

Practicing Texts

In the last decades of the Raj, Bhaskaran studied many subjects with different teachers in different residential settings. He learned Sanskrit, the *Aṣṭāṅgahr̥daya*, regional poison therapies, English literature, and the *Yajur Veda*. He trained intensively in the regional pharmaco-based poison healing of Kerala known as *viṣavaidyam* until 1940, when, at the age of twenty-three, he began treating patients on his own.¹ By the time he started sitting mukhāmukhaṃ with his teachers of Ayurveda, two and half decades into the twentieth century, ayurvedic physicians had been training in colleges in Kerala for over thirty years. Yet, even while ayurvedic education was institutionalizing across south India and most of the country, from the Malabar Coast to southern Travancore lineages of Namboodiri Brahmin vaidya-gurus, known in Malayalam as *aṣṭavaidyans*, were also preserving the mukhāmukhaṃ teaching style and a Sanskrit- and Malayalam-centered curriculum. Bhaskaran and Priyankara advanced this tradition in the last half of the preceding century and the early years of the present one, and Biju continues to preserve it today.

The Malayalam word mukhāmukhaṃ (“face-to-face”) is an adjective and occasional adverb indicating the traditional physical position and proximity between teachers and students in Kerala’s gurukulas: sitting cross-legged on the floor, relaxed but steady, teacher and student straightforwardly occupy each other’s attention. In the initial years of training, there might be a physical book ready at hand between them. But the need for tangible books with pages to turn, revisit, mark-up, and bookmark decreases as students memorize more and more of the material. Even then, after the meaning of a written book is adequately known, memorized through particular techniques, so that this knowledge transforms into a way of knowing and feasible practice in the clinical setting, the text is always there. K.P. Girija has recently reflected that practitioners are drawn to the mukhāmukhaṃ method of learning because it “envisages a practical application of knowledge in a productive way” that is not as evident in a modern classroom.

This kind of training is “an action in itself,” she continues, that transforms texts into discursive and improvisational resources that can be reconfigured and put in conversation with other texts to re-create new arrangements of knowledge to suit the therapeutic needs of patients.² Because illnesses and healing concerns change from person to person, on-the-spot improvisation with healing knowledge in classical Sanskrit and regional vernacular texts is crucial to a vaidya-guru’s repertoire. The practice of texts is a systematic way of knowing the data of texts as well as their arguments, intertextual references, and modes of explication, always and already, as valid expressions of therapeutic practice.

AYURVEDIC GURUS AND THEIR METHODS

When vaidya-gurus and students sit mukhāmukhaṃ, they participate in a three-part pedagogy explained in the *Carakasamhitā*. Malayalis use the term “mukhāmukhaṃ” to capture the intimacy underlining this type of learning and the intellectual directness and connections it is meant to establish between teachers and students. Like *tête-à-tête* in French, the term suggests a semi-private, close, and unmediated discussion. I explain the textual origins and practical details of mukhāmukhaṃ below. For the moment, I would like to introduce the three parts of this Keralan teaching and learning in the ayurvedic gurukula. In the first part, articulation (*vākya*), a vaidya-guru leads a student through an entire medical collection—in Kerala, the *Aṣṭāṅgahṛdaya* is and has been for centuries the gold standard. The student learns how to pronounce every word and line of the text, from beginning to end. Depending on the student’s familiarity and proficiency with Sanskrit, this stage can proceed at a swift clip or quite slowly. The *vākya* stage traditionally requires students to memorize an entire work, and the *Aṣṭāṅgahṛdaya*’s versification lends itself to mnemonic devices. Describing the articulation stage, K.P. Girija notes that the “reiteration technique” students master at this level is called “*kambodu kambu* learning or memorizing thoroughly.”³ In the second part, sentence meaning (*vākyārtha*), the vaidya-guru and student together go back through every line of the text they articulated in the *vākya* stage to establish each word’s meaning in every sentence, connecting the particular usages with the theories and principles of *āyurveda* in the collection. Because the writing of Vāgbhaṭa’s collection is efficient and succinct, when the text’s elaboration of medical theory is deficient, the other classics and their commentaries are consulted. The third part of mukhāmukhaṃ learning involves the clarification of the meanings of the sentences (*arthāvayava*). Here a vaidya-guru revisits the most complicated passages of a text with students, ensuring their understanding of the work as a functional guide for interacting with and healing patients. Students trained according to the three-part mukhāmukhaṃ pedagogy thus learn how to practice the texts they study. The realization and implementation of this practice is gurukula philology.

The labels “philologist” to describe the vaidya-guru and “philology” to describe his or her practice are my descriptions. They correspond to what I observed at

Shantimana and Mookkamangalam, and they differ from terms the vaidya-gurus I write about in this book typically use for themselves. They prefer “vaidya” most often, occasionally “guru,” and every now and then “scholar.” (The achievement of publishing scholarly articles or translations sometimes prompts the self-recognition of this English term or, less often, *paṇḍitan* in Malayalam.) The descriptor “philologist” is hence an analytic device. When vaidya-gurus impart the Sanskrit classics mukhāmukhaṃ-style with students and practice texts for their patients, they are doing what I understand to be philology. Taken together, teaching and healing comprise their philological discipline, which produces text-based meaning via rhetorical rules and is expressed for therapeutic ends. It is a discipline that depends on the primary task of making sense of texts, as I explained in the introduction, so that, subsequently, understanding produced in textual study will have transformative remedial applications in the lives of sick and ailing people.

Most students of Bhaskaran, Priyankara, and Biju were already-credentialed practitioners of Ayurveda or students at ayurvedic colleges when they began to study at Shantimana and Mookkamangalam. The students I met at these gurukulas sought training from these particular ayurvedic experts because they wanted to learn in a mukhāmukhaṃ style and wanted the skills this pedagogy cultivated to connect the classical literature with the ideas of health and illness they learned at college. There are of course basic theories and methods in modern Ayurveda that derive from the Sanskrit big trio, such as humoral theory (*tridoṣavidyā*), patient inspection (*rogīparikṣa*), valid means of knowing (*pramāṇas*), and many others. These are subjects covered at ayurvedic colleges, and ayurvedic physicians worth their salt, whether trained at colleges or gurukulas, need to know them. In a gurukula, students learn how to apply medical theory and general “bedside etiquette” primarily by observing their guru’s clinical work and interactions with patients. But most of Biju’s students, for example, were drawn to the epistemological shaping they received under his direction. “Medicine here,” an advanced Malayali student of Biju’s named Ajeeth said in 2005, “is not explained in lectures, or lists to memorize, as it often is at college.”⁴ Ajeeth had taken a year after receiving his BAMS degree to study with Biju, and occasionally with Bhaskaran and Priyankara, before he went on to private practice in ayurvedic ophthalmology (*netra cikitsā*).

Over eight weeks at Mookkamangalam, I observed Ajeeth’s lessons and spoke with him about his decision to postpone his career to study with Biju. He was articulate and so soft-spoken that the omnipresent whirring fans overhead or at eye level sometimes made it hard for me to understand what he said on the first try. But he was patient with me, thankfully, and he seemed eager to talk about his own motivations for being at Mookkamangalam. He was also intrigued about my reasons for being there, and when Biju was out of the house or otherwise unavailable, Ajeeth often helped me with some of the difficult Sanskrit texts I happened to be working on. I told him I was keen to know more than just the content of these texts, that I wanted to know what kind of roles the medical classics had in current ayurvedic practice in south India. This interest had led me from colleges and

research centers in Tamil Nadu and southern Kerala to Shantimana and Mookkamangalam, and thus to Ajeeth. He told me that he disliked the fragmented nature of medicine in the ayurvedic college, that it was based on specializations and specialties. “How can healing be separated into parts, even if they are related parts, instead of a way of thinking? A way of understanding?” he asked me one afternoon while we sat in the tiny room he rented from a neighbor and friend of Priyankara. He was making lunch for me on his day off from lessons with Biju and assisting Priyankara with patients. As he boiled rice and warmed up vegetables, he explained that after he finished studying with Biju he had a job lined up that would start him on a career as an eye doctor. “That’s terrific,” I said, “are you looking forward to it? Where will it be?” He told me the job was between Thrissur City and Kozhikode, in the Malappuram District. He would have a nice office, make a good living, and see a diverse clientele because his clinic would be connected to a chic hospital-spa facility. Like many of the young twentysomething men and women I met at Mookkamangalam over the years, Ajeeth also told me that his parents were enthusiastic about him getting married and starting a family. “It will be a good job, and I am happy to know it is waiting for me. But I’m not ready to leave here, even though I’m the only student right now and it can be lonely. There’s not a lot to do around here other than learn from Biju and Priyankara.”⁵ Being at Mookkamangalam seemed to help Ajeeth think about medicine differently than he had at college. Reading texts and seeing patients there was an antidote to the dissection of medicine he learned at college which, ironically, encouraged the kind of specialization that awaited him in ayurvedic ophthalmology.

Ajeeth had gotten high marks as a college student, and it was clear that beyond his intellectual gifts, his kind demeanor would lend itself well to interacting with his own patients when the time came to make that transition. As we talked sitting on the floor of his room eating lunch, plates in one hand and handling food with the other, I saw that Ajeeth was captivated by how he learned to understand the very nature of “medicine” and “healing” at Mookkamangalam. Disease identifications, pathologies, and treatments were naturally critical to what Priyankara and Biju taught him. But that afternoon he spoke about landscapes of healing and interpersonal connection, addressing questions about wellbeing and the human condition that extended medicine and healing beyond the individual diseased body. He was compelled by how Biju and Priyankara helped a patient view, as P.U. Leela puts it, “‘the state of disease’ (*rogam*) in continuity with the very familiar ways of his own/her own living,” so that sickness and disease are not “conceived as a ‘break’ within the normal or ‘healthy’ ways of living.”⁶ So, we talked about what it means to be a patient, for example, someone who’s “diseased,” a *rogin* in Sanskrit, and lacks wellbeing, and how his college education did not give him a chance to explore this kind of question in depth or across the human sciences. He told me he feared a focused career in ophthalmology might not foster this kind of inquiry, and so he was determined to make the most of his time at Mookkamangalam. “Biju teaches a

general way to heal, not only subjects about healing,” he said. “We don’t talk about diseases as things patients reveal or carry with them, exactly. They have symptoms, of course, and we know what is wrong with them; and we often name the problem. But the approach [to healing] here requires conversation as much as definition. It’s an approach to see illness as part of a process and to adjust to shifting variables in patients’ lives.”⁷⁷ Ajeeth’s training with Biju pushed him to think about the aims of medicine in general, access to and use of classical *āyurveda* today, and the parameters of healing in ways the college he attended did not, or perhaps could not because of its size and the less personalized training that large institutions are able to offer.

