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# You Can't Put Your Arms Around a Memory

## The Multiple Versions of Alexander von Humboldt's ›Kosmos-Lectures‹

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### Humboldt's ›Kosmos-Lectures‹ (1827/28)

#### A Hot Spot in the History of Sciences, A Blind Spot of Research

In his so-called Kosmos-Lectures, held in Berlin from fall 1827 until April 1828, the Prussian-born naturalist Alexander von Humboldt (\*1769, †1859) presented the scientific knowledge of his time, covering an extraordinary range of natural phenomena and scientific disciplines. He held two separate, public courses: At the Berlin University, an unprecedented number of about 400 students, professors, members of the court, and private scholars gathered for a total of 62 lessons. Soon after starting this first course, Humboldt opened up a second one on the same topics. This time, he condensed the contents to only 16 lessons at the nearby Sing-Academy building. For this public course an even bigger, more diverse crowd of up to 1200 people gathered. By paying the rent for the lecture hall out of his own pocket, Humboldt made sure that access to his lectures was free of charge. He emphasised that women—who were excluded from Prussian Universities until the end of the 19<sup>th</sup> century—were also invited to attend, which was still an exception at that time.

These two courses of public lectures are, on the one hand, one of the best-known lecture series ever held. They indisputably mark an important milestone in the history of sciences and in the genesis of the concepts and methods central to their rise in the 19th century.<sup>1</sup> Furthermore, they are considered to contain the seed of Humboldt's last and most famous publication, the five-volume *Kosmos* (Humboldt 1845–62).<sup>2</sup> On the other hand, surprisingly little research has been conducted on the lectures in their own right, first of all concerning their actual contents, but also regarding the essential differences between the two separate courses. Neither has their relationship to contemporary and later publications by Humboldt himself, nor that to works by other scientists been examined. In this regard, the world-famous Kosmos-Lectures still constitute a blind spot of research.<sup>3</sup>

The existing lack of research on these lectures can only partly be explained by the (misconceived) conception that the lectures represent a mere stepping stone in Humboldt's ›publication biography‹, a misbelief that deems them negligible since the appearance of the *Kosmos* in print. Another part of the explanation can be found in the in the *Kosmos*' first volume from 1845, in which Humboldt claims that he had never written down anything in preparation for his numerous public lectures in the late 1820s in Berlin and, in the years before



that, in Paris.<sup>4</sup> This seems hard to believe, even for a man of Humboldt's capacities: Presenting highly complex matters in a total of 62 single lessons at the University plus an additional, parallel 16 lessons at the Sing-Academy from memory alone—seems too much. As one would suspect, the claim is demonstrably false, but for many years it obviously led to the neglect of important documents by the research community.

Considering the number of primary sources related to the lectures—most of which have only recently become available in digitized form and were practically unknown to researchers before—and considering the complex relations between these documents, our presentation sets out to explore these sources as a set of multiple, yet equally important *versions* of Humboldt's lectures. These versions have different authorial statuses; they sometimes complement each other, sometimes they run parallel, and sometimes they contradict each other. We will argue that this irritating polyphony is inherent to the qualities of our research object: like a distant memory, the event of the lectures as a singular performance eludes from our grasp; it cannot be repeated or reconstructed in a definitive shape, but it can only be recounted from different, equally limited perspectives.

## Primary Sources on Humboldt's ›Kosmos-Lectures‹ From Drought to Deluge

The central argument presented in this abstract is that the main reason for this observable lack of research on the lectures is the lack (or, with the same result, the neglect) of witnesses documenting the event itself. But in 2016, with the online-publication of all currently known individual notebooks written by attendees of the ›Kosmos-Lectures‹<sup>5</sup>, and with the ongoing digitisation of Humboldt's legacy collection held in Krakow and Berlin,<sup>6</sup> the situation has changed considerably: Until recently, it seemed as if there were too few documents to base substantial research on. Now, with the complete notebooks of 10 individual attendees encompassing more than 3,500 handwritten pages and several hundred pages of Humboldt's original lecture manuscript, it seems as if we had too many witnesses—or: *versions*—documenting Humboldt's oral presentation. We will focus on the question of how to deal with this newfound wealth from a methodological point of view. Furthermore, we will discuss the extent to which our methodological approach of dealing with competing/complementing versions affects the practical side of editing these primary materials.

