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Script as constellation among Munda speakers: the case of Santali

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ABSTRACT

Since the early twentieth century, numerous scripts were developed for Munda languages such as Santali, Ho, Sora, and Mundari in eastern India. Unlike Brahmi or Persio-Arabic scripts, these scripts are alphabetic, yet unlike Roman, many of the letters have visual meanings in addition to representing the sounds of language. Though these scripts are recent in origin, a closer analysis of their structure and conditions of emergence reveals exposure to wider, and long entrenched, graphic trends in South Asia, including ritual diagramming, Sanskritic notions of phoneme-grapheme correspondence (*akṣara)* and European ideas of phonological representation. The article draws on missionary archives and ethnographic field research among the Santals, the largest Munda-speaking tribe. It argues that for Santals, a wide exposure to different graphic traditions in combination with a politics of autonomy in the form of the Jharkhand movement led to a proliferation of independently derived scripts in the mid-twentieth century. The Santali scripts are then compared with other Munda-language scripts and recently created scripts in Southeast Asia, highlighting shared structural and historical elements. In focusing on scriptmaking as a practice, the article demonstrates the importance of writing to history, politics, and aesthetic expression among eastern India's Adivasi communities, contesting long-held stereotypes that grounds Adivasi cultural identity primarily in oral practices.

India's Scheduled Tribe communities (or Adivasis)[1] have long been considered synonymous with oral traditions. Since the nineteenth century, collections of tribal narratives have continually been classified as *folklore* not literature, with the former rooted in the oral and the latter in the literate.[2] Even today many academic departments in India equate 'tribal' with 'folklore' studies.[3] Recently, scholars have sought to raise these narratives to the status of 'literature,' but not without asserting the primacy of the oral tradition in Adivasi life, creating a distinction between the expressive life of Adivasi and those of mainstream society.[4] For instance, the Sahitya Akadami, India's main literary body, has recently instituted a project that aims to document and support 'tribal and oral literature,' once again affirming the close, almost indistinguishable, relation between the two.[5]

Yet the assertion of orality as the primary feature of Adivasi expressive life has the unintended consequence, as Prathama Banerjee has argued, of displacing Adivasi practices onto the realm of 'pure culture,'[6] rendering these practices 'resistant to interpretative use by historians' and, in turn, preventing the 'adequate political mobilization of such practices.'[7] The process of 'culturalization,'[8] which equates the figure of the Adivasi with oral performance, has often placed Adivasi political activism in a difficult position with respect to identity assertion. As Banerjee notes, the representation of Adivasi communities as 'pure culture' has become so dominant within state institutions and popular media, that, as part of a wider politics of recognition, 'even the self-

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aware Adivasi herself seems to be seeking her primary identity in an aesthetic space of songs and festivals, away from the everyday.'[9]

This article argues that the focus on orality as the dominant framework for describing and analysing Adivasi expressive life overlooks the long exposure to different literacy traditions.[10] This is especially the case in the early twentieth century, when members of eastern India's several Austro-Asiatic speaking communities engaged in a conscious process of creating scripts with visual and structural qualities not seen in any other script system (Brahmi, Persio-Arabic, Roman) circulating in India at the time. While distinct from extant Indian scripts, an analysis of these script systems reveals the political and social history of writing and literacy contact that characterized late colonial and early pre-colonial India. Thus, Adivasi communities such as the Santals, who I will be discussing here, still characterized by their association with orality, are responsible for the creation of India's first *modern* scripts that nevertheless carry within them a history of writing stretching long into the past.

The Santals are South Asia's largest Adivasi community with a population of over 6 million,[11] dispersed across the wide expanse of eastern India and across the border into Nepal and Bangladesh. In India, Santals mainly reside in the states of Jharkhand, West Bengal, Orissa, and Assam. Santals, like many of eastern India's Scheduled Tribe groups, speak a Munda language, part of the Austro-Asiatic language family, but are also bi- or trilingual in the region's dominant Indo-European vernaculars. Santals have long been considered an archetype of the 'culturalized' Adivasi; their dance and song celebrated by creative stalwarts such as Rabindranath Tagore, as well as painters like Jamini Roy, and filmmakers like Satyajit Ray.[12] Yet, I suggest that unlike their characterization in literature and popular culture as sensual and oral, a world apart from the 'mainstream' civilization defined by literate norms, Santals have had long-standing exposure to multiple forms of writing. The creation of multiple scripts in Santali, and also, as will be discussed later, in other Munda languages such as Sora, Ho, and Mundari, stems from a more recent history of political activism, notably the movement for an independent, Adivasi-majority state known as Jharkhand. However, a closer analysis of these scripts' creation, structure, and circulation also reveals a deep history of contact between indigenous systems of diagram-writing with European and Sanskritic literacy traditions.