Biju’s less seasoned students might not have articulated the nuances of what they learned at Mookkamangalam as lucidly as Ajeeth did. Eating the last bits of my lunch, I realized that Biju had expanded Ajeeth’s outlook about the nature and practice of medicine. Diseased and distressed bodies were only part of the clinical equation in the gurukula, and awareness of wellbeing and illness is always mutable—necessarily created, analyzed, and dismantled patient after patient. Medicine is also social and indeterminate, a procedural field. The physician is a part of and shapes it, and the onus to make sense of its various configurations rests on her shoulders. The field is never static. With each new patient, the physician’s method of texts informing practice changes, drawing on new texts and assessing new relationships. These ideas are in-built and built up by mukhāmukhaṃ pedagogy. It is collaborative and generative education that’s hard to achieve in large lecture courses with preset exams and a fixed curricular plan neatly planned out according to subject and time-to-degree. Higher education is like this in many places around the world, and while there is certainly knowledge production and meaning-making in this kind of education, too, students tend to be recipients rather than creators of knowledge and meaning. Like a lecturer of anatomy or pharmacology, a mukhāmukhaṃ teacher explains somatic and therapeutic subjects. But unlike lecturers, and because of the intimacy of the gurukula and its constant integration of classroom and clinic, the vaidya-guru also lays bare the indivisibility and complementarity of the realms of text and practice in the healer’s effort to understand and treat the capricious and complex processes (bio-social-moral-economic-legal) of disease.

Teachers and students at Shantimana and Mookkamangalam consciously study and use a multitude of texts every day. Their practice of texts is extensive and obvious. Yet as a typology, the practice of texts (or gurukula philology) that’s cultivated via mukhāmukhaṃ is mine at the end of the day. It is a helpful framework to structure the studies in rest of the book, which illustrate the many ways that texts in the south Indian ayurvedic gurukulas I visited are studied because of their utility as tools for healing. The idea that medical texts give physicians information to use with patients is not novel to Ayurveda, of course, and I return to some comparative questions about classical literature in biomedical schools in the United States

in the last chapter. The classical *āyurveda* of Vāgbhata's *Aṣṭāṅgahr̥daya* and other texts naturally bolster an ayurvedic vocabulary in students and teachers, as any medical training would, and that language shapes discussions in the classroom and when designing prescriptions. But a mukhāmukhaṃ education engenders more than an ayurvedic patois. Gurukula philology itself is novel, and the way it leads to an ayurvedic way of knowing the human body and its ability for being well and/or ill is both unique and instructive. Even though mukhāmukhaṃ study has changed and become somewhat less rigorous in recent decades, customarily textual mastery occasions healing when a vaidya practices texts by destabilizing them, improvising, rearranging, and colloquializing them in social encounters with patients. The technical jargon of *āyurveda* in the big trio frequently telescopes into somatic minutiae, and I observed many study sessions where Biju and his students did not discuss the lived experiences of people saddled with conditions like irritable bowel syndrome, alopecia, and various types of dermatitis. Outside of the study hall and in the clinical space, however, the human condition of patienthood is explored together with patients and the people who accompany them. Texts and conversation inform a perspective about disease and healing that sees bio-physiological conditions within the orbit of the societies and cultural institutions that shape patients' lives.

Observations and interviews from Shantimana and Mookkamangalam present a parallel account to the narrative of the entrenchment of biomedicine in India that has not been explored before: broadly, the tradition-making impacts of gurukulas and colleges in modern Ayurveda through education. Connecting India's educational history to current practices of vaidya-gurus in south India is not merely useful to fill gaps in existing scholarship, however. The point is also to open the social and cultural history of ayurvedic medicine in modern India (chapter 1) to angles of analysis that ponder how knowledge in one of India's classical scientific literatures is transmitted and learned (this chapter) and employed (chapters 3 and 4). By understanding the mechanisms that drive the south Indian ayurvedic gurukula, as well as the people who operate and orchestrate those complex arrangements, we can at once complicate and correct studies that have diminished or overlooked the perseverance and contributions of India's practitioners of Ayurveda in the face of the awesome resources and power of the biomedical superstructure in colonial and postcolonial India.

PHILOLOGY, INDIA, AND THE GURUKULA

Phonological, interpretive, and performative text-based acts in the ayurvedic gurukulas of central Kerala illustrate the discipline of philology and philological meaning-making. In the introduction I advanced a view that begins with Sheldon Pollock's elastic vision of philology as "the discipline of making sense of texts."⁸ A Malayali vaidya-guru's ability to heal rests on his or her aptitude to apply textual

models to clinical contexts. Gurukula philology thus starts with detailed studies of established texts—primary sources, commentaries, and related vernacular sources—and progresses toward the application or performative use of the knowledge formed during textual study.

These two features, textual interpretation and textual performance, are integral to gurukula philology. In an illuminating study of philology in medieval south India, Whitney Cox observes a similar case. Arguing that “the texts with which a potential philologist concerns herself are both *prior* and *plural*,” he reckons that philology in medieval south India was also both practical and public.⁹ The pedagogical utility of philology, in other words, made it communicative and communal. Cox arrives at these ideas by mining several texts for potential Sanskrit equivalents of “philology.” While permitting the lack of an agreed-upon term for the discipline in modern scholarship, he ventured two possibilities of his own. The first suggestion, *vyākhyāna* (explanation), resembles the text-based language analysis and clarification of the ayurvedic vaidya-guru, who teaches students how to read texts according to rhetorical criteria established by tradition, as I explain in a moment. I refer to this hermeneutical component of a vaidya-guru’s skillset as a type of commentarial philology (as explanations do, the term *vyākhyāna* also entails observation, interpretation, and commentary).

Cox’s second submission—*vyutpatti* (development or cultivation)—underscores the comprehensive nature of philological scholarship in premodern India. This term also points to a performative aspect of philology and suggests that philology is a discipline capable of shaping numerous features of human life. Though none of the teachers or students I met in Kerala use this term to explain the style or aims of mukhāmukhaṃ training, as an analytic category *vyutpatti* does capture aspects of the work they do. Concerned with refining perceptions and modes of social engagement, Cox describes philology qua *vyutpatti* as “an ethical art or a way of life.”¹⁰ In the gurukula, this could refer to a means for cultivating professional comportment according to tradition, and in fact we find *vyutpatti* on the ayurvedic college syllabus, though meaning “etymology,” in the first-year course on ayurvedic history (*āyurved itihāsa* in Hindi).¹¹ We do not have ethnographic or sociological studies that shed light on how disciplinary practices like *vyākhyāna* and *vyutpatti* might have looked in the past. With only descriptions of the terms in the texts themselves, it is therefore hard to know what a medieval Indian philology as ethical art or way of life might have looked like in practice.

Classical *āyurveda* itself has an intricate interpretive system that includes one of Cox’s proposals for an Indian philology: *vyākhyāna*. The Sanskrit classics reflect at length on a hermeneutic doctrine called *tantrayukti*, “text-method”—methods (*yuktis*) used in texts (*tantras*)—that expresses theoretical criteria required to produce reliable readings and explanations of texts. The *Carakasamhitā* lists thirty-six *tantrayuktis*, as does Vāgbhaṭa’s *Aṣṭāṅgahṛdaya*, while the *Suśrutasamhitā* has thirty-two. Among these *yukti* lists is *vyākhyāna* (explanation) and text-methods

vital to mukhāmukhaṃ instruction, including subject (*adhiḥkaraṇa*), content (*vidhāna*), concise statement (*uddeśa*), word-meaning (*padārtha*), arrangement [of words, sentences, and sections] (*yoga*), purpose (*prayojana*), illustration (*nirdarśana*), etymology (*nirvacana*), doubt (*saṁśaya*), and others.¹² These text-methods are indispensable for making sense of texts in Ayurveda, the achievement of which empowers a vaidya to put into practice textual knowledge for the tradition's cardinal goal: to use knowledge (*veda*) for the advancement of long life (*āyus*).

Does the application of the *yuktis* in textual study necessarily lead to practice? How do we know? Or is it merely the teaching of the *tantrayuktis* as interpretive strategies that captures a vaidya-guru's philological performance? Cox acknowledges the inadequacy of casting *vyākhyāna* as a one-for-one analogue of philology because, at present, we lack a "second-order reflection" in Sanskrit literature about workable applications of this rhetorical method. He tantalizingly surmises in a footnote that the system of *tantrayukti* in the *Arthaśāstra* and Ayurveda might point to a "partial exception" to this lacuna.¹³ But he does not elaborate, nor does he note that *vyākhyāna* is a *yukti* in ayurvedic hermeneutics. Yet even in Ayurveda, the *vyākhyāna* method is only part of gurukula philology, a detailed exposition (by an expert) of something that is generally unknown (by novices and patients). When Biju reads the *Aṣṭāṅgahrdaya* with his students, he usually presents the *tantrayuktis* as interpretive devices to help them connect text and meaning (*vākya* and *artha*) to master ayurvedic theory. When executed well, *vyākhyāna* and the other *yuktis* support and permeate the performative practice of texts during patient visitations. That interpersonal and transformative work—the effective execution of texts to assess and heal sick people—is the purpose (*prayojana*) of each *yukti* and the anticipated outcome of Biju's pedagogy.

The *Tantrayuktivicāra* of Nilameghabhiṣajā, a ninth-century author from Kerala, was among the very first texts that Biju encouraged me to read after I told him about my interest in learning about the teaching and healing practices he and his mother performed at Mookkamangalam. Nilameghabhiṣajā's interpretative method is the backbone of the ayurvedic way of knowing that mukhāmukhaṃ pedagogy cultivates. But as crucial as the text-methods are to ayurvedic education, they are only a part of gurukula philology, and the extent to which they factor into daily lessons depends largely on the vaidya-guru in charge. They might enter the flow of a lesson quite overtly, like a *pūrvapakṣa*, when Biju pauses a close reading of the *Aṣṭāṅgahrdaya* with students to introduce a conceivable objection to claims made in Vāgbhaṭa's text. More often, he teaches the *yuktis* through tacit modeling by pointing out (*apadeśa*) reasons for a certain action, for example, or by acquainting his students with varying opinions (*anekānta* or *naikānta*) about a pharmacological or nosological topic. The *tantrayuktis* are philological tools, to be sure, and they contribute perforce to the performative space of healing in the ayurvedic gurukula. Nevertheless, to appreciate how the *yuktis* are taught and the particular

ways each vaidya-guru infuses his or her readings, interpretations, and clinical work with them, reliance on accounts in the literature alone is insufficient.