The concept of *versions* is as important for the presentation of the primary sources now available as it is for their interpretation. In the remainder of this abstract, we focus on three classes of *versions*. Each class has a different authorial status and comes with its own strengths and shortcomings:

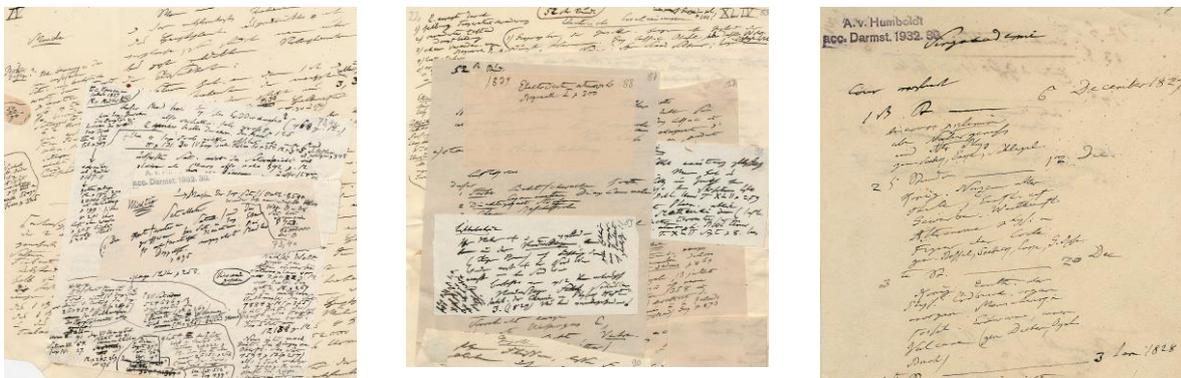
- 1) (ideally all of) the original notes that Humboldt evidently used to deliver his lessons (which he claimed to never have written, has revised intensively and reorganised in the years following the lectures);
- 2) (ideally all) notes taken by his auditors (which in themselves sometimes seem to reflect more of the listener's than of the presenter's mind, and offer a great deal of variety among each other);
- 3) (ideally all) material used by Humboldt to prepare his lessons, e.g. preceding publications of his own and other researchers, letters and excerpts, etc.



## Humboldt's Original Lecture Manuscript A Dismembered Corpus of Prewritings and Rewritings

As Humboldt himself never published the lectures as such, the lecturer's original script would seem to be a natural candidate for the most reliable and complete source: an authoritative version of what has most likely been said at the lectern. As stated above, Humboldt claimed later that he had spoken extempore the entire time and did not have any preparatory notes.<sup>7</sup> This had long been falsified by the reliable accounts of several contemporary eyewitnesses<sup>7</sup> and there are several hundred sheets related to the Kosmos-Lectures preserved in Humboldt's legacy collection that he clearly used for both lecture series. But since his denial of their existence apparently was taken for a fact by researchers, Humboldt's lecture notes as a whole still have to be considered unknown.

These documents are hard to identify, as Humboldt continued to work with the papers after the lectures, and redistributed them over his vast collection of working material. In the course of this reorganisation of the material, Humboldt constantly added supplementary information and new findings over the years following the lectures, thereby altering and partly covering the original text base. Therefore, the connection and succession of the original lecture manuscripts is destroyed and may not be reconstructed in total.<sup>8</sup>



Left and centre: Manuscripts related to the Kosmos-Lectures from Humboldt's legacy collection at the Berlin State Library: revisions, notes and several layers of smaller sheets with additions attached to the original notes; on the right: detail of Humboldt's outline of the Sing-Academy course.<sup>9</sup>

The resulting ›bricolages‹ are an amazing example of an analogue, material database, but they impose a further obstacle when trying to positively identify those papers that originally belonged to the lecturer's manuscript in Humboldt's vast collection. We also have to assume that the original notes are left only fragmentarily, since Humboldt seems to have discarded some material altogether that he considered outdated or thematically less relevant by the time of their re-examination years after the lectures. In these respects, the situation is not as ideal as initially imagined: Humboldt's original manuscript is not complete anymore; it has been re-organized, transformed and altered significantly over many years.