The scripts that emerged during this period among the Santal, Ho, Sora, and other Adivasi communities occupy a special place within the history of grammatology in the Indian subcontinent. Not derived solely from extent Brahmi, Persio-Arabic, or Roman writing systems, they serve as contemporary visual and linguistic constellations that connect practices of ritual diagramming, called *ol*, with a notion of *akṣara* (phoneme-grapheme correspondence) grounded in a Sanskritic language ideology and western conceptions of alphabetic representation derived from the Roman script brought by Christian missionaries. In focusing on script-making and the exposure to multiple writing traditions, I claim that the newly created scripts mediate histories and spiritual relations while at the same time incorporating elements of both Sanskritic and European literacy practices. In addition, I provide a history of Adivasi encounters with literacy that places these scripts firmly within the history of India's writing traditions while elucidating the political and sociolinguistic conditions that led to their emergence.

The logic of *ol*

In Santali, as in many Adivasi languages throughout India, the use of the word *ol*[13] encompasses a continuum between 'writing,' in the contemporary meaning of the word, and 'drawing,' including the practice of ritual diagramming.[14] As the distinction between writing and drawing is variably evaluated in many societies throughout the world, scholars have recently sought to open up the study of grammatology to more a more diverse range of graphic representation. For example, Boone begins her edited collection on pre-Colombian American graphic traditions by claiming writing as any practice of 'communication of relatively specific ideas in a conventional manner by means of permanent, visible marks.'[15] This not only includes graphic systems such as Mixtec and Aztec ideography, but also thoroughly 'modern' notational systems such as music or mathematical notation.[16]

Following this definition, Santal ritual diagrams, called *ol*, comprising what Carrin-Bouez calls a 'formal system of interpretation'[17] shared between human participants and Santali spirits (*bonga*),[18] could also be seen as a form of writing. These diagrams are employed on occasions such as agricultural rites, healing rituals, and most importantly on the occasions of animal sacrifice where *bonga*-s are persuaded to inhabit animals, who are then sacrificed and consumed by participants[19] (see Figure 1). Priests and other ritual specialists learn to correctly order these diagrams, which, depending on the occasion, include round, horizontal, and hexagonal figures that contain a coded accumulation of points,[20] that ensure ritual action may be carried out. Like in conventional writing, errors in the code may lead to miscommunication and loss of ritual control, which could result in severe consequences, while successful performances direct the interaction towards the goals of prosperity, healing, and well-being. While the use of diagrammatic writing continues to have widespread ritual significance for Santals and other Adivasis, the tradition is by no means unique to these communities. For instance, in tantric ritual practice, which was widespread in eastern India across caste lines, the 'language' of diagrams allowed practitioners to connect multiple domains of material and non-material experience.[21]

In addition to ritual diagramming, there are also other practices also termed *ol* that connect collectivities both to each other as well as to the *bonga*-s. For instance, Santals are divided into eight major exogamous clans,[22] but each of these clans further divide into a series of sub-clans (*kunt*). Santals narrate their history through a series of migrations, in which over time, an original kinship unit became scattered, first into clans, then sub-clans. Each sub-clan narrates a specific migratory history, and the founding of sub-clans along the migratory route is tied to tutelary deities (*abge bonga*), who continue to involve themselves in the affairs of the clan. During the *Sohrae* festival (winter harvest), as well as during the ceremonies specifically directed to the sub-clan *bonga*, the *abge*, houses are 'written' with a particular diagram of the sub-clan, called *koṇḍ* or *koṇḍ ol*. All houses of the same sub-clan, no matter what village, share the same *koṇḍ ol* (see Figure 2). These marks, also signified by the term *ol*, serve as a way of marking shared histories of migration and territory, as well as creating the conditions in which interactions with associated spirits take place. In addition to *koṇḍ*, tattoo marks such as the *koḍa* or the *sikha* are also referred to as an *ol cinha* (written symbol).[23] While the widespread practice of tattooing has diminished, in

Figure 1. Ritual diagramming in preparing for a sacrifice invoking the *oḍak' bonga* (house bongas), *Sohrae*, Tilaboni village, West Bengal 2010 (photo by author).