Explanations of philology like Cox's and my own will inevitably differ regarding the extent to which and ways that knowledge created via text-based language analysis and interpretation can be used. An understanding that philology is concerned with language use, texts, and interpretation and that some form of practice is also important to the discipline undergirds both of our characterizations. But our analytic vantage points differ, ultimately occasioning dissimilar views. Whereas Cox reads a selection of texts and explains the descriptions of philological practices presented in those texts themselves, my reckoning arises from ethnographic observations of how a particular way of reading texts informs present practices and interactions. There is no such thing as a once and for all definition or form of philology; the discipline has changed over time, and articulations of it differ from place to place, since interpretive and practical requirements aligned with each language and literature require philologists to command particular skills and sensibilities. Cox was searching for "modes of philology" in Sanskrit and Tamil texts from south India in the twelfth through the fourteenth centuries. I too am observing modes of philology in south India, and my study is also occupied with texts, mostly Sanskrit and Malayalam sources spanning a more expansive period of time, circa first century BCE to the fifteenth century CE. But the forms of knowledge production, textual interpretation, and text-based practices that have pervaded ayurvedic education in south India for centuries, as explained in ayurvedic texts, are still observable today, and therefore analyzable, in ways that a literature-based study alone is hard-pressed to capture. Projects concerned with recovering the "habits of reading, thinking, and writing" in premodern literatures have supplied the grist for the mill of Classical Indology since it took shape as an academic field in the nineteenth century.¹⁴ Scholarly endeavors of this sort tend to pursue questions about Indian philology in the past, and they often involve the production of critical editions of classical language texts in Sanskrit, Pali, Prakrit, and Tamil and, to that end, involve the collection (digitally in many cases), reproduction (again, digitally), and conservation of various editions of a singular text. With these objectives, philological studies in Classical Indology have by and large left unstudied, if not overlooked altogether, the performative use of texts.

Mastery of the Sanskrit medical classics demands creativity and, especially for the student who has already graduated from an ayurvedic college, a thorough rethinking about what a text is. By the end of a mukhāmukhaṃ education, the *Aṣṭāṅgahr̥daya* is treated as an unfixed body of knowledge whose uses today might differ from uses envisaged by medieval commentators or compilers of the root text. The vaidya-guru as philologist, unlike the Classical Indologist, is less concerned with identifying variant manuscripts in a text's transmission than she is with coming to terms with the fact, to echo Bernard Cerquiglini, that premodern "writing does not produce variants; it is variance."¹⁵ Once that determination is made, she

then contributes to this variance, which of necessity is unending as long as people continue to engage prior collections of texts in their present endeavors. Malayali vaidya-gurus do not traditionally spend their time producing critical translations and postulating lines of manuscript descent. The commentarial aspect of their philological practice resembles what Peter Richardson considered the main contribution of New Philology in the 1990s. Namely, textual studies of New Philology illuminate “how narrators help audiences arrive at readings in the first place.” By reading the Sanskrit classics and regional sources with their students with the intent to use their textual investigations for therapeutics, vaidya-gurus like Bhaskaran, Priyankara, and Biju bring “new evidence—and new ways of understanding old evidence—to a broad range of ongoing discussions in textual and literary criticism.”¹⁶ They profess new evidence about old data in the classics by drawing from years of clinical experience. The continuing discussions they add to are historically layered commentaries that explain, expand, and enhance classical and vernacular healing sources. In this way, a seasoned vaidya-guru like Bhaskaran is a modern commentator in these lines of criticism, contributing Malayalam and Sanskrit interpretations of earlier literatures and analyses produced by previous interpreters.¹⁷

But philology in the gurukula is also much more than commentarial explication (*vyākhyāna*). It is textual investigation meant for use and interpretation designed for the production of physical transformation. In this sense, gurukula philology is always oriented to shared usage, a kind of “reading *in public*,” as Cox puts it, if not, even more so, a kind of reading *for the public*. The mukhāmukhaṃ method serves as the hub that, on one hand, ensures texts are understood by means of “a form of *virtuoso* reading, reading as a methodical, self-aware and self-reflexive practice” and, on the other hand, makes that reading practicable.¹⁸ By ensuring students can master—fully articulate, memorize, and explain—an ayurvedic work like the *Aṣṭāṅgahṛdaya*, vaidya-gurus guide them from reading texts as material objects grasped sequentially from first page to last, to practicing texts in conversation, synchronically and inter-textually, as storehouses of clinical counsel that can be used piecemeal, out of order, and reorganized if necessary. And while they also teach textbook-type material about the body, pathology, botanical remedies, and the like that students get at college, training in a gurukula is unique for most aspiring vaidyas. Because vaidya-gurus cultivate sensibilities that reveal textual knowledge and medical theory as usable and shareable knowledge, gurukulas are quite unlike colleges, where, as M.P. Sridharan observed in the 1970s, clinical practice has always been prioritized over deep understanding of the tradition’s philosophical and theoretical principles.¹⁹ Mukhāmukhaṃ education builds up an epistemological framework that dovetails text and practice. Students cultivate a “philological instinct” that, J.R.R. Tolkien famously declared, is “as universal as is the use of language.”²⁰ Mukhāmukhaṃ training rouses the creative, improvised

use of texts. This use does not thrive on scholarly reconstructions of different manuscript transmissions but flourishes in social interactions and conversations between physicians and patients, ideally resulting in physical rejuvenation of a sick person's mind and body.

Is it possible, at least in part, that academic discussions about philology as instinct, epistemological framework, and sensibility—elusive or contested aspects of human nature and cognition—undergird the absence of an equivalent for philology in an Indian language? Cox helpfully entertains this possibility, wondering if philology was “so integral to the life-world of those élite literates to whom we owe India's textual archive that to name it as such may have simply been superfluous.”²¹ Perhaps philology was too natural and basic to Indian scholasticism and knowledge production to warrant sustained dissertations on the topic. But perhaps not. Why must there be an equivalent term? It is appealing to identify Sanskrit words like *vyākhyāna*, *vyutpatti*, and *tantrayukti* that point to certain philological methods and traditions in Indian history and literature. If philology and all that it entails is what we call the work we do when we read and interpret Indian texts, naturally it would be satisfying to learn that the composers of the texts we read wanted us to read them with this disciplined approach and set of intentions. But are *vyākhyāna*, *vyutpatti* and *tantrayuki* terms Indian textual scholars devised to explain the work they do? Can we ever know? Hermeneutics is part of philology and so *vyākhyāna* and *tantrayukti* as interpretive exercises are entirely germane to this discussion. They are, as I have suggested, also not quite the whole of philology in the south Indian ayurvedic gurukula.

When a Sanskrit or other vernacular language term matches an understanding of philology in some ways but not in others, moving forward it is best to let those identifications speak for themselves, as such, and acknowledge that philology is the analyst's category. It is not a category most of the people I observed and interviewed in Kerala, Tamil Nadu, and Karnataka used. But some did. Those who agreed that the work Biju, Priyankara, and Bhaskaran have done and continue to do is philological were either graduate students like George or young physicians like Gopal and another former student of Priyankara, Unnikrishnan, both of whom I introduce below and both of whom have collaborated with scholars from North America and Europe and learned Classical Indological jargon, interests, and methods. For these gurukula alumni, to say that *mukhāmukhaṃ* is philological education accords with their own views that the practice of texts typology occupies part of what they continue to do in their post-gurukula professional lives.

For the historian of education, and equally for the researcher studying the history of philology, it is important to be clear about who defines the terms by which a group or practice(s) are studied and comprehended. Otherwise, as Bruce Lincoln cautions, “when one permits those whom one studies to define the terms in which they will be understood . . . one has ceased to function as historian or

scholar.”²² To use philology as an analytic category to probe and explain how traditionally-trained physicians, teachers, and students teach and learn classical and local literatures for the purpose of treating patients helps us to see and appreciate the enduring impact of premodern texts in ayurvedic education and practice in south India today. To describe contemporary ayurvedic education and practice in Kerala’s gurukulas as *philological* is a choice not to rely on a single person’s, community’s, or tradition’s self-identification. It is a decision not to write a disciplinary history from within. To that end, Lorraine Daston and Glenn Most, like Lincoln, counsel historians of science and philology not to confuse their analytical or disciplinary positions with the positions and analyses of the people who compiled the texts and traditions being studied.

Disciplinary history written from within that discipline tends to be not only teleological but also parochial and hagiographical. Most importantly, disciplinary history written from within that discipline tends to be unprofessional, in the sense that it is written by scholars who have been trained in the discipline that they are studying but not in the discipline of history or the history of science.²³

That said, it is also important to know how a tradition understands and describes itself and, wherever possible, to identify people by the terms they choose for themselves. At the same time, in the production of academic research it is just as crucial to be equipped with one’s own terminology to describe people, practices, and institutions, if for the fundamental reason that sometimes what people say and write about what they do differs from how they actually act.

Vaidya-gurus at Shantimana and Mookkamangalam have not objected (in my presence) to my suggestion that they do the work of philologists, and the textual precedents of the *Carakasamhitā* they point to as the basis of their work is, in many ways, emblematic of philology. The primary components of the discipline are present in their work, and I have not met a gurukula student or teacher who was not acutely aware that Ayurveda in the gurukula is grounded on the application of knowledge in texts, memorized and exhaustively studied, to the problems that patients bring to them every day. This is *the discipline* of the ayurvedic gurukula and, whenever I pressed a student or vaidya-guru to help me define it, the conversation nearly always returned to mukhāmukhaṃ learning. Admittedly, any attempts at getting gurukula students to untangle the components of mukhāmukhaṃ training—to analyze the stages of articulation, sentence meaning, and clarification in order to understand the correlation between textual study and clinical work that’s baked into the process—led to forced and awkward conversations. Mukhāmukhaṃ is not taught as two separable sides of a singular disciplinary training. Students are not told that a hermeneutic lesson in the afternoon will naturally morph into a workable treatment in the evening. They learn this twin-function gradually and organically over days, weeks, months, and sometimes years. For Bhaskaran, Priyankara, and Biju this two-sided enterprise is somewhat

like Tolkien's observation: the practice of texts in the gurukula should become as instinctual as language use itself. What I am describing as philological practice, then, is a way of reading and understanding the world in view of what's been read and commented on across generations. The vaidya-guru's practice with students is based on a pedagogical process in a two-thousand-year-old text that Malayali vaidya-gurus named "face-to-face" (*mukhāmukhaṃ*), and it's been modified over many generation to help students understand and produce information about health and wellness, the body, and patienthood that is usable.

