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INDIA AND THE WEST AND THE HISTORY OF SOUTH ASIAN STUDIES

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Mesopotamian and Greek Astronomy in India

When Wilhelm Halbfass published his magisterial *Indien und Europa* in 1981, the full extent of the interrelationship between the astronomies of the ancient world were not yet widely known among historians (including historians of science) nor was the methodology used for establishing those interrelationships well understood. Halbfass, of course, is particularly interested in the mutual influences of Indian and European philosophy upon each other in the past two centuries, but he does speak about broader influences in earlier periods. In his chapter assessing India's reputation for xenophobia Halbfass (1981: 209-210) also briefly refers to the Greek influence on the Indian exact sciences. In an attempt to enlarge upon my readers' understanding of the theoretical basis, established by Neugebauer (1956 and 1957), for asserting that a substantial interaction between India and the rest of Eurasia did take place over the long period from about 1000 BC till the present time, during which India was both a recipient and transmitter of scientific ideas, and to exemplify the results of modern investigations into this broad field by detailing the progressive adaptation by Indian astronomers of ideas originally formulated in Mesopotamia and in Greece I offer the following paper.

While all mankind has the potential to see celestial phenomena, to attribute specific meanings to them is an intellectual act that has been repeated many times in different ways in different cultures over time. This is clear from the differences between what, for example, Pharaonic Egyptians, early Sumerians and Akkadians in Mesopotamia, Ṛgvedic Indians, the early Chinese, and the ancient Mayans described and failed to describe of what they saw in the heavens and what significance they gave to their observations. They did not start out with the same perceptions or the same interests so that one would not expect them to have eventually arrived at similar complex theories such as mathematical models for predicting certain periodic celestial events or theories of astral influences on human lives. Yet, while all five cultures eventually possessed some forms of mathematical astronomy, those of Mesopotamia (ca. 1500 BC - AD 100), India (ca. 1000 BC - AD 1900), and Greece (ca. 800 BC - AD 600) are closely interlinked by common parameters and mathematical models. Egyptian mathematical astronomy, on the other hand, is very limited in its scope and evidently modelled on Mesopotamian and Greek sources, while the Chinese is quite different, though in the first two millennia of the current era variously influenced by Western ideas, and the Mayan remained both limited in scope (their principle interest was in Venus and the Moon) and uncontaminated by external influences.

The historical development of astrology reinforces these distinctions and similarities between cultures with regard to mathematical astronomy. Its beginnings can be found in cuneiform texts of the last four centuries BC, but it achieved its classical form only when Mesopotamian concepts were combined with Aristotelian physics in about 100 BC. In AD 149/150 a Greek text on the resulting horoscopic astrology was translated into Sanskrit; it, and other translations from the Greek, are the foundation of Indian astrology, though it was combined with other related ideas already present in Indian thought and, of course, its predictions were altered to fit the expectations of Indian society. From India, through Buddhism, it spread to the Far East, and from both Greece and India to Iran and elsewhere. However, it never appeared among the Mayans, though they were much interested in making predictions based on celes-

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tial events. For an exposition of this vision of the early history of astral omens and astrology see Pingree 1997.

We know from our own experience that "scientific" and other ideas, no matter how complex, are often transmitted from one culture to another, though they may be altered to some extent in their transmission; the historical process is still going on. The history of horoscopic astrology gives us a model for how such transmissions occurred in antiquity. The proof in the case of astrology lies in the arbitrary nature of its assumptions, such as that there are just twelve divisions of the ecliptic, bearing the names of particular types of animals (including humans); that these twelve constellations are subdivided into four "triplicities" with three constellations in each; or that the seven planets (including the Sun and the Moon) are either benefic, malefic, or neutral. All these arbitrary assertions are found in cuneiform texts, and are repeated in Greek, in Sanskrit, in Pahlavi, etc. Other elements – cardines, cadents and succedents, terms and the twelve astrological places for instance – were introduced by the Greeks, and can be traced through all their successors. No one could have come up with exactly the same arbitrary ideas independently; nothing that occurs in the perceptible world would have suggested them. Moreover, the Greek technical terms are simply transliterated into Sanskrit, which, of course, had no words for these foreign concepts; and the Sanskrit terms are found transliterated into Pahlavi, Arabic, Hebrew, Byzantine Greek, Latin, etc., marking a clear trail of continuous transmission from one culture to another.

In mathematical astronomy the arbitrary elements are the mathematical models (they, of course, are not physically present, but are invented by individuals working within particular intellectual traditions in which certain approaches to mathematics are preferred) and the parameters, that is, the numbers from which the mathematical operations begin. These parameters could not be directly observed; they were deduced from a large number of necessarily inaccurate observations (the ancients relied on unaided vision and had no instruments for keeping time accurately). A wide range of possible parameters had to be and were considered and used. Both the mathematical models and the parameters in any text, then, while restricted in range and derivation by the tradition to which the author belonged, were arbitrary both in the sense that neither has an observable existence and in the sense that any author could make alterations in either the mathematics or the numbers. Those who so altered their traditions, if they did it cleverly and persuasively, were those who advanced science.

When, therefore, we find in an astronomical text of one culture mathematical techniques that can be shown to have been developed in another culture, we must feel that there is a strong case for transmission. If the mathematical model is used to solve the same or a similar problem, we become more sure. Probability increases when it can be shown that the hypothesized originator is older than the hypothesized recipient. Greater certainty follows if the same parameter is used. Absolute certainty follows the recipient's use of a transliteration of one of the originator's technical terms. Examples of all these levels of probative evidence exist in abundance.

This method of investigation was brilliantly used by O. Neugebauer in his fundamental studies between the 1920's and 1980's; I have referred previously to two of his summaries of the results he had reached by the mid 1950's. Seldom is certainty possible in historical investigations, but the careful use of these arguments combined with common sense leads to very persuasive results – persuasive, that is, to those who take the trouble to understand the assumptions and the methodology. Unfortunately, many contemporary scholars do not like the results for political reasons; they mistakenly believe the methodology and its practitioners to be

Eurocentric, but rather it and they attempt to deflate the European assumption of uniqueness, and to show that the various cultures of Eurasia in science as in art, literature, and other disciplines have mutually stimulated and influenced each other over several millennia, and that none of them, as was argued by Pingree (1992a), can justifiably lay claim to superiority.

Within the framework outlined above, a hypothesis concerning a specific case of transmission may be regarded as achieving a low or high level of probability depending on how many of the ranked criteria are satisfied. The hypotheses I have advanced concerning Mesopotamian influence on Indian astronomy and omens in the last millennium BC meets, in my opinion, all the criteria except the last. Thus various elements of the cuneiform text called MUL.APIN (*MA*), which was composed in about 1000 BC on the basis of material some of which goes back to the middle of the second millennium BC, appear, as was shown by Pingree (1989), in relatively late Vedic texts such as the lists of twenty-seven or twenty-eight *nakṣatra*s (cf. *MA* 1,4,31-39) found in book 19 of the *Atharvaveda*, (cf. *AS* 19,7,2-5), in the *Taittirīyasāṃhitā* (cf. *TS* 4,4,10,1-3) and *Taittirīyabrāhmaṇa* (cf. *TB* 1,5 and 3,1,4-5), and elsewhere; the primacy of the Pleiades (MUL.MUL in cuneiform, Kṛttikāḥ in Sanskrit) in describing the path of the Moon among the stars; the "ideal" year of 360 days (cf. *MA* 1,2,36-3,12) in *maṇḍala* 1 of the *Ṛgveda* (cf. *ṚS* 1,164,11) and in book 4 of the *Atharvaveda* (cf. *AS* 4,35,4); the reference in *maṇḍala* 1 of the *Ṛgveda* (cf. *RS* 1,25,8) and in the *Taittirīyasaṃhitā* (cf. *TS* 4,4,11 and 1,4,14) to a thirteenth, intercalary month (cf. *MA* 2,1,9-24 and 2A 1-2,20); the use of *amānta* rather than *pūrṇimānta* months in later Vedic liturgical texts like the *Kauṣītakibrāhmaṇa* (cf. *KB* 19,2); the description of the motion of the Sun's rising-point along the eastern horizon between the two solstices (cf. *MA* 1,1,11-13 and 17-18) also found in the *Kauṣītakibrāhmaṇa* (cf. *KB* 119,3); and the association in the *Śatapathabrāhmaṇa* (cf. *ŚB* 2,1,2,3-4) of the Pleiades with the east and Ursa Maior (MAR.GID.DA in cuneiform, Saptarṣi in Sanskrit) with the north (cf. *MA* 2,1,68-70). As is to be expected in most transmissions of knowledge, each of these ideas is expressed in Sanskrit in a different manner than it was expressed in cuneiform; if the idea is relatively simple, the recipient culture impresses its own norms upon it and fits it into its own prevailing concepts.

The transmissions mentioned above seem to have occurred essentially at the very end of the second or in the first half of the last millennium BC. In a period somewhat earlier than this we know of intercourse between Vedic Indians and Mesopotamia from the famous Mitanni material. Such contact could have continued into the last millennium BC either overland, through Iran, or by sea; both routes had been used in Harappan times and were later followed in the Achaemenid period. Indeed, with the establishment of the Achaemenid Empire and its extension into Gandhāra and Sind shortly before 500 BC the ease of communication between Mesopotamia and India was greatly enhanced, and Indian calendrics and astral omens received new impetus.

The main astronomical text of this period – the first devoted to this subject in Sanskrit – was the *Jyotiṣavedāṅga* attributed to Lagadha in its *Ṛk*-recension; the composition of this text I would place in Gandhāra in the late fifth century BC, when this area was under Achaemenid control, though others believe it to have been written in the twelfth century BC. Their dating is based on taking the *Jyotiṣavedāṅga*'s statement (cf. *JV* 5-6) that the Sun and the Moon are together in the beginning of the *nakṣatra* Dhaniṣṭhā on the winter solstice at intervals of five years to be based on observations made at the time of the text's composition. That this statement is not based on observations is clear from the fact that it is spectacularly false, since the *Jyotiṣavedāṅga*'s *yuga* is incorrect. Five solar years do not contain sixty-two synodic months;

they fall short of that number of months by about six days, so that the Moon is about 80° from the Sun on the winter solstice at the beginning of the second five-year period. Lagadha, of course, has no chronological framework with which to inform his reader of the epoch at which a conjunction of the Sun and the Moon at the winter solstice actually occurred; the fact is that such events are infrequent, and any user of the five-year cycle, if he were making observations, would realize this fact at the conclusion of just one cycle. The choice of five years with two intercalary months is not based on observations, but on the five-year Cāturmāsya sacrifice described in the *Maitrāyaṇīsaṃhitā* (cf. *MS* 1,10,5) and the *Kāṭhakasaṃhitā* (cf. *KS* 36,3). The five-year Cāturmāsya sacrifice introduces months of rest after the first thirty-six months and after the last twenty-four months – i.e., after the third and the fifth twelve-month years. This distribution of "intercalary" months is also described in the *Mānavaśrautasūtra* (cf. *MŚS* 1,7,12-18). Lagadha substitutes computation for ritual requirements, and places the two intercalary months at the middle and the end of the *yuga*, each being separated from the other by thirty months. That the condition that the conjunction occurs at the winter solstice was not regarded as realistic by those who followed the *Jyotiṣavedāṅga* is evident from the *Paitāmahasiddhānta* summarized by Varāhamihira in chapter 12 of his *Pañcasiddhāntikā*, whose epoch is 11 January 80 AD, when the longitude of the conjunction was 290° (20° beyond the winter solstice), and from the *Śārdūlakarṇāvadāna*, which, while it begins all of its many lists of *nakṣatra*s with Kṛttikāḥ, places the winter solstice in the *amānta* month that begins with a conjunction in Pūrvāṣāḍha (cf. *ŚA* p.102); this places the vernal equinox in Aśvinī rather than Kṛttikāḥ.

What determines the date of the *Jyotiṣavedāṅga*, then, is its other astronomical contents, and these are strongly influenced by Mesopotamian methods belonging to the period up to about 400 BC, as I have argued in Pingree 1973. It is important to note that all of the Mesopotamian features mentioned below appear in India first in the *Jyotiṣavedāṅga*:

1.) The time-measuring instrument, the out-flowing water-clock (cf. *JV* 7 and 16-17). Used in Mesopotamia since the early second millennium BC (cf. Hunger and Pingree 1999: 50).

2.) Linear zig-zag functions to determine periodic variations in times (cf. *JV* 7 and 22). Used in Mesopotamia since the early second millennium BC (cf. Hunger and Pingree 1999: 46 and passim).

3.) The ratio of the longest to the shortest daylight taken to be 3:2 (cf. *JV* 7 and 22). Used in Mesopotamia since the eighth century BC (cf. Hunger and Pingree 1999: 80-81).

4.) The use of thirtieths of a synodic month, which are called *tithi*s in the *Jyotiṣavedāṅga* (cf. *JV* 8 and passim). Used in Mesopotamia since about 600 BC (cf. Hunger and Pingree 1999: 202).

5.) The division of the ecliptic into twenty-seven equal arcs named after the twenty-seven *nakṣatra*s (cf. *JV* 14, 18, and 25-27). This is in imitation of the Babylonian division in about 400 BC of the ecliptic into twelve equal arcs named after twelve constellations (cf. Hunger and Pingree 1999: 146).

6.) The attempt to produce a mathematically controlled luni-solar intercalation scheme (cf. *JV* 1, 4, 8, and 32). Mesopotamian astronomers had devised such a scheme by the sixth century BC (cf. Hunger and Pingree 1999: 184).

These elements would have been transmitted to Gandhāra through Iran. The Achaemenids had adopted for their calendar the Egyptian year of 365 days, according to the hypothesis put

forward by Taqizadeh (1952) before about 440 BC; this year was in turn used by Lagadha, but was expressed as 366 (sidereal) days in order to have an equal number of "days", 183, in each *ayana* so that each half of the linear zig-zag function would also be equal (cf. *JV* 22). Sidereal days were used in India also in the *Lāṭyāyanaśrautasūtra* (cf. *LŚS* 4,8,4-7) and in the *Nidānasūtra* (cf. *NS* 5,11-12), two texts contemporary with or slightly later than the *Jyotiṣa-vedāṅga*.

Contemporary with the transmission of Mesopotamian astronomy to India in about 400 BC was that of Mesopotamian omens, derived from the two series *Šumma ālu* (terrestrial omens) and *Enūma Anu Enlil* (celestial and atmospheric omens; these had been supplemented with many new omens in Mesopotamia in the eighth and later centuries BC). At the beginning of the *Dīghanikāya*, in the *Brahmajālasutta* (cf. *D* i,1,21-27), the Buddha is represented as enumerating the varieties of omens observed by Indian diviners. These, as has been shown in Pingree 1992b, not only coincide almost perfectly with the contents of *Šumma ālu* and *Enūma Anu Enlil* together with the cuneiform series *Ziqīqu*, on dream interpretation; the Buddha's description of terrestrial omens in general follows the order of *Šumma ālu*. The Indians even utilize *śānti* rituals to avert the consequences of bad omens just as the Mesopotamians used *namburbi* rituals.

In the Sanskrit *saṃhitā*s that present these omens in their Indian interpretations are embedded theories of planetary motion that are described in Pingree 1987a and 1987b. These, which again are unprecedented in India, seem to be adaptions of Babylonian planetary theories found in the *Procedure* and other texts analyzed in Hunger and Pingree 1999: 206-210 that are based on the arcs and times that intervene between the occurrences of the Greek-letter phenomena (first visibility, first station, acronychal rising, second station, and last visibility for the superior planets; first visibility, first station, and last visibility in the west and in the east for the inferior planets); these arcs and times are often varied in specific parts of the ecliptic and divided into smaller steps intermediate between the phenomena, and the times are expressed in *tithi*s. In the Sanskrit *saṃhitā*s, the subdivisions of the ecliptic, called paths, streets, or circles, are expressed in terms of *nakṣatra*s, and the times are expressed in civil days.

Such were the astronomical theories available to the Indians when the extensive trade by sea between the Mediterranean and the Indian subcontinent that began in the first century AD, and the settlement of Greek-speaking colonists in Western India, made possible the translation of treatises on both astrology and astronomy from Greek into Sanskrit in the second and later centuries AD. I have dealt elsewhere (cf. *YJ* Vol. 2, pp. 195-415, and Pingree 1997: 31-38) with the influence of Greek astrology on India; here I wish to speak primarily of the influence of Greek astronomy on Indian astronomy in the period before the introduction of its siddhāntic form, which influence can be better appreciated now than previously because of the recent publication by Alexander Jones (1999) of a large corpus of astronomical papyri from Oxyrhynchus. The Sanskrit texts, which are clearly of Greek origin, display an astronomy that is a mixture of Greek and Babylonian material with the Indian material described above; I have called it "Greco-Babylonian". There was some evidence known previously from Greek texts and papyri for the existence of this Greco-Babylonian astronomy in the Roman Empire summarized in Pingree 1978: 538-554; the Oxyrhynchus papyri abundantly testify to its presence in Roman Egypt.

In AD 149/150, in the territory of the Western Kṣatrapas, while Rudradāman I was ruling from Ujjayinī, a "Greek" calling himself Yavaneśvara translated into Sanskrit prose a Greek

treatise on astrology that had been produced, probably at Alexandria, in the early second century. This prose version was turned into the *upajāti* verses of the *Yavanajātaka* in 269/270 by Sphujidhvaja, who bears the title *rājā* and is therefore probably, like Yavaneśvara, a leader of the Yavana community in Western India. Despite this Greek connection, he has extensively Indianized the text, including the last chapter, numbered 79, on astronomy.

Sphujidhvaja's calendar, which he attributes to "the best of the Greeks" (cf. *YJ* 79,3), is based on an intercalation cycle of 165 solar years; it appears not to be Greek in origin, but rather 33 five-year *yuga*s in each of which are $2\ ^{5}/_{33}$ intercalary months. In this *yuga* there are 60,272 days, 61,230 *tithi*s, 60,437 sidereal days; and 1,980 solar months, 2,041 lunar months, 2,206 sidereal months, and 61 intercalary months (cf. *YJ* 79,6-10 and 20). This calendar may be that used by Rudradāman I for the first time in India in 150 since it was shown in Pingree 1982 that he introduced the calendar based on solar years, synodic months, *pakṣa*s, and *tithi*s into Indian epigraphy. The time-units are those of the *Jyotiṣavedāṅga*, but the parameters are much improved. A year in Sphujidhvaja's *yuga* equals the somewhat too high values 6,5;17,30 days and 6,11;5,27 *tithi*s. Their inaccuracies derive from the fact that the period of 165 years with an integer number of days is not long enough for an accurate relation. In another verse (cf. *YJ* 79,5) it is said that 165 years contain 990 seasons, and that each season contains 62 *tithi*s; this implies that a year consists of 6,12 *tithi*s, the number implied by the *Jyotiṣavedāṅga*. Other elements of the *Jyotiṣavedāṅga* used by Sphujidhvaja are time-measurements such as *nāḍikā*s and *muhūrta*s (cf. *YJ* 79,27-29), the ratio 3:2 of the longest to the shortest day in the year (cf. *YJ* 79,31) and the use of an outflowing water-clock (cf. *YJ* 79,28-29). From an earlier Indian source is probably derived his rule for using a gnomon (cf. *YJ* 79,32); and his rules for computing the *ahargaṇa* seem completely Indian (cf. *YJ* 79,16-20). Purely Greek, however, are his use of the twelve zodiacal signs with names derived from those they have in Greek, the division of the ecliptic into 360 degrees (though both were dependant on Mesopotamian sources), and the planetary week-days. The rest is Greco-Babylonian.

These elements include a linear zig-zag function for solar velocity (cf. *YJ* 79,23) (compare column A of Babylonian lunar System B [cf. Hunger and Pingree 1999: 236-237], Oxyrhynchus papyrus 4163 [cf. Jones 1999: Vol. 1, pp. 151-153, and Vol. 2, pp. 100-101], and Paul of Alexandria [cf. Ἐ 28] as well as the *Pauliśasiddhānta* according to the *Pañcasiddhāntikā* [cf. *PS* 3,17]); a linear zig-zag function of lunar velocity (cf. *YJ* 79,24-25) (compare column F of Babylonian System A and of System B [cf. Hunger and Pingree 1999: 233-234 and 239-240], and note that the discovery by Neugebauer [1988] of a Greek adaptation of column G of System B taken together with Hipparchus' knowledge of System B's lunar parameters [see Hunger and Pingree 1999: 236, 238, 239, and 241] prove that the entire method of computing lunar phenomena by System B was known to Hellenistic astronomers); the separate *yuga* for each of the five star-planets in which a given number of first visibilities occur in a given number of years (cf. *YJ* 79,33-38) (compare the Babylonian Goal-Year Texts [cf. Hunger and Pingree 1999: 167-172], whose periods were known to Ptolemy [cf. ΣΜ 9,3], and the almanacs dubbed by Jones "perpetual" [cf. Jones 1999: Vol. 1, p. 176], two examples of which are Oxyrhynchus papyri 4197 and 4198 [cf. Jones 1999: Vol. 1, pp. 214-215, and Vol. 2, pp. 256-267]); and the motions in degrees of each star-planet between its Greek-letter phenomena (cf. *YJ* 79,40-51) (compare the planetary theories in the Sanskrit omen texts together with their Babylonian predecessors, some of the Greek and Demotic "sign-entry almanacs" [cf. Jones 1999: Vol. 1, pp. 42-44], the "monthly almanacs" represented by Oxyrhynchus papyri 4199-4204 [cf. Jones 1999: Vol. 1, pp. 215-219, and Vol. 2, pp. 268-293], and the "tem-

plates" in Oxyrhynchus papyri 4165-4166 and, probably, 4217 [cf. Jones 1999: Vol. 1, pp. 155-160 and 232 -235, and Vol. 2, pp. 110-117 and 322-325]). The numbers provided by Sphujidhvaja are seldom exactly the same as those in the Akkadian and Greek sources, nor are those in the originating systems always the same. It is the identity of the structure of so many elements in the *Yavanajātaka* and the Greco-Babylonian material and the fact that Sphujidhvaja attributes them to the Yavanas that persuades us of their dependence on Greek sources.

But the principle Sanskrit witness to the transfer of Greco-Babylonian astronomy to India is the *Pañcasiddhāntikā* composed by Varāhamihira in the middle of the sixth century AD, in his summaries of the *Vasiṣṭhasiddhānta* (a different *Vasiṣṭha* is already referred to by Sphujidhvaja [cf. *YJ* 79,3]), the *Pauliśasiddhānta*, and the *Romakasiddhānta*. As I have already discussed at length elsewhere (Pingree 1976) the Greek astronomy that lies behind much of the contents of these three *siddhānta*s, I will confine my remarks here to their parallels with the Oxyrhynchus papyri.

The calendar of the *Vasiṣṭhasiddhānta* (cf. *PS* 2 and 17,1-60), like the Roman and the Alexandrian calendars used in the papyri, employs a year of 6,5;15 days. The Moon is computed by applying two period-relations: 9 anomalistic months equal 248 days (a Babylonian parameter) and 110 anomalistic months equal 3031 days; these two period-relations are the basis of the papyri's "Standard Lunar Scheme" as reconstructed by Jones (1997). This scheme is attested in Oxyrhynchus 4164 and 4164a (cf. Jones 1999: Vol. 1, pp. 153-155, and Vol. 2, pp. 104-109) as well as in other Greek papyri. The *Vasiṣṭha*, however, sums up the linear zig-zag function mathematically for a given day in the period, while the Greek adds a running summary parallel to the daily motions produced by the linear zig-zag function. The *Vasiṣṭha*'s theory of the planets is a direct descendant of the Babylonian System A described in Hunger and Pingree 1999, pp. 244-264, though with relatively minor deviations. The fundamental Babylonian parameters for Π and Z are given by *Vasiṣṭha* for all the planets except Venus, for which only Δλ (a derivative from Π and Z) is provided. The ecliptic is divided for each planet except Venus into a set number of arcs, though their boundaries are not mentioned, and there are designated subdivisions of the synodic arcs based on the Greek-letter phenomena. The division of the synodic arc and period of Venus in the *Vasiṣṭha* almost exactly correspond to those in Oxyrhynchus 4135 (cf. Jones 1999: Vol. 1, pp. 82-83). The Oxyrhynchus papyri based on Systems A and B are dubbed "Epoch Tables" by Jones (1999: Vol. 1, pp. 114-115); they are papyri 4152-4161 (cf. Jones 1999: Vol. 1, pp. 123-150, and Vol. 2, pp. 66-93). The Greek papyri, like *Vasiṣṭha*, use days instead of the Babylonian *tithi*s.

The *Pauliśasiddhānta* (cf. *PS* 1,11-13; most of 3; 6 and 7(?); and 17,65-80) (Pauliśa may represent the Greek Παῦλος) has a variant of the *Vasiṣṭha*'s method for determining the longitude of the Moon. Its planetary theory is also based on Babylonian models; it uses Δλs close to but not identical with the Babylonians' together with subdivisions of the mean synodic arcs based on the Greek-letter phenomena. The subdivisions for the inferior planets begin with their inferior conjunctions with the Sun; so does the epoch table for Venus in Oxyrhynchus papyrus 4157a (cf. Jones 1999: Vol. 1, p. 137, and Vol. 2, pp. 80-81).

The *Romakasiddhānta* (cf. *PS* 1,8-10; 3,34-35; and 8) (Romaka, of course, means Roman) used a *yuga* of 2,850 years containing 32,250 synodic months and 1,040,953 days; this period relation is simply the nineteen-year intercalation-cycle, which appeared in Mesopotamia in the sixth century BC and was adapted by Meton of Athens in about 430 BC, multiplied by 150 so that the length of each year is Hipparchian – 6,5;14,48 days.

This, I believe, establishes the Greco-Babylonian character of much of the astronomy used in India between the middles of the second and the sixth centuries AD. Greek spherical astronomy in a pre-Ptolemaic form entered India in the late fourth century and gave rise to the siddhāntic form of Indian astronomy in the fifth. Of course, the Greek models were not simply copied; they were modified, the mathematics used to compute with them was revised, and the parameters were changed. But concepts such as planetary spheres, eccentric circles, and epicycles, whose earlier development in the Greek world can be easily established, appear suddenly in Sanskrit in the *Paitāmahasiddhānta* (written in ca. 425 according to Pingree and Morrisey 1989), incorporated into the *Viṣṇudharmottarapurāṇa*, and the *Āryabhaṭīya* (composed in ca. 500; see Pingree 1993); as there are no known Indian precedents for them and they are creations of human imagination, not real objects in the world (no one can see spheres and circles in the sky carrying around the planets), these and the other traces of Greek ideas and mathematics in siddhāntic astronomy cannot be explained away.

But the occurrence of Mesopotamian, Greco-Babylonian, and Greek material in Indian astronomy does not in any way detract from Indian originality; it merely shows that, historically, India has been as it still is an active player in the international development of the astral (and other) sciences. Indian material is found in Iran, Central Asia, the Far East, the Islamic countries, Byzantium, and Western Europe. Like every other culture in Eurasia (and now in the world) it has learned from others and taught others. Symbolic of that scientific cooperation in antiquity are two verses in the *Pañcasiddhāntikā* (cf. *PS* 3,13). Therein Varāhamihira says that the time-differences between Yavanapura (Alexandria) on the one hand and Avantī (Ujjayinī) and Vārāṇasī on the other are respectively 0;7,20 and 0;9 days; these time differences correspond to longitudinal differences of 44° and 54°, while the longitudinal differences determined in modern times are 45;50° and 53;7°. Later (cf. *PS* 15,19) he locates "the Guru of the Yavanas" ten *muhūrta*s or about 30° west of Ujjayinī. This places his meridian in Babylon (31;25° west of Ujjayinī), as it was in the Sasanian *Zīj al-Shāh*. Such precision could only have been obtained by simultaneous and coordinated observations of the same lunar eclipses in all four cities. This indicates cooperation between scientists in Roman Egypt, in Mesopotamia, and in India at some time before the fifth century AD, and probably after the middle of the second century since Ptolemy was unaware of their results. We do not know of what nationality or nationalities these scientists were, but their activity demonstrates that transmission was very feasible; in this paper I have tried to show that it actually occurred – many times.

References

1) Primary sources

a) Akkadian

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Understanding in Order to be Understood, Refusing to Understand in Order to Convert

> De Nobili learned in order to teach and be understood. We may say that he represents an active, transitive form of hermeneutics in which, in so far as he was interested in introducing his own Christian message into the horizon and context of a foreign cultural tradition, pedagogic and strategic points of view were of primary concern. His readiness to learn and to adapt was motivated by the principle of soteriological efficacy; his idea was to make as many accommodations as possible to the people to be addressed and taught and to limit the contents of the message to the essentials, freeing it of all unnecessary ballast …
>
> [Yet] as much as he was willing to make concessions with respect to ways of life, so little was he able to allow Hindu thought to affect the dogmatic substance of his own Christian convictions.[1]
>
> … the achievements of the missionaries comprise a very important chapter in the history of the Western encounter with Indian thought, a chapter that is exemplary from a hermeneutical standpoint and which, moreover, has also had historical consequences … In spite of or perhaps precisely because of their "prejudice" and dogmatic limitations, they have also helped to define and clarify the central problems involved in approaching and understanding that which is alien: they, or at least their outstanding exponents, embody a desire to understand whose singular power and problematic nature arise from their deep and uncompromising *desire to be understood*.[2]

Wilhelm Halbfass's astute assessment of the dynamic of missionary scholarship ably encapsulates the intellectual energy of that tradition, not only with respect to Halbfass's immediate topic, the early Jesuits in India, but also more broadly in the global context. The Jesuit missionary scholars – figures such as Jose Acosta (Peru), Alessandro Valignano (Japan), Matteo Ricci (China), Roberto de Nobili (India), Alexandre Rhodes (Vietnam), Joseph Lafitau (French Canada) and others – were zealous evangelists desiring intensely to win converts. For this purpose, they had to make the Gospel intelligible by arguments that could win the attention of their non-Christian audiences; and for that purpose, they learned everything they could about the cultures to which they were sent. Scholarship and missionary work fueled one another in a remarkably fruitful fashion.[3]

Yet one also has to wonder about the dynamic of understanding-in-order-to-be-understood practiced by these missionaries, since their treatises are also notable for the nearly inevitable, certain judgments they make about unacceptable dimensions of the religiosity of the cultures to which they were sent, and the way in which they explain, by constructing, that which they designated as unacceptable.

Regarding missionary orthodoxy, Halbfass is quite right to note (as cited above) that "… much as [de Nobili] was willing to make concessions with respect to ways of life, so little was he able to allow Hindu thought to affect the dogmatic substance of his own Christian convictions," but we may also say something more regarding de Nobili and the other missionaries: in order to keep foreign religious ideas and practices safely separate from their own

[1] W. Halbfass, *India and Europe*: *An Essay in Understanding*, Albany, N.Y. 1988, pp. 42-43.

[2] Ibid., p. 53.

[3] See F.X. Clooney, S.J., "A Charism for Dialogue: Advice from the Early Jesuit Missionaries in our World of Religious Pluralism," *Studies in Jesuit Spirituality* 34/2 (2002): 1-39.

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 51-61.

beliefs and practices, the missionary scholars had to make conceptual distinctions separating the acceptable – good natural, social realities – from the unacceptable, that is, from what was neither natural nor properly social, but thus instead a corruption of the good. Disposed to understand, they needed also to discover elements that could not be understood; included here was most of the particular religious beliefs and practices distinctive to the religions – for example, the "Hindu" or "Buddhist" or "Native American" (to use our designations for "the religions," not theirs)[4] – flourishing in the cultures to which they were sent. As counterparts to Christianity, the religions existed and were problematic; but the problems related to their origins, status, and effect could be explained and intellectually resolved, so that the overall mission of the missionary scholars could remain purposeful, oriented to a clear goal.

This attitude – a necessity not to understand everything, a necessary and stubborn exclusion of some ideas, values, and practices by denying to them truth, goodness, and efficacy – was the necessary underside to the impressive Jesuit determination to understand and so also be understood. By definition, I propose, missionary scholarship coupled a construction of intelligibility (understanding in order to be understood) with a necessary counterpart, the discovery and perhaps even construction of the unintelligible and immoral (discovering what could not and should not be understood). "Understanding in order to be understood, refusing to understand in order to convert" were tasks that had to go together. Were understanding or condemnation the only goal, the resultant inquiry would not have been the carefully restricted discipline of missionary scholarship.

In this essay I explore Halbfass's insight and my supplement to it by looking more closely at the key figure he introduces in chapter 3 of *India and Europe*, Roberto de Nobili (1577–1656), to see how this learned missionary cordoned off a realm for the unintelligible, untrue, immoral as part of his assessment of Indian culture and learning.[5] He was an Italian Jesuit who came to India in 1605, reached the city of Maturai in South India in 1606, and for most of the next fourty years lived and worked as a missionary there. De Nobili is best remembered and admired for his willingness to adopt Indian customs of dress, food, and manner of living; he was determined to show that the Christian faith could be lived in a way not entirely confined by the norms of European culture. He was also a prolific writer; though not the first or only Jesuit (even in his generation) to study Hinduism seriously,[6] de Nobili was a remarkable thinker outstanding for the detail, intellectual rigor, and learning of his treatises. A talented linguist, he was one of the first Europeans to learn Tamil, and perhaps the first to write treatises in that (or any) Indian language.

De Nobili's project was to understand traditional Brahmanical learning (he showed little interest in popular Hinduism) in order to uncover a universally valid epistemology and a normative language of rationality on the basis of which conversation could occur and the reasonability of Christianity demonstrated. His goal was greater understanding since this would make viable deeper communication. His quest, however, was necessarily also intertwined

[4] And so too throughout: I use terms familiar (though not beyond critique) today – religion, religions, non-Christians, Hindus – as a shorthand and kind of translation of the different array of terms in a different intellectual framework familiar to seventeenth-century scholars.

[5] See S. Rajamanickam, *The First Oriental Scholar*, Tirunelveli 1972; A. Saulière, *His Star in the East*, Madras / Anand, Gujarat 1995; I. Zupanov, *Disputed Mission*: *Writing and Acting Cultures*: *Jesuit Experiments and Brahmanical Knowledge in Seventeenth-century India*, Delhi 1999.

[6] Other missionary scholars contemporary to de Nobili include: Gonçalo Fernandez, S.J., with whom de Nobili argued mission policy, Diego Gonsalvez, S.J., and Jacobo Fenicio, S.J.

with judgments about what was not intelligible, what was contrary to reason and good moral practice. What is good and true go together; what is false and wicked likewise go together. He had to make such distinctions so as to be able to privilege what is acceptable to Christians and conformed to reason; the unacceptable had to be clearly defined (though as narrowly as possible in order to salvage as much as possible), and for this purpose de Nobili (and others among the early Jesuits) appealed to categories such as idolatry and superstition.

