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“Sometimes the Yoni Is Like a Jasmine Flower”: The Vayattati’s Hands in Twentieth-Century Kerala

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SUMMARY: In this article, the author relies on oral histories from *vayattatis* who worked in southwestern India over the course of the twentieth century and on archival research to examine the techniques and technologies that have been and continue to be a part of both pre- and postpartum care in southern India. The author tracks the wider social contexts and histories of this figure and examines how they came to learn, develop, and adapt their techniques of care for women and children through the generations. The author also examines how they constructed their corpus of authoritative knowledge as a necessary antidote to what they perceived as both the inaccessibility and technicism of biomedicine. The article also presents the vayattatis’ own critique of technoscientific modernities and the toll they took on women’s bodies. The article also examines how the vayattatis used unique local techniques including massage to facilitate postpartum healing and recovery.

KEYWORDS: technology, hands, childbirth, birthways, midwife, Kerala, India, twentieth century, techniques

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In 2011, I was traveling across the Indian state of Kerala, speaking to women who had worked as traditional midwives, or *vayattatis* ("stomach shakers"), as they were often described in Malayalam.[1] The project aimed to create a collection of oral histories and photographs of vayattatis and their knowledge for a women's history archive. The oral histories I collected came to capture historical shifts in the vayattatis' work, which was situated outside yet alongside biomedicine, their everyday experiences, their perceptions of caste dynamics in the distinctive contexts of birth and aftercare, their techniques for delivery and postpartum care, and their engagement with and understanding of modern technology and biomedicine. These oral histories form the foundation for this article, where I read vayattatis' own descriptions of their work alongside and against the archives of the colonial state, missionaries, Indian princely states and the postcolonial state to think critically about the incursions of modern technologies and techniques into vayattatis' work, to situate the vayattatis within a pluralistic medical landscape in Kerala, and to examine their responses to biomedicalization and technologization.

More generally, the traditional midwife (often also described as the traditional birth attendant) in South Asia has been the focus of considerable interdisciplinary research for decades. Recent work has represented this figure as an individual with an important and valuable set of skills in resource-poor settings, and established that childbirth in India demanded the skills of many women from within and outside the family.[2] Consider Eva Lukšaitė's recent

[1] I use the word *vayattati* here to denote the traditional midwife in southwestern India, other local words for this figure include *aachi*, *pathichi*, etc.

[2] Kalpana Ram, "Modernity and the Midwife: Contestations over a Subaltern Figure, South India," in *Healing Powers and Modernity: Traditional Medicine, Shamanism and Science in Asian Societies,* ed.

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ethnographic work, for example, which underscores how the *dai-ma* (traditional midwife in much of northern India) has not been marginalized and sidelined in modern Rajasthan but instead remains very important in melded institutional sites.[3] But the state of Kerala is a particularly interesting backdrop against which to observe the shifting fates of the traditional midwife.

Formed in 1950 from the Malayalam-speaking regions of Travancore and Cochin (princely states that were indirectly administered by the British) and Malabar (a directly administered district of the British presidency of Madras), this region has been frequently held up as a dramatic "exception" to the development trajectory of India in the twentieth century, as it has scored high on social development indicators without concomitant economic growth.[4] Among the frequently cited statistics on Kerala's atypical development, several relate to gender: female literacy, female primary school enrolment rates, fertility rates, maternal mortality rates, and female life expectancy.[5] Kerala was also among the first Indian states to achieve high rates

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Linda Connor and Geoffrey Samuel (Westport, Conn.: Greenwood, 2001), 64–84; Cecilia van Hollen, *Birth on the Threshold: Childbirth and Modernity in South India* (Berkeley: University of California Press, 2003); Maya Unnithan-Kumar, "Midwives among Others: Knowledges of Healing and the Politics of Emotions in Rajasthan, Northwest India," in *Daughters of Hariti: Childbirth and Female Healers in South and Southeast Asia*, ed. Santi Rozario and Geoffrey Samuel (London: Routledge, 2002), 109–29; Sarah Pinto, "Divisions of Labor: Rethinking the 'Midwife' in Rural Uttar Pradesh," in *Birth and Birthgivers: The Power Behind the Shame*, ed. Janet Chawla (New Delhi: Shakti Books, 2006), 203–38; Sarah Pinto, *Where There Is No Midwife: Birth and Loss in Rural India* (New York: Berghahn Books, 2008).

[3] Eva Lukšaitė, "'Everything in India Happens by Jugaad': Dai-mas in Institutions in Rural Rajasthan," *Med. Anthr.* 40, no. 8 (2021): 703–17.

[4] V. K. Ramachandran, "On Kerala's Development Achievements," in *Indian Development: Selected Regional Perspectives*, ed. Jean Dreze and Amartya Kumar Sen (Oxford: Oxford University Press, 1997), 205–325.

[5] Govindan Parayil, "The 'Kerala' Model of Development: Development and Sustainability in the Third World," *Third World Quart.* 17, no. 5 (1996): 941–57; Preet Rustagi, "Significance of Gender-Related Development Indicators: An Analysis of Indian States," *Ind. J. Gender Stud.* 11, no. 3 (2004): 291–343; K. Ravi Raman, ed., *Development, Democracy and the State: Critiquing the Kerala Model of*

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of institutionalized childbirths: 26 percent of all births were attended by (biomedically) trained midwives and physicians as early as 1973.[6] This number rose rapidly to 91 percent of all births in 1991, and the state now has among the highest rates of institutionalized births in the country.[7] This move toward institutionalized and medicalized childbirth (and out of the hands of the vayattatis) has been presented as part of the wider narratives on "development" and the trajectory of social progress in the state.[8]

Unsurprisingly, Kerala has attracted a great deal of research attention over the decades, offering many explanations for, and critiques of, this "exceptionalism." Economist Amartya Sen outlined gender dynamics, and the role of the "benevolent monarchies" of Travancore and Cochin, whose social welfare policies (particularly in education and medicine) created a foundation upon which subsequent communist governments would build with great effect.[9] Others have challenged and complicated these explanations for the "Kerala Model of Development" by underlining the importance of caste and religious histories, radical political traditions, and grassroots social movements, as well as pointing to those whose experiences were

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Development (Florence: Routledge, 2010); P. R. Gopinanthan Nair, "Decline in Birth Rate in Kerala," *Econ. Polit. Weekly*, February 1974, 323–36; P. G. K. Panikkar, "Fall in Fertility Rates in Kerala," *Econ. Polit. Weekly*, November 1975, 1811–18.

[6] Daniel Taylor and Carl E. Taylor, *Just and Lasting Change: When Communities Own Their Futures* (Baltimore: Johns Hopkins University Press, 2002), 108–9.

[7] IIPS and Macro International, *National Family and Health Survey (NFHS-3), 2005–6, India; Key Findings* (Mumbai, 2007), 12.

[8] V. Raman Kutty, "Historical Analysis of the Development of Healthcare Facilities in Kerala State, India," *Health Policy and Planning* 15, no. 1 (2000): 103–9.

[9] Amartya Sen, "Reply to Barbara Chasin and Franke," *The New York Review*, 38, Oct 24, 1991, 17; Jean Drèze and Amartya, Sen, *Hunger and Public Action*, (New Delhi: Oxford University Press, 2008.

