

Georg Wilhelm Schimper

Botanist and Explorer, Geologist and Mapmaker in Northern Ethiopia 1837 to 1878

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Introduction

Georg Wilhelm Schimper [Fig. 1] was a renowned German botanist and explorer who spent more than 40 years in Ethiopia collecting plants, mainly in Tigray, the Semen Mountains and the Märäb and Täkkäze regions of what is now known as the Ethiopian highlands and Eritrea. Schimper is now universally considered to be the single greatest contributor to the knowledge of the flora and fauna of the Horn of Africa.

Before Schimper's collection activity in Ethiopia the great majority of plants of Ethiopia had been unknown in Europe. He went on

long expedition to collect plants and then dried them and sent them as specimens to European herbaria. They still form a substantial part of the collections of major research centres in Europe such as the Jardin des Plantes in Paris, the Botanisches Museum in Berlin, and the Royal Botanical Society at Kew in London and many others.¹ The Kew Herbarium catalogue alone reveals some 2400 *schimper* or *schimperiana* entries for plants he classified and described in Ethiopia and the countries he visited in the Middle East [Fig. 2; Fig. 3].

Biographical sketch

Schimper was born on 2nd August 1804 in Lauf on the River Pegnitz near Nuremberg in Germany. He was the second son of Friedrich Ludwig Heinrich Schimper, a teacher of engineering and mathematics, and Margaretha Baroness von Furtenbach, a descendant of an impoverished aristocratic family from Reichenschwand in Bavaria, Germany.² His elder brother, Karl Friedrich Schimper, medical doctor and private scholar (1803–1867), developed glacial theories about the Ice Age and his cousin, Wilhelm Philipp Schimper, botanist specializing in the study of mosses (1808–1880), became the director of the Natural History Museum of Strasbourg.

Schimper attended school at Mannheim and Nuremberg but his formal education ended when he was 14. He then served an apprenticeship as woodturner at Nuremberg before joining the army working as farrier and gaining the rank of Sergeant. Brother Karl Friedrich was enrolled at the University of Munich studying Natural Sciences and in 1828 Schimper



Fig. 1: Portrait of G.W. Schimper; Theodore's Artisans and their Wives; Schimper, sitting in the middle, behind him, standing, with beard, Eduard Zander

joined him there to do the same. Although Schimper never actually completed a formal course of study, in later life he signed his letters as 'Dr. Schimper' when writing from Ethiopia in view of the medical services rendered to his protector, *Ras*³ Webe Haile Maryam. He was known locally as 'hakim', 'doctor' and he himself recounted treating people, for instance healing a relative of Webe's of an eye infection (Schimper 1843).

The time in Munich was important for him, as there he met some of the brightest students of his generation. They included the palaeontologist and geologist Louis Agassiz (1807–1873) and the botanist and later Director of the Berlin Botanical Garden Alexander Braun (1805–1877). In 1830 he met Eduard Rüppell (1794–1884), the first naturalist to travel in Ethiopia. Ever short of funds Schimper supported himself by working for some of these scientists, Agassiz in particular, who taught him how to draw and mount botanical and zoological specimens.

Collection expeditions

On 25 January 1831 Schimper left Mannheim for his first botanical expedition to the south of France and Algiers in the service of the Botanischer Reiseverein of Esslingen, a travel association (also known as the *Unio Itineraria*) founded by the botanists Christian Ferdinand Friedrich Hochstetter (1787–1860) and Ernst Gottlieb von Steudel (1783–1856). This association was established to promote scientific investigation through the collection and distribution of dried plants. Collectors usually supplied multiple specimens of one plant and these would be sold on to herbaria worldwide. The directors raised funds from subscribers to the project as well as from the liberal patronage of William I, King of Württemberg (1781–1864).

After his return from Algiers due to illness in 1832, Schimper stayed with Louis Agassiz in Neuchâtel where he continued his work as a draftsman and illustrator and also published an account of his travels (Schimper 1934). Two years later, in August 1834 he set out again to collect plants for the Esslingen travel association with a colleague, Dr. Anton Wiest (1801–1835). They suffered shipwreck near the island Kefalonia, but took the opportunity to explore parts of Greece and the Io-

nian Islands before travelling on to Egypt. Unfortunately, after having reached Cairo, Wiest died of the plague. Undeterred, Schimper decided to continue collecting plants on the Arabian Peninsula on his own. His first collection comprised some 30,000 plant specimens (Gräber 1999a: 51), which he sent to Germany. In 1835, Schimper was made an Honorary Member of the Mannheim Society for Natural Sciences (*Naturforschende Gesellschaft Mannheim*) in recognition of the many plants he had sent to this city which he regarded as his home town.

In the long run, the collection activity proved too costly for the Esslingen travel association. Schimper had sent a request for additional funds, the directors had asked their subscribers to double their contributions, but their support could not be sustained; the Association was wound up in 1842.

But before that, Schimper travelled down the Red Sea to Massawa and then on to Adwa in Tigray in 1837. The local overlord, *Ras* Webe Haile Maryam (1799–1867), granted him permission to settle in the country. Between October 1837 and May 1855 Schimper undertook various collecting expeditions as far north as the Märäb River and south into the Täkkäze River basin and in the high Semen Mountains, the prolific results of which made him the renowned botanist. Apart from collections for the Esslingen travel association in 1838, 1841 and 1843 (Gräber 1999a: 54), he also sent dried plant specimens to the *Jardin des Plantes* in Paris from 1851 to 1855 and to Director Alexander Braun and the celebrated traveller, botanist and ethnologist Georg August Schweinfurth (1836–1925) in Berlin in 1854, 1861 and 1862 (Gillett 1972). He also named a flower after Webe, '*Ubyaea Schimperii*' [Fig. 4] (Schimper 1868). The specimen in the Kew Herbarium, dated 30 May 1838, is now called *Haplocarpha schimperii* or *Ethiopian daisy* [Fig. 5].

Money problems

Through contacts with Giustino de Jacobi, the Italian Lazarist priest and later Bishop (O'Mahoney 1982), Schimper converted to Roman Catholicism on 16th April and married an Abyssinian Catholic convert, *Wäyzäro*⁴ Mersit (c. 1823/28–1869) on 22nd April 1843. She was a rela-



Fig. 2: Specimen sent by Schimper, 'Schimper iter Abyssinicum. Pterygocarpus abyssinicus Hochst.', dated 19th July 1838



Fig. 3: Specimen sent by Schimper, 'Oxystelma pterygocarpum Hochst.', dated 19th August 1854



Fig. 4: *Ubyaea schimperi* = now called *Haplocarpha Schimperii* (Sch. Bip.) Beauv. Schimper 1176, Asteraceae (Compositae) or Ethiopian daisy, dated 30 May 1838. Kew Herbarium, London; Catalogue published on internet site: <http://apps.kew.org/herbcat/getHomePageResults>



Fig. 5: *Ubyaea schimperi*, photographed on November 14th, 2009, outside Däräsge Maryam Church, near Mekane Berhan, Semen Mountains

tive of the diplomatic envoy, Catholic convert and priest, *Abba*⁵ Emnätu and believed by many to have been a relative of Webe's. The couple had three children, Yäsimmäbet Dästa Maria (b. 1843), Taytu Sophie (b. 1845) and Engedasät Wilhelm (b. 1847). A third daughter, Teblat was born in c. 1853 whilst he was working on the construction of a church for *Ras Webe* at Däräsge Maryam in the Semen Mountains, although it is not clear whether *Wäyzäro* Mersit was her mother (Smidt 2006).

Also through the good offices of Bishop De Jacobis, in 1843 *Ras Webe* appointed Schimper *Šum*⁶ or governor of the province of Enticho⁷ to the east of Adwa and gave him a small estate there where he introduced new agricultural methods and plants, among them the cultivation of potatoes.⁸ In Amba Sea, he built a stone house on his landholding, which he called *Gässa Schimper*; in later years he entered its location both on his manuscript map [Fig. 6; Fig. 7]⁹ and its print version published by A. Sadebeck in 1869 [Fig. 8] (Sadebeck 1869).