I will explore de Nobili's position with reference to four of his writings: the *Inquiry into the Meaning of "God"* (1610), the *Refutation of Criticisms* (1640), the *Dialogue on Eternal Life* (1610), the *Report on Indian Customs* (1613).[7] In these works he makes various claims about religion in India: in the *Inquiry*, that Indians have suffered from a failure to understand properly what is implied by the word "God"; in the *Refutation*, that idol worship is flawed because the images worshipped lack a real and worthy referent; in the *Dialogue*, that universally shared means of knowing and openness to revelation have in India been sidetracked by ignorance and forgetfulness and resulted instead in inaccurate and distorted messages that are only seeming revelations; in the *Report*, that the natural and universalizable truths and values that result in legitimate social structures have been needlessly overlaid with superstitions and idolatrous practices. Only when we balance his more well-known positive assessment of Indian culture with critiques of this sort can we adequately assess de Nobili as a missionary scholar.

The Inquiry into the Meaning of "God": The Essential Unreasonableness of Hindu Mythology

Missionaries, like a host of other Christians ancient and modern, have usually condemned idolatry; de Nobili was part of a long tradition which included recent predecessors in India such as Francis Xavier (1506–1552), who saw at work in idolatry human proneness to sin, Brahmanical dishonesty, and demonic interference in human affairs. With his predecessors and contemporaries among the missionaries in India, de Nobili also took "idolatry" to be a shorthand term for religion as particular and local (and not universal, reasonable) and objectionable; in some ways "idolatry" approximates what we might call "Hinduism" today.

De Nobili gave the problem an intellectual twist. He did not emphasize demonic influence, nor did he argue that Brahmanical learning and idolatry were intrinsically linked. Rather, in each of his works he construes it from a particular intellectual angle, showing its deficiency. In the *Inquiry* de Nobili argues a necessary dismissal of Indian deities by appealing to a reasoned description of God's defining features:

> Among the characteristics of the transcendent and immanent Reality, the six (key) characteristics are summed up in the following verse: "He is self-existent, without beginning, without a body, by nature possessed of all good qualities, all-pervasive, and Lord of all; I reverence this first cause." (*Inquiry*, III)[8]

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[7] The *Inquiry*, *Dialogue* and *Report* are included in A. Amaladass, S.J., and F.X. Clooney, S.J. (trs.), *Preaching Wisdom to the Wise*: *Three Treatises by Roberto de Nobili*, *S.J.*, *Missionary and Scholar in 17th Century India*, St. Louis 2000. The *Report* was previously published by S. Rajamanickam, S.J., as *Roberto de Nobili on Indian Customs* (Palayamkottai 1972), and the translation of this treatise in *Preaching Wisdom to the Wise* is simply a revision of the same. The dates of the treatises are approximate. See Rajamanickam, op. cit. (cf. n. 5), for a reasonable estimate of likely dates. For more information on the treatises, see Rajamanickam, op. cit., and also the introduction to *Preaching Wisdom to the Wise*.

[8] *Preaching Wisdom*, pp. 306-307.

After explaining these features – independence, beginninglessness, spiritual nature, perfect goodness, omnipresence, omnipotence – de Nobili goes on to argue that as portrayed in Indian mythology, the gods of India clearly lack these characteristics. Idolatry is the worship directed to these seeming deities who cannot possibly be God. In part he echoes the Biblical mockery of idolatry:

> First of all, the many idols consecrated in different temples are not God. To say this would surely contradict reason. I.e., can the sculptor and the potter make the Lord who creates everything? If idols break, does (God) also break? (If idols) fall down, they are unable to get up by themselves; doesn't someone have to lift them up? Could the Reality, which is fully present everywhere, be contained in a room, in a pot, in the palm of a human hand, or within the four corners of a cloth? (*Inquiry*, V)[9]

Any reasonable person will recognize that they behave in ways contrary to this proper understanding of God:

> If ignorance is found in any of someone's undertakings, one must say that such a person does not possess immense knowledge. If there is weakness, one must also say that he does not have unlimited power. If sorrow is seen in him, one must say that he does not possess boundless joy. If cruelty is found in him, one must say that he does not have limitless compassion. If injustice is seen in him, one must say that he is not infinitely just. (*Inquiry*, VI.3)[10]

If universal moral standards are taken seriously, this rules out the Indian deities, who fail to live up to rational and moral expectations.

For example, Rāma, one of the chief and most revered of Indian deities and the hero of the epic *Rāmāyaṇa*, is criticized since he is endowed with features inconsistent with God's perfection:

> Without knowing to which place his wife has been abducted, (Rama) inquired in all four directions through emissaries; after Siva offered his spear and magic-sword to Ravana, on the advice of someone else, he changed them in order to cheat Ravana; (Rama) came to know the news of his father's death only after reading a letter … Any intelligent person must ask, without any bias, whether such events are due to a lack of reason and that deficiency which is ignorance – or whether they are due to unlimited knowledge or boundless reason; (Rama) gathered an army of monkeys in order to destroy the demon; in order to remove the sin incurred by his mistake, (Rama) worshipped the lingam; he wept because of his father's death … (*Inquiry*, VI.3)[11]

After going on to list immoral deeds attributed to various gods in mythological accounts – lying, murder, adultery, etc. – de Nobili emphasizes that since the divine nature is good while these deities are not good, they cannot measure up to the perfection entailed by "God":

> Anyone who reads this must decide whether such deeds are due to a lack of happiness – or are signs of immense joy … Moreover, respectable people examine the various stinks and are repulsed by their shameless deeds, drinking intoxicants, and forbidden carnal behaviors. An intelligent person should ask without bias whether performing with delight this kind of worship (for such gods) is sin or virtue, whether it is fitting to the Lord who is possessed of all good qualities, and what the difference is between such rituals and the rituals performed by great souls in the presence of the transcendent and immanent Reality. (*Inquiry*, VI.3)[12]

Famously well-disposed toward Indian culture and quite ingenious in defense of difficult dimensions such as caste, it is striking that de Nobili has nothing good to say about Rāma, who

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[9] Ibid., p. 311.
[10] Ibid., p. 313.
[11] Ibid., pp. 313-314.
[12] Ibid., pp. 315-316.

turns out to be a stellar example of what is to be rejected. To some extent de Nobili's negative view may be due to a lack of knowledge of more positive features of the *Rāmāyaṇa* tradition, but such a reason does not suffice. More learning would not have changed de Nobili's mind. Rāma and similar divinities usefully symbolized a necessary realm of the unacceptable, a surd to be excised for the sake of a new Christian India. He had no incentive to make sense of the traditions surrounding Rāma and the other deities. Had Rāma turned out to be acceptable, de Nobili's ability to praise much else in Indian culture would have become problematic, because no complete embrace of Indian culture could ever be possible, even in theory; an entirely positive assessment would have lacked the counterbalancing disapproval needed to perpetuate research and writing that were both scholarly and missionary.

Nor is there any acknowledgment of the possible alternative ways of conceptualizing divinity in the Hindu theological and philosophical traditions; many Hindu theologians set high standards regarding the nature of God and had no tolerance for attributions of weakness or sin to primary divine figures. While it may be that de Nobili did not have access to many such texts, he did know that rich intellectual traditions existed, but nonetheless he seems to have judged in advance that nothing could be learned from more sophisticated sources such as would retrieve the reputations of these deities.

The Refutation of Calumnies: Why Idolatry and Image Worship Have Nothing in Common

For a more practical version of the sharp disjunction between Indian and Christian understandings of the divine, we turn to de Nobili's *Refutation of Calumnies*, written late in his career as a defense of his work primarily (it seems) in the face of Indian criticisms. Here we notice how he distinguishes Hindu image worship – idolatry – from Christian reverence for images. He admits that the general idea of image worship is proper and helpful; but not all images are worthy of reverence. Christian and Hindu practices, which might seem to share common features, in fact have very little in common. Proper Christian veneration of images of Christ, Mary, and the saints, is appropriate, reasonable, and solidly moral; the worship of the idols of gods such as Rāma – who are devoid of virtue – is contrary to reason and offensive to virtue because it praises persons who perform immoral deeds. More starkly, he asserted that the worship of Indian deities is reverence directed to non-existent beings by ignorant and sinful persons:

> Thus far we have argued the specific noteworthy truth that confused sinners worship Hara, Hari, and Brahma and other such beings deficient in their proper forms and natures and thus too honor their sinful deeds. Examining this matter carefully and without bias or contentiousness, we conclude that even if they consider such beings to be deities or courtiers of the Lord of all whose proper form is everything good, it is nonetheless not proper to accept their view. These confused sinners propose that Hari, Hara and Brahma really are deities and that [by worshipping them] they please the true Lord of all; but upon consideration we insist that when they make forms as images of those deities, they are merely making symbols of non-existent beings.

Accordingly, the worship is meaningless and useless:

> When the Lord of all is not present …[13] ignorant people set up forms as symbols for Rudra or Perumal [Viṣṇu] as the Lord of all. But it must be said that they are setting up and reverencing symbols for beings that do not exist. Such acts of worship, reverence, etc., for symbols of beings that do not exist, lead nowhere. After thus establishing such forms, images, etc., as symbols of beings

[13] Words missing in manuscript.

> that do not exist, confused sinners do not stop reverencing them. But all that such confused sinners are doing then is making statues and images out of stone and wood and other materials and worshiping them. There is no other way to explain what they are doing. (*Refutation*, 18.10)[14]

By contrast, worship of the one true God and the saints by way of images is sensible and salutary:

> When we reverence forms such as images of the true Lord of all or of those great-souled beings who have experienced liberation and thus are his courtiers, our worship is without a doubt really directed to the Lord of all and to the great-souled beings who are his courtiers. Thus, there can be no doubt that what is worshipped by us in our earnest practice is the true Reality, and the proper form symbolic of the true Reality itself. But when sinners reverence various figures, images, etc., they do so with respect to forms symbolic of entities such as Hari, Hara and Brahma who are not the Lord of all. Thus they are making figures, images symbolic of things that do not exist. When those confused sinners reverence forms symbolic of things that do not exist, such reverence which abandons true form goes nowhere. They are merely reverencing stone and wood and nothing else. We must assert without a doubt that this is the comparison to make. (*Refutation*, 18.11)[15]

These firm and entirely confident distinctions between "our" images and "theirs," and between the corresponding acts of worship, are simply stipulated to be true: ours are real, theirs are not. In the *Refutation* at least, no reasons are offered in defense of so enormous a difference between existent and non-existent beings, there is no ethnographical detail nor closer examination of the rationale Hindus might have assumed to underlie such practices. Nonetheless, the difference between Christian and Hindu worship had to be asserted. While a faith position leading to such conclusions can be understood, an argued, scholarly conclusion of this sort is puzzling unless we remember the requirement that the realm of the unintelligible and unacceptable had to be found. Otherwise, de Nobili would have been in the uncomfortable position of either dismissing image worship entirely – a choice not attractive to a Roman Catholic – or of agreeing that both Hindu and Catholic practices are appropriate. The latter position seems more reasonable in theory, and given de Nobili's own humanistic appreciation of culture and its variety, but so broad an understanding would have undercut the missionary practice. A difference had to be asserted, so that missionary scholarship could remain in line with mission's larger, evangelical goals. To understand Hindu worship as fully as he understood some aspects of Hindu theology and social structure would have made him too much the scholar and too little the missionary; given the particular need to understand and to root out the unintelligible, his refusal to accept implied parallels makes sense.

The Dialogue on Eternal Life: The Genealogy of Error

In the *Dialogue on Eternal Life* de Nobili emphasizes the rational element in religion, the moral ramifications of rationality, and the immorality he judges to be endemic to idolatry. He seeks to make Indian intellectuals receptive to Christianity by appealing to a common ground of reasonability – and on that basis also to make apparent what is obviously unreasonable about Indian beliefs and practices. Using the indigenous epistemological framework of the three basic means of right knowledge (*pramāṇa*s) – perception, inference, verbal testimony (including revelation) – he sketches a shared realm of reliable knowledge; through the voice of a student/interlocutor, the paradigm is agreed to be acceptable to thoughtful Indians.

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[14] *Refutation of Calumnies* (*Tūṣaṇa Tikkāram*), Tuttukkuti 1964, pp. 287-288.
[15] Ibid., pp. 289-290.

In chapters 1-2 de Nobili explains how the human mind has a natural capacity for certain kinds of knowledge. It learns much by direct experience (perception through the various senses) and by inference (reasoned conclusions regarding what has not been perceived, but based on what has been perceived). Making judgments based on perception and inference, humans can conclude that the world is not self-sufficient and that it must have a creator, and can also infer that this creator has certain qualities, such as omniscience, omnipotence, independence, and perfect goodness.

De Nobili goes on to argue that there are higher truths which exceed the mind's grasp, and which must be revealed if the mind is to find what it needs but cannot gain on its own. He asserts (in chapters 3-5a) that it is good and just that God should reveal to us the necessary higher truths in perfect verbal revelation. Such revelation constitutes the real "Veda," the true revelation and scripture which Indians already know in some obscure fashion and dimly seek in their ideas and practices.[16] De Nobili argues that it makes sense that there be only one Veda in which God fully and adequately communicates what humans need for salvation.

In the *Dialogue*'s final part (chapters 5b-9) de Nobili applies the theory of right and reasonable revelation – and religion – to the Indian context, in order to show that the Indian religious traditions do not adequately meet the standard of God's revelation of the reasonable, moral, and salvific. His conclusion is that much of what counts for belief and worship in India is idolatry – in the *Dialogue* characterized as absence, error rooted in ignorance and forgetfulness.

De Nobili argues that the various kinds of idolatry[17] can be found in the beliefs and practices popular in religious India. For example, Hiraṇyakaśipu, a wicked demon king in Hindu mythology, is identified as a human king who used his power to encourage worship of himself; sorrow is seen as the origin for some deities, figures who suffered greatly in some way or another; amazement at the intellectual gifts of learned teachers led people to honor and then worship people such as the poet Vyāsa, the theologian Śaṅkara, and the Vaiṣṇava poet saints known as the Āḻvārs. The cult of such divine or human figures is essentially mistaken, but once in place myth and the related worship also serve to excuse immorality:

> Moreover, these foolish people thought, in a confused way, that God is like themselves: that the gods, like themselves, have their own wives, that they have great attachment towards these wives and are unable to be separate from them and therefore hold these wives on their laps, keep them on their hips, carry them on their heads, hold them on their chests, etc. Thus people speak in unreasonable ways. Although they are speaking about the nature of God the creator of all, who is immensely merciful, who is the cause of everything, who is the most perfect of all things, they write all kinds of foolish falsehoods, and they even attribute to God revolting behavior and activities that are unbecoming even to base people. They make God, who is above all things, the lowest among lascivious people. (*Dialogue*, VIII.4)[18]

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[16] On de Nobili's expectations regarding the rational dimensions of religion, see also F.X. Clooney, S.J., "Roberto de Nobili, Adaptation and the Reasonable Interpretation of Religion," *Missiology* 18 (1990): 25-36.

[17] De Nobili distills his account of the genealogy of idolatry by drawing on causes long before identified in *The Book of Wisdom* 13-15: kings use their power to have themselves worshipped as if they were gods; sorrow leads parents to reverence their dead children, create statues and images of them; people are amazed at persons of special intelligence or virtue or strength, and praise them highly; people are grateful toward authors for their great books and so venerate them out of affection. In all four cases, though, the passage of time leads people to forget the specific origins of this reverence and to start honoring the images as gods. Intervening theologians, such as Thomas Aquinas, also made use of the categories established in *Wisdom*.

[18] *Preaching Wisdom* (cf. n. 7), p. 291.

In sum, idolatry is a mistake extended and accentuated over time, by which people misdirect reverence to undeserving persons, forgetting over time the origins and purpose of the worship they offer. Myths about Rāma and other deities have no intrinsic merit; what is good in them would be available more easily and clearly if the mythology was dropped. Though a man of great imagination, de Nobili gives no evidence of aesthetic or liturgical sympathy with the religious practices around him. He does not probe the traditions he criticizes seeking to make sense of and learn from the cult of deities and the myths of their great deeds. Again, the point is not to expect contemporary sensitivities in a pioneer finding his way 400 years ago, but only to emphasize again that his failure to find something good to say about Hindu worship is an intrinsic, deeply rooted part of his missionary project and not an accident of circumstances. He does not expect such practices to be intelligible or worth knowing, and he has no motive to wish that they were so. There needs rather to be something unintelligible and wrong, and idolatry and the accompanying myths serve this purpose. But because idolatry is in essence a mistake rather than demonic or human malice, it can also be resolved by the missionary who is a scholar and who is capable of instructing people in correct practice.

The Report on Indian Customs: Idolatry as Infidelity to Natural and Social Goods

In the *Report*, de Nobili touches a number of times on idolatry, in order to distinguish sectarian Hindu beliefs – the idolatrous, in need of correction – from the general and good cultural traditions encoded in Brahminism. In his eyes Brahminism was a legitimate social formation, and Brahmanical customs and learning essentially good. Idolatry and more broadly the array of superstitious practices related to idolatry, taint society and spoil otherwise legitimate customs and hierarchies. Since idolatry has no intrinsic relationship to natural or social structures, however, the latter can survive nicely once this overlay of religiosity is removed.

The texts of the idolaters are false in the specific and distinctive stories they tell about deities:

> Along with these poetical works we may well classify India's historical records, which they designate under the name of *puranas*, and all these too are written in verse. The chief and most ancient of the *puranas* are eighteen. These are regarded indeed by idolaters of various sects as sacred histories, because for the most part they embody the doings of those they consider to be gods. In reality, however, they are fictitious tales invented by poets; this is admitted by the Brahmins of the atheist school and of the school of the wise, and by others too – including even very many from among the idolaters themselves. (*Report* 3.2.3)[19]

In describing the atheists, idolaters, and wise ones ("spirituals") as the key schools of Indian thought, he highlights the claim that the wiser Indian thinkers disapproved of idolatry:

> The second school is that of the so-called *jnani*, i.e., the "spirituals." Their theology goes by the name of Vedanta, which means the "end" of religious doctrine. In this doctrine first place is given to that part entitled *Vivaranopanyasa*, which contains abundant information about the true God as known solely by the light of reason. The purpose of these theologians is to reject all idols and to investigate the nature of God solely by the light of reason. Hence, in this part, much space is occupied by a prolific refutation of the plurality of gods and of sacrifices offered to idols. (*Report* 3.6.2)[20]

> The object [of the wise], as noted in the previous chapter, is to run down the multiplicity of gods and the sects of the idolaters. For they maintain that there is one all-embracing cause for all things, which they prove both to exist and to be unique, particularly from the production and the

[19] Ibid., p. 81.
[20] Ibid., p. 87.

> order of the world … Therefore, the wise all reject every kind of sacrifice to the gods; some go so far as to refrain from making offerings even to the one true God who, they contend, should be adored only in spirit. Besides, they maintain, sacrifices offered here on earth by idolaters, be they Brahmins or others, are of no use in obtaining eternal glory. Nay more, on this point they argue that the laws of the idolaters are self-contradictory. (*Report* 4.2)[21]

De Nobili of course approves of such criticism. The wise are performing an honest and useful function by attacking the idolaters and their gods, thus demonstrating that idolatry is not inherent in Indian culture as a natural and human good.

The bottom line is practical, but even so, as the idolatrous overlay is stripped away, the good natural and social dispositions (respect, ceremony, communal worship) underlying the idolatry can be redeemed:

> If, in the aforesaid matters, i.e., in practices which of their own natural constitution or by popular convention have been established to meet either needs in the ordinary course of nature or the common needs of civilized life, the people here should adopt a line of conduct that is reprehensible, as for instance by overlaying some practice with incantations or rites of a superstitious character, or by associating it with some frivolous ideas of merit and demerit – then in that case, these practices are not to be condemned, as the theologians say, regarding their substance, but solely regarding the objectionable mode connected with it, and that offensive mode is surely to be discarded. (*Report* 10.9)[22]

The strategy is clear: Indian culture and religion (again, using conventional modern terms) are divided into the natural, proper foundations on the one side, and idolatrous overlays on the other; the former can be respected and made use of, while the latter are submitted to fierce critique and shown to be unworthy. Although idolatry has become intertwined with every practice and aspect of life, he argued that it is not essential to Indian life, and is only superimposed onto structures that remain fundamentally sound. Idolatry can be eradicated by God's grace, channeled in part through human persuasion and critique, and without any substantial damage to Indian culture. De Nobili seemed unaware, however, of the related phenomenon that Indians have rarely tried to persuade people to change their ritual practices; even the most learned Hindus rarely sought to wean people away from image worship or to do away with popular mythological tales. But de Nobili had no incentive to seek alternative viewpoints, since there was nothing to be gained by trying to appreciate idolatry's place in society; understanding could never be complete understanding, but always required an intrinsic element of the unintelligible and unacceptable.

The End of Missionary Scholarship

We must be impressed with de Nobili's careful and intelligent appropriation of Indian culture, but also notice how deliberately and systematically he identified an irreducible surd, a small set of beliefs and practices which could not be assimilated into a Christian worldview and which had to be rejected as superstition, idolatry in theory and practice. He was as stubborn in refusing to comprehend such features as he was steadfast in his generally broad understanding. What was distinctively religious and indigenous to India – what we might popularly call "Hinduism" – had to be labeled idolatry. Deities like Rāma had to be labeled false insofar as they indicated anything more than reasonable inklings of God. The texts cited above indicate his belief that the error of idolatry can be traced in theory (in the *Inquiry*) and

[21] Ibid., p. 95.
[22] Ibid., pp. 210-211.

in worship (in the *Refutation*), to particular epistemological origins (in the *Dialogue*), and shown to be a harmful overlay spoiling generally sound social structures (in the *Report*).

De Nobili's rejection is all the more notable because we know that when he wanted to understand and accommodate, he was perfectly capable of going out of his way to improvise new categories in order to appreciate aspects of Indian culture that seemed foreign to most Europeans. His lack of understanding occurs when (consciously or not) he no longer wishes to improvise; it is a correlative and necessary feature of his project of understanding, since total sympathy and understanding would not serve this project well.

While one could easily introduce data from the Indian context that would challenge de Nobili's critique, we would miss the point of his project by trying merely to correct it. We would wrongly expect that under improved circumstances he would have shifted to a positive evaluation of religious India. But the matter had little to do with which texts he read, or how well he read them – and much to do with the task to which his scholarship was ancillary. Whatever he might have learned, the logic of his missionary scholarship would still not allow him to embrace wholeheartedly the traditions he found in South India, nor even to sympathize with their imperfections as he would with the imperfections others found in his own Catholicism. Generous approval on most fronts required some remnant deserving fierce condemnation. The realm of the unintelligible and the unacceptable had to exist, had to be discovered and conceptualized, if the work of conversion were to remain clear and urgent even among missionaries inclined to scholarly work.

Such is the nature, I suggest, of the classic missionary scholarship, which is a matter of understanding coupled with a determination not to understand. In stating this rather baldly and without nuance – Wilhelm Halbfass would have been more subtle – I have sought mainly to affirm and yet also complexify Halbfass's thesis, exploring its underside with respect to that intellectual tradition which produced de Nobili. The construction of an intelligible realm of contact is not sufficient to define the missionary enterprise; rather, there is a double movement of understanding and refusing to understand, a dialectic which superimposes onto the object culture a bifurcation between its intelligible and non-intelligible elements. Neither "understanding in order to be understood," nor a "refusing to understand in order to convert," would on their own have sufficed to constitute missionary scholarship. It is in the pairing of the acceptable and unacceptable – enormous praise for the culture, accompanied by smaller but intensely focused areas of rejection – that the distinctive Jesuit missionary achievement lies.

Some 150 years later, a way of studying the religions of India emerged which was not defined by the bifurcation considered here,[23] and the intellectual enterprise of missionary scholars lost its intellectual cogency in wider academic circles. The dynamic of "understanding in order to be understood, refusing to understand in order to convert" became increasingly a secondary and unsatisfying intellectual enterprise, at least in terms of how the new scholars dissecting India thought of themselves. The age of the missionary scholar had reached its

[23] This is not at all to suggest the implausible notion that Indology and other post-missionary forms of scholarship might somehow be free of bias. Rather, my point is simply that there is a particular, peculiar mix of understanding and a refusal to understand which distinguishes missionary scholarship. For typically incisive comments on the birth of Indology and what other scholars have come to call "orientalism," see Halbfass, op. cit. (cf. n. 1), chapters 4-9.

end.[24] The fault lines in orientalist, indological, and contemporary scholarship about India lay, and still lie, elsewhere.

[24] One could examine in the twentieth-century, for instance, the change in the scholarship of European Jesuit scholars in India, up to its final stage in the work of Camel Bulcke, Robert Antoine, and Richard Desmet, and see how the dialectic was lost in a gradual shift to another form of scholarly study which did not so prominently depend on the dialectic of understanding and not understanding, approving and condemning; see Halbfass, ibid., p. 52.

Rosane Rocher

A Glimpse into an Orientalist's Workshop: Sir William Jones's Engagement with the *Vivādārṇavasetu* and Its Authors

Wilhelm Halbfass's works, and his influential book, *India and Europe*, in particular, have highlighted the exchange of ideas that has linked India and the countries of Europe through the ages.[1] This is an interest we shared, and which added to the joy of our frequent conversations. In memory of a valued colleague and dear friend, I offer further illustration of the collaboration that took place between British and Indian scholars in the late eighteenth century, a collaboration without which modern Indology could not have come about.

In a contribution to a symposium and an ensuing volume commemorating the 200th anniversary of Sir William Jones's death, I illustrated the extensive and foundational role Jones acknowledged a number of Indian pandits played in many aspects of his learning about Indian culture.[2] The present article extends the documentation of this phenomenon to private notes Jones jotted down for his own use.

Jones's decision to learn Sanskrit, after an initial declaration that he had no intention of adding yet another language to his ample store, stemmed from his position as a judge on the Bengal Supreme Court.[3] Jones's grand design was to oversee the compilation, and to provide a translation of a new *Digest of Hindu Law on Contracts and Successions* to serve as a guide for the administration of justice in the East India Company's territories.[4] Jones rightly considered the *Code of Gentoo Laws*, which Governor–General Warren Hastings had commissioned in 1773 and had published by the East India Company in 1776, to be flawed by virtue of its tortuous processing from Sanskrit to English via a Persian abstract of a Bengali oral rendering.[5] Yet Jones made of the *Vivādārṇavasetu*, the original Sanskrit text of this *Code*, a foundation stone for his own work.

Jones had Mehtab Rai, the Marāṭhī writer he regularly employed, make a Devanāgarī copy of the *Vivādārṇavasetu*, which bears a date of 1788 and is now preserved in the collections of the Oriental Institute of the Russian Academy of Sciences in St. Petersburg.[6] Copyist mis-

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[1] Cf. Wilhelm Halbfass, *India and Europe*: *An Essay in Understanding*, Albany, N.Y. 1988; expanded from his *Indien und Europa*: *Perspektiven ihrer geistigen Begegnung*, Basel 1981.

[2] "Weaving Knowledge: Sir William Jones and Indian Pandits," in: Garland Cannon and Kevin R. Brine (eds.), *Objects of Inquiry*: *The Life*, *Contributions*, *and Influences of Sir William Jones (1746-1794)*, New York 1995, pp. 51-79.

[3] Compare his letters of April 24, 1784, to Charles Wilkins and of September 1785 to Charles Chapman and to Arthur Pritchard (Garland Cannon [ed.], *The Letters of Sir William Jones*, Oxford 1970, pp. 646, 683-684 and 686).

[4] The four-volume English translation of this work was completed and published by Henry Thomas Colebrooke after Jones's death (Calcutta 1797-1798).

[5] Cf. Jones's letters of March 19, 1788, to Governor–General Cornwallis and of September 28, 1788, to Arthur Lee (Cannon, op. cit. [cf. n. 3], pp. 797 and 821), and chapter 4 in the biography of the *Code*'s English translator (Rosane Rocher, *Orientalism*, *Poetry*, *and the Millennium*: *The Checkered Life of Nathaniel Brassey Halhed 1751-1830*, Delhi 1983, pp. 48-72).

[6] YND.IV.7. The manuscript's title page, in Jones's hand, reads: "*Vivádárnavasétu*: / Vivádárnavasétubandha: / or; / The Bridge over a Sea / of / Controversies; / A Short Digest of / Hindu Law, / compiled by the order of / Warren Hastings Esq; / In the Original Sanscrit / corrected by one of the / compilers / Gaurícánta

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 63-69.

takes demonstrate that this manuscript was copied from an exemplar in Bengali script, which has not surfaced to date. It was presumably the "Bengal Copy" which a note in Jones's hand on the title page of his Devanāgarī copy states was borrowed on October 29, 1789 by Rādhākānta, the Bengali pandit whom Jones put in charge of the compilation of his new *Digest*.[7] Jones set himself to reading the *Vivādārṇavasetu* immediately with the help of a pandit and with reference to the English translation.[8] He read it again twice in rapid succession. As he scribbled on the last page of the manuscript, he "[f]inished the second reading of this work 30th Jany. 1789" and in "Bandell 6 Oct. 1793, finished the third and last reading of this book, compared sentence by sentence with Halhed's translation." He offered his own rendering of one of its provisions in judicial proceedings of November 27, 1788.[9] Occasional interlinear translations and numerous marginal notes – in English, Latin, Persian, and Sanskrit – bear testimony to his close reading.

Of particular interest is a three-page list, prefixed to the text and unique to this manuscript of the *Vivādārṇavasetu*, of "Hindu Lawbooks quoted in this Work." A total of fifty-two original entries, with some fifteen interlinear and marginal additions, are written on separate lines, much like a shopping list, which in fact this turns out to be. Jones used this as a master list to order from Banaras copies of texts for the library that was to allow Rādhākānta and other pandits, including Rādhākānta's teacher, Jagannātha, who became the eponymous author, to write the *Vivādabhaṅgārṇava*, the Sanskrit text of the *Digest*, a project he obtained that Governor–General Cornwallis support with public funds.[10] A faded note on the first page of this list explains, "an asterisk means sent from Cashi to the government." A total thirty-four of the listed texts are marked with asterisks, which points both to the intensity with which Jones went about collecting a library of textual sources for his proposed *Digest*, and to the efficacy of his connections with panditic circles in Banaras, which funneled manuscripts for his project.[11] In a few instances, Jones entered against these entries the dates at which manuscripts were received. The first text on this list, Caṇḍeśvara's *Vivādaratnākara*, was "recd. 15 March 1789, but not complete," and copies of three more texts were obtained between June and October of the same year.

This list of sources also documents a constant interaction between Jones and the pandits he employed for his grand project of a *Digest*. Notes record that Vācaspati Miśra's *Vivādacintāmaṇi* and the *Yājñavalkyasaṃhitā* were lent to Rādhākānta, and returned on January 30, 1790. Rādhākānta borrowed again the *Vivādacintāmaṇi*, along with the *Vivādaratnākara*, on March 29, 1790. The *Mitākṣarā* was likewise lent to Jagannātha on July 15, 1790. From this

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Pandit / 1788." A marginal note states "*Sétu* and *Sétubandha* are synonymous." In an annotation on the page facing the title page, Jones computed that the copying had taken about five months.

[7] Cf. Rosane Rocher, "The Career of Rādhākānta Tarkavāgīśa, an Eighteenth-Century Pandit in British Employ," *Journal of the American Oriental Society* 109 (1989): 627-633.

[8] As early as March 19, 1788, he was able to write Governor–General Cornwallis that he had "already perused no small part of the original [of the *Code*] with a learned Pandit, comparing it, as [he] proceeded, with the English version" (Cannon, op. cit. [cf. n. 3], p. 797). The unnamed pandit is likely to have been Rādhākānta.

[9] Cf. T.A. Venkaswamy Row (ed.), *Indian Decisions (Old Series)*, Vol. 1: *Supreme Court Reports*, *Bengal*, Madras 1911, pp. 178-179.

[10] The very title of the Sanskrit digest appears to be a deliberate allusion to that of its predecessor, the original Sanskrit text of the *Code of Gentoo Laws*, which, in addition to *Vivādārṇavasetu* and *Vivādārṇavasetubandha*, also went by the title *Vivādārṇavabhañjana*.

[11] Jones's rate of acquisitions is all the more impressive since a number of the texts on this list are no longer extant and could not possibly be obtained.

evidence it is clear that, based on a list of texts first drawn in 1788, Jones was actively building a library in 1789 and sharing it with his pandit acolytes in 1790.

As Jones plied his Indian associates with manuscripts, he also sought further information. A note, partly in English, partly in his beginner's Devanāgarī hand, identifies the lost *Kāmadhenu* as "a comment. on Menu, says Rádhácánta, but qu[aere]." We also get glimpses of Jones's judgment of the relative value of texts. Śrīkṛṣṇatarkālaṅkāra's *Dayādhikārakramasaṅgraha* is dismissed as a work "by a modern writer of no great authority." The bias that Jones and other western Orientalists showed for the most ancient texts as inherently more authoritative made short shrift of this author's and this text's fame in Bengal.[12]

Besides close interaction with the pandits whom he recruited to compose his *Digest*, Jones also showed an intense interest in learning about the circumstances of the pandit authors of the *Vivādārṇavasetu*, whose names are enumerated at the end of the text. Jones transliterated all eleven names between lines, and noted, "Five only living Aug. 1788." He flagged the names of those who were deceased with the mark = 0, and of those who were still alive with a + sign. The survivors were Kṛpārāma, Gaurīkānta, Kālīśaṅkara, Śyāmasundara, and Sītārāma.

Evidence of Jones's early interest in the authors of the *Code of Gentoo Laws*, even before he read the Sanskrit text, comes in the form of another personal and heretofore unpublished document, an annotated list he made of them in a notebook, which is now preserved in the Beinecke Library, Yale University. Although Jones did not record the date at which he drew up this list, its place in between two other lists of September and October 1785, of pandits active at the traditional center of learning at Nadiya, makes it clear that it goes back to the early fall of 1785.[13] These were the very first months in which Jones applied himself to the study of Sanskrit. The list of pandit authors of the *Vivādārṇavasetu* is intimately connected with this incipient effort. The names of pandits are listed in Roman script on right-hand pages. On the opposite pages, Jones wrote out the names in a shaky Devanāgarī hand.[14] Both sides of the list include notes and are punctuated with the frequent use of "Q.," for "quaere," to mark issues he wished to investigate further. He returned to the list repeatedly to add, erase, or modify the data. The list's heading, "The *Eleven* Pandits who compiled the <*blank*>" shows that Jones had not yet seen the Sanskrit text in 1785. A note on a following page shows that he was attempting to establish the title of the text, and its meaning, on the basis of oral information.[15] The order in which the joint authors are listed, and their academic titles follow closely what had appeared in Nathaniel Brassey Halhed's English translation of the text, the *Code of Gentoo Laws*.[16] Right from the heading of the list, in which an interlinear note "*Q. Ten*" is inserted, Jones is seen struggling to reconcile the number of ten pandits whom Hastings had appointed to compose the work, with the fact that eleven authors were listed in the *Code*.

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[12] Jones's decision to devote his own time first and foremost to a translation of the *Mānavadharmaśāstra* stemmed from his belief that it was the oldest Hindu lawbook (cf. his letter of February 5, 1785, to William Pitt the Younger, Cannon, op. cit. [cf. n. 3], p. 664).

[13] The pages of Jones's notebook are not numbered.

[14] This exercise shows only one mistake: Bhatta for Bhaṭṭa.