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obscured by the claims of the Kerala model.[10] Historian J. Devika has suggested that a shared "desire for development" has become intrinsic to the construction of Malayalis as a cultural group.[11] In other work, she (and others) have made critiques relevant for this article, especially pointing to the construction of "modern" and "civilized" maternities, families, and childhoods in twentieth-century Kerala and how central such notions were within the broader articulations of the "emergent paternalistic modern state."[12]

Having situated this article against these complex and distinctive wider contexts, how then can we think about vayattatis within these histories, and why should we explore their work through the lens of the histories of technologies? Before I begin, however, I would like to note how this article understands technology. Debates around what technology means and denotes are continuing and likely to continue, but for the purposes of this article I draw on Eric Schatzberg's definition of technology as the "set of practices humans use to transform the material world, practices involved in creating and using material things."[13] Especially useful for this article has

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[10] See essays in Govindan Parayil, ed., *Kerala: The Development Experience: Reflections on Sustainability and Replicability* (New York: Zed Books, 2000); J. Reghu, "Community as De-Imagining Nation: Relocating the Ezhava Movement in Kerala," in Raman, *Development, Democracy and the State* (n. 5), 54–69; Manali Desai, "Indirect British Rule, State Formation, and Welfarism in Kerala, India, 1860–1957," *Soc. Sci. Hist.* 29, no. 3 (2005): 457–88; Barbara Chasin and Richard W. Franke, *Kerala: Radical Reform as Development in an Indian State* (San Francisco: Institute for Food and Development Policy, 1989); Praveena Kodoth and Mridul Eapen. "Looking beyond Gender Parity: Gender Inequities of Some Dimensions of Well-Being in Kerala." *Econ. Polit. Weekly,* 40, no. 30 (2005): 3278–86.

[11] J. Devika, "A People United in Development: Developmentalism in Modern Malayali Identity," *Center for Development Studies Working Paper Series* 386 (2007).

[12] J. Devika and Binitha V. Thampi, *New Lamps for Old? Gender Paradoxes of Political Decentralisation in Kerala* (New Delhi: Zubaan, 2012); J. Devika, *Engendering Individuals: The Language of Reform in Modern Kerala* (New Delhi: Orient Longman, 2007).

[13] Eric Schatzberg, *Technology: Critical History of a Concept* (Chicago: University of Chicago Press, 2018), 2.

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been Dana S. Belu's work, which critically contrasts the use of forceps, drugs, and surgical interventions in the "web of technologies" that constitutes "modern" medicalized childbirth with natural childbirth movements like Lamaze in the twentieth century in the "West."[14] Belu points out that even "natural birthing" practices like Lamaze or hypnobirthing cannot be understood uncritically as wholly "technophobic" because they substitute "technique (or techné) for a technical device in order to control the body and optimize the birthing experience."[15] This focus on technologies and techniques is important in the specific context of the traditional midwife in India because most works on technology and childbirth in India have largely explored biomedical technologies, ranging from forceps to drugs to induce labor, infertility treatments, and medical imaging technologies.[16] One very valuable example of how perspectives from the history of technology can enrich our understanding of Indian systems of medicine and care comes from historian Projit Bihari Mukharji, who unpacked how Ayurvedic physicians used their bodies as medical technologies and how Ayurvedic texts conceptualized the physician's body and its capacities as a technology in diagnosis.[17] For Mukharji, the "body was a medium through which sensory data was collected," even at the same time that the intrusions of small

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[14] Dana S. Belu, "Nature and Technology in Modern Childbirth," *Techné* 16, no. 1 (Winter 2012): 3–15.
[15] Ibid, 11.
[16] Cecilia Van Hollen, "Invoking Vali: Painful Technologies of Modern Birth in South India," *Med. Anthrop. Quart.* 17, no. 1 (2003): 49–77; Sreeparna Chattopadhyay and Suraj Jacob, "Changing Birth Practices in India: Oils, Oxytocin and Obstetrics," *South Asia Res.* 42, no. 3 (2022): 364–80; Arabinda Samanta, "Physicians, Forceps and Childbirth: Technological Intervention in Reproductive Health in Colonial Bengal," in *Medicine and Colonialism: Historical Perspectives in India and South Africa*, ed. Poonam Bala (London: Routledge, 2014), 111–27.
[17] Projit Bihari Mukharji, *Doctoring Traditions: Ayurveda, Small Technologies and Braided Sciences* (Chicago: University of Chicago Press, 2016).

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technologies like thermometers into Baidyans' everyday practice were reducing the conceptual value of the body as technology.[18]

Drawing on both Belu and Mukharji, then, I focus on the embodied knowledge of the vayattatis and focus on how their hands sensed, warmed, examined, massaged, and cared. Hands have hunted, raised plants and animals, spun cloth and yarn, tended for the young, sick, disabled, and dying, wielded and used weapons, built our villages, towns, and cities. Hands have also mediated our relationship to other technologies, whether the plowshare, the sword, the pen, or the computer and telephone.[19] Scholars have also examined hands as central to the practice of medicine and nursing; for example, anthropologist Vania Smith-Oka, writing about medical training in Mexican hospitals, conceptualizes hands as the "most basic technological implement available to clinicians" and "at the root of medical knowledge."[20] As one of Smith-Oka's respondents noted, "Our tools are our hands; hence one always has to know, and it's what I have always told the interns they have to know what their hand measures." Specifically discussing midwifery, Sheila Cosminsky's work detailed how her Guatemalan interlocutors, a mother and daughter pair, María and Siriaca, used their hands to massage pregnant women, to assess the position of the baby, and to estimate when the baby was due.[21] Although examining diverse

[18] Ibid., 233.
[19] For a great example of hands in the wider histories of technology and as embodying expertise, see Paola Bertucci, "Spinner's Hands, Imperial Minds: Migrant Labor, Embodied Expertise, and the Failed Transfer of Silk Technology across the Atlantic," *Technol. Cult.* 62, no. 4 (October 2021): 1003–31.
[20] Vania Smith-Oka, *Becoming Gods: Medical Training in Mexican Hospitals* (New Brunswick, N.J.: Rutgers University Press, 2021).
[21] Sheila Cosminsky, *Midwives and Mothers: The Medicalization of Childbirth on a Guatemalan Plantation* (Austin: University of Texas Press, 2016).

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spaces, these scholars underscore what is to be gained when we do take hands (and, by extension, the body) seriously.

I argue in this article that vayattatis were central to the landscapes of reproductive care, even in the wake of medicalization, especially in remote and underserved districts in Kerala. I begin by using missionary, colonial, and princely state archives to describe the growing medicalization of childbirth and the concomitant framing of the traditional midwife as a "threat" to the health and well-being of modern mothers and children. Drawing on oral histories, I detail how the vayattati herself experienced the institutionalization of childbirth and how, despite substantial encroachments upon the vayattatis' domain, certain roles in maternal/infant care remained uniquely hers. But the vayattati and her work was only an alternative to biomedicine; I suggest instead that her role was more complicated. This article unpacks the vayattatis' techniques, and especially how their hands sensed, warmed, examined, massaged, and cared, and how the their hands and eyes came together to produce, communicate, and replicate their embodied expertise on the birthing and postpartum body of the woman and the body of the newborn. I also detail how some vayattatis developed their own classificatory systems for the female body, based on the ease of childbirth and recovery.

Thinking about the vayattati forces us to acknowledge archival absences and perversions and confront who actually wrote the traces left behind about women in childbirth and the women who attended them. This article is therefore critical of the limits and hierarchies embedded in, produced by, and implicit within the colonial/postcolonial archive and/or the archive of the princely state, especially when it comes to the more "traditional" printed sources, as many others

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have also done so before me.[22] Antoinette Burton, for instance, describes the colonial archive as an "unstable ground of imperial desire and colonial power," and in such a space it can be especially difficult to disentangle the experiences and worlds of a figure as marginalized as the vayattati because of her position in the social and caste hierarchies, but also as a result of the perception that the work she performed involved handling "polluting" substances including afterbirth and other bodily fluids and solids.[23] Seeking her pasts solely in documentary sources in archives organized and written by European and American missionaries, colonial physicians, or educated Indian caste and class elites can only ever provide a partial and significantly biased picture. In these overlapping discourses, the vayattatis' hands were the object of fear and disgust, as these hands were believed to be able to produce only pain, disease, suffering, and death. It is inevitable that these descriptions reflect the priorities, preoccupations, and limitations of those educated and literate (predominantly male) caste elites who compiled and constructed the records. But the actual contact between the men who had produced these archives and midwives themselves would have been minimal, primarily because childbirth would have taken place in a female-dominated space before (and after) the intrusions of biomedicine.

