

The Royal Natural History Collection in Vienna (18th century): from possessing minerals as a private treasure towards territorial ambitions as consciousness

M. Klemun

Klemun, M. The Royal Natural History Collection in Vienna (18th century): from possessing minerals as a private treasure towards territorial ambitions as consciousness. In: Winkler Prins, C.F. & Donovan, S.K. (eds.), *VII International Symposium 'Cultural Heritage in Geosciences, Mining and Metallurgy: Libraries - Archives - Museums'*: "Museums and their collections", Leiden (The Netherlands), 19-23 May 2003. *Scripta Geologica Special Issue*, 4: 193-199; Leiden, August 2004.

M. Klemun, Department of History, University of Vienna, Dr. Karl Lueger-Ring 1, A-1010 Vienna, Austria (Marianne.Klemun@univie.ac.at).

Key words: Royal Natural History Collection, Vienna, History.

This paper deals with a famous private natural history collection of the court, transformed to a public collection of the state. Associated is a very important question: how cultural and political structures became a dimension of a collection.

In order to establish a Court Natural History Cabinet of its own, separate from other collections ("Physical Cabinet," The Coin and Antique Collection), Emperor Franz Stephan von Lothringen (1708-1765) decides in the middle of the 18th century to buy the famous 'museo' of Jean de Baillou, who had worked as a director of gardens and mines in Tuscany. The Collection of de Baillou consisted mainly of minerals, which were collected in Italy (some came from famous places all over the world), and fossils, particularly mussels, snails and crustaceans. It was one of the most famous and richest European collections of its type. It represented the Emperor's passion for science, modern 'know-how' and his self-confidence at being a personal centre, not for politics, but for special taste. The Emperor spent a lot of money on the collection. Furthermore, he sent naturalists to collect specimens and thus increase the collection. The Collection was the emperors private treasure and was placed near the Library of the Viennese court. De Baillou became managing director for life and after his death was succeeded by his son. In the first decades no catalogue was made.

After twenty years, following the death of Franz Stephan von Lothringen, Maria Theresia wanted to have a survey about the collections of the court. Ignaz von Born, who had already made a name for himself at the Prague mint was appointed to write a first catalogue of the collection. He pointed out the low standard of the natural history collection and the scientific necessity of a rich mineral collection. It was also a time in which the government started to work against particularism in administration. The government also tried to get more evidence of minerals of all countries governed by the Habsburg Monarchy. The mining administration at Vienna ordered the mine inspectors in the periphery to send up documentation of minerals and rocks, which were found there. Thus, the transfer represents a new concept of scientific interest in a political dimension. Treasure no longer had priority.

Contents

Introduction	194
The collection of de Baillou and its function for the Emperor	194
The mineral collection as function of the state	196
Conclusion	198
References	198

Introduction

The history of collecting is becoming one of the focuses of cultural studies. The flood of works produced in this field can be categorised as follows:

1. Historians are interested in the meaning of an object as "semiophore" (the bearer or representative of a certain meaning), i.e., the medium that mediates between the known (that which can be seen) and the unknown (that which cannot be seen) (Pomian, 1987).
2. The focus is on the interpretation of the act of collecting, i.e., the reality of collecting (Klemun, 2000a) as a practice.
3. Researchers concentrate on the functions of collections, which explain both the act of collecting as well as the collections themselves (Heesen & Spary, 2002).

My paper focuses on the last category and will try to answer the question of what function does an imperial collection fulfil that, within less than half a century, was transformed from an extremely valuable private imperial treasure to a similarly valuable public state institution. The uniform cosmos of the 'Wunderkammern' (Findlen, 1994; Daston & Park, 1998) broke open in the course of the 18th century and diffused into various special collections. In the metropolis of the Habsburg countries this process began in the middle of the century. Emperor Franz Stephan von Lothringen (1708-1765), Maria Theresia's husband, made the first step by replacing the old 'Schatz- und Wunderkammer' by a treasury containing insignia and devotional objects, and by a coin collection, a physical collection and a natural history collection.