[15] The note reads: "The title of the *Hindù* Code (Beewadarumb [*corrected to* Beewadaroob] Put'hì. Q. what words?). The Sea of Eloquence."

[16] Discrepancies with the *Code* are minor. The order in which the authors are listed in two *āryā* verses at the end of the Sanskrit text is entirely different, and their titles are not given. Jones noted, "The titles are conferred by the Tutors in *science*, when they have completed their studies."

Jones's list of 1785 already records as "dead" the authors of the *Code* whom his annotations in the manuscript of the *Vivādārṇavasetu* mark as no longer living in August 1788. Among those who were still alive, he apparently obtained initially contradictory information about Śyāmasundara and Kṛpārāma, who he thought for a while might be one and the same person. He eventually ascertained that they were alive, in Calcutta and Banaras respectively.[17] The data Jones recorded about Kālīśaṅkara, Sītārāma, and Gaurīkānta are more precise and reveal that he met them in person. Kālīśaṅkara Vidyāvāgīśa, "an able man ... about 40 years old," was instructing five or six students at Bengal's traditional center of classical learning in Nadiya, from which most of the pandits for the *Code* had been drawn. Sītārāma Bhaṭṭa, "a very learned man," was the only non-Bengali among the eleven joint authors. He lived "in a kind of college" in Calcutta under the patronage of Raja Rajaballabha, who, as Diwan of the Khalsa, or chief revenue officer for the British, had been in charge of putting the pandits for Hastings's *Code* on the payroll.[18]

Jones came to employ one of the authors of the *Code*. Gaurīkānta Tarkasiddhānta, Jones recorded in his notebook, visited him at his suburban residence at Garden Reach, apparently for the first time, on May 21, 1788.[19] Jones described him as "lively & eloquent," and as "a Poet," who told him he had written the first *śloka* – by which was probably meant the first stanza, in *śārdūlavikrīḍita* meter – of the *Vivādārṇavasetu*. Jones apparently entertained doubts about the validity of this claim, since he noted of another joint author, the by then deceased Bāṇeśvara Vidyālaṅkāra, "He wrote ye 1st verse. Q." Bāṇeśvara was a poet of legendary fame, who had enjoyed the patronage of Kṛṣṇacandra of Nadiya, Alivardi Khan of Murshidabad, Citrasena of Burdwan, and Nabakṛṣṇa of Shobha Bazar, Calcutta, before entering into service for the British.[20] At the time of Jones's first notation, Gaurīkānta lived in Nabla, near Nadiya.

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[17] Although the condition of Jones's notes, with insertions, erasures, and cross-references, does not allow us always to know for sure what note pertains to which pandit, other information I was able to gather, primarily from contemporary records preserved in the Oriental and India Office Collections of the British Library, buttress this reading. Śyāmasundara appears sporadically in records of the Sadar Diwani Adalat (Superior Civil Court of Appeals) and other British records between 1788 and 1801 (cf., e.g., India Office Records P/51/22, p. 323; P/51/27, p. 385; P/153/53, March 14, 1799, no. 38). Kṛpārāma is named in the *Asiatic Researches*, which Jones edited, as one of the pandits who attended an ordeal in Banaras in 1783 (Ali Ibrahim Khan, "On the Trial by Ordeal, among the Hindus," *Asiatic Researches* 1 [1788]: 389-404, at p. 399). One of the most distinguished pandits in Bengal, he had been patronized by Kṛṣṇacandra of Nadiya and Trilokacandra of Burdwan, and was repeatedly consulted by the British on matters of law from 1773, even before he was recruited for the *Code*, until his death about 1794. His son Rāmalocana succeeded him in his office (cf., e.g., India Office Records P/49/39, pp. 1353 and 1651; P/49/44, February 1, 1774; P/51/22, pp. 298-299 and 323; P/51/27, p. 384; P/127/73, May 20, 1791, no. 11; P/147/46, October 23, 1800, no. 13).

[18] Jones noted that the title of Bhaṭṭa was given to Maratha brahmans. There were a number of learned Maratha pandits in eighteenth-century Bengal. As a non-Bengali, Sītārāma may have been somewhat marginalized in legal proceedings. Although consulted by the British in 1773, even before he was recruited for the *Code*, he was not consulted with other "pandits in the service of government," or "pandits of the Khalsa" in an important case of 1788. Yet his son Viśvanātha succeeded him in his office (India Office Records P/49/39, pp. 1353 and 1651; P/49/44, February 1, 1774; P/51/22, pp. 321-323; P/51/27, pp. 384-385; P/147/46, October 23, 1800, no. 13).

[19] A second pandit also visited Jones that day, whom Jones added to his list of authors of the *Vivādārṇavasetu*. Jones noted that Harideva Tarkasiddhānta was chosen to replace pandit Kṛṣṇacandra, who died "when the work was half finished." Harideva's name does not appear either in the list of authors in the Sanskrit *Vivādārṇavasetu* or in that given in the published *Code of Gentoo Laws*.

[20] Cf., among other sources on Bāṇeśvara, Dinesh Chandra Sen, *History of Bengali Language and Literature*, Calcutta 1954, pp. 9 and 522; N.N. Ghose, *Memoirs of Maharaja Nubkissen Bahadur*, Calcutta 1901, pp.

Jones promptly recruited Gaurīkānta to go over and emend his Devanāgarī copy of the *Vivādārṇavasetu*. Jones considered this process of emendation to be of crucial importance. In a letter of May 6, 1786, he had written: "One point I have already attained: I made the pundit of our court [Rāmacandra] read and correct a copy of Halhed's book in the original Sanscrit, and I then obliged him to attest it as good law, so that he never now can give corrupt opinions, without certain detection."[21] The copy then used may have been that in Bengali script on which his Devanāgarī copy was made. For this new Devanāgarī copy, Jones obtained emendations by one of the text's authors. He took obvious satisfaction in proclaiming on the title page that his manuscript had been "corrected by one of the / compilers / Gaurícánta Pandit."[22] He also wrote to an American friend of his engagement with the *Vivādārṇavasetu* and its authors, and of the care he had taken to obtain as authoritative a textual recension as possible:

> I have read the original of Halhed's book ... compiled about ten or twelve years ago by eleven Brāhmans, of whom five only are now living: the version was made by Halhed from the Persian, and that by a Muselman writer from the Bengal dialect, in which one of the Brāhmans (the same who has corrected my Sanscrit copy) explained it to him.[23]

Jones's letter to Arthur Lee conveys important information. First, it allows us to date Gaurīkānta's corrections to the four summer months between his visit to Jones on May 21 and the date of this letter, September 28, 1788. Most significantly, it brings to the fore the centrality of Gaurīkānta for the transmission of both the Sanskrit text and its English translation. The Bengali oral rendering of the Sanskrit text, which Gaurīkānta conveyed to Zain-ud-Din Ali Rasa'i,[24] who wrote down the Persian version that Halhed in turn translated into English, is irretrievably lost, but his emendations to the Sanskrit text have been preserved. Corrections by Gaurīkānta, in both Devanāgarī and Bengali script, are found throughout the manuscript. They represent a crucial node in the complex textual tradition of the *Vivādārṇavasetu*.

In three articles I devoted to the textual exegesis of the *Vivādārṇavasetu* before Jones's manuscript came to light, and indeed with the design of eliciting information about its present location, I intimated that Jones's manuscript could provide pivotal evidence.[25] This expectation has been amply borne out. Jones's manuscript has proven to be the exemplar on which Colebrooke's manuscript, now in the Oriental and India Office Collections of the British Li-

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184-186; Samita Sinha, *Pandits in a Changing Environment*: *Centres of Sanskrit Learning in Nineteenth Century Bengal*, Calcutta 1993, pp. 3, 4 and 47; and the introduction to Janaki Nath Sastri's edition of Bāṇeśvara's most famous poem, the *Citracampū* (Calcutta 1982, pp. 23-24). The fact that Bāṇeśvara is named first in the list of authors given at the end of the Sanskrit text may be a testimony to his prestige. Jones entered his name, and none other, on the first page of his manuscript of the *Vivādārṇavasetu*. The rationale for the order in which authors are listed in the English *Code* is not clear, but may have to do with seniority.

[21] Letter to Governor–General Sir John Macpherson (Cannon, op. cit. [cf. n. 3], p. 699).

[22] He added at the bottom of the page, "If this manuscript be valued for its rarity, it is *unique*, and its loss would be irreparable. If for what it cost me, it cannot be worth less than *thirty guineas*, and I probably paid twice as much for it."

[23] Letter of September 28, 1788, to Arthur Lee (Cannon, op. cit. [cf. n. 3], p. 821).

[24] The name of the Persian intermediary is given in two manuscripts of the Persian text, which are now preserved in the British Library (Add. Ms. 5646; OIOC Persian Ms. 602).

[25] Rosane Rocher, "The *Vivādārṇavasetu*: Chapters 1 and 2," *Brahmavidyā*: *The Adyar Library Bulletin* 44-45 (1980-1981): 63-73; "Of Sources, Compendia, and Recasts: Competent Witnesses in the *Vivādārṇavasetu*," in: Gunther-Dietz Sontheimer and Parameswara Kota Aithal (eds.), *Indology and Law*: *Studies in Honour of Professor J. Duncan Derrett*, Heidelberg 1982, pp. 185-204; "Overlapping Recensions and the Composing Process: Ceilings on Interest in the *Vivādārṇavasetu*," *Journal of the American Oriental Society* 105 (1985): 531-541.

brary, was copied, sometimes with, sometimes without Gaurīkānta's corrections. As such, it is the archetype of what I have labeled "group S" of manuscripts.[26] It is the single most important manuscript of the text. Jones may have also contributed to the transmission of the *Vivādārṇavasetu* in indirect ways. It is perhaps not coincidental that the three oldest dated manuscripts of the text were copied within the span of a year, Jones's own in 1788, and two copies in Bengali script now preserved in the Calcutta Sanskrit Sahitya Parishad, in 1788/1789. It may not be unreasonable to suppose that Jones's interest in the *Vivādārṇavasetu* in the context of his work on a new *Digest*, and his insistence that it be a basis for court decisions, may have prompted a number of pandits who assisted British courts or provided textual evidence in support of parties who instituted suits before these courts, to obtain copies at this particular time.

However important Jones's contribution has proven to be to the transmission of the *Vivādārṇavasetu*, it should not be forgotten that neither it nor the *Vivādabhaṅgārṇava* were ever published.[27] Only their English translations, the *Code of Gentoo Laws* and the *Digest of Hindu Law on Contracts and Successions* were. For all the collaboration to which we may rightly point between British Orientalists and Indian pandits in the late eighteenth century, their relationship was not an equal one. Jones and other British scholars were the employers, the pandits employees. Pandits supplied texts and other information that the British conceived to be of scholarly or administrative interest. The very drive to produce English compendia of Hindu law was motivated by a desire to provide British judges with the means to be, in Jones's terms, "a check" on the pandits who assisted the courts,[28] or to dispense with them entirely, as eventually came to pass in 1864. While pandits contributed their knowledge, their authority was being steadily eroded.

Pandits were not unaware of their changing circumstances. By virtue of the restrictions traditional caste rules imposed on their means of earning a living, they were always heavily dependent on patronage. Patronage by traditional Hindu kings may have been a primary avenue, but it was not the only one. Patronage by Muslim rulers was an option that a number of pandits embraced. As the power of Indian princes of either faith eroded, and their purses shrunk, a new Bengali aristocracy that had been enriched through business dealings with the British, found luster in dispensing traditional-style patronage to pandits. Employment with the new British ruling power was an additional avenue. Nothing exemplifies this process better than the career of the eminent Bāṇeśvara, whose list of patrons, as we saw, ran the gamut from Kṛṣṇacandra of Nadiya and Citrasena of Burdwan to Alivardi Khan of Murshidabad, and "nouveau riche" Nabakṛṣṇa of Shobha Bazar, before he entered British employ as one of the compilers of the *Vivādārṇavasetu.* As the East India Company consolidated its power, British employ, as I concluded in the case of Rādhākānta Tarkavāgīśa, whom Jones put in charge of his project of a *Digest*, became "a way of life."[29] Gaurīkānta's career similarly reflects the changing environment in which leading pandits worked in late eighteenth-century Bengal. He was a student of the famed Naiyāyika Rāmaśaṅkara (Śaṅkara) Tarkavāgīśa (1723–1816), who enjoyed the highest reputation and the status of "chief" of the Nadiya es-

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[26] Cf. "Overlapping Recensions" at p. 532. The manuscripts that constitute this family are all in Devanāgarī script and are the only copies of the *Vivādārṇavasetu* that are written in Western-style copybook format.

[27] I have an edition of the former in preparation. An edition of the second is a more distant project.

[28] Cf. his letter of February 5, 1785, to William Pitt the Younger (Cannon, op. cit. [cf. n. 3], p. 664).

[29] Cf. "The Career of Rādhākānta Tarkavāgīśa" (cf. n. 7), at p. 633. For an overview of this phenomenon with a focus on the nineteenth century, cf. Sinha, op. cit. (cf. n. 20).

tablishment.[30] Jones noted that Rāmaśaṅkara had declined induction as an assistant to the British courts, since remuneration came in the form of money rather than a traditional land grant. Yet even so eminent a pandit later accepted a subsidy from the colonial government for the maintenance of his "seminary" at Nadiya, an allowance that was continued to his son Śivanātha Vidyāvācaspati after his death.[31]

Gaurīkānta entered British service early on, when he was recruited in 1773 as one of the compilers of the *Vivādārṇavasetu*. Such service was for life, since pandits were placed on a permanent retainer by the government.[32] Yet this employment was not exclusive. Whether or not the work Gaurīkānta did for Jones was, as is most likely, additional to, rather than part of his continuing government service, he and other "pandits of the Khalsa" were free to accept additional employment and patronage. The five joint authors of the *Vivādārṇavasetu* whom Jones recorded as living in August 1788 found themselves nominated as assessors for a landmark case of 1791, although not all for the same parties.[33] Jones was later to enter in his notebook that Gaurīkānta went on to live in Burdwan under the patronage of Raja Kṛṣṇacandra of Nadiya. However satisfying Gaurīkānta may have found it to enjoy the patronage of the leading traditional patron of his time, his connection with the British government endured and passed on to his son Pītāmbara after his death.[34]

The imbalance of power that was inherent in the collaboration of British and Indian scholars in colonial times still casts a long shadow. Two centuries after the death of Sir William Jones and of the authors of the *Vivādārṇavasetu*, the British Orientalist is still lionized, while his Indian acolytes are barely known. The contribution of Indian scholars to the beginning of European studies of Sanskrit is all too often flattened in generic statements about unnamed and shadowy pandits. Besides allowing us to appreciate the ways in which Jones worked, evidence of the kind provided here helps restore to the Indian scholars who taught and assisted him some of their individuality.

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[30] Cf. Jones's list of Nadiya pandits, and Sinha, op. cit. (cf. n. 20), pp. 20-21.

[31] Cf. "Memoir on Education of Indians – II," *Bengal Past and Present* 19 (1919): 99-201, at p. 149.

[32] Cf. reports on the opinions of pandits "in the employ of government" or "pandits of the Khalsa," who included Gaurīkānta and fellow authors of the *Vivādārṇavasetu*, delivered on July 30 and November 28, 1788 (India Office Records P/51/22, pp. 321-323; P/51/27, pp. 384-385).

[33] Gaurīkānta was nominated as an assessor for the plaintiff, Kṛpārāma and Kālīśaṅkara for the defendant, and Sītārāma and Śyāmasundara for both parties (cf. Row, op. cit. [cf. n. 9], pp. 395-399). Substitute joint author Harideva (cf. n. 19) was also nominated for both parties.

[34] Cf. India Office Records P/147/46, October 23, 1800, no. 13.

Ludo Rocher

Did "the Law of the Shaster" Give Indians Justice?

collegae proximo, amico optimo

"You have given India justice as the East has never known before." These were the words of the Secretary of State for India, Sir Samuel Hoare, in the early 1930s. Greenlane, the protagonist of Penderel Moon's *Strangers in India*, "at that time had believed him and taken comfort at his words ... He now knew better from bitter experience that the truth was otherwise."[1] Hoare's statement is, indeed, just one example of the ever recurring theme of British pride in having given Indians the justice they never enjoyed before, of having replaced lawlessness in India by justice and the rule of law. In J. Duncan M. Derrett's words:

> The British nation is proud of having administered justice to oriental peoples with impartiality and integrity, conscious of the Roman example. These qualities were thought to have been lacking before the British period, and, to the extent to which British standards are respected since British rule ceased, that heritage is usually considered a ground for pride.[2]

In this essay I intend to examine some of the reasons why not everyone, not even every Englishman, shared in the pride of Hoare and many others.[3] My remarks will be restricted to the kind of civil justice Britain gave the Hindu population of India.

To provide the necessary historical background for my argument, I must go back to 1765, the year in which Lord Clive, during his second tour as Governor of Bengal, obtained from Alam Shah, the Mughal emperor in Delhi, the right for the East India Company to "stand forth as diwan" for Bengal (which at that time included Bihar and parts of Orissa). The Company hesitated to assume that responsibility immediately, and they appointed Muhammad Reza Khan as their deputy.[4] The results were not satisfactory, and, following the severe famine in Bengal in 1769-1770, in a letter dated 28 August 1771, the Court of Directors in London ordered the Governor of Bengal, John Cartier, to take over the diwani for the Company.

"Standing forth as diwan" meant, first and foremost, collecting revenues, but it also involved administering justice, at least administering civil justice, not only to British subjects in India, but also to "the natives." A company of merchants taking on the task of administering justice

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[1] London 1944, p. 48; New York 1945, p. 35.

[2] "The Administration of Hindu Law by the British," in: *Comparative Studies in Society and History* 4 (1961-1962): 10-52, quotation at p. 10; the article is devoted to a critical analysis of this statement. The statement is omitted from the rewritten text of the article in *Religion, Law and the State in India*, London 1968, pp. 274-320. On Derrett's own opinion, see the end of this essay.

[3] E.g., in 1800 Lord Wellesley listed as the first duty of the majority of civil servants of the Company, "[t]o dispense justice to millions of people of various languages, manners, usages, and religions" (Minute in Council at Fort William Containing the Reasons for the Establishment of a College at Calcutta, 18 August 1800; *Asiatic Annual Register for 1802*, Vol. 4 [1803], State Paper pp. i-xxvii at p. ii). Twenty years after Independence, C.H. Philips reflected that "few would question the enormous importance to modern India and the world of the British creation of a rule of law in the context of the Pax Britannica" (foreword to B.N. Pandey, *The Introduction of English Law into India*: *The Career of Elijah Impey in Bengal 1774-1783*, New York 1967, p. vii).

[4] Reza Khan was installed as Naib Subahdar on 3 March 1765 (Abdul Majed Khan, *The Transition in Bengal 1756-1775*: *A Study of Saiyid Muhammad Reza Khan*, Cambridge 1969, p. 79).

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 71-81.

in a foreign land was an anomaly,[5] but it was part of the diwani, and it inevitably raised the question of the kind of law that should be administered to Indians. Opinions were divided. Some were in favor of maintaining the status quo, and of continuing to govern all Indians by the existing Muslim laws.[6] Others argued that, judging from the prevailing uncertainty and confusion in the administration of justice, the natives would be better served by a different, true system of law, i.e., British law. A case in point is Alexander Dow, a lieutenant–colonel in the Company, who, in 1772, wrote:

> To leave the natives entirely to their own laws, would be to consign them to anarchy and confusion. ... It is, therefore absolutely necessary for the peace and prosperity of the country, that the laws of England, in so far as they do not oppose prejudices and usages which cannot be relinquished by the natives, should prevail. The measure, besides its equity, is calculated to preserve that influence which conquerors must possess to retain their power.[7]

Others again did realize that the Indians indeed had their own systems of law, and that it was but humane on their part, first, to find out what these laws were, and, then, to administer these laws to the best of their abilities.

The idea was not new. George II's charter of 1753 ordered, not that the Mayors' Courts in the three Presidencies should administer local laws, but at least that cases among Indians should continue to be decided by the Indians themselves.[8] More important, in 1772 Cartier's predecessor, Harry Verelst, wrote:

> The dread of the English name has proved a plentiful source of suppression in the hands of private men. Shall we add a complicated system of laws to impose on a timid and indolent people? Who will understand his right? Who will apply to our courts for redress?[9]

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[5] The anomaly of "this political monster of two natures" has been clearly exposed in Thomas Babington Macaulay's speech to the House of Commons, 10 July 1833 (*The Works of Lord Macaulay*, London 1898, reprint New York 1980, Vol. 11, pp. 545-555).

[6] Reza Khan argued at length against Hindus being governed by Hindu law in courts of law assisted by brahmans: "The Gentoos are subject to the true Faith; and to order a Magistrate of the Faith to decide in Conjunction with a Brahman would be repugnant to the Rules of the Faith – and in a Country under the Dominion of a Mussulman Emperor it is improper, that any Order should be issued inconsistent with the Rules of the Faith, or that Innovations should be introduced in the Administration of Justice" (India Office Library and Records, Factory Records: Murshidabad, 4 May 1772). This argument was still defended in 1825, by Archibald Galloway, for whom "the Moohummudan law is the only law which the British government was legally authorized to recognize." Hindu law "has no intrinsic value," and "[l]et those who advocate the introduction of English law into India, look at the demolition it is undergoing at home" (*Observations on the Law and Constitution and Present Government of India*, 2nd ed., London 1832, pp. 286, 287 and 291).

[7] *History of Hindostan*, 3rd ed., London 1792, Vol. 3, pp. ci-cii. William Bolts foresaw that, without giving Indians the benefits of British law, they would "be deprived of their rights even as men, from the laws of nature, as well as of those blessings that are peculiar to the laws of England" (*Considerations on Indian Affairs*, 2nd ed., London 1772, p. 111).

[8] I.e., unless both parties agreed to submit their case to the Mayor's Court. William Hook Morley referred to the Charter of 1753 as the first reservation of their own laws and customs to Indians (*An Analytical Digest of All the Reported Cases*, London 1849-1850, Vol. 1, p. clxix). Cf. George C. Rankin, *Background to Indian Law*, Cambridge 1946, pp. 1-2.

[9] *A View of the Rise, Progress and Present State of the English Government in Bengal*, London 1772, p. 132. Verelst warned: "As well might we expect that the Hindoo could change his colour, as that several millions of people renounce in an instance those customs, in which they have lived, which habit has confirmed, and religion has taught them to revere" (p. 135).

Warren Hastings arrived in Calcutta in February 1772, and succeeded Cartier as Governor of Bengal on 9 April.[10] By then, Hastings had been in India for more than twenty years. He had formerly lived "amongst the country people in a very inferior station,"[11] first at and later even outside Kasimbazar. He obviously became concerned about the state of the law among the natives,[12] and he decided that something had to be done about it. Just four months after his inauguration, on 15 August, he and the Committee of Circuit were ready with a plan. The "Plan for the Administration of Justice" mainly set up a hierarchical system of courts of law, from the mufassil up, for both civil and criminal cases.[13] In an essay on the administration of civil justice, what counts is article 23:

> In all suits regarding Inheritance, Marriage, Caste, and all other religious Usages and Institutions the laws of the Koran with regard to *Mahometans*, and those of the Shaster with regard to *Gentoos*, shall be invariably adhered to. On all such Occasions, the Moulavis or Brahmins shall respectively attend and expound the Law, and they shall sign the Report, and assist in passing the Decree.[14]

Even though Hastings himself was aware that the Plan did not provide a perfect solution,[15] and even though some of Hastings's antagonists were to use this article against him,[16] for obvious reasons it was applauded by the Orientalists in Calcutta,[17] and it even provoked some of the few kind words said about Hastings by Macaulay.[18] Anyhow, "the Shaster" became the

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[10] On 14 March he wrote to Josias Dupré: "I am yet unemployed, except in reading, learning, but not inwardly digesting. I fear I have a laborious and difficult part to act; but I have hopes of *able* support and *willing*" (G.R. Gleig, *Memoirs of the Life of the Right Hon. Warren Hastings*, London 1841, Vol. 1, p. 231).

[11] Henry Vansittart, *A Narrative of the Transactions in Bengal*, London 1766, reprint Calcutta 1976, p. 306.

[12] "The regular Course of Justice was everywhere suspended, but every man exercised it who had the Power of compelling others to submit to his Decisions" (Hastings to the Court of Directors, 3 November 1772; G.W. Forrest, *Selections from the State Papers of the Governors-General of India*, Vol II: *Warren Hastings Documents*, Oxford 1910, p. 268).

[13] Strictly speaking, criminal justice was not in the domain of the diwan, but in the domain of the nawab. Hastings justified the inclusion of criminal matters in the Plan, in a letter to the Court of Directors, by "the importance of a steady and vigorous execution of justice to the peace and security of the people, and the consideration of the youth and inexperience of the Nawab which exposed him to an improper influence from the officers of his Court" (M.E. Monckton Jones, *Warren Hastings in Bengal*, *1772-1774*, Oxford 1918, p. 336).

[14] For the text of the Plan, see, e.g., Forrest, op. cit. (cf. n. 12), Vol. 2, Appendix B.

[15] On 22 July 1772 he wrote to Richard Barwell: "Your observation upon the impossibility of obtaining a perfect system is perfectly just. In many cases we must work as an arithmetician does with the *Rule of False*. We must adopt a plan upon conjecture, try, execute, add, and deduct from it, till it is brought into a perfect shape" (Gleig, op. cit. [cf. n. 10], Vol. 1, p. 316). Cf. letter to Josias Dupré, 6 January 1773 (ibid., p. 273).

[16] E.g., Edmund Burke, during Hastings's impeachment proceedings: "It was the duty of a British Governor to enforce British laws, and correct the opinions and practices of the people, not to conform his opinion to their practice" (P. Moon, *Warren Hastings and British India*, New York 1949, p. 343).

[17] Cf. William Jones's often quoted letter to Lord Cornwallis (19 March 1788): "Nothing could be more obviously just, than to determine private contests according to those laws, which the parties themselves had ever considered as the rules of their conduct and engagements in civil life; nor could anything be wiser than, by a legislative act, to assure the Hindu and Muselman subjects of Great Britain, that the private laws, which they severally hold sacred, and a violation of which they would have thought the most grievous oppression, should not be superseded by a new system, of which they could not have any knowledge, and which they must have considered as imposed on them by a spirit of rigour and intolerance" (Garland Cannon, *The Letters of Sir William Jones*, Oxford 1970, Vol. 2, p. 794).

[18] Even though Macaulay considered Hastings's system of civil and criminal justice "a very imperfect system," he recognized Hastings as "the first foreign ruler, who succeeded in gaining the confidence of the hereditary priests of India, and who induced them to lay open to English scholars the secrets of the old Brahmanical theology and jurisprudence" (Macaulay, op. cit. [cf. n. 5], Vol. 9, pp. 429 and 501).

source of civil law for Hindus, and the principle not to interfere with it has remained a basic concern of the British right up to the time of Independence, and of the Indian government up to the years 1955-1956.[19]

At this point we may raise the question whether the law of the Shaster indeed gave Hindus in India justice. Negative responses to that question have come from several quarters. I will deal with three of them in this article.

First, it has been said that the purpose of Hastings's plan was less to give Indians justice than that it was an integral part of the grand scheme of the Orientalists in Calcutta to control, dominate, and divide the Indian population. In the foreword to Bernard S. Cohn's *Colonialism and Its Forms of Knowledge*, Nicholas B. Dirks states that the articles collected in the volume deal with "areas in which the colonial impact was previously assumed to be either minimal or epiphenomenal":

> We read that the painstaking effort by British Orientalists to study Indian languages was not part of a collaborative enterprise responsive for a new renaissance, but rather was an important part of the colonial project of control and command. We read that the very Orientalist imagination that led to brilliant antiquarian collections, archaeological finds, and photographic forays were in fact forms of constructing an India that could be better packaged, subsumed and ruled. ... And we read that one of the sites of colonial power that seemed simultaneously most benign and most susceptible to indigenous influences – namely, law – in fact became reponsible for institutionalizing peculiarly British notions about how to regulate a colonial society made up of "others" rather than settlers, leaving extremely problematic legacies for contemporary Indian society.[20]

It is true that, as far as other fields of law are concerned, a number of Englishmen, including Macaulay (strongly influenced by Jeremy Bentham and James Mill), impressed on Parliament the need to provide India with western-style, uniform legal codes. The Charter Act of 1833 (3 & 4 Will. 4, ch. 85, s. 53) did set up a Law Commission which, with Macaulay in the chair, started working on an Indian Penal Code. One of the reasons why the Indian Penal Code was enacted only nearly three decades later (Act XLV of 1860) may have been that penal law was not properly enacted in England either, and that the Indian Penal Code served more or less as a touchstone for legislation at home.[21] More important, however, was, even here, "the extreme aversion which for a long time before the mutiny was felt by influential persons in India to any changes which boldly and definitely replaced Indian by European institutions":[22] Indeed, it needed a major event such as the 1857 uprising for a uniform penal

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[19] I.e., the years in which the Indian Parliament enacted *The Hindu Marriage Act* (1955), *The Hindu Succession Act*, *The Hindu Minority and Guardianship Act*, and *The Hindu Adoptions and Maintenance Act* (1956).

[20] *Colonialism and Its Forms of Knowledge*, Princeton 1996, p. x. In fact, as far as personal law is concerned, Cohn wrote: "What *had started* with Warren Hastings and Sir William Jones as a search for the 'ancient Indian constitution' *ended up* with what they had so much wanted to avoid – with English law as the law of India" (p. 75; emphasis added). He was right to the extent that, for all practical purposes, Hindu law gradually developed into a British-style case law: "Today when one picks up a book on Hindu law, one is confronted with a forest of citations referring to previous judges' decisions – as in all Anglo-Saxon-derived legal systems – and it is left to the skills of the judges and lawyers, based on their time-honored abilities, to find the precedent to make the law" (ibid.).

[21] In a letter to Mill, Macaulay anticipated that, once the English people would see the Indian Penal Code, "they will, I think, turn their minds to the subject of law-reform with a full determination to be at least as well off as their Hindoo vassals" (24 August 1835; Thomas Pinney, *The Letters of Thomas Babington Macaulay*, Cambridge 1976, Vol. 2, pp. 146-147).

[22] James Fitzjames Stephen, *A History of the Criminal Law of England*, London 1883, Vol. 3, p. 299. Cf. a letter from the Law Commissioners, dated 2 May 1837: "If we had found India in possession of a system of criminal law which the people regarded with partiality, we should have been inclined rather to ascertain it, to

and other codes to be passed into law.[23] With regard to the law of the Shaster, too, the ideal of having all its disparate rules collected in a single code was repeatedly considered.[24] Hastings himself ordered the composition of what was to become known as *A Code of Gentoo Laws* (1776),[25] and the British continued to commission codes late into the eighteenth century, among others Jagannātha's *Vivādabhaṅgārṇava*, which, in translation, became known as *Colebrooke's Digest* (1897-1898).[26] Yet, these were all "codes" based solely on the Sanskrit legal tradition. Hindu law being intimately connected with religion, here more than elsewhere the British hesitated to interfere.[27] Not many Englishmen insisted on replacing the law of the Shaster by a uniform, western-style civil code.[28] Even Macaulay agreed:

> We do not mean that all the people of India should live under the same law; far from it. We know how desirable that object is but we also know that it is unattainable. ... But whether we assimilate those systems or not, let us ascertain them, let us digest them. ... Our principle is simply this – uniformity where you can have it – diversity where you must have it – but in all cases certainty.[29]

Rather than merely looking up to the Plan of 1772 as "enlightened policy" or "far-sighted policy,"[30] Peter J. Marshall detailed the complexity of Hastings's motivations, both in oriental scholarship generally, and in the area of law in particular. The following sentence is relevant to our present purpose:

> A policy of tolerating and preserving Indian traditions and customs seemed to him to be the only way of effectively prolonging British rule. Innovations would provoke opposition, which would shatter the fragile power of the Company. Nevertheless, Hastings's plans seem to have trans-

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digest it, and moderately to correct it rather than to propose a system fundamentally different" (C.D. Dharker, *Lord Macaulay's Legislative Minutes*, Oxford 1946, p. 260).

[23] The Indian Penal Code was preceded by the Code of Civil Procedure (1859), and followed by the Code of Criminal Procedure (1861) and the Indian Evidence Act (1872). Major Henry M. Court argued that, more than British interference with the religion of the Indians, it was "the administration of justice as one of their sufferings that incited them to mutiny" (*Observations on the Civil*, *Criminal and Police Administration*, *as Prevalent in the Provinces of Bengal*, London 1859, p. 3).

[24] In 1824 Francis Workman Macnaghten "endeavoured to collect from decided cases, such principles as ought, in my judgment, to be adopted, and such as ought, if adopted, to continue immutable" (*Considerations on the Hindu Law as It Is Current in Bengal*, Serampore 1824, p. viii). Half a century later Henry Stewart Cunningham, the Advocate General in Madras, arranged the rules of Hindu law "in such a form as may indicate the possibility of their treatment in a Code if at any time hereafter the Government should consider that desirable" (*A Digest of Hindu Law*, *as Administered in the Courts of the Madras Presidency*, Madras 1877, p. 1).

[25] Cf. Rosane Rocher, *Orientalism*, *Poetry*, *and the Millennium*: *The Checkered Life of Nathaniel Brassey Halhed 1751-1830*, Delhi 1983, pp. 48-72.

[26] Cf. J. Duncan M. Derrett, "Sanskrit Legal Treatises Compiled at the Instance of the British," *Zeitschrift für vergleichende Rechtswissenschaft* 63 (1961): 72-117; reprinted as "The British as Patrons of the Śāstra," in *Religion*, *Law and the State in India* (cf. n. 2), pp. 225-273.

[27] Expressions of the intent not to interfere with Hindu religion / family law are too numerous to document them here. Donald E. Smith points out that**,** when we judge more recent Acts which did interfere with classical Hindu law, such as the *Hindu Women's Right to Property Act* (1937) and the *Hindu Married Women's Right to Separate Residence and Maintenance Act* (1947), "it must be remembered that these last measures ... were passed by a legislation in which the large majority of the members were Indians" (*India as a Secular State*, Princeton 1963, p. 277). Cf. also Kurt Lipstein, "The Reception of Western Law in India," in *International Social Science Bulletin* 9 (1957): 90.

[28] Even Macnaghten's "endeavour" (cf. n. 24) was not meant to set Hindu law aside, but to be "the first which has been made to simplify *Hindoo* law; to separate its principal parts, from the theory and controversy with which they were intertwined or confounded" (p. xvi). He published his book under the motto *misera est servitus*, *ubi jus est vagum aut incertum*; the main target of Macnaghten's criticism was Jagannātha, who "has given us the contents of all books indiscriminately" (p. viii).

[29] Macauley, op. cit. (cf. n. 5), Vol. 11, pp. 581-582.

[30] Rankin, op. cit. (cf. n. 8), pp. 3-4.