Figure 2. *koṇḍ ol* in the entrances of houses during the *Sohrae* festival, Tilaboni village, WB 2010 (photo taken by author).

the missionary archives it is written that without these marks, Santals would not be allowed to undergo important ceremonies or participate in carrying the drums or dancing. Similar to the *koṇḍ*, tattooed designs are also connected with communication with the *bongas*, especially the *bonga, Yamarājā*, the Vedic god of death.

In these examples, practices of *ol* mediate triadic relationships between different people and *bonga*-s. People employ *ol* to call, manage, and negotiate with particular *bonga* in order to accomplish ritual action, such as healing or sacrifice. *Ol* in the form of *koṇḍ* also allows members of sub-clans to identify shared histories of migration and infuse genealogical relations with ritual power through the invocation of tutelary deities. Finally, *ol* allows Santals to identify with one another as members of a particular collectivity, as well as communicate with the god of death in order to facilitate a safe transit out of one's body at the time of passing. As a form of writing, *ol* is multiply addressed to humans and *bonga*-s, both of whom comprise the interpretative community of readers.

Ideology of script and sound

Brahmi scripts and the concept of akṣara

Santal *ol* encompasses graphic systems in which marks are not tied to the representation of spoken language, but are integral to the coordination of communicative activities between Santals themselves or between Santals and the spirits (*bongas*). This system contrasts from the prevailing logic underlying Brahmi script systems in which sound and script (the phoneme and the grapheme) were inseparable, part of the basic fundamental linguistic unit known as *akṣara*. The concept of *akṣara* derives from the sceptical attitude of the 'Hindu-Brahminical' tradition towards writing, which contrasted with other ancient traditions such as the Buddhist or Jainā.[24] In the Brahminical tradition, the study of Sanskrit shaped attitudes towards language and developed largely in an oral context as a way for Brahman priests to transmit and preserve Vedic texts. The analysis of Sanskrit sounds, including its indivisible syllables (*akṣara*) was part of the study of phonetics known as *śikṣā*, considered one of the essential elements of language, along with metrics, etymology, and grammar.[25]

While Brahmi scripts were originally used to write Prakrit (vernacular) languages,[26] the scholarly consensus is that the syllabic-phonetic design of Brahmi was, as Patel writes, 'worked

out by the Hindu scholars to represent the Sanskrit language' before it was widely used for Prakrit.[27] This design was maintained in all of Brahmi's subsequent varieties, such that, as Richard Salomon notes, 'with only a few exceptions … all of the Indic scripts … follow the same basic principles of graphic representation.'[28] The internal organization of these scripts (scattered throughout the Indian subcontinent, Southeast Asia, and Japan) followed a standardized phonetic order that Brahman priests had developed as early 700 BC to aid with the memorization of Vedic texts (called the *akṣara-samāmnāya*).[29] The integral way form and practice was tied into the creation of these systems shows how the organization of Brahmi writing systems developed in reference to an already established oral grammatical system,[30] engendering an unbreakable union between sound and script encoded in the linguistic principle of *akṣara*, which came to mean both 'syllable' and 'independent graphic sign.'[31]

