Collections in libraries: a collection of travel-books in the University Library Leoben

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Key words — Collecting, libraries, travel books, Brueckmann, Hacquet, Russegger, Kryseler, Meyer. Collecting seems to be a topic, which has become more and more interesting during the last years. It is not only the passion that seizes people of all parts of our society, it is more than some sort of eccentricity, it goes back to our roots, when we were hunters and gatherers to gain our living. Nowadays hunters and gatherers can be found in antique shops, but they are also to be found in museums and libraries. Collecting in museums has started with 'Cabinets of curiosities' ('Kunst- und Wunderkammern'), which housed "wonders" ranging from rare shells and coins to narwhal horns, coral carvings and perhaps mummified mermaids.

Libraries always collected not only the scientific books of their times, they always strove for the bigger, wider, the universal library. The first one to meet this high standard was the antique library of Alexandria, where all the knowledge of the time was collected in about 400,000 papyrus scrolls, nowadays we have the universal library in the internet.

Far from being universal, the small library of Leoben has a rather nice collection of travel books, which have been sources for our geologists and mining engineers during all the years of our existence. The books have been collected since the beginning of our University in 1840, and nowadays we still complete the collection with reprints from historic travel books. The collection has books like Brückmann's Magnalia Dei from 1727, where the author describes all 1600 mines in the world, which were known at that time, or Emanuel Swedenborg's Regnum subterraneum from 1734, where he describes the copper mines in Europe. Most of the literature in our collection comes from the 19th century, one of the most interesting books is Joseph Russegger's Travels through Europe, Asia and Africa in the years 1835-1841. Russegger was the first to draw a geological map of Egypt and the Sudan, he was the first European, to see the springs of the Nile. Another author to be mentioned is Belsazar Hacquet de la Motte, a physician, who travelled all over Europe. He is best known by his work Travels through Slovenia, in which he describes amongst others the Idrija mercury mine in 1779. In our collection there are also travel books, which are not related to mining or geology, we have for instance Sven Hedin's Transhimalaya and Hans Meyer's report on his travel to the Kilimanjaro in the year 1890. All the books on travelling bring to us the adventure of being away, they "bring the world back into our hearts", as the geologist Russegger notes at the end of his books.

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Introduction

"Collecting starts ahead of science" ("Sammeln geht der Wissenschaft voran"). So wrote the great German poet Adalbert Stifter in his novel "Der Nachsommer" in 1857 (Stifter, 1997). This is not as curious as it may sound, because collecting data, statistics, numbers, curves, or objects are the basis of science; it is the accumulation, the collection of facts, which shows the scientist a certain regularity in things, which can lead to the real conclusion (Heesen & Spary, 2001, p. 7). But of course, collecting is more than gathering things for the scientists. Collecting is passion, it is a feeling which a passionate collector may describe as happiness.

Collecting is a topic, which has become increasingly interesting for the history of science during recent years. It is not only a passion that seizes people in all parts of our society, it is more than some sort of eccentricity, with collecting we are going back to our roots, when we were hunters and gatherers to gain our living (Muensterberger, 1995; Assmann et al., 1998). Hunters and gatherers can nowadays be found in antique shops, but they are also librarians and museum curators. Things have changed! During the last ten years psychologists have become aware of the phenomenon "collecting", a theme on which numerous scientific articles and books have been written. I do not want to go deeper into that subject, there are too many differing types and motivations for collecting, which are not to be the theme of this paper.

Let us think about collecting and collections in libraries and museums. Collecting in museums has started in the 16th century with 'cabinets of curiosities' ('Kunst- und Wunderkammern'; see von Habsburg, 1997). They are rooms of art (Kunst) and marvel (Wunder). The 'Kunst- und Wunderkammer' displayed an encyclopaedic collection of all kinds of objects of dissimilar origin and diverse materials. A compilation of remarkable things was attempted as a mirror of contemporary knowledge. It was of no concern, if the objects were created by the genius of man or the caprice of nature. The rarer an item, the more attractive it appeared, be it a colossal "giant's bone" or a precious find from a mineral vein turned into a marvellous piece of jewellery. To collect extraordinary and mysterious things was interesting in all centuries but especially in the age of Renaissance, when the taste for bizarre odd things, for exotic artefacts in extravagant shapes was cultivated. It was the age of exploration, a period of rapidly expanding horizons of knowledge, influenced by the discovery of the New World.

