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Textual criticism in Indology and in European philology during the 19th and 20th centuries

By Michael Witzel

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ABSTRACT

This paper discusses the post-enlightenment development of philology in Europe during the 19th-20th centuries, particularly in the German speaking areas. After several centuries of sustained interest in the Graeco-Roman Classics, all types of medieval, older European and Asian literatures became the focus of new textual approaches. Prominent was an historical and critical approach bolstered by the newly developed MSS stemmatics and the new evidence from comparative historical linguistics.

After a brief retrospective, the paper follows some of the salient features of these developments from c. 1800 CE onward: including the development of the text-critical and stemmatic method by Lachmann; early Indo-European and Neogrammarian approaches to linguistics; also, briefly, the religious and mythological approaches to the texts such as those of Max Müller; the intrusion of 'race science', and the increasing, if rather temporary influence of ethnology.

A detailed discussion of the stemmatic approach and its later critics follows. Special attention is given to the situation in South Asian, notably in Sanskrit Studies. Finally, the paper discusses at some length the recent development of computer-based stemmatics that use biology-inspired computer programs. The paper concludes with a discussion of the prospects of stemmatic approaches in Indology.

§ 1. INTRODUCTION[1] THE BEGINNINGS OF TEXTUAL CRITICISM

§1.1. Renaissance and Classicism

It is well known that the study of the Graeco-Roman Classics saw a new approach in the late 14th century, the beginnings of the Renaissance period, well after the traditional Greek approaches developed at Alexandria and Pergamon in the 2nd and 3rd centuries BCE.[2] The Alexandria school held that after long exposure to a certain text, one could sense typical traits, and would then be able to judge whether the text was corrupt or not. The Pergamon school, however,

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[1] An early version of this paper was first given at a conference on philology organized by Kevin Chang (Academia Sinica) in Taiwan in 2008. It was scheduled to appear in the ambitiously called volume "World Philology," ed. by S. Pollock, B. Elman and K. Chang, which however, does not cover all important global cultures (excluding e.g., Rome, Egypt, Mesopotamia, most of medieval Europe, ancient Mexico, etc.). -- However, repeated editorial interference, with demands for large deletions and equally large additions, finally led me (just as another colleague) to withdraw my paper in 2013. I have never experienced that much of editorial interference in my 40-odd years of publishing. – However, Kevin Chang kindly suggested to me to publish part of my paper elsewhere, but in the end, I prefer to do so in full, even extending its length in this online journal: the topic is of concern to Vedicists, Indologists and practitioners of other philologies as well. – However, again with K. Chang's sympathetic assistance, an abbreviated version (excluding some of the purely Indological concerns) was translated into Chinese. This was kindly carried out by Dr. Zhang Yuan, a Peking University Graduate who spent a year in my department at Harvard. This version has now been published in *Gujing lunheng. Disquisitions on the Past and Present* 26, 116-150. June 2014, the journal of Academia Sinica, Taipei. --- Note that the current paper represents a minimally updated version of that published at the end of 2014. A few typing mistakes, repetitions and non-idiomatic expressions have been corrected, thanks to the input of two colleagues, and the numbers of some footnotes that the word processor had eliminated are now in proper sequence. This has caused some renumbering of cross references as well. (Therefore, please discard the earlier version).

[2] See the historical sketch by Greetham (1994, ch. 8).

believed that all texts were corrupt, that an author's text could not be reconstructed and that one should therefore select the "best text" from among available MSS, an attitude that has not quite dissipated today.[3]

The rediscovery of Greek texts by Renaissance scholars took place in Italy[4] –it suffices to recall Petrarca or Bocaccio-- though with the help of Byzantine intermediaries, especially after the fall of Constantinople in 1453 CE. New methods of editing and translating ancient texts were eventually established, though at first without firm principles. One became aware of the value of older MSS and of scholia, though the oldest MS was not automatically the best.

Subsequently, Richard Bentley (1662-1743) laid the ground for what was to occur in critical philology. He was very influential in the German scholarship of the later 18th and early 19th centuries.

In Bentley's time the strong new impulses of the Renaissance had almost disappeared. Starting in in 1689, he studied the manuscripts of the Bodleian and other Oxford libraries, and was requested to make remarks on an edition of the unique manuscript of John of Antioch's[5] universal history.

This resulted in his long appendix '*Epistola ad Millium*' (1691), in which he excelled in restoring corrupt passages by emendation. This established him as the leading English classicist. As in his edition of *Horace* (1711) he stressed transmission and tradition, restricting himself to criticism and correction,[6] while still excluding exegesis.

In 1720, Bentley published his *Proposals for a New Edition of the Greek Testament.* By comparing its Vulgate text with that of the oldest available Greek manuscripts, he restored the text of the time of the council of Nice. However, he never completed the work, nor his edition of Homer,[7] in which he aimed to restore Homer's language.[8] As mentioned, he exercised great influence on the early German school of philology and has been called[9] "the founder of historical philology."

Another founding figure of modern philology was Friedrich August Wolf (1759-1824). He regarded classical philology as a humanistic science, which he founded as a subject with the aid of the enlightened ministers of the Prussian king Frederick II. Contemporary scholars and poets discovered what they saw as "immortal Hellas" both in art (Johann Joachim Winckelmann, 1717-1768) as well as in the Greek texts: a new 'classical age' and mentality was born, with open admiration for ancient Greece, as is clearly visible for example in the work of the mature Goethe.

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[3] For example, K. F. Geldner in his Avesta edition (1886), as he reconstructed a stemma only *after* he had finished his edition, see his article in Geiger, *Grundriss* 1895-1904, vol. II.

[4] Earlier, in Muslim Spain, many Greek texts were translated from Arabic into Latin.

[5] Lived c. 491 – 578 CE, also called John Malalas (Malachas) or "John the Rhetor".

[6] However, most of his 700-800 emendations have by now been rejected.

[7] There only are only some manuscript and marginal notes in the possession of Trinity College.

[8] Including the restoration of the meter by the insertion of the lost *digamma.*

[9] By Christian C.J. Baron von Bunsen (1791-1860), who studied Old Norse, Hebrew, Arabic, Persian; note his *Outlines of the Philosophy of Universal History as applied to Language and Religion* (1854). He also sponsored the young Max Müller after his arrival in England.

Different from his contemporaries Rousseau (1712-1778)[10] and Herder (1744-1803), Wolf defined classical philology as the "knowledge of human nature as exhibited in antiquity," that was to be studied in its writings, art, and other forms of "national thought." Philology, concerned with both history and language, was primarily a *science of interpretation.* His method inspired the critical approach of the 19th century in analyzing ancient texts. He is often regarded as the founder of modern philology.

He established the philological *Seminarium* at Halle, where he published studies on Plato, Hesiod, Lucian, Demosthenes, Herodian, and Cicero, all of which did much to revive interest in classical studies. Following the Napoleonic invasion of 1806, Wolf had to move to Berlin, where he helped to reorganize the university according to Humboldt's scheme, and from where he published an essay in which he states the best approaches to classical study:

> **"we must avoid the endless collection of mere facts, and rather start with a study of the *animating spirit of the age*, which alone makes the data meaningful."**

Picking up the seminal work of Bentley, he issued his *Prolegomena to Homer* (1795, in Latin), which has been called "one of the cardinal books of the modern world." In his view, the Homeric epics (as we know them) are of composite authorship, an idea which had already been proposed by Alexandrian scholars, by Perizonius, by Giambattista Vico, and by Robert Wood (1769).[11] The famous scholars' joke had it that "*the Homeric poems were not composed by Homer but by an entirely different individual whom we now know as Homer*."

Another seminal predecessor of the 19th century was Giambattista Vico[12] (1668-1744). In 1699, he became professor of rhetoric at the University of Naples, and later the Historiographer to the king. He read the ancient texts according to his new program opposed to that of the "moderns" (such as Descartes),[13] stressing the study of language, mythology and tradition for the investigation of history. His *New Science* (1725)[14] opened the path to a better understanding of ancient mythology and of history. In his view, every period in the development of human societies and their institutions had a distinct character, and similar periods repeat in *the same order* (though not in exactly the same form), by which all nations develop according to a natural law of three ages.[15] Different from the Enlightenment principle of progress, Vico thus saw history as cyclic, similar to the ancient (Greek, Indian, etc.) idea of the (four) ages. Vico was the first modern historian to formulate a systematic *method*, an account of the

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[10] Rousseau's novel *Julie, ou la nouvelle Héloïse* was a bestseller, of great importance for the development of romanticism.

[11] Wood's rare, privately printed 1769 book *An essay on the original genius of Homer*, London 1769, was translated into German in 1773: *Versuch über das Originalgenie des Homers.* Frankfurt: Andreä 1773.

[12] Or, Giovanni B. Vico.

[13] Expressed in his speech *De nostri temporis studiorum ratione* "On the study methods of our time," 1709.

[14] Revised completely in 1730 and 1744.

[15] Vico, as a humanist studied the ancient texts. He opposed the reasoning of Descartes and the Port-Royal logicians that he called the "geometrical method."

development of human societies and their institutions. He preceded, in many ways, Herder in that he stressed the development of culture from its very beginnings. His work remained little known until the 19th century.[16]

Differing from the then prevailing classical traditions, Johann Gottfried Herder (1744-1803)[17] rediscovered the medieval European traditions, including folk literature, fairy tales, medieval epics and poetry, and non-Christian texts, such as the (as it turned out, largely fake) Scottish *Ossian,* the Icelandic *Edda,* the 11th century *Chanson de Roland*, the Middle High German *Nibelungen,* the Old Russian *Igor*, etc.

Herder's approach echoes, to some extent, that of his contemporary Jean Jacques Rousseau (1712-1778), who thought that man was good in the state of nature, before civilization and society corrupted him.[18] Herder wanted to collect early poetical creations of *all* peoples in order to trace their organic development,[19] and also to find the origin of language.[20] Comparing parallel developments across the globe, he wanted to approach the early stages of humankind through the 'simple' productions of peoples' spirit.[21]

This clearly was not a patriotic or nationalistic undertaking, as is now often maintained.[22] It is frequently forgotten that the movement spear-headed

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[16] He influenced 19th century scholars and writers such as Johann Gottfried Herder (1744–1803), Karl Marx (1818–1883), Samuel Taylor Coleridge (1772–1834), and William Butler Yeats (1865–1939); and later on, Benedetto Croce (1866–1952), James Joyce (1882–1941), Bertrand Russell, Samuel Beckett, Isaiah Berlin, Northrop Frye, Harold Bloom, Edward Said, Marshall McLuhan, Thomas Berry, and Robert Anton Wilson. -- Cf. Hobbs 1992. Croce 1913. Danesi 1993; Berlin 1976.

[17] Herder subsequently belonged to the periods of Enlightenment, *Sturm und Drang*, and Weimar Classicism. Goethe got Herder a position at Weimar in 1776. In 1773 he wrote the important *Auszug aus einem Briefwechsel über Ossian und die Lieder alter Völker* (*Voices of the People in Their Songs*; *Extract from a correspondence about Ossian and the Songs of Ancient Peoples,* 1773): "A poet is the creator of the nation around him… he gives them a world to see and has their souls in his hand to lead them to that world." He thought that this was represented in a pure state – somewhat like Rousseau – in peoples before they became civilized (i.e. in the Old Testament, Edda, Homer's epics, ancient German folk songs, Norse poetry and mythology). Herder stressed Germanic origins, as against the then still current dominance of Classical Greek culture. He inspired Jacob and Wilhelm Grimm in their collection of German folk tales.

[18] However, the idea of the 'noble savage' was first used by John Dryden in *The Conquest of Granada*, 1672; it was *not* used by Rousseau. The latter's idea of natural goodness rests on early peoples being self-sufficient and not yet spoiled by the development of society and concomitant interdependence.

[19] His unfinished *Outline of a Philosophical History of Humanity* (1790-1794) largely originated the school of historical thought. (Cf. however Vico, above.)

[20] Like his contemporary Wilhelm von Humboldt, Herder thought that language determines thought, as is maintained in the 20th cent. Sapir-Whorf hypothesis.

[21] Hence, instead of the medieval and early modern concept of a dynastic state, he created the Romantic nationalist school believing in the idea of an organic, historically grown "folk-nation", with a "physiology of the whole national group", expressing the "national spirit", the "soul of the people" (*Volksgeist*).

[22] See below, n.31.

by Herder was truly universal in character.[23] During the 19th century, the same collections were, of course, increasingly used to underpin the claims of the various European peoples for their own nations and states, especially during the struggle for independence and unification of the peoples of Central and Eastern Europe.[24]

Around 1800 CE, thus, two trends thus opposed each other: on the one hand, the still increasing admiration of all things Greek and Classical – note the Napoleonic *Empire* style – and on the other, a trend, beginning with Rousseau and Herder, to look closely at the texts of 'the people' all around the globe, especially those not yet "spoiled" by civilization.

At the same time knowledge about and appreciation of world literature widened considerably, at first due to second hand accounts of Chinese, Zoroastrian and Indian texts. The latter were introduced to Europe by the early translations made by British officials in India of classical Sanskrit dramas, of law texts, and by the first 'decipherment' in 1806 by Henry Thomas Colebrooke (1765-1837) of the oldest Indian texts, the Vedas.[25] These were believed to stem from the earliest times, either from India or from deepest Central Asia, then regarded as the 'cradle of humanity' (*fons gentium*). The first Latin translation (via Persian) of the Vedic Upaniṣads and of the Avesta of the legendary Zoroaster, in 1771, by Abraham-Hyacinthe Anquetil Duperron (1731-1805) opened another window to the Orient, beside that of ancient Egypt after the decipherment of the hieroglyphs and of China,[26] whose Classical texts had been highly regarded, ever since Jesuit missionaries like Ricci (1552-1610).[27] All of this widened the historical and geographical horizons of the 18th century Europeans considerably.

As for European traditions, in addition to reading the well known Graeco-Latin classics and the Bible, one now also began to search all over the continent –with Herder-- for the oldest "national" folk, epic and literary texts.

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[23] See U. von Wilamowitz-Moellendorff 1959: 47. Herder's now often highlighted anti-French stance was a reaction against Napoleon's invasion of the German states, especially after 1806.

[24] Herder clearly understood and warned about the dangers of his folk theory and he did not adhere to any racial theory: "notwithstanding the varieties of the human form, there is but one and the same species of man throughout the whole earth", or --differently from the then emerging exceptionalist America-- "no nationality has been solely designated by God as the chosen people of the earth… Hence no nationality of Europe may … foolishly say, "With us alone, with us dwells *all* wisdom."

[25] He went to India 1782 and began to study Sanskrit in 1793. His *Essay on the Vedas*, 1805, for long the only (fairly) reliable information on these oldest Indian texts, was done with the help of pandits and commentaries. He returned to England in 1817. See further, below n.106.

[26] Anquetil Duperron stayed in India from 1755 to 1761. Parsi priests translated the *Avesta* for him into Persian, of which he published in a French translation in 1771. Similarly, based on the Persian "translation" (rather, adaptation) by the Moghul prince Dara Shikoh, he published a Latin translation of the *Upanishads* in 1804.

[27] The Italian Jesuit Matteo Ricci (or 利玛窦 Lì Mǎdòu or 西泰 Xītài) traveled to Goa in 1578 and then to China, where began studying Chinese language in Macau, before reaching Beijing in 1598. He was sponsored by the court and became part of the Beijing cultural scene.

The effort began with the Gaelic (pseudo-)Ossian[28] (1760), and it was especially pronounced in the more than 300 statelets of Germany, of which Napoleon's forced amalgamation had still left a few dozen. Part of this movement[29] was inspired by opposition to Napoleon and his annexations west of the Rhine and beyond. The restoration of absolute German monarchies after Napoleon's defeat in 1814/1815 did not weaken the movement: people were awakened and longed for a re-united realm, a new *Holy Roman Empire,* the last vestiges of which Napoleon had abolished in 1806.

It is in this context that the study of older German lyrics, epics and folk tales, notably by the brothers Grimm (Wilhelm 1786-1859, Jacob 1785-1863), turned into a virtual fashion. The (Christian) Middle Ages appealed to the Romantic spirit of these politically repressive times; one looked inward and celebrated culture in small circles of friends, at home and in salons. The distant past seemed to represent a "whole" intact and undamaged world.

Incidentally, this semi-political cultural movement had little to do, contrary to what is now often asserted, with the strong German interest for Sanskrit and India, which was just *one* of the many avenues in the Romantic search for early textual materials.[30] Still, this interest is now frequently depicted, though erroneously, as having been *instrumental* for German nationalism of the Romantic and later periods,[31] usually by those who know little of the *original* German language texts of the period -- especially so in the Anglophone world: this has then been parroted all over the Indian right wing (*Hindutva*-leaning) internet.

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[28] Ossian is the alleged author of Gaelic poems. Their 'translation' was a Scottish nationalistic undertaking after the "union" of Scotland with England in 1707. In 1760 the poet Macpherson published *Fragments of Ancient Poetry collected in the Highlands of Scotland.* In 1761 he "found" an epic by "Ossian" (*The Works of Ossian,* 1765, 1783), soon regarded as a Celtic Homer, who influenced Walter Scott, Goethe and Herder, who wrote an essay titled *Extract from a correspondence about Ossian and the Songs of Ancient Peoples* during the Sturm und Drang movement.

[29] Arvidsson (2006: 131-132) believes that "the emergence of the discipline of folklore is intimately connected to nationalism ... that could free itself from dependence on 'foreign' cultures." – However, the Grimm brothers' project was more widely focused on oral literature as a pan-human cultural heritage.

[30] As mentioned above, the movement began in the late 18th century with a collection of global folklore; it originally was truly universal in character (F. Herder). These collections were certainly used during the later 19th century for nationalistic aims, especially during the striving for independence and unification of the peoples of Central and Eastern Europe.

[31] Characterized by cottage industry-like flood of books, in the early 2000s, by *some* of the following authors, while *others* achieve a balanced view of 19th century Indology: Adluri 2011; Arvidsson 2006, Benes 2008, Cowan 2010, Esleben *et al.* 2008, Germana 2009, Grünendahl 2012, Marchand 2009, McGetchin 2004, Rabault-Feuerhahn 2008, Sengupta 2005, note already Schwab 1950, Willson 1964, etc. – The Romantic Indomania was merely *one* outcome of the movement, begun by Herder and his friends, of studying the supposedly oldest texts of humankind, including obviously India among other non-European cultures: Zarathustra's Persia, the Arab and Turkish world, Bali and China (Tibet and Japan still were basically closed to foreigners).

§ 1.2 A new stimulus: comparative linguistics

Concurrently, the early 19th century[32] saw the establishment of both the modern method of historical and textual criticism and of the development of historical comparative linguistics. Both were to exert important, if not dominant influences on philology that lasted at least for a century.[33]

The close relationship between Sanskrit and most European languages was first elaborated by Lord Monboddo (1714-1799).[34] The concept clearly was "in the air," though it was famously voiced in a 1786 Calcutta speech of the British colonial judge, William Jones, who posited a language that was the ancestor of Sanskrit, Greek, Latin, etc. His linguistic proposal was then formalized in the first Indo-European linguistic handbook of Franz Bopp[35] (1816) that reconstructed much of the grammar of Proto-Indo-European.[36]

The reconstructed Indo-European 'mother tongue' (then often called *Ursprache*) was initially correlated by some conservatives with the language of the Biblical Noah's sons Shem, Ham and Japheth, while the anti-clerical French Enlightenment saw it as a welcome counterbalance to Biblical stories. During the concurrent Romantic period, however, the pan-European search for origins at first led to imagining the Indo-European homeland in India[37] as Sanskrit was then erroneously seen as the oldest form of Indo-European.[38] It is at best a granddaughter.

The ensuing combination of the early development of historical and textual criticism, building on Bentley's and Wolff's philology and Jones' and Bopp's comparative linguistics, was especially due to the circle of scholars that W. v. Humboldt had assembled at the new Berlin (later, Humboldt) University,

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[32] See, importantly: App, Urs 2010; Rocher 2009, 635-644. An older report is: Windisch 1917.

[33] As mentioned, the intimate combination of linguistics and texts is still called "comparative philology" in Britain. – For the early history of comparative linguistics before the late 18th century, from the Franconian scholar Wilfred Strabo (808-849 CE) onward to G.W. Leibniz and William Jones, see Vaclav Blažek 2010: 150-152.

[34] The Scottish judge James Burnett, Lord Monboddo, though usually not figuring in historical accounts, was one of the founders of historical comparative linguistics (see his *The Origin and Progress of Language,* 1773-1792); having studied many languages (Carib, Eskimo, Huron, Algonquin, Quechua and Tahitian) he believed that language developed according to changing environment and social structures. He also developed, well before Darwin, some concepts of evolution and of natural selection, and he believed humans had developed language as a response to changes in environment and social structures. See also, Letter of Lord Monboddo to William Jones dated June 20, 1789, reprinted by William Knight 1900.

[35] Franz Bopp (1791-1867) was influenced by his contemporaries' interests, such as Friedrich Schlegel's *Über die Sprache und Weisheit der Indier* (*On the Language and Wisdom of the Indians*) 1808. In 1812, he went to Paris to study Sanskrit, along with A. de Chézy, S. de Sacy, L. Langlès, and the early Sanskritist Alexander Hamilton (1762–1824).

[36] *Über das Conjugationssystem ...* (*On the Conjugation System of Sanskrit in comparison with that of Greek, Latin, Persian and Germanic*) 1816. –Note the contemporaneous work by the Rasmus Rask whose work (in Danish), however, was published only later that Bopp's. Bopp's *Vergleichende Grammatik (Comparative Grammar)* appeared at Berlin, 1833-1852.

[37] An early proponent was Friedrich Schlegel: *Über die Sprache und Weisheit der Indier* (1808), as to explain connections between Sanskrit and European languages.

[38] See the oldest, heavily Sanskritized version of Schleicher's imagined Indo-European tale: http://en.wikipedia.org/wiki/The_Sheep_and_the_Horses.

whose liberal and *Wissenschaft*-oriented structure was to become the model of many other western Universities.[39] The Berlin circle formulated a new approach to the comprehensive study of the ancient and medieval texts, in short to 'philology.'

§1.3. Philology

Philology is of course not, as a local Buddhist colleague once instructed me,[40] "the study of *a* word," nor just the slow reading of dusty old books. Rather,[41] with the felicitous 1988 definition of a Harvard Classics conference ("*What is philology?*"): "philology is a *Kulturwissenschaft* based on texts", the study of a civilization based on its texts. As such it is different from the approaches of archaeology, history, sociology, anthropology or religious studies, in which texts play some role, though not necessarily the central one. Moreover, philology does not ignore these approaches, as is wrongly assumed by those who attack it. Rather, philological study comprehends both the investigation of the available written and oral texts of a civilization *and* employs a range of tools (*Hilfswissenschaften*) necessary for understanding the texts; these tools deal with the *realia* met with in the texts and they range from archaeology to writing systems, and from astronomy to zoology. We have to be "*inside the texts – beyond the texts*," the programmatic title of a recent book on Vedic studies.[42]

I do not enter a discussion[43] of the currently –still-- fashionable "critical" approach[44] to philology as "the cultural technology of colonial rule,"[45] Foucault's power axiom "exposing the secret complicities between power and knowledge,"[46] as a simple expression of "Imagined Communities,"[47] or worse, but at least amusing: "Philology is a bourgeois, paternalist and hygienist system

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[39] By now, the institution seems to have run its course: under the influence of the imitation of the Anglo-American plethora of degrees (now re-incarnated on a European level, BA-MA), by mass production of students under the typical German super-bureaucracy, with an ever more powerful administration, it has become nearly impossible to function. We clearly need a new academic setup. As an old friend of mine, the late B. Kölver, complained some years ago: "It was a nice two hundred years…"

[40] At that time, in the late Eighties, the study of Buddhism at Harvard still was, in the mold of the late 19th century approach, one of a philosophy, totally neglecting Buddhism as the religion of hundreds of millions of people.

[41] Close to Wolf, who held that philology primarily is a *science of interpretation* in which historical and linguistic facts are important.

[42] See Witzel, 1997, Introduction.

[43] Joel Berry: "British Orientalism was a highly productive enterprise, based on experiential science and actuated by the genuine academic inquisitiveness of obsessively dedicated researchers. ... the movement actually tempered ethnocentrism by fostering greater respect and understanding of Indian culture and history." Accessible at: http://www.asiaticsociety.org.bd/journals/vol%2052/ORIENTALISM%20AND%20THE%20ASIATIC%20SOCIETY%20OF%20BENGAL.html). -- See now Urs 2010.

[44] See Grünendahl (2009-2010). Robert E. Frykenberg: "theory, in the names of current fashions, has become a cloak for dogma, for denial of empirical evidence, and for scorning real events in historical understandings." (see Berry, preceding note).

[45] See N. Dirks, introduction to Bernard S. Cohn 1996.

[46] As per E. Said; see Smart 1997: 268.