I suggest that, if used judiciously and critically, oral histories can offer at least a partial methodological counter to the biases embedded in colonial, postcolonial, princely state and missionary archives when writing histories of the body in South Asia, especially when

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[22] Michel-Rolph Trouillot, *Silencing the Archive: Power and the Production of History* (Boston: Beacon, 1995); Saidiya Hartman, *Lose Your Mother: A Journey along the Atlantic Slave Route* (New York: Farrar, Straus & Giroux, 2007).
[23] Antoinette Burton, *Dwelling in the Archive: Women Writing House, Home, and History in Late Colonial India* (New York: Oxford University Press, 2003), 141.

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considering groups whose experiences were dissonant from narratives provided by official accounts and/or those who lacked visibility or power in local social structures. The possibilities of such hybrid methodologies in the histories of medicine in South Asia are tangible in, for example, the work of David Hardiman on the 1918 flu pandemic, using oral histories from Adivasi communities.[24] Oral histories also offer a potentially effective way of addressing critiques of the historian's reliance on textual sources in the archive, especially when writing the histories of childbirth.[25]

The Vayattati as "Death Incarnate"

Before I engage with the voices and experiences of the vayattati herself, I describe how this figure was perceived by the elite, colonial, and missionary gaze in the nineteenth and twentieth centuries. In medieval South Asia, midwives plied their trade as a monopoly and were perceived as indispensable community members who offered a necessary service for which they were paid.[26] Historical accounts of southwestern India support the idea that this relationship survived unchanged well into the nineteenth century, despite the relatively early introduction of

[24] David Hardiman, "The Influenza Epidemic of 1918 and the *Adivasis* of Western India," *Soc. Hist. Med.* 25, no. 3 (2012): 644–64.
[25] Nicholas B. Dirks, "Colonial Histories and Native Informants: Biography of an Archive," in *Orientalism and Postcolonial Predicament: Perspectives on South Asia*, ed. Carol Appadurai Breckenridge and Peter van der Veer (Philadelphia: University of Pennsylvania Press, 1993), 279–313; Durba Ghosh, "Decoding the Nameless: Gender, Subjectivity and Historical Methodologies in Reading the Archives of Colonial India," in *A New Imperial History: Culture, Identity, Modernity, 1660–1840*, ed. Kathleen Wilson (Cambridge: Cambridge University Press, 2004), 297–316.
[26] Tapan Raychaudhuri, Irfan Habib, and Dharma Kumar, eds., *Cambridge Economic History of India, c. 1200–1750* (Cambridge: Cambridge University Press, 1982), 316.

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biomedicine.[27] Ethnographic and census reports also give us a sense of the demographic diversity of vayattatis as a group in southwestern India in the nineteenth century and should serve as a warning about homogenizing this group. For instance, census reports suggest that women from Hindu and Muslim barber and/or *vaidyan* castes (indigenous physicians) often worked as midwives. In Travancore, women from the Kavadi, Komaram, Kshourakan, Maran, Ostta, and Taravan caste groups routinely acted as midwives, as did women from the Ampattan castes, where the men worked as vaidyans or traditional physicians.[28] In the state of Cochin, Mannans were "midwives and accoucheurs," as were women from the Pulluvan and Panan castes.[29] In Malabar, women from the barber, Velan, and Malayar castes acted as village accoucheurs and had a reputation for "skilfully manag[ing] midwifery."[30] Women who had experienced an irrevocable loss of social status, notably through widowhood, were known to work as birth attendants: this applied across varied religious and caste backgrounds.[31]

[27] Aparna Nair, "'The Indifferent Many and the Hostile Few': An Assessment of Smallpox Vaccination in the Erstwhile Princely State of Travancore, 1805–1945," *CDS Working Paper Series* 438 (November 2011).
[28] V. Nagam Aiya, *Report on the Census of Travancore, 1891*, vol. 2 (Trivandrum: Government Press, 1894), 314; Edgar Thurston and K. Rangachari, *Castes and Tribes of Southern India* (Madras: Government Press, 1909), 37, 42; *Census of India, 1901*: *Trivandrum Report*, vol. 26, pt. 1 (Trivandrum: Government Press, 1903), 271.
[29] C. Achyuta Menon, *Report on the Census of Cochin, 1891 A.D. 1066 ME* (Cochin: Government Press, 1893), 113, 126; L. K. Krishna Ananthakrishna Iyer, *The Ethnographical Survey of the Cochin State*, vol. 1 (Cochin: Government Press, 1905), 61.
[30] William Logan, *Malabar Manual*, vol. 1 (New Delhi: Asian Educational Services, 2010), 140; F. Fawcett, *Nayars of Malabar* (Madras: Government Press, 1901), 243; Thurston and Rangachari, *Castes and Tribes* (n. 28), 343.
[31] L. K. Krishna Iyer, *Report on the Census of Travancore, 1931* (Trivandrum: Government Press, 1941), 402.

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What is definitely shared by these sources is the sense that the vayattatis' role was defined by their exposure to, and management of, the "pollution" associated with menstruation, birth, and death. Birth, while bringing forth the baby, also results in the expulsion of afterbirth, fluids, urine, and feces. All these substances, including the fluids expelled from the umbilical cord, are all considered particularly polluting in much of South Asia and resulted in *pula* (taboos), which were shared among a broad swathe of religious and caste communities in Kerala, ranging from Syrian Christians to Adivasi (indigenous) and other caste groups (Ezhava, Nair, and Brahmins).[32] Such *pulas* included proscriptions around interactions with other members of the household, but also could mean restrictions around eating and touching food, water, and objects like clothing, bedding, plates, cups, and so on; objects that were believed to communicate and carry the pollutions of childbirth.

Through the course of the nineteenth century, the two princely states of Travancore and Cochin used their investments in "Western" medicine to signal their embrace of colonial modernity and to ward off further direct British intervention in their governance.[33] As a consequence, these states oversaw an expanding biomedical and public health infrastructure in the nineteenth century, with the introduction of a vaccination establishment, a gradually expanding network of women's and children's hospitals, employing increasing numbers of

[32] Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London: Routledge, 1966); "The Hill Arrians of Travancore," *Madras Weekly Mail,* April 16, 1890, 22; Susan Bayly, *Saints, Goddesses and Kings: Muslims and Christians in South Indian Society, 1700–1900* (Cambridge: Cambridge University Press, 1989), 252.
[33] Aparna Nair, "Vaccinating Against *Vasoori*: Eradicating Smallpox in the 'Model' Princely State of Travancore, 1804–1946," *Ind. Econ. Soc. Hist. Rev.* 56, no. 4 (2019): 361–86; P. Satheesh, "Western Medicine under State Patronage in Travancore: A Retrospect," *Proc. Ind. Hist. Cong.* 69 (2008): 847–54.