In modern Indo-Aryan languages such as Bengali, Sanskritic syllabic-phonetic distinctions are maintained in the written language, even when they do not exist in the spoken register. For instance in Bengali (Eastern Brahmi[32]) script, the dental, palatal, and retroflex fricatives, phonemically distinct in Sanskrit, are all given separate characters even though in the pronunciation of the standard Calcutta variety of Bengali these are all pronounced with the palatal.[33] In current day Bengali-pedagogy, it is often explained that the maintenance of this distinction in the script shows that Bengali descended from Sanskrit; it has just become 'corrupted' over time. In this ideology of language,[34] Sanskrit is considered the ultimate referent and progenitor of all languages of the subcontinent, an ideology, as Thomas Trautmann documents, that became popularized and institutionalized during the colonial period.[35] Brahmi writing therefore was not supposed to transparently reflect speech in general, but rather was supposed to transparently reflect a transcendent phonetic organization encoded in the unity between sound and script (*akṣara*). This ideology, transmitted through the learning of Eastern Brahmi (Bengali), Devanagari (Hindi), and other Brahmi scripts in which Santali and other Munda-speakers first encounter literacy,[36] served, both as a frame and as a foil for the subsequent creation of new scripts in Santali, in interaction with the introduction of Roman script and European ideas of language brought by Christian missionaries in the late colonial period.

Christianity, Romanization, and the codification of Santali

When the missionaries arrived in the Santali-speaking areas in the border regions of the erstwhile Bengal Presidency, the project of conversion resulted in the introduction of a new form of writing, distinct from either *ol* or the Brahmi-derived systems that had already, by that time, been used for writing Santali.[37] The linguistic variety Santals spoke was clearly different from the Indo-Aryan varieties, and linguists would later classify Santali under the Munda branch of Austro-Asiatic. Missionaries were fascinated by the Santali language and created a number of grammars beginning in the mid-nineteenth century in both the Bengali and Roman scripts charting Santali's distinct morphology and phonology.[38] Through the production of grammars, Santali was fashioned as an autonomous linguistic object, shorn from the social contexts of its use. Having distinguished the sounds of Santali, missionaries discussed how to create a unique writing system to best represent the phonemes of the language. Missionaries such as the Norwegians L.O. Skrefsrud and P.O. Bodding, the heads of the largest Lutheran mission in the Santal Parganas (in present-day Jharkhand) preferred the Roman alphabet. Bodding wrote in a letter to other missionaries working in the Santali-speaking area that the Eastern Brahmi or Devanagari scripts, though perfectly suited for Sanskrit and the Indo-Aryan vernaculars, could not be sufficiently adapted to Santali. The Roman alphabet, according to Bodding, had been adapted to a wide variety of sound systems and could easily represent Santali's distinct features, particularly its vowels and its 'checked' consonants (word-final glottalized stops).[39] Hence, for the missionaries, writing was not seen as a product of social action and relations, nor as iconic of a transcendental phonetic-syllabic organization, but as a mode of representation for a phonological system of a specific linguistic code. This diacritically modified Roman script became closely associated with

the spread of Christianity and the institutional practices of both missions and colonial governance.[40]

In addition to material inscription used to establish relations with the *bonga*-s, or sound-to-script ideologies encoded in the Brahmi-derived scripts, the concept of *ol* now also came to signify a conventional literacy project tied to the creation of an autonomously delineated Santali 'language' and 'culture.'[41] Missionaries of the Scandinavian mission, eager to assert the independence of Santals from the perceived yoke of Brahminical Hinduism and the dependence on resources from Europe, aimed to create an independent Santali home mission in which Santals themselves were to undertake the project of evangelization. Not only did missionaries employ their newly invented *ol* to print Santali translations of religious texts such as Bibles or hymnals, but they also transcribed and published non-Christian texts such as the *Hodkoren mare hapḍam ko reyak' katha* [The stories of the ancestors of the Santals],[42] the Santal origin story, as well as a large collection of folklore, and studies in Santal medicinal practices.[43] In doing so, the missionaries intertwined the Santali Roman both with an independent Santali religious and cultural sphere and a project of Christian conversion.

The use of the Roman script to write Santali, however, was opposed by a strong nineteenth-century resistance movement in the Santal Pargana region that went under the name 'Kherwal,' founded by a Santal religious leader Bhagirath Majhi in 1871. The movement opposed British and caste-Hindu presence in the Santal Pargana region but also Christian missionary presence, drawing condemnation from Skrefsrud and others missionaries.[44] Instead of using Roman, participants in this movement preferred to write Santali in the dominant Brahmi script, which in this case was Eastern Brahmi (Bengali). For instance, the first non-missionary printed work in Santali was Ramdas Tudu's *Kherwal Bonghso Dhorom Puthi* (Religious book of the Kherwals) published in Eastern Brahmi script in 1893. Yet, as Peter Anderson has argued, the Kherwal movement's stances towards language and its articulation of Santal autonomy were deeply influenced by the missionaries,[45] creating a composite historical legacy that would shape the subsequent struggle for Jharkhand, and the creation of independent Santali scripts.