[47] Anderson 1983.

of thought about the family; it cherishes filiation, tracks down adulterers, and is afraid of contamination. It is though based on what is wrong (the variant being a form of deviant behavior), and it is the basis for a positive methodology."[48]

Such approaches and comments overlook that the study of 'pedigrees', 'family trees', stemmas ('*stemmata*'), or cladistic phylograms, which is a legitimate exercise common to biology (paleontology, Darwinist approaches), to recent (human population) genetics, historical linguistics or to the study of interrelation of manuscripts (stemma). This pursuit is neither bourgeois nor trying to 'track down adulterers.' The latter case, excluded by biological DNA inheritance, is actually becoming interesting: epigenetic phenomena have increasingly been discussed over the past few years;[49] for they represent a good parallel to the influx of loan words or the interchange of grammatical features in a linguistic area (*Sprachbund*) in linguistics, and to the contamination in MSS. They represent secondary, often superficial changes to an established pedigree (phylogram). The close parallelism and increasing interaction between the humanities and the natural sciences opens new vistas for the development of human traits and cultural production. This cultural production will be dealt with in some detail below.

Imagined bourgeois pursuits or Romantic dreams apart, it is enlightening to note that parallel to Bentley, Wolff *et al.*, the Japanese scholar Motoori Norinaga (1730-1801) independently invented a philology for the oldest Japanese texts, the Kojiki and the poems found in the Nihon Shoki.[50] In the forbidding contemporary climate, it actually was politically dangerous to support, by such philological studies, the long, partly mythological history and the religious importance of the then rather subordinate emperor at Kyoto vs. that of the actual ruler, the Tokunaga Shogun at Edo (Tokyo).

§1.4. Manuscripts

Earlier European scholars of the Renaissance and Baroque periods had already noticed that their MSS frequently were just bad copies made by medieval scribes, whose mistakes were in part due to the change from uncial to miniscule characters in the 9th century CE, a bottleneck neck event, as we would now call it following biological parlance. (Curiously, the parallel development in Indian MSS around 1000 CE has not even been noticed by scholars).

However, following the Hellenistic Greek practice of the Pergamon school most Renaissance books were printed based on more or less good MSS; increasingly the explanatory notes (*scholia*) found on the margins of MSS that had been made by learned Byzantine or western scholars and by monks were taken into account. Thus scholars often relied on the oldest and "better" or "faithful" MSS, but especially so on their own learning, to "correct" their MSS,

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[48] Cerquiliani 1999: 49.

[49] Focusing on which genes are expressed (in a somewhat Lamarckian way) or *not*, explaining how one genome (like the MS archetype) has resulted in varied outcomes (like in actual MSS). The "ancestor" and much of the pedigree nevertheless remain the same.

[50] See below n.216. He was preceded by Kamo no Mabuchi (1697-1769), though in studies of the somewhat later Manyōshu poems, composed in Old Japanese. This early onset argues against European influence (such as by Wolf, Lachmann) via the only open port, Nagasaki, where only the Dutch (and their German etc. employees) were allowed to live and trade.

because they could not yet decide which MS represented what we now call the archetype. This attitude changed only with the establishment of the stemmatic method early in the 19th century.[51]

However, the old attitude did not change until the end of the 18th century.[52] Even the very learned Dutch scholar Gabriel Cobet[53] (1813-1889), in spite of the stemmatics of the Lachmann school of the 1810s, still stressed the value of the *oldest* MSS. He clearly understood the misreading and miswriting of Byzantine scribes (based on his studies of nearly all Greek MSS in Italy, 1840-45). He therefore preferred the earlier MSS (9-11th centuries), though he knew that even these were already in a deteriorated state due scribal changes.

Instead, it had been accepted, at least since Lachmann early in the 19th century, that we need a firm basis in order to study our classical texts: we need a text that is ideally the same, or rather comes as close as possible to the text the author had in mind. This means to employ the methods of historical and textual criticism, strictly adhering to the principle of establishing a family tree of manuscripts (*stemma*). The method has been summed up, after more than a hundred years of trial and error, by P. Maas and M.L. West[54] and for India S.M. Katre.[55]

Interestingly, already in the 15th century, the famous Renaissance scholar Poliziano (Politianus, 1454-1494), working on Cicero's *Epistolae ad familiares*, had an inkling of the stemmatic method. In order to explain the variations that he found among the existing manuscripts of the Epistolae he proposed a genealogical theory of manuscript affiliation, and eliminated later MSS which evidently were copied from an earlier one. The latter was necessarily more authoritative and had the most authentic readings. The rule of ignoring all MSS known to have been copied from an extant MS (*eliminatio codicum descriptorum*), in fact became the basis for the genealogical or stemmatic method of Lachmann. Despite of Politian's insight Renaissance scholars still could not decide how to distinguish the original reading from a corrupt one. Rather, they collected as many early manuscripts as possible for their editions, but ultimately had to fall back on the old Hellenistic methods.

§1.5. Stemmatic method

The stemmatic method was largely developed by Lachmann.[56] He introduced the principle of *recensio,*[57] that is, the study of the received MSS of a text, the establishment of their 'family tree' (*stemma*), followed by the edition of the text.

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[51] Wilamowitz-Moellendorf, 1959: 47ff, Housman 1921. Against this attitude, even in 1921, Housman still had to rail in his *Application of Thought to Textual Criticism.*

[52] Wilamowitz-Moellendorf, 1959: 47ff, Housman 1921.

[53] Cobet contributed many critical, though overenthusiastic notes and emendations that were published in book form. He disliked the Lachmanian approach and said that his masters Richard Bentley, Richard Porson and Richard Dawes.

[54] P. Maas, *Textual Criticism* 1968 (which includes an article, 'Leitfehler und stemmatische Typen', *Byz. Zeitschr.* xxxvii, 289sqq.; *Oxford* 1949. -- West 1973.

[55] Maas 1968, 1949; West 1973; Katre 1954; see also Dearing 1969, Tanselle 1989, Thorpe 1972.

[56] The first published stemma occurs in the *Vaestgoetalagen* edition of Collin and Schlyter (1827). However, Lachmann had established the rules of textual criticism already in his

In addition to classical texts, such as Lucretius,[58] he worked on older German texts such as the *Nibelungenlied*. This is a medieval version of the old tale of Sigurðr/Siegfried and Brynhild/Brunhilde, which he analyzed as a compilation of a number of separate songs -- just like, he thought, Homer's Iliad.

Following Bentley, Lachmann worked on the text of the New Testament (1831)[59] that superseded the Vulgate (*textus receptus*),[60] but he did not and could not fully reconstruct the original text as written by its authors. Judiciously, he left certain corrupt words and passages in his text that he did not want to change *on his own*. In his introduction, he clearly distinguished between *recensio* and *emendatio*, that is the form of the text according to textual sources and its correction by the editor.

Instead, he wanted to restore the *oldest* Alexandrian version of the text, based on the oldest Latin MSS of Hieronymus and of the western Greek Uncial MSS, as against the (younger) canonical text of the Orthodox Church based on the variants in the Alexandrian MSS. One of his major discoveries was that the comparison of the four evangelists indicated that Marcus is the earlier one of the two synoptics.[61]

As is well known, the stemmatic approach entails the comparative study of many or, preferably, all available MSS of a text to establish their pedigree. Their comparison will soon show that certain MSS are copied from a line of transmission whose oldest preserved MS may reach back hundreds of years, and therefore they are of *no* value as they are mere "reprints" – with additional mistakes in the bargain. This is Politian's principle of ignoring all later copies made from an extant MS (*eliminatio codicum descriptorum*).[62] Second, available MSS usually fall into a number of families, whose ancestor MS may no longer exist -- biologists would call this a "bottleneck" event. The ancestor MS has to be reconstructed from its immediate copies. The ancestor MS of all available families is the *archetype*. Usually it is not very close in time to the author's MS, but that is as far as back as we can go. Indeed, while we try to establish the earliest if not original version of a text we often have to rely on the earliest, usually a medieval version, that can be established.

All relevant MS data must be recorded meticulously (which still is not done at all done in Indian Studies) as to allow following and checking on the

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***Habilitationsschrift* (1816), and in his early review of Hagen's *Nibelungen* and Benecke's *Bonerius*, contributed in 1817 to the *Jenaische Literaturzeitung* he had already laid down the rules of textual criticism. -- However he had predecessors, as mentioned earlier: the Renaissance scholar Politian (15th cent.) proposed a stemmatic theory in order to explain the variations in his manuscripts; note also August Wilhelm Zumpt (1815 –1877) who specialized in Latin epigraphy (*Commentationes epigraphicae* 1850-54), and others, see Timpanaro 1971, 44ff. (Engl. Tranls. 2005). (Grünendahl, 2009-10, n. 54). -- Cf. further: Schmidt 1988: 228, Grünendahl 2009-10.**

[57] Wilamowitz-Moellendorf 1959: 59.

[58] Remarkably, in his Lucretius edition (1850) he showed that three main manuscripts could be traced back to an archetype MS of 302 pages of 26 lines each, copied from a manuscript in minuscule, which had been copied from a MS of the 4th/5th century written in rustic capitals.

[59] 1831, 3rd ed. 1846, and larger ed. 1842/1850.

[60] He explained this in his *Studia Krit.* of 1830.

[61] The evolution of the text was, as we now know, Marc > Mathew > Luke > John. See Wilamowitz-Moellendorf 1959: 59.

[62] Lachmann , in addition, tended to eliminate all contaminated MSS as well, see below.

editor's decisions. Grünendahl (2008: 11) rightly stresses that a critical edition has the general goal of the *Nachvollziehbarkeit*, that is, the replication by readers of the editorial process. To merely present, as many if not most still do, "representative" MSS variants is the source of all evil in textual criticism. A future user of the edition will necessarily have to go back to the original MSS themselves.

Regarding these important initial steps in establishing a stemma, Housman[63] formulates: "Textual criticism is a science, and, since it comprises *recension and emendation*, it is also an art. It is the science of discovering error in the texts and the art of removing it." Yet, it is "not a sacred mystery" but something that one can find out by oneself. It is "not a branch of mathematics nor an exact science at all... It deals with the frailties and aberrations of the human mind … and of the human fingers." (Housman forgets the aberrations of oral transmission, thus the 'frailties' of the human tongue and teeth, as well as that of human memory.)[64]

To be clear, Housman says: "A textual critic is … not like Newton…: he is much more like a dog hunting for flees. If a dog hunted for flees … basing his researches on statistics of area and population, he would never catch a flee except by accident. They require to be treated as individuals; and every problem which presents itself to the textual critic must be regarded as possibly unique."

In other words: first comes noticing a mistake, and perhaps an inkling of what might be the solution, all of which is then *tested* using the various tools and *Hilfswissenschaften* that we always use in philology. In this fashion, we can prove our point, or at least, make it a probable one. More on this, later.

This amusing characterization of "dog statistics" overdoes it by not a small margin but Housman is right in stating that textual criticism cannot me purely mechanic, for example by an automatic use of paleography, nor can it proceed by using the 'principles' of the oldest and the 'best' MS.[65] It requires their use but only when subsequently "thought is applied," as he says: "Knowledge is good, method is good, but one thing beyond all others is necessary; and that is to have a head, not a pumpkin, on your shoulders and brains, not pudding, in your head."[66]

In other words, if we notice a mistake, and perhaps have an inkling of the solution, all of this must be *tested* using the various tools and *Hilfswissenschaften*, until we can prove our point, or at least, turn it into a probable one.[67] In this fashion, we can prove our point. More on that, later (§1.5. on *surā*; §7), with examples.

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63 1921/1961: 131-133.

64 Cf. James Willis' equally scathing criticism (1972: 2): "in textual criticism there are no simple instructions. Its subject matter is, at the one end, the highest achievements of literary technique; at the other, the mistakes made and the lies told by ignorant, careless, or impudent scribes, arising from negligence, misunderstanding, and a pernicious desire to do good."

65 Or as he says, a "more sincere" or a "more correct" MS.

66 A.E. Housman 1921: 84.

67 Housman, however, had a more restricted opinion (1921: 137sq.) that "the truth or falsehood of a MS reading can never be confirmed or corrected by a<n equally> decisive test… [that] would be the production of the author's autograph."

Housman, however, was of the opinion[68] that "the truth or falsehood of a MS reading can never be confirmed or corrected by a<n equally> decisive test… [that] would be the production of the author's autograph." While he is right *in principle,* we can approach a solution by using the stemmatic method if it is combined with paleography and other *Hilfswissenschaften*. (See below, on *surā*).

By now we can even show how a certain MS variant has come about, though such cases are only rarely discussed as Indologist editors who are, at best, preoccupied with establishing the stemma, not with discussing the mistakes of their MSS and how they originated, though that would provide them with valuable clues for other, more difficult cases.

Different from Bentley's ideas about criticism, textual criticism does not immediately extract a meaning[69] from a text. Such questions are better postponed[70] until its proper wording has been established. Even then, both the establishment of a text and its preliminary editorial interpretation naturally go hand in hand.

After these initial steps of editing a text, higher textual criticism (*emendatio*) comes in. Based on our knowledge of the grammar, style, parallel passages or typical expressions of the author concerned – repeating here the Alexandrian model-- we can scrutinize the archetype MS and propose certain corrections to that text. Obviously, here we are in the realm of conjecture (*emendatio*). The better one is as a philologist, the more one 'employs one's thought,' and the more one uses (by now also electronic) tools, the better the resulting text will be.

Finally, we may discuss whether certain portions of the text have been added or, more rarely so, left out. All of this has to be vetted thoroughly by philological etc. methods, against all available data (including those external to the text). Again, the more a philologist 'employs his thought' (Housman) the better the resulting text will be.

To give an early Sanskrit example: in the Paippalāda version of the Atharvaveda (PS 8.12.9)[71] we read, even in the edition of the very experienced Sanskrit scholar Raghu Vira, the uncorrected corrupt line (Kashmir version):

***idaṃ kuru cemāṃ surām*; Bhattacharya reads, still with corruption: (8.12.11, in the Orissa version):**

idaṃ kodacemāṃ*[72] *surā*; another Orissa variant (MS *mā*), has: *idaṃ koda-dacemā...;

This is restored, with minimal emendation to:

$^{+}$*udaṃkodañcemāṃ* (*udaṅka*|*udañca*|*imāṃ*) *surām* 'o ladle, scoop up the brandy'.

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68 1921: 137sq.

69 As far as meaning is concerned --though I do not want to enter this debate here-- the concept has also come under criticism, in the still fashionable deconstructionism of the past few decades that all interpretation is misinterpretation, all knowledge is provisional or hypothetical -- of course, exempting deconstruction itself – that all readings are misreadings, since no reading can escape correction, and consequently, that all texts are subject to deconstruction, critical editions being just one subset. Cf. Grünendahl 2009/10: 26.

70 Grünendahl 2009/10: 21.

71 Edited by Raghu Vira 1936-41 and by D. Bhattacharya 1997.

72 Underlining indicates that Bhattacharya is uncertain about the correct form.

Here, one proceeds from noticing that grammar and word division make no sense, by the following steps:

- **noticing a problem (the line makes no sense: *idaṃ* does not correlate with *surām,* there is no word *koda-;* the word division is merely that of the editor in question)**
- **checking on the textual background available for it (there is little information on alcohol in the early texts, though its plant ingredients are known)[73]**
- **proposing a possible/probable solution by noticing the verb *ud-añc* 'to scoop',[74] (verb *ud-añc* 'to scoop'), and hence *udaṃka* 'ladle, bucket'[75]**
- **counterchecking the proposal against paleography**
- **The easy graphic correction (*u-* > *i-*) in the sub-archetype MS of the Paippalāda Saṃhitā of c.1200 CE,[76] results in a satisfactory text. (*i-* and *u-* are very similar in the sub-archetype MSS; local pronunciation is not relevant here). One can further compare related texts, idioms (*ud-añc*), and in the case of the oldest Indian texts, also the linguistic data and texts from other languages of the same (Indo-European) family, such as Avestan.[77]**

We can thus approach a solution by using the stemmatic method, combined with paleography and other *Hilfswissenschaften*, and if we can show how the reading of a certain MS has come about (*Textgeschichte*).

Housman (1961: 142),[78] characterizes cases such as the one just quoted: "The prime requisite of a good emendation is that it should start from the thought; it is only afterwards that other considerations such as the interchange of letters, are taken into account… "

In addition, Housman continues to point out (1961:145), that the same applies to the rules of grammar and meter: Greek and Latin texts have a problem as we have to rely, on the one hand, on the description of these languages by their ancient grammarians, and on the other, on the evidence as it actually presents itself in the MSS.[79] To infer rules from the scattered and often contradictory evidence of the MSS, we may have to set up ourselves a new grammatical rule and then apply this to all of Classical/Medieval literature, --- which is a logical circle (Housman 1921: 145). But, with Lachmann, Housman

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[73] The only Vedic hymn actually dealing with *distilling* alcohol, even internationally a remarkably early testimony of this practice.

[74] Established by K. Hoffmann 1975: 162-5.

[75] Note that *udaṅka* actually exists as designation of a vessel (not for water), Pāṇ. 3.3,123; *udaṅkī* 'pan' Mānava Śrauta Sūtra 1.1.2 and as a personal name in TS 7.5.4.2, BĀU 4.1.3, Rājataraṅgiṇī.

[76] Witzel 1985a.

[77] Incidentally, this case provides another proof for a *written* archetype of the PS underlying the Kashmir and Orissa versions, and it provides an approximate date for the sub-archetype MS from which the Kashmir text was copied. --- I have discussed this seminal example in classes at Leiden University (Netherlands) in the early Eighties, however the matter has recently been published by my former student M. Oort, 2002.

[78] This time quoting Haupt's oration on Lachmann as a critic. Moritz Haupt (1808-1874), succeeded Lachmann at Berlin in 1857. He combines careful investigation with bold conjecture; much of this remains unpublished. Next to classical texts he published early German works and *Französische Volkslieder* (1877).

[79] Similarly for late medieval, early modern Sanskrit.

still maintains: "the task of the critic is just this, to tread that circle deftly and warily; and that is precisely what elevates the critic's business above more mechanical labour." Actually, "the paradox is more formidable in appearance than in reality."

The same can, obviously, be said about Indian texts, such as the Epic, Purāṇic, Tantric and many local texts that abound in "non-grammatical", i.e. non-Pāṇinean forms. Traditional Pandits and their followers in the West assume that Pāṇini (c. 350 BCE) had set the grammar of Sanskrit in stone for all times to come, and treat such forms simply as "wrong" – as if Sanskrit has not been a language in active use by learned people until at least 1835 when English was introduced as official language in India. (As a favorite escape route, traditionalists even say the text in question must be older than the great Pāṇini as it still has 'non-grammatical' forms!)[80] If we would follow that "principle" elsewhere, say, in the Greek New Testament, and much of medieval non-formal texts (e.g., *Carmina Burana*) or in medieval Christian invocational texts, all these texts should be 'corrected' according to standard grammar. However, the respective authors did not use any codified grammar, and often did not know its 'rules' well.

A careful critic, thus, will not do away, relying merely on his/her 'genius', with *all* corrupt passages many of which are and will remain obscure even to the most experienced and ingenious scholars. "Solving" such problems in a facile way (*lectio facilior*) will sooner or later turn out to have been a serious mistake. One better leaves the unusual, difficult reading (*lectio difficilior*) in the text – for the benefit of future readers.

The stemmatic method as part of textual criticism has proven to be very reliable, even if there has been some criticism from early on. Amusingly, the 19th century scholar Th. Mommsen described Lachmann as:

> **"emendiert hat er schön, wenn er nur von der Sache etwas verstanden hätte" (he has made nice emendations—if only he had understood the matter at hand",**

or, as an anonymous anecdote[81] has it:

> **The Berlin friends (of the early 19th cent.) joined in reading Demosthenes, and Lachmann wanted to ameliorate a word by conjecture. Everybody agreed but Immanuel Bekker kept quiet. The friends asked him: "Didn't he restore the text well?" Bekker merely answered "in Demosthenes?" … and the conjecture was discarded.**

The anecdotes indicate what has always been the problem with emendations: mere ingenuity or worse, fantasy, *does not do it.*[82] With Housman, one has to apply *thought* to it. Or, more to the point, one needs a firm basis, built on the stemmatic method, combined with a thorough knowledge of the historical *level*

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[80] Curiously, some Indian authors draw the erroneous conclusion that such ungrammatical texts must be *older* than Pāṇini, whom they imagine to have "regulated" if not outright "invented" classical Sanskrit. However a number of authors, other than the classical poets such as Kālidāsa, did not rely on Pāṇini's grammar.

[81] Wilamowitz-Moellendorf 1959: 52.

[82] Kenney (1974) thought that not 1% of all conjectures was correct. Or, worse, with Wilamowitz-Moellendorf (1959: 61): "it is too favorable if one posits one of 1000 conjectures as being successful."

of the language involved, the author's individual style, and comparison with or contemporaneous texts, or better with parallel texts that are so frequently found in (older) Sanskrit: they are the best commentary.

§1.6. Lectio difficilior

Obviously we are dealing here with difficult cases that we call the *lectio difficilior*. This concept entails that the more unusual or difficult reading is more likely to be the correct one. Scribes copying a MS frequently changed the wording --unconsciously or not—and adjusted it to their commonsense notions, in fact homogenizing their MS. Scribes in the West as well as in India or in the East (confusing phonetic complements or radicals of Chinese characters) have "emended" their MSS readings with common words they understood or thought they understood. In India, this is especially the case with "ungrammatical" (i.e. non-Pāṇinean forms) and worse for the Prakrit texts that later scribes did not understand at all. As we all know from practice, there are a number of cases where even a good editor does not succeed in getting rid of a corrupt word or passage and therefore chooses the *difficilior* variant. In sum, if there is a choice between an unusual reading and a commonplace one, the former is more likely to be close to, or even be the original one. This is the well know principle of retaining the *lectio difficilior* in the text: "more difficult readings are to be preferred over easier ones."[83]

However, if in such situations a critic 'employs his thought', as Housman would say, or even ingeniously and boldly suggests a solution, he/she may just be wrong, as was suggested already in Lachmann's times (see above). Instead, a judicious editor flags such cases and does not boldly insert his guesses in the text. In other words, he leaves the more 'difficult' variant in the body of the text and relegates the 'simple' readings (and his own guesses) to the critical apparatus.

In addition, it should not be allowed to put any conjectures in the text without making them explicit, because that would "create a new and unfaithful textual transmission that often misleads later scholars" (Olivelle 1998). Boehtlingk (in his Upaniṣad editions) and other early scholars were acting just like medieval learned scribes and scholiasts…

It is, however, quite another matter, when R. Salomon says (1991: 48) -– echoing earlier authors on classical studies, right down from the Pergamon school--- "whether a true critical edition would clarify the textual and linguistic questions about [the Praśna Up.] or whether such a edition even is feasible…" – Well, it has not yet been done or even tried! We do not have a critical edition of the Upaniṣads.

As I will point out (below, §5.4), experience with common Vulgate texts, as opposed to the rare remnants of older traditions, does not give us much hope that we could establish a text that is significantly older than the medieval Vulgate traditions. But then, again, nobody has even tried to get an overview, say, of Upaniṣadic MSS, not to speak of including their still existing oral traditions for part of the texts such as BĀU (M & K), JUB, TU, KauṣU, etc.

Olivelle (1998) further adds to this conundrum when he discusses the attitude of pandits and commentators towards variant and difficult readings, and claims they were faithful transmitters of their texts. They were, to a degree:

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83 Cf. Olivelle 1998, ch. II.

in the case of the Veda, they simply could not change the text (*chāndasa*). But even Sāyaṇa misquotes such texts,[84] apparently from faulty *memory* (or scribal errors). Obviously in other texts, such as typically in the Mahābhārata, very frequently synonyms of the same word length and metrical structure were introduced into the MSS by the scribes. The rule that pandits and commentators were faithful transmitters of their texts does not hold, at least not in absolute terms. We have to investigate each case individually.

Commentators and *lectio difficilior*

Olivelle, however, is right when he says that in Upaniṣad texts Śaṅkara often has the better, *difficilior* forms. The reason is, again, that he could not change a Śruti text himself and second, that he still knew his Vedic texts by heart,[85] though he may have used MSS as well (an unstudied question again, to my best knowledge, even after 150 years of reading this important author!)

In other cases the commentators also thought of variants as corruptions "*pramādapaṭha*" as Śaṅkara says.[86] For such reasons, some think, (Olivelle, 1998, ann. 4), that an edition of Śaṅkara would do better in establishing the older version of an Upaniṣad text, as the commentary is older that our extant MSS of the Up.s, such as M. Müller said already in 1879[87] This is, after all, the well-known critical principle of using *testimonials* to a certain text.

But just to rely on a few diverse quotations in a few MSS of Śaṅkara also does not help very much. In addition, Śaṅkara's commentaries have not been edited critically either. (I have frequently impressed that fact on Indian visitors who asked me what to do in their future work – to no avail).