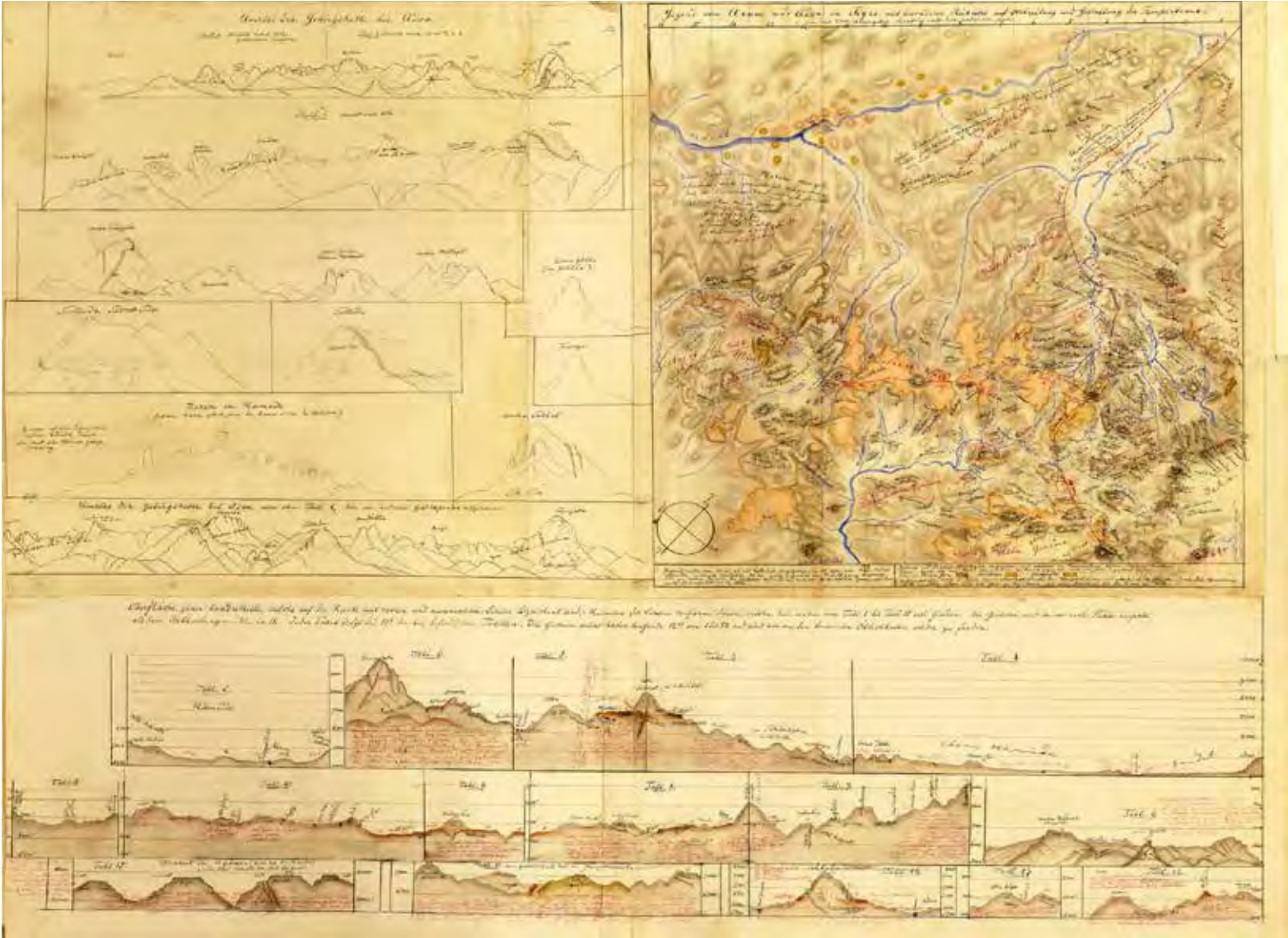


Fig. 6: G.W. Schimper, *Maps*, 17, 'Area of Axum and Adwa and surroundings'

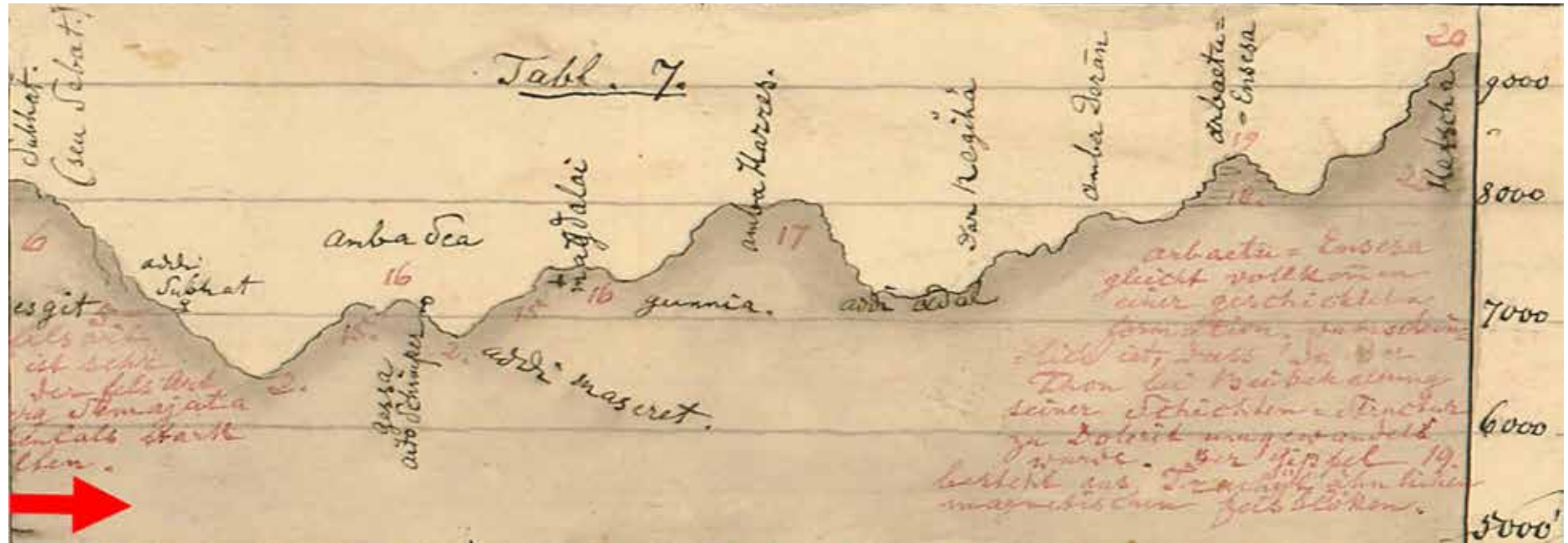


Fig. 7: G.W. Schimper, *Maps*, Detail, 17, Table 7, with entry for 'Gässa Schimper' and 'Amba Sea', Schimper's country estate south of Amba Subhat

Schimper paid 3,000 Maria Theresa-Taler for the estate with a view to turning it into a model Catholic community. He also built a small village of stone houses, one of which served as Roman Catholic church (Rodatz, 1846: 147).¹⁰

Schimper's estate flourished and it was only fair that at times he had to act as political adviser of and translator for Webe. Schimper now had an income from his province of Enticho but its administration left him very little time for botanical research. All his life he had been hampered by a lack of financial resources and it was a precarious existence to be cut off from European funds. In 1840 and 1843, he tried to interest William I, King of Württemberg, to finance further expeditions,¹¹ in 1847, he suggested to the Hapsburg Monarchy to start trading with Ethiopia. To this effect, he sent a letter to the Austrian Consul General in Alexandria, Ritter von Laurin,¹² offering his services as negotiator on behalf of the Aus-

trian consular agencies with the Turkish governor of Suakin and Massawa and the Turkish Pasha of Jeddah. This letter was forwarded to the Governor in Trieste, Count Stadion,¹³ who suggested sending 200 firearms to Schimper and to commission him to open negotiations. These moves were thought to be necessary to stop the French vice consul in Massawa, Mr. De Goutin,¹⁴ who apparently demonstrated 'bad behaviour' to all foreigners.¹⁵ Nothing further was heard of the initiative. What this 'bad behaviour' had been, is left unsaid, it had probably to do with tensions among the small expatriate community of merchants in Massawa.

Collaboration with Eduard Zander

In late 1847 the German artist Eduard Zander (1813–1868) [Fig. 9] arrived in Adwa and got in touch with Schimper. By January 1848 Schimper had been able to appoint a steward to look after his affairs



Fig. 8: G.W. Schimper, fold-out map, 'Umgegend von Axum und Adoa in Tigre', accompanying the article 'Geognostische Skizze der Umgegend von Axum und Adoa in Tigre'

during his absence,¹⁶ so he and Zander were able to conduct botanical collection expeditions around Tigray and the Semen.

Schimper and Zander, though compatriots, both under Webe's protection, did not always see eye to eye with each other as they supported different political factions. However, until 1855, when Webe lost out to Tewodros, they shared many tasks at the behest of Webe, who had extended his protection over Europeans on the clear understanding that they had to assist him in any which way required. This meant, that both had to perform tasks for which they had no experience or training.

In Ethiopia there was a tradition of imperial foundations of churches which frequently were endowed with privileges, laid out in 'endowment charters', which specified the privileges like giving shelter, asylum or refuge to fugitives. In 1848 Webe commissioned Schimper and Zander to build a church [Fig. 10]

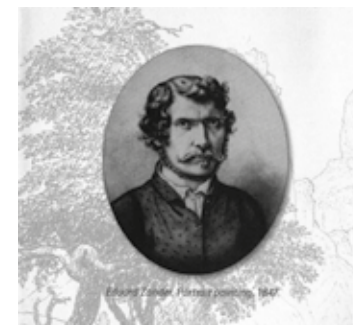


Fig. 9: Eduard Zander, self portrait

and a small stone building [Fig. 11] at Däräsge Maryam in the Semen Mountains, which they completed in 1853. Schimper called it 'a small castle', 'ein kleines Schloss'¹⁷ and even used the term 'Byzantine castle' in his own article about it.¹⁸ Research by Manfred Kropp established that the church was founded with the privileges of an asylum church, so that the entire church compound and with it the stone building was a place of refuge.¹⁹ In addition, the stone building in particular had been intended – according to Schimper – to be the 'coronation house' (Von Neimans and Schimper 1858: 877).