As unfortunate as this might seem, one might find comfort in the central assumption we defend in this paper: That is, even if we did have each and every single page of some completely elaborated papers, we could never determine whether Humboldt stuck to the script, or if he was distracted in his flow of words by some objection, or if he was led astray by a random observation that day, etc. Therefore, even the most comprehensive lecture scripts would not give proof of what was actually uttered. Like every other primary source we present here, they offer merely one version among possibly many others.

## The auditors' notebooks

### Quotations, Paraphrases, and Misrepresentations

Another important source to get a grasp of the lectures are the above-mentioned handwritten notes by Humboldt's auditors. Humboldt himself was well aware of the existence of such notebooks and (not even unrealistically, considering the number of attendees) assumed their number to be in the hundreds. But he detested their inherent flaws and inevitable inaccuracies and even interdicted their publication.<sup>10</sup> This may be a reason why it took until 1934, 106 years after the lectures, until the first auditor's notebook from the University class was published in a printed edition. More recently, in 1993, the edition of a second notebook, this one covering the Sing-Academy lectures, followed.<sup>11</sup> Until the end of 2014, only these two were available in print, and therefore were used by scholars instead of the original manuscripts. Unfortunately, both editions are scientifically inadequate, as they do not meet editorial standards and contain many transcription errors (which, of course, can only be identified when comparing the printed transcription with the handwritten original). Although the existence of at least five other attendee's notebook was known for decades,<sup>12</sup> these archival sources were never edited and (therefore) remained practically unknown.



(Title) pages of the ten currently known notebooks by Humboldt's listeners, from top left to bottom right, starting with the University lectures, written by: 1) Gustav Parthey; 2) [Anonymous]; 3) Peter Theophil Riess; 4) Karol Libelt; 5) Gotthilf [Friedrich] Patzig; 6) [Anonymous]; 7) [Anonymous]; 8) Ludwig Lohde; the only two manuscripts documenting the Sing-Academy lectures are: 9) [Anonymous]; 10) Otto Hufeland.<sup>13</sup>

Currently, we know of ten manuscripts altogether, eight of which are related to the University and two to the Sing-Academy lectures. All of these manuscripts have now been published as full text transcriptions encoded in TEI-XML<sup>14</sup> via the Deutsches Textarchiv<sup>15</sup> in 2016—and their great individuality once again reminds us what it means to deal with a wealth of, in principle, equally valuable versions of an event. Their extent ranges from 80 to 800 handwritten pages, some documents were obviously produced in closer relation to each other, either by copying the whole notebook or transposing single lessons or passages from one to the other. Other manuscripts are completely independent of each other and bear surprisingly little resemblance, like distant relatives of a big family. Some manuscripts were clearly edited by three or more different hands, some contain images, some don't, and so on.

We argue that this individuality of each attendee's notebook is an inevitable effect of the circumstances of their production, which must not (as would traditionally be done) be levelled out by constructing one definite (and definitely fictional) ›ideak text. Instead, each version has to be appreciated in its own right. This non-hierarchical parallelism of different versions of the Kosmos-Lectures has to be made visible and accessible, instead of being covered by the editor's interpolation of the (from his specific point of view) most likely account of the event. Important devices to reach this goal and to keep the multitude of witnesses manageable are document-spanning overviews of shared features such as the chronological order and the succeeding, but often implicit outline of topics dealt with over time, as well as interactive lists of persons mentioned in the different lessons<sup>16</sup> or of scientific instruments<sup>17</sup> used for the investigations under consideration. These offer means of orientation and facilitate the comparing, parallel lectures of the several witnesses.