HISTORICAL PRECEDENTS AND ARRANGEMENTS

Local history places the start of *mukhāmukhaṃ* training of vaidyas in central Kerala in the mid- to late-eighteenth century, when the state was home to eighteen celebrated Mooss and Nambi families of *aṣṭavaidyans*, which is a Malayalam term derived from Sanskrit *aṣṭāṅgavaidya*, meaning a "physician of the eight parts [of *āyurveda*]."²⁴ When Haider Ali and Tipu Sultan led the Mysorean invasions of Malabar in northern Kerala from 1766–1792, many Malayalis were forced into the central and southern parts of the state, seeking protection from the Maharaja of Travancore, Karttika Tirunal Ramavarmma (often known simply as Dharmmaraja). Among the migrants were a number of distinguished families with ayurvedic experts, *aṣṭavaidyans*, including Parameshwaran Mooss and his son, Ravi Mooss (born 1789).²⁵ Some of the displaced families eventually returned to Malabar after the invasions ended, since the 1792 Treaty of Seringapatam ceded Malabar to the EIC and reduced Mysore's influence in the region. Many Malayalis stayed in south and central Kerala nevertheless, and as their families grew a number of legendary vaidyas eventually inhabited the regions. Ravi Mooss, for example, married into the Malappuram-district family of Pulamanthol Shankaran Mooss, an eminent *aṣṭavaidyān* and scholar, whose two-part *Cikitsāmañjari* continues to be a widely used pharmacopeia in Kerala today.²⁶ In the popular imagination of Kerala, perhaps the most prominent among those who fled the Mysorean invasions were members of Panniyinpalli Raghava Varier's family, which produced several ayurvedic physicians, among whom Panniyinpalli Sankunni (P.S.) Varier, discussed in chapter 1, was the most prolific and well-known both inside and outside of Kerala.²⁷

In the eighteenth century, Kerala's gurukulas were not restricted to ayurvedic education. Though the *āyurveda* of Vāgbhaṭa's *Aṣṭāṅgahrdaya* is often the primary subject in the working gurukulas of Kerala today, as I noted of Bhaskaran's early education, in the previous century it was common for parents to find gurus for their children to train in multiple subjects, including philosophy, literature, the sciences of astronomy and medicine, and the Vedas. The vaidya-gurus at Shantimana and Mookkamangalam are known for their poison therapies, especially the treatment of snakebites. The particular kind of poison treatment they practice is based

on a collection of Sanskrit, Malayalam, and Manipravalam texts on *viṣacikitsā*, broadly construed as toxicology.²⁸

In Kerala, *viṣacikitsā* historically had two divisions—*viṣavidyā* (mantra-based poison treatment) and *viṣavaidyam* (pharmaco-based poison treatment). Over time the two divisions merged, and a new discipline of poison therapeutics evolved in the fourteenth or fifteenth century that offered treatments for numerous types of poison. Biju described this time to me as the golden age of *viṣacikitsā*, and the *Jyōtsnikā*, a Manipravalam text with some Sanskrit mantras, was the first literary work of the new discipline to emerge from it. The text has two parts, a *mantra khaṇḍa* and an *auśadha khaṇḍa*, corresponding to the tradition's mantra-based and pharmaco-based treatments. Although both *khaṇḍas* have been preserved in palm-leaf manuscripts, most printed versions of the *Jyōtsnikā* nowadays contain only selections of the Sanskrit mantras or none of them at all.

The title *Jyōtsnikā* derives from Sanskrit *jyotsnā*, “moonlight,” symbolizing cool healing nectar and communicating the idea that the work's knowledge is an antidote to fiery and venomous poisons.²⁹ It was composed by someone named Nārāyaṇa, whom tradition usually holds to be a Namboodiri descendent of the Karattu family. In the text's final chapter on physician lineage (*vaidyapāramparyyaḥ*), Nārāyaṇa compares the moonlight of the title to the compassion of his two teachers, father and son Brahmins both named Vāsudēva, who taught him the tradition of poison healing in the Kāśyapa lineage (*kāśyapagōtrattil*), and to his ascetic maternal uncle, who commissioned him (*viśēṣānmātulēnāpi niyuktōhaṃsayoginā*).³⁰ The work is still taught and used by Namboodiri Brahmin physicians in central Kerala, including Biju and his mother, and Bhaskaran used it when he was alive. Additionally, Kochunni Thampuram's *Prayogasamuccayaṃ* and V.M. Kuttikrishna Menon's *Kriyākaumudī* are two Malayalam works on poison therapy that continue to be taught and practiced in the ayurvedic gurukulas in Kerala I visited.

The traditional residential setting (*kula*) of a vaidya-guru's instruction is not unique to Kerala. Every region in India has produced its own centers of education, distinctive pedagogies, and subject specialties, some of which look like Kerala's gurukulas and some that look quite different. In the northeast, for example, from the medieval period until the 1820s, the *ṭol* (“school” in Bengali) specialized in educating students in Sanskrit grammar and literature.³¹ Often explicitly religious in their missions, *ṭols* were located at important Hindu sites, such as Navadvip, Krishnanagar, and Varanasi, and their teachers were commonly honored at Hindu festivals. In his *Reports on Vernacular Education in Bengal, Calcutta 1835–1838*, William Adam classified elementary-level education sites for children ages five to seventeen by the Sanskrit name *pāṭhaśālā*, “recitation hall,” occasionally also known as a village school.³² Aparna Basu ascribed a west Indian provenance to the *pāṭhaśālā*, though the term, she noted, has been applied to educational centers throughout the whole of India in various ways. For example, the *pāṭhaśālā* was not always limited to elementary education, and sometimes the name was clearly

applied to centers of higher education corresponding to the Bengali *tol*.³³ What is more, as we saw in the previous chapter, in Kerala the earliest ayurvedic colleges were known as Āyurveda Pāṭhaśālas before the English term “college” was adopted nationwide.

An old south Indian educational arrangement comparable to the Kerala gurukula is the Tamil *paḷḷikkūṭam*, “settlement room.” Over time the *paḷḷikkūṭam* came to mean a kind of home school where, Hartmut Scharfe explains, Brahmins “taught their students on the raised porch at the front of their home (*tiṇṇai*).” These were later called “*tiṇṇai-ppaḷḷi-kkūṭam*, ‘porch schools’ or still later (i.e., after the arrival of the Portuguese in India) *pyal/pial* schools, named with another word for this porch.”³⁴ The gurukulas I observed in Kerala are typically managed by one Namboodiri vaidya-guru (sometimes two), and their students come from different classes, castes, and religious backgrounds.³⁵ Daily lessons and patient treatments are traditionally located on the veranda or in an easily accessible anteroom of the vaidya-guru’s *illam*, “house” in Malayalam, though *mana* is sometimes also used. Although there is some variation among Malayalis from the northern part of the state and those south of Kozhikode, whichever word is used can indicate the social and religious background of the speaker. In general, most Malayalis use the term *illam* to denote a person’s house, whereas in some central Kerala communities non-Namboodiri Malayalis use the term *mana* pointedly to denote the house of a Namboodiri Brahmin family.³⁶ Thus, depending on the person with whom I happened to be speaking, Mookkamangalam and Shantimana were either the *illams* or *manas* of Biju, Priyankara, and Bhaskaran.

Historian A. Shreedhara Menon’s socio-cultural history of Kerala places the traditional gurukula arrangement in the broad category of *eḷuttuppaḷḷi* (Mal.), a “village [writing] school” meant for the education of young non-Brahmin boys and girls. Larger institutions like the ninth–twelfth century *śālai* and early-medieval *sabhā maṭhas* (religious, temple-based centers of learning) were reserved for Brahmin youth with the highest scholastic propensities. Under the guidance and typically at the house of a teacher (*eḷuttucchan*, Mal.), *eḷuttuppaḷḷi* students received instruction in reading, writing, and arithmetic as well as instruction in advanced humanistic and technical subjects, including poetry (*kāvya*), dramatic literature (*nāṭaka*), logic (*nyāya*), grammar (*vyākāraṇa*), and life science (*āyurveda*). The creation of western-style institutions like the British college in the nineteenth century, Menon’s work suggests, sounded the death knell of *eḷuttuppaḷḷi* and gurukula models of learning in Kerala.³⁷

COURSE OF STUDY

Known as the heart (*hṛdaya*) of medicine (*aṣṭāṅga*, “eight parts [of *āyurveda*]”), Vāgbhaṭa’s *Aṣṭāṅgahrdaya* is widely regarded, as Dominik Wujastyk puts it, as “the greatest synthesis of Indian medicine ever produced.”³⁸ A profusion of manuscript

replications of the text in both north and south India points to its importance and ample use across the subcontinent, while translations in Chinese, Tibetan, Arabic, and other languages suggest it has held some sway outside of South Asia as well. More than the other two classics, which are written mostly in long prose passages, the *Aṣṭāṅgahṛdaya* is concise and its verses are lyrical. It is amenable to memorization, and its distillation of the sometimes unsystematic and conflicting data in the collections attributed to Caraka and Suśruta has made it the go-to source in Kerala for clinical work and education since the medieval period. Also, because the text draws on central principles from the other two classics, the *Carakasamhitā* and *Suśrutasamhitā* are drawn into the course of study in a gurukula that focuses on Vāgbhaṭa's treatise.

Generations of vaidyas in central Kerala have committed the entire *Aṣṭāṅgahṛdaya* to memory. The collective thirty chapters of its first section, the Sūtrasthāna, is widely recognized as a masterpiece unto itself because it presents a clear and to-the-point rendering of *āyurveda*. Most of the Malayali vaidya-gurus over fifty years old I have met, and a few under fifty, know the *Aṣṭāṅgahṛdaya* by heart, while their students generally do not. Nowadays the typical gurukula student cannot study with a vaidya-guru for the amount of time normally needed to master the text by rote. Instead, most come for weeks or months at a time, or only during holidays and long breaks in the course of an academic college year; some do this over many years. If they can piece together a long enough stay to memorize a sizeable portion of the text, the Sūtrasthāna is usually what they focus on. For students of earlier generations, studying the *Aṣṭāṅgahṛdaya* from beginning to end, memorizing every verse, was thought to reveal associations between body, mind, and society that contribute to disease and sustain health. The Sanskrit, Malayalam, and Manipravalam sources that form a gurukula's curriculum should be introduced by a bona fide master, who him or herself has had a gurukula education and been treating patients for years. Since putting textual knowledge into clinical practice is crucial to the mission of the gurukulas I visited, students get hands-on, apprentice-like instruction about how to yoke *śāstra* and *karma*, textual knowledge and clinical practice.³⁹ An education deprived of on-the-job training about the practice of the tradition's texts is considered incomplete.