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women physicians (or "lady doctors"), nurses, and biomedically trained midwives.[34] As early as 1836, a small charity lying-in hospital had been established in the capital of Travancore, Trivandrum.[35] But missionaries were also significant figures in the landscapes of biomedicine in southwestern India, opening maternity hospitals, conducting vaccinations, and training nurses and midwives across the nineteenth century.[36] There were also government aided hospitals based on the Ayurvedic system that treated both women and children; eventually treating at least 400,000 annually by the beginning of the twentieth century..[37] In Cochin, the Mattancheri hospital for women and children was established in 1890. Some other hospitals, such as the Ernakulam and Trichur hospitals, had separate dispensaries for both women and children.[38]

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[34] *Travancore Administration Report, 1896–97* (Trivandrum: Government Press, 1898), 156; *Travancore Administration Report, 1898–99* (Trivandrum: Government Press, 1900), 102; *Travancore Administration Report 1925–26* (Trivandrum: Government Press, 1927), 123; *Travancore Administration Report 1933–34* (Trivandrum: Government Press, 1935), 186; *Travancore Administration Report 1935–36* (Trivandrum: Government Press, 1937), 196; *Travancore Administration Report 1940–41* (Trivandrum: Government Press, 1942), 164–65; *Administration of Cochin, 1903–1904* (Cochin: Government Press, 1905), 35; *Report on the Administration of Cochin, 1114 ME* (Cochin: Government Press, 1939), 150.

[35] Ulloor S. Parameswara Aiyer, Progress of Travancore princely state under Maharaj of Travancore Sree Moolam Tirunal, 1857-1924, (Thiruvananthapuram: Dept. of Cultural Publications, Govt. of Kerala, 1998), 519.

[36] Sam Nesamony, "Medical Philanthropy: Missionaries in Colonial South India," in *Medicine and Colonial Engagements in India and Sub-Saharan Africa*, ed. Poonam Bala (Newcastle upon Tyne: Cambridge Scholars, 2018), 176–201; Köji Kawashima, *Missionaries and a Hindu State: Travancore, 1858–1936* (Oxford: Oxford University Press, 1998).

[37] Kerala State Archives (KSA), Report on the Administration of the Aided and Recognised Ayurveda Medical Institutions of the State, for the year 1109 ME, 9; Burton Cleetus, "New Diseases, Newer Categories: Ayurveda's Engagement with Epidemics in Travancore," *Stud. Hist.* 39, no. 1 (2023): 17–84. It is worth noting Burton Cleetus's rich body of work on the histories of Ayurveda in Travancore here.

[38] T. K. Velu Pillai, *The Travancore State Manual*, vol. 3, (Trivandrum: Government of Travancore, 1940), 678.

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By the late nineteenth century, the traditional midwife in South Asia more broadly had become the subject of vigorous protest, campaigns, and occasional reeducation by the colonial state, local elites, the biomedical establishment, and other actors.[39] She was set up as an antagonist to modernity and biomedicine and vilified as a threat to maternal and infant health; she was seen as an anachronism bound by "ignorant" superstitions, and her work among pregnant women was considered "damaging and meddlesome midwifery."[40] Across India, colonial administrators, local elites, doctors, and medical missionaries, in addition to other actors, sought to transform, "modernise," and medicalize childbirth by removing it from the province of the traditional midwife and, in many instances, to also retrain this figure in an effort to both formalize and regulate their work.[41]

In southwestern India as well, this antipathy toward the vayattati was also increasingly evident and was inscribed into multiple archival spaces. In missionary narratives, the vayattati had been portrayed as ill-informed at best and dangerous at worst, endangering the lives of mother and child in the effort to disguise her ignorance and running away from the consequences of her actions. Writing in 1867, John Lowe, the Church Missionary Society missionary physician

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[39] Seán Lang, "Drop the Demon *Dai*: Maternal Mortality and the State in Colonial Madras, 1840–1875," *Soc. Hist. Med.* 18, no. 3 (2005): 357–78; Anshu Malhotra, "Of Dais and Midwives: Middle-Class Interventions in the Management of Women's Reproductive Health—A Study from Colonial Punjab," *Ind. J. Gender Stud.* 10, no. 2 (2003): 229–59; Geraldine Forbes, "Managing Midwifery in India," in *Women in Colonial India: Essays on Politics, Medicine and Historiography*, ed. Geraldine Hancock (New Delhi: Chronicle, 2005), 79–100.

[40] Forbes, "Managing Midwifery in India" (n. 39), 79; S. Chandrasekhar, "Some Observations on Infant Mortality in India: 1901–1951," *Eugenics Rev.* 46, no. 4 (1954): 213–25.

[41] Ranjana Saha, *Modern Maternities: Medical Advice about Breastfeeding in Colonial Calcutta* (London: Routledge, 2023); Siobhan Lambert-Hurley, "Subtle Subversions and Presumptuous Interventions: Reforming Women's Health in Bhopal State," in *Behind the Veil: Resistance, Women and the Everyday in Colonial South Asia*, ed. Anindita Ghosh (London: Palgrave Macmillan, 2008), 116–38.

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working in Neyyoor, complained in a report that "in obstetric cases our assistance is seldom sought till they have reached an almost hopeless stage, or until some unexpected complication occurs, when the native midwife suddenly disappears."[42] The British physician and employee of the colonial establishment in Madras, Edgar Thurston, described the "rude treatment of the village midwife" as the cause of "many of the uterine ailments which furnish patients to the maternity wards."[43]

By the beginning of the twentieth century, mentions of the dangerous vayattati became prolific in state records. Discussions of the vayattati in the legislature of the princely state of Travancore described this figure as "death incarnate," who "bring(s) untold misery on women in labour."[44] Mary Punnen Lukose, the first woman surgeon-general of Travancore, described "the terrible suffering of the poor helpless women and infants of this land" at the hands of the *vayattatis*, and especially commented on the alleged practice of packing the birth canal of the new mother with earth, in some cases in order to stop the postpartum bleeding.[45] In a rather dramatic dialogue recorded in the proceedings of the Travancore Legislative Assembly, an assembly member conveyed his conversation with dewan P. Rajagopalachari on the subject of the deadly vayattatis, who were purported to practice "jumping on the abdomen of a woman in full pregnancy and in the actual process of labour." This report so "shocked" the dewan that he "nearly fainted" during the conversation.[46] Ironically, around the same time that Dr. Lukose

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[42] "Medical Missions in South Travancore," *Christian Work*, August 1, 1867, 351–52.
[43] Thurston and Rangachari, *Castes and Tribes* (n. 28), 37.
[44] Kerala Legislative Assembly Library (KLAL), *Travancore Legislative Council Proceedings, Volume 7, 1925*, 794.
[45] Ibid., 804–5.
[46] Ibid., 794.

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criticized the work of the vayattatis, she also condemned the skills of physicians themselves, who displayed

> a considerable degree of ignorance of practical midwifery among medical officers . . . unnecessarily resorting to the use of forceps to deliver infants, and subsequently inflicting injury or mutilation on the child and mother. Training in practical midwifery would have provided the experience necessary to prevent such terrible errors. The training received by these doctors/surgeons in their medical schools is very limited and hardly sufficient to help them to stand on their own feet when confronted with a tolerably difficult case of labour.[47]

Lukose's words present an important critique here that is relevant to this article: the gruesome example she uses here demonstrates the dangers of the untrammeled medicalization and technologization of childbirth, especially when these processes were mediated through colonialism. Whether it was her intent or not, Lukose's description illustrates only that the growing use of technologies like forceps into childbirth came with risks, especially when it was not accompanied by training or skills to operate such technologies safely. Lukose contrasted the undeniable dangers of the physician's (unskilled) use of forceps and, to my mind, made an implicit argument for skilled midwifery and for the vayattatis' hands, although that was not definitively Lukose's intent.

Nevertheless, the 1920s marked a significant shift in the discourse around the vayattati and saw the implementation of the processes that accelerated the medicalization of childbirth in this region, a process that would reduce the importance of the vayattati and increase that accorded to the proponents and institutions of biomedicine. In this decade, both Travancore and Cochin made efforts to "educate" the vayattati. In Travancore and Cochin, nurses and midwives were urged to ensure that vayattatis attended training sessions at hospitals and Baby Week

[47] Ibid., 781–83.