Following Indian independence, as more and more Santals attended regional schools and became literate in Indo-European vernaculars in Brahmi-derived Indic scripts, the use of these scripts to write Santali became even more widespread. Currently, Santali is written in Eastern Brahmi in West Bengal, Devanagari in Jharkhand, and Utkal in Orissa.[46] Roman script Santali is used in areas with influential Christian populations, such as northern West Bengal, Santal Parganas, and Assam (see Figure 3). Though Brahmi-derived scripts are by far the most commonly used to write to Santali, there continues to be widespread ambivalence about their use, and as such, these scripts never became incorporated into explicitly political projects. Their use is mostly conceived of as a practical matter, an acceptance of an administrative territoriality in which Santals have been divided among linguistic states and have been incorporated into the differing graphic regimes of those states.[47] As Brahmi-derived scripts are associated with dominant institutions, in addition to maintaining a sound to script ideology that is associated with upper-caste language and practice,[48] many Santals, especially those active in language politics, view the scripts as the purview of upper-caste Hindus.[49]

Scripts as constellation in eastern India

The time around Indian independence was a tumultuous period throughout the Santali-speaking area. The Kherwal insurrections at the turn of the twentieth century, and the *desgāro* movement in Mayurbhanj, Chota Nagpur, and the Jangal Mahals in the 1930s,[50] shaped the political culture of the region. Through these successive rebellions, Adivasis developed a territorial consciousness in which they came to understand their region as distinct, the basis of which they could agitate for political autonomy. As Independence approached, Adivasi leader Jaipal Singh and the Adivasi Mahasabha, called upon the Indian state to recognize an independent, Adivasi-majority state of Jharkhand, comprising all the southern districts of Bihar, eastern districts of Madhya Pradesh,

Figure 3. Chart showing the Santali Roman script and its Bengali and Devanagari equivalents. From the back page of Santali-language magazine *Nawa Ipil*, 2006 (Santali Literary and Cultural Society, Calcutta).

southwestern districts of West Bengal, and the northern districts of Orissa.[51] Jharkhand agitations took hold in West Bengal, Mayurbhanj, and southern Bihar, and Santals played a major role in the political agitations, as well as, later, in the founding of the Jharkhand political parties.[52]

The call for Jharkhand and the upsurge in state-oriented political assertion on the part of Adivasi communities in eastern India coincided with an efflorescence of script-making throughout the Santali-speaking region. Throughout the Santal Parganas, Chotanagpur, Mayurbhanj, and West Bengal, passionate individuals, often with very few resources, created distinct script systems for Santali. While one author has documented as many as 14 independent scripts,[53] the number is likely much higher.[54] These scripts however shared many features. On the one hand, most, if not all, of these scripts were alphabetic and did not follow the syllabic organization of Brahmi scripts.

Instead they divided along the lines of separate vowels and consonants, similar to the Roman script, though sometimes importing visual features of Indic scripts. However, the phonetic unity of the scripts supports the assertion that throughout the Santali-speaking area, there was a widely circulating idea of *akṣara* in which, though not syllabic like Brahmi-derived scripts, maintained a fundamental relation between graphic characters, however different those characters may be, and

a phonetic template drawn from the missionaries' formalization of Santal phonology (instead of being drawn from the *śikṣā* organization taken from Sanskrit phonetics). Finally, in many of these scripts, there was a meaning attached to the form which went beyond the sound to phoneme correspondence. Thus, the scripts' signification exceeded both the principle of *akṣara* and the principle of arbitrariness attached by missionaries to the Roman script. In the practice of script-making therefore, Santals could voice other relations through graphic forms outside the fixed relation between grapheme and phoneme presupposed by either European or Sanskritic graphic ideologies.