## Humboldt as a DJ

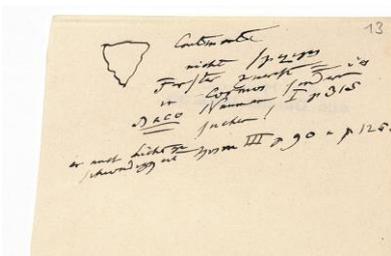
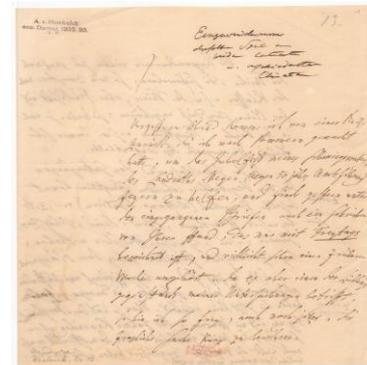
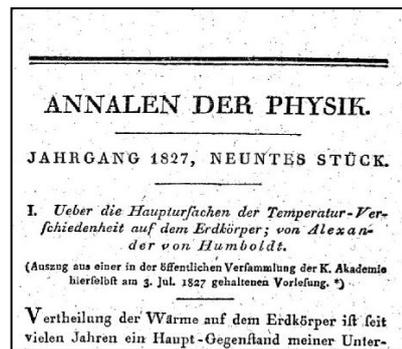
### Re-Mixing the ›Kosmos-Lectures‹

As is to be expected, the ›Kosmos-Lectures‹ are a synopsis of Humboldt's own work (and, of course, also that of his predecessors and contemporaries) until 1827/28, when the lectures were given. We can infer from his legacy collection and, even more so, from the transcripts of his attendees that Humboldt used earlier works of his own and of his fellow scientists to prepare for the lectures. The notes of his auditors make it very likely that he even read out passages from previously printed works during some lessons. Obviously, neither were the Kosmos-Lectures created 'ex nihilo' nor was Humboldt simply done with the material base once the final lesson ended in April 1828: It is evident that he consequently re-used his scripts as ›raw material‹ for the *Kosmos* and other publications. But exactly which documents he used in preparation, and which ones he re-used afterwards for which publications (other than the *Kosmos*), to what extent and with which alterations, still remains to be investigated.

In our presentation, we will argue that this has a considerable, yet usually underappreciated effect on the ›source‹ as well as on the ›target‹ material: Humboldt (orally) re-published (parts of) previous texts as parts of singular lecture units, i. e. he integrated these parts into another, *genuinely new and in itself complete publication*: the Kosmos-Lectures. While doing so, he also changed the ›register‹ or channel of communication from written text to speech, put the original text in a different context, and presented it to a different audience at a different time. Thereby, he did not only create another version of each of the original documents

in question, but similar to popular remix culture, Humboldt created a whole new tune out of various samples lend from his own and other's previous works. Once the lectures had finished, he continued to sample the original Kosmos-Lectures into his following publications.

Ort	Zeit	Temperatur	Wind	Wetter
Paris	1. 12. 1827	10.0	N	kl.
Paris	2. 12. 1827	10.5	N	kl.
Paris	3. 12. 1827	11.0	N	kl.
Paris	4. 12. 1827	11.5	N	kl.
Paris	5. 12. 1827	12.0	N	kl.
Paris	6. 12. 1827	12.5	N	kl.
Paris	7. 12. 1827	13.0	N	kl.
Paris	8. 12. 1827	13.5	N	kl.
Paris	9. 12. 1827	14.0	N	kl.
Paris	10. 12. 1827	14.5	N	kl.
Paris	11. 12. 1827	15.0	N	kl.
Paris	12. 12. 1827	15.5	N	kl.