Bhaskaran would often underscore the danger of misconstruing *āyurveda* as bookish or academic medicine, as if it were fixed in oral or written texts and ideas from the past that we discuss today as history. "It is not enough to simply read and study these works," he said in an interview in 2001, two years before I met him. "What is imperative is that these works be brought into the realm of experience. 'Theoretical knowledge' (Skt. *śāstrajñāna*) must be brought into the realm of 'practical experience' (Skt. *karmaparicaya*)."⁴⁰ For him, for his teachers before him, and now for the students he has trained, practical experience is sine qua non to being a successful vaidya. Texts must be mastered. But to amass practical experience, those texts must eventually be embodied, so that neither the vaidya-guru nor the

physical version of the text are needed. The texts become fields of knowing on which vaidya-gurus coordinate their interactions with patients (and their attending students). A comprehensive and prompt understanding of issues that patients present and the mettle to make quick decisions come from experience, Bhaskaran used to tell his students. These qualities are imperative to manage not only the assortment of illness that patients present day to day but also the occasional life and death situation that can arise in central Kerala, where deadly snakebites are not uncommon.

Critics during ARM who thought the gurukula system allowed too much variability to remain central to ayurvedic training saw the nationwide standardization of the ayurvedic curriculum as a fix. Consistency of subjects, testing, and modes of delivery would create a coherent vision of Ayurveda among students and practitioners, improve its public perception, and thereby ensure its place as a viable indigenous medicine in twentieth-century India. Without these sweeping reforms, there were linguistic gulfs and regional incongruities, for example, between Kannada curricula in Karnataka and curricula in Malayalam or Tamil in Kerala and Tamil Nadu. In theory, vaidyas trained in gurukulas in all three south Indian states would be equally well-trained in the Sanskrit classics. But the heavy reliance on the modelling of their teachers for fundamental things like patient examination and the administration of drugs and treatment meant that in each location (even within states) student learning was an idiosyncratic enterprise. As elucidated in *Bhore Report* in the previous chapter, there was no way for a national organising body to monitor and advise gurus from one place to the next regarding how they taught their students to practice the texts they studied in their clinical interactions with patients. Even if the classics—or just the *Aṣṭāṅgahrdaya*—formed the basis of gurukula education across south India in the nineteenth century, those texts were taught and practiced, augmented with regional specialties and case studies, in radically different ways by individual gurus, leading to radically different student and patient outcomes.

PEDAGOGICAL PARTICULARITIES

Until recently, Priyankara and Biju maintained basically the same instructional procedure with their pupils at Mookkamangalam that Bhaskaran used when he taught them at Shantimana, in the same style that Bhaskaran's gurus had in turn taught him in their gurukulas many years earlier. Things were noticeably different in Biju's approach with his students when I visited Mookkamangalam for two months in 2008, as I explain below, than when I first observed his lessons with this grandfather at Shantimana. Between 2003 and 2008, the mukhāmukhaṃ arrangement at Mookkamangalam had grown lax and informal with each new cohort of students. The intense face-to-face learning I saw Bhaskaran impress upon Biju on my first visit to Kerala in 2003 is designed to introduce sequentially more complex

lessons on an entire text over several years. Lessons begin at a basic level, building up slowly based on previous lessons, while the teacher helps the student work through progressively more challenging material with the ultimate aim of merging textual knowledge (*śāstra*) and practice (*karma*).⁴¹ Any Malayali vaidya-guru who says they teach mukhāmukhaṃ signals this twofold nature of their work. Biju told me in 2017 that he gives his students “obvious examples and, by watching me interact with patients, also unspoken information about past practices. My students learn to consider new possibilities for treatment when they see me apply Vāgbhaṭa’s ideas to problems today.”⁴²

Whenever I observed an ayurvedic gurukula in central Kerala, irrespective of the formality of the mukhāmukhaṃ arrangement, Vāgbhaṭa’s text was always present in some way. Oftentimes it was a physical book, like the diminutive, purple-bound copy I always carried in my shoulder bag. I needed it to follow along with Priyankara’s and Biju’s lessons, as did most of their short-term and novice students. My copy has the Sanskrit text in Devanagari script, and so did the editions that Biju and Priyankara keep on hand. Many of their Malayali students had Malayalam transliterations, however, because they were more comfortable with the Malayalam *lipi* than Devanagari (although all knew Hindi), and it made it easier for them to stay on point.

For an advanced gurukula student, the nature of a text—like the *Aṣṭāṅgahr̥daya*—changes from a physical object that displays “things”—ideas conveyed via language—that need to be memorized and recited and slowly unfolds into a body of knowledge that is conversational; that prompts questions and supplies answers; that creates in the student a particular way of thinking about the human body and how it works; and that weaves medical principles within an ever-expanding tapestry of case studies charting therapeutic successes and failures. A thorough gurukula training places teacher and student together on a path of discerning the meanings of texts, parsing what’s written in them, and learning how to reiterate the language of the texts accurately. Together they also put the texts they study in context: historically in view of their production; inter-textually in relation to coeval Sanskrit and vernacular literatures; and practicably in light of the viability of applying the texts’ knowledge about the body and wellbeing to patient cases.

The *Carakasamhitā* is the source of the multilayered and progressive structure of mukhāmukhaṃ learning. Near the end of its Sūtrasthāna, a three-part approach to teaching an entire text (*tantra*) is described. It involves methodical recitation (and by extension, memorization); line-by-line analysis; and clarification of the text’s thorniest passages.

Those who relate, one after another, articulation, sentence meaning, and clarification of the sections, chapters, and disputed parts of scientific works are called knowers of life science (*āyurveda*). How, then, are the aforementioned articulation, sentence meaning, and clarification of scientific works performed? ‘Articulation’ is

the recitation of a sacred text in full, according to tradition. ‘Sentence meaning’ is deliberately and correctly getting to the heart of a matter with speech that is elaborate, concise, and consistent with the principles of proposition, reasoning, example, application, and conclusion in a way that is intelligible and accessible to the three kinds of students [i.e., superior, average, and poor]. Using critical observation, ‘clarification’ is the restating of inevitable passages in a text whose meanings are difficult to access.⁴³

Priyankara said with a chuckle in 2005 while she, Biju, and I talked late into the evening in their front sitting room at Mookkamangalam that this passage is “the *mukhāmukhaṃ-mūlaṃ*,” the root of mukhāmukhaṃ instruction. I was midway through a yearlong stretch of fieldwork in Kerala, and the more time I spent at Mookkamangalam the more I realized that this short passage in Caraka’s collection was a deep-seated *mūlaṃ* for Priyankara and Biju, an invisible inspiration (below ground as it were), that supported and shaped what they did every day. What Bhaskaran taught them to do with Caraka’s framework is a unique Kerala innovation that has developed and adapted to changing social and political landscapes and assemblies of people over generations. It’s an education that leads to a particular way of knowing that distinguishes this extended Namboodiri family from other practitioners in contemporary Kerala, as well as the nearby border areas in southern Karnataka and western Tamil Nadu, where I also met and talked with ayurvedic physicians and students.

Darting his left middle, ring, and pinky fingers into the air to indicate the number three, Biju inquired, “Did you know that my grandfather taught me and my mother that there are three tiers of Ayurveda?” I shook my head, and as he broke down the three tiers, it was clear that he sees these differentiations in ayurvedic education in the early years of the twenty-first century occurring in Kerala and across India.

The first tier is *vyavahāra*. This is basic practice at a superficial level, even the commercial level for many people nowadays. Most ayurvedic colleges teach Ayurveda like this. The second is *śāstra*. This is scientific practice like we find in Sanskrit [literature]. Some colleges today try to teach this level, or claim to teach this level. But most do not go beyond reading short passages in English [translation]. The third tier is *tattva*. This is the philosophical background of the *śāstras*. This level is not taught or discussed at all in colleges today. But it is critical to the gurukula tradition.⁴⁴

Biju’s remarks evoked the progressive stages of mukhāmukhaṃ instruction, though they do not map onto them perfectly. By calling an education *vyavahāra*, a Sanskrit term meaning “doing” or “action” in a mundane or everyday sense, he sharply summed up a common attitude in the south Indian gurukula community that the mixed “bio-Ayurveda syllabus” of the college is disconnected from the history and literary culture of the tradition, the *śāstras*. Comprising the second level of Ayurveda, the *śāstras* are essential to ayurvedic education, and though the

colleges try to incorporate them here and there on the syllabus, they ultimately fail to teach them in a substantive way. The third level, *tattva*, meaning “truth” or “reality” in Sanskrit, reveals the extent to which Biju has been taught to see Kerala’s mukhāmukhaṃ-based gurukulas as key brokers of classical *āyurveda*, the so-called real Ayurveda that Biju’s students imagine they learn from him. Biju and his grandfather were engaged in *tattva*-level conversations when I initially met them both in 2003.

It was pretty late in the afternoon when I entered Bhaskaran’s traditional Namboodiri *mana* that day, and I was beat. I’d been jostled around for most of the day in the backseat of a small red Maruti-Suzuki hatchback. One of Priyankara’s top students, Gopal, drove the tiny car as I tried to steady a supply of camera and film equipment while we and another colleague, Dr. Matsuzaka, travelled throughout the Palakkad District, past seemingly endless and identical rubber tree plantations. We stopped only a handful of times, whenever we arrived at houses Dr. Matsuzaka believed had manuscripts he wanted to photograph. I had met Dr. Matsuzaka only the day before in Tamil Nadu, as my studies with Prof. Shastri (mentioned in the introduction) were ending. Prof. Shastri and Dr. Matsuzaka were old friends and frequent collaborators, and Prof. Shastri had apparently encouraged Dr. Matsuzaka to invite me to join him and Gopal for two or three days on their research trip to document traditional ayurvedic manuscripts and practitioners in Kerala. The timing was perfect. I had some free time, and I was keen to see Kerala. So, I went along for the ride.