The impressive buildings are still well preserved to this day. The four walls of the *mäqdäs*, the sanctuary in the church, are magnificently painted throughout and Schimper and Zander are said to have superintended the floral decoration depicted in the paintings [Fig. 12] (Von Krosigk 1938: 111, Markham 1869: 64). Webe endowed the church with many treasures, amongst them the famous illuminated manuscript book of *Revelation* [Fig. 13] (McEwan 2006).



Fig. 10: Exterior of Däräsge Maryam church

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Fig. 11: The 'castle' or 'House of Refuge' in 'Byzantine style', between the two concentric stone walls around the church compound of Däräsge Maryam, built by Schimper and Zander for Webe

Schimper's years of hardship

During the battle of Däräsge on 9 Feb. 1855, the rebel leader, Kasa Hailu, defeated Webe and had himself crowned Emperor Tewodros II in Däräsge Maryam church on 11th February. In order to maintain his grasp on power Tewodros was forced to fight many rebellions and uprising throughout his realm. Traditionally, most soldiers were only armed with spears and shields, but he had captured 7,000 firearms from Webe at the battle of Däräsge Maryam alone, which gave him a huge advantage over all other pretenders standing in his way (Rubenson 1966:74).

Schimper, as a former protégé of Webe, lost his governorship of Enticho. He went back to Adwa where he lived in greatly reduced circumstances for the next few years, having lost his offices, houses and goods;²⁰ nearly all his botanical and zoological collections had been plundered.²¹ He was reduced to begging from those he had helped earlier on, starvation and epidemics stalked the land; he only resumed his botanical and geological-geographical work in Tigray in 1862.

In 1861 Christian Friedrich Bender (1827–1875) married Schimper's eldest daughter, Yäsimmäbet, in Adwa. He was a German Protestant artisan missionary from St. Chrischona near Basle in Switzerland.²² Together with his fellow missionaries he lived at Gafat, near Tewodros' capital of Däbrä Tabor, where they ran a mission school and a technical training workshop. In 1863, Gottlieb Kienzlen (d. 1865), also a member of the mission, obtained Schimper's permission to marry his second daughter, Taytu. Kienzlen and all the other Europeans residents of Gafat were forbidden by Tewodros to leave the area, so that he as bridegroom could not travel to Adwa, but Schimper as the father of the bride had to bring Taytu from Adwa to Gafat. When Schimper tried to return he was forbidden to leave and had to stay in Gafat along with all the German Protestant artisan missionaries who were forced to manufacture weapons, cannons and mortars for Tewodros' army. The reason was the deteriorating political situation between Tewodros and Great Britain, triggered by the death of the British Consul Walter Plowden in 1860, the ever growing mistrust of Tewodros of Europeans in his country and hence the order to allow them residence in one place only.

Despite the limitations on movements put on the Europeans in Gafat, Schimper was able to do some research in Bägemder. He went on trips to collect plants and small rocks, he made notes of his observations on the flora and the geological composition of the terrain and drew maps. This research resulted in drawing the manuscript maps of Bägemder, Qwälla and Tigray. As his first set of maps and notes, called 'observations', had originally been made in triplicate and hidden in two unnamed villages, but had been lost through looting more than ten years earlier, he was obliged to write it all down again from scraps of notes he had kept and from memory. He had to work in a tent, in the heat with doors closed, so that nobody could see in and inform others of what he was doing, for fear that the second attempt would also be without success.²³ The final product, the large map of Bägemder and smaller maps of Tigray, is as much a testimony to his memory as well as to his stamina. He had to make all his paints himself, using earth colours, browns, greys and greens, and very sparingly red ink for lines across the map. He picked out rivers, mountains and towns on his maps and he added a number of silhouettes of mountain profiles or cross sections of the terrain. How he carried on doing this exacting scientific research work under extremely difficult situation, is hard to imagine and shows his mettle. He was not trained as mapmaker or geologist; however, as botanist he was interested in the geology of the land which provided the conditions for the fauna, flora and ultimately cultivation of the land.

From 1866 onwards Schimper and Zander suffered the same fate as the rest of the Europeans as hostages of Emperor Tewodros II. In early October 1867 all Europeans together with Tewodros' army and camp followers were forced to move to Mäqdäla, Tewodros' mountain fortress some 160 km south-east of Gafat. They did not arrive until March 1868 due to the immense task of hauling all the heavy weapons and cannons over the mountainous terrain.

The Europeans were finally rescued from Mäqdäla by the British military expedition under General Sir Robert Napier (1810-1890), whose troops besieged and captured the fortress on 12 April 1868 and liberated all prisoners.²⁴ Zander died in the autumn of 1868, at the same time Schimper sent first his large manuscript book and then the second



Fig. 12: Painted borders, on plinth of west wall in the church of Däräsge Maryam, possibly by G.W. Schimper and E. Zander



Fig. 13: The *Däräse Maryam Revelation*, 3v and 4r. Rev. 1:12-17. 'I saw seven gold lampstands ...'

book with the maps and rock samples to the British Museum in the hope of receiving a payment and future collecting commissions.²⁵

He returned to Adwa where he spent the last years of his life. His wife, Mersit, died on 5th February 1869 and he is known to have married again and had further children. He continued to write reports on Ethiopia, for instance to the German Consulate General in Alexandria about the coronation ceremony of the new Emperor Yohannes IV on 21st January 1872 (Anonymous 1872). In another report he described the maltreatment meted out by Yohannes IV to Schimper's widowed daughter Taytu who had married the pretender-to-the-throne, Kasa Golğa,²⁶ in 1868.²⁷ In Schimper's last known letter, of 8 May 1878, he described the misery of hunger in Tigray.²⁸

Schimper died in Adwa on 10th October 1878 from an epidemic disease, believed to be cholera. He was 74 years old. Schimper's son Engedasät had left Ethiopia with the British in the spring of 1868 and first studied at the St. Chrischona Pilgermission in Basle and then attended the Polytechnic School in Karlsruhe, supported by a bursary from the Grand Duke Friedrich I of Baden (1826-1907). After ten years of studies in Europe Engedasät returned to Ethiopia, too late to see his father alive.

Schimper's two large manuscript books 'Observations' and 'Maps'

Schimper is best known for his botanical research in Ethiopia and for his correspondence with famous botanists in Europe. He commented on political, economic and social conditions in his adopted country, about which not much was known to Europeans. Recently the author came across two records by Schimper in the British Library in London, the first a large manuscript book *Observations*,²⁹ the second a collection of maps and profiles, *Maps*.³⁰ Both *Observations*, dated 1868, and *Maps*, dated 1864/65, were purchased from Schimper by the British Museum in 1870 and are now housed in the Department of Manuscripts in the British Library.³¹

Schimper's *Observations* and *Maps* are the earliest consistent presentation of the botany and geology of Tigray, comprising detailed and extensive descriptions of natural history, geography, botany, food

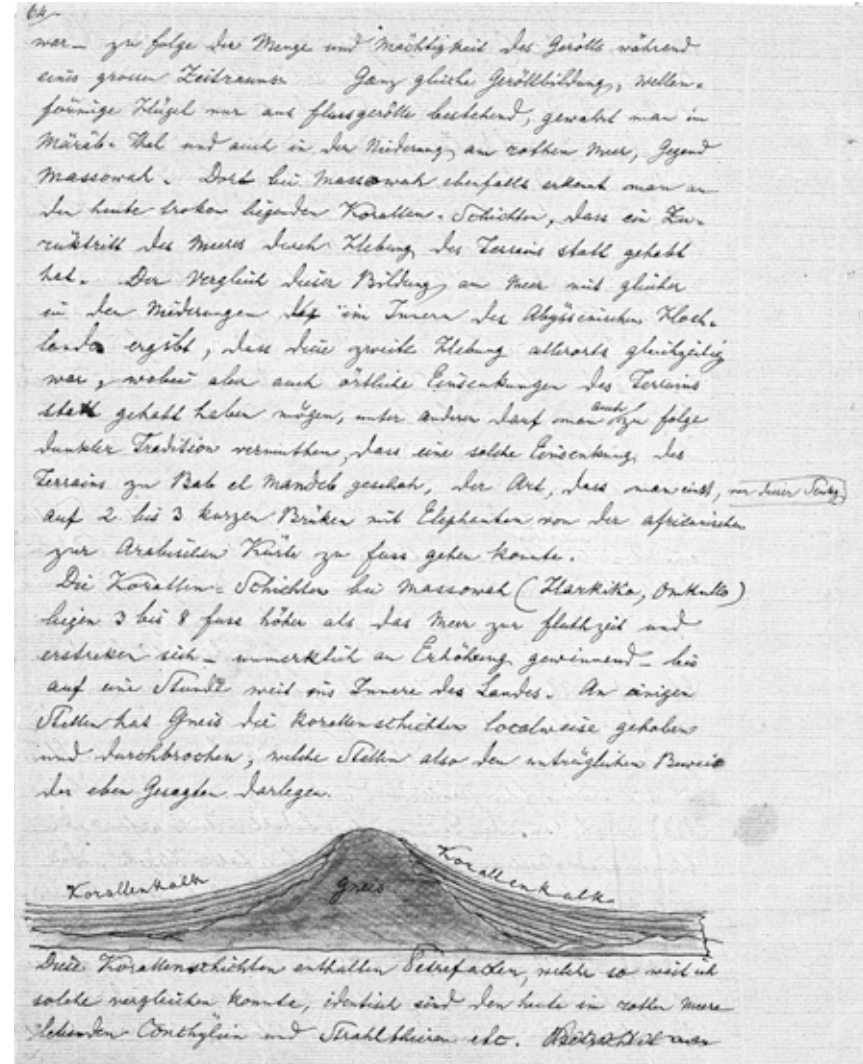


Fig. 14: G.W. Schimper, *Observations*, 198v. Example of Schimper's detailed geological observation: how gneiss breaks through coralline limestone near Massawa