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Exhibitions.[48] Every year the vayattatis were shown around the maternity wards and female assistant surgeons conducted lectures for them.[49] But these efforts were not particularly successful; Dr. Lukose, who was in charge of these efforts, complained to the Travancore Legislative Assembly that "they [the vayattatis] thought something terrible was going to be done to them and they were too frightened to come at first. I had to send the hospital nurses to their houses."[50] She was eventually successful in getting around fifty of them to attend the Baby Week Exhibition.[51] Rather than seeking to transform the vayattati into the (biomedically trained) midwife, this education was intended to ensure that more maternity cases were diverted to the hospitals through this indigenous practitioner and to reduce the role the vayattati played in childbirth.

As a result of the princely states' policies, a distinct medical hierarchy emerged in this region, placing male and female professionals trained in biomedicine at the top. Placed lower on this hierarchy was the biomedically trained midwife, while individuals offering "traditional" care like the vayattatis were slowly and surely pushed to the bottom. This hierarchy was further reified and demarcated and the work of the vayattati herself was criminalized through postcolonial legal provisions such as the Nurses and Midwives Act of 1953, which sought to regulate the registration and training of nurses, midwives, health visitors, and auxiliary nurse-midwives in the state of Travancore-Cochin.[52] This act was enforced by the Kerala Nurses and

[48] Ibid., 804–5.
[49] Ibid.
[50] Ibid.
[51] Ibid.
[52] KSA, *The Travancore-Cochin Nurses and Midwives Amendment Act, 1960, Act 15 of 1961, An Act to Amend the Travancore-Cochin Nurses and Midwives Act 1953.*

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Midwives Council, which comprised physicians, nurses, and biomedically trained midwives. Any "unregistered" individuals who presented themselves as nurses, midwives, auxiliary nurse midwives, or health visitors were, according to this act, liable to a fine of fifty rupees. The act also governed the use of instruments or any other intrauterine manipulations to effect delivery by nurses, midwives, auxiliary midwives' health visitors, or vayattatis, promising imprisonment of three months or a fine of one hundred rupees (which was a princely sum in the middle of the twentieth century).[53] There is definitely some evidence that this push began to transform women's attitudes toward and engagement with biomedicine: the administrative reports for the aggregated area of Travancore-Cochin in the 1950s suggest that women and children in this part of India constituted more than 70 percent of people seeking biomedical care in institutional settings.[54] This pattern held across all reported religious affiliations, with women consistently beginning to outstrip men seeking care at state hospitals and dispensaries.[55] The bulk of women reportedly seeking care was recorded as attending maternity and women's and children's hospitals, where the majority of cases were parturition cases.

In the years that followed, as medicalization continued to escalate in Kerala, the vayattati continued to be framed in opposition to biomedically trained actors. Consider, for example, the all-India National Family Health Survey, which reported in 1998–99 that 93 percent of births in

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[53] Ibid.

[54] KSA, *Administration Report of the Travancore-Cochin Medical Department, 1952–53*, 40.

[55] Ibid., 46; KSA*, Administration Report of the Travancore-Cochin Medical Department, 1950–51*, 40–46; *Administration Report of the Travancore-Cochin Medical Department, 1949–1950*, 52–55; *Administration Report of the Travancore-Cochin Medical Department for the Year 1953–54*, 57–60. In Kottayam district, for instance, Hindu, Muslim, and Christian women attended hospitals in much larger numbers than men belonging to the same groups.

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Kerala were delivered in a medical institution (compared to 33.6 percent of all births in India), and 94 percent of childbirths in the state were attended by a “health professional” (compared to 42.3 percent for all of India).[56] The “untrained” traditional birth attendant, as this figure was described in the National Family Health Survey from which these statistics were drawn, was explicitly separated out from biomedically trained “health professionals,” which included the “doctor, auxiliary nurse midwife, midwife, lady health visitor, and other health professionals.”[57] This rhetorical distance between the categories the of biomedically trained “health care providers” and the vayattati in the National Family and Health Surveys only underscores how exactly the labor of the vayattatis was understood in the push toward medicalization and modernization in the twentieth century. They had represented the antithesis of both modernity and medicalization to the colonial/princely state, and after independence in 1947 they continued to be framed in opposition to biomedically trained providers.

The Vayattati’s World in Her Own Words

Oral histories were collected from fourteen participants (two in Kannur, one in Trivandrum, two in Pathanamthitta, and nine in Wayanad) across the state.[58] It is probably useful to briefly explain my own position in relation to my participants. For them, I would have been clearly identifiable as someone from the Nair community because of my last name. Almost uniformly, they also

[56] International Institute for Population Sciences and ORC Macro, *National Family Health Survey, NFHS-2, 1998–99* (Mumbai: IIPS, 2000), 305.
[57] Ibid., 254.
[58] The *vayattatis* were of diverse religious and caste backgrounds; three informants were Christian, one was Muslim, and the remainder were Hindus belonging to various caste backgrounds.

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sometimes gently mocked my Malayalam (the language in which we collected these oral histories). As I had grown up outside India for a while, my Malayalam was a little tentative, if functional. At the time, I was working in a research center in Kerala and was sometimes fearfully misunderstood as being a doctor of medicine rather than as a historian. Respondents feared physicians and public health workers who continued to see the vayattatis as "dangerous," so this often required explanation and reassurance because they associated me, as a researcher, with the apparatus of the state and were afraid that they were being surveilled or tested. But despite these issues, most of the women I sought out eventually consented to being interviewed and having their work documented.

Most of the women were aged somewhere between their mid-sixties and their mid-eighties, but age was difficult to ascertain. In particular, the women I interviewed in Adivasi communities in a remote, rural, and sometimes inaccessible part of Wayanad had no idea what their birth date or year was. Consider Kembi, who told me trenchantly, "Among our people, we don't keep track of the time the way you people do. We didn't even keep track of the ages of the children in the family, But now, we need to know their ages, for school and ration cards." Thankamma, one of the oldest women I interviewed, for instance, was born sometime in the 1930s, but she had no clue when. This was the case with most of the women I interviewed, but quite a few women also refused to answer identifying questions and refused to be photographed or recorded with other demographic identifiers, and I respected their decisions. However, one rule of thumb for participants was that they were chosen because they were experienced birth attendants and had either been training or working since the late 1940s and 1950s. Most of them

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had retired and made a point of describing their work as a thing of the past, but some were still working.

The vayattatis occupied varying roles in different historical contexts. While they were solely described as birth attendants in the words of the colonial, missionary, and elite archive, the roles played by the women I interviewed were much more complex. Some women worked as the designated midwife for an extended family or within their own community, occasionally even crossing community boundaries to care for women and newborns. Others were members of a caste that had historically worked as birth attendants in the wider community, while also working as postpartum caregivers involved in providing a complex regimen of care for mother and infant and, more recently, providing a "traditional" complement to otherwise medicalized childbirth.[59] Of all the midwives I interviewed, only two, Saraswati and Kaveri, from the Malayar community, described themselves as "hereditary" midwives: "This [working as a vayattati] is the *thozhil* [work] our *jati* [caste] does: our men are *theyyam* dancers, and our women attend other women during birth."[60] The women I interviewed in other districts like Wyanaad, Trivandrum, and Pathanamthitta, on the other hand, had begun working as vayattatis almost by circumstance/accident rather than by conscious effort. All of them had begun acquiring their skills at relatively early ages, sometimes as young as fourteen. Many of them either were self-

[59] Van Hollen, *Birth on the Threshold* (n. 2); Pinto, "Divisions of Labor" (n. 2). This is by no means a new claim; both Sarah Pinto and Cecilia van Holle have already pointed out that the Indian *dai* is often perceived as the equivalent of the European midwife and was therefore thought to be responsible for attending to the pregnant woman, delivering the child and the afterbirth, and providing postpartum care. However, she did not occupy all these roles at all times and in all regions of India.

