

**New Approaches to the Study of Early Buddhist
Medicine: Use of Technical Brāhmaṇic Sources
in Sanskrit for the Interpretation
of Pali Medical Texts**

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Numerous approaches to the study and interpretation of Buddhist scriptures exist, and each is perhaps suitable to the particular user's or inventor's specific intentions. (Deconstruction of Buddhist scriptures along the lines of Derrida is particularly innovative.) No approach, however, can hope to have a claim of validity unless it first demonstrates a correct understanding of primary data by a proper reading of the original texts in Pali, Sanskrit, Chinese, Tibetan, or some other central Asian language. Correct readings of primary documents constitute the building blocks upon which discussions of Buddhism and related aspects of cultural history depend. All too often students of Buddhism assume this bedrock to have been already established in the numerous extant editions and translations of Buddhist scriptures.

For over a century, the editions and translations prepared by the Pali Text Society served as the sole basis for understanding the earliest traditions of Buddhism. A distinguished team of scholars have nearly realized the original goal envisioned by such pioneer editors as Caroline and Thomas Rhys Davids of providing a critical edition and English translation of the entire Pali Buddhist Canon and other important post-canonical Buddhist treatises in Pali. These editions, based on manuscripts then available, reflect the best philological efforts of the late nineteenth and early twentieth centuries. Likewise, translations from these editions must be understood as products of the same scholarly milieu, and regrettably are often influenced by Victorian-era religious

and social ideals. The recent Nālandā edition in *devanāgarī* characters, published on the occasion of the two-thousand five-hundredth anniversary of the Buddha's *parinirvāṇa*, improves very little upon the work of the PTS, except for being more affordable.

In recent years, a handful of dedicated scholars have devoted themselves to furthering Pali studies. Among them are included the German philologist Oskar von Hinüber and the British Indologist K.R. Norman.¹ Hinüber discovered new manuscripts which are currently undergoing critical examination and is refining our knowledge of middle Indic languages such as Pali. Norman has improved the readings of numerous canonical treatises and has greatly advanced Pali studies in general. He is also editor of the all important *Critical Pali Dictionary* which, when completed, will supersede the imperfect PTS *Pali-English Dictionary* of Rhys Davids and Stede.

While the numbers of scholars interested in Theravāda Buddhism is increasing ever-so-slowly, the numbers of specialists in Pali and its literature remains circumscribed to a select few. My involvement with Pali centers on its literature and the aspects of Indian cultural history it reveals. In order to begin to unravel the intricacies of Indian and Buddhist life in the remote age informed by the Pali canonical and post-canonical literature, a systematic study of the documents is required at the level of language. To date, I know of no such organized examination of these corpora. Facilitated by the forthcoming PTS and Thai editions of the Canon and post-canonical materials on CD ROM, these kinds of studies can begin to be undertaken and will eventually produce fruitful results.

If I may be so bold, I should like to propose a line of investigation which could provide better readings and more accurate interpretations of passages in the Pali as well as valuable information about Buddhist and early Indian history. I shall then illustrate the kinds of results that can be obtained.

The first step in this project entails the compilation of glossaries of specialized terms that occur in Pali. To determine the specialized vocabulary, we must utilize the vast technical literature available to us in Sanskrit transmitted through the various brāhmanical didactic traditions. The process involves the determination of the Sanskrit terminology particular to a śāstric tradition and a meticulous survey of the Pali sources to isolate their Pali equivalents. Once these have been identified, a closer examination of the context in which they occur and a reading of the commentaries are required to obtain a more exact meaning.

A few preliminary studies of this kind have already appeared. The Japanese savant Hajime Nakamura has drawn attention to brāhmanic

elements in early Buddhist scriptures,² and K R. Norman's "Brahmanical Terms in a Buddhist Guise," makes further contributions in this direction. Similarly, utilizing texts in the tradition of Kamaśāstra, Stanley Insler has revealed that the traditional ten stages of love (*rati*) is found in the Pali Canon. A careful analysis of the Piṭakas with an eye towards terminology particular to the Dharma-treatises, the works on Jyotiḥśāstra, and even on Vyākaraṇa will assuredly yield specialized glossaries and likely provide useful information to expand our understanding of the intellectual landscape of this period of ancient Indian history. In the area of the philosophical śāstras, a search in the Pali texts for terms associated with the different brāhmanical philosophical schools will result in a comprehensive dictionary of philosophical terms, illustrate the fluidity of the language of philosophical discourse, and deepen our understanding of the different theories of knowledge current at that time. Similar glossaries can be generated for other specialized intellectual traditions, resulting in a more vivid picture of ancient Indian cultural life and the role Buddhism played in forming it.