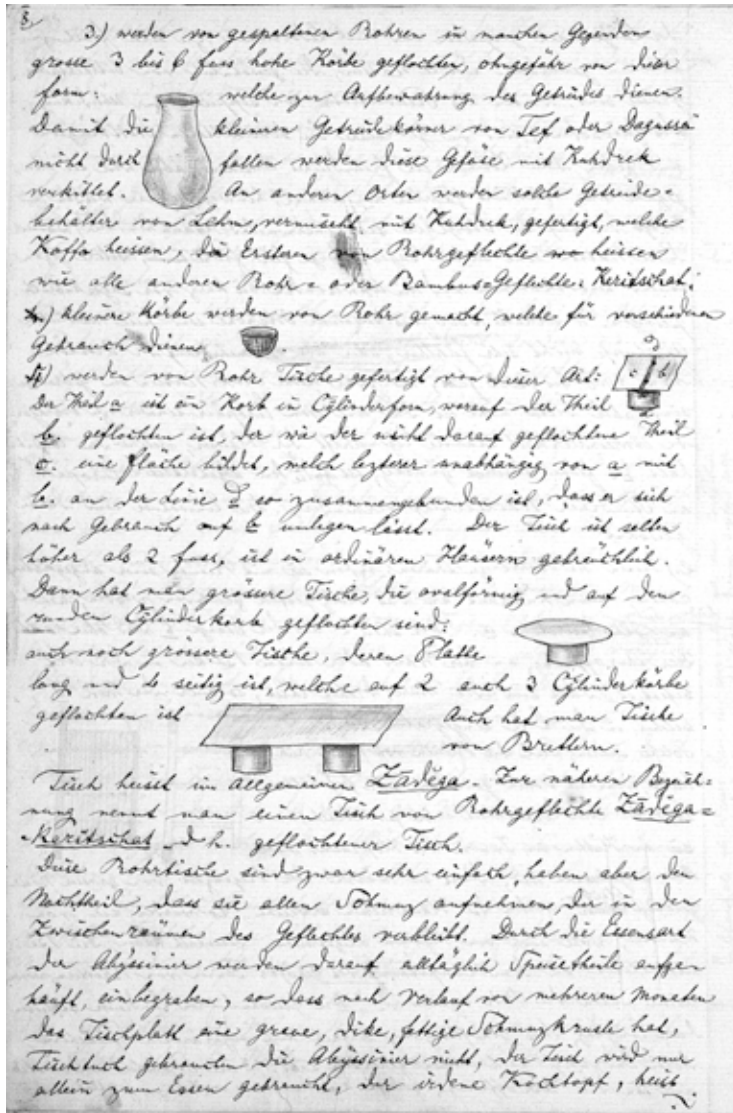


Fig. 15: G.W. Schimper, *Observations*, 88v. Sketches of household utensils

production, local medicines and meteorology, illustrated with his own sketches [Fig. 14; Fig. 15].

The manuscript book *Observations* starts with a list of maps and profiles, followed by a preface with Schimper's signature and 202 folios, some with little sketches, e. g. a parasol or a shade, called *zelal*, and a so-called 'coat of bulrushes', called *gässa*. Schimper explains in detail how both objects, produced from rushes, are made: The stems of the *Scirpus* and *Juncus* species, called *säddi* and *gadima*, serve as sticks for the parasols, which are woven like a flat disk; it therefore cannot be closed or opened. The stems of the *Typha* and *Cyperus* species are used in a similar way for a type of raincoat. The green outer husk is removed, the long stems are gathered together at one end and interwoven horizontally by shorter stems, forming thus a cone-shaped covering which reaches down to the knees of the wearer. This coat of bulrushes is still worn by herders today [Fig. 16].³²

Observations also include comments on the character of the vegetation in Tigray, and the formation and shapes of the mountains in the district Wärahut near Addigrat. There are long chapters with passages on the political situation, on Schimper's life and income, working methods and contacts in Ethiopia as well as in Europe. The appendix is a very thorough list of plants growing in Tigray, a treatise on the understanding of Ethiopian medical science, herbal remedies against tapeworm, agriculture, cultivated plants, interspersed with narratives on the politics and personalities of Ethiopian life and finally geological observations. An example about wine:

Weini is the word for grapes and Wein-Tetsch is the wine made from them, but grapes and wine made from grapes are a real rarity in this country regardless of the fact that one could have it in abundance. Making wine is too much effort for easy-going Abyssinians, so they drink mead, which takes no effort and is made in three to eight days. This country has more than enough honey, although there is no actual beekeeping going on per se. An elongated pitcher is attached to a tree. The queen bee is caught somewhere and persuaded to use the pitcher as her residence which, in turn, draws her subjects to it where they then set up food stocks. In a mess, mixed



Fig. 16: G.W. Schimper, *Observations*, 86r. Drawings and explanations of plants used in making a parasol and a protective cloak of bulrushes

in with wax, bee larvae and filth, the honey is then extracted in November and January, and this sticky paste is consumed or sold. More rarely you might see some of these bee containers in the open close to dwellings, where roofs give them some protection'.³³

The second manuscript book, *Maps*, continues with the geological descriptions of Northern Ethiopia, complemented by four manuscript maps [Fig. 17, large Bagemder; Fig. 18, Lake Tana; Fig. 19, Lake Tana, north oriented; Fig. 20, Adwa and Aksum, north-oriented; Fig. 21, Qwälla, north-oriented] and many sectional drawings and topographic profiles as well as captions and copious comments on the maps and accompanying texts. Here we find detailed texts complementing the visual presentation of the profiles of the various geological strata, for example:

The rock structure of Mount Hetscha is very similar to that of Mount Semajata though it is greyer and more crystalline. The types of rock of the three mountains Subhat, Semajata and Hetscha are the same as most of the mountains near Adoa. You can recognize this from the profiles which I appended to the map. I tried my best to give you a faithful rendering of them. The essential nature of all these mountains is the same, that is, fragmentation, fission, jagged peaks and sheer rock faces. It is true that the slopes of the jagged Mount Hetscha while they descend very steeply on the southwestern side, do not do so absolutely vertically. The northeast side, the Yeha section, is less steep and can be climbed easily. Close to the Hetscha the high mountain range, which stretches from the Semajata right up to approximately 9500 ft from south to north (to 12 1/2, 1 and 1 1/2), changes direction to north-northeast (10) and at this turning point, like a powerful cornerstone, there is Mount Arbaétu Ensessa though connected, yet standing slightly apart from the mountain range, with an obviously quite different formation. It consists of clay dolerite rock, dark blue to black in colour, positioned horizontally in layer-like formation. In fact it is so close to actual stratification that one could suspect any clay rock occurring in this area in plateau form to have been lifted by gentle volcanic influence

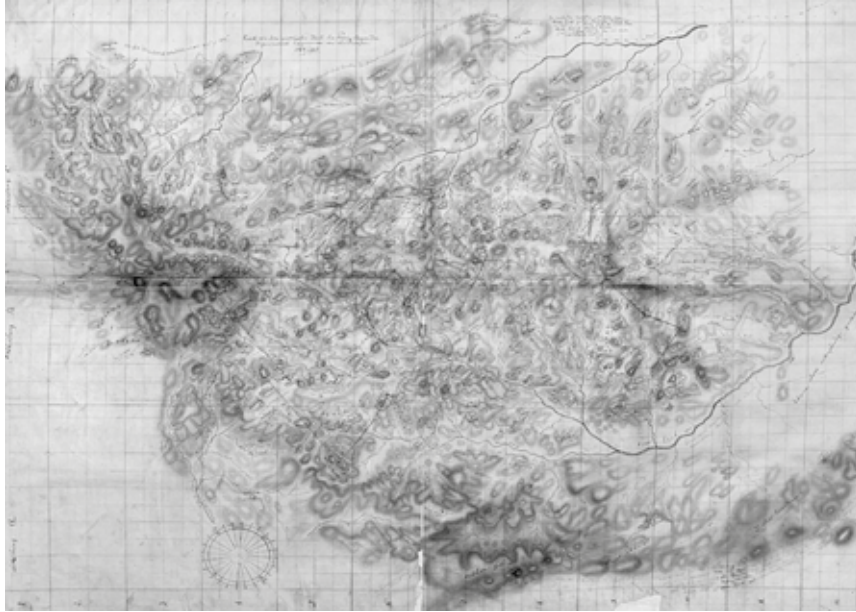


Fig. 17: G.W. Schimper, *Maps*, 14. Bagemder

and simultaneously transformed into dolerite type rock without causing any loss of horizontal positioning and stratification. The mountain top, whilst in the shape of a rounded dome, is formed by sharp edged boulders of a trachy-dolerite type of rock heaped on top of each other. They have a strong magnetic character.³⁴