Before we left Tamil Nadu, Dr. Matsuzaka told me that the highlight of this trip would not be the manuscript collections he hoped to discover, most of which, he insouciantly whispered, “we’d probably never get to see anyway.” He was excited most of all “to go to Shantimana, to film a master vaidya and ayurvedic guru, Bhaskaran, while he instructed his grandson,” Biju, who was then in his early twenties and deep into the clarification stage of mukhāmukhaṃ training.⁴⁵ A few of the stops that day turned up some paper and palm-leaf manuscript caches, and Dr. Matsuzaka was allowed to photograph a few of them. A little after two o’clock in the afternoon, Gopal asked me to help him get the camera equipment ready and assemble the video tripod. We were going to Shantimana. He drove for about fifteen minutes before pulling over to the shoulder of the road, alongside a wall with a wrought iron gate, flanked by yards of concrete wall that curved along the windy road. Bhaskaran’s residence was on the other side of the gate, beyond a wooded area visible through the gate’s iron bars. As we stretched our legs outside of the car, waiting for someone to let us in, I could see bits and pieces of a pale blue structure through the trees. About ten minutes had passed when a man emerged from the narrow dirt driveway that snaked through the woods. Gopal greeted him, and when he opened the gate, we got back into the car and entered the property, slowly coasting downhill to Bhaskaran’s house. The pale blue structure I had seen through the entry gate was an impressively large house. Gopal told me it was about

four hundred years old, designed in traditional Namboodiri architecture, and it appeared to be in tip-top shape, as far as I could see, perhaps just recently painted. I would see a similar, though smaller and tannish-orange colored, Namboodiri house when I got to visit Mookkamangalam days later. The three of us grabbed our equipment and made our way to a door on the side of the house about fifty feet from where we parked. As we approached, Bhaskaran emerged in the doorway, thin and grey-pated, clad in a white mundu folded up to his knees, sacred thread of the twice-born (*yajñopavīta*) strung across his hairy chest. He greeted us with a smile and a *namaskaram*, and we repaid the salutation. Gopal took an extra moment to bow deeply before Bhaskaran, genuflecting, and touching his forehead to Bhaskaran's feet, acknowledging that Gopal, who had studied with him at times the previous two years, revered Bhaskaran as a special teacher and elder in his life.

After Bhaskaran let us into the house, he took us to the veranda, where Biju was seated on the floor waiting. We set up the film equipment far enough away that we wouldn't disturb the lesson, but close enough to hear what the two were saying. Before Bhaskaran resumed his seat across from Biju, Gopal explained to him that I was from the United States, a friend of Prof. Shastri, and an assistant to Dr. Matsuzaka. Bhaskaran did not seem disturbed by my unexpected attendance. Gopal emphasized my association with Prof. Shastri a couple of times, which might have eased Bhaskaran's curiosity about me; sitting patiently but expectantly listening to Gopal and looking at me, Biju, too, appeared less diverted by my presence once it appeared Prof. Shastri had encouraged my participation in Dr. Matsuzaka's research. So, when I asked Bhaskaran if he would mind if I also took notes, he readily approved, and I took a seat on the floor and opened my notebook in my lap. By the time their mukhāmukhaṃ session resumed, it was about three-thirty in the afternoon. They had started around ten o'clock that morning, and after a half-hour delay because of our arrival, the session lasted about two more hours for a total of about seven. During the two hours I observed, the two men sat on the floor face-to-face. Biju was in a half-lotus position, while Bhaskaran shifted between a half-lotus and cross-legged. Other than sporadic twists and twirls of their hands in the air, accentuated by flicks of an index finger to emphasize an idea or counterpoint, the energy level of the lesson was relatively subdued and had a smooth conversational flow.

The apparent half-century or so that separated the two men in age was a clue about who was the student and who was the guru. Though both men were dressed the same—white mundus pulled above the knees, with bare chests apart from the sacred threads looping over their left shoulders—everything else about their comportments differed. An ever ready and superb student, Biju displayed exacting self-care and discipline as he sat. His back was straight and stable. His shoulders were evenly poised, and his hair was neatly coiffed. His mundu was ironed and deftly wrapped and tucked into his waistband. Facing Biju about three feet away, Bhaskaran was more relaxed and less stiff. His mundu was baggily collected

around his pointy knees. He had thinning scruffy grey hair atop his head and a stubbly grey chin. His angular and wizened face bespoke experience and seniority. And though Bhaskaran always had all the answers, during this lesson Biju was visibly an advanced student, not Bhaskaran's equal by any stretch, but an inquirer and conversationalist as much as he was a student performing for his guru. Although he had basically committed the entire *Aṣṭāṅgahr̥daya* to memory by this time, Biju kept a pocket-sized edition of the text on a small table within arm's length in case he needed it for reference.

Across two decades of fieldwork in south India, I observed students at each stage of mukhāmukhaṃ training. The ones I saw in the initial articulative stage and second analytic stage were not taught by Bhaskaran, but by Biju and his mother. Biju and Priyankara also had advanced students at various times, even, with Biju, as recently as 2017 on my last research visit there. But I would not place any of the most gifted students at Mookkamangalam at the same level as Biju was when I saw him train with his grandfather. As teachers, Bhaskaran, Priyankara, and Biju each have distinctive pedagogical styles, and whenever I asked them about why they teach the way they do, all three downplayed their differences, preferring to acknowledge their gurus as the respective models for their didactic practices (thus making Bhaskaran's teaching style the touchstone for both Biju and Priyankara). After recognizing the influence of their teachers, each then usually drew my attention to the textual precedent that outlines the style of teaching they refer to as mukhāmukhaṃ, reciting the verses from Caraka's collection cited above and then unpacking them for me in the following way.

The preliminary phase of mukhāmukhaṃ training that I call articulation is conveyed in Caraka's collection by the Sanskrit term *vākya*. At bottom, this word means "speech" or "assertion," though it also designates a "sentence" or "mode of expression." The articulation stage involves going over an entire compendium like the *Aṣṭāṅgahr̥daya* from beginning to end, with special attention given to a student's ability to recite every word of the work with exacting pronunciation. Students often do not fully understand the full meaning of each passage they learn at this stage, and that's okay. Their ability to intone every word properly is key here. The idea is that the phonemic structure of each Sanskrit word and its syntactic relationship to the other words in a given sentence, chapter, section, and the overall text, accurately produced through speech, provides an indispensable foundation without which the full understanding of the text's meaning is destined to fail. This stage of instruction resembles the traditional practice of teaching the Vedas in Kerala, which Robert Gardner and Frits Staal's documentary, *Altar of Fire*, showed depends both on a teacher's effective oral articulation and a student's rote memorization and vocal precision.⁴⁶

I call the second phase of mukhāmukhaṃ sentence meaning. Caraka's collection designates it with the Sanskrit compound *vākyaṛtha*. The term carries the

oral-aural transmission of meaning (*artha*) through spoken words (*vākya*) that construct arguments, technical rules, and (medical) theories. This involves a rather plodding and detailed examination of every sentence in a text. Students should have a firm handle on the components of the text they are studying. In the past, such as when Priyankara learned the *Aṣṭāṅgaḥṛdaya*, students did not advance to the sentence meaning stage until they had memorized the entire work. That isn't the case today. Most of Biju's students do not sit with him long enough to learn the entire *Aṣṭāṅgaḥṛdaya*, or any other text, and as a result Biju routinely condenses all three phases of mukhāmukhaṃ to focus on one small text-selection (usually the Sūtrasthāna of Vāgbhaṭa's classic). Once a text is fully internalized, and a student can recite it using correct pronunciation and grammar, the vaidya-guru leads her through a line-by-line analysis of the text's meanings and the ayurvedic principles that undergird those meanings. While the *Aṣṭāṅgaḥṛdaya*'s versified structure makes it easier to memorize than prose texts, gains in memorization come at the expense of having fewer in-text clarifications, which a more prolix collection like the *Carakasamhitā* has. Hence the theoretical foundations are often not evident to a new reader of the *Aṣṭāṅgaḥṛdaya*, and inter-textual allusions to the collections of Caraka and Suśruta embedded in it are easily missed by a neophyte. Reliance on an experienced teacher to make these connections clear is therefore crucial.

The third phase of mukhāmukhaṃ is called *arthāvayava*. This is the clarification stage of training when students cultivate a sensibility about how texts can be practicable. The teacher shows students how to do things with texts by revisiting complicated passages, fundamental concepts, and challenging scenarios to understand how a text that's loaded with theoretical and speculative information can make a tangible impact in the clinical context. A vaidya-guru's experiences with patients are indispensable here. Circumstances of former and current patients are related to parts of a text under study. Because most gurukulas also double as active clinics and educational centers, at places like Shantimana and Mookkamangalam students routinely shadow their teachers as new patients arrive throughout the day. In the course of doctor-patient interactions, vaidya-gurus explain how they mentally handle the texts they have memorized and how they intend to use those texts to structure their assessments and treatments of the bodies, illnesses, and people they encounter. Conversations between teachers and students during clarification are less structured than the first two phases. Having gone through *vākya* and *vākyaārtha*, students appear more assertive in this third part of mukhāmukhaṃ. It's not simply that advanced students are encouraged to speak up and raise questions when they encounter portions of a text they do not understand, which they are, and which there is less time for during the first two phases. Because they have more experience with ayurvedic medicine by this time, sometimes (especially nowadays) partly drawn from a college education, they also tend to be armed with particular interests and queries they bring with them to the

gurukula. This stage is thus conversational, even chatty at times, and can appear like an ever-unfolding quiz for students, as the vaidya-guru asks them to connect chapters and sections of a text to reinforce their ability to recite by heart what they have been studying.

To reinforce certain lessons in the third phase, the vaidya-gurus I know introduce their own regional traditions of poison therapy along with the *Aṣṭāṅgahr̥daya*'s data about diagnoses, prognoses, and treatments. The cumulative result is ayurvedic, certainly, but it is also something more. Patients receive an assessment and therapy that non-Malayalis sometimes call "Kerala Ayurveda" (the same umbrella term is applied to other specialties common to Kerala, such as *pañcakarma*). A vaidya-guru's particular education and clinical experiences enter her instructions in this way. Malayalam sources she teaches function as new vernacular commentaries on the Sanskrit classics, at once augmenting and expanding students' conceptions and capacities to practice the root text of their gurukula education. By orally demonstrating how and why the local tradition employs Vāgbhaṭa's classic, for example, the vaidya-guru familiarizes her students with an array of ways to rehearse this collection's framework for thinking about disease and the body that can be adjusted and rethought to meet diverse patient needs.