> cended the merely practical and to have been based on a genuine relativism. Indian institutions were not to be tolerated solely to avoid discontent; they were to be respected as good in themselves.[31]

Conversely, rather than simply looking down upon Hastings's Plan as yet another example of Orientalist imagination, which was in fact a form of "constructing an India that could be better packaged" (see p. 74 above), Lloyd and Suzanne Rudolph pointed out that, given both their classical and their eighteenth-century European background, Hastings and Jones very much reacted as might have been expected of them:

> Their sense of being local rulers led them to do what they thought local rulers did, rely on the laws of the people under their authority to administer justice. Anachronistic efforts to read divide-and-rule communal politics into company policy need to be modified by attention to the civilizational perspective and the self-understanding of company servants and local rulers.[32]

Irrespective of Hastings's motivations, the most far-reaching consequence of his actions was that the laws of the Hindus were raised to a status equal to that of the laws of the Muslims, a status which Hindu law had not enjoyed for several centuries.[33]

The second argument against British justice in India relates less to the content of the civil law which the British administered, than to the way in which they administered it. Hastings's Plan of 1772 brought about a major change: instead of civil justice being dispensed by local, Indian authorities as in the past, according to the Plan, in the mufassil diwani adalats "the Collector of each District shall preside on the part of the Company, in their quality of King's Dewani" (Art. 3), and the superior court, the Sadr Diwani Adalat, shall be presided by "the President, with Two Members of the Council" (Art. 6). In other words, justice was now administered to Indians by foreigners, who not only were not familiar with the traditional Indian ways of dispensing justice, but who also brought with them principles of judicature that were unfamiliar to Indians. The Rudolphs fittingly noted that few of us give much thought to the blindfolded woman, holding a balanced scale, on the façades of our law courts.[34] We assume that justice has to be blind. Judges should have no connection with the case or with the parties involved; even jurors and witnesses must be carefully screened. That was the kind of justice the British took with them to India, but it was not the kind of justice Indians were used to.[35] In India justice was supposed to be wide open-eyed. Whoever was in charge of settling a dispute knew the parties well. In fact, he knew in advance, from well informed sources, what the dispute was all about. He also knew the witnesses, and he knew who was reliable and who was not. False witnesses – who became the bane of the British law

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[31] "Warren Hastings as Scholar and Patron," in: A. Whiteman et al. (eds.), *Statesmen*, *Scholars and Merchants*: *Essays in Eighteenth-Century History presented to Dame Lucy Sutherland*, Oxford 1973, pp. 242-262, at p. 252. Cf. Robert Chambers, in his Vinerian lectures: "We shall be restrained from oppression by that great principle which holds all empires together, 'that the happiness of the whole is the happiness of its parts'" (Thomas M. Curley, *A Course of Lectures on English Law*: *Delivered at the University of Oxford*, *1767-1773*, *by Sir Robert Chambers*, Madison, WI 1986, Vol. 1, p. 292.

[32] "Living with a Difference in India. Legal Pluralism and Legal Universalism in Historical Context," in: G. James Larson (ed.), *Religion and Personal Law in Secular India*: *A Call to Judgment*, Bloomington 2001, pp. 36-65, at p. 39.

[33] Cf. Galloway's indignation: "The ashes of the Hindoo law have indeed been raked up" (op. cit. [cf. n. 6], p. 286).

[34] *The Modernity of Tradition*: *Political Development in India*, Chicago 1967, p. 256.

[35] An interesting comparison between the traditional Indian and the new British systems of justice is provided by the abbé Jean-Antoine Dubois (*Hindu Manners*, *Customs and Ceremonies*, translated by Henry K. Beauchamp [1817], 3rd ed., Oxford 1906, pp. 654-667).

courts in India[36] – were far less prominent in the traditional courts.[37] British courts were formal, meeting in unfamiliar buildings, the judges dressed in wig and gown, and the audience not participating in the procedure; Indian courts met informally, under a village tree,[38] the audience actively engaged in the progress of the discussions. British justice was long-winded and expensive; Indian justice was fast and, very important for most Indian litigants, it was cheap. British courts felt obliged to come to a clear decision on which party was right and which was wrong; traditional Indian justice aimed at reaching compromises. It should come as no surprise, therefore, that the Indian villager avoided the new courts;[39] there are reports that a stigma attached to those villagers who took their disputes to the city court.[40]

Some Indian administrators were not unsympathetic to these concerns. James Forbes was impressed by Indian jurisdiction, and acknowledged that "had I equalled Blackstone in knowledge of jurisprudence, it would have availed little among a people completely attached to their own customs, and influenced by the prejudices of caste."[41] Partly as a reaction against the regulations introduced by Lord Cornwallis, two friends, Thomas Munro and Mountstuart Elphinstone, who were to become governors of Madras and Bombay, respectively, advocated the official recognition of local panchayats, and made efforts to increase their power.[42] In a Memoir dated 31 December 1824, Munro noted that some progress may have been made in the field of criminal law, but "I doubt if in civil judicature we have the same advantage yet, or even can have, until we leave to the natives the decision of almost all original suits." Quoting a saying, "where the Panj sits God is present," he regrets that "[t]here is nothing in which our judicial code on its first establishment departed more widely from the usage of the

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[36] British complaints about not being able to rely on witnesses – and about perjury – are legion. E.g., "I conscientiously believe, that for the purpose of discriminating the natives of action, and the chances of truth in the evidence of such a people, the mature life of the most acute and able European judge devoted to that single object would not place him on a level with an intelligent Panchayet" (Mark Wilks, *Historical Sketches of the South of India*, London 1810, Vol. 1, p. 592). Cf. Philip Woodruff (pseudonym for Philip Mason), *Call the Next Witness*, New York 1946.

[37] For this reason Michael Frances O'Dwyer advocated British peripatetic justice, "in ... their villages, where they are at their best, rather than in the law courts, where they are at their worst" (*India as I Knew It 1885-1925*, London 1925, pp. 52-53).

[38] A tree, especially a sacred village *pippal* tree, as the traditional place to dispense justice, is omnipresent in the literature. James Forbes held court under a "sacred pepal-tree" or a "noble banian tree," and advises: "In whatever light the reputed sanctity of the trees at the Dhuboy durbar may be viewed in Europe, to me they were of great advantage. Under their sacred shade the ordeal trials were performed, the Hindoo witnesses examined, and the criminals were allowed a solemn pause, while waiting for their trial, a pause, perhaps, doubly solemn and impressive, from standing under the immediate emblem of the godhead" (*Oriental Memoirs*, London 1813, Vol. 2, p. 362). Cf. Court, op. cit. (cf. n. 23), p. 5, and Elphinstone (G.W. Forrest, *Selections from the Minutes and Other Official Writings of Mountstuart Elphinstone*, London 1884, p. 338).

[39] Cf. Oscar Lewis, *Village Life in Northern India*, New York 1965, p. 27.

[40] This idea has persisted even in recent years. "Even now, in the rural areas, taking disputes to the local elders is considered better than taking them to the urban courts. Disapproval attaches to the man who goes to the city for justice. Such a man is thought to be flouting the authority of the elders and therefore acting against the solidarity of the village. The few men in Rampura who take disputes to the urban courts are not respected" (M.N. Srinivas, "The Social System of a Mysore Village," in: McKim Marriott (ed.), *Village India*, Chicago 1955, pp. 1-35, at p. 18). Kathleen Gough reports similarly on a village in Tanjore ("The Social Structure of a Tanjore Village," ibid**.,** pp. 36-52, at p. 44).

[41] Op. cit. (cf. n. 38), Vol. 2, p. 360.

[42] In South India, Wilks regarded the panchayat as "an admirable instrument of practical decision," yet "[a]n institution so entirely neglected or misunderstood, that I believe its existence is now, for the first time, presented to the notice of the English public" (op. cit. [cf. n. 36], Vol. 1, p. 501).

country than in the disuse of the panchayet."[43] To Elphinstone, "the best plan is to improve on the institutions of the country instead of making new ones."[44] As a result, "I left civil and criminal justice as I found them (as I found them in theory and name, at least); the former administered by punchayets, the latter by the collector."[45] Elphinstone was aware of the flaws of panchayat judicature – "their grand defect was procrastination"[46] –, yet he considered the panchayat to be "the great instrument in the administration of justice," and he proposed that "the native system still be preserved":[47]

> I kept up punchayets because I found them. ... I still think that the punchayet should on no account be dropped, that it is an excellent institution for dispensing justice, and in keeping up the principles of justice, which are less likely to be observed among a people to whom the adminitration of it is not at all intrusted.[48]

Village studies by anthropologists demonstrate that the way of administering law which Hastings – and his successors – established in India gave Hindus a kind of justice very different from the justice they were accustomed to. Their own administration of justice had many flaws, but it also had advantages. The dilemma has been clearly formulated by M.N. Srinivas:

> I do not hold that justice administered by the elders of the dominant caste is always or even usually more just than the justice administered by the judges in urban law courts, but only that it is much better understood by the litigants.[49]

The third objection to shastric law as the source of civil law among Hindus touches on the very nature of the Shaster. It is not quite clear who or what convinced Hastings that the laws of the Hindus were contained in Sanskrit texts.[50] Conversely, it is clear that neither Hastings nor any Englishman at that time had any idea of the nature and the content of "the Shaster,"[51]

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[43] "Memoir on the State of the Country, and the Condition of the People" (G.R. Gleig, *The Life of Major-General Sir Thomas Munro*, London 1830, Vol. 3, pp. 366, 369 and 368).

[44] To William Erskine, 1 November 1818 (T.E. Colebrooke, *Life of the Honourable Mountstuart Elphinstone*, London 1884, Vol. 2, p. 51).

[45] To Edward Strachey, 28 February 1819 (ibid., Vol. 2, p. 53).

[46] Report on the Territories Conquered from the Peshwa (Forrest, op. cit. [cf. n. 38], p. 355).

[47] Ibid., pp. 337 and 358-359.

[48] Colebrooke, op. cit. (cf. n. 44), Vol. 2, p. 124. On Elphinstone – and Munro – about panchayats, see also Kenneth Ballhatchet, *Social Policy and Social Change in Western India 1817-1830*, London 1957, especially pp. 106-115.

[49] "The Social System of a Mysore Village" (cf. n. 40), p. 18.

[50] Even Derrett does not go farther than "Hastings obviously had been advised that ... the laws of the Hindus must be ascertained from the sacred śāstric texts and the learning enshrined therein" ("The British as Patrons of the Śāstra" [cf. n. 26], p. 233).

[51] An overview of the various and confused definitions of the term *śāstra* – or terms to that effect – in early European accounts is beyond the scope of this article. John Zephaniah Holwell's translation of "a considerable part of the *Shastah*," dealing with Hindu mythology and cosmogony, was lost in the capture of Calcutta in 1756 (*Interesting Historical Events Relative to the Provinces of Bengal and the Empire of Hindostan* [1765], 2nd ed., London 1766, Vol. 1, p. 3). Dow, who claims to have "procured some of the principal Shasters," and to have had many passages explained to him by his pandit (op. cit. [cf. n. 7], Vol. 1, p. xxi), refers to "the original Shaster, which goes by the name of Bedang," with a note: "Shaster, literally signifies knowledge; but it is commonly understood to mean a book which treats of divinity and the sciences. There are many Shasters among the Hindoos; so that those writers who affirmed that there is only one Shaster in India, which, like the Bible of the Christians, or the Koran of the followers of Mahommed, contained the first principles of the Brahmin faith, have deceived themselves and the public" (Vol. 1, p. xxv). Even as late as 1894, an Indian author described the *śāstra* as "a mysterious body of works," which "are on the lips of every Hindu, though but few know exactly what they comprise" (Pramatha Nath Bose, *A History of Hindu Civilization During the British Rule*, Calcutta 1975 [originally 1894], Vol. 1, p. 78).

and that applying shastric law in the Anglo-Indian courts turned out to be more difficult and unsatisfactory than its promoters anticipated. Elphinstone voiced his dissatisfaction with the laws of the Shaster:

> The Dhurm Shaster, it is understood, is a collection of ancient treatises neither clear nor consistent in themselves, and now burried under a heap of more modern commentaries, the whole beyond the knowledge of most learned Pundits, and every part wholly unknown to the people who live under it,[52]

and he ordered Arthur Steele to collect the customs, "chiefly affecting civil suits," of the Deccan.[53]

As could be expected, this kind of criticism came primarily from those whose task it was to administer Hindu law, imposed from Bengal, in the Dravidian South.[54] According to Mr. Justice Francis Whyte Ellis, "[t]he law of the Smritis, under various modifications, has never been the law of the Tamil and cognate nations."[55] Ellis's view was supported by the Sanskritist Arthur Coke Burnell[56] who, in turn, influenced the most outspoken and most adamant protagonist of this kind of criticism, Mr. Justice James Henry Nelson. Nelson devoted no less than three books and a couple of articles to his concerns. Right at the outset of his first book published with the motto "*Māyā duratyayā* 'Illusion is Hard to Overcome,'" and written "[t]o call attention to the absurdity and injustice of applying what is styled '*Hindū Law*' to the great bulk of the population of the Madras Province,"[57] he raises the more general rhetorical question: "Has such a thing as 'Hindū Law' at any time existed in the world? Or is it a mere phantom of the brain, imagined by Sanskritists without law and lawyers without Sanskrit?"[58]

Nelson doubts whether "a man named Manu" ever existed. Even granted he did exist, it must be admitted that

> he set [laws] only to certain masses of men abiding in or about part of the Pumjab, namely to certain *Ārya* tribes or families and in some instances also to certain tribes or families of *Śūdras*. Now, whether a remnant of any one of those tribes or families still exists in any part of India of course is extremely doubtful. And whether a remnant of any of them existed at any time within the limits of the Madras Province, except perhaps on the Western Coast, is still more doubtful.[59]

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[52] Minute of 23 July 1823 (Colebrooke, op. cit. [cf. n. 44], Vol. 2, p. 113).

[53] *Summary of the Laws and Custom of the Hindoo Castes Within the Deccan Provinces Subject to The Presidency of Bombay*, Bombay 1880, Preface.

[54] In the Panjab, too, "[i]t had long been felt by those acquainted with the habits and customs of the rural population that neither the *Sharia* nor the *Shastras* really exercised any direct influence among them" (W.H. Rattigan, *A Digest of Civil Law for the Punjab Chiefly Based on the Customary Law*, London 1880, Preface).

[55] Quoted in Thomas Strange, *Hindu Law*, London 1830, Vol. 1, p. 163. Cf. Rudolph, op. cit. (cf. n. 34), p. 275. On Ellis, see Susan Oleksiw, "Francis Whyte Ellis. A Brief Review of His Work," *The Adyar Library Bulletin* 51 (1987): 267-275.

[56] In addition to being a scholar of Sanskrit and Dravidian languages, Burnell was also sometime judge at Mangalore and Tanjore (*Dictionary of National Biography*, Vol. 3, p. 384).

[57] *A View of the Hindū Law as Administered by the High Court of Judicature at Madras*, Madras 1877, p. ii. The book is dedicated to his "esteemed friend" Burnell; "[b]ut for his fruitful Labours in the field of Hindū Law an attempt like this had been well-nigh impossible."

[58] Ibid., p. 2. The disadvantage of not knowing Sanskrit, the necessity to work with often unclear and unreliable translations, or the danger of being faced in court with untranslated Sanskrit texts, were felt repeatedly, e.g., in John Dawson Mayne's "painful consciousness of the disadvantage under which I have laboured from my ignorance of Sanskrit" (*A Treatise on Hindu Law and Usage*, Madras 1878, p. ix), and by the Privy Council: "In examining this question their Lordships are again at great disadvantage in not knowing Sanskrit" (*Indian Appeals* 26 [1899]: 146).

[59] Op. cit. (cf. n. 57), p. 5.

And he calls attention

> to one of the most widely-spread and mischievous of vulgar errors respecting the natives of this country, that of imagining that the great bulk of the population is "Hindū", and because Hindū, therefore subject to a supposed aggregate of positive laws or rules to which has been given the name of "Hindū Law."[60]

Nelson's views were opposed, among others by the Senior Puisne Judge at Madras, Lewis Charles Innes. Innes maintained that the Sanskrit commentary *Mitākṣarā* did represent the law prevalent in South India.[61] His main concern, however, is clear: a uniform application of Mitakshara law provided "a certain amount of manageable uniformity," whereas, if Nelson's opinion prevailed and individuals had to be judged according to their several customs, "[t]he number of existing Courts would have to be indefinitely increased to cope with the enormous increase in litigation."[62] Nelson's views were, however, received sympathetically by prominent scholars of Hindu law such as the otherwise conservative Narayan Vishvanath Mandlik[63] and John Dawson Mayne,[64] by the comparative legal historian Sir Henry Sumner Maine,[65] by the indologist Auguste Barth who wrote detailed reviews of Nelson's books,[66] and by J. Duncan M. Derrett who devoted a substantial article to him.[67]

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[60] Ibid., p. 10. Nelson's other two volumes, *A Prospectus of the Scientific Study of the Hindu Law* (London 1881) and *Indian Usage and Judge-made Law in Madras* (London 1887), very much elaborate on the same theme.

[61] Auguste Barth called the *Mitākṣarā* Nelson's "bête noire" (*Oeuvres*, Paris 1914-1927, Vol. 3, p. 406). On Mitakshara law as the law of the Madras Presidency, cf. Ludo Rocher, "Schools of Hindu Law," in J. Ensink and P. Gaeffke (eds.), *India Maior*: *Congratulatory Volume Presented to J. Gonda*, Leiden 1972, pp. 167-176.

[62] *Examination of Mr. Nelson's Views of Hindu Law in a Letter to the Right Hon. Mountstuart Elphinstone Duff*, *Governor of Madras*, Madras 1882, pp. 46 and 110. Nelson responded to Innes's *Examination* in a 45-page *Letter to Mr. Innes*, Madras and Cuddalore 1882. Julius Jolly judged that, "if [Nelson's view] were to gain ground among the public at large, the last hour could soon have struck for the administration of Sanskrit law in India" (*Outlines of an History of the Hindu Law of Partition*, *Inheritance*, *and Adoption*, Calcutta 1885, p. 27).

[63] "I can confirm every word of what Mr. Nelson writes in the following paragraph in regard to Madras" (*The Vyavahara Mayukha*, Bombay 1880, p. 474).

[64] Mayne goes less far than Nelson: "In much that he says I thoroughly agree with him. ... But it seems to me that the influence of Brahmanism upon even the Sanskrit writers has been greatly exaggerated, and that those parts of the Sanskrit law which are of any practical importance are mainly based upon usage, which in substance, though not in detail, is common both to Aryan and non-Aryan tribes." Apologizing for his own lack of knowledge of Sanskrit (cf. n. 58), Mayne echoes Nelson's statement quoted earlier, when he says that, except for H.T. Colebrooke and the editors of the Bombay Digest, "[t]he lawyers have not been Orientalists, and the Orientalists have not been lawyers" (op. cit. [cf. n. 58], pp. vii and ix-x).

[65] Maine confirmed for Hindu religion what Nelson said about Hindu law: "Nothing can give a falser impression of the actual Brahminical religion than the sacred Brahminical literature" (*Village Communities East and West* [1871], 6th ed. 1876, reprint New York 1974, p. 216). With regard to Hindu law in South India, he says that "[m]uch attention is deserved by the two works of Mr. J. H. Nelson [*A View* and *A Prospectus*], particularly the first. There may be a question whether the practical evils pointed out in these books are now remediable, or, if they are remediable, by what method they should be removed: but of their existence I do not think there can be any reasonable doubt" (*Dissertations on Early Law and Custom*, New York 1886, pp. 8-9, note).

[66] *Oeuvres*, Vol. 3, pp. 296-304 (*A View*) and 403-410 (*A Prospectus*); Vol. 4, pp. 47-52 (*Indian Usage*).

[67] "James Nelson: A Forgotten Historian," in C.H. Philips (ed.), *Historians of India*, *Pakistan and Ceylon*, London 1961, pp. 354-372 (= *Essays in Classical and Modern Hindu Law*, Leiden 1976, Vol. 2, pp. 404-423), to which I owe some of the data on Nelson's positive reception. Cf. also Robert Lingat, *The Classical Law of India* ([1967], translated by Derrett), Berkeley 1973, pp. 155-162. I have not seen Jolly's review of Nelson's *View* (*Centralblatt* of 10 November 1877), but in his *Outlines* (cf. n. 62) he gently cautions against a "view lately started by some writers of note," to the effect that the commentaries and digests are "mere speculations put forth by the Brahman writers" (p. 27; cf. also p. 33).

Whether or not Hastings was right in proclaiming that "[the laws] of the Shaster with respect to the *Gentoos* shall be invariably adhered to," depends on the as yet unanswerable question of the definition of "the Shaster" he had in mind. I do believe that the ancient *dharmaśāstra*s reflect the several, often irreconcilable, customs as they existed – and, to a certain extent continued to exist – in various Indian communities, local communities, caste communities, etc.[68] On the other hand, as far as the vast commentarial literature is concerned, I interpret each successive commentary as a novel exegetic attempt on the part of a learned pandit better to amalgamate *all* the disparate rules contained in the *dharmaśāstra*s into one harmoniously fitting system of *smṛti*. Differently from the original texts, the commentaries were not meant to be used in courts of law. Against the general trend to interpret the successive commentaries as so many efforts to bring the body of ancient *dharmaśāstra* texts in accordance with the changing historical circumstances,[69] I firmly support the thesis of Burnell:

> A great difference between the original Smritis is apparent, and this in accordance with the differences between the Brahmanical çâkhâs in other respects, but there is no reason to believe that these works do not represent the actual laws which were administered. On the other hand, the case of the modern so-called digests is very different. They are based on the principle that one Smriti is to be supplemented by another, and thus the authors are sometimes much embarrassed by the differences in those books ... There is not a particle of evidence to show that these works were ever even used by the Judges of ancient India as authoritative guides; they were, it is certain, considered as merely speculative treatises, and bore the same relation to the actual practice of the Courts, as in Europe treatises of jurisprudence to the law which is actually administered.[70]

To the extent that Hastings's "law of the Shaster" was possibly intended to mean, and in any case turned out to mean, that not the ancient *dharmaśāstra*s, but the *dharmaśāstra*s as interpreted by the commentators, were the main sources of Hindu law in the Anglo-Indian courts,[71] I agree with Derrett: whoever their advisers may have been, **"**[i]n Bengal, unfortunately,[72] Hastings and his contemporaries, in particular Colebrooke, Jones and their successors, were gravely misled."[73]

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[68] Ludo Rocher, "Law Books in an Oral Culture: The Indian *Dharmaśāstras*," *Proceedings of the American Philosophical Society* 137 (1993): 254-267.

[69] As late as 1935, the Judicial Committee of the Privy Council noted that "the commentators, while professing to interpret the law as laid down in the Smritis, introduced changes in order to bring it into harmony with the usage followed by the people governed by the law; and that it is the opinion of the commentators which prevails in the provinces where their authority is recognised," and ordered that "in the event of a conflict between the ancient text writers and the commentators, the opinion of the latter must be accepted" (Atmaram Abhimanji v. Bajirao Janrao, *Indian Appeals* 62 [1935]: 139 at 143).

[70] *Dâya-vibhâga*: *The Law of Inheritance*, Madras 1868, pp. xiii-xiv.

[71] In 1868 the Privy Council laid down that the duty of a judge "is not so much to enquire whether a disputed doctrine is fairly deducible from the earliest authorities as to ascertain whether it has been received by a particular school which governs the district with which he has to deal and has there been sanctioned by usage" (Collector of Madura v. Moottoo Ramalinga, *Moore's Indian Appeals* 12 [1868]: 396 at 436).

[72] I.e., differently from Ceylon. There the British did not find "law books" to guide them. They temporarily used Chiefs as assessors, gradually worked out relevant legal principles, and dispensed with the assessors.

[73] "The Administration of Hindu Law by the British," in *Religion, Law and the State* (cf. n. 2), p. 292.

Richard Fox Young

Receding from Antiquity (II): Somanāth Vyās and the Failure of the Second Sanskritization of Science in Malwa, ca. 1850

India has discovered Europe and begun to respond to it in being overrun and objectified by it.
Wilhelm Halbfass, *India and Europe* (1988: 437)

Were I to have to choose one line from Wilhelm Halbfass' magisterial corpus of writing to exemplify his work, it would not be the one inscribed above. That line, however, along with the many original observations and inspiring interpretations that thickly clustered around it, has proved to be for me a seminal insight. It has helped me understand the whole complex of interactions between India and Europe that I have worked on over the years going back to the University of Pennsylvania when Wilhelm helped me through my dissertation (later published as *Resistant Hinduism*). Even now, that line continues to shape and inform my work, in particular an essay – rather belatedly-published – called "Receding from Antiquity: Hindu Responses to Science and Christianity on the Margins of Empire, 1800-1850" (2002). This was a sociocultural study in the history of a particular Indian science, that of astronomy (*jyotiḥśāstra*), and of the dynamics of Copernicanization that led one particular community of learned pandits, located in Sehore near Bhopal in Malwa, from Geocentrism to Heliocentrism, that is to say, to a revolutionary paradigm shift in the way the shape of the cosmos was to be envisioned.

Contemporaneous documentation indicated that the transition of the Sehore community from Geocentrism, a paradigm primarily perpetuated by the quasi-canonical literature of the Purāṇas, to Heliocentrism, for which there was no precedent at all in the Indian astronomy of antiquity (although some astronomers were aware of it as a hypothesis), was not an easy one for the pandits to make – even though, comparatively speaking, and for reasons that are still uncertain, it was easier for them than it had been for the learned communities of Europe several centuries earlier (on anti-Copernican arguments, see also Minkowski 2001). Insofar as Malwa is concerned, it was a European who enabled that change to occur. That was Lancelot Wilkinson (1804–1841) of the Bombay civil service, an extraordinary individual who became the patron of a local academy of learning, the Śihūra Saṃskṛta Pāṭhaśāla, when he was posted to Sehore as British Resident for Bhopal. Previous to that appointment, Wilkinson had been in Kotah in Rajputana where he was initiated into the technical literature of the astronomy of antiquity known as the Siddhāntas – in particular Bhāskara's twelfth-century classic, the *Siddhāntaśiromaṇi*. Some of the region's most able scholars, who at the time were fast-becoming an endangered species, were his teachers. Being convinced that *to affect modernity one first had to invoke antiquity*, Wilkinson himself introduced the pandits of Sehore to the *Siddhāntaśiromaṇi*, which, unlike the flat-earth cosmology of the Purāṇas, envisioned the earth as a rotating sphere around which the other planets revolved.[1] Wilkinson's idea was to

[1] Wilkinson's most informative discussion of his involvements with the pandits of Kotah and Sehore is found in his article "On the Use of the *Siddhāntas* in the Work of Native Education" (Wilkinson 1834). For further discussion of his life and work, see Bayly 1996: 257-264, S.R. Sarma 1995/1996a, and Young 2002.

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 83-98.

foster in his pandits an appreciation for the exact sciences of India's past, which along with their proponents were on the verge of extinction.[2]

The response Wilkinson evoked, as I argued in "Receding from Antiquity," was symptomatic of science in the process of being differentiated from religion and accorded a domain of its own. The pandits of Sehore began to see the indigenous traditions of science, in contrast and even opposition to Purāṇic cosmology, as being relevant to the observable world, of being updatable, supplementable, and open to insights from the outside world without prejudice to the integrity of antiquity. In short, the creative potentialities of the Siddhāntas were being newly recognized and freshly appreciated. The first of Wilkinson's pandits to respond to this innovative overture was an Āllāḍi brahmin from Telaṅgāna, "Soobajee Bapoo" (Subājī Bāpu). Soobajee's *Siddhāntaśiromaṇiprakāśa*, printed in Marāṭhī in 1836, was a revisionistic commentary on Bhāskara's *Siddhāntaśiromaṇi*, propounding the essential congruity of this classic with Copernicanism. Another was "Onkar Bhut" (Oṃkār Bhaṭṭ), an Audaṃbar brahmin whose *Bhūgolsār*, a treatise in Hindī on terrestrial geography, was printed around the same time. Both of these authors and their works will again figure prominently in the present discussion.

Soobajee and Onkar were not alone, however. By the time Wilkinson died in 1841, some twenty others had formed a cohort of advocates for Copernicanism at Sehore, disseminating heliocentric astronomy as an organic outgrowth of the old, geocentric variety. While Soobajee Bapoo and Onkar Bhut, as well as Somanāth Vyās who will be introduced below, had been familiar to me from the time I worked on *Resistant Hinduism* due to the fact that the Sehore academy was well-known for its overt opposition to Christianity and for its sharply-reasoned works of anti-Christian apologetics (Young 1981: 80-92 and 143-149), what began to intrigue me more recently was the experience itself of being identified with a community of scholars that was undergoing rapid and far-reaching intellectual and social change, for the ferment was felt in all sorts of ways and not only in relation to science. How did those who were being swept into the vortex of these changes perceive and interpret what was going on? In a second edition of Soobajee's *Siddhāntaśiromaṇiprakāśa*, I came across a passage that was not found in the first, but which opened up perspectives on India's encounter with Europe that I had not considered previously. The passage is cast in the standard format of popular didactic works, that of a dialogue between a pupil (*śiṣya*) and a teacher (*guru*). Since that same passage will continue to be of considerable relevance to the present discussion, I reproduce my unedited translation of it here:

> Pupil: The Siddhāntas of Hindu astronomy are very ancient. The sahibs acquired them from various places around the country. So how come their ideas [about astronomy] are more highly developed than ours? Why is that?
> Guru: After the sahibs went out to see the whole world for themselves, they returned and settled in each of the places they had seen, having been very careful to record the latitude and longitude.

[2] Wilkinson was an ardent admirer of the astronomer Bhāskara and did much to rehabilitate his image among colleagues in the civil service. One of those whom he influenced (and who was himself an admirer of Wilkinson) was John Muir (1810–1882), an advocate of Christian missions who for a time in the mid-1840s was the acting principal of the Benares Sanskrit College. In an address to the College, Muir exhorted his students to emulate Bhāskara, whom he considered an exemplar of the kind of "rationality" that, in his view, India badly needed to recover, not only for the sake of its sciences: Bhāskara, he claimed, was "in no instance content to receive any truth on the authority of the ancients, but invariably requires demonstration. You should in like manner see that all your opinions rest on sufficient evidence, moral and demonstrative, according to the nature of the subject." See Young 1981: 54-55, for further discussion.

> That's why their ideas [about astronomy] are so highly developed. Besides, whoever puts a lot of effort into his labor makes a good profit from it. The cotton we cultivate in India, the sahibs carry back to their own country, spin it, and make it into cloth (*kapṛā*). When the cloth is brought back to India, everybody goes wild about it. There's a market for *their* cloth (*kapṛā*) now, but none for *our* cloth (*vastra*). Just like they took the cotton, the sahibs took home the astronomical texts they found in Arabia, Greece, India, and other countries for study. They put a lot of effort into making our astronomy better than it was before – like they did our cotton.

On the basis of this passage, I suggested at the conclusion of "Receding from Antiquity" that there was more to Soobajee's perspective on the "colonization" of Indian science than wounded feelings, resentment, or even begrudging respect for the advancement of European astronomy. To briefly summarize the argument I constructed, it should be noted that for the word "cloth" in English, two words in the original Hindī were employed. When Soobajee spoke of "*their* cloth," the word was *kapṛā*, and when he spoke of "*our* cloth," the word was *vastra*. Both words come down to the same thing in plain Hindi or English, but semiotically their meanings are worlds apart. Ever since the Lancashire mills began to mass produce it, *kapṛā* has had an ordinary, work-a-day quality as the material of clothing for worldly activity. *vastra*, in contrast to *kapṛā*, is not merely the local product; it is a material made into seamless, unstitched garments, undefiled by foreign hands, fit for wearing by brahmins, and appropriate for offering to the deities enshrined in temples. *vastra* carries associations of the sacred that *kapṛā* does not. If the metaphor holds and expresses what I think it does, then what the European "colonization" of Indian science did was demythologize and detheologize the science of astronomy, which had long been imbued with a sacred quality, and thereby transform it into a science that was both secular and an improvement over the astronomy of antiquity in terms of objective accuracy. To me it seemed that Soobajee was saying, one might return to the past but should not remain there, for if one did, science would not be science but nostalgia.

There was a great deal of interesting grist for the mill in the dialogue extracted above – and not only for mine. In 1996, Gyan Prakash of Princeton University discussed the same passage, from a very different perspective, in a study called "Science between the Lines" in the ninth volume of the *Subaltern Studies* series. Parts of that essay were later revised and incorporated into Prakash's *Another Reason*, published in 1999.[3] To further explore the complex

[3] The original source of the *guru–śiṣya* dialogue that Prakash and I both discuss is indeed a puzzle because the same dialogue appears in two texts. Prakash extracted his from the 1841 edition of the *Bhūgolsār* by Onkar Bhut, a Sehore pandit of the Wilkinson circle; mine was from a polyglot version of Soobajee Bapoo's *Siddhāntaśiromaṇiprakāśa* in Sanskrit, Hindī, and Telugu (the latter being Soobajee's mother-tongue), published in Madras in 1837. Of the two texts in which the dialogue is found, Soobajee's was the older and the more mutable. The textual history of the *Siddhāntaśiromaṇiprakāśa*, briefly stated, is as follows. Originally the text was in Sanskrit. The colophon of the copy in the Baroda Oriental Research Institute dates back to 1834-1835. Then came a printed version in Marāṭhī in 1836. Neither was written in *the guru–śiṣya* style of non-technical, didactic writings; the language was panditic, *wissenschaftliches* Sanskrit and Marāṭhī. After the Marāṭhī came the Madras polyglot, published by the Church Mission Press. An appendix to the Madras polyglot includes the *guru–śiṣya* dialogue in Hindī, corresponding to the dialogue in Onkar Bhut's *Bhūgolsār*. The dialogue in the Madras polyglot is not attributed to any other author than Soobajee. The 1841 edition of the *Bhūgolsār* that Prakash used was not the earliest. It therefore seems likely that the borrowing was from Soobajee rather than the other way around. The question, however, cannot be satisfactorily resolved unless the original edition of the *Bhūgolsār* is found, for it recently came to my attention that both texts, the *Siddhāntaśiromaṇiprakāśa* and the *Bhūgolsār*, were originally composed and first printed in the same year, even though four to five years separate the *Bhūgolsār* that Prakash used from the *Siddhāntaśiromaṇi* that I used. On the details of

ways in which the sciences of India, astronomy in particular, receded from antiquity, it therefore seems appropriate to engage the subject once again, this time in a dialogue with Prakash (especially his first discussion, which is more detailed in this regard than *Another Reason*). To reinforce the arguments that I advanced in my earlier essay and to submit others that are new, I will introduce additional materials from Malwa that have recently come to my attention, especially the *Kalandikāprakāśa*. This was an encyclopedic treatise on astronomy and the other sciences both of Indian antiquity and the modern West by the little-known Hindu savant Somanāth Vyās, whose attempt at re-Sanskritizing those same sciences may help explain why it was that the Wilkinsonian project at Sehore actually achieved rather little and eventually lost the exciting momentum it initially had.