Schimper had also collected and numbered samples of rocks which he sent to Europe with the manuscripts. The rock samples were deposited in the Natural History Museum, London, [Fig. 24] and in the Museum für Naturkunde, Mineraliensammlung, Berlin. A 'Memorandum' explained that: 'The figures and letters on the parcels of rocks and the rocks themselves correspond with letters and figures inserted on Schimper's maps and sections. In determining, therefore, the character of the rocks sent home these letters and figures should be preserved for the purpose of constructing a geological map'.³⁵



Fig. 18: G.W. Schimper, *Maps*, 14. Bagemder, map of the eastern shore of Lake Tana

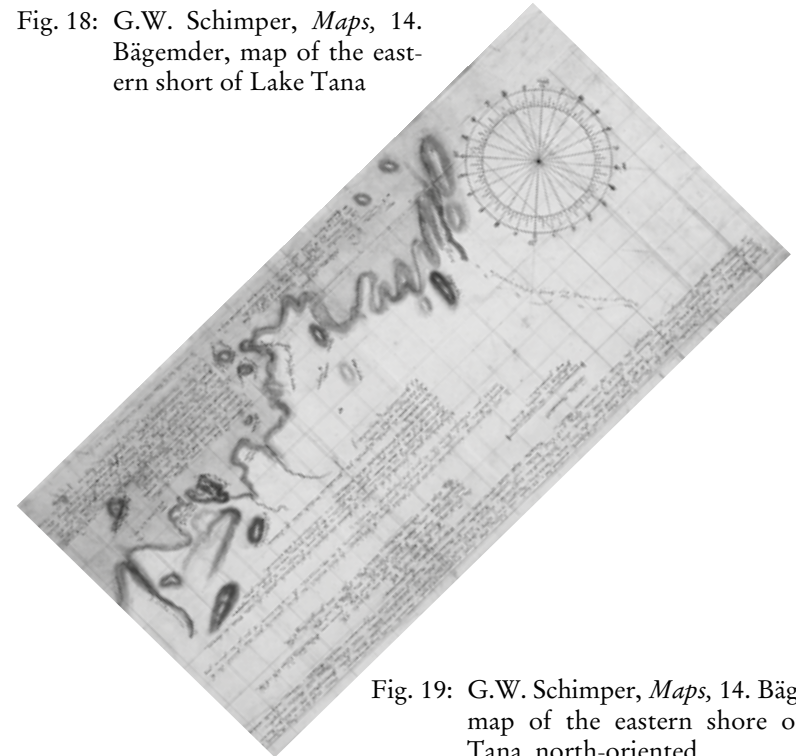


Fig. 19: G.W. Schimper, *Maps*, 14. Bagemder, map of the eastern shore of Lake Tana, north-oriented

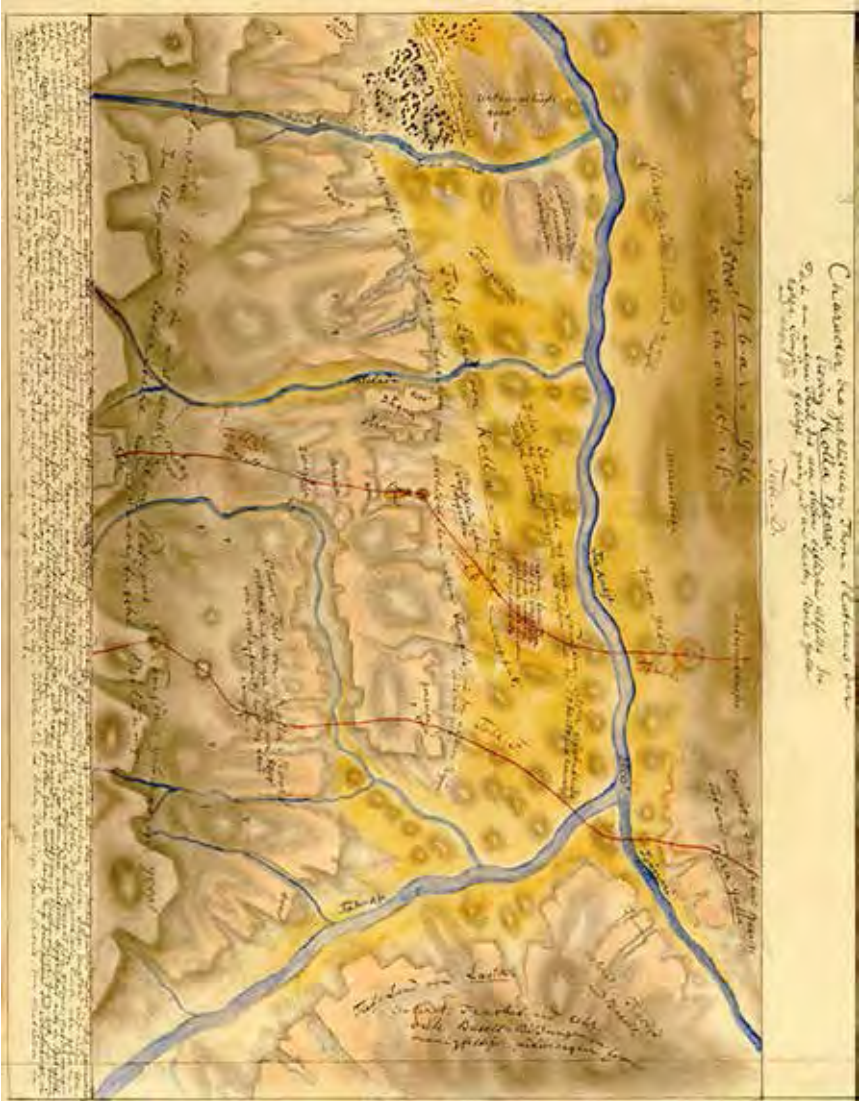


Fig. 20: G.W. Schimper, *Maps*, 14. Bägemder, map of the Adwa-Aksum Region, north-oriented, detail

Fig. 21: G.W. Schimper, *Maps*, 14. Bägemder, map of Kolla Noari or Qwälla, north-oriented



Fig. 22: Rock samples, Natural History Museum, London, in Schimper's handwriting

The rocks have been packed into 15 parcels and labelled corresponding to the 15 mountain profiles. All in all he sent 54 rocks. An example of his remarkably detailed research: a rock from 'Biet Bendelion' or 'Betä Püntälewön' [Fig. 23] and the profile of the area from which it had been taken, the hill Däbrä Püntälewön with the church, near Aksum [Fig. 24]³⁶ A sketch of Aksum with the precise location of the obelisks and a sketch of the geology are another examples of his meticulous topographical research [Fig. 25].³⁷

Schimper's *Maps* and *Observations* are very instructive for the area in which Däräsgē Maryam is situated and in which Schimper and Zander lived. He outlines mountain profiles pinpointing Däräsgē Maryam and he describes freak weather occurrences experienced there,³⁸ his treatment for being bitten by a dog,³⁹ as well as the rich flora of the whole area.

Finally, Schimper's linguistic expertise comes to the fore in a long list

of place names, with variants and pronunciation details, as used on the maps and profiles, in an alphabetical index. This is of particular interest to geographers today, as many place names refer to villages and towns possibly no longer in existence as well as to linguists studying topographical names [Fig. 26]. Schimper introduced it with the following observation:

Place names on the map of Bägēmdēr. The somewhat incorrect way of spelling place names on the maps of Abyssinia, so far published, has made me realize that it was important to write as correctly as possible the names on my map, although it only deals with a small part of the country. In order to do so I hired a local scholar, born and bred in Bägēmdēr, who accompanied me on my trips and who wrote down the place names in Amharic wherever we went. Some of the English and German missionaries, who were trained in philology, checked his work and were kind enough to write down these names according to German pronunciation. They have been entered in an alphabetical list so that one can check the names, which might not appear written correctly on the map. One therefore has to keep in mind that the place names are written according to German pronunciation.⁴⁰

A comment by Richard Kiepert, the author of the epilogue to the article 'Geognostische Skizze',⁴¹ might have triggered this meticulous listing of place names. Kiepert pointed out that Schimper had omitted to add symbols to the place names on his maps, so that the importance



Fig. 23: Rock sample, Berlin, Museum für Naturkunde, Mineraliensammlung. 'Between Amba Berra and Biet Bendelion, South East of Aksum, c. 14 1/3 degrees Northern Latitude, Tigre, Abyssinia. Collection Schimper, plate 12, no 44'. Quartz



Fig. 24: G.W. Schimper, *Maps*, 17. Table 12. Profile between ‘Amba Berra’ and ‘Biet Bendalion’ (= Betä Pändälewön), South East of Aksum

of a particular place was not easily visible. Schimper only used small rings to pinpoint villages and sometimes crosses for churches; he did not use symbols, for instance, for Gässa Schimper indicating whether it was an estate or homestead.⁴²

A critical appraisal of Schimper’s view of Ethiopia

Schimper’s importance for botanical research cannot be overestimated. Despite his long stay in Ethiopia he kept up his links with European scholars, governments, friends and family. He pursued academic research based on many years of field work. As a botanist he described plants and came to classify a great many of them by naming genus, appearance, distribution, seasonal developments and use of plant. The idea of science as an exact discipline, using observation, classification and cat-

egorization was the product of the European Enlightenment. Based on the work of the great botanist Carl Linnaeus (1707–1778) Schimper uses a ‘European’ system of plant classification. His concession to the area of work, Ethiopia, was that he also supplied the names for plants in the local languages, Amharic and Tigrinya. Thus, his European, i.e. non-local, scientific method was enriched by adding local names to the scientific names in Latin.