Monj Dander Ank *(drawings of the Bliss-Cave)*

Sadhu Ramchand Murmu was a village schoolteacher from Silda in the West Midnapur area of West Bengal. Although he was responsible for teaching children Bengali, Murmu himself was considered one of the greatest Santali-language poets of his generation, authoring the well-known song *Debon tengon adibasi bir* (Let us stand up, we the Adivasi heroes) that became an anthem for the Jharkhand movement and popularized the movement in West Bengal. Murmu primarily published in Eastern Brahmi script, though in 1922, he created a script called *Monj Dander Ank* (Drawings of the Bliss-Cave). While not in widespread use today, the script still commands popularity especially in south-eastern West Bengal. The script is explicitly divided into two sections, the *mare horop* (old script) that etches out the ritual marks of ancestral Santals, and the *nawa horop* (new script) that derives marks from these older diagrams and orders them according to an alphabetic phonological grid (see Figure 4). In addition, Murmu explicitly embeds the new script in the practice of ritual diagramming, independent from the phonetic value of those characters. In the introduction to *Isroḍ* [God-speech], Murmu's *magnum opus* that documents ritual practices and protocols among the Santals and written completely in Monj Dander Ank,[55] Murmu writes, 'By understanding the system of that language (*roḍ*) by which the god-sound (*isrong*) emerges from the vocal chords as human sound (*aḍang*), this script was created.'[56] In creating the script, Murmu combines the human voice (*aḍang*), which defined 'literacy' under the new graphic regime instituted since the nineteenth century, with the voice of the *bongas* and ancestors (*isrong*). Through the creation of a script, the new priests: the intellectuals, poets, and authors, attempted to forge a *rapprochement* between the phonological-representational and the diagrammatic-ritual fields of *ol*.[57]

Ol-Chiki *(writing symbol)*

Of the several scripts that were created, the most popular, and the one currently in wide use today, is *Ol-Chiki* (writing-symbol), created by Pandit Raghunath Murmu, a schoolteacher from a village in Mayurbhanj district, Orissa. At the time of Indian independence, Mayurbhanj, the southern-most dominated Santal district, was a princely state and the Raja was especially well regarded by the tribal population. However, following independence, the state acceded to Orissa, which sparked a massive uprising among Santals in 1948, led by Sonaram Soren.[58] Soren and his allies demanded that Mayurbhanj join the tribal-majority districts of southern Bihar, anticipating the future state of Jharkhand. Though the rebellion was fierce, the Indian army eventually crushed the revolt, and Mayurbhanj joined Orissa. The Santals in Mayurbhanj experienced an acute sense of defeat and dejection, more so perhaps than in other parts of the Santali-speaking area, in addition to the physical trauma inflicted by the Indian army in the rebel areas.