The collection of de Baillou and its function for the Emperor

In order to furnish the latter, Franz Stephan bought the world-renowned collection of Jean de Baillou (1684 or 1668-1758). De Baillou was the General Director of the Medici gallery in Florence, and General Director of all fortresses, gardens and mines in Tuscany, before he accompanied the relocation of c. 30,000 objects from Florence to Vienna, where he stayed as Director after 1750 (Zedinger, 2000). The right to look after his collection that was now located in the Residence of Vienna was conferred by heredity upon his son.

So what did this valuable collection include, of which we can identify only very few objects that are kept in the Museum of Natural History in Vienna, the successor institution of the imperial collection? It contained a large number of selected crystals, minerals (in a modern sense), Colombian emeralds and fossils (notably ammonites), but also shells, corals and crustaceans. It was famous in all of Europe for its rarities and its richness. Franz Stephan spent a lot of money on it from his private funds. Apart from fulfilling the purpose of representation, the collection also served his private interests and passions, since he even did himself experiments with diamonds. Moreover, it should be noted, that the collection was housed close to the baroque court library built by Emperor Karl VI, the father of Maria Theresia. Thus, there was a connection to the traditional centre of learning. At that time the court library served as a stage for the reformer Gerard van Swieten (1700-1772), who Maria Theresia has called from Leiden, The Netherlands, the leading place of medical studies. Apart from being her personal physician, he was concerned with the reformation of the university,

especially the medical faculty. The old guild-university was to be transformed into a modern place of teaching. In order to do this new rooms for teaching, a dissecting room, classrooms for the practical teaching of anatomy and the first botanical garden were needed, all of which were erected due to van Swieten's initiative (Klemun, 2000b).

However, van Swieten did not hold his progressively structured lectures in the old university building, but in the Court Library, in order to offer new ways of access to the world of medicine outside an obsolete institution like the university. In consequence, the Court Library temporarily obtained a new politico-cultural and sciento-political meaning. This was also where the Emperor met the directors of the collections and van Swieten, the leading figure in the renewal in the field of natural sciences. Moreover, it is here that counselling and the demonstration of knowledge in connection with collection pieces took place.

Just as in cabinet politics, in which the fates of the Habsburg countries were negotiated at the round table, the Emperor wanted to be informed on the latest scientific knowledge when he met with these knowledgeable men. The collection became a place for exercising the Emperor's personal passion for modern 'know-how'. A historical portrait (by Franz Messmer, Ludwig Kohl and Martin von Meytens), painted only after Franz Stephan's death, documents this reflective gesture. The painting itself cannot be interpreted as a realistic representation according to art experts, since paintings of emperors usually bear a propagandistic and prospective message. On the left behind the Emperor is Van Swieten in a rather dominant position, holding a book, while the three directors of the collection are pushed into the background. The meeting is taking place in the room with the natural history collection. It seemed to be the centre for the Emperor, who tried to secure and solidify his personal role in natural sciences, which he acquired via his collection, towards other monarchs. It must also be noted that the painting has been retouched in the course of time (Ranacher, 2000) and that the piece of crystal on the right side of the picture has been completed.

The Habsburg Monarchy had no colonies of its own and also did not have an academy, both routes by which other countries extended their collections (Allen, 1994). The new institutions like the menagerie, the botanical garden, the exotic garden in Schönbrunn and the natural history collection had to be furnished richly and impressively by other means, by expeditions initiated by Franz Stephan. A young doctor of medicine, Nicolaus Jacquin (1727-1817) from Leiden, travelled all over Central America for the Emperor for over three years in order to acquire minerals and fossils for the natural history collection (Hühnel, 1992). Further, Franz Stephan tried to enrich his collection also by pieces from within the Habsburg territories. The Court Mathematician Josef Anton Nagel (Schönburg-Hartenstein, 1987), for example, was sent to the Carpathian mountains in Slovakia in order to acquire minerals.

The historical sources on the individual pieces of the natural history collection are, unfortunately, rather meagre. There are hardly any written documents and up to 1800 there was no catalogue. Also, there is no book of receipts, i.e., no register of newly acquired items. The only facts we have are from some documents relating to a handful of dedications of members of the higher nobility, who knew about the Emperor's passion and made presentations to the collection.