Schimper is often didactic, referring to the usefulness of plants for cultivation and consumption both in Ethiopia and of Ethiopian plants in Europe⁴³ or simply referring to their beauty.⁴⁴ In this sense, he was not just a botanist, a topographer, a meteorologist, a seismologist or a linguist, but a seeker for that which was considered to be truly scientific. In his view the country on the whole was blessed with the best

z'Sarangasch are requested to drive out the spirit. In addition to the roots and leaves, the following further ingredients are required for the remedy: 1) Some of the skin, flesh and bones, and excrement of the hyena, 2) a part of the half-digested vegetable matter contained in the stomach, its blood and liver of the Gaha, that is Hyrax abyssinicus and 3) the left wing and the flesh of the left foot from the black crow.⁵⁸

These chapters with the detailed listings of the cocktail of herbs, roots, and other ingredients, ways of gathering, ways of preparing, ways of administering the drugs, are of high importance to medical anthropology, possession cults, pre-Christian and pre-Islamic healing methods. Here Schimper is at his best, clinically observing and explaining the phenomena.

What influence his rich observations and explanations had in Europe is hard to say. His impact on the international community of botanists is huge, his mineralogical studies were commented on and expanded as early as 1900 (Prior: year). In his own published articles, in German dailies like the *Augsburger Allgemeine Zeitung* in 1843 or the *Zeitschrift der Gesellschaft für Erdkunde* in 1872 (G.W. Schimper 1843, 1849, 1868b, 1872a and 1872b), he expressed positive sentiments like 'In Abyssinia, where more the personality is of greater importance than the clothes'.⁵⁹ He had been patient and thereby had overcome obstacles so that he was better treated than other Europeans, a realization which allowed him to make the not precisely modest claim that due to his influence he had made Ethiopia more accessible to Europeans (G.W. Schimper 1843: 266).

Schimper's articles, private correspondence and the two manuscript books open a window into everyday life in Northern Ethiopia in the middle of the 19th century. They are of great value in the first instance to students of the flora of Ethiopia, and then much more generally to a whole group of other disciplines in connection with botany. The research into the geology, mineralogy, meteorology and geography all contribute to understand better the fauna and flora supported by the soil conditions. *Observations* is a treasure trove for finding explanations of planting and harvesting, cooking and storing of food, preparing plants for medicinal usage and treating sick people. *Maps* with their

sectional drawings will enrich the scholarly studies of the Ethiopian history of cartography. They are first class records which allow us to appreciate the opportunities and lack of opportunities faced by the people, their sickness and health, commerce and history, lovingly observed by a *ferenji* who became an Ethiopian and for whom Adwa had become 'a second home'.⁶⁰

References

AGSTNER, Rudolf

2007 'Von Kaisern und Konsuln', Addis Ababa: Austrian Embassy – *Addis Ababa Occasional Papers* 1, pp. 5–15.

ANONYMOUS

1872 'Neues aus Abyssinien', *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* 7, pp. 270–272.

BETTS, Annie and Tony BETTS

2010 *A Princess in the Family. The Story of Georg Wilhelm Schimper and his Descendants from 1804–1968*, Burgess Hill: Domtom Publishing Ltd.

BÖLL, Verena, Steven KAPLAN, Andreu Martínez D'ALÒS-MONER, Evgenia SOKOLINSKAIA (eds.)

2005 *Ethiopia and the Missions. Historical and Anthropological Insights*, Münster: LIT Verlag.

BRÜNING, Gustav

1872 'Nachrichten Dr. Schimper's über die gegenwärtigen Zustände Abyssiniens', *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* 7, pp. 364–366.

CHERNETSOV, Servir B. and Wolbert G.C. SMIDT

2005 'Ἐντιῆχο', in: Siegbert UHLIG (ed.), *Encyclopaedia Aethiopica*, vol. 3: *He–N*, Wiesbaden: Harrassowitz, 318b–319b.

DE JACOBIS, Giustino

2003 *Scritti. 2. Epistolario*, CLV Edizioni Vincenziane: Tipografia Giammarioli-Frascati.

GILLETT, J.B.

1972 'G. Schimper's botanical collecting localities in Ethiopia', *Kew Bulletin* 27, p. 121.

GÖTZ, Hans

1990 *Georg Wilhelm Schimper, der Abessinier. Auszüge aus dem Schimperschen Nachlaß* (Schriften des Stadtarchivs, Nr. 14), Schwetzingen.

GRÄBER, Gerd

1999a 'Georg Wilhelm Schimpers abessinische Zeit (1837–1878)'. *Verein für Naturkunde*, Mannheim 6, pp. 47–68.

1999b 'Die befreiten Geiseln Kaiser Tewodros' II. Aus dem Photoalbum der Royal Engineers 1867/68', *Aethiopia. International Journal of Ethiopian and Eritrean Studies* 2, pp. 159–182.

2010 'Schimper, Wilhelm'. In: Siegbert UHLIG in cooperation with Alessandro BAUSI (eds.), *Encyclopaedia Aethiopia*, vol. 4: O–X, Wiesbaden: Harrassowitz Verlag, pp. 573b–575a.

HEUGLIN, Theodor von

1957 *Reisen in Nord-Ost-Afrika. Tagebuch einer Reise von Chartum nach Abyssinien, mit besonderer Rücksicht auf Zoologie und Geographie unternommen in dem Jahre 1852–1853*, Gotha.

KROPP, Manfred

2005 'Asylrecht und Pfründe für die zukünftige Residenz: Die Zeugenfassung der Privilegirkunde des Ras Webe für die Marienkirche von Däräse aus dem Condaghe der Hs. BL Or 481, 3v', *Studia Semitica. Journal of Semitic Studies, Jubilee Volume*, pp. 193–206.

KROSIGK, Friederike von

1938 *Ein Weizenkorn fliegt gegen den Wind. Abenteuer eines Deutschen in Äthiopien*, Mühlhausen: Bergwald.

MARKHAM, Clements

1869 *A History of the Abyssinian Expedition*, London: Macmillan and Co.

MCEWAN, Dorothea

2013 *The Book of Däräse Maryam*, Wien: LIT Verlag.

MCEWAN, Robin and Dorothea (eds.)

2006 *Picturing Apocalypse at Gondär*, Torino: Nino Aragno Editore.

NEIMANS, Richard F. von and Wilhelm SCHIMPER

1858 'Über die politischen Zustände Abessiniens', *Das Ausland, Ein Tagblatt für Kunde des geistigen und sittlichen Lebens der Völker* 31, Stuttgart and Tübingen: J.G. Cotta, pp. 877–880.

NOSNITSIN, Denis

2010 'Šum', in: Siegbert UHLIG in cooperation with Alessandro BAUSI (eds.), *Encyclopaedia Aethiopia*, vol. 4: O–X, Wiesbaden: Harrassowitz, pp. 761b–762b.

O'MAHONEY, Kevin

1982 *The Ebullient Phoenix. A History of the Vicariate of Abyssinia*, Asmara: Ethiopian Studies Centre, p. 36.

PRIOR, Georgine Thurland

1900 'Aegirine and Riebeckite Anorthoclase Rocks related to 'Gorudite-Tinguaite' Series from the Neighbourhood of Adowa and Axum, Abyssinia', *Mineralogical Magazine*, pp. 255–273.

RODATZ, Albert

1846 'Auszug aus dem Tagebuch des Capitän Alb. Rodatz, Schiff 'Alf' betreffend einen Besuch von Massowah aus bei Dr. Schimper im Inneren von Abessinien, und Weiterreise von

Massoah bis zur Umschiffung des Cap Guardafui, *Das Aus-land, Ein Tagblatt für Kunde des geistigen und sittlichen Lebens der Völker* 19, Stuttgart and Tübingen: J.B. Cotta, p. 136.

RUBENSON, Sven

1966 *King of Kings: Tewodros of Ethiopia*. Addis Ababa: Haile Selassie I University; Nairobi: Oxford University Press.

1976 *The Survival of Ethiopian Independence*. London: Heinemann.

2003 'Coffin, William', in: Siegbert UHLIG (ed.), *Encyclopaedia Aethiopia*, Vol. 1: A–C, Wiesbaden: Harrassowitz, pp. 765b–766a.

SADEBECK, Alexander (ed.)

1869 'Geognostische Skizze der Umgegend von Axum und Adoa in Tigre' as recorded by W. Schimper, with a postscript by Richard Kiepert, *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, pp. 347–352.

SCHIMPER, Georg Wilhelm

1834 *Wilhelm Schimper's Reise nach Algier in den Jahren 1831 und 1832*, herausgegeben von der Direktion des Württembergischen naturhistorischen Reisevereins (Ch. F. Hochstetter and E. J. Steudel), Stuttgart: Verlag der J. B. Metzler'schen Buchhandlung.

1843 'Wilhelm Schimpers Reise', *Augsburger Allgemeine Zeitung* 35, p. 273.

1849 'Bericht aus und über Abyssinien', *Sitzungsberichte der philosophisch-historischen Classe der kaiserlichen Akademie der Wissenschaften, Wien* 1-V, pp. 227–239.