Science without Lines

Gyan Prakash's "Science between the Lines" opens with a mordant critique of modernity. The announcement of its post-modernist, post-colonialist orientation tells us a great deal about what lies ahead (1996: 59):

> Sometime during the nineteenth century, it is said, modernity seized control of India and subjected it to a "second colonization." Emerging as an instrument of the British "civilizing mission," modernity's power, authorized by science, cast its long shadow on India's history. Darkness fell upon the country as modernity eclipsed "little knowledges" and empowered an élite that enunciated the discourse of science.

To substantiate and exemplify this "narrative," Prakash adduced the same *guru–śiṣya* dialogue (cited above) that I adduced in "Receding from Antiquity," thinking that he had found evidence in it of "science's authorization in the language of the other" (1996: 61; the "other" being the subordinate "subjects" of colonial India). Whereas for me the dialogue was grist for a philological mill, for Prakash it becomes grist for an ideological mill specializing in the exposé of colonial domination, power-relations, and exploitation – a reading that, in my view, the text does not support in the way that he thinks. To begin with, Prakash formulates a generalization about Indian and European science as "incommensurable knowledges" (1996: 61) that I find dubious, if by this he means that science is a culturally-conditioned knowledge unrelated to objective realities. It seems that this is what he says, and therefore in his view one culturally-conditioned science – astronomy, for instance – cannot meaningfully interact with another culturally-conditioned science unless it becomes the subject of "negotiation." But if we are not talking about science as a way of knowing empirical reality that transcends cultural conditioning, are we really talking about science or something else? The problem is especially acute because our mutual point of reference, astronomy, is an exact mathematical science which, insofar as it was discussed in early nineteenth-century Malwa, had to do with an order of questions as fundamental as the shape of the earth, its diameter and circumference, the distance from Sehore to London, and whether the sun or the moon was earth's nearest neighbor. There are "knowledges" in the plural about astronomy, but only because some are scientifically true and others false. There is no room here for "negotiation," only for correction, revision, and – if need be – an entire change of paradigm.

Instead of opposing European science to Indian science as "incommensurable knowledges," it would help to bring within the purview of this discussion what historians of science have

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the textual chronology, see Wilkinson 1836: 519-524. In short, the earliest existing text in which the dialogue appears is Soobajee's. All things considered, the question remains open.

long been telling us, that there was an on-going dialogue from deep antiquity within India itself between the empirical science of the Siddhāntas and the transempirical cosmology of the Purāṇas. The truly "other" was not Europe but India, itself a cauldron of putative "knowledges." Some of the vicissitudes of that domestic dialogue I attempted to reconstruct in the first "Receding from Antiquity"; in the present essay I repeat the attempt with additional evidence to reinforce the contention that "real" science cannot become the subject of "negotiation," for if it is then we are not talking about science but politics. Where astronomy is concerned, the only knowledge that was "authorized" during the colonial era was a knowledge that Indian pandits had already contested among themselves long before Europeans ever mattered to India. That dialogue continued with European involvement when the presence of the sahibs began to be felt, without in every instance being forced or coerced into it, as the evidence from Malwa indicates.

Turning now to the actual issue at hand, the *guru–śiṣya* dialogue, Prakash sees in it "a ghostly double of the 'original'" (1996: 62), by which he seems to mean that the self-abnegating *guru* mimics for his pupil's edification the aggrandizing rhetoric of the colonizing "narrative of progress." Recall for this purpose that the *guru* had referred to the way the sahibs circumnavigated the world, jotting down the latitude and the longitude of the ports at which they called, collecting local knowledge about astronomy – "little knowledges," as Prakash misleadingly calls them – and then returned home to reconstruct out of them what might be called in his idiom a "big" knowledge. What is more, the sahibs simultaneously engaged in acquiring colonies for exploiting subject peoples in captured economies by manufacturing goods produced from expropriated raw materials. I agree with Prakash that the dominant theme of the passage is domination – one does not need to read between the lines to see it. India had indeed been brought to its knees by the mills of Lancashire, *vastra* was increasingly in short supply and the country was having to clothe itself in the *kapṛā* of the Phiriṅgis. What seems off the mark to me is to read the text as a symptomatic instance of subaltern Indian scholars kowtowing to and glorifying "colonial exploitation as the model for the progress of science" (1996: 64). On the contrary, the *guru* in the dialogue ruminates upon the ironies and skewed realities of his era, seeing on the one hand an India pillaged of its knowledge by Europe and on the other a Europe that was a cunning but capable power in possession of a "hybridized" science worth knowing and even emulating. For the *guru*, "hybridization" would only mean that Europe's astronomy was commensurable with India's, that the two could interact and become one. Such a perspective was possible because the *guru* had a long view of history, for he knew that Europe had in fact been India's debtor in an earlier era when Siddhāntic savants mattered and the sahibs did not.

Under colonial conditions, at a time when India had been overrun by Europe, scientific exchanges may have come at a cost, the relationships between the parties involved may have been asymmetrical, but science has its own "narrative of progress." To labor for knowledge in the mine of modern science, one did not need to kowtow to its self-appointed Western proprietors. One did not even need to consider science as *theirs* or *Western* at all; it could become India's, anyone's, or simply generic and universal. For, where science is concerned, there are no lines, even though "Science between the Lines" would have them inscribed on stone. No doubt, among the colonizers there were Philistines who believed that lines should be drawn, even where none existed – C.E. Trevelyan (1807–1886) of the General Committee for Public Instruction for one, who, like Wilkinson, had been posted to Kotah in Rajputana as Resident in the 1830s. Unlike Wilkinson, Trevelyan went off to his new appointment to the Committee in Calcutta with the impression that India had no science worth the name. But

among the individuals who saw science as a form of rational enquiry transcending cultural conditioning, there was H.T. Prinsep (1793–1878), also a member of the General Committee but a dissenter from the Anglicizers in part because of his fascination with Wilkinson's invocation of antiquity to affect modernity in Malwa. In one of his last memoranda before resigning from the Committee in protest against its Anglicizing policies, Prinsep inserted into his Orientalist "narrative" (on the importance of education in the medium of India's own languages) an extract from a Wilkinson letter about the pandits of Sehore and their return to the Siddhāntas as a point of contact with Copernicanism. It was on the basis of this experiment far from the metropolitan centers that Prinsep enunciated the principle that "*Science is the same in all languages*."[4] I submit that the pandits of Sehore understood this principle as well as anyone and therefore attempted to express the science of astronomy in the language that was the medium of their own community – Sanskrit. Of self-abnegating mimicry in the ensuing literature that they produced in Sanskrit, or in the vernacular texts that accompanied them, I find no evidence at all.

Before moving on to the next phase of discussion, I conclude with one of the most puzzling aspects of Prakash's overall argument. This has to do with the assertion, again in connection with the *guru–śiṣya* dialogue, that "Western astronomy acquires the status of truth as it travels, changes its shape, and loses its 'origin'" (1996: 69). The implications of this claim make me uneasy. Are we so mired down in relativism that to speak of cultural conditioning and "incommensurable knowledges" makes equally good sense no matter whether the knowledges referred to are transempirical *or* empirical? Putting science aside for the moment as a form of enquiry into the nature of objective reality, is science supposed to be static and grounded in local cultures? Or is it in the very nature of science that it crosses boundaries, "travels," "changes its shape," and "loses its 'origins'"? "One science, many forms" may not be the best way to express my point, but to claim that science "acquires its status of truth" because of being implicated in colonialism would appear to entail a denial of cross-cultural intelligibility and transferability.

The Earth As a Drop of Clear Water in Hand

Lest the discussion thus far appear to hinge too closely on a small fragment from one particular text that both Prakash and I happened to chance upon, I adduce a passage from another text from the same period that likewise articulates a deep-time view of history. The text takes us back to an era when India mattered and Europe did not – an era when Indian science traveled West, changed its shape, and lost its point of origin. The passage is extracted from a work of mid nineteenth-century geography, one of the first-generation treatises of its kind by an Indian writer. This was the *Bhūgolhastāmalaka* of 1855 by Bābū Śivprasād (1823–1895), the chief clerk of the Benares Agency. The titlepage of this Hindustani treatise has a delightful English subtitle: *The Earth As a Drop of Clear Water in Hand*. As if holding the globe in his palm, Śivprasād started with a perfunctory, *pro forma* denunciation of the Purāṇas as sources of scientific information. He then walked the reader through country after country, offering curious tidbits of geographical information, physical, cultural, and political. About the sciences of India, Śivprasād provided the following account (pp. 62-64):

[4] West Bengal State Archives (Calcutta), General Committee of Public Instruction, 1831-1838, Vol. 4, Minute of H.T. Prinsep on the Sanskrit Petition, 30/07/1838.

> This country is itself the root of science; it is from this country that science went forth into the world. Before men elsewhere in the world applied their minds to knowledge, ours did. Our pandits have always been knowledgeable men of good reputation; they were respected as the foremost scholars of the whole world. The Egyptians and Greeks who civilized Europe have written that their own great pandits came to India to learn science. Alexander, who had Aristotle and other great and accomplished Greek pandits in his retinue, was one such ruler. There was a pandit from our own country, whose name the Greeks write as "Kalan" but who in fact is known to us as Kalyāṇ. With a great deal of flattery, he was induced to return [with Alexander]. At the time, there was among them another great pandit of ours who reported this. The Greeks themselves, however, have also written glowingly of Kalyāṇ. They say that as long as Kalyāṇ lived with Alexander, the two of them got along famously, and that Kalyāṇ fulfilled his *dharma* as a Hindu without any difficulty. When he was advanced in years, he built his own funeral pyre and then immolated himself in front of all the men [in Alexander's army].[5]
>
> Baharam, the illustrious ruler of Persia, summoned singers to his country from ours. Even today, there is no other country besides India where there is a science of music (*gān vidyā*). The great caliphs of Baghdad invited physicians to their country from ours and always took their medicine from them. Besides medicine, all other sciences used to flourish here: philosophy (*ātmatattva*), astronomy (*jyotiṣ*), mathematics (*gaṇit*), terrestrial geography (*bhūgol*), celestial geography (*khagol*), history (*itihās*), politics (*nīti*), grammar (*vyākaraṇ*), poetics (*kāvya*), *belles lettres* (*alaṃkār*) logic (*nyāya*), dance (*nāṭak*), engineering (*śilp*), medicine (*vaidyak*), the science of horses (*aśva vidyā*), the science of elephants (*gaja vidyā*), et cetera, et cetera.
>
> The whole of Hindu learning, however, was lost to the Muslims. And then, because our kingdom was on the wane, the desire for learning gradually faded away. Teaching and study declined to such a low state that nowadays anyone who even manages to get his hands on a book can't find anyone who wants to be taught.
>
> When the Muslims held power, people used to study Persian and Arabic. British science, however, has become widespread in our time. With a view to the well-being of India's inhabitants, the *sarkar* (government) has erected *madrassa*s and *pāṭhaśāla*s in various places where students can study. Day by day, new ones are being erected. There is hope that by means of the English language our compatriots will once again become accomplished in all the sciences. One may expect great benefits to accrue from all the newfangled ideas the Europeans think up and to which they then apply their minds (*buddhi*).

Bābū Śivprasād … nostalgic? – Yes. Self-abnegating? – No. Subaltern of "colonial science"? – Unlikely. What I find most intriguing about this passage is Śivprasād's sense of the global ebb and flow of knowledge: from Benares to Baghdad, back to Benares via London – and from Benares again to who knows where? Indeed, science travels, but not the way Prakash thinks, for what we see exemplified here is *jijñāsā*, the *irrepressible urge to know*. What seems surprising is that there is no place for Sanskrit in Śivprasād's expectations for the renewal of Indian science.[6]

[5] Under the name "Kalanos" or "Karanos," Bābū Śivprasād's Kalyāṇ does indeed figure as a "gymnosophist" in Greek historical writings on Alexander's invasion of India. His self-immolation was much discussed as a symptomatic act of Hindu asceticism. See Halbfass 1988: 12-13.

[6] For more on Bābū Śivprasād, who later became a deputy inspector of schools in the education department of the North-Western Provinces and in that capacity played a controversial role in the language controversies of his day because of his pronounced anti-Muslim biases (evident in the passage translated), see Robinson 1997: 434.

The Second Sanskritization of Science

Who would blame Śivprasād for overlooking Sanskrit? After the twelfth century A.D., magisterial texts in Sanskrit dwindle in number until none at all are being produced after the fourteenth. Scholasticism then becomes the norm, insofar as astronomy is concerned. Sanskrit, however, was still the language of "routine" science in the period under review. Learned communities used it as their primary medium of communication. This would go without saying were it not that modern Indic languages were coming to the fore as the media for the popularization of science. The *Siddhāntaśiromaṇiprakāśa* of Soobajee is a case in point. Only a single copy of the Sanskrit original on palmleaves is known to exist (in the Baroda Oriental Research Library), whereas the printed Marāṭhī version is found in a number of libraries and even in Sehore itself where I found a mint-perfect copy in the home of a local astrologer who could cite from it, chapter and verse. Vernaculars for the masses, Sanskrit for the learned – this was a formula that greatly hastened the supersession of Purāṇic cosmology by the Copernicanized Siddhāntas being promoted by the Sehore pandits whose writings were printed by schoolbook societies patronized by "gentlemen" of the Company. It should not be overlooked, however, that R. Pereira, the Goanese proprietor of a fly-by-night Bombay press, churned out all copies of the *Siddhāntaśiromaṇiprakāśa* now in existence. There was interest from above *and* below.

What we do not know so well is the extent of the on-going discussions in Sanskrit that were being conducted by learned communities which disdained the medium of print as an unfit vehicle for the sacred cadences of Sanskrit. To anyone who approaches history through Company records, Sanskrit may appear by this time to have become irrelevant to science. That, however, was hardly the case. The Sanskrit colleges of Benares and Pune were beehives of activity and hardly moribund. Dialogue about astronomy, the Purāṇas, and even the West was a continuing tradition. To chart the channels, the pandit lineages (*paṇḍitaparaṃparā*) through which this dialogue flowed is the difficulty. Even though Sehore was distant from Benares and Pune, its *pāṭhaśāla* was closely linked with these prestigious centers by more than Sanskrit. Sehore pandits were well known to the *rājkīya* (government) professors in those institutions and had often been their teachers (Nṛsiṃha Deva-Parāñjpe, better known as Bāpu Deva Śāstrī [1821–1890], for example, who became the first professor of Indian *and* Western Astronomy at the Benares Sanskrit College, had been Soobajee's protégé). Some of their domestic correspondence survives and can be culled from Bāldev Upādhyāy's massive *Kāśī kī pāṇḍitya-paraṃparā* (1994), or from Dvivedi 1933: 120-129, Chaturvedi 1971, and S.R. Sarma 1995/1996b.

It comes as a surprise, therefore, that the little-known author of one of the last works in Sanskrit on science was a person who had few links to any of the magisterial communities mentioned above. This was the Nāgar brahmin Somanāth Vyās (1807–1885) of Śājāpur near Gwalior, self-described as a devotee (*bhakta*) of Rāma, who had come to Sehore as a pandit in 1839. What makes Somanāth in certain respects an unlikely individual to embark upon what I call the second Sanskritization of science – as a foil to Prakash's "second colonization" of India "authorized by [European] science" – is that his early works in Sanskrit were entirely traditional: a number of treatises on grammar, literature, and logic, as well as Vaiṣṇavite devotional texts, are attributed to him. How, then, did Somanāth begin to manifest an intense, *jijñāsā*-like urge to acquire scientific knowledge? One may hazard the guess that it was in Sehore itself that this new interest emerged, in the eclectic ambience of Wilkinson's *pāṭhaśāla*, which Somanāth always referred to as the School of *True* Science (*sadvidyālaya*).

In his first year at Sehore, Somanāth composed what – to my knowledge – must be one of the most unusual texts ever written for disseminating modern astronomy, the *Rāmasiddhāntanāṭaka*, dedicated to his patron Wilkinson, whom he calls, in a generous ecumenical gesture, a devotee (*bhakta*) of the Lord Jesus Christ. The text, actually a drama, revolves around the resumption of power by Rāma upon his return to Ayodhyā from exile. Another kind of revolution is evident, however, that of the earth around the sun on the Copernican principle of terrestrial motion (*bhūmibhrama*), which Somanāth had found to be congruent with the Siddhāntas. Exactly how science was interwoven with Rāma's resumption of power I am, unfortunately, unable to say – only a fragment of the text survives.[7] A somewhat later work, evidently a more straightforward defense of Heliocentrism, appears to be similar to others that Sehore pandits are known to have composed. This was the *Bhūbhramavādakhaṇḍanottara* (A Response to the Refutation of the Proponents of Terrestrial Motion), which also survives only as a fragment. In all likelihood, the text belongs to that long regression of texts into antiquity symptomatic of India's domestic dialogue on astronomy, which began well before the onset of Prakash's "second colonization" of India by European science. From texts like these, a profile of Somanāth emerges that can be fleshed out a bit further, for not only was he a devout, non-sectarian *bhakta*, he also manifested – like other Sehore pandits – the "'empiricist' openness for future additions and corrections," indeed the willingness to make "explicit adjustments to 'current historical situations' and 'current states of knowledge'" that Wilhelm Halbfass found to be an exceptionally rare intellectual trait among traditional pandits (1988: 253 and 393).

Somanāth's magnum opus in Sanskrit was the *Kalandikāprakāśa*.[8] *kalandikā*, an uncommon word in Sanskrit, was glossed by Somanāth in the colophon as "the distinctive character of all sciences [or, branches of learning]." The text purports to illuminate the entire realm of knowledge, transempirical (*apauruṣeya*) and empirical (*pauruṣeya*): that is, knowledge based on the Veda and received by the rishis, and knowledge known by the human intellect on the basis of sense perception (*pratyakṣa*), inference (*anumāna*), and verifiable human experience (*śabda*). Written in a terse, aphoristic style, the *Kalandikāprakāśa*'s one-hundred folios are heavy reading unless one turns to one of the author's two commentaries, the *Mitākṣara* or *Budhānandinī* (the one short, the other long). The text and its commentaries were composed in the years 1847-1849, but were made public, according to the colophon, only in 1850-1851. As such, the text is a brave attempt to construct what must have been the dream of many a pandit: a śāstric compendium of knowledge that omits nothing of significance. Similar works exist, such as Radhakant Deb's *Śabdakalpadruma*, a massive lexicon, but the *Kalandikāprakāśa* was more a comprehensive opus of all knowledge *worth* knowing than a lexicon. Naturally, the knowledge Somanāth deemed worthy of knowing was determined by his own

[7] The only literature I know of that might be comparable to the *Rāmasiddhāntanāṭaka* comes from Tanjore in the late eighteenth and early nineteenth centuries where King Serfoji II (1777–1832) and his court poet Vedanāyaka Śāstrī (1774–1864) – the one a Hindu and the other a Christian – had both been educated and deeply influenced by the German Halle missionary Christian Friedrich Schwartz (1726–1798). The Hindu king and the Christian poet composed a number of didactic dramas and poems in Tamil to convey the Copernican cosmology that their preceptor had taught them. For translations and a splendid analysis, see Peterson 1999.

[8] Somanāth Vyās' manuscript writings in Sanskrit first came to my attention as a result of the kind assistance I received in Ujjain from Prof. Shrinivas Rath (Vikram University), Dr. Balkrishna Sharma, and Dr. Kailashnarayan Sharma (both of the Scindia Oriental Institute). Prof. Rajendra Nanaviti and Dr. Siddharth Yeshwant Wakankar of the Baroda Oriental Research Institute were equally helpful. Dr. Wakankar is now preparing a critical edition of the *Kalandikāprakāśa* for publication at Baroda. The text that I have used for this essay is that of Kailāśnārāyaṇ Śarmā (1993).

interests, but the range of these is quite encyclopedic. The text comprises all the traditional sciences (called *vidyā*, *śāstra*, *dharma*, etc.) referred to by Bābū Śivprasād and many more that were new to the India of the day: homeopathic medicine (*āyurveda*), archery (*dhanurvidyā*), music (*gāndharvavidyā*), economics (*arthaśāstra*), transportation (*vāhanaśāstra*), engineering (*śilpaśāstra*), architecture (*vāstuśāstra*), culinary art (*sūdaśāstra*), politics (*nītiśāstra*), literature (*sāhitya*), and chemistry (*rasāyaṇa*), which were traditional, as well as physics (*gatividyā*, mechanics might be less anachronistic), meteorology (*vāyudharma*), and even acoustics (*dhvanividyā*), which were modern.

The *Kalandikāprakāśa* is, of course, a highly personal and also somewhat bewildering index of the knowledge that Somanāth himself had acquired, much of it after arriving in Sehore. In a distinctively śāstric idiom, the author explained that these particular sciences were worthy of study (*guṇavatī*) because a knowledge of them would fulfill the four goals of human endeavor (the *puruṣārtha*s). As a whole, he explained, they constitute *arthaśāstra* in the specific – and innovative – sense of being *useful sciences*. Could this be a calque for the European concept of "practical knowledge"? Perhaps. But in Somanāth's own terms, useful knowledge was *sāṃsārika-* or *vyāvahārikavidyā*, that is to say, empirical knowledge having to do with the world of human transactions and, as such, subordinate to the transempirical (*pāramārthika*) knowledge that has liberative potential. Thus was new knowledge coalesced with the old in the *Kalandikāprakāśa*, in a manner that respected the integrity of established ethical and epistemological categories and hierarchies, by ordering that which is most worthy of knowing into knowledge that *improves* and knowledge that *saves*.

To further clarify the architectonics of śāstric knowledge, one should note that Somanāth divided the *Kalandikāprakāśa* into four parts. The first – and oddly the shortest – is the *Vedaprakāśa*. Not surprisingly for a devout *bhakta*, the transempirical quality of Vedic knowledge lies in its being declared by Rāma, revelationally. And, on the whole, even though transempirical knowledge is rooted in the Veda, Somanāth says very little about it. What excites him more is the subject-matter of the *Ṣaḍaṅgaprakāśa* on the six auxiliary sciences where he gives himself free reign to express his erudition in grammar, astronomy, and other branches of learning deemed essential to a Vedic *theoria* and *praxis*. In the third division, Somanāth felt most at home: the *Upāṅgaprakāśa* on the sub-auxiliary sciences. Here he took a magisterial review of religion and philosophy, which started with a discussion of the Purāṇas and their distinctive character. Significantly, this had nothing at all to do with empirical knowledge; apart from the "science" of warfare (*yuddhavidyā*), the Purāṇas were to him simply irrelevant to "real" science. Their provenance was *dharma*, and Somanāth felt no need to castigate Vyāsa for not being a Bhāskara. The fourth and final division, the *Upavedaprakāśa* on the sub-fields of knowledge, contains the lengthy discourses on all the sciences already mentioned, from homeopathic medicine to acoustics. With this, Somanāth's *vidyācakra*, his śāstric circle of knowledge, was complete, all knowledge worth knowing *at the time* had been encompassed. Theoretically at least, the work was updateable.

At the center of the *Kalandikāprakāśa*, however, is the Veda, an unwobbling pivot. The nearer one goes toward that center, the more transempirical the knowledge becomes, while the reverse is true the closer one gets to the periphery where knowledge becomes predominantly empirical. As simplistic as this seems, Somanāth was aware that astronomy, as one of the six auxiliary sciences pertinent to a Vedic *theoria* and *praxis* (along with pronunciation [*śikṣā*], grammar [*vyākaraṇa*], etymology [*nirukta*], prosody [*chandas*], and ritual [*kalpa*]), was a complex case that required special attention. Being the "eye of the Veda" (*vedacakṣus*)

as the *Kalandikāprakāśa* says, astronomy was a divine science that had both transempirical and empirical features. Astronomy manifested what sense perception could not: the relationship between time (*kāla*) and action (*karman*) lying at the heart of prognosticative astrology (*horaśāstra*) – so much, then, for the European indictment of astrology! Prognostication continued for Somanāth to be the *raison d'être* of *jyotiḥśāstra*. Astronomy being more, however, than astrology, his discussion therefore moved on effortlessly to mathematical and observational astronomy. Without fanfare, earth was declared to be a sphere suspended in space, having no need of support (*ādhāra*) to hold it there – so much, then, for the snakes and tortoises of the Purāṇas! Earth's diameter and circumference were then calculated according to a formula provided by Bhāskara's *Siddhāntaśiromaṇi*. This could have been improved upon, but Somanāth seems not to have been aware of how. What was of interest was the motion of the earth, its diurnal rotation and revolution around the sun, which was compared to the moving rim of a chariot wheel (*rathacakra*). This, indeed, was a leap from the Geocentrism of Bhāskara to the Heliocentrism of Copernicus, but Somanāth was unapologetic. Nor did it seem pertinent to him to acknowledge that the retrograde motion of the planets (*kakṣākrama*) was first explained by European astronomers. The same indifference was shown to the Columbuses, Magellans, da Gamas, Cooks and Rosses whose circumnavigation of the globe mattered so much to the first-generation Sehore pandits. When all astronomy worth knowing could be taught mathematically, the individuality of scientists (explorers, etc.) had as much relevance as the Babylonian or Greek astronomers to the average sahib at mid-century. Somanāth's claim was that the astronomy he was presenting in the *Kalandikāprakāśa* was a purified system (*śuddhasiddhānta*) because its human elements had been removed and its mathematical basis restored. What better proof would one need that Somanāth was unconcerned with drawing lines between sciences, personalities, powers and dominions (Purāṇic *versus* Siddhāntic, Vyāsa *versus* Bhāskara, Europe *versus* India, etc.)?

Bearing in mind the organizing principle of Somanāth's circle of knowledge, it becomes only natural that the names of individuals – informants and scientists – are found more frequently the closer one gets to the periphery where knowledge becomes predominantly empirical by virtue of being derived from sense perception and human experience. Astronomy may be rooted in the Veda and mathematics, but for Somanāth it was an observational, instrumentalized science as well. As such, Western astronomy was of immense interest to him and aroused none of the epistemological trepidation that it had in earlier pandits. "Knowledge of the planets' movements among the constellations," he declared, "was the first and foremost knowledge" (*nakṣatrāṇāṃ madhye bhramatāṃ grahāṇāṃ jñānam ādyam*). To this end, with their telescopes (*mahādūradarśakayantra*), French and British astronomers had tracked the planets in their orbits. The magisterial Isaac Newton came in for kudos for his formulation of the principle of gravity (*ākarṣa*) and its application to the movement of celestial bodies.

When Somanāth moved on to other sciences, however, names meant less, as, for instance, in his long disquisition on chemistry. Only the fifty-five elements of the Periodic Table known at the time were discussed; not a single chemist of the day was mentioned. Chemistry, however, almost proved to be Somanāth's undoing. The nomenclature he devised was a nightmarish mishmash of Sanskrit and Latinized English: e.g., *ākṣijan*, that is (*arthāt*), *amlakara* (generator of acids); *haidrajan*, that is (*arthāt*), *jalakara* (water-former), etc. A roundabout way of expressing the chemical composition of water came out awkwardly as: from water one gets the two airs (*vāyū*) known as oxygen and hydrogen (*amlakarajalakarākhyau vāyū paṇīyāl labhyete*). Neither the chemical formula itself nor the individuals who discovered the other more complex chemical compounds were pertinent to the discussion. What was pertinent was that experimentation was repeatable. As Somanāth put it,

anybody could do it. In fact, he went on to say, chemical experiments were being done in India itself, by Indians, in laboratories in Bombay, Calcutta, Delhi, and even in the "School of *True* Science" in Sehore.

Considering that physics (or mechanics) and chemistry (except as alchemy) had no place in the Veda or any other field of learning within the domain of transempirical knowledge near the center of Somanāth's circle of knowledge, one wonders why he give them any credence at all. Somanāth neither performed experiments himself nor saw them being performed. Having set forth at the outset of his treatise the criteria of valid knowledge, he faced the same dilemma that his predecessors at the Sehore school and elsewhere had: are the Europeans reliable (*āpta*)? Can their testimony (*śabda*) be accepted? Here we must remind ourselves that it was not only sahibs who used informants – Indians also did. By the time Somanāth composed the *Kalandikāprakāśa*, his informant was no longer Lancelot Wilkinson, who had succumbed to dysentery, but the new Bhopal Resident, Capt. J.D. Cunningham (1812–1851). Cunningham had taken a keen interest in the Sehore *pāṭhaśāla*, was an historian who wrote a major history of the Sikhs while in Sehore and later rose to the rank of lieutenant–governor of the Punjab. The *Kalandikāprakāśa* was therefore dedicated to his second patron, Kaptin Jojaph Ḍevi Kanīgahim, whom Somanāth praised as a knowledgeable scholar in the sciences. In the preface, Somanāth addressed the Resident affectionately as Ḍevi (Davy), although he wrote that he was aware that the long reading (*dīrghapāda*) of the forename of the high-and-mighty Cunningham was "David." Such intimacy, however, could not mask the fact that for Somanāth, no matter how affable, accessible, and scholarly Cunningham was, he was nonetheless a *yavana* (a non-Hindu) whose knowledge was therefore hardly above suspicion.

Somanāth tells us that he borrowed books from Cunningham who kindly shared with him his understanding of the sciences in the outer realm of the circle of knowledge. Jojaph Ḍevi Kanīgahim is, then, a name – not the only one – that infused the *Kalandikāprakāśa* with a certain foreignness. One is reminded of the taunt flung at Īśvarcandra Vidyāsāgar, himself a pandit open to changes in "current states of knowledge," that his writings smelled like Bengali *loochi*s fried in English oil. The exotic aura surrounding the *Kalandikāprakāśa* would have increased the likelihood that Somanāth would have been perceived by more Indocentric pandits as trafficking with the wrong crowd. And, in a context still subject to traditional Hindu xenology, Somanāth therefore had to articulate his views on working with European informants. This he did by invoking a maxim of Indian gnomic literature: "Brashness, dexterity, roaring loudly, detailed investigative ability, familiarity with amulets, medicine, and mystic diagrams: these are the good qualities (*sadguṇa*) of a thief." With this rationale for including European knowledge in the outer domain of Somanāth's circle of knowledge, we, too, come full circle to the point where this discussion started: the *guru–śiṣya* dialogue in the *Siddhāntaśiromaṇiprakāśa* about the sahibs, the cotton, and the cloth. The Europeans who came out to India may have been thieves – and nobody likes a thief – but even thieves have virtues. What the Europeans excelled at doing, Somanāth went on to say, was scientific investigation of the subtle properties (*sūkṣmadharma*) of natural objects (*padārtha*). Indeed, they were endowed with power (*śakti*), the power of the intellect (*buddhi*) – not the power of political domination, at least insofar as science was concerned. Like thieves who, as it were, keep a house under "scientific" surveillance before breaking in, the Europeans thoroughly examine nature's secrets before drawing any conclusions. This was the methodology of science; *anybody* could put it into practice – not only thieves. It could even be done in an *un*-exploitative way – with dharmic rectitude.

Language and the Loss of Momentum

When all is said and done, what did the re-Sanskritization of science that we find in the *Kalandikāprakāśa* really amount to? Was this science as such, whether routine science or science on the cutting edge of breakthrough and discovery? Hardly. It was rather "science-speak" of the kind that all non-scientists – including myself – indulge in as occasion requires. As I wrote in the first "Receding from Antiquity," what happened in Malwa may have contributed to an epiphenomenal renewal of traditional science. It may have encouraged traditionally-trained scholars to neither shrink from the West nor worship it. What it did *not* do was inaugurate a new era of Indian science. In this respect, the *Kalandikāprakāśa* was a cul-de-sac; very few pandits after Somanāth pursued Siddhāntic studies as if they might contribute to the progress of science. Increasingly thereafter, the Siddhāntas were consigned to scholarly tomes and treated as monuments of antiquity, full of "curious information" for the "amusement" of scholars – European and Indian – but peripheral to the "real" science overrunning India.[9] Since antiquity, Indian astronomy had always been a "big" knowledge – of that the history of science gives us assurance. It was never a "little" knowledge eclipsed when "modernity seized control of India and subjected it to a 'second colonization'" "authorized by [European] science," as Prakash would have it, as if Europe were a voracious Rahu devouring India's ancient sciences in the same way that it pillaged its natural resources. Why, then, did Indian science not become a "bigger" knowledge? Why were pandits in succeeding generations less committed than Somanāth to making the *vidyācakra* an ever-expanding circle of knowledge?[10]

Although domination, exploitation, and power-relations hardly seem irrelevant to science in a colonial context like India's, the most suggestive thinking nowadays in this connection is

[9] Bāpu Deva Śāstrī, the Sehore-trained appointee to the Benares Sanskrit College, may have been the last pandit after Somanāth to self-consciously emulate the Wilkinsonian model of invoking antiquity to affect modernity. For some suggestive literary evidence, see Minkowski 2001: 92. In any event, Wilkinson certainly added momentum to the historical study of Indian science, as S.R. Sarma rightly points out (1995/1996b: 196): "Wilkinson's contribution then lies mainly in reviving the study of the Sanskrit astronomical *Siddhāntas*. His example of editing and translating astronomical texts laid, to a large extent, the foundations for the study of the history of exact sciences in India."

[10] J.R. Ballantyne (1813–1864; on whom see the excellent study by Dodson [2002]), whom I regard as Wilkinson's successor in many respects, came to the Benares Sanskrit College as principal in 1846. Shortly thereafter, he began to construct his own model for a classically Sanskritic circle of knowledge (*vidyācakra*), the purpose of which he explained in a letter to H.H. Wilson: "I have been giving lectures, … on various points of physical science, topics which naturally lead a brahman slap into the depths of metaphysics, from his tendency to view the former division as a branch of the latter. After treating of Chemistry, Geology, Hydrostatics, Optics, and the like, I came to the decision that the shortest plan for coming to an understanding with my friends, was to give a Cyclopedia course of lectures, and thus to oppose to the Naiyayiks a complete shastra of my own" (Oriental and India Office Collections, London, MSS Eur 301, Benares, 14/08/1848). In fact, all four parts of Ballantyne's *Synopsis of Science* of 1852 (Mirzapore) had already been published in a shorter version of 1849 as *Lectures on the Sub-Divisions of Knowledge* (Mirzapore) before Somanāth finished writing the *Kalandikāprakāśa*. In scientific terminology, Ballantyne was even more a Sanskrit purist than Somanāth, as we see in the preface to the *Synopsis of Science* (p. xxv): "The science of Chemistry loses more than half its value when its compound terms do not tell their own meaning." Ballantyne would have no truck with *ākṣijan* or *haidrajan*. Although connections between Sehore and Benares were very close, and although it seems reasonable to suppose that Somanāth was aware of Ballantyne's work, a number of popular periodicals carrying occasional articles on "useful knowledge" were then in circulation, from which his understanding of Western science might have been in part derived. Two of the most important in western India were *Jñānprasārak* of Balgangadhar Shastri Jambhekar (1810–1846) and *Digdarśan* of the American Mission, both in Marāṭhī from Bombay.

comparative and Indological. Frits Staal, for one, submits the thesis that Sanskrit itself was a reason why Indian science lost its momentum: "Sanskrit, far from being an artificial language, was not artificial enough to trigger a scientific revolution" (1995: 112). The "real" science overrunning India was based, as Staal explains, on "a mathematical language that is no longer Latin or English," whereas *wissenschaftliches* Sanskrit "continues to be *Sanskrit*" (1995: 101). We have already noted that Somanāth understood that astronomy was rooted in mathematics – just as the magisterial European scientists did – as much as in the Veda itself. However, as we saw, he could not articulate that mathematical rootedness mathematically except with considerable awkwardness. Recall the clumsy manner in which he attempted to express in Sanskrit – grammatically flawless Sanskrit – the chemical formula familiar the world over – H_2O – and one gets a sense of what the problem was. Since there was no standardized shorthand Sanskrit for science, one had to first become a Sanskritist to become knowledgeable about science, not to speak of actually being able to engage in doing science as a scientist.