And, we have a northern and a southern. line of Śaṅkara (with some sub-branches such as the Kashmiri one), and the same applies to the base text of the BĀU (K and M) – plus an Orissa version.[88] All of such data are not mentioned and have gone unstudied. And, as Olivelle correctly says, there are *other* lines of transmission as well.

Not mentioned by Olivelle, however, is the fact that Śaṅkara's and other's commentaries may have influenced the MSS of the Upaniṣads in those cases where they were not transmitted by according to strict oral recitation. I carried out a test during my visit to the Sri Sarvaraya Pathasala (Kapileswarapuram, East Godavari Dst., Andhra), situated on the northern branch of the Godāvarī, in 1994. Here, the Kāṇva version of the Śatapatha Brāhmaṇa is actively taught to the students.[89] We can compare this text with that of the MSS, notably after Maue had compared and published accented MSS of the text (Maue 1976). The solution for the *crux* whether to read *sa mene na*

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[84] M. Mueller, RV preface, p. xxvii, 1879.

[85] See Witzel, in ed. of Kaṭha Śikṣā Upaniṣad, 1977, 1979/1980.

[86] Olivelle 1998: 16.

[87] Max Müller, 1879: lxxxi, see Olivelle 1998: 4.

[88] This is reminiscent of the branches of Mahābhārata MSS, and perhaps due to the same reasons: use of divergent local scripts. See however Grünendahl, 1993, who goes beyond the division into various script traditions.

[89] The teacher does not look at his manuscript; he refers to it only very briefly when he occasionally has forgotten the start of a subsequent section. Then, he will recite the rest, again, completely by heart.

***vadiṣye* or *sam enena vadiṣye* in BĀU 4.3.1 remains elusive. Even the accented BĀUK/ŚB MSS have both versions (*sá mene ná vadiṣye* or *sám enena vadiṣye*) so that the question arises whether Śaṅkara's commentary has influenced the (written) tradition. – Thus, studying the living ŚBK tradition in coastal Andhra, I put the question to the head of the Sarvaraya Veda Pathashala at Kapilesvarapuram, Pt. Tangirala Balagangadhara. After some reflection he offered an *emic* solution, comparing ŚB 11.6.3.10: as Yājñavalkya had earlier promised King Janaka to ask any question, the text should read *sá mene ná vadiṣye* "He (Yājñavalkya, initially) thought: I will not talk with him (Janaka)" and then relented to converse.[90]**

§1.7. Contamination and its neglect

Other, more serious criticism of the stemmatic method deals with the contamination[91] between two or more branches of MSS and the frequent occurrence in classical texts of a stemma that has just two branches,[92] which is, however, not similarly frequent in many Indian traditions, due to the abundance of MSS (see §4.3).

Contamination occurs when a certain scribe or scholar intentionally compared other MSS, selected certain readings and put them into the text.[93] (See below on contamination, §4.1, 4.2, 5.3 (end), 5.4.; n. 331).

In India, it is always present as scribes have frequently copied and corrected from more than a MS in front of them, especially when urged on by interested scholars who had been collecting MSS from far and wide.

Importantly, and this has hardly been discussed, Lachmann and many of his successors took the shortcut route and eliminated contaminated MSS altogether from their stemmas.[94] This procedure certainly simplified matters in reaching the archetype but it also excluded many clues of the actual history of transmission. In sum, Lachmann's type of stemmatics cannot or does not deal with cases where different manuscript lineages did not develop in isolation from each other. Obviously, while maintaining stemmatics, the exclusion of contaminated MSS has to be avoided. We must take a close look at contamination, especially for Indian MSS, where it occurs quite commonly (see below).

Contamination must be distinguished from *coincidence* that occurs when two scribes (copying at different locations or times) made the same mistake, which creates the impression that their two manuscripts are related. (However this kind of problem can largely be circumvented by a close study of paleography and local pronunciation; see below).

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[90] This is also the position taken by Śaṅkara, Hume, and Olivelle, as opposed to Dvivedagaṅga, Limaye-Vadekar, Boehtlingk with *sam enena vadiṣye* "I will talk with him".

[91] See above see § 1, n. 52.

[92] See Weitzman 1987: 301 and Bédier 1928.

[93] For a discussion see now Pecchia 2009-2010:121-169.

[94] This procedure of Lachmann has been misunderstood by his successors, see Schmidt, 1988. On Lachmann's stringent elimination of contaminated copies see also Hanneder 2009-10: 14 and Pecchia 121-159.

Where the textual tradition is as rich as in India, where the exact stemmatic relation of MSS is complicated due to contamination, and where simple stemmas thus seem insufficient, Pasquali had proposed: *recentiores non detiores*. That means, some recent manuscripts may preserve readings of the original that are not found in some older manuscripts. One should not a priori assume that the oldest manuscripts are the most 'faithful'.

Returning to contamination: the possibility of contamination of a stemma always exists (M.L. West 1973). This has been recognized since Lachmann. As for South Asia, with is abundance of riches of MSS (some estimate 30 million) I am, however, not as pessimistic when it comes to the heavily contaminated medieval traditions as is, for example, maintained in the recent discussion about the planned Kāśikā edition by J. Bronkhorst, Pascale Haag, *et al.*[95]

It is well known that contamination is the rule in the (edition) of the Sanskrit epics, which makes a true critical edition impossible (apart from the problems of oral bardic transmission)[96], as stressed by the Mbh. editor Sukthankar.[97]

However, the exact nature of contamination can usually be determined fairly easily. It has not been taken into account that the influence of the many Indian scripts and the diversity of local pronunciation allow to trace various strands of transmission and to detect 'aberrations' from the individual local 'norm.' This is more easily seen than in Classical Greek or Roman traditions.[98] Typical examples are the –unnoticed-- Kashmiri style Veda quotations in the editions of Jayanta Bhaṭṭa's Nyāyamañjarī (notably in the Chowkhamba edition 1969-71[99]), or the initially undetected Kashmiri variants in the Kerala text of Śyāmilaka's *Pādataḍitaka* [100] and Kuiper's edition of the Gujarat play *Gopālakelicandrikā*.

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[95] Cf. http://groups.yahoo.com/group/Indo-Eurasian_research/message/6244; Bronkhorst 2009.

[96] With multiple "original" sections of this text; see below on the work of M. Parry and A. Lord, below *ad* n.137.

[97] Sukthankar 1933: lxxxii, lxxxvi; cf. also Timpanaro, S. 1971: 24; Engl. transl. 2005.

[98] Where we have changes, in Vulgar Latin, of the pronunciation and therefore writing, such as (early on) *e* for *ae, e < oe, e < i,* etc.: early in some areas, later in others.

[99] *Nyāyamañjarī*, ed. Sūryanārāyaṇaśukla, 1969-1971.), where the editor has faithfully printed unknown Mantras quoted with all of their medieval Kashmiri pronunciation mistakes, cf. Witzel 1994: n. 211.

[100] As mentioned, in the Kerala MSS of the *Pādatāḍitaka*, Malayalam mistakes derive from transcriptions made from a Kashmiri Śāradā original. Or, mistakes in the Nyāyamañjarī are ultimately based on Kashmiri MSS and the local pronunciation of Skt. in Kashmir. Or, the *Gopālakelicandrikā*, was copied from its author's MS in Gujarati Nāgarī, to Tamil Nadu Grantha, and then back to Devanāgarī, which developments we discussed in Holland before his publication.

§ 2. STEMMA AND ARCHETYPE OUTSIDE CLASSICAL EUROPEAN TEXTS

§2.1. 'Discovery' of India: Sanskrit texts and the European languages

The late 18th century witnessed the literary 'discovery of India' for the western world. Some British officers of the East India Company, who had traditionally learned Persian and also Sanskrit, started to translate Indian texts – usually with (the unacknowledged) help of local pandits. They initially focused on texts that were important for their administration, such as the commentaries on the 'law' book of Yājñavalkya that were essential for inheritance cases, always a major headache in Anglo-Indian courts. Some of their early translations of actual Sanskrit literature, such as Kālidāsa's Śakuntalā, reached Europe and were enthusiastically received by poets like Goethe.[101] (His *Sakontala* epigram of 1791 has even been translated into Sanskrit).[102] All of this still took place in the wake of the Herderian approach to various folk and national literatures.

However, closer acquaintance in Europe with Sanskrit began when Alexander Hamilton (1762-1824), a British officer, was hindered to go back to England by Napoleon's "continental blockade" and, while living in Paris in 1805, began to teach Sanskrit to local scholars. This was the beginning of the French school of Indology, starting with Antoine Léonard de Chézy (1773-1832), who in 1814 occupied the newly established Sanskrit chair, and his more famous pupil Eugène Burnouf (Collège de France, 1832-1852). The school soon expanded to Germany due to visits and stays of German subjects of Napoleon's empire such as Franz Bopp from Mainz; another visitor was A.W. von Schlegel (1767–1845). He became the rather enthusiastic first German professor of Sanskrit (Bonn 1818),[103] – a staunch Romanticist until he turned Catholic (H. Heine has a delightful description of what this conversion entailed).[104] In Britain, some of

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[101] In 1791 he enthusiastically greeted Kālidāsa's drama *Sacontala,* as translated into German by Forster from the English (Williams Jones, Calcutta 1789). Six years later, he imitated Kālidāsa's prologue of this drama in his *Vorspiel auf dem Theater,* as part of his *Faust.* -- His epigram reads*: "Willst du die Blüten des frühen, die Früchte des späteren Jahres, Willst du, was reizt und entzückt, willst du, was sättigt und nährt, Willst du den Himmel, die Erde mit Einem Namen begreifen – Nenn ich Sankontala dich, und so ist alles gesagt."* – See his *Gedichte aus dem Nachlass,* IV. Theil, p. 122.

[102] Chaturvedi, Girdhari Lal 1991.

[103] In his book *Über die Sprache und Weisheit der Indier* he hoped for a new Humanistic Renaissance through the study of India, but, --being an admirer of the Middle Ages, without the modernizing effects of the Renaissance-- "if it were seized with similar force and introduced into the circle of European learning."

[103] August Wilhelm Schlegel (1767-1845) is one of the founders and propagators of the (German) Romantic movement. He and his brother Friedrich founded the very influential journal *Athenaeum* that was meant to oppose the predominant Graeco-Roman classicism. -- Schlegel was equally important in early modern comparative literature and linguistics. After he became professor of literature and art history in Bonn (1818), he published the journal *Indische Bibliothek* (1820–1830), and thus inaugurated German Indology. He even established a Sanskrit printing press and used it for printing the *Bhagavadgītā* (1823) and the *Rāmāyaṇa* (1829).

[104] Christian Johann Heinrich Heine (1797-1856), was not just a famous Romantic poet, but also a rather modern sounding journalist and essayist. His *Toward a history of philosophy and religion in Germany* (first in French, 1832) sheds considerable light on the personal background of the

the early British Orientalists, such as Hamilton,[105] Colebrooke,[106] or Wilson[107] continued their work after their return from India.

Due to the great stress put on linguistic relationship,[108] all early Skt. texts were scrutinized for data relating to the "*ur*" situation of the "Indo-Germanic" or Indo-European peoples, or as some called them, "Aryan" peoples, that were spread from Iceland to Bengal. In the 19th century the term "Aryan" was initially used to designate *all* IE languages and their speakers. From this the Nazi usage of "Aryan" was derived; by them it was erroneously expanded to mean also the biological "race" of its speakers, particularly that of northern Europeans. During the Romantic period, the pan-European search for origins led to imagining the Indo-European homeland in India, as Sanskrit was the regarded as the oldest form of Indo-European (clearly seen in the early, Sanskrit-like, version of Schleicher's tale of the sheep and the horse).[109]

Vedic and other Sanskrit texts were studied by employing the historical and critical method, already familiar from Classical texts, though some allowance was made for the strict oral transmission of the Vedic texts.[110]

Concurrently in India and Britain a decades-long discussion and controversy evolved between British Orientalists who favored Persian and Sanskrit, and their opponents (like Th. B. Macaulay, 1835)[111] who wanted to introduce English to turn "Indians into (colored) British gentlemen." This was a clear

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Romantic movement, early Indology and contemporary philosophy. The book has been described as a "literary *panache*, [with] bizarre anecdotes, historical snap–judgments, and sheer intellectual wit and vigour." (Stern 1964).

[105] After his return to Britain, he taught at the East India College in Hertford/Haileybury since 1806.

[106] Henry Thomas Colebrooke (1765 –1837), worked for 32 years (1782-) for the East India Company; after some years in India he took up the study of Sanskrit and in 1805 he became professor of Hindu law and Sanskrit at the college of Fort William. He was instrumental in building the Asiatic Society at Calcutta. First, he worked on the *Digest of Hindu Laws*, left unfinished by Sir William Jones and translated a number of texts, such as the two important commentaries on the *Law of Inheritance*, the "*Mitacshara* of Vijnaneshwara" and the "*Dayabhaga* of Jimutavahana." He laid the foundation to much of later Indological work, e.g. in his *Sanskrit Grammar* (1805) and his famous *Essay on the Vedas* (1805). He returned to England in 1814.

[107] At the Sanskrit College of Calcutta, he produced the translations of the eighteen Purāṇas; he translated Kālidāsa's Meghadūta (Megha Dutt, or "Cloud Messenger") 1813; his thousand pp. Sanskrit-English Dictionary was the first in a European language. Like other Orientalists, he was in favor of Indian cultural education, not conversion to Christianity. http://www.asiaticsociety.org.bd/journals/vol%2052/ORIENTALISM%20AND%20THE%20ASIATIC%20SOCIETY%20OF%20BENGAL.html.

[108] F. Bopp (1816, 1826) and simultaneously the Dane Rasmus Rask, whose book (*On the Thracian tribe of languages,* 1822), was however was published later than Bopp's initial work. Note Bopp's detailed Indo-European grammar 1833-1852.

[109] http://en.wikipedia.org/wiki/The_Sheep_and_the_Horses.

[110] See now Colas and Gerschheimer 2009.

[111] Thomas B. Macaulay famously wrote in his memo to the Governor-general of British India in 1835 that "a single shelf of a good European library was worth the whole native literature of India and Arabia." However, it is virtually unknown that his memorandum was not published until the 1850s, when the case for English education had long been decided against the Orientalists.

break with scholars like Jones, Colebrooke, Wilson or Hodgson (a long term British representative in Nepal), who regarded Indian culture very positively. The so-called Indian mutiny of 1857 did not help either. Indians were now regarded as untrustworthy, and following the new Darwinian principles of evolution, increasingly as not as highly developed as British well-bred gentlemen with Classical learning.

In Indology, the second half of the 19th century was dominated, by the duo Boehtlingk-Roth (St. Petersburg, Tübingen), the authors of the still not replaced encyclopedic Sanskrit dictionary,[112] and by the Oxford Indologist Max Müller.

In his Romantic interpretation the Vedic and Indo-European materials were "primitive nature mythology", the expression and "explanation" of meteorological and cosmological phenomena. He added the point of the "disease of language," which would have generated many names of deities that were no longer understood as epithets.[113] I cannot go into the details of comparative mythology here, and would merely like to point out that we have seen a string of (equally monolateral) interpretations of mythology since then.[114] The ancient texts were thus regarded as having developed from simple folk poetry (as found in the Vedas) to higher levels (especially, the Greek classics).[115]

However, beginning in the 1870s, when the strict Neogrammarian school realized that Sanskrit was but a (somewhat distant) grand-daughter of Indo-European, one began to look for another Indo-European homeland: in Europe, as the features of some old European languages, such as Greek and Latin (*kentum group*), were more original and older than those of Sanskrit and Iranian (*satem* group), as formalized in Schleicher's[116] *Stammbaum* theory.

These developments overlapped, since the middle of the 19th century, with the onset of the Darwinian school. Charles Darwins' book *On the Origin of Species* (1859) set back the development of humans by eons, beyond the traditional 6000-odd years of the re-calculated Biblical account of creation by Bishop Ushher.[117]

Concurrently, during this period of worldwide European dominance, "race science" emerged, spearheaded by A. de Gobineau (1816-1882)[118] and H. S. Chamberlain (1855-1927). This was the period of a strong Eurocentrism (then

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[112] The Poona dictionary has existed in handwritten form for decades, and has made only glacial progress since the first fascicle was printed in 1976. As a critic recently predicted: "when the last fascicle will appear, 900 years from now, the first fascicle will already have turned to dust." – I used to say: I will be happy to see the completion of the volume covering the letter *a-*, as I then will have access to nearly all words after deleting the prefix *a-*. However, here is some hope now due to an initial push to computerization.

[113] In doing so he condemned Euhemerism, the age-old Greek fashion that turns gods into human beings.

[114] Frazer, *The Golden Bough*, 1890.

[115] Frazer thought that the basis of myth was sympathetic magic.

[116] He correctly claimed to have discovered the model well before Darwin's book. Much of this was due to the contemporary intellectual climate. The Czech philologist František Čelakovsky published a genealogical tree of the Slavic languages in 1850, well before Schleicher .

[117] James Ussher (or Usher, 1581–1656) famously calculated the date of creation to September 21, 4004 BCE.

[118] Author of the ominously titled *An Essay on the Inequality of the Human Races* (1853–1855)

visible also in North America). According to this view, a European or a Nordic "Aryan" race of noble warriors would have conquered western and southern Eurasia. This new "race" folly was combined with the nascent field of archaeology resulting in the later Nazi "blood and soil" ideology. Some amateur writers of the early 20th century, such as Alfred Rosenberg, mixing up all of the above, laid the ground for 'official' Nazi ideology. Concurrently, "race studies" and eugenics emerged as a "science" in many countries. During the 12 years of Nazi reign in Germany, the heady "Aryan" brew had its most disastrous, real life consequences in the extermination of "non-Aryans", including, ironically, the only Indo-Aryans in Europe, the Roma (Gypsies). However, some scholars, both before and around 1900, such as M. Müller (1870, 1888)[119] or the linguist Hermann Hirt, 1905[120] opposed any connection between language and "race".

§2.2. Commentaries

Early Sanskrit studies in Europe heavily relied on medieval Indian commentaries for an understanding of the texts, notably for the impenetrable Vedas, -- though Colebrooke made a valid attempt at translation already in 1805,[121] however, again with the help of local pandits and commentaries. Then, beginning with the first partial edition of the Rigveda by Rosen in 1830, this oldest Indian text has been the focus of much attention, to this very day.[122]

However, the middle 19th century saw an increasing movement away from native interpretation, from medieval commentaries. Now, one was confident that, with proper indexing of grammatical features, meanings of words, etc., one could interpret the archaic texts by oneself -- and better than the commentators who too lived some 2000 or more years after the composition of the earliest texts. They were seen as having been too heavily influenced by the changed mindset of their times, and thus having reinterpreted the old texts.[123]

For example, the great commentator Sāyaṇa (d. 1387 A.D.)[124] was a Brahmin minister of the last great Hindu empire of Vijayanagara in South India, with a full blown caste system, Bhakti/Tantric Hindu religion, a tropical monsoon climate, and an economy based on rice agriculture, crafts, and trade. This is quite different from being a Brāhmaṇa poet/priest of one of the small Vedic tribal societies of the Panjab with a class but without a caste system, with a pre-Hindu religion, a cold winter, no monsoon, no cities, and an economy mainly based on cattle herding. While the medieval commentaries can help us in understanding the ritual and some of the grammar, syntax, as well as the general background of the texts, they cannot be relied on for the exact interpretation of

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[119] Müller 1888 (and up to some 15 years earlier). He vigorously opposed the erroneous correlation of language, "race" and culture in general.

[120] Hirt 1995-07.

[121] Colebrooke, *Essay on the Vedas* 1805.

[122] Translation Witzel-Gotō 2007, 2013; Jamison and Brereton 2014.

[123] This is a common danger: one must not read the Old Testament part of the Bible, the Torah, through the eyes of medieval Christian or the more recent Mormon interpreters. 19th century scholars were, mistakenly, confident that they did not succumb to cultural influences of their *own* period.

[124] Rather, his brother Mādhava, see Slaje 2010. On his role as "imperial" commentator see Galewicz 2009.

individual words, of *Brāhmaṇa* sentences, and even less for the meaning of the archaic *Mantra*s, the original meaning of the rituals, and of Vedic religion and myth in general.

However, Patrick Olivelle[125] (1998) has recently complained about a certain bias against the commentators that still persists and stressed the fact that their goals were different from ours, such as theologians and apologists. Well, we know that from the Christian interpretation and commentaries on the Torah, etc. (as I had to read in high school).[126] In the 19th century one thus proceeded to critique the increasingly available Skt. texts just as one had done with Classical, Biblical and medieval European texts.

The main proponent of the anti-commentarial approach was R. Roth at Tübingen. He wanted to understand the Vedas[127] based on internal philological evidence, using later texts (say, the Epic) only very sparingly.[128] The matter dragged on, with the publication of *Vedische Studien* by Pischel and Geldner (1889, 1897), who strongly advocated the use of later sources, sometimes turning the Ṛgvedic culture into a virtual medieval Hindu one. Even the standard translation of the text by a mature Geldner (completed in the mid-1920s)[129] still retains some such vestiges, notably in his constant choice of *archaic,* medieval sounding words and older verb forms.[130]

A similar development took place in Old Iranian studies. While the older translations (Duperron 1711, Spiegel 1864, Darmesteter 1895, etc.) heavily relied on the medieval Pahlavi and Parsi commentaries, the ones of the later 19th and 20th centuries (Roth 1876, Bartholomae 1904, Humbach 1959, 1994, 2001) followed Roth's approach. They were much aided, due to the fragmentary nature of the Avesta, by constant comparison with Vedic texts and by the insights of Indo-European linguistics. However, Geldner's great Avesta edition (1886-96) still suffers from a non-stemmatic approach: he often selected the most *curious* variant (supposedly, a *lectio difficilior*) and established the several separate stemmas for the constituent parts of the Avesta only after completing the edition.[131]

The recently acquired means of textual and historical criticism were thus consistently applied, just as one had done with Classical and medieval European texts. The second part of the 19th and the early 20th century was the heyday of the critical and historical method (which in turn was heavily influenced,

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[125] Olivelle 1998, especially p. 173.

[126] Olivelle overdoes it when he says that commentators were closer to the texts and guide us in difficult passage and in technical matters (note 2). This may be true for some texts, but it certainly is not the case for the Ṛgveda nor the older Upaniṣads.

[127] For a history and evaluation of Vedic Studies, see Oldenberg 1905; Renou 1928; Thieme 1995: 1215-1223, and more generally, Windisch 1917, etc.

[128] The question has been discussed at length in Gonda 1975: 55 sqq. cf. Brückner 2003.

[129] Geldner, *Der Rig-Veda,* HOS 33-35. The book had been type-set and proofs printed by the late Twenties, however, due to delays incurred by the quite aged Ch. Lanman and, unexplainably, his successor W. Clark, it was published only well after the World War, in 1951. However, the proofs were available to a few German Indologists before that.

[130] See discussion Witzel and Gotō 2007: 480 sq.

[131] Geldner, in Geiger's *Grundriss* 1895-1904, vol. II.

especially for the older texts, by the expanding knowledge of comparative Indo-European linguistics).

§2.3. Epic texts

During this period, many of the epic and classical Indian texts (also in Greece: the Homeric question) were regarded as having a number of accretions, whose layers and (unknown) authors were discussed at length. A typical case was the protracted and heated exchange about the great Epic, the Mahābhārata and its *regional* variations: by using higher criticism, one produced its "history" and shorter versions of this c. 100,000 verse text. The same was true for the questions involving the editing of this text. Sukthankar, who had studied in Germany, followed Winternitz' proposal (1897)[132] of establishing a critical edition with a stemma for the 18 books of the text.[133] The edition ultimately involved 1,259 MSS from all over India and Nepal,[134] with a rather elusive (Gupta time) archetype,[135] and with sub-archetypes for the northern and southern[136] versions of the text.

However, Sylvain Lévi (1929, 1934)[137] decried this new «Poona recension» and characterized the origins and history of the Mahābhārata as a fluid oral tradition -- «not a single line is uniform» -- interestingly preceding the field studies of M. Parry (1930-32) in Serbia and the work of A. Lord (1991). However, Lévi's critique leads into a void, as it does not sufficiently take into account the medieval branching of the textual tradition into a northern and southern version, with several subdivisions each, all of which are now clearly visible in the Poona edition. On the other hand, the many *original* Bardic compositions underlying the Mahābharata, as well as its *crystallization*, remained unstable and open to additions –especially in the southern tradition.[138] This is quite different from saying that *the text as a whole* was fluid from its Bardic beginnings down to Gupta times, and then onward to the testimony of the late medieval MSS. Instead, we clearly have an early crystallization[139] and later, local recensions. Lévi simply threw up his hands in

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[132] First, at the XIth International Congress of Orientalists, Paris, 1897, drawing attention to the South Indian version, then his paper in *JRAS* 1898.