De Baillou was responsible for the collection, but was not persuaded to publish on

it. He was the only person who knew all the details about the collection. (Only a visitor, Saint Laurent, published something about it in Florence in 1746, which was not really to de Baillou's liking.) After Franz Stephan's death in 1765, the Emperor's collections were no longer in the private ownership of the imperial family, but became state property. His widow, Maria Theresia, ordered that an inventory of the collections be made, since it was now the actual volume of the inheritance of her husband that was of importance and the authorities wanted to know what he had left behind. De Baillou's son, Ludwig Balthasar, however, lacked the necessary competence and knowledge for taking inventory of such a large collection. This was done much later by Ignaz von Born (see below).

The mineral collection as function of the state

After Franz Stephan's demise, the collection was transferred from the Court Library to the corridor behind the Augustiner Church. It was the time of enlightenment, during which tendencies of centralisation occurred on many levels, in which the particularist forces were abolished, and in which the administrations and the laws of the various Habsburg countries were unified. Thus, the interest in cataloguing the collection pieces was not an isolated phenomenon, but was part of the 'red tape' that started running through many other areas of public life.

There is a long tradition of the close connection between mineral collections and mining, and thus mines have always been preferred places for acquiring minerals (Wilson, 1994). After 1770, however, there was a new trend in German-speaking countries: collectors and mineralogists started being interested in series of materials from inside a mining area in order to examine and study strata. While twenty years before it was the rarity of a valuable piece, the individual mineral, a gem, or a sparkling crystal that aroused the interest of collectors, at this time rocks and grounds from a certain area or with certain geographical qualities became increasingly interesting (Rudwick, 1996). Even the most renowned collectors in the German-speaking territories, such as the aristocrat Adolf Traugott Gersdorf from Görlitz (Lemper, 1974), the poet Johann Wolfgang von Goethe and Abraham Gottlob Werner from the Montanistic Academy in Freiberg, acted according to this maxim. Due to this change of emphasis, the natural history collection that originated in Florence and was transferred to Vienna did not comply with the latest standards. According to Graf Kolowrat, the head of the "Münz- und Bergwesen" (Department of Mining), a reform was needed. He emphasised the absolute necessity of a catalogue and the importance of mineralogy for mining. The catalogue, according to Kolowrat, would not only serve as an essential reference for a well-organised administration and an official documentation of the richness of the collection, but it would also show the way for future collection strategies. Only if there were a catalogue one would be able to decide what was still missing in the natural history collection (HHStA, OKäA, 1781). That mineralogy constituted an important sector of mining is proven by the foundation of the Montanistic Academy in Schemnitz (Banská Štiavnica, now Slovakia), and the initiation of the first professorship for mineralogy and mining sciences at the University of Prague. Further, since 1766 the state council was also concerned with the improvement of ferrous metallurgy in the inner-Austrian countries, a measure

that really became successful once the limitations on iron production was abolished in the 1770s.

In order to finally have a written documentation of the collection Graf Orsini-Rosenberg, the Court-Chamberlain, advised the Empress to charge a renowned expert of mining, Ignaz von Born, with cataloguing the imperial collection. Ignaz von Born was from Transylvania, had studied at the Montanistic Academy of Schemnitz and was a councillor for mining before retreating to his estate in Altzedlitsch (Hamann, 1989). There he published a book on his own collection, which however, he had to sell to England for financial reasons. He was, what today would be called a scientific manager (Teich, 1976) and was extremely active in founding a private science society in Prague. Since the mineralogy part of the natural history collection in Vienna was still missing a reference, that is a connection to the Habsburg territories, Born concentrated on furnishing the collection with pieces characteristic for the Habsburg countries. For this reason he started by cataloguing the shells, the part of the collection that seemed to be complete and which represented the richness of the imperial collection.

As far as mineralogy was concerned, Born really followed new paths, the paths of bureaucracy. All local mining authorities in the Habsburg countries were ordered by the mining authority in Vienna to send in samples of all 'newly-found ores' (HKA, Münz- und Bergwesen). Due to this new strategy the collection was transformed into a documentation site, in which series of minerals from many different areas of the Habsburg Monarchy were kept. While it used to be the Emperor, whose joy it was to own precious stones and items, who was the centre of the collection, it was now the natural history collection which, as far as minerals are concerned, was becoming a medium of the consciousness of the montanistic richness of the various Habsburg countries.