Therein lies the ambivalent outcome of the Wilkinsonian project in Malwa: the invocation of antiquity to affect modernity engendered an incidental expansion of the circle of knowledge. That circle, however, began to contract almost as soon as it started to expand, because the re-Sanskritization of science was not the only thing needed. H.T. Prinsep came close to the reason for that epiphenomenal renewal when he stated so very aptly that *science is the same in all languages*. What Prinsep did not understand is that no language, even the capacious Sanskrit (Latin, English, etc.), is equal to the task of science without first becoming an artificial, formulaic, mathematical construct. What Staal says about an earlier era is equally apt for Malwa in the mid-nineteenth century (1995: 120):

> In India, the same results were reached [as in European science around the beginning of the sixteenth century] but no scientific language evolved, the notations were fun but did little to advance science which ultimately stagnated, took a last minute account of some Western advances, corrections and methods and ground to a halt.

Before the entire enterprise faltered, however, there was a time, even though of short duration, when Heliocentrism and the cluster of collateral notions associated with it were so thoroughly assimilated into Indian astronomy that Copernicanism seemed at least to one community of pandits a natural fit for the science of antiquity. Copernicanism – whether named as such or not – was therefore worth knowing because all sound science manifested an underlying congruence. The works of the Sehore pandits, Somanāth's *Kalandikāprakāśa* in particular, exemplify a conquest *in reverse* of the Europe that overran India. Had this conquest been articulated in a more accessible language than Sanskrit, it would not wear a mask at all.

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India and the European Pessimistic Tradition

In his book *Orientalism*,[1] Edward Said launched a furious attack against oriental scholarship in the West and against those who showed interest in oriental cultures. For Said oriental studies and the presentation of the "Orient" in Western literature "is fundamentally a political doctrine willed over the Orient because the Orient was weaker than the West"[2] or a "formidable structure of cultural domination."[3] The following paper will try to rebut this one-sided, emotional generalization or at least chip away a chunk of it.

The nineteenth century in Europe produced a number of philosophical, economic–political and biologistic theories which in spite of their numerous differences agreed in one essential point: that the animal world and mankind had experienced a constant progress or ascent from simple and unassuming beginnings to the complex and richly developed present state and that for mankind there was now hope, even assurance, of a serene happiness in the future. One of these theories, the system of G.W.F. Hegel (1770–1831), identified this final goal with the Prussian state, and Hegel taught his philosophical optimism from the most prestigious cathedra to present and future servants of the Prussian state. Another system, the historical materialism of Karl Marx (1818–1883), though not accepted by the authorities, called everybody who did not agree with its predictions of the glorious future of the proletariat a poor thinker, unable to grasp the logic of a scholarly argument. A third view, most forcefully set forth in Charles Darwin's (1809–1882) *Descent of Man*, argued against the even more optimistic Christian teachings about the nature and ultimate goal of man with its scientific arguments and the exposure of internal contradictions and absurdities in the beliefs of its opponents. Darwin waxed eloquent when he described the singular position of cultured man among all living beings and he assured us that "for the most able human beings there will be a still higher advancement in future."[4]

These optimistic theories are the intellectual abstractions of mighty forces in the nineteenth century manifesting themselves in strong nationalism, expansion, and imperialism, breathtaking advances in all the sciences and technologies, unexpected gains in commerce and finance, and a fabulous extension of the limits of knowledge.

In such a century, it was difficult to raise another voice. A university professor who was interested in the nature of death for other reasons than the prolongation of human life did not attract large audiences. However, undisturbed by the absence of students, Arthur Schopenhauer (1788–1860) challenged Hegel especially, as all the other optimists, by scheduling his classes at the University of Berlin exactly at the same time as his rival. At about this time he wrote about death, the anathema of an optimist: "You cease to be something which you had better never to become."[5] Withdrawing hurriedly from his obscure academic duties to a modest apartment in the city of Frankfurt when the revolution of 1848 took him by surprise,

[1] E.W. Said, *Orientalism*, New York 1978.
[2] Ibid., p. 202.
[3] Ibid., p. 25.
[4] C. Darwin, *The Descent of Man*, Princeton 1981 (reprint of the 1871 edition), p. 405.
[5] A. Schopenhauer, *The World as Will and Idea*, tr. R.B. Haldane and J. Kemp, London 1890, Vol. 2, p. 298.

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 99-107.

Schopenhauer lived until 1860, ignored by the academic and political establishment. His only company were his flute and his poodle, called Ātman, and here the Indologist comes to more familiar terrain.

The role of India in Schopenhauer's writings is a subject which has been treated many times by German Indologists starting with Paul Deussen, Helmuth von Glasenapp, Heinrich Zimmer, Paul Hacker and Heinrich von Stietencron. More recently also non-German non-specialists such as Jean W. Sedlar[6] have written on this subject. However, with the exception of the adulatory writings of Paul Deussen, my predecessors were mostly busy pointing out the Indian sources in the first volume of Schopenhauer's magnum opus *Die Welt als Wille und Vorstellung* (published for the first time in 1818) and to what extent he had made use of the advancements of Indology in the second volume of 1844, in the addenda to the first volume (1844), and in the new edition of 1859. Helmuth von Glasenapp came to the following conclusion:

> Indeed, we may say, during the decennia of Schopenhauer's life results of Indological research became available which should have corrected his views. However, Schopenhauer was too much of a subjective thinker, who could not change views he once adopted,[7]

and Paul Hacker pointed out that Schopenhauer's misconception of the basic formula of the Upaniṣads' *tat tvam asi* (translated by him as "you are in every being," instead of correctly "you are the *brahman*") made a bad Indologist of Paul Deussen, who for his part taught Schopenhauer's idiosyncratic understanding as age-old Indian wisdom to Vivekānanda who, in his turn, presented it to his compatriots and so helped to create what we call "Neo-Hinduism."[8]

It is, no doubt, necessary for us to know the exact amount of knowledge or misinformation about India which filtered down via translations and surveys into the Western mind. However, the point is missed thoroughly if one simply collects a great number of references to India in Schopenhauer's writings and concludes that by means of a more diligent study of the literature available to him and especially the systematic acquisition of the Sanskrit language Schopenhauer could have done a better job. The fact is: The more Indologists knew about India the more they lost contact with a wider audience. Already in 1878, in his essay *Schopenhauer als Erzieher* ("Schopenhauer as Educator"), Friedrich Nietzsche (1844–1900) wrote:

> The Indian antiquity opened its gates and its specialists do not have any other relation to it than a beast has to a harp.[9]

However, the seeds sown at the time of the beginning of Indic studies in Europe produced a rich crop, even though the European pandits were not willing to recognize it as of their own kin.

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[6] J.W. Sedlar, *India in the Mind of Germany*: *Schelling*, *Schopenhauer and their Times*, Washington 1982.

[7] H. von Glasenapp, *Das Indienbild deutscher Denker*, Stuttgart 1960, p. 99 (my translation).

[8] P. Hacker, "Schopenhauer und die Ethik des Hinduismus," *Saeculum* 12 (1961): 365-399 (= *Kleine Schriften*, ed. L. Schmithausen, Wiesbaden 1978, pp. 531-564).

[9] F. Nietzsche, *Schopenhauer als Erzieher*, in: G. Colli and M. Montinari (eds.), *Sämtliche Werke*: *Kritische Studienausgabe in 15 Bänden*, München 1980, Vol. 1, pp. 335-427; quotation on p. 424. English translation by O. Levy, London / New York 1927, Vol. 5, pt. 2, p. 198.

As early as 1818 Schopenhauer wrote:

> Indian wisdom streams back to Europe and will produce a fundamental change in our knowledge and in our thinking.[10]

What really happened in these years did not entirely escape the attention of modern scholars; however, their findings are scattered in obscure articles and often presented in imprecise formulations. In the following I shall focus on a single issue of this complex problem, namely the reception of the Indian *saṃsāra* concept in Europe.

In the addenda to the first edition of his *Die Welt als Wille und Vorstellung* Schopenhauer wrote:

> In animals we see the will to live more naked, as it were, than in man in whom it is clothed with much knowledge and covered by the capacity of dissimulation so that the true nature becomes apparent only by chance and here and there. Completely naked though much weaker it appears in plants as a mere desire for existence without purpose and aim.[11]

This is a rather accurate description of the *saṃsāra* concept with its powerful karmic forces which express themselves in every new form of life. Hindus and Buddhists could easily agree with Schopenhauer's description. And the following is also acceptable to Indian Buddhists and Hindu Vaiṣṇavas:

> Every desire comes from a want, from dissatisfaction with the present condition, i.e., it is suffering, so long as it is not fulfilled. But no satisfaction is permanent. It is always the beginning of a new desire. The striving we see everywhere struggling, is obstructed in many ways, thus is a constant suffering. There is no final end to desires and, therefore, no limits, no end of suffering.[12]

Already in 1805 Schopenhauer could have found such ideas in Anquetil Duperon's Latin translation of the Upaniṣads about which Schopenhauer wrote: "They came to us at last as the greatest gift of this century."[13] In the face of this statement, it is important to note that Schopenhauer called his poodle Ātman, which is the name for the central soteriological concept of the great Upaniṣads; for in his philosophical writings Schopenhauer carefully avoided this concept to the great dismay of Indologists and, instead, made this blind and merciless Will to Live the Absolute. This is one of the points where Indian influence on the European mind developed its own dynamics with far-reaching consequences.

Despite the ostracism of him and his philosophy, Schopenhauer became a secret tip among anti-establishment intellectuals, and in their circles India surfaces again and again, though not in a way Indologists would have liked it but rather in this pessimistic garb and celebrated for the quasi-"orgiastic" qualities Schopenhauer had added to it. In Nietzsche's *Die Geburt der Tragödie aus dem Geiste der Musik* ("The Birth of Tragedy out of the Spirit of Music") the quotation from Schopenhauer's *Die Welt als Wille und Vorstellung* is chosen with greatest care. It contains a beautiful, nearly homeric comparison:

> As on a raving ocean which raises and lets fall mountains of water in all directions, a sailor sits in a tiny boat trusting his frail craft, so amidst a world of suffering the individual sits quietly supported by and trusting only the *principium individuationis*.[14]

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[10] Ibid.

[11] A. Schopenhauer, *Die Welt als Wille und Vorstellung*, ed. A. Hübscher, Wiesbaden 1972, Vol. 1, p. 357. English translation by E.F.J. Payne, New York 1968, Vol. 1, p. 204.

[12] Ibid., p. 399. English translation by Payne (cf. n. 11), p. 368.

[13] Ibid., p. 458. English translation by Payne, p. 25.

[14] F. Nietzsche, *Die Geburt der Tragödie aus dem Geiste der Musik*, in: Colli and Montinari, op. cit. (cf. n. 9), Vol. 1, pp. 9-156; quotation on p. 28. English translation by O. Levy, Edinburgh/London 1910.

In his *Schopenhauer als Erzieher* (1878) Nietzsche refers to Schopenhauer's impact on his generation with the following words: "As is shown by the Indian history which is nearly identical with the history of Indian philosophy, a single philosopher can draw a whole nation behind him by his example."[15] In his raving attack on his colleagues in Classical Studies the young Professor Nietzsche claimed the figure of Dionysus for Schopenhauer's *saṃsāra* concept when referring to sexual immoralities, a horrible mixture of lust and cruelty, tearing into pieces the *principium individuationis*.[16] This is his view of the Greek tragedy which for him was not a theatrical festival; rather he saw its culmination in the beautiful terror of the tragedies of Aeschylus until it was gagged by Socrates' Apollonian intellectualism.

In his *Geburt der Tragödie*, Nietzsche writes that all our efforts lead to resignation; for what and how much could be improved in the individual and in general?[17] Its preface is addressed to Richard Wagner (1813–1873) whom Nietzsche had met in 1868 in the house of the brother of Wagner's first wife, Hermann Brockhaus (1806–1877), the Indologist and son of Schopenhauer's publisher. Thomas Mann (1875–1955) makes a spirited case for Wagner's indebtedness to Schopenhauer, and what Mann stresses is again the *saṃsāra* concept. Mann quotes from a letter Wagner had written in 1860 to Mathilde Wesendonck, the wife of Mann's host during his first exile in Zürich:

> "Full of longing I look out for the land Nirvana. But Nirvana quickly turns into Tristan for me. You know the Buddhist theory of creation, do you? A tinge clouds the brilliance of the sky," and then he wrote down some of the first notes of his opera *Tristan und Isolde*: g sharp, a, a sharp, b, "it increases, concentrates, and turns ... into the whole world."[18]

It is the motif of desire, the Will to Live of Schopenhauer, focussed on sexuality which "cannot end in death" but frees itself from the "limitations of individuality."[19] As strange as this combination of lust and *nirvāṇa* may appear, it is the form in which Richard Wagner conceived his Indian heritage. His constant ruminations about the limitless and deadly but intoxicating manifestations of the Will to Live are also attested in his second wife's diary, culminating in the remark entered on February 13, 1877 after he had read Indian proverbs: "Fate I deem certain, but the works of man are useless," "probably no other people has ever seen and comprehended things as well as the Indians did."[20]

It was not purely academic interest which made Thomas Mann write his essay on Schopenhauer. It testifies to Mann's involvement in the pessimistic tradition. As a young author he made the hero of his tremendously successful novel *Die Buddenbrooks* read Schopenhauer's famous chapter on Death in *Die Welt als Wille und Vorstellung* and has him ponder on it:

> Where shall I be after death? But it is obvious, so simple! I shall be in everything, that ever had said "I," especially, in those who say it louder, stronger and more merrily; ... I am that [!] ... as soon as death liberates me from the unhealthy illusion that I am not the other as well as I am myself.[21]

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[15] F. Nietzsche, *Schopenhauer als Erzieher* (cf. n. 9), p. 350. See also A. Schopenhauer, op. cit. (cf. n. 11), p. 352.

[16] Cf. F. Nietzsche, op. cit. (cf. n. 14), pp. 28-33.

[17] Cf. F. Nietzsche, op. cit. (cf. n. 14), preface (An attempt at self-criticism) p. 20.

[18] T. Mann, *Im Schatten Wagners*: *Thomas Mann über Richard Wagner*, ausgewählt, kommentiert und mit einem Essay von Hans Rudolf Vaget, Frankfurt a.M. 1999, p. 119.

[19] A. Schopenhauer, op. cit. (cf. n. 11), Vol. 2, pp. 18f.

[20] M. Gregor-Dellin and D. Mack (eds.), *Cosima Wagner's Diaries*, translated and with an introduction by G. Skelton, New York 1978-1980, Vol. 1, p. 945.

[21] T. Mann, *Buddenbrooks*, tr. H.T. Lowe-Porter, New York / Berlin n.d., p. 628.

And in the same vein Thomas Mann wrote in the central chapter on Time and Death in *Der Zauberberg*: "Whoever is interested in Life is particularly interested in Death" ("Wer sich für das Leben interessiert, der interessiert sich namentlich für den Tod.").[22]

Here Schopenhauer's *saṃsāra* concept receives its decadent tinge. It is no more the cruel but lustful sexuality of the Dionysian principles which transforms the terror into art under pain, but aesthetic enjoyment. The individuality of the hero does not any longer assert itself strongly and demanding, but appears tired and longing for death as a release into the sweetness of *māyā*. Contrary to that, Schopenhauer had rejected suicide as an even faster way to multiply suffering in the endless chain of individualization. Thomas Mann, however, taught that only man is given the opportunity to reverse the "great error and lapse of Being" by suicide.[23] Thus, at the beginning of the last century the originally Indian *saṃsāra* ideas had become a sort of feeble solace for decadent man in his alienated and frustrating existence.

Now let us turn to the most formidable representative of the pessimistic tradition who more than all of his predecessors carried the secret message from India into the minds of people not only in Europe but also in America and, ultimately, around the world. As Thomas Mann has pointed out, "Schopenhauer as the psychologist of the Will is the father of modern psychology. From him a straight line goes to Sigmund Freud."[24] This judgement of an artist has become solidly confirmed in scholarly research. Not only seventeen quotations from and references to Schopenhauer's person and work can be found in Freud's (1856–1939) writings from 1900 to 1933. The claim has also been made that the underlying structure of psychoanalytic theory is basically identical with Schopenhauer's philosophy. This philosophy was already in Freud's head as a theory before he started his experiments and analyses. In 1920, in his *Jenseits des Lustprinzips*, Freud himself admitted:

> May we venture to recognize in these two directions of the process of life (i.e., creation and death) the activities of instinctual impulses: the life instinct and the death instinct. There is something else that we cannot remain blind to: Unwittingly we entered the harbor of the philosophy of Schopenhauer for whom Death was the "actual result" and so the only purpose of life. The sexual instinct, however, is the embodiment of the Will to Live.[25]

Here we have Schopenhauer's *saṃsāra* concept as libido and desire for death. In a system understood by many to free the individual of his cultural limitations prominence is given to these blind and supernatural urges; however, nothing is left of the Indian transcendental dimensions of the *saṃsāra* concept. Only blind sex drive and death as its result are the driving forces of our life. This peculiar development of the Indian *saṃsāra* concept in the hands of the European thinkers had to happen after Schopenhauer had banished the *ātman* of the Upaniṣadic ideas which had reached him in his youth, and buried it in his wretched poodle, or, as Paul Hacker once told me: "Freud practised psychology, the science of the soul, without accepting the existence of a soul." The *ātman*, the stable and indestructible centerpiece of the Hindu concept of man, was lost, only sense-organs and the fickle mind remained. Nevertheless, Freud's *saṃsāra* concept has captured the world; some of my American colleagues even mistakenly and blindfolded search for the libido principle in classical Indian writing instead of where it came from, i.e., Schopenhauer's Western reading of the Upaniṣads and Buddhist texts in translation.

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[22] T. Mann, *The Magic Mountain*, tr. H.T. Lowe-Porter, New York 1969, p. 945.
[23] T. Mann, *Essays*, Frankfurt 1978, Vol. 3, p. 232.
[24] Ibid., p. 387.
[25] S. Freud, "Beyond the Pleasure Principle," in: J. Strachey et al. (eds.), *Complete Psychological Works of Sigmund Freud*, London 1955 (repr. 1957), Vol. 18, p. 63.

It would be fascinating to go on pursuing the pessimistic tradition in incidental cases of despair in English-language writers such as Henry David Thoreau and Thomas Hardy, and then show what twentieth-century literature in Europe and its attitude of alienation owe to it. The affinities of the Phenomenologists and Existentialists, even of Martin Heidegger with Schopenhauer, have already been noted. This would lead us into a discussion of the Indian roots of Western modernism worthy of a book still to be written.

But the purpose of this paper is a different one. After having pointed out the beacons of that mental attitude, the burning question for the Indologist remains: If India has given the West its modern pessimistic tradition, what remains to be said about pessimism in India? The first thing that comes to mind is the system most congenial to the philosophy of Schopenhauer which is, of course, Buddhism. It has been expelled from India for almost a thousand years, but before its expulsion the debates between Hindu and Buddhist philosophers, which reflect somehow the ideological conflict which hastened the decline of Buddhism in India, focused on "the poodle's core," i.e., the absence of a concept of the soul (*ātman*) in Buddhism. However, the Upaniṣads, the source of Schopenhauer's *saṃsāra* concept, although they had become the subject of extensive commentary with changing points of view, were always regarded as the revelation of a soteriological message about the Absolute as the ultimate goal of the migrations of the soul though *saṃsāra*. In an article on Indian pessimism, written in 1948, Jan Gonda came to the following conclusion:

> ... the universe ... is only regarded as nothing but a deplorable necessity, as the substratum for the settlement of karman. ... man strives to attain what is firm, steady, constant ..., the imperishable which is brahman, which is emancipation.[26]

On the other hand, Helmuth von Glasenapp and others pointed out that only few Indians were seriously disturbed by the prospect of endless rebirths and the difficulties in gaining salvation. Even the attitude of the *Bhagavadgītā*, i.e., ascetic distance from one's own actions, was not commonplace in ancient India. During the Middle Ages emotional cults of devotionalism developed which saw salvation at hand within *saṃsāra* itself. They did not cease to condemn the desires and lust for worldly life, and harped on the theme that death is the reward of sin and that endless pain and innumerable deaths are certain for those who do not join their ranks. However, the fact that for them escape from *saṃsāra* into a realm of aesthetic enjoyment was possible makes their message unfit for a pessimistic interpretation. Yet in these cults neither the individual nor the world in which he lives is given more than ephemeral importance.

In the absence of a theory of pessimism in India, we have to search for situations which would trigger a pessimistic world view but are neutralized by religious and other ideas. The eighteenth century is still under strong Sufi influence, and poetry derived originally from this world view has a built-in pessimism because of the always frustrated relationship between the lyrical I and the beloved. In most cases this is put in a mystic framework, and some say that the real beloved is God. An interesting situation develops in a *maṯnawī* by Khwāja Muḥammad Mīr Aṯar (1735–1794),[27] the younger brother of the famous mystical poet Mīr Dard (1720–1775), between a young man and a woman whom he loves deeply and who lives with him. However, suddenly she leaves him. The hero continues to write extensive love poems in her name which results in an angry reply from the girl. She says that the poems make her life

[26] J. Gonda, *Selected Studies*, Vol. 4, Leiden 1975, pp. 315-316.
[27] *Dīwān-i Aṯar*, ed. Kāmil Quraišī, Delhi 1978.

difficult. The lover sets out to meet and try to persuade her to come back to him. But when he finally finds her, it becomes clear to him that she is a public woman. This experience causes what we would call a deep depression in him and he is unable to live a normal life. Then his elder brother advises him to write down his experience in a *maṣnawī* (*Khwāb o khayāl*, "Dream and Thought"), in order to put some distance between him and this affair. In the poem Mīr Aṣar advises lovers like him that the painful experience should be transformed from love for a girl (*majāzī*) to love for the mystical guide (*muršid*) and on a higher level to love for God. Such an attitude made it possible to deal with all the terrible experiences of this century and was adopted in numerous instances.

The nineteenth century, however, offers us other examples of absolute despair expressed in traditional forms and derived from indigenous patterns. Hindu writers expanded the traditional *kaliyuga* topos of the Purāṇas. The traditions converged in lamenting about the uselessness of life in nineteenth-century India. As a striking example of this development, I mention here the end of Hariścandra Bhāratendu's (1850–1885) drama *Bhāratdurdaśā* (1876, "The Misery of India").[28] After remembering the lost greatness of India, a character named Bhārat ("India") is dying on the cremation ground. Several attempts to save his life from the attacks by other allegorical characters such as Bhāratdurdaśā ("Misery of India"), Satyānāś (Catastrophe), Rog (Illness), Ālasya (Laziness), Madirā (Intoxication), etc., fail. At the side of the seemingly dead Bhārat, a female character called Bhāratbhāgya ("Good Fortune of India") kills herself as faithful Hindu wives (*satī*) used to do on the pyre of their dead husbands. In this and in other dramas of Hariścandra, the most influential Hindi writer of the nineteenth century, the description of the present Iron Age occurs without any hint that by following *dharma* one could save one's soul and the country, or that a future savior would reestablish traditional values. Such and similar solaces were always attached to medieval descriptions of the Kali Age. However, Hariścandra did not stop here. His shocking pessimism was meant to serve as a mirror held up to his compatriots in order to awaken them from a century-long stupor. In other plays and in his prose he showed them the direction into which they had to move if they wanted to change their deplorable condition.

However, the strength of beliefs had been weakened and the force of nationalism was not yet strong enough. In the development of pessimism in the East we find now examples of lives which had given up the security of religion and, therefore, were suffering a deep pessimism without solace. Writing some years after Mīr Dard, Mirzā Asadullāh Khān Ġālib (1787–1869), in the darkest days of his life, after the Great Mutiny of 1857, changed the transcendental metaphors of his earlier *ġazals*, inherited from the great Sufi poets of Persia and India, into gloomy expressions about his own failure:

> I believe that you will not neglect me, but I shall turn to dust
> before you even notice me.[29]

Combined with many verses about the wretchedness of life, utterances like the quoted one indicate a deeply pessimistic view of man's destiny.

Ġālib, although he did not have any political hopes left, oscillated between deep religiosity and an open skepticism, penetrating visions and an extravagant, frivolous taste which made him an Indian decadent who may have lacked a philosophical basis for his pessimism. How-

[28] Hariścandra Bhāratendu, *Granthāvalī*, Kāśī saṃvat 2000, pp. 467ff.
[29] Asadullāh Ġālib, *Dīwān-i Ġālib*, Delhi 1986, p. 17 (my translation).

ever, he achieved profound irony in his poetry, worthy of this last heir of a great Muslim tradition:

> Naẕar men hai hamāri jādah-e-rah-e-fanā, Ġālib
> ki yeh sarzada hai ᶜālam ke ajzā-e parešān ka
>
> Before my eyes is the way leading to the highway of annihilation
> Because it is the thread which holds together the disturbed parts
> of the depraved world.[30]

We can, through the pessimistic expressions, still feel the loss of a more secure world. But in the twentieth century even this last trace is gone. The most important writers turn to the Western end of the pessimistic tradition and without any solace describe bluntly sex and death.

I have shown elsewhere how Hindi writers grew more and more frustrated as independence approached.[31] After independence one can detect an "alienation" of Hindi writers as Roadarmel has observed. But what is happening in reality, namely utterly despair in a meaningful life, can be explained best by a look at one of the most celebrated short story writers of Urdu literature, Saᶜādat Ḥasan Manto (1912–1955). In many of his famous short stories, found even in the most recent collections, he describes utmost desperation and horrible scenes mostly in a sexual setting. In one of his stories he narrates how a poor Muslim loses his daughter during the upheaval following the partition of India. A group of militant young Muslims sets out to find her and rescues her from Hindus who had abducted her or given her protection. However, instead of returning her to her father they gang-rape her. Her father finds her half dead in a stuffy, overcrowded hospital.

> The doctor looked at the body and searched for her pulse. Then he said to the father: "Open it!" [sc. the window]. Sakina's dead body moved, her lifeless hands opened her trouser belt and moved the trousers down. Her old father cried happily: "She is alive!" The doctor felt sweat streaming over his body.

"Open it!", in Urdu *Khol do*, is also the title of this nauseating story,[32] praised by the Progressivists for its realistic boldness and loathed by the Traditionalists. We find this absolute pessimism about the human situation in many of his stories. Another story tells about a Sikh who while engaging in a sexual act with a prostitute remembers how he killed a young girl and then raped her (*Ṭhaṇḍā gośt*, "Cold Flesh").[33]

The reduction of literature to shocking sexual motifs at the very brink of human existence leads us back again to the earlier quotation from Schopenhauer[34] which we repeat here slightly changed: We see the Will to live more naked in modern man, deprived of its clothes of knowledge and without the capacity of dissimulation. Its true nature appears here and everywhere.

I have been able to show above in numerous examples how the Western pessimistic tradition reached India via Freud during the last century. The sophistication of Viennese charm did not

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[30] Ibid., p. 17 (my translation).

[31] See P. Gaeffke, *Hindiromane in der ersten Hälfte des zwanzigsten Jahrhunderts*, Leiden etc. 1966, p. 129.

[32] S.H. Manto, *Khol do*; translated under the title "She is Alive" in S.H. Manto, *Selected Stories*, tr. Madan Gupta, New Delhi 1977, pp. 37-51; quotation on p. 51.

[33] S.H. Manto, *Ṭhaṇḍā gośt*, translated under the title "A Lump of Cold Flesh," in S.H. Manto, *Selected Stories* (cf. n. 32), pp. 277-306.

[34] Cf. above, p. 101.

accompany this trend, rather the representation of blunt and brutal sex and death proliferated. Whatever names the critics have given to this trend, it is by no means restricted to Urdu literature.

Manto left India in 1947 for Pakistan because he felt discriminated against as a Muslim. But in Pakistan he had to face trial because of his open description of sexual acts and the life of prostitutes. He defended himself by saying that this was the only way he could write. He also said to the judge that he should change society first so that the reality described in his stories would disappear.

With the above considerations it should be evident that after many vagaries the old Indian *saṃsāra* concept had returned to India, and not only to India, but also to the alienated writers of Pakistan as the case of Saᶜādat Ḥasan Manto shows. Manto would have been very surprised if he had been made aware of the fact that via the Western pessimistic tradition his attitude was a modern offspring of Buddhism and of an *ātman*-less Upaniṣadic world view.

What to Edward Said seems to be a "formidable structure of cultural domination ... willed over the Orient because the Orient was weaker,"[35] is, at least as concerns the material adduced in this paper, the Orient itself, putting on a new garb in the West and returning in this disguise back to itself.

[35] Cf. above, p. 99.

Klaus Karttunen

Christian Lassen (1800–1876), a Neglected Pioneer of Indology*

The Norwegian scholar Christian Lassen was one of the greatest Indologists in Europe around the middle of the nineteenth century. During his term as professor at the famous University of Bonn, Germany, he was perhaps not very important as a teacher, but his publications in the 1830s contained several important pioneer achievements, and his *magnum opus*, the *Indische Alterthumskunde*, though of course now antiquated, still makes fascinating and often useful reading. Years ago I prepared for my own use a bibliography of his works and I think that this, preceded by a short biography and an assessment of his work, will be a suitable contribution to the memory of Wilhelm Halbfass.

Christian Lassen[1] was born in Bergen, Norway on October 22, 1800, as the son of Nicolai Christian Vendelboe Lassen (1748–1818) and Frederikke Elisabeth Frisch (1761–18??). The father was a lawyer and customs inspector. Lassen matriculated in 1818 from Bergen's cathedral school and after his father's death went with his mother in 1819 to live with his married sister in Altona, then under the Danish crown. Lassen became a student at the University of Heidelberg in 1820, studied Indology at Bonn under August Wilhelm von Schlegel (1767–1845)[2] from 1821-1824, and from 1824-1826 undertook further studies in Paris and London with the help of a Prussian scholarship arranged by von Schlegel. In Paris he became a close friend of another great pioneer of Indology, Eugène Burnouf (1801–1852), and together with him studied Pāli from the South-East Asian manuscripts kept in the Bibliothèque nationale (then called Bibliothèque royale).

Lassen obtained his Ph.D. (dr. phil.) degree in 1827 at the University of Bonn and was nominated a Privatdozent at the same university. His dissertation showed a good command of the Greek and the Indian sources then available and reflected his interest in history. From 1830 he taught as an Extraordinary Professor at Bonn. His salary, however, was very modest and he had to amend it with private tutoring. He also had some difficulties finding publishers for his work and occasionally had to pay the printing costs from his own purse. The situation improved in 1840 when he became a full Professor "für altindische Sprache und Literatur" and soon thereafter the successor of A.W. von Schlegel. According to Klatt (1882), his salary was then raised from 300 thalers to 700. In 1841 he rejected a chair offered to him at the University of Copenhagen (it was accepted by his Danish friend N.L. Westergaard [1815–1878]). Lassen taught in Bonn until his death. In later years he was assisted by his former student, Johannes Gildemeister (1812–1890), as he suffered from an ocular impairment which seriously restricted his ability to work and teach. He married Karoline Auguste Wiggers (1808–1879) in 1849. Christian Lassen died in Bonn on May 8, 1876. He never returned to Norway,

* Robert Whiting has kindly checked my English.

[1] There is no proper biography of Lassen. Among the accounts listed below, the most important is that by Hansen (1938), who also gives reliable information about Lassen's early life in Norway. His work is discussed and evaluated in Klatt 1883, Windisch 1917: 154ff. and 164ff., and Basham 1961: 261ff.

[2] A.W. von Schlegel who, unlike his younger brother Friedrich Schlegel (1772–1829), had revived the old title of nobility ("von") of the family, was called to the newly founded Prussian University of Bonn in 1818. His original position was Professor of Literature and Art History, but he soon turned it into a chair for Sanskrit, the first in Germany.

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 109-119.

but bequeathed his personal library to the library of the Christiania (now Oslo) University.[3] His successor at Bonn was Theodor Aufrecht (1822–1907).

Christian Lassen was a reticent and shy scholar who did not mind working with the egotistic and domineering A.W. von Schlegel. A great part of his early work was spent assisting von Schlegel with his editions by collating manuscripts for him in Paris and London. It was then, as it is now, the best education for a young Sanskrit scholar to work independently with manuscripts. Von Schlegel's relationship with him is nicely illustrated by a letter von Schlegel wrote to a friend in 1838. In it he stated that it would probably take just one letter from him – he was a famous man and well aware of it – to the king of Sweden and Norway to have a chair for Sanskrit established at the University of Christiania (Oslo) for Lassen, but that he wanted to keep the talented young scholar as his assistant.[4]

Lassen was early on, however, also able to work on his own. The work for von Schlegel in London and Paris left him plenty of time to study manuscripts for his own interest as well. He was a learned, industrious and many-sided scholar who achieved great things. In his long review of Bopp's *Ausführliches Lehrgebäude der Sanskrita-Sprache* in 1830 he emphasised the importance of Indian grammatical traditions in the study of Sanskrit and lauded Colebrooke for his work on Pāṇini. In this he also clearly took the side of von Schlegel's philological school against Bopp's comparative one.

Lassen was one of the first in the West (1832) to study Indian philosophy, especially Sāṃkhya. He planned to edit the fundamental texts of other schools, too, but had to abandon this plan for financial reasons. His interest in classical literature is evident in his edition of the first act of the *Mālatīmādhava* (1832), and to anyone with a classical background his Latin translation of the *Gītagovinda* (1836) is still fascinating reading. In their early work Lassen and Burnouf also founded Pāli philology (1826). Another shared interest was the study of the then still only partly deciphered Old Persian cuneiform (1836).

Lassen was the real founder of Prākṛt philology with his elaborate Prākṛt grammar (1837), which soon replaced A. Hoefer's much inferior work.[5] From Rückert's review of his *Mālatīmādhava* we learn that he was already working on Prākṛt grammar in 1832 and postponed the rest of the edition (which never appeared) in order to become more competent in dealing with the Prākṛts. Lassen's much used Sanskrit chrestomathy (1838) was mainly compiled from manuscripts studied in Paris and London. Among other things, it contained some Ṛgvedic hymns taken from Friedrich Rosen's (1805–1837) edition (pp. 97-102) and the *editio princeps* of the *Dhūrtasamāgama* (pp. 66-96).

His study of the Calcutta edition of the *Mahābhārata* led to a series of articles in which Lassen somewhat too optimistically tried to cull historical information from the great epic. The work then took a different direction, and the series was concluded with accounts of the Balōčī and Brāhūī languages. He rightly noted the Dravidian character of Brāhūī, but the final article, with the promised comparison of Dravidian languages, never appeared.