[133] In 1919, the inauguration of the project for a Critical Edition of the Mahabharata, carried out at the Bhandarkar Oriental Research Institute, took place (*bori.ac.in/history.html); this was completed in*1966.

[134] Where, typical for the consistent Nepalese preservation of texts, the oldest MS was found.

[135] Critical Apparatus and a Prolegomena on the material and methodology (volume I), written by V.S. Sukthankar.

[136] For some other versions, see: Shastri 1931 sqq; note Grünendahl, 1993, on the branches of Mbh. MSS, going beyond the facile division into various script traditions.

[137] Cf. also *Mémorial Sylvain Lévi* 1937: XXXV.

[138] See now T.P. Mahadevan 2011.

[139] Note the early, pre-Gupta list of contents, in 100 *parvans*, preserved in the Spitzer document, see now Franco 2004.

despair in view of this *flottement,*[140] and this necessarily results in advocating a Bédier-like approach (see below).

However, the editor of the Mahābhārata, Sukthankar, correctly stated in his reply:[141] "It is useless to think of reconstructing a fluid text in a literally original shape, on the basis of an archetype and a *stemma codicum*. What then is possible? Our objective can only be to reconstruct *the oldest form of the text which it is possible to reach* on the basis of the manuscript material available." At the time, Sukthankar could not yet fully appreciate the truly *oral* nature of the originally Bardic text (as exemplified by M. Parry (1930-32) and A. Lord (1991), which indicates that we will never reach a true Mahābharata *archetype*, just as little as an "original Homeric" text for the Greek epics.[142]

Still, following the trail of Lévi, his student, the late M. Biardeau, elected to use the north Indian "Vulgate" underlying Nīlakaṇṭha's commentary of the 17th century (2002), rather than the Poona edition. One may ask: why this one and not the (larger) South Indian or the Nepalese one?

In addition to the epic,[143] other early texts, too, go back to a persistent oral tradition: the early Buddhist texts (as preserved in the Pāli canon), the early Ṛgveda and the Yajurveda Mantras before their late Vedic redaction, or the early New Indo-Aryan Bhakti poetry. As has been shown by Milton Parry and Albert Lord (or G. Nagy 1996), such texts were in a constant process of recreation by bards and reciters. The Kyrgyz epic *Manas*, now stands at more than 300,000 verses;[144] similarly, the Tibetan (and Central Asian) Gesar epic. Such texts therefore are not apt to have a reconstructed archetype. We may come closer, though, to a number of their nuclei,[145] even when not being in a position to establish their exact wording. And we may, as in the Mahābhārata, establish their *redacted* version(s); cf. below, on the recent Russian approach to texts, 'textology'.

Other problems relating to critical texts exist beyond the mere establishment of a stemma and solving simple problems of textual tradition by its use; things become a little more complex when it comes to the exact form such a critically edited text should take, to which we will return in § 5.

§ 3 OTHER APPROACHES TO (NON-)EUROPEAN TEXTS

§3.1. Extra-Classical use of textual criticism

Since Lachmann we know that we need to establish a (reconstructed) text that approaches as closely as possible the text the author had in mind; it is to be based on a family tree of manuscripts (*stemma*, see § 1.4.).

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[140] «Flottement» is a favorite word of 20th century French Indologists. Note the current fad of *variance* and *mouvance,* as per Cerquiglini.

[141] In his *Prolegomena* to the Mbh. edition, 1933: lxxxvi.

[142] See now Most 2009.

[143] Even the so-called "first kāvya" the Rāmāyaṇa, has the additional books 1 & 7.

[144] Written down from the recitation by one of the last master singers, Saiakbai Karalaev (1894-1971).

[145] See M. Ježić on the layers in the Gītā and the Rāmāyaṇa: 1986: 628-638, 2005: 255-293.

Indeed, during the 19th century, historical and textual criticism as well as the stemmatic method were increasingly put to use in the *non*-classical European traditions, such as the Germanic, Slavic, Celtic, Romance ones, but also in Biblical studies and that of other old texts. Several of these approaches were already spearheaded by K. Lachmann, notably in Germanic and Biblical criticism (see above). From the mid-19th century onward, philological study – but regrettably only rarely the stemmatic approach-- also spread to Old Iranian (Avesta, Old Persian). The increasing understanding of these texts led to the quickly proceeding decipherment of other cuneiform scripts of Mesopotamia; the approach also spread to the study of the newly deciphered Egyptian texts and, independently, to East Asian Studies. While Europeans, relying on Greek and Biblical accounts, were aware of the Egyptian and Mesopotamian cultures, they now were acquiring a means to critically counter-check the Biblical accounts by using Ancient Near Eastern and Indian ones. In some cases they discovered the Mesopotamian origins and Indian relatives of Biblical myths (such as that of the flood: Gilgamesh's and Manu's flood).

This development was of special interest in the context of the time when literal belief in the Bible was still quite strong.[146] However, scholars such as Lachmann underlined that the Old and the New Testament contain voluminous evidence for multiple authorship and many internal contradictions, all of which countermanded the claims of the Christian church. Other European disciplines and the Classics lacked this then "sensational" aspect. However, they provided essential training ground for a host of young philologists, who usually became high school teachers, resulting in the spread of the philological ideas among the educated public.

§3.2. Ethnology / Anthropology

In the late 19th and especially in the early 20th century, we witnessed the emergence of various non-philological methods in the reading and interpretation of texts, such as an increased use of anthropology, the comparison of ethnographic materials, which were more or less initiated by James G. Frazer.[147] His comparisons of Greek mythology with that of African and other (then so called) "primitive" peoples brought down the Classical Greco-Roman civilization from its pedestal as an ideal and as the ancestor of all of European civilization, and put it on an even level with that of other cultures. That development was enhanced by the speedy expansion of ethnological, anthropological and psychological studies in the early 20th century (Malinowksi, Jung, etc.) or, in Indology, in the works of leading scholars such as Oldenberg or Caland.

At the same time, an interesting constellation developed at Paris between Anthropologists, Indologists, Sinologists and scholars of some other fields. I

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[146] However already Jean Astruc (living at the court of Louis XIV) had begun to analyze the names of God used in *Genesis*.

[147] Frazer, James George (1854-1941) 1890. Further developments of myth studies are of no immediate interest here: the etiological approach, functionalism (Malinowski), re-establishment of a creative era *in illo tempore* (Eliade), the myth and ritual school, psychological explanations (though often dealing with Indian mythology: Freud, Jung, Campbell), historical-geographical (Stith-Thompson), structuralism (Lévi-Strauss).

merely remind of the names of the all important Marcel Mauss (1872-1950; *Le don*), his uncle the anthropologist Emile Durkheim (1858-1917), Lucien Lévy-Bruhl (1857-1939),[148] the Indologist Sylvain Lévi (1863-1935) and the Sinologist Marcel Granet (1884-1940); they were often brought together in their journal *Année Sociologique* (1898).

One important outcome of this close interaction was the development of the theory of correlations (also called homologies or identifications) in Indian and Chinese texts.[149] However, this close interaction has not been followed up, and the fields of anthropology, Sinology and Indology have continued on their own paths– to their detriment.

It is only in our times that classical scholars such as W. Burkert (1972, 1982), G. Nagy, etc., pay more attention to anthropology, but they still are in a minority. The same can be said of Indologists. Not to speak of interdisciplinary studies.

What we currently get is: either narrow philological studies, say discussing the meaning of a certain word, more rarely that of an animal or plant by comparing zoological data, and still more rarely that of a concept, not just in the texts but also its history and its current appearance in rural or town societies.

In America we usually see the "total immersion" approach by Study of Religion students and scholars who think they can understand Hinduism (etc.) if they stay for half a year or a year in a particular area, without much knowledge of the foundational texts (if so, only in translation, or at best, after 1-2 years of superficial exposure to Sanskrit, Prakrit etc.).

To be successful in our field we actually need both, a long term stay in one area, preferably along with another stay elsewhere for comparison, and a deep knowledge of the relevant, often quite ancient texts.

Many key concepts (such as *ṛṇa* 'debt' to the gods, the ancestors and the ancient poets, the Ṛṣis), have been kept, with little change over time, due to what some of us call the *pathway dependency* of a given culture.[150] Other examples would include (primordial) 'sin' in Christianity, or *li* in Chinese culture, or *tsumi* 'pollution' in Japanese culture. We need a close study of both the ancient and modern evidence.[151]

It is not normally possible to carry out such comprehensive investigations by one person – though we have seen good results connected with the German Nepal[152] and Orissa projects. Instead, we have to establish interdisciplinary cooperation. This, too, has worked extremely well, in my own experience, during the ten-year period of the DFG Nepal project during the Eighties and Nineties.[153]

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[148] *Les fonctions mentales …* 1910.

[149] See now Farmer *et al*. 2000.

[150] Farmer *et al.* 2000.

[151] See for example, Witzel 1998, 501-53. It deals with the surprising continuity of Vedic rituals and concepts that can still be detected – obviously with changed/modernized names and deities— in current Nepalese festivals and concepts.

[152] See Michaels 2004.

[153] As an outcome of the agreement, initiated and negotiated by this writer, between the German Oriental Society and the Nepalese Government (1977), my late friend Bernhard Kölver set up

To briefly expand on the point made above – the combination of prolonged stay in South Asia combined with a deep knowledge of the foundational texts – this may also be expressed in the currently fashionable terms of *etic* and *emic* approaches. Traditionally, Indology has used the *etic* approach, that is Indologists studied South Asian civilization "from the outside", from the point of view and within the framework of their own European, Western, or also (since the late 19th century) Japanese cultures. Most of them did not visit India (a few working for the British government excepted) well into the 20th century. Therefore they could gain only limited access to the still current *emic* understanding of Indian culture, -- that is an understanding of this culture viewed "from the inside", by its own adherents.[154] Things have gradually changed only after the Second World War. Obviously, we need both approaches for a deeper understanding, as both the *emic* and the *etic* ones miss important facets that are not seen or expressed in either approach.

All of these approaches may be seen as part of capturing the whole picture, as beautifully captured in the Indian 'elephant in a dark room' simile. They explain only aspects of the problem. Increasingly, we notice, that just as in a good poem, in a well-constructed myth many aspects are interwoven into a complex picture with many fore- and backgrounds... Fortunately, we have seen, from the mid-20th century onward, an increasing use of multi-causal explanations and the exit of mono-causal (or even monomaniacal) explanations of the 19th and 20th centuries. This is a welcome trend. The same should be followed in dealing with the Classics, Indology, etc. as well.

Philology now becomes or should become more and more a study of a *whole* civilization based on its texts.

§3.3. Mutual influences

This is not the place to discuss at length the mutual links between Indian studies and European philology, philosophy and history of thought that have occurred during the 19th and 20th centuries. The early influence of Indian texts during the Romantic period (Herder, Goethe, etc.) was followed by that of Upaniṣadic "philosophy," such as it was known then via the Persian and Latin translations. It had a great impact on Schopenhauer. There also is the equally famous influence on some of Nietzsche's thought, by Zoroaster's texts on personal ethics, and the (imagined) meaning of *Manu's* "law book" (*Manusmṛti*). An early outcome of Nietzsche's philological occupation was the polemic between him (*Geburt der Tragödie,* 1872) and U. Wilamowitz-Moellendorf (*Zukunftsphilologie!* 1872) about the method and meaning of Classical studies.

Another, much more important impact of Eastern philology was that of Buddhism in its Theravāda form, first felt in the late 19th century when its Pāli texts became better known. At the time, they were commonly interpreted as a

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and very successfully lead a group of some two dozen scholars in various (multidisciplinary) projects dealing with many aspects of Nepal. We worked together in a very harmonious way, never experienced by me elsewhere. Many of our results have been published in the series *Nepalica,* ed. by B. Kölver (*et al.*), St. Augustin (VGH Wissenschaftsverlag) and in the *Journal of the Nepal Research Centre* (1977), also initiated by this writer though politely attributed to W. Voigt.

154 Obviously a very careful student of ancient and modern texts will gather much of such emic information even when not visiting the area.

sort of Indian Protestantism, if not simply as philosophical, but certainly not as religious texts[155]. They had an even greater impact after the disenchantment and indeed the despair, brought about in Europe by the first and then again by the second World Wars. O. Spengler echoed this in his *Untergang des Abendlandes (The Downfall of the Occident*) about the "present crisis" of the Occident (prophetically conceived in his thesis, 1904, and in the first writing of his book in 1911); it was however published only in 1918 after the *Great War.*

The Indologist H. Oldenberg (1987: 1522), writing about the same time (1905) as the early Spengler, felt that the impact of India as envisioned by Romantic writers such as Schlegel and Schopenhauer – namely, that Indian Studies would bring about a new Renaissance in the West -- had proved to be entirely overstated.

Another aspect of the Western reaction to Indian (and other Oriental) studies is seen in the wave of post-colonial writings that was set off by R. Schwab's *La renaissance orientale* (1950, 1984) and followed up by the more well known book of E. Said, *Orientalism* (1978, dealing with the Near East, it must be underlined), and his essay *The Return to Philology* (in his 2004 volume).

Contrarily, colonial dominance in India apart, western influence on the theory and practice of Indian philology has been rather small. After some initial adaptations, notably by R.G. Bhandarkar (1837-1925) and his successors, the developments of the 20th century are of a rather mixed nature. Leaving apart the ever-diminishing number of learned traditional Pandits, firmly moored in their religious or śāstric mindset, some university-based scholars took over just *some* western methods of textual study. However many, if not most, constantly mingle this approach with traditional attitudes: we find mythical and legendary "data" (and dates)[156] interspersed with minute and cogent observations on language, grammar, texts or cultural background. All in all, a picture emerges of a mindset untouched by the critical attitudes of the Enlightenment. Instead, the prevailing Hindu *inclusivism* superficially incorporates some ideas external to Indian culture, certain procedures, or preferably, the latest technology, into a pre-existing traditional framework.[157] It does not see a contradiction.

§ 4. CRITIQUE OF THE STEMMATIC METHOD *VERSUS* LACK OF CRITICAL EDITIONS IN INDOLOGY

§4.1. Criticism

Since Lachmann we have been aware that we need to establish, as pointed out above (§1.4.), a text that comes as close as possible to the author's text. This is to

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155 As mentioned, this still was the dominant view at Harvard when I arrived there in in 1986.

156 This has increased during the tenure of the BJP regimes 1998-2004, and now 2014 sqq. See, among others, Witzel 2012.

157 Hacker in: Oberhammer 1983; note Halbfass 1995. This attitude is increasingly seen in current Indian politics where (for example, next to other alleged early scientific achievements) the adding of Gaṇeśa's elephant head is officially seen as a proof of ancient Indian plastic surgery.„ As an Indian critic facetiously asked: how could they match a massively thick elephant neck to a thin human one?

be carried out by historical and textual criticism, with a Lachmannian stemma, for which see P. Maas[158] and M.L. West.[159]

However, though western philology has been working, by and large, with Lachmann's principle of the stemmatic method there has been some criticism, some of it already in Lachmann's times (above), note Wilamowitz-Moellendorf (1959: 50), E. J. Kenney,[160] Timpanaro (1971, 2005).

Going further, since the 1920s,[161] one followed, based on experiences in Romance texts (Bédier 1928) a non-stemmatic approach, as will be discussed below. However, as Hanneder (2011: 100) has cogently summed up: "*Die Alternative zur herkömmlichen Textkritik kann nicht das Fehlen der Textkritik sein, sondern nur eine bessere textkritische Methode.*" (The alternative to traditional textual criticism cannot be the neglect of textual criticism but only a better method of textual criticism).

However, criticism of the stemmatic method gained prominence with the investigations into early Romance texts, notably by G. Paris and J. Bédier. Paris had studied at Bonn (1856) but deviated from Lachmann's method in his edition of *Vie de Saint-Alexis* (1872), in which he included the original text and its later variations from the 12th to the 14th centuries.[162]

Among his many students at the Collège de France was Joseph Bédier (1864-1938), who politicized, due to the Franco-German wars of 1870 and 1914,[163] the differences between the "French" and "German" approaches of Paris and Lachmann. His many studies and editions of the *Chansons de geste* are the foundation of modern studies in this field of Romance literature. According to Bédier (and Paris), we should print *one* authentic medieval manuscript text written by a scribe who lived at a time not far removed from that of the author. Like their Renaissance predecessors, Bédier and Paris still looked for the *best* text, closest to the lost original: in other words, a *Leithandschrift.*

However, in theoretical discussions on this topic, it is generally overlooked that (the MSS of) these medieval texts fundamentally differ from those of Classical texts. The *Chansons de geste* (etc.) are based on Carolingian materials that were performed by *jongleurs,* representing an oral tradition lasting for some 300 years. The situation is therefore comparable to that of other

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158 Maas 1968, 1949;

159 M. L. West 1973. esp. p. 35 sqq.

160 Kenney 1974, p.148, n. 1, notes that only 0.1% of conjectures are actually correct. (See above, n. 82) However, the method by which such emendations have been arrived at needs to be studied: mere guesses are not allowed, see immediately below. – Colwell 1947, 109-133, maintained (for Biblical studies) that the stemmatic method would only work if there are (as in classical studies) only few manuscripts at hand. The situation is the opposite for Indian texts, which creates a different sort of problems, due to this embarrassment of riches (see below §5.3).

161 For earlier discomfort with the stemmatic method, in Romance, Germanic and Slavic studies, for the stress on the "life" of a text during the Middle Ages, and his proposal of the importance of a *Leithandschrift*, see: Bédier 1928; J. Trier & E. Schroeder 1942/3: 125; D.S. Lichayev 1971, 301-315; cf. Lichayev 1962, Faulhaber 1991.

162 Together with Paul Meyer he edited the journal *Romania*, in which major studies of Romance literature were to appear.

163 That this kind of nationalistic fervor did not affect all scholars of the time can be seen in Pischel's admiration for and in H. Oldenberg's lament (*Kleine Schriften*, p. 1524-26) of the demise of his great French colleague (and competitor) A. Bergaigne, who had died prematurely in a mountaineering accident in 1888.

Bardic texts (Mahābhārata, medieval Indian Bhakti texts, etc.)[164] Obviously, a stemma with an archetype cannot be produced for such texts. They need a different methodology, as underlined below (§5.2). An exclusive, out-and-out stance (Lachmann vs. *Leithandschrift*/"copy text") is not advisable.[165]

Further, in Bédier's work (1928), we again encounter the typical two-branched stemma,[166] met so frequently in Classical Greek texts due to the accidental preservation of just two branches of an originally much richer tradition (see n. 88 259). As, generally speaking, the actual dominance of two-branched stemmas is not to be expected, many scholars subsequently abandoned algorithmic methods for reconstructing stemmas, as they thought that something was wrong or artificial about them (see Weitzman 1987: 301).

Indeed, Bédier[167] noted that his data would allow for the setting up of multiple stemmas. However, Saleman[168] showed that multiple stemmas all shared, to use biological terminology, the same unrooted topology. The position of the ultimate 'root', that is the archetype (or the author's manuscript), is uncertain.

This is a problem shared by the phylogenetic (stemmatic) approaches of biology and linguistics (see below, § 6), and it typically requires additional evidence *external* to the texts, which is, obviously, difficult to come by in many cases. One therefore took and still takes refuge in printing, with G. Paris, several versions of the text; or, while stressing the "life" of a text during the Middle Ages and the importance of a *Leithandschrift*, one proceeds according to what in in Anglo-Saxon areas is called the "copy text" theory: copying mistakes are corrected selectively by using other MSS, often the *oldest* available.[169] The dispute between stemmatic and copy text approaches has continued for decades,[170] well into our days: there are important recent contributions by the so-called "new Philology." It debates the methodology of editing medieval texts,

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[164] For Bhakti texts, see Callewaert 1991, 1995. Note that for the originally 'Bardic' texts of the Ṛgveda, no one has attempted to create a stemma for their composition, nor a partial one for each of its 'family' books, nor even for the AV (where this *is* necessary due to its narrow line of tradition –Gujarat, Maharastra, Benares--- see Witzel 1985), nor, hardly, for other early (oral) Vedic texts.

[165] This dispute reminds of that between historical and structural linguistics (again mainly Indo-European vs. Romance languages) in mid-20th century. Both the stemmatic and the linguistic approaches look at the problem from different, equally productive angles that separately result in diachronic vs. synchronic descriptions. – There is no *either or.*

[166] Bédier's statistics (1928), based on the high likelihood of manuscript disappearance, account for the survival of just two branches, one of which may be due to a *later* branching off from a two-branched tree, especially when contamination has taken place. Additionally, a three-branched stemma can be mistaken for one with two branching events. See Weitzman 1987: 301.

[167] Bédier 1928.

[168] Details in Bordalejo 2003.

[169] A very outdated procedure, as already Housman lamented. The oldest MS obviously may neither be the best nor be close to the archetype.

[170] Note voices from various philological fields: Romance, Germanic and Slavic studies; note, again, Bédier, Trier 1942/3; Lichayev, 1971, 1962, Faulhaber 1991.

such as those by Cerquiglini (1989),[171] D. Hult et al.[172] or Bloch and Nichols (1996),[173] (cf. however, below, Hanneder and Maas 2009-10).

In other words, we are back in Alexandria and Pergamon!

By now, some voices have been raised with regard to contamination and the "impossibility" to establish a stemma for Indian texts, for example:

- **J. Hanneder, ed. of Abhinavagupta's *Mālinīślokavārttika* 1/1-399, Groningen 1998, p. 40-45;**
- **R. Adriaensen *et al.*,[174] ed. of the Skandapurāṇa, vol. I, p. 39;**
- **W. Callewaert, about early New Indo-Aryan religious texts and their relation to music;[175]**
- **As well as older voices from other philological fields,[176] (or the recent, ideologically based ones, such as by Cerquilini.[177])**

§4.2. Archetype

While this situation may be viewed as 'common' with the texts mentioned, I may add, from my own experience, that, just as with Classical Greek and Roman texts, we can sometimes establish clearly that there was *just one* medieval archetype from which all surviving MSS of a text derive. Examples include,

• improbably, the Atharvaveda Paippalāda Saṃhitā of c. 800 CE, from Gujarat (Witzel 1985)

• Mahābhāṣya, ed. Kielhorn[178] (Witzel 1986)

• Manusmṛti: Bhāravī's commentary vs. Vulgate of 1162 CE (Nepalese MS, Kesar Library, Witzel 2001) with 2 *defacto* sub-archetypes

• Kölver's Rājataraṅgiṇī with 2 *actual* archetypes: the one reconstructed by Stein/Kölver and Hultzsch's MS of book 8 (see below)

• others, such as Yama and other Smṛtis (in the Nepal Archives), of c. 1000 CE that already represent the Vulgate.

Much more needs to be done here.

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[171] His *Éloge de la variante* (1989, Engl. 1999), with its "new Philology" focuses on the methodology of editing medieval texts, for which he denies an original text or an original author.

[172] Hult (1991), substitutes in postmodern fashion one 'ideology' by another, and stresses the lack of direct access to the old texts, always requiring interpretation or gloss by the reader.

[173] Containing several essays on the *chansons de geste*; cf. Bloch and Nichols 1996, claimed to be paradigm-shifting, with interdisciplinary attempts at a "literary anthropology."

[174] Adriaensen et al., *The Skandapurāṇa, critically edited with prolegomena and English synopsis.* Groningen: E. Forsten, 1998-<2004>. (I had alerted Bakker to the Nepalese version in 1986, initially to no avail).

[175] Callewaert and Op de Beek 1991.

[176] For earlier criticism of the stemmatic method in Romance, Germanic and Slavic studies, see above *ad* n. 161.

[177] Cerquilini 1989 (Engl. 1999), based on his experience in medieval studies. It was called "a book Michel Foucault hoped to see…"

[178] For his rather selective way of using mainly western and northern Indian manuscripts, see Witzel 1986; cf. Aryendra Sharma's semi-critical Kāśikā edition (1969 sqq) that, however, also uses southern MSS. See now P. Haag in Hanneder and Maas 2009-10.

