samples from Dar es Salaam, an important trading port in Tanzania, to the Mineralogical Museum Berlin. The fact that Uhlig²² became known after the First World War for his aggressive 'colonial revisionist propaganda activities' leaves no doubt as to his intentions in connection with this donation.²³

The idea that the exploration of minerals and rocks in the colonies was in the national interest was also held by Angelo Golinelli. In September 1907, he asked the Geological Survey to examine three rock samples from Namibia, given to him by the German Colonial Railway Construction and Operating Company, for their composition and potential economic value.²⁴ Golinelli's position entailed the exploitation of colonial mineral resources because he was the

head of the department responsible for Namibia in the Foreign Office Colonial Department, which became a ministry in 1907. As the Imperial Colonial Office, the ministry had an interest in African mineral resources (Zimmerer 2021: 55, 86, 71, 92).

This sketch of collectors and their motives leads me to the institutional framing of colonial collecting practices. The scientific-economic administrative field in Prussia-Germany related to geology and mineralogy took on an increasingly strong colonial flavour after 1880. The Prussian-German administration actively promoted the extraction of minerals and especially raw materials in the colonial territories (Farrenkopf and Przigoda 2020: 111-4; Jansen et al. 2017: 119-25). Oscar Wilhelm Stübel, director of the Colonial Department in the Foreign Office between 1900 and 1905, repeatedly emphasized the importance they attached to the geological and mining exploration of territories under German colonial rule.²⁵

It is therefore not surprising that the appropriation by collectors and the Prussian administration was even more clearly determined by the idea of raw material exploitation than in many earlier cases. To name one instance, Carl Klein, director of the Mineralogical-Petrographical Institute of the Mineralogical Museum from 1887 to 1907, announced in 1890, among other additions to the collection, a donation from the German Colonial Society for South West Africa.²⁶ In 1892, the museum also took possession of sample material from the German East Africa Company.²⁷ The fact that the German Colonial Society and the German East African Society were essentially colonial political pressure groups, some of which pushed vehemently for an expansion of the exploitation of the colonies, makes it clear that their donations were intended as arguments for such expansion.²⁸

The Mineralogical Museum and the Prussian Geological Survey were also involved in political and economic efforts to promote the economic development of the colonies for Germany's benefit. The German Colonial Congress, held in Berlin in October 1907, was an important forum which brought together government institutions and social organizations. While the Mineralogical Museum had apparently been planned from the outset, the director of the Prussian Geological Survey, Karl Schmeisser, complained to the organizers in advance that no representative of the Geological Survey had been invited.²⁹

However, in 1912 the Geological Survey won an important victory in its institutional rivalry with the museum; it succeeded in setting up the 'Geological Centre for the Protectorates' (Geologische Zentralstelle für die Deutschen Schutzgebiete), which, according to written records, comprised a so-called Colonial Collection or Colonial Display Collection and was the central reference point for all geological and mineralogical questions relating to the colonies.³⁰ Significantly, the head of the colonial collection was geologist Willi Koert, who had been a colonial official in Tanzania, Rwanda, Burundi and the Republic of Togo from 1904 to 1908.³¹ In 1914, he wrote a report entitled *Geologische Erschließung der deutschen Kolonien in Afrika* (*Geological Exploration of the German Colonies in Africa*), in which he argued: 'It cannot really be said that the state has lacked initiative in the geological development of African protected areas, at least not since the revival of colonial interest about ten years ago'.³²

Another key document on the economic and geological development of the colonies is a report presented by Geological Survey director Karl Schmeisser to the Colonial Congress in 1902. The report reflects how much the questions at the Congress focused on prospecting for mineral resources. Schmeisser asked: 'What exploitable mineral resources could occur according to the location of the geological formations?' How could their extraction be organized? What resources would be needed? (Schmeisser 1903: 84). Secondly, he asked about transporting minerals and the need for a new railway to be built (Schmeisser 1903: 124).³³ The fact that an administrative and scientific expert in geology felt called upon to argue in favour of a great national project is one of the peculiarities of the age of colonial exploitation under high imperialism. It distinguishes the situation of the early twentieth century from that of the 1810s and 1830s discussed above.