An important part of Lassen's activities was his work for the *Zeitschrift für die Kunde des Morgenlandes*, the first Oriental journal properly speaking in Germany.[6] The idea came from

[3] So Thordarson 2003. According to Basham 1961: 261 his books remained in Bonn.

[4] Kirfel 1944: 16f.

[5] Albert Hoefer (1812–1883), diss. **De prakrita dialecto libri duo*. 12+212 pp. Berolini 1836.

[6] There were some earlier one-man attempts, such as the *Indische Bibliothek* of A.W. von Schlegel and the *Vyāsa* of Othmar Frank (1770–1840).

Heinrich Ewald (1803–1875) and the first three volumes were published in Göttingen by a group of some of the leading German scholars of Oriental languages. However, after the third volume the task fell on Lassen alone and evidently demanded too much of his time. After the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* was founded in 1847 (and Weber's *Indische Studien* in 1849) only one more volume of the *ZKM* was published and then the journal was discontinued.

Lassen was also an exceptionally good scholar of Indian epigraphy and numismatics who keenly followed and commented on the finds made in India. He immediately adopted Prinsep's decipherment of Brāhmī and Kharoṣṭhī and contributed a number of articles and reviews on questions concerning these scripts.[7] A particular interest of his was the Graeco-Bactrian and Indo-Greek coins and the historical information they offered for a little-known period in Indian history (cf. the book published in 1838 and several articles).

The later part of Lassen's life was almost completely filled with the work on his monumental *Indische Alterthumskunde*, a summary of Indological scholarship of the time and the first competent general survey of the subject. Of his predecessors, A.H.L. Heeren (1760–1842) had known no Sanskrit,[8] Peter von Bohlen (1796–1840) had relied on too few sources and marred his account with unlucky comparisons with Egypt,[9] and Theodor Benfey (1809–1881) was still too inexperienced when he wrote on this demanding topic.[10] Christian Lassen's writings were able to displace all the earlier works.

The *Indische Alterthumskunde* is divided into two very uneven parts. The first half of the first volume deals with geography, while history takes up all the rest. For Lassen, *Altertumskunde* ended with the Muslim conquest in the North; the story for the South is told until the fall of Vijayanagara. Much space is given to cultural history and to the history of economy and commerce. The reflection of Indian culture in South-East Asia and Indonesia is also taken into account and long chapters describe the history of these areas, at least to the extent possible with the rather meagre sources then available. Unfortunately, the massive work contains no index.

The chapters dealing with Greek and Roman evidence – and these Lassen was fully capable of studying from original sources – are, though antiquated, still not really superseded.[11] Arabic sources he knew through the work of J.-T. Reinaud (1795–1867) and Gildemeister, Chinese sources through Abel-Rémusat (1788–1832) and St. Julien (1799–1873). He rightly rejected Albrecht Weber's (1825–1901) far-fetched theories of the supposed Western origin of the *Rāmāyaṇa*, Kṛṣṇa, and *bhakti* religion. He had some knowledge of the Veda and realized its importance for the earliest period (especially in the second edition), but it was one of his weak points. He also gave too much weight to the *Mahābhārata* as a historical source. His knowledge of early Buddhism, mainly founded on Mahāyāna sources and Burnouf's interpre-

[7] Cf. Salomon 1998: 212.

[8] Cf. the volume *Indien* in the third edition of his famous *Ideen über die Politik, den Verkehr und den Handel der vornehmsten Völker der alten Welt*, Göttingen 1815. See Windisch 1917: 59ff.

[9] *Das alte Indien, mit besonderer Rücksicht auf Aegypten dargestellt*, 2 vols., Königsberg 1830. See Windisch 1917: 86ff.

[10] Cf. his long article "Indien," in *Allgemeine Encyclopädie der Wissenschaften und Künste in alphabetischer Folge*, hrsg. von J.S. Ersch und J.G. Gruber, Zweite Section, 17. Theil, Leipzig 1840: 1-346. See Windisch 1917: 158ff.

[11] It is necessary perhaps to point out here that almost every date for Indian history has been revised since Lassen's time. Whoever reads Lassen must thus continuously correct him.

tation of them, was defective. He still saw a Buddhist sect in the Jaina religion. As far as it was then possible in Europe, he gave full attention to epigraphical and numismatic evidence.

It is easy, and in my opinion rather unnecessary, to criticize Lassen for sharing some of the ideas of his time. He is a Hegelian (though not an extremist), believes in Christianity as the only real world religion and accepts the supposed identity of language and race. However, his approach is not unsympathetic. In the beginning of *Indische Alterthumskunde* he describes his subject, in Basham's English translation, as "the historical development of one of the greatest, earliest civilized, and most individual peoples of the ancient world." To quote more from Basham (1961: 262), the *Indische Alterthumskunde* "is a milestone in the progress of the science of Indology. In it Lassen distills the quintessence of all the contemporary knowledge of the subject, adding much of his own. No other single hand has since produced so monumental a survey of the history of early India." Appropriately, Windisch (1917) let him conclude the first period of Indology in his history.

Like many of the early Indologists, Lassen was also a scholar of Old Iranian. He participated in the interpretation of the Old Persian cuneiform inscriptions (cf. the monograph published in 1836 and several articles) and dealt with the textual problems of the Avesta (1852). His interest in epigraphy and decipherment occasionally even took him beyond the sphere of Indo-Iranian. An early study (1833-1834) was dedicated to the interpretation of Umbrian inscriptions of ancient Italy, and in one long article (1856) he also discussed the decipherment of Lycian inscriptions.

As is often the case, the list of courses taught by Lassen includes areas not found in his bibliography. Klatt has studied the programs of the university and given a summary. Lassen's usual curriculum included Sanskrit grammar, interpretation of Sanskrit texts, comparative grammar of Indo-European languages, Indian antiquities, and Old Persian, supplemented by private lectures in Sanskrit and Avesta (then called "Zend") for especially interested studets. For elementary reading he used his own *Anthologia*, and later also the chrestomathies of Böhtlingk and Benfey.[12] For more advanced students he interpreted Manu, the *Bhagavadgītā*, *Hitopadeśa*, *Pañcatantra*, Bhartṛhari's *Śataka*s, *Vedāntasāra*, *Raghuvaṃśa*, *Gītagovinda*, *Mudrārākṣasa*, *Mālatīmādhava*, *Prabodhacandrodaya*, *Śakuntalā*, *Mālavikāgnimitra*, *Mṛcchakaṭikā*, selected Upaniṣads, and the *Ṛgveda*. In his early years he also lectured on ancient geography and general linguistics; as full Professor he was also obliged to lecture on English literature.

Selected Bibliography of Christian Lassen[13]

1826

with E. Burnouf, *Essai sur le Pali ou langue sacrée de la presqu'ile au-delà du Gange*. 6+226 pp. Paris (supplement by Burnouf in *JA* 9 [1826]: 257-274).
Reviews: anonymous *JS* 1826: 415-425; P. von Bohlen, *JbWK* 1829/1: 8-16; H. E[wald], *GGA* 1827: 1681-1688; Kieffer, Garçin de Tassy and Abel-Rémusat, *JA* 7 (1825) (!): 358-370.

[12] Cf. O. Böhtlingk, *Sanskrit-Chrestomathie*, St. Petersburg 1845; Th. Benfey, *Handbuch der Sankrit-Sprache*, Vol. 2/1-2: *Chrestomathie und Glossar*, Heidelberg 1853-1854.

[13] An asterisk denotes works and articles not seen by me. I have tried to make this bibliography rather complete, but I have not gone through the great number of general journals (only *GGA* and *JS* in their entirety, and *JbWK* for the years 1827-1846). For the earlier years, Gildemeister's bibliography (1847) was very useful.

1827

Commentatio Geographica atque historica de Pentapotamia Indica. 91 pp. Bonnae ad Rhenum (geographical and historical discussion of the Indian Pentapotamia, i.e. the Pañjāb, doctoral dissertation).
Reviews: P. von Bohlen, *JbWK* 1829/1: 17-24; [A.L. de] Chézy, *JS* 1832: 203-208; [A.H.L.] H[eere]n, *GGA* 1828: 41-43.

1829

with A.W. von Schlegel, *Hitopadesas id est Institutio salutaris*. *Textum codd*. *mss*. *collatis recensuerunt*, *interpretationem latinam et annotationes criticas adjecerunt A.G. a Schlegel et Chr*. *Lassen*. Pars I. 16+133 pp. Bonnae (Hitopadeśa, Sanskrit text).
Review: H. E[wald], *GGA* 1830: 1320.

1830

"Ueber Herrn Bopps grammatisches System der Sanskrit-Sprache," in: *Indische Bibliothek* 3/1: 1-113 (review of Franz Bopp, *Ausführliches Lehrgebäude der Sanskrita-Sprache*, Berlin 1827).

1831

with A.W. von Schlegel, *Hitopadesas id est Institutio salutaris*. *Textum codd*. *mss*. *collatis recensuerunt*, *interpretationem latinam et annotationes criticas adjecerunt A.G. a Schlegel et Chr*. *Lassen*. Pars II. 16+204 pp. Bonnae (commentary).[14]
Review: H. E[wald], *GGA* 1832: 479f.

1832

Gymnosophista sive Indicae Philosophiae Documenta. *Collegit*, *edidit*, *enarravit Chr*. *Lassen*. *Voluminis I fasciculus I Isvaracrishnae Sankhya-caricam tenens*. 14+63 pp. Bonn (edition of the *Sāṃkhyakārikā* of Īśvarakṛṣṇa, with Latin translation, critical commentary and an index of words).
Review: H. E[wald], *GGA* 1833: 1401-1407.

**Malatimadhavae fabulae Bhavabhutis actus primus ex recensione Chr*. *Lasseni*. 6+42 pp. Bonnae (edition of the *Mālatīmādhava* of Bhavabhūti, act 1).
Review: Fr. Rückert, *JbWK* 1834/1: 969-1006 (only p. 969 on Lassen, the rest on the *Vikramorvaśī* by Robert Lenz).

1833

"De nominibus, quibus a veteribus appellantur Indorum philosophi," *Rheinisches Museum für Philologie* 1: 171-190 (on the names of Indian philosophers in classical literature).

"Beiträge zur Deutung der eugubinischen Tafeln," *Rheinisches Museum für Philologie* 1: 360-391 (also separately, continued in 1834).
Review: Ag. Benary, *JbWK* 1834/2: 257-262 and 265-270.

1834

"Beiträge zur Deutung der eugubinischen Tafeln," *Rheinisches Museum für Philologie* 2: 141-166 (continued from 1833).

1836

Gita Govinda, *Jayadevae poetae Indici drama lyricum*. *Textum ad fidem manuscriptorum recognovit*, *scholia selecta*, *annotationem criticam*, *interpretationem latinam adjecit Chr*. *Lassen*. 38+142 pp. Bonnae (edition of the *Gītagovinda* of Jayadeva, with Latin translation and critical notes).
Review: Th. B[enfey], *GGA* 1841: 1090 and 1103f.

[14] The promised Latin translation by von Schlegel never appeared.

Die altpersischen Keil-Inschriften von Persepolis: *Entzifferung des Alphabets und Erklärung des Inhalts*. 6+186 pp. 2 pl. Bonn.
Reviews: Grotefend, *GGA* 1836: 1961-2000; E. Jacquet, *JA* 3 série V (1838): 351-376, 422-445 and 544-601; VI (1838): 385-425.

*[Letter to Prinsep], *JASB* 5: 723f.[15]

1837

Institutiones linguae pracriticae. 10+488+93 pp. Bonnae (Prākṛt grammar, with an edition and commentary of the *Prākṛtaprakāśa* of Vararuci, chapters 1-4, 11 and 13 on pp. 65-112).[16]
Reviews: anonymous [Benfey?], *GGA* 1839: 665-680; *Th. Benfey, *Haller Allgemeine Literaturzeitung* 1840/1: 73-96; *H. Brockhaus, *Gersdorfs Repertorium der Literatur* 11, n. 40, 16, fasc. 5; A. Hoefer,[17] *JbWK* 1839/1: 521-543; F. N[ève], *JA* 3 série VII (1839): 184-190.

"Beiträge zur Kunde des indischen Alterthums aus dem Mahābhārata I. Allgemeines über das Mahābhārata," *ZKM* 1: 61-86.

"Beiträge zur Kunde des indischen Alterthums aus dem Mahābhārata II. Die altindischen Völker," *ZKM* 1: 341-354 (continued in 1839, 1840).

*[Letter, *JASB* 6: 465.]

Review of *Asiatic Researches* 20/1, Calcutta 1837. *ZKM* 1: 103-110.

Review of J. Prinsep (ed.), *Journal of the Asiatic Society of Bengal* 5, Calcutta 1836. *ZKM* 1: 222-239.[18]

Edited, with Heinrich Ewald, Hans Conon von der Gabelentz, J.G.L. Kosegarten, Carl Friedrich Neumann, Emil Rödiger and Friedrich Rückert, *Zeitschrift für die Kunde des Morgenlandes* 1. 4+414 pp. Göttingen.

1838

Zur Geschichte der Griechischen und Indoscythischen Könige in Baktrien, Kabul und Indien durch Entzifferung der Altkabulischen Legenden auf ihren Münzen. 12+284 pp. Bonn (English translation 1840).
Reviews: Ferdinand Müller, *JbWK* 1839/1: 789-799; K.O. Müller, *GGA* 1839: 281-325.

Anthologia Sanscritica glossario instructa. In usum scholarum edidit. 14+358 pp. Bonnae (anthology of Sanskrit, with a glossary; 2nd ed. 1865).
Reviews: anonymous [by Benfey?], *GGA* 1839: 665-680; A. Hoefer, *JbWK* 1840/1: 839-852 (see note 17); F. N[ève], *JA* 3 série VII (1839): 184-190 (part only, discusses also *Institutiones linguae pracriticae* of 1837).

1839

*"Objects of Research in Afghanistan", *JASB* 8: 145-1??.

"Beiträge zur Kunde des indischen Alterthums aus dem Mahâbhârata II. Die altindischen Völker," *ZKM* 2: 21-70 (continued from 1837, further 1840).

"Die neuesten Fortschritte in der Entzifferung der einfachen Persepolitanischen Keilschrift," *ZKM* 2: 165-177.

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[15] Unfortunately, the early volumes of the *JASB* are not available to me. For this Letter containing the decipherment of the Brāhmī legend of a coin of Agathocles, see Salomon 1998: 206.

[16] A supplement to this was *Radices pracriticae* (Bonn 1839) by Nikolaus Delius (1813–1888), who later became a renowned scholar of English literature.

[17] A counter-review of Hoefer's two reviews (on Lassen 1837 and 1838 in *JbWK* 1839 and 1840) was J. Gildemeister's *Die falsche Sanskritphilologie*, Bonn 1840. This counter-review was then reviewed by A. Kuhn, *JbWK* 1842: 256-259 and by *A.F. Stenzler in *Haller Allgemeine Literaturzeitung* 1841/1: 181-184.

[18] The anonymous review of *The Journal of the Royal Asiatic Society of Great Britain and Ireland* 4/1, London 1837, in *ZKM* 1: 401-410 seems rather to be by Ewald than by Lassen.

"Über den Gebrauch der Buchstaben zur Bezeichnung der Zahlen bei den Indischen Mathematikern," *ZKM* 2: 419-427.

[Anonymous reviews, perhaps by Lassen, of *The History*, *Antiquities*, *Topography*, *and Statistics of Eastern India* I, London 1838 in *ZKM* 2: 318f., of the *Asiatic Journal* & *Oriental Herald*, *ibid*., 319f., and of C.T.E. Rhenius, *A Grammar of the Tamil Language*. Madras 1836, *ibid*., 320-323.]

Edited, with Heinrich Ewald, Hans Conon von der Gabelentz, J.G.L. Kosegarten, Carl Friedrich Neumann, Emil Rödiger and Friedrich Rückert, *Zeitschrift für die Kunde des Morgenlandes* 2. 4+484 pp. Göttingen.

1840

"Beiträge zur Kunde des indischen Alterthums aus dem Mahâbhârata II. Die altindischen Völker," *ZKM* 3: 183-217 (continued from 1837, 1839).

"Die neuesten Bereicherungen der Indischen Litteratur," *ZKM* 3: 307-326 and 467-489 (a review article; the first part entirely on A.W. von Schlegel's *Rāmāyaṇa*, the second on Friedrich Rosen's *Ṛgveda*).

"Ueber einige neue Keil-Inschriften der einfachsten Gattung," *ZKM* 3: 442-466.
Review: [E.] Bertheau, *GGA* 1841: 190f.

"Points in the History of the Greek and Indo-Scythian Kings in Bactria, Cabul, and India, as Illustrated by Decyphering the Ancient Legends on their Coins, translated by E. Roer," *JASB* 9: 251-276, 339-378, 449-488, 627-676 and 733-765 (translation of Lassen 1838, reprinted as *Greek and Indo-Scythian Kings and Their Coins*. Delhi 1972).

Review of J. Prinsep (ed.), *JASB* 6, Calcutta 1837. *ZKM* 3: 152-178.

Edited, with Heinrich Ewald, Hans Conon von der Gabelentz, J.G.L. Kosegarten, Carl Friedrich Neumann, Emil Rödiger and Friedrich Rückert, *Zeitschrift für die Kunde des Morgenlandes* 3. 4+491 pp. Göttingen.

1842

Dissertatio de insula Taprobane veteribus cognita. 1. 4+24 pp. Bonnae (on the classical knowledge of Taprobane, i.e. Sri Lanka, inaugural lecture).

"Persepolis," J.S. Ersch and J.G. Gruber (eds), *Allgemeine Encyclopädie der Wissenschaften und Künste*, Dritte Section, 17. Theil, Leipzig, pp. 347-370.

"Vorwort," *ZKM* 4: iii-v.

"Beiträge zur Kunde des indischen Alterthums aus dem Mahâbhârata III. Untersuchungen über die ethnographische Stellung der Völker im Westen Indiens," *ZKM* 4: 87-122 and 419-488.

"Ueber eine alte Indische Inschrift der königlichen Satrapen von Surāshtra, worin K'andragupta und sein Enkel Açôka erwähnt werden," *ZKM* 4: 146-202 (on the Girnar inscription of Rudradāman).

"Neueste Bereicherungen der Griechisch-Baktrischen und Indoskythischen Münzkunde," *ZKM* 4: 202-208.

"Fernere Bereicherungen der Griechisch-Baktrischen und Indoskythischen Münzkunde", *ZKM* 4: 377-397.

"Die neuesten Bereicherungen der Indischen Litteratur 3," *ZKM* 4: 233-253 (review of O. Böhtlingk, *Pāṇini*: *Acht Bücher grammatischer Regeln*, Bonn 1839-1840).

Review of N.L. Westergaard, *Radices linguae Sanscritae ad decreta grammaticorum*, Bonn 1841. *ZKM* 4: 253-259.

Review of *JASB* 7-9/1, Calcutta 1838-1840. *ZKM* 4: 489-508 (continued in 1844, this part only on volume 7).

*Review of A. Holtzmann, *Indravidschaja*: *Eine Episode des Mahābhārata*, Karlsruhe 1841. *Jenaer Allgemeine Literaturzeitung* 1842: 1127-1132.

Edited (alone) *Zeitschrift für die Kunde des Morgenlandes* 4. 8+511 pp. Bonn.

Translation (evidently by Lassen) of C.M. Whish: "Ueber den Ursprung und das Alter des indischen Thierkreises," *ZKM* 4: 302-328 (from *Transactions of the Literary Society of Madras* 1 [1827]: 63-77; by Lassen are in any case the notes ["Schlussbemerkungen"], 329-341, and the appendix ["Anhang: Javanêçvara's Beschreibung der Zodiakal-Bilder"], 342-348).

1843

Indische Alterthumskunde. Ersten Bandes erste Hälfte. Bonn (complete in 1847).

1844

"Bemerkungen über dieselbe Stelle des Megasthenes," *ZKM* 5: 232-259 (postscript to an article by Theodor Benfey, *ibid*., 218-231).

"Untersuchungen über die ethnographische Stellung der Völker im Westen Indiens. 4) Die Brāhūī und ihre Sprache," *ZKM* 5: 337-409.

Review of *JASB* 7-9/1, Calcutta 1838-1840. *ZKM* 5: 444-470 (continued from 1842).

Review of *The Dabistan*, *or School of Manners*, *Translated from the Original Persian*, *with Notes and Illustrations*, by David Shea and Anthony Troyer, 3 vols., Paris 1843. *ZKM* 5: 473-487.

Edited *Zeitschrift für die Kunde des Morgenlandes* 5. 5+487 pp. Bonn.

1845

*with N.L. Westergaard, *Ueber die Keilinschriften der ersten und zweiten Gattung*. 302+130 pp. Bonn (contains Lassen's article from *ZKM* 6 and Westergaard's article "Zur Entzifferung der Achämenidischen Keilschrift zweiter Gattung," *ZKM* 6: 337-466).[19]

"Die Altpersischen Inschriften nach Hrn. N.L. Westergaard's Mitteilungen," *ZKM* 6: 1-188 and 467-580.

Edited *Zeitschrift für die Kunde des Morgenlandes* 6. 580 pp. Bonn.

1846

Edited the second edition of A.W. von Schlegel's *Bhagavad-Gita id est ΘΕΣΠΕΣΙΟΝ ΜΕΛΟΣ sive Almi Crishnae et Arjunae colloquium de rebus divinis*. *Textum recensuit, adnotationes criticas et interpretationem latinam adjecit Aug. Guil. a Schlegel. Editio altera auctior et emendatior cura Chr. Lasseni*. 54+298 pp. Bonnae (edition and Latin translation of the *Bhagavadgītā* by A.W. von Schlegel, revised by Lassen from the first edition of 1823).

1847

Indische Alterthumskunde. Band I: *Geographie und die älteste Geschichte*. 6+862+108 pp. Bonn (2nd edition 1867).

Reviews: E.E. Salisbury, *Journal of the American Oriental Society* 1 (1849): 299-316; see also 1861.

1849

Indische Alterthumskunde. Zweiten Bandes erste Hälfte. Bonn (complete in 1852).

1850

"Vorwort," *ZKM* 7, two unnumbered pages.

"Erklärung der Inschrift auf einem Altpersischen Siegel," *ZKM* 7: 277-279.

[19] The "first kind" is Old Persian, the second Elamite. The third kind, Akkadian, was apparently never tackled by Lassen.

"Eine auf einer Kupfertafel in Sattâra gefundene Inschrift Naravarma's aus dem Jahre 1104," *ZKM* 7: 294-352.

Review of F. Nève, *Essai sur le mythe des Ribhavas*, Paris 1847. *ZKM* 7: 353-383.

"Die neuesten Bereicherungen der Sanskrit-Litteratur in Indien," *ZKM* 7: 384-386.

"Sur la connaissance que les anciens hindous avaient de l'Asie en dehors de l'Inde et sur leurs rapports avec les peuples étrangers (trad. de l'Indische Alterthumskunde)," *Nouvelles Annales des Voyages* 5. série, 6. année, tome 22 (= 126): 269-310.

Edited *Zeitschrift für die Kunde des Morgenlandes* 7. [10]+386 pp. Bonn.

Translation of E. Hincks, "Ueber die erste und zweite Gattung der Persepolitanischen Schrift," übersetzt und mit Anmerkungen versehen von Christian Lassen, *ZKM* 7: 201-209 (from *Transactions of the Royal Irish Academy* 21/1).[20]

1852

Indische Alterthumskunde. Band II: *Geschichte von Buddha bis auf die Ballabhi- und jüngere Gupta-Dynastie*. 12+1182+52 pp. Bonn.
Reviews: see 1861.

**Vendidadi capita quinque priora emendavit C.L.* 6+67 pp. Bonn (critical edition of the first five chapters of the *Vīdēvdat*).
Review: F. Spiegel, *ZDMG* 6 (1852): 444f.

1856

"Ueber die Lykischen Inschriften und die alten Sprachen Kleinasiens," *ZDMG* 10: 325-388.

1857

Indische Alterthumskunde. Dritten Bandes erste Hälfte. Leipzig (complete in 1858).
Reviews: see 1858.

1858

Indische Alterthumskunde. Band III: *Geschichte des Handels und des griechisch-römischen Wissens von Indien und Geschichte des nördlichen Indiens von 319 nach Christi Geburt bis auf die Muhammedaner*. 12+1203 pp. Leipzig.
Reviews: A. Weber, *LCB* 1857: 91f. (III/1) and 1858: 303f. (III/2/1), both reprinted in *Indische Streifen* 2 (1869): 119-122 and 141-143; see also 1861.

1861

Indische Alterthumskunde. Band IV: *Geschichte des Dekhans*, *Hinterindiens und des indischen Archipels von 319 nach Christi Geburt bis auf die Muhammedaner und die Portugiesen*. *Nebst Umriss der Kulturgeschichte und der Handelsgeschichte dieses Zeitraums*. 10+988 pp. Leipzig.
Review: Barthélemy Saint-Hilaire, *JS* 1861: 453-468, 559-573, 692-705 and 1862: 79-92 (I-IV/1).

1862

Indische Alterthumskunde. Anhang zum III. und IV. Bande: *Geschichte des chinesischen und arabischen Wissens von Indien*. 2+86 pp. Leipzig.

"Ueber die Altindische Handelsverfassung," *ZDMG* 16 (1862): 427-537.

[20] Edward Hincks (1792–1866), an Irish (with English background) priest and antiquarian, made some essential contributions to the decipherment of the various kinds of cuneiform writing.

1865

Anthologia Sanscritica glossario instructa. In usum scholarum edidit. Editio altera a J. Gildemeister. 16+301 pp. Bonn (revised second edition of Lassen 1838, unchanged new ed. 1868).
Reviews: Th. Benfey, *GGA* 1865: 1637-1640; A. Weber, *LCB* 1865: 810f., reprinted in *Indische Streifen* 2 (1869): 292-296.

1867

Indische Alterthumskunde. Band I: *Geographie und die älteste Geschichte*. 2. Aufl. 12+1083 pp. Leipzig (revised second edition of Lassen 1847).

1873

Indische Alterthumskunde. Band II: *Geschichte von Buddha bis zu dem Ende der älteren Gupta-Dynastie*. 2. Aufl. 16+1238 pp. Leipzig (revised second edition of Lassen 1852).
Review: A. Barth, *Revue critique* 1874/1: 369-375 and 385-390, reprinted in his *Œuvres*, Vol. III, Paris 1919, pp. 111-126.

1874

"Prof. Lassen on Weber's Dissertation on the Râmâyaṇa. Translated from the German by J. Muir," *Indian Antiquary* 3: 102f. (from *Indische Alterthumskunde*, Vol. II, 2nd edition, p. 502)

1884

"Briefe an Theodor Benfey," *Bezzenbergers Beiträge* 8 (1884): 245-268 (*inter alia* by Lassen).

1914

W. Kirfel (ed.), *Briefwechsel August Wilhelm v. Schlegel – Christian Lassen*. 12+248 pp. Bonn 1914.

1924

*"The chapter of *Indische Alterthumskunde* on the trade and commerce of India in the early centuries of the Christian Era has been translated by K.P. Jayaswal and A. Banerji-Sastri," *Journal of the Bihar and Orissa Research Society* 10: 227-316.[21]

Obituary Notices

JRAS N.S. 9 (1877): Annual Report vii-x.

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[21] So stated in Basham 1961: 262; unfortunately the journal is not available to me. When he adds that "this is the only translation of Lassen known to me, though others may exist," we can at least point out those listed under the years 1840, 1850 and 1874.

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Lore Sander

Confusion of Terms and Terms of Confusion in Indian Palaeography*

Si parva licet componere magnis

The question of which names should be assigned to certain Indian scripts or periods of scripts is as old as Indian palaeography.[1] The oldest source for terms distinguishing Brāhmī scripts is al-Bīrūnī's encyclopaedia on India written in the early eleventh century.[2] The Arabic author characterizes Indian Brāhmī as follows:

> The Hindus write from the left to the right like the Greeks. They do not write on the basis of a line, above which the heads of the letters rise whilst tails go down below, as in Arabic writing. On the contrary, their ground line is above, a straight line above every single character, and from this line the character hangs down and is written under it.[3]

This characteristic is true for all Indian Brāhmī scripts until today. Apart from this general characteristic the many variants of Brāhmī in his time do not have much in common. Al-Bīrūnī enumerates the names of eleven Brāhmī scripts and the regions where they are used. The scripts from North India are the following: "Siddhamātṛkā", "Ardhanāgarī", "Mālwarī", "Saindhava", "Gauḍī", and "Bhaikṣukī". To characterize his brief notices the last two should serve as an example:

> The Gauḍī, used in Pūrvadeśa, i.e. the Eastern country; the Bhaikṣukī, used in Uduṇpur in Pūrvadeśa. This last is the writing of the Buddha.[4]

A detailed description is given only for the "Siddhamātṛkā" (cf. below, pp. 127-132). It seems to have been the most important script in al-Bīrūnī's time, as its special position in his work suggests. It can be concluded from al-Bīrūnī that in the early eleventh century many types of Brāhmī existed in India, and that the names were taken from different contexts. To demonstrate what I mean, I will give two examples: "Gauḍī" refers to Gaur, the central district of Bihar. This term is local. "Bhaikṣukī", meaning "belonging to a group of beggars or monks", with its centre in Udunpur in Bihar,[5] refers to a Buddhist community which used this ornate script for their texts and inscriptions. Names relating to other contexts or features may refer to dynasties, such as "Mauryan Brāhmī",[6] or to characteristics in appearance. By whom these names were given and how they became terms is not reported for the older period. Other terms, such as "nail-head" or "arrow-head" script for the old "Bhaikṣukī", are

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[1] In the introduction to his palaeography Dani (1963: 1-11) gives a good summary of the different approaches towards this subject, many of them relevant to our topic.

[2] Sachau 1910: 173f.

[3] Sachau 1910: 172.

[4] Sachau 1910: 173.

[5] For the development of scripts in East India, see Bhattacharya 1998: 15.

[6] The latter name is not quite correct because the dynasty was founded by Aśoka's grandfather Candragupta Maurya of whose time no Brāhmī inscriptions are known.

Karin Preisendanz (ed.), *Expanding and Merging Horizons*: *Contributions to South Asian and Cross-Cultural Studies in Commemoration of Wilhelm Halbfass*, Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2007, pp. 121-139.

descriptive terms invented by scholars, in this case by Cecil Bendall.[7] The habit of naming scripts following different criteria remained, even after scripts had become a special subject of study when palaeography, the history of Indian scripts, began with Ojha and Bühler at the end of the nineteenth century. It is still being carried on today and meanwhile has created a confusion of terms. Before giving some examples of this confusion, let me go into the history of Indian scripts and raise the following question: Are all scripts suitable for being termed?

In the case of the Indian subcontinent, our knowledge of ancient scripts is mainly based on epigraphs. Only the dry climate of the northwestern provinces of ancient India, nowadays regions of Afghanistan and Pakistan, and of Xinjiang, allowed for the preservation of manuscripts from approximately the first century CE onwards. Despite opinions which attempt to date some inscriptions before Aśoka, most scholars concerned with Indian Brāhmī agree that its history begins with the inscriptions of this eminent king. The Brāhmī of this time is generally named "Aśokan" or less frequently "Mauryan Brāhmī". Some more names based on historical periods follow, such as "Kṣatrapa-", "Sātavāhana-", "Kuṣāṇa-" and "Gupta-Brāhmī". This division is artificial and suggests that the scripts of these periods are imperial and that the Brāhmī is therefore more or less uniform, which is not the case. One can observe some development from one period to the next, but it is not linear and therefore cannot be determined exactly. Furthermore, there are local peculiarities, even though they may be minute. Dani's palaeographical approach suggests that the history of Indian Brāhmī is a permanent development towards local scripts which finally leads to the many different Brāhmī types and scripts known in modern times.[8] Unifying tendencies only seldom interrupt this process. His restrictive view was rightly criticised by K.V. Ramesh who states in his book *Indian Epigraphy*:

> Dani's prime defect lies in his assumption that the segmentation of cultures and scripts had the same boundaries. On the other hand, the overbearing reason which led to steady changes in the Brāhmī script leading to gradual palaeographical developments which finally resulted in the appearance of various regional scripts from the same source was natural geophysical segmentation of the subcontinent abetted by the political segmentation of the land in the post Aśokan period.[9]

Although it is generally accepted, also by Dani, that the "Aśokan Brāhmī" is an imperial script,[10] it cannot be overlooked that eminent scholars, such as Georg Bühler, already saw tendencies of local variants in the inscriptions of Aśoka, which means that there must have been a writing tradition before Aśoka of which no testimonies exist.[11] This statement is supported by the Kharoṣṭhī, Greek and Aramaic inscriptions of the northwest, in Shahbazgarhi, Mansehra and Kandahar.[12] Ramesh is right that simplification is not appropriate in view of the cultural exchange between the different provinces. The borders were not closed. For the later Kṣatrapa and Kuṣāṇa periods, a good example of an outcome of this exchange are the rare Kharoṣṭhī inscriptions from Mathurā, the most famous being the one on the Mathurā lion capital,[13] dating approximately from the time of Kṣatrapa Soḍasa.

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[7] Bendall 1886, 1890, 1895. I thank Professor Michael Hahn, Marburg, for the references. He presented a survey of manuscripts written in this rare script at a conference held at Bukkyo University, Kyoto, in September 2003. For further references, cf. Sander 2002: 338, n. 10. Cf. also Bühler 1896: 57f.

[8] Dani 1963: 108-113, especially 108.

[9] Ramesh 1984: 71.

[10] Dani 1963: 34f.

[11] Bühler 1989: 6f.

[12] Dani (1963: 35) denies the existence of regional Brāhmī types at the time of Aśoka, but does not explain why local scripts are used in the northwestern provinces.

[13] Konow 1929: 30ff.

Until the first century CE the script is characterized by a gradual development, not by sudden changes. Imperial names, such as "Mauryan", "Sātavāhana", "Kṣatrapa", or "Kuṣāṇa", mark periods; they are not terms in the strict sense of the word which stand for comparably uniform scripts, so-called standard scripts. In the history of early Indian Brāhmī after Aśoka, dynastic influences did not play a very important role; Brāhmī, that is, the remains which have come down to us in inscriptions, is – compared with those of later periods – rather uniform with only little variation. It is characterized by gradual changes, such as the shortening of strokes on the head of, e.g., *ta* and *va* until this results in the characteristic triangular headmark of the Kuṣāṇa period. Also the ascenders at the left side or in the middle of *akṣara*s open at the top, such as *gha*, *pa*, *pha*, *ya*, *ṣa*, *and ha*, gradually become shorter, until they are of equal height with the remaining part or parts of the relevant *akṣara*. Interesting is the reversal of *da* which flips from being open to the left to being open towards the right (cf. Fig. 1). The "modern" *da* occurs first in the inscriptions from the eastern Deccan, i.e., early Amarāvatī and Bhaṭṭiprolu of the first century CE. This transitional period lasting for about 200 years has never been specially named and encompasses all of India. It is hardly possible to explain this slow development; obviously no dynasty could put its stamp on the Brāhmī. Remarkable deviations from the "Aśokan Brāhmī" do not occur before the time of the Western Kṣatrapas, Sātavāhanas and of the Kuṣāṇas, i.e., between the first and second centuries CE.