Collecting at that time was mostly done by emperors and princes, like the famous collection in Ambras castle near Innsbruck (Tyrol) where Archduke Ferdinand II of Tyrol had his famous 'Kunst- und Wunderkammer'. Two Italian architects turned the existing medieval fortress into a Renaissance castle, where the armouries and the 'Kunst- und Wunderkammer' were designed and used as museums. The 'Kunst- und Wunderkammer' in Ambras castle is the only one which can still be seen in its original place. Others have been plundered, like those in Munich, Prague or Stuttgart, or their character has changed, like in Dresden or Kassel. In Ambras you can find corals arranged in cabinet boxes, pieces of art made of ivory or wood, glass figures, porcelain and silk paintings, which belong to the oldest collections of Asian art in Europe. There are also objects made from rhinoceros horn, drinking vessels made of coconut or rock crystal, surveying instruments, clocks and automatons.

One of the most spectacular collections of that time, was emperor Rudolf II's

'Kunstkammer', which was founded in Prague in the late 16th century. His unrivalled passion for collecting made his cabinet one of the greatest collections of his time, containing small bronzes, works in cut stone, medallions and ivories, books and drawings, coins, scientific instruments and natural objects, as well as paintings. It was often called a cabinet of curiosities intended for amusement and wonder, but it also reflected the broader scientific and artistic interests of the court. Soon after the emperor's death in 1612, his collection was largely dispersed. During the turmoil of the Thirty-Years War parts of the Kunstkammer were saved and brought to Vienna, where they are now a major part of the Collection of Sculpture and Decorative Arts in the Museum of the History of Arts in Vienna ('Kunsthistorisches Museum'). There are not only works of art ("artefacta"), but also a large variety of products of nature ("naturalia") and objects we today would call ethnographic material.

Libraries

Another type are library collections. Almost everybody in modern Europe has books in their homes. But not all of them can be seen as collectors, and not every mass of books can be called a collection. The books they have in their shelves do not have a special profile, which is the main qualification for something called "collection" (von Lucius, 2000). Collecting means first of all selecting, selecting from millions of titles, commonly those written and printed during the last centuries.

Libraries always collected not only the scientific books of the specific sciences taught at special universities, but also strove for the bigger, wider, the universal library. The first, which could attain these high standards, was the Library of Alexandria. It was meant to be a universal library, the founder, Ptolemy I Soter, wanted to equip the library with writings "of all men as far as they were worth serious attention" (Canfora, 2002). Of the means by which the books were acquired many anecdotes are told. Ships entering the harbour were forced to give up any manuscripts that they had on board and take copies instead. Ptolemy III wrote letters to all the sovereigns in the world, to borrow their books. When Athens lent him the texts to Euripides, Aeschylus and Sophocles, he had them copied, returned the copies and kept the originals. In addition to Greek literature and Egyptian records, there is evidence that the new library also incorporated the written works of other nations. The library contained the writings of Zoroaster as well as Buddhist texts from India. The number of books thus obtained is variously stated ranging from 40,000 to even 700,000 papyrus scrolls, which were housed in the grain depots near the harbour, and it was supposedly incinerated, when Julius Caesar torched the fleet of Cleopatra's brother and rival monarch. A legend speaks of a female student and mathematician, Hypatia, who was dragged from her chariot by an angry mob and burnt upon the remnants of the old library. The old library of Alexandria is gone, but the dream of a universal library has come alive today with the internet.

Travel books

Far from being universal, the small library of Leoben has a rather nice collection of rare books. Among these we have a collection of travel books which have been sources

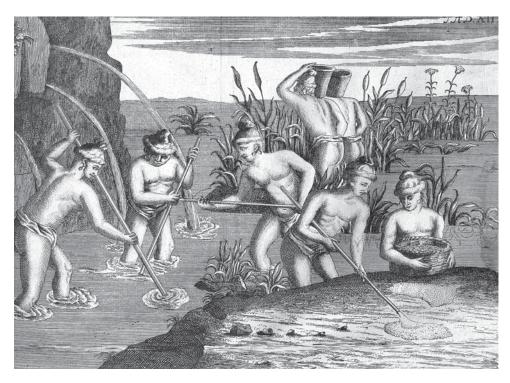


Fig. 1. Gold washing Indians in America (Brueckmann, 1727-1734, pl. 11).

for our geologists and mining engineers during all the years of our existence. Collecting started with the foundation of the university in 1840, and we continue to complete the collection with reprints of historic travel books. Let me demonstrate something of the depth and range of the collection:

A very special description of all the mines in the world is given by Franz Ernst Brueckmann (1727-1734) (UB Leoben, call no 106). It is not a typical travel book, where an author describes his travels to a country, but a list of all mines in Europe, Africa, America (Fig. 1) and Asia. Brueckmann must have seen at least all the mines in Europe, the book gives an exact description of every mine, its geology and how the work is done. The numerous engravings that illustrate his work are very attractive.