At the first mukhāmukhaṃ lesson I observed, Bhaskaran presented the case of one of his recent patients to Biju. He asked his grandson to call to mind a passage from the *Aṣṭāṅgahr̥daya* that could explain what he had observed and heard from the patient's testimony about her ailments. Biju cited verses from the Sūtrasthāna of Vāgbhaṭa's text, suggesting that the patient appeared to have ingested contaminated water (*duṣṭajala*). Without much hesitation, he explained that depending on the type of contamination she experienced (water mixed with algae or mud? water unexposed to sunlight? water that had been crisscrossed by spiders and soiled by their webs? and so on), the woman most likely had intestinal worms (*kṛmi*). As Biju recited verses from Vāgbhaṭa's collection, Bhaskaran aided and corrected his articulations of the Sanskrit.⁴⁷ This type of pedagogy was not exactly new for me. I had heard Sanskrit recited many times before that afternoon at Shantimana. I had also seen traditional ways of learning Vedic Sanskrit in Kerala performed in the abovementioned documentary, *Altar of Fire*. But I remember thinking while I sat on Bhaskaran's veranda that before this encounter, for me the learning of Sanskrit had been a fairly solitary endeavor. Until then, in the United States, where my Sanskrit studies had taken place, Sanskrit was a language fixed in books that I read and translated alone, many hours each week, in preparation for short twice or thrice weekly lessons with a teacher and a chalkboard. I usually had a few classmates, though not always. Each class, we (the students) would take turns reading several verses of a text, trying to translate what we read, while our teacher pointed out the grammar of what we read and helped us produce reliable translations. Proficiency in the Sanskrit language opened up sources of Indian history for me that were unmediated by others' translations, and hence interpretations, and it helped

me cultivate a sensibility about premodern Indian aesthetics, epistemologies, politics, devotional practices, and many other types of knowledge. At the end of the day, however, we were trained as translators of Sanskrit texts. The language was not conversational in the classrooms I knew, as it appeared to be in Bhaskaran's gurukula.

So-called spoken Sanskrit is well-known and expressed today by many people in India and elsewhere. But that's not the type of Sanskrit I observed in 2003. Bhaskaran and Biju were not composing Sanskrit sentences off the cuff. They (re-)presented passages of the *Aṣṭāṅgahr̥daya* to each other, treating the text like a deck of cards from which they picked and traded *ślokas* ("stanzas") freely, without obvious effort, and always with single-minded purpose. I came to learn later that they actually dissected Vāgbhaṭa's classic, and together they laced together verses from different sections of the text. Bhaskaran referenced passages from the collections of Caraka and Suśruta that Vāgbhaṭa cited or alluded to, and he nudged Biju to connect the three classics to Kerala's poison therapies. The assembly of texts formed a phonologic field that teacher and student shaped, discussed, and debated face-to-face. They created this field with specific texts for the practical aim of treating Bhaskaran's former patient (their case study for that day's lesson). The study of this patient's situation had run its course, Bhaskaran determined, after he and Biju adequately diagnosed the patient's condition and agreed on a treatment. In my subsequent visits to Shantimana and Mookkamangalam, case studies like this were also crucial to mukhāmukhaṃ training. But more often than not, teachers and students create these phonological textual fields while speaking with and inspecting real patients arriving throughout the day, in real time. After a patient has left the gurukula clinic, or when a case study has been put to rest, the field collapses. Although the particular patient and illness might be recalled in a subsequent lesson, traditionally it would not be logged in a notebook or captured on a tape recorder. In theory, it's no longer needed, for no two patients are alike. A new collection of texts will be knitted together when prompted by the ailments of a new patient or case study.

MUKHĀMUKHAṀ INSTRUCTION THEN AND NOW

For the students and physicians I observed in central Kerala, mukhāmukhaṃ training was practiced by the book up to and including the education of Biju, who began studying face-to-face off and on with Bhaskaran as early as four or five years old. Although no one I spoke with in central Kerala was certain about the exact length of time Bhaskaran trained Biju, everyone reckons he amassed a total of perhaps two years through his childhood until he reached his late teens, when lessons intensified. By Biju's own account, he sat mukhāmukhaṃ with his grandfather at Shantimana routinely for at least eight years into his early twenties, totaling around a decade of training in gurukula philology and clinical work. All the while,

up to around the time I met him, Biju also studied at Mookkamangalam with Priyankara. Like Biju, she began sitting with her father around five years old. She married at twenty-five, and collective family memory suggests that for the twenty years in between she regularly studied the *Aṣṭāṅgahr̥daya* and local *viṣavaidyam* mukhāmukhaṃ with her father and assisted him during patient consultations.

The practice has changed considerably since Biju's training, however, as he and his mother began welcoming cohorts of students with a wide array of abilities, interests, and commitments into their home for lessons. In the years between 2004 and 2008, I met many students at Mookkamangalam, and I got to know three especially well: Gopal, Unnikrishnan, and Ajeeth. All three worked intensively over long stretches of time. They were Malayalis from different districts in the state, and they were deeply dedicated to learning Ayurveda face-to-face and improving their knowledge of the Sanskrit medical classics. Each told me in so many words that they felt the ayurvedic college they attended did not prepare them to make sense of their work with patients using the Ayurveda's "original" literature, which they regretted having to learn in a piecemeal, brief, and incomplete way at college.

"I learned 'Ayurveda Sanskrit' at college, with lots in English translation, and only at the beginning of my studies," Gopal told me during a relaxing weekend in the Kottayam District near India's longest lake, Lake Vembanad, and the region's famous Śiva temple, Thekkan Kashi.⁴⁸ He had learned Sanskrit before going to college, which enabled him to move through the *Aṣṭāṅgahr̥daya* with Priyankara rather quickly. He told me that one of his college professors impressed upon him the import of learning more about the collections of Caraka, Suśruta, and Vāgbhaṭa than the CCIM syllabus required. That professor directed Gopal to Mookkamangalam as an ideal place to do that, and after he met Priyankara he became her student. Whenever possible he also studied with Bhaskaran, and he excelled with both teachers. Unnikrishnan and Ajeeth were junior to Gopal at the same ayurvedic college in Karnataka, and they eventually found their way to Mookkamangalam by following in Gopal's footsteps. Like Gopal, and like numerous students I met every year until 2017, they rented rooms in houses nearby Mookkamangalam *mana*. They usually sat with Priyankara, and later with Biju, six days a week studying the *Aṣṭāṅgahr̥daya* and regional poison therapies. All the while they observed and essentially interned for their two gurus, as Priyankara and Biju treated patients arriving at their home for consultations and treatment every day. Bhaskaran visited his daughter's home regularly during this time, and he also made his own house available to his daughter's and grandson's students. All three of these students thus, by extension, consider Bhaskaran one of their gurus.

By the end of the first decade of the twenty-first century, Biju had taken over most of the educational demands and many of the clinical responsibilities at Mookkamangalam. Increasing numbers of students in Kerala, Karnataka, and

Tamil Nadu had been learning about the lessons Priyankara and Biju offered, and between 2008 and 2010 Mookkamangalam saw a steady uptick in requests for training. The work had become too burdensome for Priyankara, who also performed the daily domestic chores at the family's multi-building property. Biju had become an expert vaidya-guru in his own right by this time, and with more energy and time than his mother to devote to Ayurveda and *viṣavaidyam*, he was better suited to teach and manage the gurukula's clinic. His students since 2010 have come from various social and academic backgrounds. Often they were young men and women who had recently graduated from ayurvedic colleges, were nearing graduation or, like George, were pursuing a three-year post-graduate degree, the Ayurveda Vachaspati (MD[Ayu]). Whatever their credentials, most saw themselves as students of Ayurveda, and at Mookkamangalam they were recommitting themselves to "traditional training." I also met some teenagers studying with Biju who were simply contemplating Ayurveda as a potential profession, or who had heard about him and his family and, out of curiosity, approached him to be their guru for a short spell. That said, it is important to note that while Biju attracts students to study with him, gurukula students of Ayurveda in contemporary south India are the exception rather than the rule. Most ayurvedic college graduates do not complement their degrees with gurukula training, but move on to careers in Ayurveda or even, increasingly, take up opportunities to practice hybrid forms of "bio-Ayurveda" (that is, mixing biomedical and ayurvedic therapies).

The gurukula culture that Bhaskaran oversaw at Shantimana at the end of the twentieth century and that Priyankara and Biju created at Mookkamangalam in the 2000s began to change considerably in early 2009, when Biju started accepting students who were not from Kerala. His Malayali students of course knew Malayalam and had no trouble conversing with Biju and Priyankara when their studies of the *Aṣṭāṅgahṛdaya* drifted into discussions of Malayalam texts about snakebites or when they assisted their gurus with patient evaluations. By the early 2010s, I saw people arrive at Mookkamangalam from Tamil Nadu, Maharashtra, Haryana, and Himachal Pradesh. Biju naturally had to adapt his lessons and clinical work to suit the abilities of his students, mixing in Hindi at times to accommodate the north Indians who did not know Malayalam and occasionally using English as the lingua franca to communicate with a group of students from across the country and whose first languages were different. Whether from the north or the south, students go to Mookkamangalam primarily to learn the *Aṣṭāṅgahṛdaya* in the Sanskrit language. While this can be done in some graduate programs in the national and private college system in India, an intimate mukhāmukhaṃ-type experience must be sought elsewhere. Since Biju sees patients while he teaches, and his students observe him while he assesses and treats each case, anyone who studies with him, even if only for a short while, also learns how someone with a mukhāmukhaṃ education puts into practice the foundational texts of the profession.

Unlike Biju's own training, when he sat face-to-face with Bhaskaran at Shanti-mana, and his grandfather's veranda morphed from study room back to domestic space as soon as each lesson ended, since shouldering the teaching duties at Mookkamangalam Biju has had as many as seven students at one time attending his lessons. To accommodate the growing number of students, he had to stop sitting with students on the veranda of Mookkamangalam's main house, and he had a study hall built on the second floor of an adjacent building. It is a spartan room with white-washed walls, cement floor, low ceiling, and spacious windows that allow decent air movement. The space is accessible only by a very steep wooden staircase, which feels almost like a ladder going up and requires that one belay down with the assistance of a cabled rope. There is a ceiling fan and a stand-up fan with a rotating head, standard apparatuses for a non-AC space in Kerala wherever business is conducted during the day. Two uncovered incandescent lightbulbs illuminate the room when the sun has shifted to the west side of the building. Even with the fans and always-open windows, the study hall was often very warm. But the fans and dim lights made the space as conducive to studying as possible. Students from the north tend to be accustomed to the drier heat of the plains and foothills of the Himalayas, and it seemed to me that Virendra and Raju suffered through the humid Kerala afternoons more than Biju's Malayali students did.