Some of the material Humboldt evidently re-used for/from his lectures.<sup>18</sup>

We would like to introduce this exceptional corpus and reflect upon the implications its shape and contents have for their presentation and reception—most importantly the aim to allow for and foster the user's own, lateral, anti-hierarchical explorations of content over single-path, authorised recounts. This is what has to follow from our approach that, even if we had the most intimate sources at hand, it would still be a simply futile attempt to ›reconstruct‹ an event like a public oral lecture, and that we will remain stuck with a multitude of witnesses and interpretations, i. e. *versions*, at hand. They have become parts of a new whole, itself consisting of versions only and accessible to us only as such: as versions, competing with, contradicting and complementing each other. We believe that the theoretical reasoning and methodological implications we derived from the exemplary corpus presented here will be transferrable to many other, similar instances in which we are necessarily dealing with cultural history on the basis of various, but always ›indirect‹ historical transmissions.

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## Notes

- <sup>1</sup> Cf., as a very popular and recent publication, Wulf 2015, pp. 193–196. As inaccurate as this condensed passage is in some detail, it gives a good impression of what can be considered common knowledge regarding the ›Kosmos-Lectures‹ among academics as well as the wider public, and of the significance assigned to the lectures in general.
- <sup>2</sup> Humboldt 1845–62. The *Kosmos* was immediately translated (at first without approval of the author) into French and English, and subsequently into almost all other major languages.
- <sup>3</sup> Cf. Erdmann/Thomas 2014 for a more detailed overview on the state of research until that time.
- <sup>4</sup> Cf. Humboldt 1845, p. X: „Bei freier Rede habe ich in Frankreich und Deutschland nichts über meine Vorträge schriftlich aufgezeichnet. Auch die Hefte, welche durch den Fleiß aufmerksamer Zuhörer entstanden sind, blieben mir unbekannt, und wurden daher bei dem jetzt erscheinenden Buche auf keine Weise benutzt.“ For an English translation, cf. Humboldt 1845 (Engl. Transl.),



p. x/xi: "Speaking without notes, I have no memoranda either of my French or German lectures. Even the notes that were made by some of my more diligent auditors have remained unknown to me, and have therefore not been used in the composition of the work which now appears." One reason for this ›deception strategy‹ probably was that the lectures from the 1820s had long been given when the first *Kosmos*-volume finally appeared in 1845. Humboldt obviously wanted to make sure that no reader would assume that the content presented in print might be outdated, therefore asserting, "Die *Vorlesungen* und der *Kosmos* haben also nichts mit einander gemein als etwa die Reihenfolge der Gegenstände, die sie behandelt" ("The Lectures and the Cosmos, consequently, have nothing more in common than the sequence in which the subjects they embrace are treated"). (Ibid.)