It was around this time when the popularity of Ol-Chiki script increased and then spread quickly to other parts of the Santali-speaking area, particularly around Jamshedpur, southeast Bengal (Jangal Mahals), and the districts of Hooghly, Howrah, and Calcutta. These areas were home to a first generation of Santal urban migrants who worked in industrial factories and government offices and who also were supporters of the Jharkhand movement. They provided financial support to Murmu, patronizing the founding of an Ol-Chiki press as well as endowing
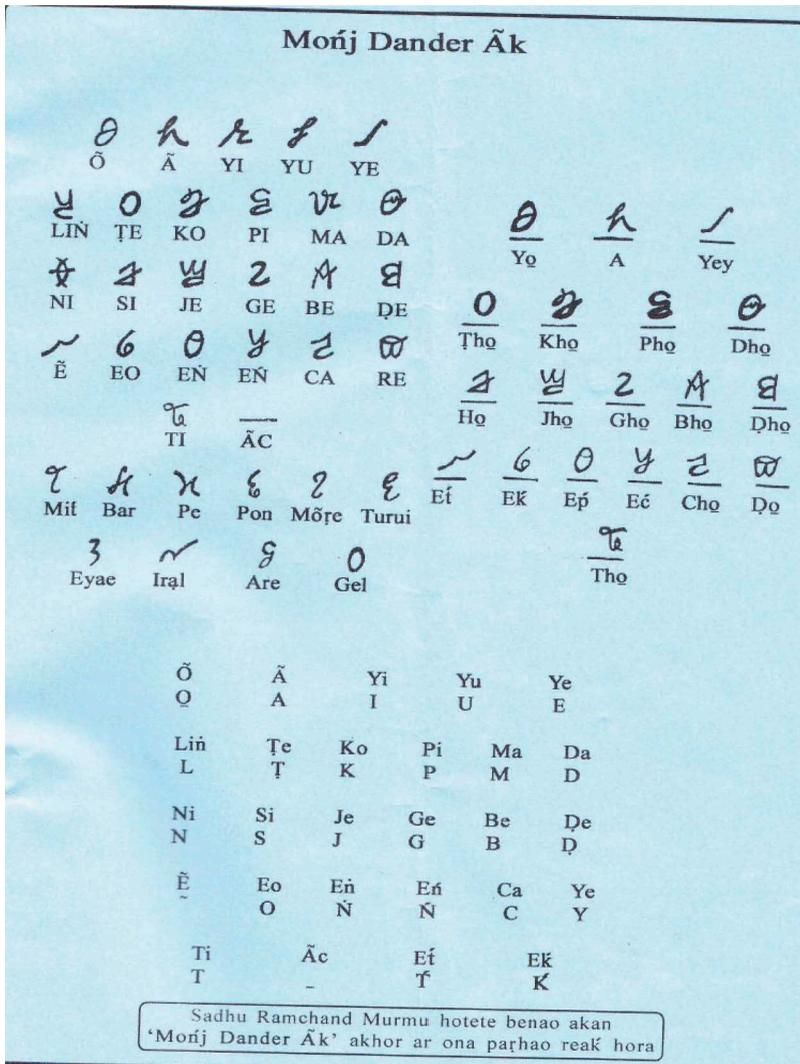
Figure 4. Sadhu Ramchand Murmu's Monj Dander Ak'. Image taken from a special edition on the poet of the Calcutta monthly Santali-language magazine, *Jugsirjol* (May, 2010).

branches of ASECA (Adibasi Socio-Educational Cultural Association), an institution set-up by Murmu to promote Ol-Chiki in Santal villages.[59] In addition, like Ramchand Murmu, Raghunath Murmu was also a poet and dramatist, and popularized Ol-Chiki through song and drama, as well as through his prolific output of written material of the script. The script, therefore, financially endowed by a newly formed class of elite Santals in Orissa, Jharkhand, and West Bengal, and supported by an institutional apparatus, garnered much more success than other scripts before or since.

Ol-Chiki, like the other Santal scripts, was alphabetic instead of syllabic (see Figure 5). Murmu justified the script's necessity by appealing to a both historical and linguistic discourse. Although he had used Eastern Brahmi script to write Santali in the past,[60] he argued that the use of the Brahmi-derived Indic scripts divided the Santal population along regional lines, and that the Santali language, as old as, and yet distinct from, 'Sanskrit' deserved to have a script of its own.[61] In fact, many of his writings referred to the Roman and Brahmi-derived scripts as *ol urum* 'dusty,

Figure 5. *Ol-Chiki* letters plus diacritics (bottom row), from http://wesanthals.tripod.com/id45.html.

obsolete writing,'[62] exhorting Santals to cast aside these relics and develop and use Ol-Chiki. In addition, he claimed that the extant scripts used to write Santali, such as the Brahmi-derived scripts or Roman, could not adequately represent Munda sounds such as the glottalized obstruent series (which he called *taput' aḍang*) or the reduced vowel series (*gạhlạ*). These scripts, he argued, sow confusion in the mind of the speaker–reader because of their heavy reliance on diacritics and association with languages (English, Bengali, and Hindi) that have a different phonology than Santali. Keen to demonstrate that the script was 'scientific writing system devised for all Munda languages.'[63] Murmu wrote a grammar (*Ronoḍ*) that harnessed linguistic terminology to justify and spread Ol-Chiki. Even today, many Ol-Chiki advocates extol the precise 'scientific' nature of the script and its wide applicability; one Santali author I talked with even compared it with the International Phonetic Alphabet.[64]