Another very important book especially in the field of metallurgy is Emanuel Swedenborg's "Regnum subterraneum" printed in Dresden 1734 (UB Leoben, call no 508; Fig. 2). Swedenborg was one of the most important Swedish authors in the 18th century. He visited all the mines and smelting plants in Sweden, travelled to the Netherlands, Germany and Bohemia. A result from these travels was his book "Opera philosophica et mineralia" (Works in philosophy and mineralogy; Swedenborg, 1734) in three volumes, the third volume is dealing with copper mining and metallurgy especially in Sweden. Swedenborg (1688-1772) was a universal genius, and wrote books on philosophy, psychology, theology and medicine. He was the first one to demonstrate the function of the lungs, and he realized the importance of the grey cerebral cortex.

Travel books especially in the 18th and 19th centuries are very important for the

DOKV

EMANUELIS SWEDENBORGII SACRÆ REGIÆ MAJESTATIS REGNIQUE SVECIÆ

COLLEGII METALLICI ASSESSORIS

REGNUM SUBTERRANEUM

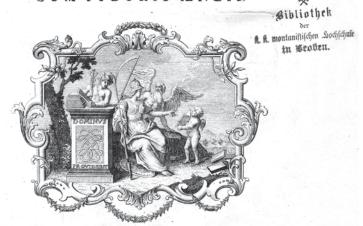
MINERALE

CUPRO ET ORICHALCO

DEQUE

MODIS LIQUATIONUM CUPRIPER EUROPAM PASSIM IN USUM RECEPTIS: DE SECRETIONE EJUS AB ARGENTO: DE CONVERSIONE IN ORICHALCUM: INQUE ME-TALLA DIVERSI GENERIS: DE LAPIDE CALAMINARI: DE ZINCO: DE VENA CUPRI ET PROBATIONE EJUS: PARITER DE CHY-MICIS PRÆPARATIS, ET CUM CUPRO FACTIS EXPERIMENTIS &c. &c.

CUM FIGURIS ÆNEIS.



DRESDÆ ET LIPSIÆ, SUMPTIBUS FRIDERICI HEKELII, BIBLIOPOLÆ REGII M DCC XXXIV.

Fig. 2. Title page of Swedenborg's (1734) Regnum subterraneum.

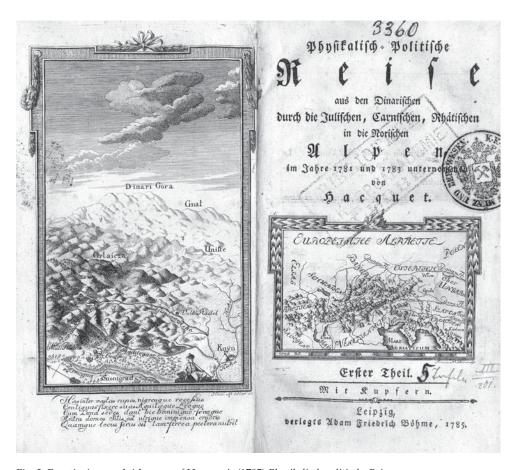


Fig. 3. Frontispiece and title page of Hacquet's (1785) Physikalisch-politische Reise ...

history of sciences and bring a lot of facts and figures to the historian. The "scholarly" travellers wrote in their diaries about nature and how men exploited it.

One of the most famous writers of this genre in Austria was Belsazar Hacquet de la Motte (1739-1815; Klemun, 1988) (Fig. 3). He studied medicine, became physician in Idrija's mercury mine and at last professor for anatomy and surgery in Laibach (= Ljubljana, Slovenia). From 1767 to 1787 he travelled a lot in the Alps and in his surroundings in Slovenia. In his travel books he described the nature of the lands he had been visiting, the botanical, geological and meteorological conditions, how the mines and metallurgical plants worked, he also wrote about the people and the political history. He visited several mines of this region and climbed a lot of mountains. He probably suggested the first ascent of the highest mountain in Austria, the Grossglockner, which was carried out in 1800. His very lively description and nicely illustrated books are very important for the history of science. His lithological researches were pioneer works for the geology of the Eastern Alps, his climbing expeditions made him a pioneer for mountaineering, and his journeys to the Alpine and Carpathian countries made a beginning for the studies in ethnology in Austria.