The so-called Hindu medical literature of *ayurveda* provides a good example of how the language and literature of a Sanskrit tradition can yield a specialized glossary and contribute to a better comprehension of the role of healing systems in the cultural life of ancient India in general and in the Buddhist community in particular, while at the same time elucidating readings in the Pali Canon.

A working glossary of medicinal plants in Pali derived from the Vinaya Piṭaka has been compiled with the help of the Sanskrit medical treatises. (The glossary is located at the end of this article.) The words are arranged in Sanskrit alphabetical order and each entry includes both its common name and possible Linnaean nomenclature. Pali terms are provided with their Sanskrit equivalents, where possible. The equation between Sanskrit and Pali botanical terminology at this early stage appears quite consistent, pointing to a common source of materia medica. Variation to the pattern of Prakritized Sanskrit plant names indicates perhaps the importation and use of local botanical terminology. A few of these obscure words have yet to be identified.

A note of caution applies to this and other glossaries of plant names found in ancient Indian literature. Because botany in ancient India was not an exact science, modern equivalents for the antique Pali and Sanskrit terms are only approximations based on the examination of more recent Indian pharmacopoeias (*nighaṅṭus*) and the work of botanists knowledgeable in both Indian materia medica and the modern science of plant taxonomy.

In addition to this glossary of Pali materia medica, I have selected several examples from the Vinaya Piṭaka to illustrate how technical

Sanskrit literature of *āyurveda* can be used to secure a proper reading and thus correct interpretation of relevant Pali passages and to illustrate the kinds of healing familiar to Buddhists in ancient India.

Sections in the Vinaya illustrate a rather detailed knowledge of medicine similar to *āyurveda*.

The monk Belaṭṭahasīsa suffered from large sores (*thullakacchā*) which produced a discharge causing his robes to stick to his body.³ From this brief description of the monk's disease, Pali *thulla-kacchā* appears to be a type of skin affliction characterised by large sores or patches of eruptions that discharge and scab over. Buddhaghosa brings us no closer to understanding this skin disease, glossing it as "large eruptions" (*mahāpīlaka*).⁴

The classical medical treatises, however, offer the information necessary for the likely identification the disease and thus better understanding of the Pali passage. Both the *Caraka* and *Suśruta Saṃhitās* mention a disease called *kakṣā*, or *kakṣyā*, described as a cutaneous affliction caused by bile (*pitta*) and characterised by numerous small, large (*sthūla*), or medium size black eruptions (*piṭakā*) resembling parched grains and located on the arms, the sides of the torso, the posterior, and the concealed parts of the body.⁵ More recently, *kakṣā* or *kakṣyā* is commonly identified as the disease herpes.

Sanskrit *kakṣā* bears a similarity to Pali *kacchā*, and Sanskrit *sthūla* is, of course, Pali *thulla*, indicating that Pali *thullakacchā* would have the Sanskrit equivalent **sthūlakakṣ(y)ā*, or a type of herpes-like sore characterised by large (dark) patches of eruptions on the skin. In Buddhaghosa's gloss, *pīlaka* is the same as Sanskrit *piṭakā*, "eruption." This forms a nice fit both linguistically and in terms of the disease's description found in the Pali account and the medical texts. Sanskrit medical literature comes to the rescue to provide the basis for a clear interpretation and understanding of Belaṭṭahasīsa's skin disease.