- <sup>5</sup> See Humboldt Universität zu Berlin: *Hidden Kosmos*, 2014–2016, <https://www.culture.hu-berlin.de/hidden-kosmos> [All URLs in this paper accessed last 2016-10-23]. For a detailed list of all currently known notebooks cf.: <https://www.culture.hu-berlin.de/de/forschung/projekte/hidden-kosmos/veroeffentlichte-nachschriften> and Thomas/Fiechter/Hug 2016 on the project's principle aims and methods. The full text transcriptions are published by our cooperation partner *Deutsches Textarchiv*, <http://www.deutschestextarchiv.de/>, at the Berlin-Brandenburg Academy of Sciences and Humanities.
- <sup>6</sup> See <http://humboldt.staatsbibliothek-berlin.de/werk/>, sections "Nachlass Alexander von Humboldts in Berlin" and "Nachlass Alexander von Humboldts in Krakau".
- <sup>7</sup> Several accounts by auditors of the lectures suggest that Humboldt not only used his notes as a guidance while extemporising freely, but even read out loud whole passages, which for example his niece, Caroline von Bülow, found ›not pleasant‹ (cf. Sydow (ed.) 1893, p. 195). The high conformity of certain passages from the auditor's notebooks with published articles by Humboldt himself can be used as definitive proof that Humboldt was reading out written material word by word on several occasions. In our presentation, we will demonstrate this point using half-automated collation methods to determine and visualise similarities between the attendee's notebooks and some of Humboldt's publications.
- <sup>8</sup> Putting this puzzle back together is made even harder by the fact that Humboldt's legacy collection was divided during World War II, when substantial sections were moved from Berlin to the eastern parts of the German Reich where the holdings remained after the war ended. Cf. Erdmann/Weber 2015 on the history of this collection.
- <sup>9</sup> Examples taken, in order of appearance, from SBB-PK, Nachl. A. v. Humboldt, kl. Kasten 3b, Nr. 73, p. [11], <http://resolver.staatsbibliothek-berlin.de/SBB00018C3600000011>; gr. Kasten 12, Nr. 16, p. [205], <http://resolver.staatsbibliothek-berlin.de/SBB0001A52B00000205>; gr. Kasten 8, Nr. 5a, p. [5], <http://resolver.staatsbibliothek-berlin.de/SBB0001676C00000005>.
- <sup>10</sup> Cf. ›*Spenersche* Zeitung, 12.12.1827, p. [7]: "Obgleich ich der Besorgniß nicht Raum geben möchte, daß Hefte, welche Zuhörer meiner Vorlesungen zu ihrer Erinnerung schreiben, durch Zufall in andere Hände kommen und gedruckt werden könnten, so halte ich es dennoch für besser, hierdurch öffentlich zu erklären, daß ich jede Publikation dieser Art, als einen Eingriff in mein Eigenthum betrachten werde." [Humboldt basically states that he will consider each publication of such notebooks as an interference with his (intellectual) property, i. e. as an instance of what would today be considered a copyright violation.]
- <sup>11</sup> Anonym (ed.) 1934 and Hamel/Tiemann (eds.) 1993.
- <sup>12</sup> Cf. Engelmann 1983, p. 28, where seven notebooks are mentioned, six of which were still unpublished at that time.
- <sup>13</sup> Except for items 4), 7) and 10), where the holding institution resp. person is stated separately, the manuscripts are held at the State Library in Berlin, and were, except for item 8), published by the Hidden Kosmos-Project via Deutsches Textarchiv: 1) Ms. Germ. qu. 1711, [http://www.deutschestextarchiv.de/parthey\\_msgermqu1711\\_1828](http://www.deutschestextarchiv.de/parthey_msgermqu1711_1828); 2) Ms. Germ. qu. 2345, [http://www.deutschestextarchiv.de/nn\\_msgermqu2345\\_1827](http://www.deutschestextarchiv.de/nn_msgermqu2345_1827); 3) Slg. Darmstaedter F2e 1853: Riess, Peter Theophil; Nr. 30, [http://www.deutschestextarchiv.de/riess\\_f2e1853\\_1828](http://www.deutschestextarchiv.de/riess_f2e1853_1828); 4) Biblioteka Jagiellońska Kraków, Handschrift 6623 II, [http://www.deutschestextarchiv.de/libelt\\_hs6623ii\\_1828](http://www.deutschestextarchiv.de/libelt_hs6623ii_1828); 5) Ms. Germ. fol. 841 & 842 [2 vols.], [http://www.deutschestextarchiv.de/patzig\\_msgermfol841842\\_1828](http://www.deutschestextarchiv.de/patzig_msgermfol841842_1828); 6) Kart. 8° GfE O 79, <http://www.deutschestextarchiv.de/>