[60] *Census of India, 1961: Kerala*, vol. 7, issue 1 (New Delhi: Office of the Registrar General, 1966), 404. Theyyam is a dance form intended to appease the Hindu goddess Bhagavati.

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taught or had learned by observing other vayattatis at work or, in one instance, by working as an attendant in a Coimbatore hospital. "I was working in the hospital, for a long time, before I was told to go back home. I was there for a year, learning from the work there; but they told me to leave because I had no education. But after I came home, I began to attend pregnancies; although I hadn't actually told anyone that I had any learning about childbirth" (Leela, Wyanaad).

Jaya, also from Wayanad district, described how she began working, and how she began using her hands to deliver babies: "The first time, I was pregnant myself, someone called me and I went to see that woman, I rubbed on her stomach, and that was how I started working. Then women started calling me to them when they were giving birth. I first started working for women from my father's family, and then started looking at women from other homes." Many of these participants had also begun their work as early as the 1940s and were able to recall the decades when there were no easily accessible hospitals and/or doctors. For most of the twentieth century, the lack of medical infrastructure of any kind in or near their communities had rendered vayattatis the sole support to many women during childbirth. As Saraswati and Kaveri told me, "There was no hospital nearby for our women for many years; the closest was in the city of Kozhikode, too far away for us. We delivered almost all the babies in those days." They were not alone in this construction of their work: in other parts of Kerala, too, vayattatis understood their work as necessary to counter the absences of biomedicine and the failures of the state itself. As Ammini, from Wayanad, said, "We don't go to the hospital because we are here [in the remote hills of the district of Wayanad], we know how to deliver the children, and by the time they get to the hospital it would be too late. Also, they trust me." In Wayanad, dense fogs, flash mudslides, and sudden storms could and did reduce mobility significantly and cut off entire

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communities from quick access to hospitals and physicians. But as the medicalization of childbirth accelerated in the twentieth century, the spaces occupied by vayattatis were gradually eroded. For Malayar vayattatis, their work was also a path to social mobility for succeeding generations, who were no longer bound to caste-defined occupations. Instead, they were sent to school; some went to college and become nurses, as Saraswati said: “We were among the last that did this kind of work; because of our work, some of our children are living better than we did.” Despite the contractions of their worlds, the vayattatis considered themselves skilled laborers and therefore valued members of their communities as the only recourse for women during labor and after. As Kudumbi from Wayanad said, “None of the babies I delivered have died; they all live around me now; and I wouldn’t have a good name for what it is I do otherwise.” For the services they provided, informants were paid in various ways, depending upon the means of the households they attended: sometimes they were compensated with money; in other instances they were provided with the ritual offerings of a muslin cloth or *mundu* and betel nut and leaf, while others were provided more practical remunerations of oil, soap, and in some instances meat. The trust that vayattatis built within communities often meant that multiple generations of a single family were cared for and sometimes requested the services of the same vayattati.

Of course, to fully understand the worlds of the vayattatis, we also have to situate their labor within the contexts of caste. Most respondents described experiencing discrimination as a consequence of casteist notions of “inherent pollutions” ascribed to their work and bodies and caste locations, but also to childbirth itself. Mookiyamma (age unknown) described how “people from other castes would not enter our houses, because they had to bathe before reentering their

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own houses. Now it has changed somewhat. . . . It still happens sometimes these days." But no account was as striking as that of Kembi, who was from an Adivasi community in Wayanad:

> When we went to attend pregnancies in households of other castes, they would have a lot of other practices and beliefs. I once attended a pregnancy at the *thampuratis*—the local landlords—they couldn't find anyone else to help the woman, so they had to call me. I don't remember when it was. The landlords were Thiyyas—they had different practices. When we went there, and we touched them, it was impure for them. We could not go near their homes. If we touched them, they had to bathe even before they touched the child. They would bathe themselves, but we would help them bathe. We would stand far away from them and throw the water at them—we were considered impure for them. I also helped Nair women. We bathed Nair women who had recently given birth—but I was not allowed to touch their children—if we touched the children, they would not touch it [the child]. Now it is very different—I can even go as far as the kitchen. Recently, I helped a *thampurati* in Manjeri, it was very different—I did everything that she could not. . . . It was very different from the past; when they offered us *kanji* or rice, they would leave it for us at distance, and we would have to go and get it after they had moved away. In the past, we—the Panniyar, or what you call us, the Adivasis—were considered so impure that we had to walk at a distance from these other castes.

I would like to take a moment here to reflect on the complicated relationship between the vayattatis and "modernity" and all its material, technological, institutional, and biomedical accoutrements. They and their families were and are by no means isolated from biomedicine and its agents or institutions: almost without exception, they shared how they sought biomedical care and treatment when they needed it, using biomedical therapeutics and pharmaceuticals, and collaborated with primary health care workers and, in one notable case, with a gynecologist to ensure meaningful care for the mother and newborn. At the same time, other interviewees had bad experiences with biomedicine, and these experiences appear to have shaped the motivations for their work. One striking example was the case of Rashida, who was in her seventies when I had interviewed her. She described how she had given birth to her first child in the hospital, as had been recommended to her, but that it had been painful and disabling. "The first baby I had in the hospital, and the stitches they had given me had become infected, and I was in so much pain

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that I was walking on all fours, crawling for at least two months." A young woman then, Rashida had felt great shame about her condition, in addition to the pain and discomfort, but she had kept it secret from her family until her infection and pain had subsided. But when she gave birth to her second child, her prior injuries were exacerbated and continued to leave her in pain and disabled, as she was forced to have a hysterectomy and her stitches became infected once again, leaving her in additional pain for five months. Rashida had therefore experienced biomedicalization as pain and suffering, and in her own articulation of the purpose of her work, she described the vayattatis' work as complementary and necessary for women who were giving birth in hospitals and for their bodies.

Thankamma had worked as a postpartum caregiver for several decades and was in her eighties when I interviewed her, having been born sometime in the 1930s. She described in much more subtle language than Rashida how her own hospital birth experience had been traumatic and how she came to learn the skills she had because of her time in the hospital: "My first pregnancy was in the Kundera Mission Hospital at the age of eighteen; I had stopped urinating and defecating. I didn't have a mother to take care of me; the men of the family took me to the hospital, and I stayed there for at least seven days. All my other pregnancies, I gave birth at home, attended by my mother-in-law. She was an old woman at the time and was very knowledgeable."

At the same time, most of the women I spoke to were also very careful to articulate their work as being in line with (and no threat to) medicalized birthways. Some of this may well be the consequence of the long program of demonization of the vayattatis and their hands described in the previous section, a process that has continued in modern Kerala. Simultaneously, they also

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conceived of their contributions are possessing real meaning and value alongside (and sometimes outside) the work of biomedical institutions, physicians, nurses, and "English medicines." This is especially evident in the fact that many vayattatis recounting folding in medical technologies and techniques for both mother and child into their own practice. Consider, Thankamma, for instance, who described how antibiotic medications were prescribed by physicians: "Previously we used to use *anjannenathailam* [a complex Ayurvedic concoction composed of several medicinal herbs steeped in oil and sold over the counter] to rub the belly button of the infant. Now we use the powder that the doctors give for operations. I rub it on the belly button of the child to make sure that no swelling happens."