Biju has also altered the physical layout of mukhāmukhaṃ in his study hall. Like his grandfather did, he dons only a white mundu and sacred thread, often with *tilakas* smeared on his forehead, arms, and chest from the morning *pūjā*. As he's gotten older, he grows his facial hair from time to time into a dark black bushy beard at his chin, which thins out as it climbs up his cheeks to meet his shock of jet-black hair. Nowadays, when Biju teaches he sits on a plastic chair situated behind a small wooden desk, which is nearly always strewn with books, bottles of decoctions, salves and other medicaments, and his and his students' cell phones. His students sit in chairs as well, across from him on the other side of the desk or off to his left on a wooden bench positioned beneath one of the room's windows. I was always instructed to sit to Biju's right when I was there, against the wall where the rotating fan was usually located. There is a little more leg room in that spot than in other areas, accommodating my 6'1" frame, and it's also next to one of Mookkamangalam's drug cabinets. This is an old metal shelving unit with windows on the doors, behind which sundry dried herbs, decoctions, oils, pills, books, mortars and pestles, and more sit. Biju likes to place me in this spot, he told me the first time he showed me the space, to get the most cooling from the two fans and to have clear sight lines of both of the room's windows. These things are all true of this position, and I always appreciated his thoughtfulness during long days reading texts and seeing patients. But a downside is that as the sun moves westward across Kerala toward the Arabian Sea, by about three o'clock in the afternoon Biju starts to look like a silhouette from this spot because the sunlight pours through the window and drenches his left side.

Biju and his students stop their readings and discussions and leave the study room whenever patients arrive on the porch beneath the second-floor study space. They usually announce their arrival with a soft yelp up the steep staircase or a loud knock on one of the porch's wooden beams. A whistle from one of the workers milling about the *mana* property sometimes also signals a patient's arrival. When a patient arrives by auto rickshaw, everyone in the study room usually hears the sputtering engine of the three-wheeler bounding toward the compound along the long dirt road that leads up to the main house. Patients are seen under the overhang on the porch, although, on occasion, if they are agile enough and if medicine from the small medicine cabinet is required immediately, they might climb the steep steps up to the study hall for a consultation.

Most of Biju's students rely on an ample supply of books when they study with him, and not only copies of the *Aṣṭāṅgaḥṛdaya*, which was the only physical book Priyankara and Biju used when they studied with Bhaskaran. They arrive at Mookkamangalam between eight and nine o'clock in the morning hauling backpacks stuffed with Sanskrit dictionaries, Malayalam-Hindi dictionaries, and English translations of *viśacikitsā* texts. They move back and forth between conversations with Biju, reading silently to themselves, and reciting aloud from the *Aṣṭāṅgaḥṛdaya* at Biju's direction. The profusion of physical books reflects the schooling that most of Biju's students have had by the time they study with him. They are products of an educational system based around textbook training and the compartmentalization of medical fields and subfields. In such an arrangement, ayurvedic college students learn to link textbooks on physiology, pharmacology, anatomy, botany, and so on to their respective classes, and as students advance in their studies and prepare for their careers, further specializations often follow. Biju does not ask his students to abandon their textbooks, however, if they get confused or need help tracking down an answer to one of his questions. Stacks of books are therefore commonplace in the study hall. Dual language dictionaries are a necessity now that the languages of instruction have changed from the standard two of Bhaskaran's and Priyankara's day—Sanskrit and Malayalam—to four—Sanskrit, Malayalam, Hindi, and English—to accommodate everyone.

Biju does not usually turn away students based on their background or depth of ayurvedic knowledge. If someone is interested in learning the *Aṣṭāṅgaḥṛdaya* and practical applications of that text, he teaches them. This open classroom policy has meant that he has had to modify his instruction so that a BAMS student and a licensed vaidya, not to mention the occasional curious teenager, can be equally engaged. It has also meant that he has had to sharpen his fluency in Hindi and English. Though he often downplays his linguistic abilities, Biju's Hindi is excellent, and his English is also very good. His nimbleness across multiple languages has affected him as a physician and teacher as much as it has opened up Mookkamangalam to a diversified student body. Work across four languages has forced him to

explore new ways of understanding *āyurveda* in the Sanskrit classics, in different idioms, so that he can relate it to others. Sometimes he does this in a single lesson, in rapid fire, shifting from explanations of disease causation or the treatment of a patient suffering from a spider bite using Sanskrit, then Malayalam, then Hindi, then English. Biju's mother and grandfather did not need to ponder the prospect of acquiring, much less mastering, a linguistic skillset like Biju's when they were teaching. For Biju this has been vital. His ability to communicate Vāgbhaṭa's classic as a dynamic, functional resource for healing has garnered him a reputation as a gifted and versatile teacher, which in turn has ensured a steady inflow of new (and returning) students with diverse educational and cultural backgrounds year after year.

The length of time most students can commit to mukhāmukhaṃ training at Mookkamangalam is perhaps the most challenging transformation for Biju since his student days. Although he had a student in 2017 during my last visit to Kerala who had been with him without interruption for nearly three years, and another who had been present off and on for three years, most of his students tend to drop in for a month or two at a time; some might do this periodically over a number of years. The lack of continuity means that Biju does not instruct in the same sustained way over months and years that his grandfather and mother did. If a student plans to stay for only six weeks over the summer, for example, even for intensive training, the foundational stage of articulation (*vākya*) will never amount to the memorization of an entire text, and depending on a student's ability in Sanskrit when he or she arrives, even mastering the *Aṣṭāṅgaḥṛdaya*'s Sūtrasthāna in six or seven weeks is a tall order. Still, young physicians and physicians-in-training are drawn to what they perceive as the literary sources of their medical tradition, which prior to meeting Biju they only got to know at college in a cursory way, and mostly used the language of allopathy to understand. That is why they continue to come to Mookkamangalam, and Biju has resigned himself to carry out mukhāmukhaṃ lessons that might center on a just a fraction of the *Aṣṭāṅgaḥṛdaya* or another text according to the needs and wants of the students. While a commitment to the practice of texts is clearly present among each cohort of students I met over the past two decades, an expectation to learn any of the texts in toto was usually lacking. So, Biju works with smaller, partial sections, trying to ensure they memorize some of the passages they want to know and maybe even progress through a detailed analysis or *vākyārtha* of those passages. The clarification stage typically receives short shrift. Inter- and intra-textual references in the final stage require a depth of knowledge and proficiency with a corpus of texts that most college-educated students do not have.

The turnover and diversity of students at Mookkamangalam has created a much more informal atmosphere at this gurukula than I observed at Shantimana. The intimacy of the guru-student relationship described in Sanskrit literature, which

Biju and Priyankara experienced with Bhaskaran, is now mediated by a host of social and professional constraints, tensions, and expectations brought by the college-educated students. The ones who already hold BAMS degrees are seeking a “continuing” or “further” education in a field they are already certified to practice, while their teacher, Biju, has neither that same education nor government authorization to practice Ayurveda. From time to time, I saw Biju’s students show some entitlement while speaking with him, challenging him or citing their college professors about an illness and symptoms that a patient presented if they thought it somehow ran up against something Biju said or the *Aṣṭāṅgahṛdaya* asserts. But on the whole his students showed deep respect and loyalty to him, and most admired him as an endless and generous font of healing expertise. Nevertheless, I noticed less outward deference to the authority of the vaidya-guru today than when I first started visiting Kerala and Biju was his grandfather’s pupil and, later, when Gopal, Unnikrishnan, and Ajeeth studied with Priyankara.

Biju told me many times that his students are much more gregarious and apt to object to his lessons than he was as a student. Although it would not have crossed his mind to question Bhaskaran’s judgment (aloud, at least), he has had to learn how to respect his students’ academic accomplishments while at the same time showing them there are aspects of *āyurveda* that are missing from their college studies. Most of his students are receptive to this. Yet, he still works very hard to make apparent the differences between what he teaches and practices at Mookkamangalam and what they study at college. At every one of Biju’s lessons that I observed, he showed genuine interest in the experiences of his students and their professors’ explanations about disease theory, pathology, and other medical topics. He also studied up on aspects of biomedicine taught at ayurvedic colleges, which invariably arise in discussions with his students. Biju and his students teach each other, in effect, using the expertise they have gained from their respective educations. Their associations and exchange of ideas therefore yield a new type of life science (*āyurveda*) and ayurvedic physician (*vaidya*) that is uncommon in ayurvedic clinics and colleges in India today.

TEXT-KNOWLEDGE-PRACTICE

Since serious philological engagement with the big trio of Sanskrit classics was progressively edged out of the ayurvedic college syllabus in the twentieth century, it is perhaps predictable that an ayurvedic gurukula would attract students and practitioners of Ayurveda in the twenty-first century. The ayurvedic gurukulas in central Kerala that I observed enable students to discover why and, fundamentally, how the collections of Caraka, Suśruta, and Vāgbhaṭa have remained consequential to healing across the many centuries the literature has existed. For those gurukula students at Mookkamangalam who return to a text like the *Aṣṭāṅgahṛdaya*

after having studied selections of it in college, the experience of sitting face-to-face with a slow and shrewd reader-cum-healer like Biju is a fresh, intensely philological enterprise that cultivates and connects textual mastery with patient awareness and responsivity.

Roland Barthes saw the mutual exchange of information that occurs among people every day as a constant re-production of texts.⁴⁹ Ideas are built up and revised in this intercommunication, mythologies are created and sustained, and political messages are delivered and consumed. Courses of memorizing and understanding the *Aṣṭāṅgaḥṛdaya* and parts of the *Carakasamhitā* and *Suśrutasamhitā* in a gurukula involve the constant re-producing of classical Sanskrit medical knowledge in the flow of discourse among teachers, students, and patients, and when there is learning for the student and healing for the patient, the texts effectively “work” for all three groups. Yet, texts that are shared and re-presented among them are not reducible to observable results in the way that, in a medial context, the work of drugs on sick bodies is usually apparent. Texts “work,” Barthes teaches us, because certain people are especially equipped to fashion and disseminate the kind of work that healing drugs can do.

The gurukula teachers I write about in this book re-produce texts so that they will be useful to students and patients. Students are able draw on this knowledge to bolster, in many cases, an already accredited education they see as distant from classical *āyurveda*, in the hopes that connecting the classical and contemporary domains of their profession will enliven their daily work and enrich their careers. The desire patients express for ayurvedic knowledge has presumably not changed much since the time of Vāgbhaṭa. They want this therapeutic information not for its literary sophistication, but to be able, in concrete ways, to know how to feel better. For patients, the knowledge of the big trio heals, and at Mookkamangalam Biju and Priyankara give this information to patients liberally, at no cost, with the aim of preparing them to be their own healers in the future.