These stray findings, so far not further investigated by colleagues, indicate that a closer study of *many or all* manuscripts of a particular classical and medieval text is a necessity. However, most Indologists have long turned away from editing --to their detriment-- and merely repeat themselves in ever new translations of well known texts: how many (re-)translations have recently been produced of the Gītā?[179]

Then there is, as mentioned, the exceptional case of 2 *actual* archetype MSS for book VIII of Kalhaṇa's Rājataraṅgiṇī (1151 CE). The variants of the MSS of this text have been investigated and described by M.A. Stein in the 1890s, then with many additional MSS by Kaul (1967) and finally in great detail by my late friend B. Kölver (1971). He established the actual stemma of Stein's and Kaul's MSS. However, there is another MS: when Hultzsch visited Kashmir early in the 20th century, he accidentally came across a fairly recent Śāradā MS of book VIII (now in Berlin) that, on closer inspection, proved to be quite different from the Vulgate both in facts, style and in tone. It is much more favorable towards the king Jayasiṃha who reigned at the time when Kalhaṇa wrote his work. On closer inspection, it turns out that Kalhaṇa's father Caṇpaka had been a commander of forts (Rāj. 7.1177) under King Harṣa (1089-1101), but was no longer involved in administration after Harṣa's murder,[180] and certainly not under then present king, Jayasiṃha (1128-49); Kalhaṇa thus was not favorably disposed towards the king and the dynasty, which he criticized just as he had criticized previous ones.[181] However, when his Rājataraṅgiṇī was apparently ordered to be submitted to the court, he had to change his mind and quickly rewrote quite a number of stanzas, letting the present king appear in more favorable light. These inconsistencies in style had been noticed before.[182] B. Kölver has solved the problem in his studies of the Rājataraṅgiṇī; he added a facsimile of Hultzsch's MS.[183]

In sum, here we have an apparently unique case in Sanskrit studies that – just as frequently with western poets— an earlier and a later version of the same text have been preserved, in other words, they go back to two independent archetypes. A future edition will have to reflect the later (Vulgate) version while clearly marking the earlier version in the critical apparatus or, in this unique case preferably even in the body or margin of the text itself, as to clearly indicate the change of mind of the poet. This is a fascinating piece revealing the – well-known but little documented – dependence of Sanskrit poets on the court.[184]

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[179] For the flood of Gītā translations, see, already 30 years ago W.M. Callewaert and S. Hemraj (1983), with then some 1900 translations.

[180] Stein 1900: Introduction to the Rājataraṅgiṇī, p. 17.

[181] Stein 1900: Introd. p. 17-18.

[182] Stein had an inclination of this state of affairs when he commented on the (unusual) deficiencies in Rāj. VIII, see his Introduction p. 43 sq.

[183] On book VIII see Kölver 1971: 79 sqq. –However, Hultzsch came to the conclusion (p.206) that the archetype perhaps represents the earlier version and that the two additional MSS L and M (with 161 new verses) a later one; for trenchant arguments against this interpretation see Kölver 1971. For the Hultzsch data see now Stein 2013: 179-248.

[184] Similarly, the Nīlamata(purāṇa) has a long and a short version (ed. de Vreese). The longer one (ed. Ved Kumari) was "reconstructed" (Bühler 1877) by Pandit Sahebrām for the new Hindu king of Kashmir in the 1860s.

Taking into account the many millions of MSS in South Asia, this unique situation of preservation certainly is surprising, and a marvelous testimony to the antiquarian sense of medieval Kashmiri Pandits.

The Indian situation is thus radically different from the one in Classical or Biblical studies, where only a limited number of pre-Renaissance MSS have come down to us. In South Asia, an estimated 30 million MSS exist in public and in frequently neglected private collections. Each village will have a Brahmin's family collection, of varying sizes, and there are some 600,000 villages... This situation creates not only problems of access but also an embarrassment of riches that no single scholar can access, process, and use even for one particular edition.[185]

The actual occurrence of various concurrent (sub)archetypes (such as for Manu) indicate that during the Middle Ages, rare texts were sent for even over long distances from all over the subcontinent. This is rarely reported in the literature, however, I have seen a note referring to this long ago -- maybe in connection with the famous Benares collection of Kavīndrācārya Sarasvatī[186] or the Jaḍe collection[187] of MSS; it is also reported by Derrett (1975) for Bhāravi's commentary. In such cases of long-distance import, contamination can usually be determined easily. It is the great variety of MSS, in a dozen of greatly varying scripts and influenced by a similar diversity of local pronunciation, from the various nooks and corners of the subcontinent, that allows tracing the various strands of transmission (and their possible intermingling) at a much larger scale than possible in Classical Greek or Roman traditions.

In addition, there are regular, if so far little detected streams of tradition involving all of South Asia, that have been rarely explored,[188] such as between Kashmir and Gujarat and between Gujarat and Kerala. Others include: Kashmir-(Kanauj)-Nepal,[189] Gujarat-Kashmir,[190] Kashmir-South India (Śaiva

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185 Cf. Hanneder 2009-10: 14. In these cases, a pilot project should lead to a judicious selection of MSS.

186 A 17th-century collection of 2192 Mss., edited by Ananta Krishna Sastry 1921 (for more details see K.V. Sarma 1971: 341); see now his papers ed. by Siniruddha Dash, 2007, 69-79, etc. --- Note also the c. 8000 MSS collected by the 20th century Nepali scholar and *rājaguru* Hemrāj Pāṇḍe, now deposited in the National Archives of Nepal.

187 An 18th- and 19th-century Jaḍe collection of 6000 Mss., listed in the Hoshiarpur MS 5649. It belonged to the *Jaḍe*, Sārasvata Brahmins originating from Goa, but now living in Benares, and is said to have been bought by the Sarasvati Bhavan Library, Benares (Sanskrit University), probably sometime after 1934 CE; see Sarma 1971.

188 See Bühler in Knauer's ed. of MGS, 1897, and for further streaming down to Kerala, see de Vreese (1971) on the Kashmiri Śāradā-based misreadings in the Kerala MSS of the Pādatāḍitaka). See above n.100.

189 See Witzel 2001: *śaivācāryaḥ Kāśmiradeśād āgataḥ* (in the 1200s CE); for another example, see Witzel, *International Journal of Tantric Studies* 1-3 (1996), http://www.asiatica.org/publications/ijts/.

190 Buehler (Knauer 1897: IX sq) has already pointed out the use in Gujarati MSS of a verse written by an otherwise little known Kashmiri poet, Amṛtadatta, who lived at the time of the early Muslim king, Śāhāb ud-Dīn (1354-1373 CE); see also Rājataraṅgiṇī: students from Lāṭa (Southern Gujarat, 6.300); Kayya, the King of Lāṭa (4.209), built the Viṣṇu Shrine of Kayyasvāmin (under Lalitāpīḍa, c.800 CE). Under Nandigupta (972-973 CE) a Maṭha was built for people from Lāṭa; and the Malwa king Bhoja employed Padmarāja, a betel merchant, to

priests),[191] South India (Kerala)-Kashmir,[192] Kerala-Nepal,[193] from various areas on N. India to Kashmir (1420-1470 CE), Bihar-Nepal (Buddhist, especially after 1324 CE), wanderings of Kashmiri Pandits in the past (Bilhaṇa),[194] and under Afghan domination (1756-1819) and after 1984 CE; Kanauj-Orissa,[195] from Bengal to Manipur, from Gujarat to Maratha time Maharastra, from Gokarna to Nepal (17th c.); further, from early medieval Gujarat to Orissa, U.P. Brahmins moving to Bengal (in *kula* traditions), or moving into Benares from Maharastra and the South; or, note the fate of the Gopālakelicandrikā MS (§1.6 n.112). The list could easily be expanded.

§4.3. Abundance of Indian MSS

In addition to these various little understood strands of transmission, we have the proverbial abundance of Indian MSS, which makes it difficult for an editor of a well-known text (say, the works of Śaṅkara, or the Kāśikā) to collect and to compare *all* available MSS of the text in question. Yet, one cannot just discard late copies, as one never knows to which line of transmission the MS in question may belong. In Nepal, for example, we have a number of recent copies from MSS that are a thousand years old.[196] Obviously we do not know, off-hand, whether such old MSS have a superior value or not, until we have examined them carefully, and preferably have generated a stemma. Which itself may be very difficult to establish due to contamination.

In this situation, perhaps the best we can do is to first undertake a pilot project (as Olivelle has initially done for his Manu edition) and see how the MSS at hand[197] align just for a particular chapter, and thus get an *inkling* of the

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regularly send him the water of the sacred Pāpasūdana spring at Kapaṭeśvara (7.190-193) to his residence at Dhāra in Malwa. He also commissioned a building at Kapaṭeśvara (7.190-193.

[191] Inscriptions at the Tiruvalleśvara temple, South of Madurai in Tamil Nadu, made already under the Pallavas, see Swaminathan 1990, 1964; cf. *Historische Zeitschrift*, Sonderheft 10, München 1982.

[192] South Indian Taittirīya Yajurvedins appear in Kashmir around 700 CE in the Nīlamata Purāṇa (long recension verse 1202 = short Rec, 1157), which is another indication of early relations between the extreme South and the Himalayas (such as in Nepal).

[193] Under Aṃśuvarman (605 CE), Jayadeva II (mid 8th century) with a *Taittirīya śālā* in his capital; see Witzel 1980, 311-336.

[194] See Witzel 1994: 211- 268, and further a paper given at the Leipzig conference on Abhinavagupta 2013, (forthc.).

[195] As evidenced in medieval inscriptions for Orissa, see Rajaguru 1974 sqq., and discussion in Witzel 1986a.

[196] For example, some MSS copied for Lokesh Chandra's Śatapiṭaka series. Their provenance is visible only in the original colophon and the modern post-colophon. For a similar case, though with scribal/reader's emendations, Ratnakaṇṭha's Stutirahasya and Ratnaśataka, see S. Jager 2009-10: 285-294. -- Amusingly, a new MSS tradition was started by the 19th century Nepalese *handwritten copy* (National Archives) of Weber's *edition* of the Kātyāyana Śrautasūtra of 1859, made directly from the printed version, including Weber's cross references (Witzel 2001).

[197] Often very difficult enough to obtain. I mention just one particularly 'interesting' case: in 1973-74 I visited the Benares Sanskrit University three times and tried to obtain a microfilm copy of the unique MS of the Black Yajurveda *Kapiṣṭhala Saṃhitā*. I duly paid the required fee, even gave them an undeveloped microfilm and a bottle of developer, all to no avail. When the director of the Library recently wrote to me on another matter, I answered he should first please send me the microfilm, a quarter of a century later: no answer was received. I then wrote to the

underlying stemma. Obviously even this procedure may spring surprises for other parts of the text.

Computer based editing (see § 6) may help, though the input, for the time being, still has to be done by hand.[198]

There simply is no shortcut – yet.

§ 5. THE CONTINUING USEFULNESS OF THE STEMMATIC METHOD

§5.1. Recent finds of 2000 year old MSS

However, the usefulness of the critical and stemmatic method has now been underlined by the recent discoveries of new MSS materials that have dramatically changed our horizon of some text traditions. The many finds of ancient papyri[199] in Egypt with Classical and Hellenistic Greek texts,[200] containing anything from sale documents, magic,[201] music,[202] the poems of Sappho or the dramas of Sophocles to Hesiod[203] or Homer,[204] have allowed scholars to revisit their critical editions of the past two hundred years. As discussed below, Greek and Latin texts frequently have come down to us only in a restricted number of MSS copies, often leading to a two-branched tradition with an (early) medieval archetype. The new finds allow us to establish a separate, often independent tradition that may or may not contradict the reconstructed archetype. They offer exiting new materials for future editions that come closer to an archetype or even to the original text intended by its author.[205]

The finds of new MSS are very important for Judaism and early Christianity as well. The accidental find of 2000 year old MSS at Qumran[206]

Göttingen University library to obtain a copy of this MS, made for Kielhorn more than 100 years ago. They replied that they were rather busy; nevertheless the pdf arrived three weeks later… (cf. below n.231).

198 After earlier announcements, such as by a New York state based group some 10 years ago, some MSS can now be read by scanning (NEH project of Peter Scharf) and note a similar project by Oliver Hellwig (Heidelberg), http://www.sanskritreader.de; http://kjc-fs-cluster.kjc.uni-heidelberg.de/dcs/index.php?contents=help_center. See n.269.

199 See: http://www.lib.umich.edu/papyrus-collection/papyrology-related-links**.**

200 Collected and constantly updated in the Greek Thesaurus: http://www.tlg.uci.edu/. Cf. also many new materials at Oxford (Oxyrhynchus collection): http://www.bbc.co.uk/news/uk-england-oxfordshire-14289685.

201 Betz 1985.

202 http://classics.uc.edu/music/yale/index.html, with Greek musical notes.

203 http://www.schoyencollection.com/literatureGreek.html, MS 5094.

204 http://homericpapyri.appspot.com/CTS?request=GetCapabilities&withXSLT=chs-gc&inv=inventory.xml. Though, for example, the Hawara papyrus etc. mostly follow the standard text established by the Alexandrian Aristarchus.

205 In the case of Homer's works, however, one will only rarely be able to go back beyond the school texts established by the Hellenic Alexandrian scholars: however, there are fragments, such as http://www.schoyencollection.com/literatureGreek.html, MS 5094 of the 3rd cent. BCE, that deviate from the Alexandrian tradition. For a discussion of such cases see Nagy 1996.

206 Now online at: http://dss.collections.imj.org.il/.

(Palestine) of texts of the Essene (and perhaps also the Sadducee) sects of early Judaism bears on the actual text of the Hebrew Bible, many of whose chapters are included in these "Dead Sea" scrolls. As such they are the oldest surviving copies of Biblical documents in Hebrew and Aramaic,[207] dating back up to the 2nd century BCE. Importantly, some of the Qumran texts (for example Exodus, Samuel, Isaiah) differ greatly from the Masoretic, Septuagint, and the Samaritan Pentateuch versions, and thus, from Torah canonization at c. 100 CE. At the same time the scrolls also contain much material that sheds light on the religious atmosphere and even the textual traditions in which early Christian texts (however, in Greek) developed.

In the same vein, the recent finds of c. 2000 year[208] old Buddhist manuscripts from Northern Pakistan and Afghanistan allow similar re-evaluations of the early canon and allied texts. Though most of these birch bark MSS contain texts[209] in the Gāndhārī language, once spoken in the northwest of the subcontinent, they are of singular importance for comparisons with the other old Buddhist texts, such as those in Pāli, early Buddhist Hybrid Sanskrit,[210] and eventually the translations into Sogdian, Tocharian, Uighur, Chinese and Tibetan, etc. Once these new texts will have been edited,[211] we can expect large scale, important comparisons with the (later) versions of the canon, leading us closer, though not exactly[212] to the words of the Buddha himself, or at least to the early oral tradition after his Nirvāṇa.

The situation is similar for older Tibetan materials, where one mostly has to rely on medieval block prints of the Tanjur and Kanjur, apart from the now scattered finds of MSS of Old Tibetan MSS at Dunhuang.[213] They, too, have changed our view of Old Tibetan language and texts.

As for Chinese texts, one may wonder how far the early introduction of block prints in China (and Tibet) has influenced the local traditions in other ways than that of copying MSS in Europe or India. The many recent archaeological discoveries of numerous tomb texts on bamboo strips, such as the famous Guodian Slips (郭店楚簡) of the Warring States period, should now provide the opportunity to check on some of the Classical Chinese texts, such as

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207 Before this find, we had the Masoretic text of the 10th century CE; some of the Qumran texts (Exodus, Samuel, Isaiah), however, differ greatly from the standard version of the Masoretic, Septuagint, and the Samaritan Pentateuch and their canonization at c.100 CE.

208 For carbon dates see: H. Falk at the XVth Congress of the *Intl. Assoc. of Buddh. Studies*, Atlanta: an Avadāna MS, carbon (C14) dated to 184-46 BCE; Allon, M. & R. Salomon 2010, see pp. 10-11 n. 39 for a Sūtra MS carbon dated to 206 BCE-59 CE.

209 They are included in the Gandhāra scrolls of the British Library, see : http://ebmp.org/; The Schoyen Collection: see http://www.schoyencollection.com/buddhism.html and, the early 20th century find, the Gāndhārī Dharmapada, see: http://titus.uni-frankfurt.de/texte/etcs/ind/mind/gandhpkt/dhpgpkt/dhpgp.htm**.**

210 Such as the Bhikṣuṇī-vinaya, ed. by G. Roth, 2005.

211 As planned by the grand new Academy project at Munich: http://www.badw.de/aktuell/pressemitteilungen/archiv/2011/PM_2011_29/index.html**.**

212 Due to the transmission history: via an eastern Prakrit to the western literary one, Pāli, and onward to other Prakrits such as Gāndhārī, etc. -- For the earliest Pāli MS in Gupta time script, preserved in the Nepal Archives, see O. v Hinüber 1991.

213 See now: International Dunhuang Project, http://idp.bl.uk/.

the Liji, the *Classic of Rites*, as these MSS go back a few hundred years beyond the edited version of the Han period.

For, as in the other traditions mentioned so far, the current versions of classical Chinese texts rest on long established scholarly traditions and medieval printed editions, on which later scholars have exclusively relied. Now, suddenly, different versions appear in the bamboo strips. As in the Greek, Hebrew and Buddhist cases, this should allow to question the inherited traditional form of the texts. Comparisons of various medieval editions of a particular text with the newly discovered MSS allows us finally to set up a stemma of the MSS/print tradition and to re-edit many of the important classical texts.[214] To quote just one very recent example: Professor Liu Guozhong of Tsinghua University has pointed out that, according to the Tsinghua Bamboo Slips (Qīnghuá jiǎn), parts of the Shang Shu (尚书), the Book of Historical Documents, "in the present edition contains some passages that could not possibly have been edited by Confucius."[215]

All these c. 2000 year old documents present a challenge to the entrenched belief in the "established" texts of the Middle Ages, Renaissance, or the Han/Tang periods, or the Bible in Ezra's time (c. 400 BCE), as the case may be.[216]

Frequently, the newly found MSS add to the presently constituted "archetype," based merely on medieval MSS. In some cases they rather present other, so far lost subarchetypes. At any rate, we cannot automatically treat them as other, *alternative* texts, in the manner of the "copy text" procedure. As we are just at the beginning of their study, e.g. regarding China (D. Meyer 2010), it remains to be seen whether we will ultimately be able to establish an original archetype of, say Confucius, one that is close to his time.[217] Alternatively, it may turn out that we only find a tangled web of early "Confucian" fragments, that is, a group of more or less related early texts, -- similar to those of oral traditions elsewhere (Mahābharata, Homeric epics, Bhakti songs,[218] Chansons de geste, etc.). This is, to compare biology again, not unlike the early stages in the development of early (pre-)cellular beings, where we do not have a single "ancestor" but a web of early forms. Family trees work only as far as our materials allow...

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[214] If necessary, due to certain large deviations, this should be done in parallel, facing printing of the old and "new" versions.

[215] http://www.scmp.com/portal/site/SCMP/menuitem.2af62ecb329d3d7733492d9253a0a0a0/?vgnextoid=a0359026449a4310VgnVCM100000360a0a0aRCRD&ss=China&s=News.

[216] As for other early philological efforts, these are seen by Motowori Norinaga (1730-1801), who invented, on his own, a philology much like the western one for the oldest Japanese text, the Kojiki (712 CE) and for the poems of the Nihon Shoki (720 CE). (He was preceded by Kamo no Mabuchi, 1697-1769, in studies of the somewhat later Manyōshū poems). In the forbidding Confucian climate of the Edo Shogunate, it was politically dangerous to support, by his very philological studies, the religious importance of the emperor at Kyoto vs. that of the Shogun in Edo (Tokyo).

[217] Cf. for a critique of early bamboo strip texts:
http://www.scmp.com/portal/site/SCMP/menuitem.2af62ecb329d3d7733492d9253a0a0a0/?vgnextoid=a0359026449a4310VgnVCM100000360a0a0aRCRD&ss=China&s=News
and cf. Witzel, Philology in the 19th and 20th centuries… [in Chinese] 2014.

[218] See Callewaert 1991, 1996.

§5.2. The way forward in Indian textual studies: critical editions

After the multifarious discussions of the 19th and early 20th centuries, we now return to Indology (and *mutatis mutandis*, other oriental philologies) in order to evaluate what has been done in textual criticism and stemmatics.

Surprisingly, Indian (or South Asian texts in general) texts have hardly seen *any* critical editions in the strict Lachmannian sense. What goes under this name usually are editions that merely include a *selection* of variants. It is remarkable that over the past 200 years or so[219]only about a dozen truly critical editions, with *stemma,* of Sanskrit texts have been prepared.[220]

For example, in the Vedic field (Witzel 1997: vii) we have only such works as:

- **Knauer's Mānava Gṛhya Sūtra (1897),**
- **Witzel's *Kaṭha-Śikṣā-Upaniṣad* (1977/1979-80),**
- **Ikari's *Vādhūla Śrautasūtra* (1996-),**
- **Zehnder's *Paippalāda Saṃhitā 2* (1999),**
- **Lubotsky's *Paipp. Saṃh. 5* (2002),**
- **Lubin's *Nīlarudra Upaniṣad* (2007);**
- **Griffiths' *Paipp. Saṃh. 6-7*, (2009),**
- **Lopez's *Paipp. Saṃh 13-14* (2010).**

Older editions, including the fairly recent Poona effort (T.N. Dharmadhikari, R.S. Shastri, N.P. Jain, S.S. Bahulkar, *Vedic texts: A Revision*, Delhi 1990), are semi-critical, i.e. without stemma.[221]

For other Sanskrit texts Grünendahl (2008: 10) lists these recent critical editions:

- **R. Lariviere, Nāradasmṛti, Philadelphia 1989**
- **A. Wezler and S. Motegi, Yuktidīpikā, Stuttgart 1998**
- **P. Maas, Samādhipāda of Patañjali's Yogasūtra, Aachen 2006**
- **J. Mallinson, Ādinātha's Khecarīvidyā, London 2007.**

We can now add:

- **Olivelle's Manusmṛti (2005), and his Viṣṇu Smṛti (2009)**
- **Kölver's Rājataraṅgiṇī MSS study (1971)**
- **Lubin's Nīlarudra Upaniṣad (~ PS 14), 2007**
- **Goodall's Bhaṭṭa Rāmakaṇṭha's commentary on the Kiraṇatantra 1998.[222]**

Nevertheless, the 19th century Indological "tradition" of presenting "semi-critical" editions without proper stemma continues unabated: even in Olivelle's

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[219] I wonder how far this principle has been applied, e.g. in Chinese studies. The early introduction of block prints in East Asia has, of course, influenced tradition in other ways than in Europe or India. However, the texts on bamboo strips (see Meyer 2012) should provide the opportunity, similar to the findings of ancient Papyri in Egypt for Greek texts, to check on some of the established traditions and editions of Classical Chinese texts. Cf. Witzel 2014.

[220] See Witzel 1997, introduction to *Inside the Texts.*

[221] Maue 1976 has a detailed analysis of accented and not accented MSS and the various branches of transmission, but without stemma.

[222] With detailed stemmas, p. cxi sqq.

Manu only the N. and S. Indian branches are distinguished;[223] or note also Bronkhorst and Haag's proposed Kāśikā edition and cf. the contributions in Hanneder *et al.* 2009-10.

However, without a properly established text it is not possible to tell exactly and with assurance what, e.g., an important figure such as the philosopher Śaṅkara (8th cent.) actually taught;[224] in our uncritical editions, single words and phrases as well as whole sections or even individual texts may be wrong or spurious. Studies based on the present uncritical editions can, at best, only be provisional and are, at worst, plainly wrong: for example, Śaṅkara may simply not have written the particular expression, sentence or commentary in question. It is nothing short of a scandal that, after some 200 years of Indology, instead of preparing reliable texts and translations, a lot of ink keeps being spilled in works based on inadequate materials.

Indeed, Olivelle, in his comments on Upaniṣad editions,[225] agrees: he stresses, as I do in this paper, that very few truly critical editions have been produced. But he also underlines the importance of reception, transmission and the local, 'native' understanding of the texts. One must add: as if the two would contradict each other! We just have to look at them *in seriation*: critical editions aim at the "original" texts (as far as recoverable, in an archetype), while other editions aim at recovering later stages of the same (locally "received") text. Examples include the (important) South Indian Mahābharata, or the North Indian one in Nīlakaṇṭha's commentary, or the reception of a text in a certain setting such as the (Kashmir version of the) Bhagavadgītā[226] in a Śaiva context in Abhinavagupta's commentary. They all have their own intrinsic value but do not impinge on the archetype (if recoverable).

§5.3. Commentaries (again), variants and editing

Olivelle also complains about a general mistrust by Indologists of the reliability of textual transmission mediated by the commentators (1998: 2),[227] and of the scribal transmission as such. But already Albīrūnī (1030 CE) complained about it: after launching into a diatribe of the carelessness of Indian copyists, he says: if an author would take a look at the first copy of his work he would not recognize it as his own.[228] This in spite of the ubiquitous copyists' verses (also quoted by Olivelle) *yad dṛṣṭam... tad likhitam*, etc. After all, these were paid

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223 As reported below (n.250) he first ran a pilot program using 53 MSS showing considerable contamination.

224 See, e.g., the study of S. Mayeda 1967, cf. 1965.

225 Olivelle 1998, 173-187. The same was already pointed out by Rau, 1960.

226 Note that in Kashmir the Gītā differs in the number of verses, see Schrader 1930. Note the local Śaiva tinge of the commentaries *Sarvatobhadra* by Rājānaka Rāmakaṇṭha (KSTS 64, c. 850 CE) and Abhinavagupta's *Gītārthasaṅgraha.*

227 See also: R. Bhattacharya 1990.

228 This attitude of poorly paid scribes is understandable (see below §5.7.).

scribes.[229] Little is actually known about the practice and prices paid.[230] As mentioned (above §1.6.), the commentaries themselves have to be critically edited first before actually using them in a truly scholarly fashion: for, we do not know how far their quotations are genuine or contaminated by later tradition. (A typical example is seen in the Kashmiri Veda quotations as presented in the Chowkhamba edition of the Nyāyamañjarī, as mentioned above, n.99-100).