These scientific and administrative practices were supported by public associations; in addition to geologists and geographers, whose numbers increased as a result of colonialism (Gräbel 2015), the public participated in the mobilization and appropriation of minerals. For example, the order to collect geological material went out from the university-based Colonial Institute in Hamburg to the Colonial Association.³⁴ In some respects, these associations appear to be the functional equivalents of the aristocratic-bourgeois scientific societies of the

early nineteenth century regarding the mobilization of minerals, albeit with different intentions.

Conclusion

The history of the Prussian mineralogical collection is also a history of colonial appropriation. The state's interest manifested itself in the form of medals awarded to collectors in return for their donations, but also in the effort to secure a place for the museum in institutional structures concerned with the economic exploitation of colonial contexts in the Empire.

The interest of the state in natural objects was the driving force behind the mobilization of minerals during the period studied here. In this context, minerals can be interpreted as access to a system of knowledge and references; donors contributed often valuable raw materials which were considered indispensable for industrialization in Europe, and especially in Germany.

The collecting activities of the institutions analyzed here always had a political dimension during the period under study. As the history of the collection in the Berlin Royal Mineral Cabinet (which later became the Mineralogical Museum) shows, rocks were objects whose appropriation coincided with contemporary political and economic models and ideas of order. The natural specimens were politicized through local appropriation processes, donations and efforts to use minerals and rocks from colonial contexts as arguments for colonialism. They were surfaces for projecting ideas and arguments ranging from economic-technical developments based on resource extraction to concepts of empire. Accordingly, they are directly linked to interpretations of the world that manifested themselves in violence in the colonial context.

But what does this history of mobilized and appropriated minerals mean for museums today? Firstly, it points to the obvious but often overlooked fact that politically 'neutral' collections do not exist in European museums at the beginning of the twenty-first century. Insofar as these museums hold the memories of economically expansive and sometimes imperial societies of the past, they bear traces of that history of expansion, domination and sometimes violence. Revealing these traces is the challenge for museums in a pluralistic community that respects diversity and transparency. The Paris exhibition mentioned above is an important first step in this direction. At the Sedgwick Museum of Earth Sciences, the Geological Museum of the University of Cambridge, museum staff are also trying to create a collecting history that represents people and their various collecting interests – which can include economic and political motivations.³⁵

The prerequisite to revealing these traces, however, is an accurate knowledge of that past. A systematic history of provenance and, by extension, a political history of museums, cannot focus solely on the repatriation of objects. First and foremost, we must gain access to the political past of our objects. From today's point of view, this demand has three consequences: 1) Museum staff must be aware of the political dimensions arising from the past and which are still connected to the collection and the objects. 2) Museum staff must take an active part in research. It is not enough to make data available. Data must be found, including that from state administrative files and other sources of bureaucratic knowledge. 3) Through historical research, museum staff must create the historical depth of knowledge to make people visible in the stories of the collections. This will render visible the political dimension of museums. Transparency and participation, buzzwords of current museum debates, are only possible through historical depth of focus.

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Notes

¹ Musée de Minéralogie, 'Collectible Minerals', 2023. https://www.musee.minesparis.psl.eu/Donnees/data16/1629-livret_expo_mineraux_musee_mines_EN_LD.pdf, accessed 27 January 2024.