Another example of specialised literature proving successful in supplying the necessary information to ascertain the correct meaning occurs in the case of Pilindavaccha's affliction of wind in the limbs (*aṅgavāta*), a disease now-a-days called arthritis. The treatment required sudation therapy (*sedakamma*; Skt. *svedakarman*) in the form of a series of baths, a common *āyurvedic* preparatory action (*pūrvakarman*) to the purification measures (*pañcakarman*). *Pūrvakarman*s such as this one dominate the *āyurvedic* therapies of South India, especially of Kerala. One of the tubs contained *bhaṅgodaka*, which I. B. Horner mistakenly understands to be "hemp-water."⁶ In the medical literature the word *bhaṅga* in the context of sudations (*sveda*) often refers to the sprouts of certain trees, which destroy wind (*vāta*). In the *Suśruta Saṃhitā*, the sweating of the eyes should be carried out "with *bhaṅgas*

which destroy wind" (*bhaṅgair anilanāśanaiḥ*), and the commentator Dalhana glosses *bhaṅga* here with *pallava*, "sprout."⁷ The meaning of the passage in *Suśruta* is thus "with wind-destroying sprouts," and the tub with *bhaṅgodaka* in the Pali refers to a bath whose "waters contain [wind-destroying] sprouts."

Finally, a striking example of a Pali passage becoming clear only with the aid of medical Sanskrit literature occurs in the Jīvaka legend recounted in the eighth book of the *Mahāvagga*. The Buddha suffered from a condition in which his body was filled with the "peccant" humours (*kāya doṣābhisanna*), i.e. wind, bile and phlegm, which, analogous to the humours of Hippocratic and Galenic medicine, are vitiating substances in the body. The treatment for this malady, administered by the lay Buddhist physician, Jīvaka Komārabhacca, involved the oiling of the Buddha's entire body and then the giving of a (weak) purgative (*virecana*):

It then occurred to Jīvaka Komārabhacca: It is not proper that I should give the Lord a coarse purgative. Having mixed three handfuls of lotuses with various medicines, he approached to where the Lord was, and having approached Him, presented Him a handful of lotuses [saying]: "O Good One, may the Lord inhale this first handful of lotuses. It will purge the Lord ten times."⁸

He administered this two more times, after which the Buddha took a bath, resulting in a total of thirty purgations. Jīvaka then instructed the Lord to eat only a weak broth of alms-food (*yūsapīṇḍa*) until he had fully recovered.

With no help from either the commentator Buddhaghosa or the various translators I. B. Horner, T. W. Rhys Davids and Hermann Oldenberg, the reader at first is inclined to consider this passage as some sort of glorification of the healing powers of the physician Jīvaka who could heal even the Buddha by means of a magical cure involving the inhalation of the fragrance of lotuses, plants nearly always associated with important personages in India. A close examination of the medical *samhitās*, however, demystifies the passage and reveals that the form of therapy applied by Jīvaka was directly in accordance with *āyurvedic* teachings. In fact, this remedy is the first illustration of classical *āyurvedic* purification therapeutics: preparation (*pūrvakarman*), purification (*pañcakarman*), post-purification regimen (*puṣcatkarman*).

In his chapter on the treatment of diseases by means of purgatives and emetics, *Suśruta*, after elaborating the causes of various diseases according to the humoral aetiology, states that these therapies are the best for the removal of "peccant" humours (*doṣas*).⁹ He goes on to detail

the correct course of treatment to be employed: Before a patient is evacuated, he first must be oiled from head to foot. He is then given a purgative appropriate to his particular physical characteristics and humoral disorder. After the evacuative has been administered, he should be given only light and lukewarm gruel to drink.¹⁰ In the case of a patient who has a delicate constitution, the medical authors prescribe a special form of purification therapy. This treatment is recommended especially for ascetics whose daily regimen results in a weak digestive fire and soft bowel movement.

Powder prepared from the seeds of the emetic-nut (*madana*) or of the ridged-gourd (*krtavedhana*) repeatedly soaked in a decoction of emetic drugs [and then dried] should be spinkled over large lotus flowers in the evening. They should be dusted again in the morning and plucked. The patient with a delicate constitution, suffering from the loosening of the "peccant" humours from their seats, should then smell the flowers, and by inhaling the powder, he will vomit [out the humours].¹¹

After being purged in this manner, the patient, according to the general course of treatment, should consume only light foods until the digestive system has re-established its state of equilibrium.