Olivelle (1998) correctly complains about the so-called critical editions of the late 19th and early 20th century by European editors, already characterized above (this also holds for also Boehtlingk's BĀU and ChU editions). They were by no means critical, as we now understand, that is with a stemma. Most of them rather represent the older textual criticism as practiced before Lachmann: they are based on a keen understanding of grammar, idiom, the "best MS," etc. I have criticized this approach nearly two decades ago (Witzel 1997: Introduction): "With millions of Indian MSS in public and private libraries, only a fraction of the texts contained in them -- nobody knows how many -- have been actually published or used for editions. So far, we have only a handful of critically edited Sanskrit texts which are based on a stemma of the manuscripts used."

Olivelle indeed also complains that the new editions of the Upaniṣads are not based on a methodical search for (all) MSS, especially those found in India. However, how to do that? If one travels to India as I have extensively done out of my Kathmandu station from 1973 to 1979, one meets only with a largely varying degree of success.[231] –-- In the end, even Olivelle has not done so for his Manu edition: as mentioned above (n. 223, *ad* n. 197), he has just selected some MSS from a very broad MSS basis, due to embarrassment of riches, and he has not sorted them out beyond separating them into a North and a South Indian group.[232] In his defense it must be underlined, again, that the South Asian situation of millions of still existing MSS is entirely different from that of the Classical texts that usually exist in just a few pre-Renaissance MSS.

The main aim of Olivelle's recent criticism of Upaniṣad editions, however, remains controversial. He asks whether it is legitimate to incorporate emendations *in the body* of the text. One would have thought that we have for

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[229] Once, while working in Nepal, I saw a MS, written in a good hand, but on just one page in the middle of it, the scribe apparently had his little son copy about a page in a rather uncertain children's hand. Unfortunately I did not take a note of it.

[230] Note the sale of MSS, e.g. of a complete Mahābhārata for the sum of 45,000 Dīnnāras that the Kashmiri scholar Bhaṭṭa Haraka signed on Thursday, July 10, 1682. -- Cf. Katre 1954: 29, on MSS sales, however without reference to actual occurrences; cf. also the K.V. Sarma vol. (ed. Siniruddha Dash 2007). -- Derrett (1975: 29, 32) discusses the search for the «best» northern, southern and eastern Indian MSS that were eclectically used in Manu Smṛti commentaries such as Bhāruci's. Sometimes Indian tradition has even recorded such cases, such as the alleged re-introduction of the major grammatical treatise, the Mahābhāṣya, into early medieval Kashmir, see Rājataraṅgiṇī, 4.488; cf. Aklujkar 2008. -- Such cases resulted in the reintroduction into Indian and Indological consciousness of texts recovered from outlying areas such as Kashmir, Kerala, or Nepal.

[231] For one particularly galling example see my note on the Kapiṣṭhala Saṃhitā, see above n. 197).

[232] Cf. also my detailed discussion about contamination by Pascale Haag, for grammatical texts such as Patañjali's Mahābhāṣya, the Kāśikā, the Nyāsa and Padamañjarī: http://groups.yahoo.com/group/Indo-Eurasian_research/message/6244.

long discussed and acted on this question, for some 150 years in fact. It is clear that we can certainly insert our emendations in the text if we can in fact *show* that they are justified and if we properly list all MSS variants in the footnotes, in the critical apparatus. (This is, however not consistently done even by current editors, leading to Olivelle's complaint). *All* variants, even the most common, seemingly trivial ones, are to be properly recorded, simply because we do not know where such data will influence future scholarship.[233] Not to do so would require future scholars to go back to the MSS – if they still will exist then!

To give an over-simple example, the treatment of homo-organic nasals that often are written, out of laziness or shall we politely call it indolence, just by the Anusvāra dot. If we neglect such writing variations we would not know that the practice is already found in some Kuṣāṇa time MSS, but usually not in good Vedic MSS.[234] Things become even more involved when people 'double' the nasal by writing both the Anusvāra dot and the proper homorganic nasal. If we do not record such details one would not know how certain mistakes in some of the later MSS have arisen, from which line of MSS, and from which region of India. All of these seemingly trivial data, in turn, become important in finding out where certain contaminations derive from and where an undated MS without colophon may be positioned in the stemmatic tradition of a particular text. And so on. Other cases are much more complex (see Witzel 1985).

In this context, in spite of the general South Asian embarrassment of MSS riches, the increasing loss of MSS must be stressed. After all, they form the basis of most of our philological work. Clearly, something needs to be done to counteract the loss. As far as India is concerned, UNESCO had executed a pioneer project already in the Sixties,[235] followed by the four decade effort of the Nepal-German Manuscript Preservation (and Cataloging) Project (1970-2004).[236] The Indira Gandhi Cultural Center at New Delhi has a project to film whole libraries,[237] and there finally is the recent Indian Government initiative "National Mission for Manuscripts": 'manuscriptology' has finally been "discovered."[238] But all of this is just a drop in the ocean. Many public and

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[233] Similarly Alsdorf, 1950, 627, which is criticized by Olivelle.

[234] Where we get the homorganic nasals *ṅ, ñ, ṇ, n, m* before occlusive consonants.

[235] The films are kept at the Toyo Bunko, Tokyo, see: [Toyo Bunko]. List of Microfilms…1971: 53-85, March 1973: 1-40, 73-105.

[236] It is virtually unknown that the Indian Government filmed some of the MSS of the Nepal Archives (the former Bir Library) even before this project. I believe the microfilms are in the National Archives in New Delhi, with a copy in the Kathmandu Archives.

[237] Filming the MSS of three large S. Indian libraries (Tanjore, Madras, Trivandrum) had already been completed by 1994, but they were and still are not readily available for research – one has to go back to the original MSS libraries for the usually difficulty obtained permissions; the same applies to their more recent microfilms and scans. Fortunately, the ongoing computerization has persuaded some libraries to put such data online. See next note.

[238] Recently the situation has been a little ameliorated by scanning and going online, like at Pondicherry (http://202.71.128.164:9080/opac/fip/html/SearchForm), Government Oriental Manuscript Library and Research Centre, Chennai, (http://www.tnarch.gov.in/script.htm, and by the IGNCA New Delhi (http://www.ignca.nic.in): Home > Kalanidhi > Microfilm / Microfische > Digital Library > Manuscripts Catalogue > Manuscripts in India (Survey); however, the IGNCA MSS still are not easily accessible, due to the bureaucracy at the original

private libraries in India are being damaged or devoured by worms[239] and rats, or are damaged by water and fire (MSS are kept in chimneys, out of fear of insects), or they are just neglected. I once heard of a former Orissa Maharaja's (palm leaf MSS) library that was "stored" on a verandah--in the monsoon rain. I have myself witnessed, in late 1974, a comparable case in the old royal Palace at Kathmandu,[240] and a friend has told me about a collection of unique Vedic MSS that was "stored" in the kitchen: on subsequent visits the MSS had been further damaged until he took action and was in fact allowed to provide proper storage boxes. I think many of us can tell similar horror stories. Even the Pandits and Indologists of the later 19th century referred to many of the private collections of Pandits as 'sinks' (*garta*).

The situation obviously varies from place to place. In W. China (Xinjiang) for example, increasing irrigation threatens the MSS that have survived in the Takla Makan sands for a thousand years or more. Some pilot project of exploration and preservation should be carried out. These are some of our oldest Buddhist or Indian MSS, after all. The same applies, *mutatis mutandis* to old block prints of China, Tibet, or Mongolia. Many of them may represent the only available copy of the text in question... As for South Asia, proper preservation is often hindered by the typical Hindu attitude: as one Pandit told me, when he had thrown down, from a high shelf, a 1000 year old MS: "it can always be copied". As is well-known, the Jaina and Buddhist attitudes differ: MSS are held in high regard and in Tibetan tradition must be kept higher than one's head.

§5.4. Types of editions, their critique

I have criticized the "traditional" Indological approach to editing, described extensively above, more than two decades ago (1997),[241] and I have previously distinguished three types of Indological editions:[242]

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owning libraries. – Note also the decade old "National Mission for MSS" (2003-), under the Indian Government's Ministry for Culture, http://www.namami.org/ and their journal *Kriti Rakshana*; cf. National Mission for Manuscripts, *Report on the forth year 2006-2007.* But all of this still is just a drop in the ocean.

239 One colleague once told me that a certain library was inhabited by birds. Now that is nothing to marvel about, but their sheer number surprised him. It turned out that they were eating the larvae of bookworms.

240 During the restoration of the former royal Hanuman Dhoka palace at Kathmandu, I was alerted by a visiting UNESCO representative of the document collection kept there. Upon visiting the large (c. 10 x 5 meter) room, stacked knee deep with MSS, I picked up (and put back) a MS that dealt with paying a *mohar* to an official from Panauti to attend the royal Dasain festival in c. 1830. The MSS mostly pertained to the financial administration at the time. Workers of the restoration crew used some of these MSS written on sturdy Nepalese paper as turbans to carry loads, if not for less palatable purposes. After I told the then director of the National Archives about it, the MSS were suddenly trucked away, with unknown destination. However, some 2000 MSS have reportedly been transferred to the Tribhuvan University Library.

241 Witzel 1997: Introduction: "With millions of Indian MSS in public and private libraries, only a fraction of the texts contained in them -- nobody knows how many -- have been have been actually published or used for editions. So far, we have only a handful of critically edited Sanskrit texts which are based on a stemma of the manuscripts used."

242 See also my detailed discussion note at: http://groups.yahoo.com/group/Indo-Eurasian_research/message/6244.

(1) The "usual" Indian editions: no variants, or just a few (*pāṭhabheda*), are given, but they are hardly ever properly sourced, at best by the (undefined) *ka, kha, ga…*

(2) The 19th century "Boehtlingk *et. al.*" semi-critical type, worst perhaps Boehtlingk's Bṛhad Āraṇyaka and Chāndogya Upaniṣad.[243] They give some variant readings and may even briefly discuss the origin of the MSS involved ("from Ahmedabad") but they do not even *try* to establish a stemma. Most of the editions replicate those done before Lachmann. Boehtlingk or Roth-Whitney (1856) acted like Alexandrian scholars, medieval scribes, scholiasts and modern Pandits: preferring their own judgment, sometimes very much against *all* evidence and the testimony of their MSS (notably in AV 19). Their editions were based, however, on a keen understanding of grammar, idiom, and the use of the "best MS." Hanneder (2009/10) still defends this practice as the results of such editions were normally *reliable.*

We may add, that this is merely a *practical* procedure due to the abundance of Indian MSS materials that usually make the establishment of a stemma–also because of contamination--much more difficult[244] than for Classical European texts.

(3) The very rare truly critical editions, such as A. Griffiths', C. Lopez' and J.-S. Kim's Paippalāda editions, or a prospective edition of the Rājataraṅgiṇī, made possible after its stemma had laboriously been established by Kölver (1971), based on Kaul's edition and the MSS he had used (1967).

In order to understand this anachronous situation today, nearly 200 years after Lachmann, it is necessary to observe that editors of the great Vedic editions of the 19th century, such as Müller, Benfey, Aufrecht, Weber, Roth-Whitney, Schroeder, etc., were no doubt influenced by their knowledge of the strong underlying oral transmission of the Vedic texts, which made the use of *many* MSS superfluous: the MSS had, barring a few writing mistakes, the same text, and the variants hardly counted. Thus Max Müller's Ṛgveda edition basically is a reprint of the MSS (with very few, so far not seriously investigated variations).[245] It is, as we used to joke as students, "a good edition of Sāyaṇa('s

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[243] Boehtlingk 1889, and his *Khândogjopanishad* 1889. Whitney (1890: 412) rightly criticized Boehtlingk's practice at once, however, his own editions suffer from the same problems: Roth and Whitney (1856) gave no variants in their AV (Śaunaka) edition, and have heavily edited some sections (notably AV 19); *some* sporadic MSS readings were later given by Whitney in his word index (1881) and in his translation (1905). In contrast, Pandit's edition (1895-98) quotes numerous MSS but has no stemma; his useful long introduction (including important information on Maharastrian AV recitation) has also almost entirely been neglected (except by Witzel 1986a, Deshpande 1997), cf. also Olivelle 1998.

[244] See the case of Olivelle's Manu edition.

[245] The RV editions of Aufrecht, M. Müller, C. G. Kashikar, etc. are not critical in the strict sense as they do not give a complete apparatus nor do they have a stemma; they *all* neglect recitation, and the various systems of marking the accents are not taken into account (cf. Witzel, *VIJ* 12, 1974, 472-508). We still do not know, for example, whether to read *rā́ṇḍya or rā́ṇḍrya* at 6.23.6. Further, Müller hardly used the unique Kashmir birch bark MS, and only two fragmentary South Indian MSS. Note Oldenberg's summary dismissal of the Kashmir variants in his *Noten* p. iv n. 1 (1909): They will be treated in detail in my long delayed *The Veda in Kashmir*. – For a few other remaining textual variants see now: M. Witzel, Variant readings in

commentary)".[246] However, even among the Vedic texts this does not apply to texts that do not rely on as broad a geographical basis[247] as the Ṛgveda, such as the MS (Maitrāyaṇi Saṃhitā), KS, JB, VādhB etc.

However this does not explain why the 19th century editors proceeded in the same way, without stemmas, for non-Vedic texts well after Lachmann's stemmatic method had gained acceptance in other fields. One reason may have been that few MSS of a certain text were available in Europe then[248] and one could at best establish that MS B had been copied from MS A. But this still does not explain the general failure to try for a stemma if more than a limited number of MSS were available. (An exception obviously is the –ultimately futile-- Winternitz-Sukthankar undertaking of establishing a stemma for Mahābhārata MSS early in the 20th century. Otherwise, I am not aware of any substantial discussion of the issue.[249]

However, even in spite of the lack of stemmas, how can we explain that all MSS of Manu, except the one with Bhāruci's commentary, follow either the current southern or the northern (Vulgate) versions;[250] the latter is found already in the oldest available Nepalese MS (from Benares), written under King Jayacandradeva in 1162 CE.[251]

The solution may be seen in the tendency of some medieval commentators who thought of some variants as actual corruptions, "*pramādapaṭha*" (as Śaṅkara says)[252] and who therefore strove to improve their text by searching for and actually importing[253] a particularly famous MS or a transcript --often over long distances.[254] (This, again, has been little studied). Such imports

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the Ṛgveda? Presentation at the 14th World Sanskrit Conference, Kyoto, Sept. 2009 (see n.262, 285). However, upon checking the oral tradition in Kerala in April 2011 (recitation by Naras Ravindran) and the CDs of the complete RV recitation made in Kerala, it turned out that they have the same variants as the well-known RV editions of M. Müller, Aufrecht, Kashikar, etc. So perhaps they represent a pan-Indian tradition. It remains to be investigated how old some of the perceived mistakes really are: do they go back to Śākalya's RV redaction in his Padapāṭha?

[246] And even that is wrong: the author is Mādhava, not Sāyaṇa, see Slaje 2010.

[247] Such as the Maitrāyaṇi, Kaṭha, and Kapiṣṭhala Saṃhitā, Jaiminīya Brāhmaṇa, Vādhūla Br. (Anvākhyāna), etc.

[248] Though during British times, MSS were sent to Europe on loan even from India!

[249] Except Knauer, ed. Mānava Gṛhya Sūtra 1897, with a very detailed enumeration and discussion of his MSS, and a rudimentary stemma (p. XXVII), -- while going into a lot of detail also about their "orthographical" peculiarities. He remains an exception.

[250] See Olivelle, 2005. He had initially carried out a pilot project involving 53 MSS for his Manu edition. In view of heavy contamination, he (2005: 370 sqq) distinguishes, though without detailed stemma, a northern and a southern tradition of Manu, similar to what we see in Bhāruci (see Derrett 1975).

[251] Preserved in the Kesar Library, Kathmandu, dated 1182 CE, see Witzel 2001: 263.-- Other early Nepalese Smṛti MSS, such as the Yama Smṛti of c. 1000 CE, too, represent the Vulgate, and still need to be studied. --- For another case, see P. Harrison 2007.

[252] Olivelle 1998: 16.

[253] A very little studied topic. See however now Siddhiniruddha Dash 2007, and Janardan Pandey 1990.

[254] Attested by Derrett in his ed. of Bhāruci (1975: 29, 32). He discusses the indigenous medieval search for the "best" northern, southern and eastern Indian MSS that were eclectically used in commentaries such as on the Manu Smṛti by Bhāruci. -- See now also Siniruddha Dash (ed.) 2007, R. Bhattacharya 1990.

naturally lead to contamination, but importantly also to the superimposition of, and eventual replacement by a distant tradition over one's own local one. This was common when a new, highly regarded version of a text was copied and the 'older' version ceased to be copied.[255] Indeed, we can, occasionally, establish that there was *just one* late classical or medieval archetype, from which all surviving MSS of a text derive.[256]

It is my well- founded suspicion that many if not most of our "Classical" Indian texts go back to late manuscript archetypes of ca. 1000 CE, that is to MSS written after the emergence of the various (sub)regional scripts around that time. Earlier (post-)Gupta MSS must have been copied and rewritten the (sooner or later) in the new type(s) of script.[257]

This suspicion is sustained by the observation of Classicists about the steadily increasing loss of MSS in general, due to many factors: war, (intellectual) fashion, damage by rats/insects/fire/water. The probability for the loss of a certain manuscript tradition is generally quite high. As a result,"[s]urviving traditions are those whose originals generated at least one trace; but, given the high extinction probability, in most of these cases the original generated only one trace and so an archetype exists" (Weitzman 1987: 299).[258]

The same applies to Bédier's problem of the two-branched stemmas (see above n.92, and *ad* n.166). Due to the high probability of manuscript loss, the survival of merely two branches of an originally more complex stemma can easily be expected.[259]

§5.5. Oral and written traditions

In the case of the Veda, however, we must first of all study and attempt to understand them as *oral texts*. It is well known that the Vedas have been both composed[260] and carefully transmitted orally; they were first written down,

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[255] This led to the disappearance of the early texts of several schools of thought especially, as is well known, those of some philosophical schools, of which only their canonical formulation in the Mīmāṃsā-, Nyāya-, Yoga-Sūtra etc. has survived. Earlier versions are known only from occasional quotes in texts. In the tropical climate of India, older palm leaf (and later on, paper MSS) hardly last more than 400 years, except for old MSS in Rajasthan, Nepal, Kashmir, and Central Asia.

[256] Such as the written Paippalāda Atharvaveda archetype in Gujarat, c. 800 CE (Witzel 1985), from which even the current *recitation* in Orissa has been derived; or similarly that of the Mahābhāṣya (ed. Kielhorn), also from Gujarat (Witzel 1986).

[257] Witzel 1985: 256 sqq.

[258] Weitzman 1987.

[259] Additionally, a three-branched stemma can be mistaken for one with two sequential branching events, especially when there is some degree of contamination or convergence.

[260] This large mass of texts, rather surprisingly, was composed and compiled without recourse to any artificial means of structuring and ordering except for the underlying structure of the rituals well-known to the priests. - One did not follow, as for example in Polynesia, external categories, e.g. the structure of a fish on whose bones various types of knowledge, stories, etc. are mentally arranged; this is similar to the device used in Classical antiquity (for rhetoric training purposes), and the medieval (or, similarly, the Tibetan) device of a building in whose rooms various types of knowledge were "stored."

with one or two exceptions,[261] only in the early 2nd millennium CE. This feature is basic for any understanding of Vedic texts, their composition and structure.

Yet, a text such as the Ṛgveda cannot be understood if one does not know something about cattle, the historical climate of the Panjab, pre-state tribal societies and their social systems, about its complex system of Indo-European and Indo-Iranian poetics, about oral composition, canon formation and the techniques of critically editing Sanskrit texts – in other words: by a study of a culture through its texts but making use of various *Hilfswissenschaften.* And, it cannot be understood at all without a good acquaintance with our old hand-maiden, grammar, -- in the present case, Vedic grammar as clearly distinct from, and preceding Pāṇinean and classical Sanskrit grammar.

As pointed out recently,[262] however, writing down the text may *perhaps* even pertain to our oldest text, the Ṛgveda.[263] Such cases are due to a bottleneck situation, mentioned above (§1), where a new stream of tradition evolved, superseding all others.[264] Some of my recent investigations "on the ground", in Kerala with its vibrant Vedic traditions, however, did not support this hypothesis: at least in that tradition[265] and those recorded in the M. Müller/Aufrecht/Poona editions we deal with the same ultimately oral "archetype" that goes back at least to the redaction of the RV by Śākalya (in Bihar!) around 500 BCE.

Written Traditions

There also is the need to further discuss the very nature of written transmission in India, namely, the influence the changes in the scripts used over time (see n. 269, 274, 279) and the influence that local pronunciation had on the written transmission.

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[261] There is the case of the VSK, which has variants (not found in VSM) hat can only go back to Saka/Paiśācī style writing habits (see Witzel 1989, n. 190, with forms such as *tanakmi* VSK, cf. Renou, *JA* 1948: 38). As mentioned, the Paippalāda Saṃhitā text of Kashmir and Orissa goes back to a written archetype of c. 800-1000 CE (Witzel 1985). – Remains the unsolved question of a hypothetical written Upaniṣad collection lying in front of Śaṅkara: however, it is clear that he still knew the oral tradition of the major old Upaniṣads and their surrounding Vedic texts, see Witzel 1977.

[262] Witzel 2009, presentation at the World Sanskrit Conference at Kyoto. Note however, immediately below, the testimony of the oral tradition of Kerala.

[263] We cannot easily check such cases against the much better preserved oral tradition, in spite of some existing but generally inaccessible recordings. Staal's recordings made in Kerala in 1959-61 have been available in the archives at UCLA for a few years (due to the efforts of P. Bhaskararao, then Tokyo). Guni Hesting Kirchheiner's recordings, made in Poona in 1983-4 are preserved at the State Library at Copenhagen (for some $3200, see http://www.kb.dk/en/nb/samling/os/Sydasien/veda.html) (we recently bought a copy for the Harvard Library); Sreekrishna Sharma's (and K.L. Janert's) and B.R. Sharma's recordings of the four Vedas, made at Tirupati in the early Seventies remain inaccessible. In 1983 I was told by a Tirupati official that one has to ask the Kendriya Sanskrit Vidyapeeth, Delhi, for permission, a catch-22 situation.

[264] With the occasional preservation of older traditions just in Kerala, Kashmir or Nepal.

[265] As mentioned above, both the live recitation by Naras Ravindran (recorded in 2011 at Pañjal) as well as the check of a complete Kerala RV recording on CD, yielded the same text as M. Müller's and his successors. The curious inconsistencies in the RV text must be explained differently. (To be discussed in a future paper).

To take up a Vedic example, even the written transmission of Vedic texts is not equally good in all the schools (*śākhā*). Especially texts with a narrow basis of transmission in just *one* region of India (such as Śaunaka and Paippalāda Atharvaveda, Maitrāyaṇi and Kaṭha Saṃhitā) are vulnerable to corruption. They could not easily be counterchecked by the few, frequently dispersed members of the same oral tradition.[266] Once a mistake was introduced in a MS, it would be transmitted down the line and go unchecked by reciters of the same tradition. A notable case is the late change in the Maharastra tradition of the Atharvaveda, as described by Ś.P. Pandit (1895, introduction).

Just like for the Paippalāda Atharvaveda, [267] one of the texts geographically *limited,* it is necessary

- to ascertain exactly the geographical spread of the Vedic school in question and the MSS involved,

- to state the phonetic and scriptural peculiarities of the school in question, especially so with regard to local paleography (as well as on an all-Indian scale),

- to try to ascertain a stemma of MSS and, as far is discernible, also the *archetype* of the tradition in question (as is, by exception, possible for the Paippalāda Saṃhitā),[268]

- furthermore, to evaluate secondary testimony (in grammatical, philosophical commentaries),

- to compare this result with the expected "normal Vedic", which already in Vedic times has been regionally "colored".

Only then, the question can be asked in how far the text transmitted in the MSS / in oral tradition corresponds to the archetype or the recited text if available, to the *authentic* form of a *redacted* text (say, at the time of the Padapāṭha, c. 500 BCE for the RV), or even to the *original* state that the text had at the time of composition. This has not been done yet for most texts, at least not systematically.