The Kuṣāṇas mark a new period in the development of Brāhmī in India. They ruled from their homeland Gandhāra over large parts of North India,[14] and their influence reached as far as Kauśāmbī,[15] Saheṭh Maheṭh (old Śrāvastī)[16] and Sārnāth and even further to the northeast of the Indian sub-continent, and to the south as far as the Narmadā. It extended over Bāmiyān in the northwest, and the Buddhist monasteries along the Silk Routes (western China) in the far northeast were also under Kuṣāṇa influence. In the north, this influence extended all the way to the oasis of Merv (Usbekistan). On the Indian sub-continent, Mathurā was the economic and cultural centre. Many factors other than the dynastic one can be adduced to explain the spread of this specific form of Brāhmī, such as trade, and the already widely spread Buddhist religion with its literature written in Indian vernaculars also made Mathurā Brāhmī the leading script in large parts of northern India and in all countries at the borders of the Kuṣāṇa empire. But was the script so uniform that one should speak of an imperial script, just as we speak of "Aśokan Brāhmī"? Bühler and Dani, the two leading palaeographers, have different views about this period. Bühler characterizes the script as follows:

> ... and nobody who once has seen the squat and broad letters of the Kuṣāṇa period will ever make a mistake by assigning them to other times.[17]

In contrast, Dani states for the Kuṣāṇa period:

> It is not possible to speak of a uniform Kushāṇa style as applicable throughout their empire during their rule.[18]

Dani's view is based on much more – but still only epigraphic – material than that known at Bühler's time, and he emphazises the differences owing to his concept of a gradual develop-

[14] For a recent map, see Harmatta 1994: Map 4, for the time of Kaniṣka II.

[15] Dani 1963: 90; new material in Tripathi 2003.

[16] Dani 1963: 101; for a further example, cf. *The Art of Mathura*: Fig. 17, and Yaldiz and Wessels-Mevissen 2003-2004: Fig. 27.

[17] Bühler 1896: 41; quoted from the English translation (1904: 40).

[18] Dani 1963: 78.

ment into local styles. As to the general characteristic of Brāhmī of this period,[19] Bühler's words are exact, but concerning the details Dani is right. In my paleographical study, following the general definition by A. von Brandt that the history of scripts is part of the history of styles, i.e., the history of forms of human expression, I tried to define a framework for the style of Indian scripts:

> Nur wo sich auch in Indien Kunstgeschichte und Schriftgeschichte paaren, nämlich in den Plastik- und Reliefinschriften, lassen sich Aussagen über den Stil der Schrift als Ausdruck einer bestimmten Geisteshaltung machen. In sehr begrenztem Umfange können wir solche Aussagen aber auch auf dem Felde der reinen Schriftforschung wagen, denn es ist nicht zu leugnen, daß sich auch in der Schrift ein Wandel vollzieht, der in großen Zügen mit den kunsthistorischen Stilepochen übereinstimmt.[20]

In this sense I do not know a better characterization of the script of this period than Bühler's.[21] Regarded from this point of view, the two statements, of Bühler and of Dani, are not even contradictory. Elements of style, in the present case deviations of certain *akṣara*s, may differ; even so the general appearance remains the same. In the defined broader sense, the stylistic similarities justify that one speaks of "Kuṣāṇa Brāhmī", which is best represented in the Mathurā inscriptions.[22] The new manuscript finds included in the Martin Schøyen Collection, which are probably originating from the Bāmiyān area, support this view. Most of the Kuṣāṇa manuscripts are written in the very clear and square Kuṣāṇa style, although some *akṣara*s are written in different forms.

Certain *akṣara* forms are regarded as typical for certain periods of time; they are named "Leit-*akṣara*s". These are letters or consonant clusters that undergo changes from one period to another while others remain unchanged. It is a common habit to date undated material with their help. But are they a reliable guide for dating undated manuscripts or inscriptions within a certain period? At the time being, most probably they are not, as I already suggested in my palaeographical study of the Turfan manuscripts. In a comparison based on dated Mathurā inscriptions I was able to show that the slightly differing shapes of *śa* and *ṣa* did not have any chronological value; only the subscribed tri-partite *-y-* seemed to have some relevance.[23] Now that much more material is available with the Kuṣāṇa manuscripts in the Martin Schøyen Collection, it becomes even more questionable whether the so-called "Leit-*akṣara*s" are of any chronological value within the Kuṣāṇa period. To give an example from this collection: In Kuṣāṇa fragment MS 2372/4 (see Fig. 2) the so-called Kuṣāṇa *ma* and the subscribed *-y-*, up to now regarded as reliable indicators for dating documents of the Kuṣāṇa period, occur in different shapes even in a single manuscript. The transitional form of *ma* and

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[19] Sander 1968: 68f.

[20] Sander 1968: 38.

[21] The art of Mathurā shows similar characteristics: the figures depicted are full of energy and bodily strength compared with the more refined art of the following Gupta period. To give an example from Buddhist art: The Buddha statues do not loose their main characteristics, which are characterized by Härtel as those of the Kapardin (1985: 563-578) or Mahāpuruṣa (Cakravartin) type (1995: 34), when, e.g., the form of the Buddha's garments changes under the influence of Gandhāra during the reign of Huviṣka. Cf. van Lohuizen-de Leeuw 1949: 181, and, e.g., Figs. 33 and 36. Although it is tempting to use the so-called "Leit-*akṣara*s" for dating within this period, at the time being this means is not very reliable.

[22] There are always exceptions from general statements. They do not falsify these statements because the large majority of all finds agrees with them. Especially at the beginning and the end of a period there may be exceptions. This is also the case for the material from the Kuṣāṇa period. For example, the script of two manuscripts in the German Turfan Collection, possibly originating from Bāmiyān, has a slightly smaller and more elegant appearance, a tendency characteristic for the following Gupta period. Cf. Sander 1968: 81-83.

[23] Sander 1968: 73-75.

the so-called north-western Gupta *ma*[24] occur side by side with the old tri-partite form of subscribed *-y-* (cf. A2: *dhārayiṣyati mām it*[*i*]). As far as the published epigraphic material allows a definite conclusion, at least the tri-partite subscribed *-y-* does not occur in Mathurā inscriptions after Huviṣka,[25] and never together with such developed forms of *ma* as in our manuscript fragment. One may explain this mixture of old and modern forms in the fragment by the combination of different local scribal traditions in Mathurā and Bāmiyān respectively, which I had already assumed for some Kuṣāṇa manuscripts found at Qizil (Xinjiang).[26] For the so-called Kuṣāṇa *ma*, it seems reasonable to assume that it was replaced by the Gupta *ma* much earlier in the north-western provinces of ancient India than in Mathurā. But such a conclusion remains a mere surmise as long as a detailed palaeographical analysis of the new material in the Schøyen Collection is missing, although at first sight the Brāhmī of most of the manuscripts does not seem to differ from what we already know from inscriptions. With respect to the Kuṣāṇa period, one may summarize that manuscripts and the inscriptions, although they are written in a very characteristic style, show too many differences in detail to be regarded as a homogenous standard script.

It is generally agreed that from the Gupta period onward Brāhmī can be divided into local variants, at the least into northern and southern scripts. In North India, East Gupta and West Gupta types are also clearly discernable, a division which began already in the third century CE.[27] However, the borders are not clearly marked. As Ramesh[28] rightly remarks, there are overlapping zones which cannot be accomodated in this simple scheme. It is obvious that Dani's idea about a gradual regional development fails with regard to this period, and more so concerning the post-Gupta time. In spite of these generally accepted divisions, unifying tendencies probably related to the Gupta court in Pāṭaliputra (Bihar) are sometimes discernable in royal inscriptions, e.g., the one from Bhilsa, which was already mentioned by Bühler.[29] I would therefore not be as severe as Ramesh who criticizes Dani:

> Wherever tangible clues have been available, professional epigraphists have tried to be more specific by drawing attention of scholars to dynastic affiliations of the post-Aśokan Brāhmī script, such as the Mauryan Brāhmī, Kuṣāṇa-Brāhmī, Kṣatrapa-Brāhmī, Sātavāhana-Brāhmī, Ikṣvāku-Brāhmī, etc. This dynastic sub-zonalisation serves to draw our attention to the general area of a given inscription's provenance without at the same time tending to be ultra-technical or unnecessarily hair splitting.[30]

It can be advanced against Ramesh that the spread of scripts does not stop at dynastic borders. His view is too much bound to imperial inscriptions. Many other cultural or economic factors may be responsible for the spread of scripts beyond dynastic borders; it all depends on the contents of the relevant document. However, a tendency towards the development of local scripts cannot be denied in India. This is also obvious from Indian history where dynastic

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[24] The observation that the so-called Gupta *ma* possibly occurs much earlier in the north-western provinces supports Lüders' opinion that the Mathurā inscription dated in the fourteenth year of Kaniṣka, likely Kaniṣka III, is written in what he calls the eastern style, a style which was influential in the region of Bāmiyān. Cf. Sander 1968: 128.

[25] Sander 1968: 73. Also the new inscriptions published by Satya Shrava (1993) do not lead to a different result.

[26] Sander 1968: 125-127.

[27] E.g., the Brāhmī of the Kaniṣka inscription dated into the year 14, the script of which is very close to that of the Allahabād Praśasti inscription; cf. Bühler 1896: Table IV. See also n. 24.

[28] Ramesh 1984: 73.

[29] Bühler 1896: 47.

[30] Ramesh, loc. cit. (cf. n. 28).

rule did not play such an important role as, e.g., in China. Few dynasties have governed a united or partly united India; in general, local rulers exercised power, often nourishing their own cultural peculiarities which included the preference for a certain script. This tendency is still reflected by the many Brāhmī derivates used in modern India apart from the widely spread Devanāgarī, such as Bengali, Śāradā, Gurmukhī and other scripts of Northern India and Kashmir, and the Grantha, Telugu and Canarese scripts of the South, as well as by the many languages of modern India.[31] To summarize: With the exception of "Aśokan Brāhmī", we can structure the development of Brāhmī in northern India until the end of the Gupta empire in the fifth century only according to dynastic periods. For this time it is not possible to speak of standard scripts because the documents from India and its neighbouring provinces show too many local and individual variants.

These general observations suggest that terms, when assigned at all, should only be given to local standard scripts. Standard scripts are uniform scripts that are accepted for certain periods in certain regions. Quite often they mark the end of a development. Only slight variations, individual, local, or in time, may occur because handwritten and also epigraphic material, assuming that epigraphs are based on handwritten patterns, cannot have such a strict standard as printed documents have.[32] This is true for the Brāhmī types developed by the Tokharians of Kučā[33] and the Khotanese speaking inhabitants of the oasis towns round Khotan. In naming these scripts I consistently followed the local principle in my palaeographic study of the Sanskrit manuscripts from the northern Silk Route in the German Turfan Collection. Consequently I named the two standard scripts "North-" and "South-Turkestan Brāhmī", against Hoernle's "Slanting" and "Upright Gupta". Hoernle's terms are construed by mixing a characterization of the appearance of the script, as "upright" and "slanting", with a dynastic name, namely, "Gupta". I have criticized these terms because both scripts are clearly local and also much standardized.[34] They were developed from north-western Gupta types in kingdoms speaking languages other than Indian vernaculars, i.e., Tokharian and Khotanese. Another critical point against Hoernle's "Gupta" is that these two Brāhmī types did not become standard before the seventh century CE, by which time the Gupta Empire had been over for approximately one century. The terms "Slanting" and "Upright", however, point towards another possibility for naming scripts, which may be more objective than local terms are. Already Bühler sometimes used names that characterize the appearance of a script, such as Bendall's "nail-head" or "arrow-head" (Bühler's "Pfeilspitzentyp"), and his own "spitzwinkliger Typ" ("acute-angled type").

Another example for a highly standardized script is the "calligraphic ornate script". This descriptive term was assigned by F.W. Thomas[35] to the local script used in the sixth century in the region named "Greater Gandhāra" by Richard Salomon, which mainly encompasses modern Pakistan and Afghanistan. It developed from the same north-western Gupta types as the two quite different Brāhmī scripts used on the Silk Routes. Following my local strategy for terms, I named this script "Gilgit/Bāmiyān, Type I". It was further characterized by von

[31] It is symptomatic for the particularism of India even in modern times that the introduction of Hindi as a national language failed.

[32] Grünendahl (2001: x) speaks of a "distillation process", when Indian scripts had to be standardized for printing.

[33] Sander 1968: 46.

[34] Sander 1968: 5

[35] Thomas 1954: 680f.

Hinüber as "ältere, runde Gilgit-Schrift".[36] These terms and characterizations already indicate what I mean by "confusion of terms". The option to name scripts after dynasties, as proposed by Ramesh, was already discussed above; it completely fails with regard to the calligraphic ornate "Gilgit/Bāmiyān, Type I". No dynasty can be adduced for the introduction of this script; several local dynasties ruled over the region in the sixth century. Except for one image inscription from Mathurā written in an earlier type[37] and the graffiti of the Upper Indus valley,[38] this script is mainly represented in Buddhist manuscripts. The available documents suggest that it is closely related to Buddhism.

Let me return to the terms relating to Brāhmī used by al-Bīrūnī, which were current in India at the beginning of the eleventh century. Above I have mentioned some of them, but did not discuss "Siddhamātṛkā", a term that demonstrates best what I mean by "confusion of terms". The terms assigned to other scripts of northern India, such as "Gaurī" or "Bhaikṣukī", could easily be defined. This is not the case with "Siddhamātṛkā", which al-Bīrunī clearly sets apart, not only because it occupies the first place, but also because its importance is emphasized by a more detailed description. What does "Siddhamātṛkā" mean? If one looks into the dictionaries, one only finds "name of a (special) script".[39] Does the term mean "perfected or established alphabet" or "alphabet of the Perfected (Siddhas)"? Because it became the basis of almost all North Indian scripts and was used for worldly and religious texts alike, I would prefer the technical meaning "established alphabet", even though a religious meaning may also have been intended. In Sachau's translation, the "Siddhamātṛkā" is described as follows:

> The most generally known alphabet is called Siddhamātṛkā, which is by some considered as originating from Kashmir, for the people of Kashmir use it. But it is also used in Varānasī. The same writing is used in Madhyadeśa, i.e., the middle country, the country around Kanauj, which is also called Āryavarta.[40]

Al-Bīrūnī's statement agrees very well with the palaeographic situation. This amounts to what even Dani agrees to in his introduction, namely, that this script, or rather derivatives of this script, spread all over Northern India.[41] However, according to epigraphic evidence, as generally agreed upon, the script does not originate from Kashmir, but first occurs in Bihar and Nepal[42] at the end of the sixth century. It is obvious that Dani's schematic regional system fails in this case. Again, Dani is strongly criticized by Ramesh:

> Dani's zonalisation fails to bring home another important fact viz., that commensurate with the appearance of these regional deviations in the script, the Sanskrit texts of the inscriptions of the period show progressively increasing influence of the many regional dialects.[43]

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[36] Von Hinüber 1982: 52. In some of my publications I used the term "Rundtyp" for the same script. For the different terms, cf. Hu-von Hinüber 1994: 37-40, especially 38, n. 6.

[37] Cf. Sander 1968: 133 and Tafel IV.

[38] Six volumes containing the complete material of six sites have already appeared. See the inscriptions published by von Hinüber in 1994 (Oshibad), 1997 (Shatial), 1999 (Hodar), 2001 (Shing Nala and Gichi Nala) and 2003 (Chilas Bridge and Thalpan). See also von Hinüber 1989.

[39] Cf. PW and MW.

[40] Sachau 1910: Vol. 1, p. 173.

[41] Dani 1963: 113.

[42] Cf., e.g., Hemrāj Śākya 1973: Pl. 21 and Gnoli 1956.

[43] Ramesh 1984: 74.

Neglecting the linguistic argument,[44] there are deviations, less in the shape of *akṣara*s, except the prominent change from the old tri-partite *ya* to its modern form,[45] than in other stylistic details; e.g., in the inscriptions of the time of Harṣavardhana (seventh century), the vowel signs display an elegant flow which is not found in Kashmir.[46] Bühler therefore regards the time of Harṣavardhana as the second phase of development of this script. His statement may be correct for the Indian subcontinent, but not for Kashmir where the embellished type is not attested.

The struggle about the right term to be used for this script, which was so important for the development of different local Brāhmī types in North India, began already with Bühler and Fleet; the latter named the Harṣavardhana type "Kuṭila", "the crooked one". Bühler argued:

> Fleet calls the second variety of the more marked twist of the lower ends of the strokes the "Kuṭila" variety of the Magadha alphabet of the 7th century. I feel disinclined to adopt the term "Kuṭila", which was first used by Prinsep, and since has been employed by many other writers, because it is based on an erroneous rendering of the expression *kuṭila akṣara* in the Deval Praśasti. I would remove it from the palaeographic terminology.[47]

This wish has not come true. It is still in use, especially in English publications. Perhaps Bühler was not absolutely certain whether this script is the "Siddhamāṭṛkā" of al-Bīrūnī and therefore introduced the term "spitzwinkliger Typus" ("acute-angled type").[48] As a matter of fact, one may doubt whether it is correct to identify al-Bīrūnī's "Siddhamāṭṛkā" with this script, because the beginning of the eleventh century is a rather late date for it. Local derivatives began to develop or were already fully developed at this time, such as the "Gauḍī" in the inscriptions of the Pālas of Bengal in the northeast of India,[49] and also the "Nāgarī" in the centre and the west,[50] the "Rañjanī" script in Nepal, and the "Śāradā" in Kashmir.[51] Nevertheless, the identification is likely in the light of the dominating role this script played for northern India between the seventh and tenth century. In view of the fact that al-Bīrūnī states that in his day this script was said to have originated in Kashmir, it is not impossible that the Brāhmī used in this region was still named "Siddhamāṭṛkā" even though changes towards the development of "Śāradā" are already traceable at that time.[52]

Von Hinüber, who mainly concentrated on the Gilgit manuscripts, named the same script "Proto-Śāradā" because it precedes the "Śāradā" in Kashmir. This is a term which I at times accepted because it is precise, logical, and easy to remember, without considering that the roots of this script are in India, where it was differently named, and the confinement of this term to the Gilgit manuscripts and the inscriptions of the area. I made a similar mistake in my palaeographical study where I named this script – in consonance with other local terms –

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[44] Ramesh's linguistic remark may be of interest to epigraphers and linguists, but concerns the palaeographer only inasmuch as new combinations of graphic signs may symbolize phonemes other than those which occur in Sanskrit.

[45] Cf. Sander 1989: 126 and von Hinüber 2004: 7. For further details, see Dani 1963: 139f.

[46] For Nepal, see Petech 1961: 227-232 and Salomon 1998: 191.

[47] Bühler 1896: 50. Quoted from the English translation (Bühler 1904), p. 50.

[48] Bühler (1896: 45) identifies this script with the "Siddhamāṭṛkā", but later (p. 49, § 23) he uses only his own term. Furthermore, he says (p. 49) that this type was formerly named "nail-head". "Nail-head" is clearly another term for the "Bhaikṣukī lipi"; see above pp. 121f.

[49] Bhattacharya 1998: 15.

[50] Bühler (1896: 50) considers the period from the eighth to the eleventh century as the third developmental phase of the "acute-angled type".

[51] Sander 1968: 160f.

[52] Sander 1989: 125f.

"Gilgit/Bāmiyān, Type II" after the main finding places of the Buddhist manuscripts written in it.[53] This term is not an ideal choice also from a different point of view: the script has nothing to do with "Gilgit/Bāmiyān, Type I", which may be suggested by "Type II". The terms just mentioned demonstrate the confusion which different terms may cause: "Siddhamāṭṛkā", "Kuṭila", "spitzwinkliger Typ" ("acute-angled type"), "Proto-Śāradā", and "Gilgit/Bāmiyān, Type II" are all used for approximately the same script.

From the above the following alternatives for naming scripts can be deduced: 1. after dynasties or rulers; 2. after a locality; 3. after certain characteristics; 4. following well-established traditional names.

Let me finally say some words about a problem not yet solved. Why was the "Siddhamāṭṛkā" able to become so successful in North India and the north-western provinces that it could expel such a well-established local calligraphic ornate script as that of "Greater Gandhāra"? This is most surprising, because the two scripts did not develop from each other but come from quite different sources. Two leaves of a single manuscript, MS 2381/57 in the Martin Schøyen Collection and HC 024 in the Hayashidera Collection (see Fig. 3), may be regarded as a good example for the sudden supplantation of a traditional script. The obverse of this manuscript is written in the local calligraphic ornate script, and the reverse in an early type of "Siddhamāṭṛkā".[54]

Von Hinüber first took notice of this problem.[55] He first proposed that a royal order, perhaps that of the Palola Ṣāhi king Navasurendrādityanandin known from the Hātūn rock inscription, may have introduced the "Siddhamāṭṛkā" into the Gilgit area. The Hātūn inscription is dated into the year 47 of an unknown era.[56] Von Hinüber connected the date with the Laukika era,[57] the dates of which are written without hundreds. Accordingly he dated the inscription to 671/672 CE. Later, he gave up his idea of a royal order in the light of the colophon of the *Saṃghāṭasūtra* manuscript from Gilgit which is dated to the year 3.[58] The manuscript is written in the probably older type of the local "Siddhamāṭṛkā", or, using von Hinüber's term, "Proto-Śāradā", and was, as von Hinüber convincingly showed, copied from an older manuscript likely written in the local calligraphic ornate script. He concludes that about 620-630 "Proto-Śāradā" superseded the older round script.[59]

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[53] Sander 1968: 123, n. 206. It has to be noted that the manuscripts in the Martin Schøyen Collection written in this type of script represent only the older type with the tri-partite *-y-*, or both, the old and the modern types, together, while the manuscripts from Gilgit also include examples for the latest stage of development.

[54] The recto side of both folios contains unknown Buddhist stories, the verso parts of Āryaśūra's *Jātakamālā*. MS 2381/57 verso is published in Hartmann 2002: 318, Pl. XVIIb.2.

[55] Von Hinüber 1982: 47-66, especially p. 63.

[56] Recently the dating of early documents from this region has become much disputed, especially because of Bactrian inscriptions which are equally dated without indication of the hundreds. It seems possible that also other eras in whose reckoning the hundreds were omitted have to be considered in dating the Palola Ṣāhis, such as the "Tochi Valley" era. See Salomon 1998: 196 and Sims-Williams 1999: 255.

[57] Cf. also von Hinüber 2004: 89. Assuming that the Laukika era is the correct era for dating the documents of the Palola Ṣāhis (see n. 56), it cannot be excluded that the inscription dates to one hundred years later, i.e., 771/772. For this possibility, compare also von Hinüber 2004: 71f. and 98 referring to *Surendrāditya in Chinese sources, who could possibly be Surendravikramādityanandi, also named Surendrādityanandi, the ruler who may have preceded Navasurendrādityanandi.

[58] The text of the colophon was first published by von Hinüber 1980: 69-72.

[59] Von Hinüber 1986/1987: 226; see also id., 1985: 65. For palaeographic reasons, cf. von Hinüber 1986/1987: 223. (The printed version of this article is full of mistakes; therefore von Hinüber felt obliged to remark: "No proofs have been sent to the author in spite of heavy and unfortunate changes in this article"). Except when referring to the gradual change from the tri-partite to the modern form of *ya*, palaeographic argu-

In 2004 von Hinüber's long awaited book on the Palola Ṣāhis appeared, which presents all archaeological and historical information known so far referring to this dynasty. As concerns the development of the script in the Gilgit area, the archaeological material is of special importance, such as inscriptions on bronzes and stone and scratched on the rocks of the Upper Indus Valley, as is the information preserved in colophons of Buddhist manuscripts. Von Hinüber is able to offer a tentative chronology of the rulers which is based on palaeographic evidence whenever dates and other evidence, i.e., titles and references to familial relations, are missing. This is the case mainly for the early period before Navasurendrādityanandi.

It is of great importance for the palaeography of this area to determine when the change between the local calligraphic ornate script and the "Siddhamātṛkā" took place. From the evidence of material presented in von Hinüber's book there cannot be any doubt that the preference for one of these two types of Brāhmī changed between Surendravikramādityanandi (on a graffiti: Surendrādityanandi)[60] and Navasurendrādityanandi; von Hinüber provides a number of reasons for the assumption that Navasurendrādityanandi followed Surendrādityanandi on the throne.[61] In this case the switch to a quite different script could only have been an abrupt one, perhaps effected by a royal order. From the material presented in von Hinüber's book it becomes obvious that this switch took place at a time when only the modern-shaped *ya* was in use because the documents from the reign of Navasurendrādityanandi exclusively show this form. As already mentioned above, the Gilgit manuscripts written in "Siddhamātṛkā" give a different impression, namely, that the "Siddhamātṛkā" was introduced earlier, because the tri-partite *ya* is present in these manuscripts,[62] i.e., in that of the *Saṃghāṭasūtra*. Therefore one cannot exclude the possibility that the "Siddhamātṛkā" was used side by side with the local calligraphic ornate script in this region[63] at least until the reign of Navasurendrādityanandi.

In Sander 1989 I added a palaeographical argument to the discussion, suggesting that the popularity of the "Siddhamātṛkā" may be based on its elegant appearance caused by a differently shaped pen. However, this argument is too weak to explain the change. I argued that the new, highly calligraphic style of writing characterized by the alternation of straight, thick and very thin lines[64] occurs first in inscriptions written in "Siddhamātṛkā". This feature is due to the use of a pen with a broad slanting nib,[65] while formerly the most common nibs were either pointed or straight. After its introduction, it became the most frequently used type of pen, especially for writing formal documents and books. However, the more recently discovered

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ments often fail with regard to the "Siddhamātṛkā" because it is rather standardized for almost 200 years in this region; cf. Sander 1968: 160. It cannot be determined when the change of the shape of *ya* took place. Transitional forms of the letter *ya* are well documented in the Bower manuscript, which can approximately be dated to the early sixth century; cf. Sander 1987: 313-323. For the development of this script in Kashmir, cf. also Sander 1989: 111.

[60] Von Hinüber 2004: 88. The graffito mentioning Surendrādityanandi is undoubtedly written in the local calligraphic ornate script. Cf. von Hinüber 1999: Tafel 120, no. 68.1, and 2004: 88.

[61] Von Hinüber 2004: 89.

[62] It may be of interest to note that the majority of the Gilgit Manuscripts written in the calligraphic ornate "Gilgit/Bāmiyān script" are Mahāyāna texts, while those written in the "Siddhamātṛkā" mainly belong to the literature of the Mūlasarvāstivādins; the only exception I know is the manuscript of the *Saṅghāṭasūtra* mentioned above. I am not able to explain this astonishing division.

[63] In Sander 1989: 111f., I provided an example for the influence of the local ornate script on the "Siddhamātṛkā".

[64] Dani 1963: 113 noticed the same change, but thought that it was caused by a new writing technique, i.e., a twisting of the pen. For critical remarks, cf. Sander 1968: 142, n. 32.

[65] Cf. Sander 1989: 112. Cf. also Salomon 1998: 69.

manuscripts in the Martin Schøyen Collection show that pens with a slanting nib were not confined to the "Siddhamātṛkā". There are quite a number of mainly birch-bark manuscripts[66] written in local calligraphic ornate script, which show the same interplay of thin and thick lines.[67] Such manuscripts written with an evenly shaped pen may indicate that the two types of script existed side by side, although it cannot be determined for how long because dated material is missing. This is a much more convincing explanation also for the appearance of the two different scripts in the manuscript with Buddhist accounts I mentioned above. Therefore it remains doubtful whether the two sides of the birch-bark manuscript with unidentified Buddhist accounts and the Jātakamālā respectively (i.e., MS 2381/57 [see Fig. 3] and HC 024) were written at different times (obverse: the local calligraphic ornate script, likely of the sixth century; reverse: "Siddhamātṛkā", seventh century). They may well have been written or copied at approximately the same time.

All examples given above show that one cannot be sure that the change between the two scripts happened suddenly. Nevertheless, it is a fact that the well-established local script, which was characterized by F.W. Thomas as "calligraphic ornate", was replaced by the more elegant and straight "Siddhamātṛkā", which was probably introduced into "Greater Gāndhāra" between the end of the sixth and the beginning of the seventh century.

Could other arguments be advanced to explain the introduction of "Siddhamātṛkā" into "Greater Gandhāra" more convincingly? The Mahānāman inscription from Bodh-Gayā[68] and the inscriptions of Aṃśuvarman from Nepal,[69] both probably dating from the later sixth century, are the oldest inscriptions incised in this script. They are written in a style very similar to that of the documents from "Greater Gandhāra".[70] Furthermore, they indicate that the "Siddhamātṛkā" likely has its roots in the eastern part of ancient India or in Nepal.[71] At first sight it seems plausible to connect the far-reaching distribution of the "Siddhamātṛkā" with the empire of Harṣavardhana of Kanauj (Uttar Pradesh),[72] who ruled over large parts of northern India in the seventh century. His important court had politically and culturally influenced most of the territories mentioned by al-Bīrūnī. Although being a follower of Śiva, he was tolerant in religious questions.[73] Xuanzang, who visited his court, reports[74] that he patronized Buddhism which was one of the leading religions, especially in his nuclear province, Bihar. Much therefore speaks in favour of the assumption that under his rule the script was

[66] It is noteworthy that birch-bark as a writing material occurs in this collection only in connection with the use of the standard form of the local calligraphic ornate script. What may be earlier varieties of the same script were written on palm-leaf. Judging from the preserved manuscripts, "Siddhamātṛkā" was only used in birch-bark manuscripts.

[67] Cf., e.g., Hartmann 2002: Tables XVIIb.1 and XVIIb.2.

[68] Sander 1968: 155f.

[69] Sander 2002: 345. The distribution of "Siddhamātṛkā" as reported by al-Bīrūnī does not include Nepal. The Licchavī inscriptions from Aṃśuvarman onwards show deviants with slight variations. See Dani 1963: 136-140.

[70] Cf. Sander 1968: 148, Table V.

[71] Cf. Dani 1963 : Table XI. The early inscriptions are not as ornate as the later ones, and are therefore closer to the Kashmirian style. Only tendencies of ornamenting the vowels are traceable; for the Mahānāman inscription cf. Sander 1968: 148, Table V. – For the dating of the Licchavī inscriptions, see Petech 1988: 149-159. A simpler style is also preserved in inscriptions on sculptures from Bihar; cf. Bhattacharya 1998 for examples from the ninth to tenth century, especially catalogue no. 50: "Avalokiteśvara from Bodh-Gayā", early ninth century.

[72] Cf. Salomon 1998: 69.

[73] The same can be said of the Licchavī rulers of Nepal.

[74] Beal 1884: 213-224; Salomon 1998: 238.

also introduced into "Greater Gandhāra". However, the style of the script in which Harṣavardhana's inscriptions are incised speaks against it. They are written in the variety of "Siddhamātṛkā" which shows the elegant twist of the diacritic vowel signs *-e, -ai*, *-o* and *-au* and the elegant foot at the end of the vertical lines which caused Fleet to name this script "Kuṭila". This variety is different from the script used in "Greater Gandhāra" which does not have such embellishments and is more in accordance with the earliest types of "Siddhamātṛkā". The greater antiquity of the "Siddhamātṛkā" imported into "Greater Gandhāra" is also indicated by the use of the tri-partite *ya* in the oldest manuscripts.

One therefore has to think of other arguments. In Bihar and also in "Greater Gandhāra", Buddhism was the leading religion in the sixth and seventh centuries, a time when it was already in regress in many other parts of India. May the introduction of "Siddhamātṛkā" into "Greater Gandhāra" therefore have something to do with the increasing influence of the important Buddhist universities in North India, especially at Nālandā? Historical reasons can be adduced for Nālandā's fame in the seventh century. Xuanzang reports in *Si-yu-ki*[75] that Harṣavardhana advised him to join, together with his son, a convent in Nālandā. This clearly shows that the king was much interested in this significant centre of Buddhist learning which had gained international importance. Although we have no inscriptions from Nālandā dating from this early period,[76] it is likely that the script used in this Buddhist university was "Siddhamātṛkā" because it was the common script of the region. Even later inscriptions on sculptures from Bihar, the oldest dated into the early ninth century,[77] are incised in a simpler style than the copper plate inscriptions of Harṣavardhana. Their script is much closer to the one documented in "Greater Gandhāra". It may therefore well be that Buddhist monks coming from Bihar played an important role in making the script popular in Buddhist circles in "Greater Gāndhāra". The argument that the increasing importance of Buddhist communities in North India, headed by Nālandā, may be at least partly responsible for the spread of "Siddhamātṛkā" into other Buddhist centres gains further support from the fact that this script also found its way into Buddhist countries of the Far East, especially China and Japan,[78] where – in a slightly modified form – it survived until today as the "Siddham" script.

I have to admit that I am unable to suggest a practical solution to the current problem of everybody inventing new terms. Nor can I give conclusive advice on how to term or characterize scripts most adequately. The success of a term depends largely on general acceptance and also on which publications are used by whom. It is quite clear, however, that it is only reasonable, indeed unavoidable, to term highly standardized scripts. The history of Indian Brāhmī since the time of Aśoka is rather complex. It is solely based on archaeological finds; historical sources of information about scribes or schools of scribes are completely missing. Therefore it remains uncertain why the scripts developed in one way and not in another. However, I hope to have contributed convincing arguments to explain the popularity of a

[75] Beal 1884: 216.

[76] The earliest inscription is the Nālandā stone inscription of Yaśovarman, dated into the eighth century. Cf. Dani 1963: 129, Table X.12.

[77] Cf. Bhattacharya 1998: 15 and note 71 above.

[78] A famous early example is the so-called Horiuzi (Hōryūji) manuscript of the *Vajracchedikā* already mentioned in Bühler 1896: 50. For details, see Dani (1963: 151-154) who dates the manuscript to the eighth century. Two copies of it were used by Max Müller for the first edition of this text. Paul Harrison and Shogo Watanabe convincingly show in their forthcoming edition of a large, well-preserved *Vajracchedikā* manuscript in the Martin Schøyen Collection (MS 2385) that the original possibly dates back only to the eighteenth or nineteenth century.

script with many names, called "Siddhamāṭṛkā" by al-Bīrūnī, especially by proposing that Buddhist circles may have played an important role in its spread.

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Fig. 1

Selected *akṣara*s from inscriptions (third century BCE to third century CE)

	Aśoka	*Early Mathurā*	*Kṣatrapa*	*Kuṣāṇa*
gha				 *gho*
ta				
da		 *dā*	*di*	
pa		*pā*		
pha				
ya		 *yā*	*yā*	
va		 *vā*		 *vṛ*
ṣa				
ha	*hi*			*he*

All *akṣara*s are taken from Bühler's Plates II and III. The comparison is far from being complete.

Fig. 2

Martin Schøyen Collection, **MS 2372/4**, unidentified; Kuṣāṇa-Brāhmī.

A B

Fig. 3

Martin Schøyen Collection, **MS 2381/57**, recto (not identified).

Verso, *Jātakamālā*. Published in Hartmann 2002: 318f.