This is precisely the treatment which the Pali Vinaya states that Jivaka administered to the Buddha. The Pali term for Jivaka's treatment is *virecana* which has the technical meaning "purgative," or that evacuative which removes impurities from the lower part of the body. The Buddhist description of the therapy clearly indicates it to be a *vamana*, "emetic," or that evacuative which removes impurities from the upper part of the body. The medical tradition rectifies this apparent discrepancy in technical terminology by stating that both *virecana* (purgative) and *vamana* (emetic) receive the name *virecana* because they both eliminate (root *ric* + *vi*) impurities from the body.¹² The Sanskrit medical treatises provided the correct means for understanding this passage in the Buddhist canonical texts. One would search long and hard within the Buddhist tradition to find a proper explanation of this passage. Precisely by exploring technical treatises outside the corpora of Buddhist literature can the key for the proper reading and interpretation be found.

These are but three of numerous examples in the Pali Canon for which a correct reading and proper interpretation of selections of Buddhist scripture depend on Hindu technical literature in Sanskrit. My further investigations of the interrelationship between the Buddhist and the Hindu medical traditions indicate that the corpus of the Pali

Canon is a rich source of information on early Buddhism and its relationship to other Indian traditions in the centuries preceding the common era. In the sphere of medicine, there is little doubt that the system of Buddhist monastic medicine and Hindu *āyurveda* derived from a common source.

Contrary to the view accepted by most orthodox Hindus, the origin of this shared system of healing is to be found among the ancient communities of heterodox wandering ascetics, or *śramaṇas*, mentioned in both Indian and non-Indian sources. Unrestricted by the bonds of a brāhmanical world view and motivated by a penchant to understand nature's processes and humankind's place in nature, these wanderers sought and acquired a variety of useful information of which medicine was a significant component. Medical data gradually accumulated and began to be systematised. With the institution of the Buddhist *sangha* around the time of the Buddha, an appropriate vehicle was established for the codification of this medical knowledge as part of the Monastic Code (Vinaya). Medicine thus became part of the Buddhist religious movement. Eventually medicine and healing were assimilated by Hindu intellectuals, and by the application of a brāhmanical veneer, became part of Hindu wisdom as the system of *āyurveda*.¹³

In addition to elucidating the evolution of India's traditional medical system, proper interpretation and understanding of Buddhist scripture's many treasures through correct readings of individual passages facilitated by non-Buddhist technical literature in Sanskrit can provide the starting point for a deeper understanding of the historical evolution of fundamental aspects of Buddhism and give a more complete picture of cultural life in ancient India. Turn-of-the-century Indologists have provided the beginnings of a textual foundation, but improvements to these early pioneering efforts are required. Most assuredly, important new discoveries await those who venture into this old corpus of Buddhist scripture equipped with tools which derive from the rich sources of technical Sanskrit literature.