The exemplary discussion, here restricted to the Paippalāda Saṃhitā and similar texts, has implications for several areas of Indian philology: First of all, it shows that we could make much more progress in the tracing the history of a particular text if we only had:

(a) *Proper* editions, preferably with *stemma*, or at least with a record of all the variants of the MSS available to an editor;

(b) A paleography of the various post-Gupta 'Siddhamātrikā,' early Nāgarī, and the contemporary regional S. Indian scripts, all of this preferably until c. 1600 CE. Some work is being done in that respect in Berlin, Indoscript project.[269]

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[266] Such checking is excessively seen in the still strongly surviving Kerala tradition of *vāram* recitation; though, as per M. Haug, at Ahmedabad there still was a yearly recitation of the Maitrāyaṇi Saṃhitā in the 1860s (see MS, ed. Schroeder 1881-866, introduction).

[267] See Witzel 1985.

[268] Witzel 1985.

[269] Indoscript: Paläographisch-interaktive Datenbank aller indischen Schriften, a DFG project (May 2000-September 2001) in partnership of H. Falk, Freie Universität Berlin, and Halle University. See http://userpage.fu-berlin.de/~falk/index.htm (only useable by PC); cf. http://www.uni-protokolle.de/nachrichten/text/112563/.

The real problem is that we have -- quite differently from the situation in Roman, Greek or Biblical Studies -- only a limited amount of Indic manuscript material from the late 1st and the early 2nd millennium CE. Apart from the recently discovered Gandhāra MSS (mostly in Karoṣṭhī anyhow), and except for those preserved in Xinjiang (usually Buddhist texts), and some old MSS from Nepal starting around 1000 CE,[270] and a bit later those from Benares and surroundings (preserved, but hardly used, only in Nepal and in Tibet), as well as few from Gujarat (Jaina texts).[271]
For additional paleographic evidence one has to take into account the inscriptions - which usually are much more conservative in the form of the letters they use than the MSS.[272]

(c) More knowledge about local habits of pronunciation, preferably collected from Vedic and other recitation as well as from the evidence in medieval inscriptions. Local pronunciation frequently is the cause of writing mistakes. Ultimately, we need an *historical atlas of the 'phonetic' and scriptural mistakes* which will allow to trace the history of transmission of a particular text.

In short, we need a *paleographical historical atlas* of all Indian scripts that also contains data on scribal variants including combinations of consonants (ligatures). Importantly, such an atlas should also include an almost completely neglected data on local variations of Sanskrit pronunciation. All of which I have proposed some thirty years ago (Paippalāda tradition, 1985, Mahābhāṣya archetype, 1986). [273] Such an atlas has not been forthcoming, though Halle and Berlin scholars have made an effort to produce tables on various historical alphabets.[274]

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[270] With a few dated older ones, such as the older version of the Skandapurāṇa, of 811 CE. We even have a few late Gupta MSS in Nepal including a small fragment of the Pāli Vinaya (von Hinüber 1991). In Nepal, inscriptions provide a useful countercheck on the development of the script in MSS. Many more Nepalese MSS are available in the Siddhamātṛkā script of the 10/11th century

[271] Palm leaf and some early paper MSS from c. 1100 CE onward. Some of these old MSS have been kept under extra-ordinary good circumstances, such as in a cave below the Jaina Jaisalmer temple, where – as a friend reported in 1974-- they are kept in steel drawers that are bigger than the cave entrance: they must have been welded *inside!*

[272] Sometimes visible when a king signs as document, such as by the famous king Harṣa at c. 600 CE. (expressively termed *svahasta*°) and in other medieval copper plates.

[273] Witzel 1986.

[274] http://www.indologie.uni-halle.de/forschung/indoscript.htm, or: http://userpage.fu-berlin.de/~falk/index.htm; for the traditional Siddham script of Central and East Asia, see: http://www.omniglot.com/writing/siddham.htm;

§5.6. History of writing

In addition, the actual history of the tradition of writing as such has not received its proper due.[275] Though (some) MSS variants are listed in editions, more or less consistently as the case may be, they have hardly ever been evaluated for their intrinsic paleographical information. That however is crucial: Indian scripts[276] have undergone at least three major changes[277] since the first inscriptions (c. 250 BCE): the change from Asokan Brāhmī to Gupta and Pallava style scripts in mid-first millennium CE,[278] and the change to Nāgarī (and local South Indian) scripts around 1000 CE.[279] As is common everywhere, just a few centuries later, the older styles could no longer be read well, and hence, older MSS were copied with many mistakes.[280] The results have so far hardly been tested, even in texts that have clearly been written down as early as 150 BCE.[281]

Given the Nāgarī/Grantha bottleneck and the inherent lack of understanding of older MSS, therefore more easily discarded,[282] it should not surprise that a new successful "species" of textual tradition took over around

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[275] There are, of course a number of comprehensive paleographies such as, by now, Salomon 1998, Burnell 1878, etc. and a number of specialized ones such as for Indic Central Asian scripts by Lore Sanders; Devanāgarī (Singh 1991), Śāradā, Oriya etc. However, usually, only the few scholars working on old Central Asian, Gilgit, and the newly discovered Gāndhārī texts, and on the many older Nepalese MSS have some sense of the problems of paleography involved.

[276] Salomon 1998. Cf. now the Berlin-Halle Indoscript project.

[277] So that Asokan Brāhmī could not be read until it was deciphered in 1837 by James Prinsep.

[278] It would be interesting to investigate how the Mahābhāṣya or Aśvaghoṣa's Buddhacarita, (or the pre-Gupta sections of the Mahābhārata and Rāmāyaṇa) have changed between c. 150 BCE and 800 CE, that is to trace the transition from Aśokan Brāhmī to later Brāhmī to early Gupta and then to Siddhamātrikā scripts. I have reconstructed an archetype of (at least the North Indian MSS) of the Mahābhāṣya around 800-1000 CE (Witzel 1986).

[279] Similar processes took place, for example in S. India (Pallava and later scripts); or in Orissa with the change from Eastern Nāgarī to Oriya script around 1400 CE, etc.—Cf. Sarma 2007, Einike 2009.

[280] I merely mention a few of the many mistakes that were introduced by the copyists, for example, Gupta and Siddhamātrikā script *ta* looking more or less like उ > Nāgarī उ *u*, or misunderstanding the *pṛṣṭhamātrā* vowels: ाक > के *ke*, ाका > को *ko*, with the resulting misinterpretations of the ा stroke of ाक etc. as belonging to the preceding character. One of the oldest cases is that in the surprising Pāli list of government officials: *rāja, cora, amātya* etc. 'king thief, minister', where in the predecessor of Nāgarī script had something like राजाचार° *rājā-cāra*° 'king, spy…' > राजाचोर° *rājā-cora* 'king, thief…'

[281] An exception is Witzel 1986 on the Archetype of the Mahābhāṣya; however this line of investigation has not followed up, the reason being that few Indologists know many or all of the South Asian scripts, and even fewer know their older forms. We also do not have a good paleography for MSS written after c. 1000 BCE. However, see now the Halle-Berlin effort, *Indoscript*: http://www2.indologie.uni-halle.de/forschung/indoscript.htm; http://userpage.fu-berlin.de/~falk/index.htm.

[282] See now attested cases of the "burial" of old, or worn out MSS among those found in the Gandhāra region, Salomon, paper at http://gandhari.org.

1000 CE. I suspect that most of our well-known "classical" texts go back to such archetypes, written after the emergence of the (sub)regional scripts.[283]

The situation may vary slightly for texts that rest on a purely local tradition only, as for example many of the Kashmirian texts: the slow changes in the development of Śāradā script do not create the same amount of mistakes, nor the same degree of corruption as found in the "mainstream" Nāgarī traditions. In the latter, a large number of mistakes, if not the majority of the corruptions, occurred during the transcribing process from post-Gupta scripts to Nāgarī at c. 1000-1200 CE. However, all of this has not been researched systematically.

In such cases, it depends very much on the degree and speed of change the script in question when compared to its Gupta time parent (and in the case of still older texts, the change from Brāhmī to Gupta script). Investigations into this process are necessary and would not only provide useful tools for the philologist but, indirectly, also better editions. It is only the few scholars working on old Central Asian, Gilgit, and Nepalese MSS who have a sense of the problems involved and are active in such studies.

A separate investigation should target how far the influence of (particular recensions of) well-known texts that the scribes had (partially) learnt by heart was apt to have changed the written transmission. This applies, of course, only to a few "school" books and favorite religious texts. (See above, for a discussion of BĀUK, *ad* n. 89).

Returning briefly to editing of particular texts: provided an archetype or, if not, the best text we can establish among one or more redacted versions (Greek Classics from Alexandria, the Mahābhārata, etc.) is available, we have to determine in which way we want to study it. First of all, we have to determine what kind of text – oral, mixed oral-scriptural, or purely scriptural-- we deal with (§5.5.), and then draw the necessary conclusion detailed in the preceding paragraphs.

§5.7. The scribes

However, editing and study of the MSS are not helped by the attitude of Indian scribes. Already Albīrūnī (1030 CE) [284] complained bitterly about the carelessness of Indian copyists. As mentioned, an author would not recognize the very first copy of his work as his own.[285] In spite of the copyists' (typically corrupt!) exculpatory verses, *yad dṛṣṭam ... tad liṣitam/likhitam* "whatever has been seen by me, that I have copied; if there is a mistake, it is not mine", etc.[286] their products abound in mistakes that have only partially been corrected by covering the mistakes with yellow paste and/or corrections by superscripts or marginal marks, often by a corrector/reader. (Vedic accents were usually added

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[283] Witzel 1985a: 256 sqq.

[284] Albiruni, transl. Sachau 1879.

[285] Little is actually known about the practice -- and the prices paid. Note (above, n. 230) a deed for a sale that the Kashmiri scholar Bhaṭṭa Haraka signed on Thursday, July 10, 1682. Cf. Katre 1954: 29, on MSS sales, however without reference to actual occurrences. Derrett (1975: 29, 32) discusses the medieval search for the "best" MS.

[286] See examples in K.V. Sarma 2007: 110-123, and Witzel, AV trad. (Proceedings of the 4th Vedic Workshop, Austin, ed. by Joel Brereton, in press, forthc.); also quotes by Olivelle 1998; see Einicke 2009.

in red ink after copying the whole MS, as already seen in the earliest extant MSS of c. 1200 CE; cf. Einicke 2009).[287]

§5.8. Commentary and other testimonials

Even when employing the stemmatic approach,[288] the testimonials of a text must be taken into account as well.[289] W. Rau had stressed already in 1960 that a *critical* edition of Śaṅkara's Bṛhadāraṇyaka Bhāṣya would allow the reconstitution of the earliest reachable version of this Upaniṣad which amounts to the well-known critical principle of using *testimonials*. Some thirty years later, Patrick Olivelle [290] still complained about a persisting bias against commentators, their reliability of textual transmission (1998: 2) (and of the scribal transmission as such).

However, as mentioned, commentaries have first to be critically edited[291] before we can fully rely on their testimony, a *catch-22* of sorts. Only where a commentator *actually discusses* a variation (*pāṭhabheda*) or actual corruptions, "*pramādapaṭha,*" can we be fairly confident that this represents a genuine tradition.[292]

The reception, transmission by recitation or MSS on the one hand, and the indigenous understanding of the texts (in the commentaries) on the other, do not contradict or oppose each other (see above *ad* n.225). We have to use them *in seriation*: a critical edition aims at the "original" text (as far as recoverable in an archetype) and this process can be aided, here and there, by commentarial testimonia.

§5.9. Oral and musical traditions

The role of oral tradition.
Another problem in establishing a text is, as mentioned above (§5.5, §5.9) that early Indian texts were *oral* texts, from the Vedas down to the Buddhist canon and the Epics. The hymns of the *Ṛgveda* were created by bard-like craftsmen schooled traditional Indo-Iranian poetics;[293] the exegetical *Brāhmaṇa* style prose texts were composed by priests who were specialists of the complex Vedic ritual.

It may suffice to point out that these texts were handed down from teacher to students as virtual "tape recordings" of the first millennium BCE

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[287] A particularly amusing case is that of the Kapiṣṭhala Saṃhitā where, after a while, the scribe gave up on placing the proper accents and merely alternated between Svarita and Anudātta; the only edition available eliminates the accents altogether. Cf. the early notes by Burnell 1878: 81-82, and see Witzel 1974 (with *many* printing mistakes; corrected version to follow in this journal).

[288] For example, Katre 1954, Maas 1968, etc.

[289] Katre 1954, Maas 1968, Hanneder 2009-10: 15. -- Related is the case of learned corrections whose authors largely remain invisible.

[290] Olivelle 1998, especially p. 173.

[291] I have frequently impressed on Indian visitors to Harvard over the past quarter century, who asked me what to do in their future work – to no avail.

[292] Olivelle 1998: 16.

[293] See Witzel 2000.

without the change of a word, of a syllable, or even an accent.[294] If one did commit a change or mistake, one would have faced the horrifying mythical fate of Viśvarūpa, whose head was cut off by the god Indra as he had mispronounced a single accent,[295] thereby grammatically turning Indra into his enemy, who *had* to act on this...

It is therefore surprising, even scandalous, that the important oral transmission of the Vedas has so far only been studied in a rather fragmentary way[296] and, worse, that it has been used only for 3 older editions.[297] It is well known that Vedic recitation is usually better than all MSS taken together. Complete tape recordings made decades ago in S. India have not been accessible to scholars.[298]

The history of the Epics is similar; its first assemblage may have occurred around 150 BCE[299] while its redaction has taken place only in the Gupta period (c. 300-500 CE),[300] from which text our various current branches of MSS tradition derive. As M. Parry and A. Lord[301] have sufficiently shown, Epic creation and transmission was never strict like that of the Vedas but rather, it has remained fluid; in the case of the Mahābhārata changes were made both before and even after its Gupta time redaction in mid-1st millennium. Obviously dealing with unstable oral traditions requires a type of philology that is entirely different from that based on written texts. An example of such a procedure may be seen in the treatment by some Vedicists of the perseveration of some Ṛgvedic mantras until they reached their redaction as SV, YV, AV Saṃhitās.[302]

I will again take the Vedic texts as an example here. Many features of the texts still point to their oral composition, for example, the use of deictic pronouns. When the texts say "do it in *that* way," or "this fire, then this fire, then that fire" we simply do not know what *that way, this* or *that* mean. The

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294 Proof is found, e.g., in a paper by J. Klein (1997) on verbal accentuation. It is clear that the traditional reciters of the RV Saṃhitā have transmitted the correct verb accentuation, which they could not learn from grammar, as this case is not recorded by Pāṇini.

295 This is the famous *índraśátru* > *índraśatru* case, already mentioned in the Yajurveda (TS 2.4.12.1, ŚB 1.6.3.8) and by Patañjali (introduction to his Mahābhāṣya).

296 J.F. Staal 1961, W. Howard 1977, 1986, Witzel 1985.

297 AV edition: Shankar Pândurang Pandit1895-98; TĀ edition: Mitra 1872; KB ed.: Sreekrishna Sarma. 1968-1976. (I have an excerpt of his tape recording from Kerala) . -- Satavalekar (1942) says he has consulted two reciters of the Maitrāyaṇi Saṃhitā from Nasik, but this is nowhere indicated in his MS text – which has no variants at all. It is, after all, Śruti. However, a few cases can be discovered by a close comparison of Schroeder's text.

298 It cannot be determined where the tapes of the Janert project (made by Sreekrishna Sarma) went after his death a few years ago; (there is no word from his widow, Ilse at Idar-Oberstein; since 2009, I have been in direct contact with Sreekrishna's son Raghu, who however is busy otherwise). However, Kirchheiner's recordings are stored at the Copenhagen Library. The Shankara University of Kalady, Kerala, has made several recordings (SV, RV, YV) independently.

299 Witzel 2005; see also: Fitzgerald 2006, cf. Hiltebeitel 2005, esp. p. 87sqq.

300 Note the early testimony of the names of its 100 (sub-)*parvan*s recorded in the Spitzer MS, see now Franco 2004.

301 See the work M. Parry (1930-32) and A. Lord (1991).

302 See Oertel 1913, Karl Hoffmann, 1975-6 (passim), J. Narten 1994, 1968, cf. Witzel 1997: 268; 283, 280.

older *Brāhmaṇa* style texts were composed in simple paratactic phrases, and only gradually the language became hypotactic with longer and involved phrases. Typical for them and the oral compositions of this period is the repetitive style, the *Zwangsläufigkeit*, which closely resembles that of the ensuing early Buddhist texts. The subject matter is discussed by adducing several examples that are formulated in virtually the same way, using the same words, phrases, and order of argumentation.[303] Thus, the next sentence or group of sentences are largely predictable. This also serves as a mnemo-technical device that allows for remembering, teaching and learning by heart of long prose passages more easily.

Interestingly, the early Buddhist texts (whether in Pāli or other languages) largely agree in structure. This feature should be studied in cooperation with scholars of, among others, Tibetan and Chinese Buddhist texts. A good synoptic edition of the many versions (Gāndharī, Tokharian, etc.), of the *older* canon would be highly appreciated.

Needless to say, the huge amount of Vedic texts (more than 50 MB?) and of the Buddhist texts (80 MB or 4 million words, in the Pāli version) provide perfect material to study oral composition in general.[304] In addition, the more than 100,000 verses (12 MB) of the Mahābhārata (and the Rāmāyaṇa, with 3 MB) could provide perfect insight into Bardic verse composition. They have, single-handedly, been entered into electronic format by M. Tokunaga in the mid-Nineties, whose work has then been copied, without acknowledgment, by a host of others.

Another mnemotechnical device in the Vedic is the constant use of *pratīka*s, the short heading-like introductory phrases of a prose section or of a *mantra* which immediately evoke the complete passage. Surprisingly, even internal references are met with on occasion (for example ŚB 4.1.5.15 → ŚB 14.1.1), a referral to a text that in our printed editions is found a few hundred pages after the first one. We can even determine that *Brāhmaṇa* texts were composed on the offering ground itself.[305] The Veda-time teacher apparently carried out a dry run of the ritual for his students.

The Buddhist texts too underwent a period of oral transmission similar to the Vedic one; and then underwent several redactions(?) in the (spurious) Buddhist Councils from the death of the Buddha until the first redaction under Asoka (c. 250 BCE).[306] They were apparently first written down in Sri Lanka at c. 50 BCE, as the local chronicle has it. As mentioned before, the early Buddhist texts (whether in Pāli or other languages) largely agree with the Brāhmaṇa and Upaniṣadic texts in their oral literary structure.

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[303] Nevertheless, the order of the ritual is not always strictly followed in the texts. Rather, various myths (*itihāsa*), deliberations (*arthavāda*), incidental allusions to the actions carried out in the rite (*vidhi*), as the later Mīmāṃsā texts classify these items. Note, however, that the "*vidhi*" elements in the *Brāhmaṇa*s do not *prescribe* ritual action, they merely *refer or allude* to them to indicate the topic of discussion.

[304] One typical case is the nearly parallel version of ŚBM and ŚBK; its comparative study has not been taken up cf. However, cf. Minard 1949-.

[305] Some references mentioning the three sacred fires, alluded to above, which are arranged on the offering ground in a slightly irregular triangular fashion, indicate that the speaker (i. e. the teacher) stood between the western and southern fires when explaining the ritual to his young Brahmin students.

[306] See von Hinüber 1998.

The feature of oral tradition is extremely important, too, in the tradition of the Greek Epics, the psalms of the Torah, the early Christian part of the Bible, early Chinese poetry (Shijing) or Japanese mythology: in fact, the preface to the Kojiki (712 CE) refers to the long tradition kept by traditional reciters of Japanese myth and history, the *Katari-be*.[307]

Importance of musical tradition in some transmissions.
There also is the influence of musical renderings on the medieval composition and transmission of Bhakti-type New Indo-Aryan texts (such as collected, for example, in the Sikh canon, the Ādi Granth). The poems, songs indeed, were composed by a variety of medieval authors and have been transmitted orally by bards and reciters, often in musical context. The poems were collected and transmitted according to the melody (*rāga*) they belong to. They have thus undergone changes irrespective of their authors and collections made by individuals or by sects.[308]

This situation is not new to a Vedic specialist. The hymns of the oldest musical texts of India, the Sāmaveda, were almost completely extracted, usually in batches of three, from the oldest Indian text, the Ṛgveda, set to music and transmitted in that form. Soon, these 'songs' were assembled in a 'collection' (Saṃhitā), arranged according to the deities and meters used. These musical texts have undergone some grammatical modernization and perseveration[309] at that time. If we would not have the Ṛgveda in hand we would not know about the *original* arrangement of the extracted stanzas, and their *exact* wording (though much of it could be reconstructed by emendation).

As for the early New Indo-Aryan texts, once they will have been edited properly in their entirety, indexed and analyzed grammatically, many of the difficulties envisioned by Callewaert (1996) will disappear. (Probably, similar arguments can be made for part of the Classical Chinese tradition (Shijing), the poems in the old Japanese Kojiki (712 CE) and Nihon Shoki, 720 CE).

Allowance therefore has to be made in India (and beyond) for the oral transmission of certain types of texts as well as for the influence of the oral transmission of popular texts that may have influenced the written tradition at various stages, which will now appear as 'contamination' in MSS. (see above *ad* n.101, 102).

§5.10. Other necessary prerequisites for editing and interpreting texts

It has been mentioned above that understanding a particular sentence is not the *immediate* aim of a critical edition. However, (initial) understanding and employing a lot of background information play an important role in editing any text. For example, for Vedic texts we have to take into account: the nature and grammar of the Vedic language in its various stages; the setting of the text: its time, place, as well as the contemporary society, natural surroundings and climate; the style of the text: typical Vedic verse or the *Brāhmaṇa/Āraṇyaka*

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307 See now Antoni 2012; Philippi 1968.

308 Callewaert 1996.

309 This refers to accidental exchanges that worsened the form and meaning of the original text by wrong pronunciation, and unconscious modernization, and even deliberate change; see Oertel 1913, K. Hoffmann, 1975-76, passim; Narten 1964, passim; Katre 1954. See n. 302.

prose with its many repetitions, the *Zwangsläufigkeit* ('inevitability') of its way of expression; the parallel texts, and also the medieval exegesis (traditional commentators and *their* setting); the problems concerning the translation of certain Vedic words (see below); and finally, the difficulties in making the train of Vedic thought understandable and readable to our contemporary audience.

If we follow these rather straightforward rules and use all the tools in hand, we can achieve, in archaic Indian Studies (Veda) and probably also in Buddhist studies, a certainty that approaches that of the natural sciences. In fact, we can proceed in a similar fashion, by trial and error, followed by proposing and testing a theory. Only when the word, concept, or custom under study is attested just once (*hapax)* or if it is attested too infrequently to allow a proper investigation of the whole range of meanings, we must remain content with a (merely) probable answer, or a mere guess. In all other cases, after painstaking study, we can conclude that: yes, the theory was right, or no, it was not. All of these are prerequisites for textual study and, indeed, for a good translation.

Types of (anonymous) texts.

In the Indian context, we have to pay attention to the fact that many texts became available in codified form only after they had undergone a period of adjustment and redaction -- all to frequently one of Brahmanization. The Vedas were, by and large, orally composed *by Brahmins for Brahmins*, and thus, the normative role of the Brahmins in the selection, redaction, etc. needs to be highlighted. The same applies –mutatis mutandis-- to Epic, Buddhist and Jaina texts. The exact process of compilation and redaction and of canonization remains a largely untreated issue in Indian Studies. All early Indian texts were orally composed, in verse or in prose,[310] and bear all the hallmarks of oral composition.

A few remarks on oral composition and early oral literature are in place here, whether they concern the Indian texts or the Greek epic, old Iranian texts, the Kojiki, the Bible. Epic texts such as the Iliad, the Indian Mahābhārata, or sections of the Bible, are by their very nature anonymous. They may have received a secondary eponymous 'author', or at best, a bard-redactor such as Homer or the eponymous "Vedavyāsa." If we want to find out the strands or levels in text accretion we must take recourse to independent parameters, such as those of meter, use of particles (by and large an involuntary, very much period-based phenomenon), dialects and other grammatical features.[311]

Another important factor is the role of regional traditions. They appear already in the Vedas, which often have overlapping content and sometimes even largely overlapping wording, but they are restricted to certain areas of N. India. An "original" text, for example for the *Ur*-Yajurveda, is nowhere in sight. Similarly, for the Indian epic: even if we should be able to reconstruct the archetype of its *redaction* in Gupta time (c. 300-500 CE), the text has subsequently proliferated not just into a Northern and Southern version, but

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[310] As mentioned, the hymns of the *Ṛgveda* were created by bard-like craftsmen schooled in traditional Indo-Iranian poetics, but the exegetical *Brāhmaṇa* prose texts were composed by priests who were specialists in the complicated Vedic ritual.

[311] In the Indian context see e.g. S. Mayeda (1965, 1967), concentrating on particles, for Śaṅkara (8th c.) not all of whose works turn out to have been written by him.

into several local ones as well. The central North-Indian one (with Nīlakaṇṭha's commentary) has become especially influential. We may argue, with Russian 'textology' or scholars like Madeleine Biardeau, that such regional versions have a right of existence of their own and need to be studied as separate, influential texts (of a certain time period). Scholars who are interested in the archetype or the 'original' version would often neglect such text forms as 'corrupted'. Obviously, both versions have to be studied.