- ² See <https://www.merriam-webster.com/dictionary/empowerment>.
- ³ The systematics of mineralogy refers to the classification of minerals according to selected characteristics, although this classification is subject to historical change. Today, mineralogists classify minerals according to their crystal structures and chemical properties. In the nineteenth century, however, natural scientists used various other properties to classify minerals.
- ⁴ Today, minerals are defined as solid, chemically and structurally homogeneous substances. However, mineralogical collections also include rocks that consist of several minerals and are therefore heterogeneous. The technical term for the study of rocks is petrography.
- ⁵ From 1816, 1,000 Reichstaler were available annually. This corresponded to the annual income of a professor. Christian Samuel Weiss to the Prussian Ministry of Culture, 9 August 1816, Geheimes Staatsarchiv Preußischer Kulturbesitz (GStA PK), I. HA Rep. 76, Va. Sekt. 2, Tit. X, Nr. 21, Vol. 1, pp. 239-41.
- ⁶ Administrative files of the Royal Mineral Cabinet in GStA PK, I. HA Rep. 76, Va. Sekt. 2, Tit. X, Nr. 21, Vol. 1 (1810-13) to Vol. 17 (1896-1900).
- ⁷ For comparison to the UK, see Delbourgo 2019.
- ⁸ This debate was held between 'Neptunists' and 'Vulcanists', see Strauß 2023.
- ⁹ GStA PK, I. HA Rep. 76, Va. Sekt. 2, Tit. X, Nr. 21, Vol. 1, p. 94, note of file, Wilhelm Uhden, civil servant, 25 April 1814, confirmed the receipt of silver, which Alexander von Humboldt brought from South America and gave to Prussian King Friedrich Wilhelm III; it went to the administration and then to the Royal Mineral Cabinet.
- ¹⁰ Director Weiss recommended that Stolz be awarded a gold medal by the Academy, since the geognostic-topographical part of the collection in particular could be 'rewarded' in this way. GStA PK, I. HA Rep. 76, Va. Sekt. 2, Tit. X, Nr. 24, p. 23, 23 April 1827 Weiss an Altenstein.
- ¹¹ Also mentioned in Christian Samuel Weiss' lecture; see transcript by Ernst Heinrich von Dechen in Staatsbibliothek zu Berlin Preußischer Kulturbesitz, estate collection Dechen, notebook No. 2a, not paginated.
- ¹² Carl Rudolph Mentzel, mining engineer and director of Friedrichshütte, letter to Weiss and inventory, 1839/1840, Museum für Naturkunde Berlin, Mineral Collection, MIN-PET 260-22 and 260-23.
- ¹³ Dechen wrote: 'The extraordinary importance of mineral resources in economic and commercial terms has become so evident in recent years that it would be superfluous to say a word about it' (translated by the author) (Dechen 1873: 2).
- ¹⁴ Dechen, Ernst Heinrich von, 14 February 1841, GStA PK, I. HA Rep. 121, Nr. 8188, Vol. 1, pp. 148-61.
- ¹⁵ GStA PK, I. HA Rep. 76, Va. Sekt. 2, Tit. X, Nr. 21, Bd. 5, p. 304, 7 March 1892 Berplesch to Caprivi.
- ¹⁶ Beyrich's personal file, GStA PK, I. HA Rep. 194, Nr. 16, p. 9.
- ¹⁷ Establishment and administration of the Mining Academy in Berlin, GStA PK, I. HA Rep. 76, Vb. Sekt. 4 Tit. I Nr. 18, Vol. 4, p. 3.
- ¹⁸ In 1875 Martin Websky became the second director of the Mineralogical Museum and