*Glossary of Medicinal Plants and
Their Substances in Pali*

- ativisa* (Skt. *ativiṣā*): Indian Atees; *Aconitum heterophyllum* Wall. or *A. palmatum* D. Don.¹⁴
- amalaka* (Skt. *amalakī*): Emblic Myrobalan, Indian gooseberry; *Phyllanthus emblica* Linn.
- uśīra* (Skt. *uśīra*): Vetiver; *Vetiveria zizanioides* (Linn.) Nash = *Andropogon muricatus* Retz.
- eraṇḍa* (Skt. *eraṇḍa*): Castor; *Ricinus communis* Linn.
- kaṭukaroḥiṇī* (Skt. *kaṭukaroḥiṇī* = *kaṭuka*): Black Hellebore; *Picrorrhiza kurroa* Royle ex. Benth.
- kaṇḍala*: (? Tamil *kantal*): White Mangrove; *Avicennia officinalis* Linn.
- kappāsika* (Skt. *karpāsika* or *karpāsi*): Cotton Tree; *Gossypium herbaceum* Linn.
- kiṃśuka* (Skt. *kiṃśuka* = *palāśa*): Dhak Tree; *Butea monosperma* (Lam.) Taub. = *B. frondosa* Roxb.
- kuṭaja* (Skt. *kuṭaja*): Kurchi Tree; *Holarrhena antidysenterica* Wall.
- kulattha* (Skt. *kulattha*): Horse Gram; *Dolichos biflorus* Linn.
- kusumbha* (Skt. *kusumbha*): Safflower; *Carthamus tinctorius* Linn.
- ketaka* (Skt. *ketaka*): Fragrant Screwpine; *Pandanus odoratissimus* Roxb.
- khajjūtī* (? Skt. *kharjūrī*): Wild Date; *Phoenix sylvestris* Roxb.
- candana* (Skt. *candana*): Sandalwood; *Santalum album* Linn.
- jambura* (Skt. *jambura*): Blackberry; *Eugenia jambolana* Lam.
- taka* (var. *takka*): a type of resin.
- takapaṇṇī*: a type of resin.
- takapattī*: a type of resin.
- takka*: s.v. *taka*.
- tagara* (? Skt. *tagara*): East India Rosebay; *Ervatamia divaricata* Burkill = *Tabernaemontana coronaria* Willd.
- taṇḍula* (Skt. *taṇḍula*): Rice; *Oryza sativa* Linn.
- talīsa* (Skt. *talīsa*): Silver Fir; *Abies webbiana* Lindl.
- tila* (Skt. *tila*): Sesame; *Sesamum indicum* Linn.
- tūṅghara*: ? Perhaps a type of thorny tree with yellow exudation.
- triphalā*: (Skt. *triphalā*): Three Myrobalans, i.e. *harītaka*, *amalaka*, *lodda* (= Skt. *tilvaka*).
- nattamāla* (Skt. *naktamāla* = *karañja*): Indian Beech; *Pongamia pinnata* (Linn.) Merr.
- nimba* (Skt. *nimba*): Indian Lilac, Neem; *Azadirachta indica* A. Juss. = *Melia azadirachta* Linn.
- pakkava* = ? *piyaṅgu* (Skt. *priyaṅgu* = *lata*, Dalhana to SuUtt 60.48): Perfumed Cherry; *Callicarpa macrophylla* Vahl.; or a type of grass, *Setaria italica* Beauv.

- paṭola* (Skt. *paṭola*): Wild Snake Gourd Tree; *Trichosanthes dioica* Roxb. or *T. cucumerina* Linn.
- pippala* (var. *pippali*) (Skt. *pippalī* = *kr̥ṣṇā*): Long Pepper; *Piper longum* Linn.
- pippali*: s.v. *pippala*.
- bhaddamuttaka* (Skt. *bhadramusta* = *mustaka*): Nutgrass; *Cyperus rotundus* Linn. = *C. scariosus* R. Br.
- madhuka* (Skt. *madhūka*): Mahua; *Bassia longifolia* Linn. or *B. latifolia* Roxb.
- marica* (Skt. *marica*): Black Pepper; *Piper nigrum* Linn.
- māsa* (Skt. *māṣa*): Black Gram; *Phaseolus mungo* Linn.
- mugga* (Skt. *mudga*): Green Gram; *Phaseolus aureus* Roxb.
- lodda* (Skt. *lodhra* = *tilvaka*): Lodh Tree; *Symplocos racemosa* Roxb.
- vaca* (Skt. *vacā*): Sweet Flag, Orris Root; *Acorus calamus* Linn.
- vacatta*: s.v. *vacattha*.
- vacattha* (var. *vacatta*) = ? *sesavaca* (var. *setavaca*) (Skt. *śvetavacā*): ? White Sweet Flag; perhaps a variety of *Acorus calamus* Linn.
- vibhītaka* [Skt. *v(b)ibhītaka*]: Beleric Myrobalan; *Terminalia bellerica* Roxb.
- vilāṅga* (Skt. *viḍāṅga*): Embelia; *Embelia ribes* Burm., var. *E. robusta* Roxb.
- sāsapa* (Skt. *sarṣapa*): Mustard; *Bassia campestris* Linn. var. *sarson* Prain.
- sulasā*: s.v. *sulasī*.
- sulasī* (var. *sulasā*) [Skt. *surasī*(*ā*) = *tulasī*]: Holy Basil; *Ocimum sanctum* Linn.
- siṅgivera* (Skt. *śṛṅgavera* = *ārdraka*): Ginger; *Zingiber officinale* Roscoe.
- setavaca*: s.v. *vaca*, *vacattha*.
- sesavaca*: s.v. *vaca*, *vacattha*.
- harītaka* (Skt. *harītakī* = *pathyā* = *abhayā*): Cherbulic or Yellow Myrobalan, Indian Gall Nut; *Terminalia chebula* Retz.
- haliddā* (Skt. *haridrā* = *rajanī*): Turmeric; *Curcuma longa* Linn.
- hiṅgu* (Skt. *hiṅgu*): Asafoetida; *Ferula foetida* Regel. = *F. asadoetida* Linn.
- hiṅgusipātika* (? Skt. *hiṅguśivātika* = *hiṅgupaṛṇī* = *nāḍīhiṅgu*): *Gardenia gummifera* Linn.