Or, we may investigate archaic Japanese mythology as preserved in the Kiki (Kojiki and Nihongi/Nihon Shoki). However, there also are many regional variations, reported in the Nihongi as well as in the various local Nara/Heian gazetteers such as the Harima Fudōki.[312] Obviously, they do not always agree with the official version propagated (in the Kojiki) by the court of Yamato/Nara, even if this version includes much of another region, the Izumo mythology. All these traditions need to be studied[313].

Translation and Original Intent

This is not the case with a recent (re-)translation of Manu,[314] where neither the readily available (semi-)critical edition of J. Jolly nor the oldest available commentary of Bhāravi have been used and where matters of *realia* (for example the system of weights) are treated with cavalier neglect. Indeed, it is surprising to see one re-translation after the other (RV, JB, Manu, Gītā, Kālidāsa,[315] etc.) appear in quick succession, while more difficult first translations and editions of many important texts are few and far in between.

The most intriguing and difficult part of editing and understanding is to translate according to the *original intent* of the composers of the text.[316] One has to enter the mind *of the period and the text in question* in order to be able to achieve this aim.[317] There are several stages that usually precede this most difficult part of the translation process.

However, sometimes such terms and cultural data are quite easy to establish. For example, in the Buddhist Pāli texts we find a story which might seem humorous to us, but which is not so in context. The monks have noticed 31 of the 32 marks on the body of the Buddha that a Cakravartin (a "world conqueror") should have. They come and ask him about the 32nd, the long tongue. The Buddha just smiled, stuck out his tongue, and with it, he touched his right and his left ear. -- We may laugh, and so did a Thai abbot to whom I mentioned the story. However, he immediately remarked, like a good philologist, that we have to determine what was meant by this *at the time* of the Buddha: obviously it was important as one of the 32 marks…

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312 Aoki 1997; -- Richardson 1991.

313 A similar case concerns the poems of the Manyōshu which shows clear regional features in some poems, those from the East (Azuma), See Pierson 1929sqq, Keen 1965, Honda 1967, Levy 1981-.

314 Doniger with B.K. Smith 1991.

315 O'Flaherty 1981, 1985; for the flood of Gītā translations, see Callewaert and Hemraj, 1983, with then already some 2000 translations.

316 Amusingly, such questions come up regularly in American political discussions about the (original) intent of the US constitution. Maybe the Congress should employ a few philologists that specialize in the English of the 18th century!

317 See for example: Witzel, How to enter... 1996.

The same applies, a fortiori, to difficult terms such as *dharma/dhamma* or to the Biblical term "son of man" Mt 8.20 (Jesus speaking about himself), etc. (Lk 21.27 etc.): this collocation was *not* intended to mean Christ but it stems from Daniel 7.13: "in the clouds of heaven, he came, like a son of man, before the Old one" --- which, like other items in Daniel, looks rather Zoroastrian: Ahura Mazdā and the savior, *Saošyant.*

Meanings and "ambiguous" words ("*schwierige Wörter*").

It gets even more difficult when regarding the whole *range of meanings* of a given word, in other words, the *aggregates of noemes*[318] that are associated with each word.[319] They have to be *actively* known or acquired by the translator. Only then can we *begin* to understand what certain statements in the text meant to their authors and listeners. Luckily, *Brāhmaṇa* or *Buddhist* prose is explicit enough to provide us with an inkling of the possible range of mental connections made for each word, although we may be surprised time and again about the enormous range, the seemingly strange links, and the unusual shades of meanings that are employed by the authors.

This leads to the most difficult problem, that of "ambiguous" words such as *ṛta* or *dharma,* which are very hard to translate. In fact, *ṛta* is variously translated as 'cosmic law, rule, order, human law, order, customs', etc. There simply is no English, French, German, Chinese or Japanese word that covers the range of meanings. The case is not isolated; it is a well-known problem of translation. For example, French *liberté* or German *Freiheit*, Japanese *jiyū* correspond to both English 'freedom' and 'liberty'. Each time we have to choose the proper English equivalent, just as we have to do with *ṛta*. However, if choosing an *ad hoc* meaning, the reader will never know what is found in the Sanskrit original (*ṛta*), and we would have to explain each time (e.g. in a footnote) that *ṛta* is intended.

Another solution is to translate words such as *ṛta* by just one German or English word, thus '*Wahrheit*'/'truth'. However, neither the German nor the English word covers the *whole* range of meanings of the Vedic word. If we simply translate *ṛta* by "Wahrheit/truth/Truth" we would have to relearn our own language for the sake of reading ancient Indian texts, -- just as Heidegger imposes on us through his idiosyncratic use of German. As with the post-Vedic meaning of *dharma*, it seems that no western language has a more or less corresponding word. (The fairly common translation 'righteousness' does not cover it either). As far as I see, it is only the old Egyptian *ma'at,* and perhaps Sumerian *me* and Jpn. *ri* 'law, truth,' (as in *gi-ri* 'justice, sense of duty', *gi* 'justice, honor', from Chin. *li* 'law, etc.') that convey a similar concept.

What then, does *ṛta* mean? We can approach the problem from its antonym: *druh*. This is easily translated into English as 'deceiving, cheating' or better into German with the etymologically related words '*Trug*, Be*trug*' (cf. Engl. 'be-tray'). 'Deceiving' means to say the untruth (*anṛta*) and to actively carry it out (*druh*). The other side of the coin is speaking the truth (*satya*) and acting according to it (*ṛta*). Thus *ṛta* is an antonym, a force opposite of *deception*, it is the *force of active truth* (*Wahrheitsverwirklichung*). Only *because* of *ṛta* does the sun move in the sky and does not fall down, do the rivers flow in their beds,

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318 See K. Hoffmann 1967.

319 Whether words of Sanskrit or even older English texts such as those of Shakespeare.

does human society function, do people speak the truth and carry out their obligations and alliances (*mitra*), do sons offer for their departed fathers and ancestors. Without *ṛta* we enter into the state of *Nir-ṛti*,[320] of absolute destruction with no light, no food, no drink, no children, -- a sort of Vedic hell to which only those miscreants are sent who have violated the basic order of Vedic society.

But, how to translate *ṛta* then? We cannot put the cumbersome 'active truth' (*Wahrheitsverwirklichung*) into our translations. Another possibility would be to leave the word untranslated. But then, for the general reader important portions of the text would remain unclear. The best solution seems to translate *ṛta* idiomatically but to add the Sanskrit word in parentheses each time, as to allow the reader to gradually understand the concept of *ṛta* with the whole range of meanings it implies.

§ 6. COMPUTER EDITING AND STEMMA GENERATION

Returning now to stemmatics proper, a new chapter[321] in stemmatic research opened with the advent of computer-based editing and stemma preparation. The methods used are derived, by and large, from programs used to establish phylogenetic trees in biology; they have also been applied in comparative linguistics, though with varying degrees of success.

Computer based stemma preparation[322] has been practiced for some twenty years now. It is derived from programs used to establish phylogenetic trees in biology.[323] Curiously, hardly any of these developments, nor even the notion of it, has made it into Indological work[324] (nor, as far as I see, other traditional oriental philologies).

§6.1. Methods

It is best, perhaps to briefly define, first, the various computer methods used in establishing stemmas. Those currently used to infer family trees (phylogenies) existing between biological taxa (i.e. units used in classification or taxonomy, like

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320 See Renou 1978: 127-132.

321 This section as benefitted much from the input, many valuable data and formulations by my former student Brendan Seah, B.A., in his excellent research paper *On Phylogeny in the Historical Sciences*. Dec. 2010. -- Early formalistic approaches include: Henri Quentin, W.W. Greg, Vinton Dearing (below).

322 Starting with Froger 1968; see now Hanneder and Maas 2009-10.

323 Cf. Page & Holmes 1998, Holder & Lewis 2003. -- For use in comparative linguistics, see Ringe 1992, and the (misguided) approach by Gray & Atkinson 2003 that would put Proto-Indo-European at c. 7000 BCE. This would be long before the invention of the oxen-drawn wagon and its many constituent parts, all clearly attested linguistically in the reconstructed Proto-Indo-European, and in the archeology of the mid-late 4th millennium BCE (both in Mesopotamia and in Western Europe), and that of contemporary copper production.

324 Exception are such programs as the Oxford computer editing program, COLLATE, and only recently, the volume edited by Hanneder and Maas, 2009-2010, notably the papers by Phillips-Rodriques (neighbor-joining programs) and Maas (parsimony). Note also http://kjc-fs-cluster.kjc.uni-heidelberg.de/dcs/index.php.

stemmas hierarchically arranged from biological *kingdom* to *subspecies*) include the following.

1. Distance methods.
They look at the differences between the taxa, analyzed as a metric of similarity or difference, which can be measured in various ways. For example, if one compares a certain gene in two taxa (or in our case, a MS variant), one may just count at how many places in the genome they are different. This number represents the *distance*.

For more complex items one takes all possible pairs of taxa (i.e. MS variants), measures the distance for each pair, and tabulates the data. The tree (a neighbor-joining tree) that best fits these distances is then calculated.

Although this is a very fast method, the drawbacks are that information is lost when one compresses data or summarizes them as mere distances.

2. Parsimony methods

They look at individual characters (thus, MS variants) changing their states at different points in the development of the tree during evolution (i.e. MS copying). One assumes, by Occam's Razor, the very principle of parsimony, that the true/best tree requires the fewest inferred character state (MS variant) changes.[325]

Parsimony tends to perform poorly, however, when certain branches in the tree are very long, which is known as "long-branch attraction". In stemmatics that occurs, for example, in some branches of Mahābharata or Rājataraṅgiṇī) transmission.

3. Maximum likelihood.

This method is more sophisticated; it is most often used with molecular sequence data (e.g. DNA or protein sequences). One needs a statistical model stating how the characters (i.e. variants) would have evolved. (The model can use a priori assumptions or it can be based on empirical observations). Different possible tree topologies are then applied to the model to discover which one best "predicts" the existing data.

The benefit of this method is that one can perform statistical tests on the reliability of both the inferred trees and the data used, but it is computationally demanding and time consuming.

§6.2. Precursors

Computer based stemmatics began, in a certain fashion, before the arrival of actual modern computers, with Dom Henri Quentin's Rule of Iron (*règle de fer*).[326] While this establishes the order in which three individual manuscripts of

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[325] Note that if the genealogy were reconstructed wrongly we would have to infer additional reversals and un-reversals of variants that did not actually occur. -- This is further complicated as it does not exclude cases where, in a long transmission, such reversals did indeed occur, as is also seen in linguistics (where we do not have the intervening states, except in reconstruction).

[326] See Quentin 1926 for a characterization: his 'Rule of Iron' (1926; cf. 1922).

a text are arranged the stemmatic direction of their mutual dependence remains unclear. Only after all possible triads have been set up, these individual diagrams are combined into a stemma. If the (per chance preserved) original manuscript (*codex unicus*), from which the others are derived, is included it would be at the head of the family tree, in other words it would be the archetype MS. As we will see below, Quentin's Rule is a distance method, much like those used in biology.

In 1927 W.W. Greg proposed a new method that he called the *Calculus of Variants* (Greg 1927). Greg used a simple parsimony method.[327] His concept of phylogeny is virtually the same as that used in biology today,[328] which underlines the common basis of tackling phylogeny in stemmatics, biology (and we may add, in linguistics and mythology).[329]

Greg applied his methodology to one of the plays from the Chester mystery play cycle, the Antichrist (Greg, ed. 1935). He anticipated a method, later known in biology as Hennig augmentation. This is a simple algorithm for working out the most parsimonious tree, given a binary character matrix (Lipscomb 1990). The reaction to his method was not favorable. Greetham (1994: 328) still says that it is "unfortunately symptomatic of a type of textual criticism which is more enamored of the system it constructs than of the results it might create." The difficulty may be due to Greg's threateningly algebraic notation.

§6.3. "New Stemmatics"

The computer-based approach has subsequently been greatly expanded (Bordalejo 2003) by the 'New Stemmaticists'. The field of combines a group of textual researchers who use computer-based methods that (mostly) have been adapted from biology.[330]

While the early pioneers mentioned above worked before the actual appearance of modern computers Vinton Dearing was a pioneer in actually applying computers to stemmatic analysis. Where horizontal contamination is a problem (such as in the Mahābhārata), variation can be represented as a *ring* instead of the traditional stemmatic forking branch.[331] This allows to represent convergence (immediately below). However Dearing also "breaks" the ring if that is more parsimonious, that is, requiring fewer assumptions. For example, it

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[327] Parsimony does not work as well when one or more branches in the tree are very long ("long-branch attraction"), as in Indian texts (Mahābhārata). Data and methods for such "long branch" variations have still to be developed for medieval Indian copies (Witzel 1985,1985a). -- Greg cites the then recently published *Principia Mathematica* of Bertrand Russell and A.N. Whitehead However, Greg's forbiddingly algebraic proposal was dismissed (see Greetham (1994: 328).

[328] His compact notation for the shape of a phylogenetic tree is virtually identical to that which is used as the machine-readable standard in computational biology today, called the Newick format (Olsen 1990).

[329] Witzel 2012.

[330] See: http://www.textualscholarship.org/newstemmatics/index.html.

[331] Dearing solved the problem of contamination and incidental convergence. See now Maas in Hanneder and Maas 2009-2010: 63-120.

works for convergence: this occurs when two scribes both made the identical mistakes independently in copying two different MSS.

Quentin's work was continued by Dom Jacques Froger. Using the punch-card computer technology available in the 1960s, he wrote programs that automated the task of collating and comparing variants.[332] Froger's work was very influential in the Francophone countries, but was largely ignored in the Anglo-American world of textual scholarship.

Here it was the textual scholar Peter Robinson who initiated the use of computational phylogenetic methods from biology to resolve stemmatic problems. This began in the early 1990s, on electronic discussion boards of the early Internet. Robinson posted a "Challenge" on several such bulletin boards, seeking collaborators to use computer-assisted methods for the reconstruction of a stemma for the Old Norse *Svipdagsmál*. The text is represented by 46 manuscripts written between 1650 and 1830. For them, external evidence is available to counter-check the inferred stemma, making it particularly useful as a test case. Three persons turned in a result, two of whom used a statistical clustering method, grouping manuscripts by overall similarity. The third, Robert J. O'Hara, however, used the cladistic program PAUP, which performs a parsimony analysis. His computer generated cladistic stemma matched the hand-made stemma (and the external evidence) of Robinson, who had taken months for his reconstruction.[333]

Subsequently, the field has seen an explosion of activity, summarized in Bordalejo 2003. Some long-standing stemmatic problems were cleared up: for example, Bédier had been concerned that the same data could without conflict give rise to multiple stemmas, all of which apparently were valid. Saleman[334] showed that in such cases the multiple stemmas shared the same unrooted topology (i.e. they had the same MS family branches), and only differed in where their root (the archetype) was placed. Root placement in a tree (whether in biology, stemmatics, linguistics or comparative mythology), typically requires additional, external evidence.

As far as we can see now, parsimony (e.g. as implemented in the PAUP program) seems particularly well-suited for stemmatics, as opposed to other tree building methods such as neighbor-joining and other distance-based methods. This is so because the number of characters (i.e. variants) is relatively small, compared to most biological data sets. This may be especially be true for Classical texts with their relatively few manuscripts for each text, however, the situation changes with regard to South Asia where there often is an abundance MSS for a particular text. How many Mahābharata MSS may exist?

In subsequent publications from Robinson's research group, i.e. their stemmatic analyses of Dante's Monarchia (Windram et al. 2008) and the Canterbury Tales (Baarbrook et al. 1998), they used the method of *split*

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[332] Review by Dearing 1969. . -- Note the similarly early use of punch cards (though for a different purpose) by Wenck 1954- in Japanology. It has remained without repercussion.

[333] Robinson & O'Hara 1992, 1996, O'Hara & Robinson 1993; Robinson 2003.

[334] Cited in Bordalejo 2003.

***decomposition*,[335] in addition to parsimony analysis. The team of the biochemist Chr. Howe of Cambridge University and the manuscript scholar Peter Robinson of de Montford U., Leicester, have early on investigated Chaucer's Canterbury tales using a distance program.[336] However, I find the results, as summed up in a popular science magazine[337] somewhat naive: "of 58 MSS..., 11 ... have fewest variations but even they contain significant differences... [therefore] Chaucer's original text [of 850 lines of 'Wife of Bath's Prologue', a part of the Canterbury Tales] was probably not a finished product but a working draft... the 11 copies ... incorporate different versions of that rough draft... In the ... Prologue there are some 26 lines ... that occur in some MSS but not in others... Chaucer wrote these originally and then changed his mind and decided that he would delete them." -- Many other scenarios are possible.[338] But all of this is already interpretation (*emendatio*). They also deal with contamination.[339]**

What we need to properly evaluate such approaches is to run a test similar to the one done for the *Svipdagsmál* (above) against a text with well-known authorship and the author's equally well-known extant copies. Examples may include Hemingway or Mark Twain. We can then see in how far the computerized stemma will be correct with regard to the evidence known otherwise.

Only very recently the question of computer-based stemmas (and other questions of critical editing) have finally[340] been taken up by a group of Indological scholars, see some contributors in: Hanneder, Jürgen and Philipp A. Maas, *Text Genealogy, Textual Criticism, and Editorial Technique*. *WZKS* 52-53, 2009-2010, 1- 306.[341]

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[335] This is a network method, which allows for the depiction of horizontal transfer and convergence events in the course of evolution, such as transfer of loanwords and *Sprachbund* phenomena in linguistics, or contamination in MSS, see Seah 2010: 22.

[336] http://www.tei-c.org/About/Archive_new/ETE/Preview/robinson.xml; Pidd, *et al.*1997.

[337] *Discover. The world of Science*, Dec. 1998, p.34. See also: http://ccat.sas.upenn.edu/bmcr/1992/03.03.29.html; http://www.nyu.edu/its/humanities/ach_allc2001/papers/spencer/index.html; http://llc.oxfordjournals.org/cgi/content/abstract/18/4/407, etc.

[338] For a critique of Robinson by Roy Vamce Ramsey see: http://www.jstor.org/discover/10.2307/40371902?sid=21104953133101&uid=3739256&uid=2&uid=4&uid=3739696.

[339] "For the distance measure we discuss here, our preferred technique is to add edges to the tree so as to minimize the sum of squared differences between observed distances and shortest distances on the resulting network (Makarenkov and Legendre 2000).

[340] Published after the original draft (2008) of this paper for the Taiwan philology conference.

[341] Notably, after the introduction by Jürgen Hanneder p. 5-16, Philipp A. Maas: Computer Aided Stemmatics - The Case of Fifty-Two Text Versions of Carakasaṃhitā Vimānasthāna 8.67-157, p. 63-120; as well as: Christina Pecchia: Transmission-specific (In)utility, or Dealing with Contamination: Samples from the Textual Tradition of the Carakasaṃhitā, p. 121-160; cf. also Pascale Haag: Problems of Textual Transmission in Grammatical Literature: The pratyāhāra Section of the Kāśikāvṛtti, p. 45-62; and for the history of textual studies: R. Grünendahl, Post-philological gestures – "Deconstructing" Textual Criticism, p. 18-28.

§ 7. PROSPECTS

Coming back, then, to the various types of problems in establishing a stemma of an Indian text. The actual "thinking work," to speak with Housman (above), of actually performing the collation,[342] deciding on which variants to include in the analysis, and evaluating the computational results critically, still very much require a textual critic who is sensitive to historical and humanistic aspects. Textual critics are not (yet) being "driven out of business", even though they can now spend less time on the *seemingly* relatively mechanical[343] task of establishing a stemma. Yet, as Maas would point out, having a stemma (or we may add, an early version of a Bardic text) is only the starting point for the processes of *emendatio* and producing a critical edition.

In sum, I would thus rather maintain that the means of critical editing as described in the sections above -- including the recent biology-derived computational stemmatic methods -- have not been exhausted at all by recent and modern Indologists -- not by a long shot.[344]

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If it sounds unbelievable to the critics of the stemmatic method that we can actually achieve a good edition, sometimes even one based on a single MS, I maintain that, e.g., in the case of a Vedic text,[345] we can 'enter the Vedic mind' and argue from the inside, somewhat in the Alexandrian mode, while following the thought pattern of the Vedic authors.[346] I can simply point to my own experience, now some 40 years ago. It concerns the restoration of the beginning – the first 5 lines or so -- of the Kaṭha Āraṇyaka that I edited then (1972*)*. As the facsimile shows,[347] the unique codex is rather fragmentary. While working from a microfilm when restoring and then translating the fragmentary text, I had to rely on the number of missing letters as well as on the fragments of letters (top, or bottom) and, importantly, as countercheck, also on the accent marks above and below the lines that had partially been preserved. Since that was the

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[342] Scanning MSS still is much too imperfect due to the multiple hands and scripts. However, note now the efforts of O. Hellwig (Heidelberg) and P. Scharf (NEH project).

[343] However, Kölver (1971) elaborately shows that this is not exactly true. Establishing a stemma (by hand) requires endless hours of burning the midnight oil, as he says, as well as, frequently, considerable insight.

[344] Note also the Berlin project "Zukunftsphilologie" (zp@trafo-berlin.de; 2013): "A research program revisiting the Canons of Textual Scholarship… which supports research in marginalized and undocumented textual practices and literary cultures with the aim of integrating texts and scholarly traditions from Asia, Africa, and the Middle East as well as from Europe itself. The program takes as its point of departure the increasingly growing concern with the global significance of philology and the potential of philology to challenge exclusivist notions of the self and the canon."

[345] There are the attested cases of K. Hoffmann's emendations to the first edition of the Paippalāda Saṃhitā by D.M. Bhattacharya (*IIJ* 11: 280-237= 1975-76: 228-237.) They have subsequently been confirmed by the discovery of new MSS and the publication of their variants by K.C. Acharya (1971). They agree with Hoffmann's emendations.

[346] For details see Witzel 1996. http://www.people.fas.harvard.edu/~witzel/How-to-Enter.pdf.

[347] See now Witzel 2004, with the reproduction of the old black and white microfilm and the color plates taken from the newly restored birch bark MS.

first section of my thesis, I spent a lot of time on this, filling in the lacuna as best as I could based on these technical data (*recensio*).

In addition, however, I studied similar phrases and the occurrences of a few key words retained in the fragment. The restoration was indeed supported by the style of the text: the 'inevitability' (*Zwangsläufigkeit*)[348] of Brā*hmaṇa* style: the initial, half peeled off sentence is more or less repeated, albeit in somewhat changed form, by a later one. But how to be sure? Fortunately, the passage contains another clue, the frequently met with concepts of "thought-speech-action" (*manas - vāc - karman*), a collocation that is found not only in the *Veda* but also in the closely related Old Iranian texts (*manah - vacas - šiiaoϑna,* Yasna 34.1-2).[349] Therefore, I was completely sure that I had restored the text correctly.

When I finally went back to Tübingen University Library to re-check the original MS, I noticed that a portion of my initial *lacuna* was covered by a small, dislodged piece of birch bark that had overlapped with my text. That state of affairs was not visible in the microfilm. When I lifted the dislodged fragment, I found the text I had restored.

If we can write Vedic Sanskrit texts that well, we can also edit, translate and understand them.

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348 K. Hoffmann, 1975-76, pp.79, 92, 100, 156sq, 182.

349 Probably due to Iranian influence, also in the Bible.

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ABBREVIATIONS

AV Atharvaveda Saṃhitā

BĀU Bṛhad Āraṇyaka Upaniṣad

ChU Chāndogya Upaniṣad

DFG Deutsche Forschungsgemeinschaft

IIJ Indo-Iranian Journal

JAOS Journal of the American Orienta Society

JB Jaiminīya Brāhmaṇa

JUB Jaiminīya Upaniṣad Brāhmaṇa

KB Kauṣītaki Brāhmaṇa

KauṣU Kauṣītaki Upaniṣad

KS Kaṭha Saṃhitā

MGS Mānava Gṛhya Sūtra

MS Maitrāyaṇi Saṃhitā

MSS manuscripts

PS Paippalāda Saṃhitā

RV Ṛgveda Saṃhitā

ŚB Śatapatha Brāhmaṇa
ŚBM Śatapatha Brāhmaṇa, Mādhyandina
ŚBK Śatapatha Brāhmaṇa, Kāṇva

StII Studien zur Indologie und Iranistik

TĀ Taittirīya Āraṇyaka

TS Taittirīya Saṃhitā

TU Taittirīya Upaniṣad

VādhB Vādhūla Brāhmaṇa (= Anvākhyāna)

VSM Vājasaneyi Saṃhitā, Mādhyandina
VSK Vājasaneyi Saṃhitā, Kāṇva

WZKS Wiener Zeitschrift zur Kunde Südasiens

YV Yajurveda (Saṃhitā)

ZDMG Zeitschrift der deutschen morgenländischen Gesellschaft