Fig. 4. The Blue Nile (Russegger, 1841-1849, pl. 19).

Scientific knowledge was gained by the observations of travellers. All the new botanists, geologists and natural scientists were travellers who based their knowledge on the experiences they made during their travels. Geology was a subject that became more and more interesting to travellers, it was geological research that legitimated many of the journeys in these times (Jontes, 2001). One could say, that maybe geology was so interesting, because it needed a lot of travelling.

A discourse on travel books and travelling would not be complete without mentioning Alexander von Humboldt (1769-1859; e.g. Guntau, 1993; Kraetz, 1997). This very important traveller, collector, scientist made more than all the other travellers a mark on all the scientific research. Humboldt's research was centred by his lust for travelling. As a boy, his plans for the future revolved around travelling, throughout his life he longed for work in distant countries, which he wanted to explore. His travels made the dream of his life come true and above that he managed to write down his experiences in various scientific books, which were the basis for the forming of new sciences in the 19th century. He travelled round the globe, by the time he was 90 years old half of his life had been spent travelling. His travels brought him to almost all countries in Western Europe, he travelled to Russia, visited the Urals, Siberia, the Altai, and crossing the Atlantic Ocean he explored the Caribbean and the Americas. He was interested in everything, plants, animals, minerals and rocks, and his observations were laid down in his great scientific works. In 1799 he travelled with his friend, the botanist Aimé Bonpland to South America. During this journey Humboldt had lectures in geology at the Mining Academy (Colegio de Mineria, founded 1792) in

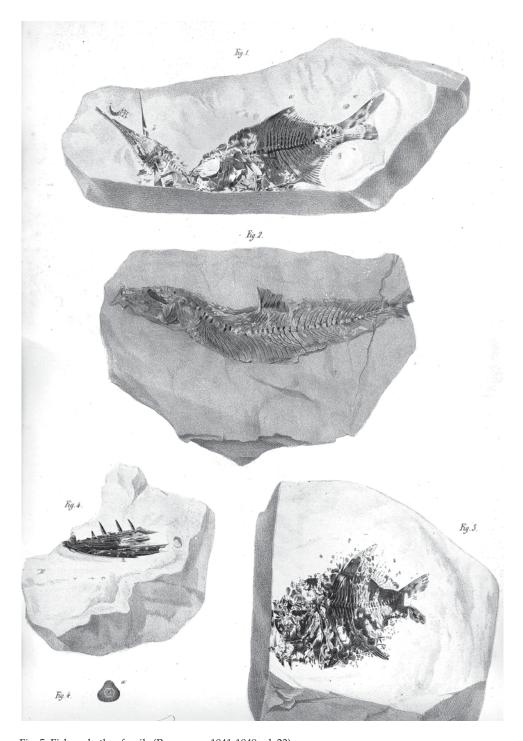


Fig. 5. Fish and other fossils (Russegger, 1841-1849, pl. 23).

Mexico, and even examined its students. Another interesting meeting was his visit to America's president Thomas Jefferson, who was very interested in science. Humboldt was the first to inform the president about the land he had acquired from Napoelon for 15 million dollars, Lousiana. When Humboldt came back to Europe he edited his travel notes. Together with other scientists he had his major work in 34 volumes printed. Unfortunately, we in Leoben do not have all his volumes, but some parts of Humboldt's scientific work are in our collection (Geoscience Library: von Humboldt, 1853, 1845-1862).