Abbreviations and Sources

Ah *Aṣṭāṅgahr̥daya Saṃhita*. Kuṅṭe, Anṇa Moreśvara, et al., eds. *Aṣṭāṅgahr̥dayam Composed by Vagbhata with the Commentaries (Sarvāṅgasundarā) of Aruṇadatta and (Āyurvedarasāyana) of Hemādri*. 6th. ed. Jayakṛṣṇadās Āyurveda Series, no. 52. 1939. Reprint. Varanasi: Chaukhambha Orientalia, 1982.

BD *The Book of the Discipline (Vinaya Piṭaka)*. Horner, I.B., trans. *The Book of the Discipline*. 6 pts. London: Luzac, 1938–52.

Ca *Caraka Saṃhita*. Trikamjī, Jādavjī, ed. *The Caraka Saṃhita of Agniveśa Revised by Caraka and Dṛḍhabala, with the Āyurvedadīpaka Commentary of Cakrapāṇidatta*. 1941. Reprint. New Delhi: Munshiram Manoharlal, 1981.

Ci *Cikitsāsthāna*.

Ka *Kalpāsthāna*.

MV *Mahāvagga*. Oldenberg, Hermann, ed. *The Vinaya Piṭakam*. Vol. 1: *The Mahāvagga*. Pali Text Society. 1879. Reprint. London: Luzac, 1964.

Ni *Nidānāsthāna*.

PTS Pali Text Society.

Su *Suśruta Saṃhita*. Trikamjī, Jādavjī, and Narayāṇa Rama Ācārya “Kavyatīrtha,” eds., *The Suśrutasaṃhita of Suśruta with the Nibandhasaṃgraha Commentary of Śrī Dalhaṇācārya and the Nyāyacandrikāpañjika of Śrī Gayadāśacārya*. Jayakṛṣṇadās Āyurveda Series, no. 34. 3d. ed. 1938. Reprint. Varanasi: Chaukhambha Orientalia, 1980.

Su *Sūtrāsthāna*.

Utt *Uttarāsthāna (of Aṣṭāṅgahr̥daya Saṃhita), Uttaratantra (of Suśruta Saṃhita)*.

VA *Buddhaghosa's Samantapāsādikā*. Takakusu, J. and Makoto Nagai., eds. *Samantapāsādikā. Buddhaghosa's Commentary on the Vinaya Piṭaka*. 8 Vols. Pali Text Society. London: Luzac, 1924–77.