What of the actual work of the vayattatis? Once they were summoned to a house, the first thing vayattatis usually did was set up a relatively private space for the birthing women and then make women lie down on their backs on a grass mat (*pai*) in some cases. The vayattatis' embodied knowledge of childbirth and postpartum bodies was central to their everyday practice. For example, hands were central to the preliminary external examination of the stomach, and Saraswati described how they conducted internal assessments using their left index finger, never the right hand: "It's all in that one finger." They occasionally used sesame oil as a lubricant on their left index finger, and this initial internal examination was restricted to the length of their index finger. This finger was used, they reported, to assess the position of the baby and how far along labor was, to assess dilation. Kochikka, from Trivandrum, reported using "very hot water" to rub their hands around the stomach of the woman and noted that over time vayattatis like her had developed the manual skills to determine the position of the child's head and to assist in the birth: "With the fingers, you had to probe the stomach from outside and you could tell whether

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the child's head was stuck somewhere before it started to come out. If it was, then I used the hot water and til oil to massage the baby's head from outside until it came to the right spot."

Saraswati and Kaveri also described how they had developed a classificatory system for women based on the results of this initial manual examination. Women were described as belonging to three categories, based on the ease of childbirth: those having a *shankh yoni* (shell yoni), *mullapoo yoni* (jasmine yoni), and *nellu yoni* (unhusked rice yoni). Birth was considered easiest for the latter two categories of women because their bodies were considered to "open" during childbirth much quicker. Shankh women therefore were believed to experience significantly more pain during labor because of the "narrow and twisted" birth canals that the vayattatis estimated using their hands during the initial examination. Women were also distinguished from each other based on the resilience of their bodies to the physical traumas of childbirth: some women had a *pazham thadi* (banana body), which bruised easily and took longer to heal. Other women had a v*arikka thadi* (firm body), which was stronger and resilient to wounds and the physical demands of childbirth. Such taxonomies of the female body were not restricted to Kerala: Asha Kilaru and her collaborators interviewed several traditional midwives who took care of postpartum women during "bananthana" in the south Indian state Karnataka, and their respondents also described women's bodies in similar ways: "She [the woman in labor] has a tender body. If we do not do a strict bananthana, she will be weak in later life, she should become like the tip of a mantani leaf—thin, tender, fresh and supple."[61] They described these

[61] Asha Kilaru, Zoe Matthews, Jayashree Ramakrishna, Shanti Mahendra, and Saraswathy Ganapathy, "'She Has a Tender Body': Postpartum Morbidity and Care during Banathana in Rural South India," in *Reproductive Agency, Medicine, and the State*, ed. Maya Unnithan-Kumar (New York: Berghahn Books, 2004), 161.

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categories in vivid and evocative language, drawing extensively on the natural world, including flowers, plants, trees, animals, and rocks, and to a lesser extent on the religious and supernatural to create these unique nosologies, which extended to the form of the fetus to the newborn as well: "Some women when they are pregnant—they are pregnant with *bhootams* [ghosts/spirits] twin pregnancies, and babies like Ganapati." Saraswati also described how she and Kaveri had used their hands as sensing and assessing tools to ascertain the nature of these conditions:

> The *Ganapati*—when the mother gets pain, and we put our fingers inside it to inspect it, we can feel the difference in the baby and the tails and the bones. And the fingers are different—they don't look normal but closed up. And its *lingam* is not in the form of a male, but in the form of a female, and that too, not completely in the form of a female. As for the *bhootam*, the back of the baby's head is like a hibiscus flower in bloom—its hands and feet will be webbed and will not be moveable. Such babies usually die in the stomach of the baby itself and then are only then born. Then, there are also elephant babies—these look like the *ammikalle* [a large stone]. It has all the features of an elephant, with a huge stomach.

When it came time to deliver the baby, one preferred birthing position was a squat, with the bottom resting on the heels and the knees spread, although one informant reported laying the woman on her back, lifting her knees up and outward. One informant reiterated that "the place where urine comes from" should not be covered by the heels of the woman while she squats. The vayattatis' perceptions of female anatomy also resulted in certain taboos around the way the female body was touched during labor. In Kannur and Trivandrum, the vayattatis were very particular that they never touched the upper half of the women's vaginal openings, where the *moothra-njarambu* (urine nerve) is located and should not be touched. The index finger was used to place pressure on the lower wall of the vagina, which they reported as giving them control over the women's contractions during labor.

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Many of the women I interviewed were especially sensitive about their reputations for using their hands harshly or violently as interventions in this particular moment: the accounts varied about when vayattatis practiced "shaking the stomach" (*vayare kulikkum*) was permitted during the course of labor. In Kannur, Saraswati and Kaveri were very emphatic about how careful they were to not harm the laboring woman or baby with their hands: "We shake the stomach two or three times *before* [emphasis added] the pains really start, and when you do that, the stomach doesn't move much and gets stuck, we can know whether the time for birth has come or not." In Wyanaad, this shaking was reported as the primary technique used to speed up delivery, but the informants insisted they only used external manual adjustments before and during labor and were emphatic about never using their hands to make internal adjustments of the baby's position. While in the field, I had also spoken to some grassroots public health workers in Wayanad, who were critical of the hygiene and sanitary practices of the vayattatis, but admitted that vayattatis had an undeniable knowledge of childbirth and its mechanics, even though they did not use hot water during their deliveries. They pointed especially to the vayattatis' manual skills in palpating, sensing, and delivering babies.

If labor was extended and difficult, the only aid most of the women I spoke to used was oil; and that too was applied externally to the vaginal opening. In the rest of Kerala, informants were emphatic that they only maneuvered and shook the stomach externally before and only in between contractions; they considered it extremely harmful to the uterus (*garbhapatram*) if this rule was not adhered to rigidly. Only when contractions had progressed to the point of dilating the cervix were the vayattatis permitted to "gently shake the stomach." Whatever the minute differences, what is clear is that there were stark values ascribed to manual skill and dexterity in

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delivering babies, and these skills often required decades of practice to acquire. There were some exceptions to these acquired proscriptions around the use of their hands: for example, breech births were an exceptional case where almost all the vayattatis used internal manipulation to change the position of the baby in the womb.

> If the legs are coming out first, we first use the fingers to gradually push one foot out and then another by pushing. We make sure not to hold the baby so that it faces down, if we do so then they would slip out of our hands. We reach in with the index finger, push the baby's trunk out and gradually push each shoulder out so that all that is left of the baby to come out is the head. We reach in with our fingers, and gently pull the baby's head out. (Kaveri, Kannur)

> When the baby comes shoulder first or the head doesn't come first, I can fix it. That happens, and I can fix it. I only massage the stomach, and I can turn the baby around. I push the stomach and massage the thighs and I can turn the baby around so that it comes out head first. (J, Wyanaad)

> I never use my fingers inside the woman, except when the baby comes feet first, then I put my fingers in, push it in and make sure that the head comes out first instead. (Lakshmi, Wyanaad)

> When babies come feet first, or shoulder first, my mother used to be able to shake the stomach and change the position of the baby, but I didn't learn how to do that. I use my hands. (Lekshmi Amma, Wyanaad)

It is, however, very unlikely that external manipulation alone was adequate to manage the delivery of a baby in the breech position, and it is far more likely that the vayattatis did not want to disclose their methods, given their mistrust of the state apparatus in general and strangers (like me), particularly in view of the fact that they were being told by grassroots health workers that they were to ensure that all women about to give birth were to be transported to the community health centers in the area.

Informants also reported managing cases of labor where the umbilical cord had wrapped itself around the baby's neck. Birth defects are also reported: two of the vayattatis had delivered

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babies with *erata-thala* (two heads) and described what appeared to be neural tube birth defects. In all these cases, the babies did not survive long. But perhaps the most reported complication was extended labor (for as long as two or three days), which was reported by nearly all informants. The vayattatis admitted they had no remedies; they simply waited for the baby to be born. However, some of the vayattatis who were still attending women when I interviewed them reported that they usually urged the families to take the women to the hospital when labor was extended. To what extent this was effective was unclear, given the isolated nature of their practices. To truly know the nature of their response during birth complications would require extended ethnographic research on site.