One of the Austrian scientists, who did not travel as much and as far as Humboldt, but did a lot for the Austro-Hungarian Empire, is Joseph von Russegger (1802-1863; Anonymus, 1863). Besides being a very apt miner and geologist in the Austrian mining industry, he became famous for his expedition to Africa. In 1834 Egypt's viceroy asked the Austrian government, if a mining or geological engineer could travel to Egypt to visit the ore deposits and to start mining there. Russegger, who had at that time been working in the gold mine in Gastein (Salzburg), was sent on the journey. 1836 he reached Cairo, where his adventures started. He travelled up the Nile to Khartoum, where he stayed to visit the gold washing in southern Sudan (Kordofan). Another expedition brought him to the Blue Nile in Western Ethiopia. He described his experiences in a book of seven volumes (von Russegger, 1841-49; 4 vols. in UB Leoben, call no 225). In these travel books the reader first can read the diary, which contained all the incidents that happened during the journey. At the end of each chapter Russegger gives detailed descriptions of the country's flora and fauna, the geology, meteorological tables and a description of the people living there (Figs. 4 and 5). He not only describes the people he met, he also tried to understand them. Russegger tried to learn the language of the people, in his diaries he gives lists of words from several tribes, forming a basis for later dictionaries.

Russegger's main aim was to find the gold washing places in southern Sudan, for which he was accompanied by a small army of soldiers. When he came to the placers and started to take samples of the sand, the soldiers thought it was gold, attacked him and took all the sand away. The experiment therefore had failed and Russegger went back to Cairo. The expedition had lasted five years and three months and produced many important scientific results. Russegger was the first one to draw a geological map of Egypt and Sudan; all the ore deposits were listed and drawn in maps. The whole land was mapped very accurately, the first exact plans of the Sudan.

There are various books of travel literature in Leoben that are descriptions of our home country. The most famous name in this genre in our country was Joseph Kyselak (1795-1831), who travelled all over Austria and had his name written on every rock, every higher tree and in all the grottoes on his way (Kyselack, 1829, reprinted 1982). Therefore everybody knew Kyselack ("Kyselack was here!" was a famous saying at that time). His name became known, his travel books were not as good as his reputation.

Another author of travel books in the Biedermeier period was the actor Franz Carl Weidmann (1790-1867), who wandered in the Austrian Alps. Archduke John, the founder of the Leoben university, asked him to make a topographic description of Austria, where he wandered during the warmer months of the year, the other time he was actor in Vienna. He lists all the villages on the way and gives practical hints for wanderers (Weidmann, 1820; UB Leoben, call no 11.051/82). For instance he described



Fig. 6. The Kilimanjaro (Meyer, 1890, pl. 1).

a journey on a ship from Linz in Upper Austria to Vienna and listed all the things meticulously that could be seen on the right and left bank of the river Danube.

The travellers in the 19th century had open eyes for the common and also uncommon things on their way. They invited the readers to take part in their experiences. Joseph Albert (1791-1847) was one of these writers. In his description of a journey to Hungary (Krickel, 1831; UB Leoben, call no 27.048) he gives a very vivid illustration of the coronation ceremonies of Ferdinand V, King of Hungary.

These are examples of literature about Austria, but our collection also has travel books on far away countries for instance Sven Hedin's (1909) "Transhimalaja" (UB Leoben, call no 4.825). Sven Hedin (1865-1952), a Swedish geographer, was inspired in his youth by the books of James Fenimore Cooper and Jules Verne, and the exploits of Livingstone and Erik Nordenskjöld, whose voyage on the "Vega" through the Bering Strait into the Pacific aroused great enthusiasm in Sweden. At the age of twelve he decided to pursue the life of an adventurer. He studied geography and geology in Uppsala and Berlin and then started his great travels to Asia. Between 1893 and 1935 Hedin made four expeditions to Central Asia. He charted maps of significant areas in Pamir, Taklamakhan, Tibet and the Transhimalaja region. He made two attempts to reach Lhasa, but he did not reach it, it was a "forbidden" city at that time. These expeditions are described in Transhimalaja, where he gives vivd descriptions of the country and the people.

Another example is Hans Meyer's (1890) report on his travel to the Kilimanjaro ("Ostafrikanische Gletscherfahrten") (UB Leoben, call no 3.517, Fig. 6). Hans Meyer (1858-1929) was the first to reach the peak of the Kibo in 1880 together with Ludwig Purtscheller. This first conquest was a very hard undertaking including an ascent over

the big glacier without climbing irons. The ascent was made with ice axes, every step required some 20 strokes of the axe, and the labour at this height must have been immense. It must have been a thrilling moment when Meyer topped the rim and suddenly saw before him the huge crater with its frozen floor. He and his companion were the first men to behold this wonder and to reveal the secret that Kilimanjaro had kept concealed through ages.

There could be said much more about our collection of travel books, but these few examples give you an insight how travelling brings all the adventures, bring "the world back to our hearts", as the geologist Russegger notes at the end of his books.

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