Notes

- ¹ For Hinüber's contributions, see among others his "Epigraphical Varieties of Continental Pali from Devnimori and Ratnagiri," in *Buddhism and Its Relation to Other Religions. Essays in Honor of Dr. Shozen Kumoi on His Seventieth Birthday* (Kyoto, 1985), "Pali as an Artificial Language," *Indologica Taurinensia*, 10 (1982): 133–40; "Notes on the Pali Tradition in Burma (Beitäge zur Überlieferungsgeschichte des Buddhismus in Birma I)," *Nachrichten der Akademie der Wissenschaften in Göttingen*. 1. Phil.-Hist. Kl., Nr. 3 (1983): 65–79; "Die älteste Literatursprache des Buddhismus," *Saeculum*, 34 (1) (1983): 1–9; "Two Jātaka Manuscripts from the National Library in Bangkok," *Journal of the Pali Text Society*, 10 (1985): 1–22; and especially his *Sprachentwicklung und Kulturgeschichte. Ein Beitrag zur materiellen Kultur des buddhistischen Klosterlebens* (Akademie der Wissenschaften und der Literatur Mainz, Stuttgart: Franz Steiner, 1992) [Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse / Akademie der Wissenschaften und der Literatur; Jg. 1992, Nr. 6] and *Das ältere Mittelindisch im Überblick* (Wien: Verlag der Österreichischen Akademie der Wissenschaften 1986) [Veröffentlichungen der Kommission für Sprachen und Kultur Südasiens, Ht. 20. Österreichische Ak. der Wiss. Phil.-hist. Kl. Sitz., 462. Bd]. In addition to his editorship of the *Critical Pali Dictionary*, Norman's important contributions include his retranslation from the Pali of *The Elder's Verses 1. Theragāthā, 2. Therīgāthā* (London: Luzac & Company, 1969, 1971) [Pali Text Society Translations, 38, 40], his *Pali Literature. Including the Canonical Literature Prakrit and Sanskrit of all Hinayāna Schools* (Wiesbaden: Otto Harrassowitz, 1983) [A History of Indian Literature, 7.2], and his *Collected Papers*. 3 Vols. (Oxford: Pali Text Society, 1990–1992).
- ² See for instance Hajime Nakamura, *Indian Buddhism: A Survey With Bibliographical Notes* (Osaka: KUFUS Publications, 1980): 75 and n. 20 and 82 and nn. 103–105; cf. p. 80 and n. 81.
- ³ MV 6.9.1; cf. 8.17.
- ⁴ VA 4: 884.
- ⁵ CaSū 20.14; CaCi 12.91; SuNi 13.16; cf. AhUtt 31.10.
- ⁶ BD 4: 278–79 and notes.
- ⁷ SuUtt 17.62; cf. SuUtt 11.15.
- ⁸ MV 8.1.31–33: *atha kho Jivakassa Komārabhaccassa etad ahoṣi: na kho me taṃ paṭirupaṃ* (var.: *paṭirūpaṃ*) *yo 'haṃ bhagavato oḷārikaṃ virecanaṃ dadeyyaṃ* (var.: *dadeyyaṃ yaṃ nūnāhaṃ*) *ti. tīṇi uppalahatthāni nānābhesajjehi paribhāvetvā* (var.: *paribhāvetvā tathāgatassa upanāmeyam*) *yena bhagavā ten' upasaṃkamaṃ*,

upasaṃkamtivā ekam uppalahattham bhagavato upanāmesi imaṃ bhante bhagavā paṭhamam uppalahattham upasiṅghatu, idaṃ bhagavantam dasakkhattuṃ virecessatthi

⁹ SuCi 33.4.

¹⁰ SuCi 33.4–26.

¹¹ This abbreviated translation derives from the close variants CaKa 1.19 and SuSū 43.9. CaKa 1.19: *phalapippalīṇaṃ phaladikaṣāyena triḥsaptaḥṛtvāḥ suparibhāvitena pusparajaḥprakāśena cūrṇena sarasi saṃjātaṃ brhatsaroruhaṃ sāyahne 'vacūrṇayet tad rātriyuṣitaṃ prabhāte punaravacūrṇitaṃ uddhṛtya ... aghrāpayet sukumāram utkliṣṭapittakapha* SuSū 43.9: *kṛtavedhanaphalapippalīṇaṃ vamanadravyakaṣāyaparipīṭānaṃ bahuśāś cūrṇam utpalādiṣu dattam aghrātaṃ vamayati, tat tv anavabaddhadoṣeṣu ... vidadhyat.*

¹² CaKa 1.4.

¹³ For a detailed examination of this historical process, see K.G. Zysk, *Asceticism and Healing in Ancient India. Medicine in the Buddhist Monastery* (Oxford, New York: Oxford University Press, 1991).

¹⁴ For those who are not familiar with botanic convention, the abbreviations in the glossary (such as D.Don, Linn., Roxb., etc.) are abbreviations of the names of the botanists who provided the scientific classifications and names of the different plants. The botanists need not be identified in full, but convention requires that they be identified in this way when citing the Latin names for the plants.