- [nn\\_0171w1\\_1828](http://www.deutschestextarchiv.de/nn_0171w1_1828); 7) Ibero-Amerikanisches Institut – Preußischer Kulturbesitz, N-0171 w 1, [http://www.deutschestextarchiv.de/nn\\_0171w1\\_1828](http://www.deutschestextarchiv.de/nn_0171w1_1828); 8) Ms. Germ. qu. 2400, <http://resolver.staatsbibliothek-berlin.de/SBB00016BAE00000000>; 9) Ms Germ. qu. 2124, [http://www.deutschestextarchiv.de/nn\\_msgermqu2124\\_1827](http://www.deutschestextarchiv.de/nn_msgermqu2124_1827); 10) Private collection Prof. Dr. Celâl Şengör, İstanbul, Türkiye, [http://www.deutschestextarchiv.de/hufeland\\_privatbesitz\\_1829](http://www.deutschestextarchiv.de/hufeland_privatbesitz_1829).
- <sup>14</sup> I.e. formatted in the platform-independent Extensible Markup Language (XML) following the Guidelines of the international Text Encoding Initiative (TEI). Cf. the TEI website <http://www.tei-c.org/index.xml> and the P5 Guidelines <http://www.tei-c.org/Guidelines/P5/>.
- <sup>15</sup> The encoding follows the recently developed DTA Base Format for Manuscripts (DTABf-M), a true subset of the TEI P5 tagset. Cf. Haaf/Thomas [forthcoming] and the documentation at [http://www.deutschestextarchiv.de/doku/basisformat\\_manuskripte](http://www.deutschestextarchiv.de/doku/basisformat_manuskripte) for the annotation guidelines (work in progress).
- <sup>16</sup> Available at <http://www.deutschestextarchiv.de/kosmos/person>. The overview contains all ca. 900 persons Humboldt mentioned during the courses, each entry related to an authorial database and linked to its context of appearance in the respective attendee's notebook. The list is generated directly from the TEI-XML-conformant encoding of occurrences of <persName>s within the source documents. In our presentation, we will give examples of how this relatively simple database can lead to observations and research questions comparing the two cycles of lectures resp. the individual accounts of each cycle.
- <sup>17</sup> Available at <http://www.deutschestextarchiv.de/kosmos/instrument>. Each instrument is linked to the Wikipedia entry explaining its purpose, usage and history, as well as different source documents by Humboldt or his predecessors describing the instrument. The different synonyms or spelling variants of each instrument can be searched and lead directly to our central primary sources, i. e. the attendees' notebooks. Cf. Hug/Thomas 2016.
- <sup>18</sup> In chronological order, from top left to bottom right: 1) Nachl. A. v. Humboldt, gr. K. 1, Mp. 2, Nr. 13, p. [1], <http://resolver.staatsbibliothek-berlin.de/SBB000162A400000001>: Table on (average) temperatures in Berlin by J. H. Mädler with notes by Humboldt, ca. 1825; 2) Humboldt 1827, title page, <http://gallica.bnf.fr/ark:/12148/bpt6k150967/f13.item>: print of Humboldt's lecture ›On the Main Causes of Different Temperatures Across the Globe‹, presented at the Prussian Academy of Sciences in Berlin on July 3rd 1827 (cf. Thomas/Erdmann 2015 on this particular subject, i. e. Humboldt's ongoing occupation with the annual average temperatures and climate zones on the planet) 3) Nachl. A. v. Humboldt, gr. Kasten 6, Nr. 13, p. [1], <http://resolver.staatsbibliothek-berlin.de/SBB00019EC800000000>: Letter from K. A. Rudolphi to Humboldt, 7.11.1827, on the topic of intestinal worms (Rudolphi's favourite subject); 4) Nachl. A. v. Humboldt, gr. Kasten 11, Nr. 7, Bl. 3-15, p. [25], <http://resolver.staatsbibliothek-berlin.de/SBB0001AB8300000025>: Note by Humboldt to himself [not dated, ca. 1827] to remind him to look up where Francis Bacon (much earlier than J. R. Forster) stated that all continents towards the south had a pyramidal shape; 5) Ms. Germ. fol. 841 & 842 (1827/28), p. 291, [http://www.deutschestextarchiv.de/patzig\\_msgermfol841842\\_1828/308](http://www.deutschestextarchiv.de/patzig_msgermfol841842_1828/308): one of the auditor's notebooks, 47th lesson, at which Humboldt clearly read out passages from item 2) and added some details he re-used in its re-publication as item 6); 6) Humboldt 1830, [http://www.deutschestextarchiv.de/humboldt\\_ursachen\\_1830](http://www.deutschestextarchiv.de/humboldt_ursachen_1830): Title page of the revised re-publication of 2); 7) Humboldt 1845, [http://www.deutschestextarchiv.de/humboldt\\_kosmos01\\_1845](http://www.deutschestextarchiv.de/humboldt_kosmos01_1845): Title page of the *Kosmos*, vol. I, in which he re-used and elaborated on 6).