1852 'Berichte aus und über Abyssinien', *Sitzungsberichte der philosophisch-historischen Classe der kaiserlichen Akademie der Wissenschaften, Wien* 8, pp. 227–239.

1868a *Observations on the Botany of Tigré*, London: British Library, Add. Ms. 28505.

1868b 'Meine Gefangenschaft in Abessinien'. *Petermann's geogr. Mittheilungen* 8, pp. 294–298.

1872a 'Neues aus Abessinien', *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* 7, pp. 270–272.

1872b 'Mittheilungen aus einem Briefe Dr. W. Schimper's an Herrn J.B. Batka in Prag'. *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* 7, pp. 484–486.

SMIDT, Wolbert

2005 *Äthiopien und Deutschland, 100 Jahre diplomatische Beziehungen*. Addis Abeba: Goethe-Institut Addis Abeba – Deutsche Botschaft Addis Abeba.

2006 'Die äthiopischen und eritreischen Mittler', in: Steffen WENIG in collaboration with Wolbert SMIDT, Kerstin VOLKER-SAAD and Burkhard VOGT (eds.), *In kaiserlichem Auftrag: Die Deutsche Aksum-Expedition 1906 unter Enno Littmann*, vol. 1, Aichwald: Verlag Lindensoft, pp. 145–157.

2007 'Kaša Golğa', in: Siegbert UHLIG (ed.), *Encyclopaedia Aethiopia*, vol. 3: He–N, Wiesbaden: Harrassowitz, pp. 349a–350a.

Photo credits

Fig. 1: Portrait of G.W. Schimper; Theodore's Artisans and their Wives; Schimper, sitting in the middle, behind him, standing, with beard, Eduard Zander, © Rheinisches Bildarchiv, WRM/PH/SL888/52

Fig. 2: Specimen sent by Schimper, 'Schimperi iter Abyssinicum. Pterygocarpus abyssinicus Hochst.', dated 19th July 1838. Kew 41177. Kew Herbarium, London; Catalogue published on internet site: <http://apps.kew.org/herbcat/getHomePageResults>

Fig. 3: Specimen sent by Schimper, 'Oxystemla pterygocarpum Hochst.', dated 19th August 1854, Kew 40298. Kew Herbarium, London; Catalogue published on internet site: <http://apps.kew.org/herbcat/getHomePageResults>

Fig. 4: 'Ubyaea schimperi' = now called *Haplocarpha Schimperi* (Sch. Bip.) Beauv. Schimper 1176, Asteraceae (Compositae) or Ethiopian daisy, dated 30 May 1838. Kew Herbarium, London; Catalogue published on internet site: <http://apps.kew.org/herbcat/getHomePageResults>

Fig. 5: *Ubyaea schimperi*, photographed on November 14th, 2009, outside Därasge Maryam Church, near Mekane Berhan, Semen Mountains, © Dorothea McEwan

- Fig. 6: G.W. Schimper, *Maps*, 17, 'Area of Axum and Adwa and surroundings', © The British Library Board. Add. Ms. 28506
- Fig. 7: G.W. Schimper, *Maps*, 17, Table 7, with entry for 'Gässa Schimper' and 'Amba Sea', Schimper's country estate south of Amba Subhat, © The British Library Board. Add. Ms. 28506
- Fig. 8: G.W. Schimper, fold-out map, 'Umgegend von Axum und Adoa in Tigre', accompanying the article 'Geognostische Skizze der Umgegend von Axum und Adoa in Tigre', as recorded by W. Schimper, edited by A. Sadebeck, with a postscript by Richard Kiepert, 1869. *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 347–352. Plate VI, profile V
- Fig. 9: Eduard Zander, self portrait, © Stadtarchiv Dessau
- Fig. 10: Exterior of Däräsge Maryam church, © Dorothea McEwan
- Fig. 11: The 'castle' or 'House of Refuge' in 'Byzantine style', between the two concentric stone walls around the church compound of Däräsge Maryam, built by Schimper and Zander for Webe, © Dorothea McEwan
- Fig. 12: Painted borders, on plinth of west wall in the church of Däräsge Maryam, possibly by G.W. Schimper and E. Zander, © Dorothea McEwan
- Fig. 13: The *Däräsge Maryam Revelation*, 3v and 4r. Rev. 1:12–17. 'I saw seven gold lampstands ...', Robin and Dorothea McEwan (eds.), *Picturing Apocalypse at Gondär*, Torino, 2006, 75, © Dorothea McEwan
- Fig. 14: G.W. Schimper, *Observations*, 198v. Example of Schimper's detailed geological observation: how gneiss breaks through coralline limestone near Massawa, © The British Library Board. Add. Ms. 28505
- Fig. 15: G.W. Schimper, *Observations*, 88v. Sketches of household utensils, © The British Library Board. Add. Ms. 28505
- Fig. 16: G.W. Schimper, *Observations*, 86r. Drawings and explanations of plants used in making a parasol and a protective cloak of bulrushes, © The British Library Board. Add. Ms. 28505
- Fig. 17: G.W. Schimper, *Maps*, 14. Bägemder, © The British Library Board. Add. Ms. 28506
- Fig. 18: G.W. Schimper, *Maps*, 14. Bägemder, Map of the eastern short of Lake Tana, © The British Library Board. Add. Ms. 28505
- Fig. 19: G.W. Schimper, *Maps*, 14. Bägemder, map of the eastern shore of Lake Tana, north-oriented, © The British Library Board. Add. Ms. 28505
- Fig. 20: G.W. Schimper, *Maps*, 14. Bägemder, map of the Adwa–Aksum Region, north-oriented, detail, © The British Library Board. Add. Ms. 28505
- Fig. 21: G.W. Schimper, *Maps*, 14. Bägemder, map of Kolla Noari or Q^wälla, north-oriented, © The British Library Board. Add. Ms. 28505
- Fig. 22: Rock samples, Natural History Museum, London, in Schimper's handwriting. © Tony Betts, London

- Fig. 23: Rock sample, Berlin, Museum für Naturkunde, Mineraliensammlung. 'Between Amba Berra and Biet Bendelion, South East of Aksum, c. 14 1/3 degrees Northern Latitude, Tigre, Abyssinia. Collection Schimper, plate 12, no 44'. Quartz, © Location and photo: Museum für Naturkunde, Mineraliensammlung, Berlin, Germany
- Fig. 24: G.W. Schimper, *Maps*, 17. Table 12. Profile between 'Amba Berra' and 'Biet Bendelion' (= Betä Püntälewon), South East of Aksum, © The British Library Board. Add. Ms. 28506
- Fig. 25: G.W. Schimper, *Maps*, 18, Sketch of Aksum with stelae park, © The British Library Board. Add. Ms. 28506
- Fig. 26: G.W. Schimper, *Maps*, 1r. Place names on the map of Bägemder, © The British Library Board. Add. Ms. 28506

Endnotes

- Today, his specimens are in the following collections:
 Austria: Naturhistorisches Museum Wien, Botanische Abteilung, Vienna.
 Belgium: Natural History Museum, Brussels; National Botanical Garden of Belgium, Meise.
 Denmark: Museum Botanicum Hauniese, Copenhagen.
 Ethiopia: National Herbarium, Addis Ababa.
 France: Museum National d'Histoire Naturelle, Paris; Herbarium d'Université Montpellier II., Montpellier.
 Germany: Botanical Garden and Botanical Museum Berlin-Dahlem; Botanische Staatssammlung Munich.
 The Netherlands: Nationaal Herbarium Nederland, Leiden University; Nationaal Herbarium Nederland, Wageningen University.
 South Africa: South African Biodiversity Institute, KwaZulu-Natal Herbarium, Durban; South African National Biodiversity Institute, Compton Herbarium, Capetown.
 Sweden: Swedish Museum of Natural History, Department of Phanerogamic Botany, Stockholm.
 Switzerland: Conservatoire et Jardin botaniques de la ville de Genève, Geneva.
 UK: Royal Botanic Gardens in Kew, London; Royal Botanic Garden, Edinburgh.
 USA: Arnold Arboretum in Harvard University, Boston; Missouri Botanical Garden, St. Louis; The William and Lynda Steere Herbarium of the New York Botanical Garden, New York; United States National Herbarium, Smithsonian Institution, Washington D.C.