In 1780 the collection, now filling two rooms in the Augustinersaal of the Hofburg Court, was completely new organised. New cupboards and pedestals that cost more than 3000 florin, the annual salary for a higher court functionary, lent a completely new face to the collection. According to a report by the Görlitz aristocrat Gersdorf, who visited Vienna in 1781, the minerals were now exposed on blue velvet in glass cases or in drawers (Gersdorf, manuscript). Gersdorf described the following new order for the exposition of exhibits; first the visitor saw the gold from Transylvania, next silver and copper from Banat, iron from Carinthia, Elsass and Bohemia, tin and salt. Only then followed emeralds, opals and a large number of cut stones. The large variety of calc-spars and sands forms the transition to the crustaceans. A short published note made at that time (Kurzböck, 1779) revealed that the formation of rocks was to be demonstrated according to their degrees of hardness starting with a corn of sand and ending with diamonds. This shows that the collection was also to be instructive and not only visually impressive by featuring sparkling gems or rarities. For this reason it became accessible for the public once a week.

The world-renowned carved pictures that had been ordered by Franz Stephan in Florence were kept separately from the minerals, on a third room together with other valuable objects. The technique of cutting gems was developed in the 16th century at the Court of the Medici in Florence as a typical result of the Italian mannerism, and was revived again in the middle of the 18th century by the co-operation of Guiseppe Zocchi and Louis Sierès as "Opificio delle pietre dure." Tables made of lapis lazuli or

of the opalescent "Muschelmarmor" (shell marble), found in the lead mine in Bleiberg (Carinthia) and described by Franz Xaver Wulfen (Klemun, 1984), were also kept separately from the mineral collection.

Apart from the emphasis on collecting items from the countries of the Habsburg Monarchy, Born also started a programme of enlarging and enriching the collection by instructive studies. Therefore, he contacted academies and scholars in all of Europe. He kept in a close contact with Simon Pallas in St Petersburg and bought the collection of the Hamburg merchant La Poterie, which mainly included ferrous rocks from Iceland. In 1783 Georges de Buffon, curator of the cabinet of the French King Louis XVI, conveyed the King's interest in exchanging minerals between Paris and Vienna (HHStA, OKäA). The French King had married a daughter of Maria Theresia and thus the two Courts became close. More than seven boxes of pieces were sent to the collection in Paris. However, Vienna preferred to let institutions within the Habsburg Monarchy have specimens, which is proven by the fact that the Lyceum in Lemberg receives more than thirty boxes, including parts of the collection from France.

In line with the Josephinism, a certain style of politics practised by Maria Theresia's son Joseph II, a large number of monasteries were dissolved in the Habsburg territories around 1780 and their collections were also transferred to the natural history collection. According to a report by Born they especially contained Saxon minerals. Emperor Joseph II supported all those activities. However, when it came to Born's extensive programme of publications on the collection, he did not give his consent and stopped the programme. Thus, the publications were never realised.

Conclusion

I have tried to show how a collection was transformed from a private treasure of an Emperor to a state institution within 40 years, a state which was in the process of modernisation at that time. The possession of minerals established the connection to a large cultural and political area that included much more than scientific research.

References

- Allen, D.E. (1976) 1994. *The Naturalist in Britain. A social History*. Princeton University Press, Princeton: xvii+270 pp.
- Daston, L. & Park, K. 1998. *Wonders and the Order of Nature 1150-1750*. Zone Books, New York.
- Findlen, P. 1994. *Possessing Nature: Museums, Collecting, and the Scientific Culture*. University of California Press, Berkeley: 449 pp.
- Gersdorf, Manuscript of Gersdorf: "Reisejournal", Vienna, 23. November 1781, Vol. 6: 220-223. Manuscript "handschriftlicher Nachlass A.T. v. Gersdorf", Oberlausitzische Bibliothek der Wissenschaften der Städtischen Kunstsammlungen Görlitz.
- HHStA [Haus-, Hof- und Staatsarchiv] Wien, OKäA [Oberstkämmeramt], 1781 ff, Schachtel 7 ff.
- HKA [Hofkammerarchiv] Wien, Münz- und Bergwesen, Fasz. 1 (Nr. 249).
- Hamann, G. 1989. Ignaz von Born und seine Zeit. In: Fettweis, G.B. & Hamann, G. (eds.), *Über Ignaz von Born und die Societät für Bergbaukunde. Sitzungsberichte der Österreichischen Akademie der Wissenschaften, philosophisch-historische Klasse*, 533: 1-25.
- Heesen, A. & Spary, E.C. 2002. Sammeln als Wissen. In: Heesen, A. & Spary, E.C. (eds.), *Sammeln als Wissen*. Wallstein Verlag, Berlin: 7-21.
- Hühnel, H. 1992. Botanische Sammelreisen nach Amerika im 18. Jahrhundert. In: Wawrik, F. et al.