- head of the Oryctognostic Department, and Justus Roth became the third director of the Mineralogical Museum and headed the Petrographic Department. GStA PK, I. HA Rep. 76, Va Sect. 2, Tit. X, Nr. 21, Vol. 11.
- ¹⁹ After all, Wangemann did not donate his pieces to the Royal Mineral Cabinet himself. His collection was given to the museum by his widow, Helene Wangemann, after his death in 1894.
- ²⁰ Until the end of the twentieth century, senior civil servants in Germany received a ministerial passport. This allowed them to cross borders without restriction when working abroad on public business. The passport did not give them diplomatic immunity.
- ²¹ Translated by the author, GStA PK, I. HA Rep. 76, Va Sect. 2, Tit. X, Bd. 21, Nr. 18, p. 126, Paul Neuman to the Foreign Office of the German Reich, 4 June 1902.
- ²² On the person of Uhlig see Carsten Gräbel, 'Geographieprofessor Carl Uhlig auf der Stuttgarter Kolonialausstellung' ['Geography Professor Carl Uhlig at the Stuttgart Colonial Exhibition'], *Historischer Augenblick* 2020. <https://www.historischer-augeblick.de/uhlig>, accessed 27 January 2024.
- ²³ In response to the transfer of the Uhlig collection, Heidelberg Professor Harry Rosenbusch wrote to the Foreign Office, which distributed the specimens: 'Ich bitte den Ausdruck des aufrichtigen Dankes für dieses wertvolle Geschenk freundlichst entgegen nehmen zu wollen' ['I kindly ask you to accept the expression of sincere gratitude for this valuable gift'], 1 May 1905. The letter was addressed to Ludwig Finckh, staff member of the Prussian Geological Survey in accordance with the submission of rock duplicates from 'Deutsch-Ostafrika' to the Museum für Naturkunde Berlin, to the Mineralogical-Petrographical Institute at Heidelberg and to the Colonial Department of the Foreign Office, order of 12 February 1904, GStA PK, I. HA Rep. 194, Nr. 130, Bd. 3, not paginated.
- ²⁴ Angelo Golinelli to the director of the Geological Survey Franz Beyschlag, 30 September 1907, GStA PK, I. HA Rep. 194, Nr. 136, Vol. 2, p. 1.
- ²⁵ GStA PK, I. HA Rep. 194, Nr. 128, not paginated, 4 June 1901 Stübel to Schmeisser, Director of the Geological Survey and the Mining Academy.
- ²⁶ Universitätsbibliothek der Humboldt Universität zu Berlin, 'Object: Chronik der Friedrich-Wilhelms-Universität zu Berlin, 4.1890/91, 125:121', 2022. <https://www.digi-hub.de/viewer/image/1603900689937/125/#topDocAnchor>, accessed 27 January 2024.
- ²⁷ Ministry of Culture to Carl Klein concerning the rock collection of the German-East African Society, 7 November 1792, Museum für Naturkunde Berlin, Mineral Collection, MIN-PET 430-09; see also MIN-PET 430-24.
- ²⁸ The administrative director of the Museum für Naturkunde, Heinrich Ernst Beyrich, was more reserved with regard to the samples from East Africa, writing to the Ministry of Culture that the collection 'may be useful for later work or for a revision of the [studies] already published, so its transfer to the mineralogical-petrographical collection of the Royal Museum of Natural History seems urgently called for'. 18 October 1892 Beyrich to the Minister of Culture, GStA PK, I. HA Rep. 76, Va Sect. 2, Tit. X, Nr. 21, Vol. 16, p. 4.
- ²⁹ GStA PK, I. HA Rep. 194, Nr. 128, not paginated.
- ³⁰ File of the colonial collection (1910 – 1923), GStA PK, I. HA Rep. 194, Nr. 153.
- ³¹ GStA PK, I. HA Rep. 194, Nr. 128, not paginated.
- ³² GStAPK, I. HA Rep. 194, Nr. 155, not paginated. This report was a reply to the palaeontologist

Edwin Hennig, a private lecturer at the University of Berlin and a museum employee. Hennig, who himself had taken part in the Tendaguru expedition, criticized the lack of state support for geological exploration (Hennig 1914: 61).

- ³³ '5. energetic support of all efforts aimed at improving the transport system, in particular the construction of accessible railway lines, is urgently needed'.
- ³⁴ Official Gazette for Cameroon 31 July 1909 Berlin, Willi Koert, GStA PK, I. HA Rep. 194, Nr. 136, Vol. 2 (1907-1926).
- ³⁵ Liz Hide 'Uncomfortable Histories: Working to Decolonise the Sedgwick Museum', University of Cambridge Department of Earth Sciences 2020. <https://www.youtube.com/watch?v=yE1tGPhufKQ>, accessed 5 June 2024.

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