- 2 For Schimper's life see Betts and Betts (2010), Gräber (1999a; 1999b; 2010) and Smidt (2005).
- 3 *Ras* is a military or court title, usually hereditary, sometimes borne by minor princes of Solomonic blood.
- 4 *Wäyzäro* is a form of address mostly for married, less so for unmarried women.
- 5 *Abba*, 'father', is a title for religious leaders.
- 6 The name for an administrator directly answerable to high representatives or royal appointees, see *Encyclopaedia Aethiopica* entry 'Sum' (Nosnitsin 2010: 761b–762b) and Rodatz (1846: 136).
- 7 Enticho was actually in the hands of William Coffin, an Englishman, who had participated in a number of military campaigns in Ethiopia. The move to release Coffin from his post and to appoint Schimper may be seen as a way to limit British influence. Coffin had accompanied Henry Salt on his travels, but stayed on in Ethiopia and eventually settled in the Adwa area. Following a mission to London in 1827 he returned five years later with 1,850 muskets and carbines, which Sven Rubenson credits to be the first large-scale import of arms into the country (Rubenson 1976: 107). See also *Encyclopaedia Aethiopica* entry 'Coffin, William' (Rubenson 2003: 765b–766a). The topic of arms procurement surfaces again and again in Ethiopian history.
- 8 See *Encyclopaedia Aethiopica* entry 'Āntiččō' (Chernetsov and Smidt 2005: 318b–319b).
- 9 G.W. Schimper, *Maps*, British Library, Add. Ms. 28506, 17, Table 7 with entry for 'Amba Sea' and for 'Gässa Schimper'; also G.W. Schimper, *Observations*, 178v, 'Amba Sea'. On Amba Sea see also Rodatz (1846: 127–184).
- 10 According to De Jacobis (2003: 678), Schimper paid 3,000 Maria Theresa-Taler for the estate with a view to turning it into a model Catholic community.
- 11 Stuttgart, Baden-Württemberg, Landesarchiv, 1831–1844. Collections: E 70t Bü 208; E 40/59 Bü 104; E 200 Bü 449; E 14 Bü.
- 12 Anton Ritter von Laurin, diplomat, collector, 1789–1869, Austrian Consul General in Alexandria from 1824–1849.
- 13 Franz Seraph Stadion, Graf von Warthausen und Thannhausen (1806–1853), Austrian civil servant and politician, from 1841 to 1846 governor in Trieste.
- 14 Alphonse De Goutin is named here as French Vice Consul. He was, in fact, 'Agent consulaire 'retribué'', salaried Consular Agent, from about 1840 to 1861.
- 15 Submission to the State Chancellor, Clemens Wenzel, Prince of Metternich-Winneburg, 1773–1859, dated 19.3.1847. Vienna, Haus-Hof- und Staatsarchiv, Staatskanzlei, Hofkammer Karton 171, 1846 VII–1847 IV, 1448.
- 16 Betts and Betts (2010: 52). See also the letter Schimper wrote to his brother Karl Friedrich Schimper, 6.5.1848, in which he mentions that he has appointed a manager and can travel around the country to make various collections, in Götz (1990: 67).
- 17 G.W. Schimper, *Observations*, 5v.
- 18 Schimper (1868b: 296). Von Heuglin (1857: 69) used the word 'building', in German 'Gebäude'.
- 19 The asylum charter is extant in two versions, one kept in London, BL, Or 481, 3v and the other in Paris, BNF, Eth. 112, 2r. (Kropp 2005; McEwan 2013: 62–67).
- 20 Schimper himself provided evidence of his greatly reduced circumstances in a long detailed report of October 1860. The manuscript version is in Vienna, 30.11.1860, Diplomatic correspondence from the Austrian Consulate, Cairo, no. 35/51 with the enclosure of a report by the Hamburg merchant Bernhard Gerhard and Wilhelm Schimper, 'Kurzer Bericht über Abyssinien', written in Alexandria in October 1860. Administrative Registratur, Fach 8, Konsulate, Karton 31, Massauah. 35/51. It was published by Rudolf Agstner (2007).
- 21 G.W. Schimper, *Observations*, 5v.
- 22 For an introduction into the missionary endeavour in Ethiopia see Böll et al. (2005).
- 23 G.W. Schimper, *Observations*, 5v–6r and 107r.
- 24 G.W. Schimper, *Observations*, 6r–6v.
- 25 G.W. Schimper, *Observations*, 7r.
- 26 *Encyclopaedia Aethiopica* entry 'Kaša Golğa' (Smidt 2007: 349a–350a).
- 27 Gustav Brüning (1972) publishing a letter by Schimper.
- 28 Schimper to Adalbert Geheeb, 8.5.1878. Geheeb (1842–1909) was a German botanist, specializing in mosses (Götz 1990).
- 29 G.W. Schimper, *Observations*, BL, Add Ms 28505.
- 30 G.W. Schimper, *Maps*, BL, Add Ms 28506.
- 31 British Library, Add Ms 28505 and 28506, written in German. I thank Annie and Tony Betts for alerting me to the letter kept in the British Museum in the 'Papers relating to the Purchase and Acquisition of Manuscripts 1866–1870', dated 19th July 1870, from John Winter Jones (1805–1881, Principal Librarian of the British Museum from 1866 to 1878) to Edward Augustus Bond (1815–1898, Keeper of Manuscripts from 1867 to 1878). The maps have been kept together with the manuscript. For Schimper's request of sending the manuscript books for revision to Alexander Braun and his cousin Wilhelm Phillip Schimper see BL Add Ms, 28505, 6v–7r. The two books feature in Dorothea McEwan, forthcoming, *Georg Wilhelm Schimper in Abyssinia*, an internet publication bringing together the German manuscript version, the German transcription, the English translation

- and two lists of all the place names on the maps and all the botanical names in the text.
- 32 G.W. Schimper, *Observations*, 86r.
- 33 G.W. Schimper, *Observations*, 61r.
- 34 G.W. Schimper, *Maps*, 17, Tabula 7, and description *Maps*, 7v–8r.
- 35 G.W. Schimper, *Maps*, 13r.
- 36 G.W. Schimper, *Maps*, 17, Table 12.
- 37 G.W. Schimper, *Maps*, 18.
- 38 G.W. Schimper, *Observations*; earthquake in Däräsge Maryam on 23 February 1854, 186r–188v; published in McEwan (2013:147–151). G.W. Schimper, *Maps*, 15, mountain profile with Däräsge Maryam in Table C.
- 39 G.W. Schimper, *Aide Mémoire*, dated summer of 1852, written in ‘Debr’ Eski’ [=Däräsge Maryam]; it deals with rabies in general and with having been bitten by a dog and Schimper’s treatment in particular. Paris, Jardin des Plantes, Botanical Library of the Museum. The publication by Dorothea McEwan of this *Aide Mémoire* is forthcoming.
- 40 G.W. Schimper, 28506, *Maps*, 1r–4v.
- 41 Richard Kiepert, German cartographer, 1846–1915.
- 42 See Sadebeck 1869, Kiepert’s comment on p. 352.
- 43 G.W. Schimper, *Observations*, 30r, 38v, 58v.
- 44 G.W. Schimper, *Observations*, 57r.
- 45 G.W. Schimper (1843:2125): ‘... es menschlicher Phantasie unmöglich ist sich das Paradies schöner vorzustellen’.
- 46 G.W. Schimper, *Observations*, 6r: ‘... bin in meinem Zelt ohne mich rechts oder links bewegen zu dürfen’.
- 47 G.W. Schimper, *Observations*, 6r: ‘... bin umturnt von höchst ekelhaften, schlechten, nicht ungefährlichen Diebsgesindel’.
- 48 G.W. Schimper, *Observations*, 6r: ‘unbeschreiblich peinigend’.
- 49 G.W. Schimper, *Observations*, 106v: ‘Ubyé war der mächtigste und verständigste Fürst dieses Landes, welcher wusste, dass dessen Wohlstand seine Regentenmacht bildete. Gegen Fremde war er freundschaftlich gesinnt, wusste aber auch ungebührliche Anmaßungen derselben zurückzuweisen ohne aber irgendwelche gewaltthätige Handlung gegen solche zu üben’.
- 50 G.W. Schimper, *Observations*, 107v: ‘Unerfahrenheit’ and ‘unkeusche Unsitlichkeit’; 109v: ‘Häretiker’.
- 51 G.W. Schimper (1852:238): ‘[Die] Teltal, die ... im Ruf einer ebenfalls ausgezeichneten Verwilderung stehen’.
- 52 G.W. Schimper’s letter to Gustav Brüning, 25.02.1872, *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, 1872, 364–366; ‘... lässt dieser neue Kaiser sich nun durch Hochmuth und Geldgier leiten’.
- 53 G.W. Schimper, *Observations*, 106r: ‘Die bedeutende Schlechtigkeit der Türken ...’; ‘Diebs = Gouverneure’.
- 54 G.W. Schimper, *Observations*, 98v: ‘hinterlistig’ and ‘betrügen’.
- 55 G.W. Schimper, *Observations*, 158r: ‘Abyssinische National-Krankheit’; 158v: ‘Diese in Europa nur selten bei Einzelnen vorkommende merkwürdige Krankheitsform ist hier allgemein, jedem Abyssinier angeboren und allbekannt unter dem Namen Buda’.
- 56 G.W. Schimper, *Observations*, 159r: ‘Dies also in allgemeiner Betrachtung ist nicht eine organische Krankheit eines Einzelnen, sondern eine Idee krankhafter Natur, womit alle Abyssinier ohne Ausnahme von Geburt an behaftet sind, zu Folge welcher sie überzeugt zu sein wähnen, dass unter den Schmieden, überhaupt unter den Feuerarbeitern, auch unter den Juden, Individuen seien, welche mit den Dämonen der Hölle, wo Feuer die Verdammten peinigt, in Verbindung stehen, als auch im Feuer thätige Geschöpfe, von diesen Dämonen, ihren Collegen, das Vermögen erhalten nach Willkühr irgend einen Menschen in eine Hyäne zu verwandeln’.
- 57 G.W. Schimper, *Observations*, 159v.
- 58 G.W. Schimper, *Observations*, 160v–161v.
- 59 G.W. Schimper (1843: 265): ‘..was in Abyssinien, wo mehr die Persönlichkeit als das Gewand wirkt’.
- 60 ditto 258: ‘eine zweite Heimath’.