- (eds.), *Die neue Welt. Österreich und die Erforschung Amerikas*. Christian Brandstätter Verlagsgesellschaft, Wien: 61-78.
- Klemun, M. 1984. Arbeitsbedingungen eines Naturforschers im Kärnten des 18. Jahrhunderts am Beispiel Franz Xaver Wulfens. *Carinthia I*, **174**: 357-374.
- Klemun, M. 2000a. Internationale Kontakte und Funktionen des Mineraliensammelns am Beispiel von Sigmund Zois (1747-1819). In: *Geschichte der Erdwissenschaften in Österreich. Tagungsband. Berichte der Geologischen Bundesanstalt*, **51**: 13-20.
- Klemun, M. 2000b. Botanische Gärten und Pflanzengeographie als Herrschaftsrepräsentationen. *Berichte zur Wissenschaftsgeschichte*, **23**: 330-346.
- Kürzböck, J.E.R. von. 1779. *Neuester wienerischer Wegweiser für Fremde und Inländer vom Jahre 1792. Oder kurze Beschreibung aller Merkwürdigkeiten Wiens*. Kurzbeck, Wien.
- Lemper, E.H. 1974. *Adolf Traugott von Gersdorf (1744-1807). Naturforschung und soziale Reformen im Dienste der Humanität*. VEB Deutscher Verlag der Wissenschaften, Berlin.
- Pomian, K. 1987. Entre l'invisible et le visible: la collection. In: Pomian K. (ed.), *Collectionneurs, amateurs et curieux*. Éditions Gallimard, Paris: 15-58.
- Ranacher, M. 2000. Kaiser Franz I. im Kreis der Direktoren der kaiserlichen Kabinette. Lothringens Erbe. In: Zedinger, R. (ed.), *Franz Stephan von Lothringen (1708-1765) und sein Wirken in Wirtschaft, Wissenschaft und Kunst der Habsburgermonarchie. Katalog des niederösterreichischen Landesmuseums, St. Pölten, N.F.*, **429**: 115-117.
- Rudwick, M. 1996. Minerals, strata and fossils. In: *Cultures of natural history*. Cambridge University Press, Cambridge: 266-286.
- Saint Laurent, J. 1746. *Description abrégée du fameux cabinet de M. le Chevalier de Baillou*. Luques.
- Schönburg-Hartenstein, J. 1987. Josef Anton Nagel – ein Direktor des physikalischen Kabinetts. *Österreichische Akademie der Wissenschaften, philosophisch-historische Klasse, Sitzungsberichte*, **482** (Veröffentlichungen der Kommission für Geschichte der Mathematik, Naturwissenschaften und Medizin, **45**): 113 pp.
- Teich, M. 1976. Ignaz von Born als Organisator der wissenschaftlichen Bestrebungen in der Habsburger Monarchie. In: Amburger, A. et al. (eds.), *Wissenschaftspolitik in Mittel- und Osteuropa*. Vienna: 195-205.
- Wilson, W. 1994. The History of Mineral Collecting. *Mineralogical Record*, **25**: 263 pp.
- Zedinger, R. (ed.) 2000. Lothringens Erbe. Franz Stephan von Lothringen (1708-1765) und sein Wirken in Wirtschaft, Wissenschaft und Kunst der Habsburgermonarchie. *Katalog des niederösterreichischen Landesmuseums, St. Pölten, N. F.*, **429**: 302 pp.