After the baby was delivered, vayattatis waited for the afterbirth to be expelled and for the baby to start crying. There was a ubiquitous awareness of the risks of cutting the cord before the afterbirth had been completely expelled. As Kochikka described it in quite graphic terms, "If we leave any part of it [the afterbirth] in, then it will rot, and then we have to take the mother to a hospital and get her operated on. That is a very serious matter." As Saraswati concurred: "The stomach will become swollen with *kachara* [trash/harmful material]." One midwife, who refused to give me her name, for fear of being identified by the biomedical/state apparatus and came from an Adivasi community, framed their handling of afterbirth in terms shaped by the distance of their communities from institutionalized health care systems: "If we don't do that [wait for all the afterbirth to be expelled], then something bad may happen. We are at home, giving birth, and if something happens . . . what can we do?" Some precautions were also followed when it came to touching the baby during and after delivery. When the baby's head became visible, the vayattati used a cloth to support the baby's neck and head and gently pulled the baby out. The

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baby's head and neck were to be held with great care, as they were considered to be very tender: as Kochikka described somewhat graphically, "if we touch the baby's head too roughly when it's coming out, it will fall apart [*picchi povum*]."

Almost at every stage of the process of delivery and postpartum aftercare, the skilled and practiced hands of the vayattatis were central to their craft. Some of the vayattatis either rubbed or shook the stomach to expel the afterbirth, and some used string wrapped around the umbilical cord to draw it out. But these practices were not universal: but all the women I spoke to were explicit in their belief that pulling out the afterbirth was dangerous to the mother and could damage her *garbhapatram* (womb) and that it was best to wait for it to be expelled naturally and intervene manually only if necessary. Several reported giving mothers an emetic (salt water) to drink, as it was thought to aid in the expulsion of the afterbirth. After the afterbirth was expelled, the vayattatis awaited the baby's first cry to sever the umbilical cord. If the baby was silent and no first cry was heard immediately after birth, to the natural and great concern of the mother and her family, the vayattatis reported that they took the afterbirth out and put it on a hot shard of a broken clay pot. "When the afterbirth started to smoke, what happens is that the baby cries out . . . it [the afterbirth] is its [the baby's] companion [*changadi*] in the mother's stomach and the heat of the pot makes them cry out, and we know that the baby is alive!" (Saraswati, Kannur).[62]

Using their hands again, vayattatis usually measured off the umbilical cord to the length of the index finger and cut it, which was believed to be necessary to stop any bleeding. The

[62] Veena Poonacha, *From the Land of a Thousand Hills: Portraits of Three Kodagu Women* (Bombay: Sparrow, 2002). Poonacha described something very similar among the Kodagu women of Coorg.

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stump was also tied off with cord or thread and the afterbirth disposed of carefully.[63] This one moment allows us to examine one technological shift in the everyday practices of the vayattatis. Some vayattatis had begun their careers using threads, bamboo shards, and natural fibers to cut the umbilical cord; they also reported gradually changing that practice and using blades of some sort, but most often disposable razor blades (some had even shown me a brand-new package of razor blades they had saved for this purpose alone, in one instance stored in a stainless steel vessel). Pachai, who was in her sixties and lived in Wayanad, was emphatic that the cord had to be cut "with a blade—not a knife—but a blade." The vayattatis' use of razor blades also pushes us to think about the wider histories of this small object, as part of the technological transformations attendant on colonialism, capitalism, and subsequent nationhood. Disposable razor blades were invented by King Gillette in the United States and by 1905 were being sold with the slogan "No Sharpening, No Honing," explicitly designed as a cheaper alternative to the razors that required blades that had to be sharpened repeatedly.[64] But Giles Slade also suggests that this was one example of a technology built for obsolescence, created to be used for a short period of time and then discarded and replaced, creating a reliable market for producers.[65] By 1931, Gillette had been granted the sole legal right to sell specific brands of their razor blades in

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[63] Only three of the *vayattatis* interviewed in Kerala reported disposing of the afterbirth themselves (and it should also be noted that they performed this function for women in their own extended families); the remainder were quite insistent that their roles were restricted to the safe delivery of the child and to some postnatal care and were not involved with the management of the pollutions of childbirth.
[64] Giles Slade, *Made to Break: Technology and Obsolescence in America* (Cambridge, Mass.: Harvard University Press, 2006), 16–18.
[65] Ibid.

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British India and were suing companies infringing on their monopolies.[66] Although invented to be used in the safety razor, the razor blade nonetheless became a part of everyday life in South Asia in other ways. Newspapers in the 1930s and 1940s described prisoners escaping from jails with razor blades hidden in their mouths and nurses treating snakebite wounds with razor blades in the field.[67] By the 1940s, India was producing razor blades indigenously, and by 1957 an increasingly nationalist India committed to developing Indian industries banned the import of foreign razor blades.[68] Certainly, razor blades were widely available by the time the women I knew were attending births or were being apprenticed in the 1940s and 1950s. How can we interpret the vayattatis' use of razor blades in the symbolically and therapeutically important act of cutting the umbilical cord? Razor blades are one case study of what David Arnold described as small "everyday technologies," or objects that were devised to meet "Western needs and Western tastes" but had "other lives just as they had other locations."[69] Disposable razor blades that had been designed to replace worn blades in a safety razor for shaving took on other meanings and uses in the hands of the vayattatis and represent one way to think about the hybridity introduced into their practice by the technologization of everyday life.

[66] "Patent Rights Dispute: Alleged Imitation of Razor Blades before the Hon'ble Mr Justice Rangnekar," *Times of India*, January 15, 1937, 17.
[67] "Save the Old Razor Blades," *Times of India*, November 16, 1937, 14.
[68] "Ban on Import of Foreign Razor Blades," *Times of India*, October 1, 1957, 1.
[69] David Arnold, *Everyday Technology: Machines and the Making of India's Modernity* (Chicago: University of Chicago Press, 2013), 6.

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Conclusions

In this article, I used vayattatis' oral histories and their own words to complicate existing narratives on their work, to describe their worlds and their engagements with biomedicine, their understanding of their precarious, changing roles through the decades, and the paths through which embodied knowledge of midwifery was transmitted. I also have argued that the existing colonial, missionary, and princely state Indian archives should be read very carefully as only ever a partial representation of vayattatis, their everyday work and experiences. Oral histories offer a counternarrative to the totalizing categories and flattened descriptions of the colonial/missionary/elite archive. From their own perspectives, the vayattatis' hands were trained and central to the sensory techniques they had acquired through practice, techniques of assessing the progress of labor, the position of the baby in the womb. In biomedical, colonial, and elite discourse, of course, these very hands were represented as dangerous, germ-ridden, and destructive, rending bodies apart and spreading disease. I demonstrated the many paths to working as a midwife and how vayattatis acquired this embodied knowledge through a system of apprenticeship and corporeal prerequisites before they were allowed to practice as vayattatis. I also described a range of shared beliefs about the postpartum body. Equally important, I demonstrated how vayattatis' techniques were unquestionably transformed by biomedicalization and "small" technologies of the body like the razor blade, but also that many of them saw hospital births as gradually becoming the universal condition. As Kembi informed me, "Now, everyone goes to the hospital, at Kalpetta. No one knows the old ways of attending births, those times are past; maybe it is best that people go to the hospital."

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ACKNOWLEDGMENTS: Funding for this project came from a generous grant from the AwaBhai Library, at the SNDT Women's University in Mumbai. The oral histories are currently archived here: https://www.sndt.ac.in/index.php/rcws/awa/collection-at-awa.