Murmu insisted on the representational (and thus 'scientific') nature of the script, but at the same time, he also enmeshed the script within diagrammatic and ritual relations. The popular story of how the script was created recalls how Murmu received it on the peak of Kap Hill, near his home village in Orissa,[65] from the forest *bonga*-s.[66] Songs and drama still routinely performed in Santali-speaking areas also reference the script's connection with Santali spirits.[67] In addition, like the other scripts (though in a much more systematic way), each Ol-Chiki grapheme has a diagrammatic meaning that exceeds the phonetic value. Unlike the Roman or Brahmi scripts, the Ol-Chiki letters are named with a

particular Santali word, and the shape of each grapheme iconizes the meaning of the word with which it is attached. For instance, the grapheme ꠰ which phonetically signifies '꠰' is called *ir* 'to harvest' and is shaped like a scythe used during harvest season. T 'O' is *ot* 'earth, ground,' while ꠫ 'l' is shaped like a hand holding a pen, and thus the letter is named *ol* 'to write, writing.' Ol-Chiki pedagogy, while underscoring the fact that Ol-Chiki has been created specifically to represent Santali phonology, also stresses the diagrammatic nature of the script as evidence of its 'scientific' superiority over scripts such as Bengali and Roman. This was made explicit in a discussion of Ol-Chiki pedagogy with a senior Ol-Chiki activist NB from Bankura district, West Bengal, who was also a close friend and collaborator of Pandit Raghunath Murmu. He began our conversation focusing on Ol-Chiki's phonetic superiority and the importance of the glottalized consonant series (*taput' aḍang*) and the reduced vowels (*gạhlạ*). Once he established the importance for maintaining the phonetic distinctions in the language within a script, he proceeded to discuss how the diagrammatic value of Ol-Chiki graphemes (over and above the phonemic value) also offers a 'scientific' advantage over other scripts in the excerpt below[68]:

> NB: In the future, Roman will not be there. It will not be there. Since now the Santali language has its own language's own script, for this reason, here [Ol-Chiki] will come. And the Santali script which now exists, no other script has its features … It is natural, it is like nature. For instance, [the letter] ut' [ꠥ], mushroom … mushroom, it is a diagram [*citra*], it is a picture [*cabi*], and like that it is also a letter [*akṣar*] in Ol-Chiki.

In the excerpt, NB argues that the advantages of the Ol-Chiki script go well beyond its transparent representation of Santali phonemes. He emphasizes the importance of the diagrammatic relation-ship between form and function within the Ol-Chiki script when he describes the grapheme 'ut' 'ꠥ/d, t'/'mushroom' using the Sanskrit-derived Bengali words 'diagram' [*citra*], a 'picture' [*cabi*], and a 'letter' [*akṣar*]. In underscoring the semantic equivalences between picture and grapheme which Murmu has incorporated into Ol-Chiki, NB unites the qualities of Santal *ol*, in which 'drawing' and 'writing' are co-terminous with the Sanskritic concept of *akṣara*, in which the graphic unit is defined primarily by its phonemic content. He further elaborates on this relation by describing the letter O 'ot'/t/'earth:'

> There there is 'ot:' soil [earth], then what is the form of this 'ot'? Scientists say it is spherical, … many say it is like a chicken's egg or an apple, Pandit Raghunath Murmu said that it is round. For instance, a child. When they are learning to read and write a script, if they want to learn about the earth, then they have to describe the whole earth … that is not possible. In school, in school, they make the kids write it. This sky [points up] … turns and where does it descend? They see it turn around. Teacher, it's like, a circle. That is right. This is what happens, the true form. A child, one did not have to bring an apple or a chicken egg. From here, they know the form of the earth. What the scientists say, they know easily from this 'ot' [earth] … and one thing is, it is a circle right? Santals' *bongas*, during the time when [one draws] the *bongas' koṇḍ* it is a circle form. These nayikes [priests] they do not know the name, but let's say they are propitiating Marang Buru [great hill spirit], but what is the shape, what is the form? They do not know, the *bongas* know, it really is the earth, it is the form of the earth, that one.

For NB, the letter-shape for 'ot,' T, diagrams its natural quality; the circle is the Earth's 'true form.' He offers an example of young Santal students sitting in a science class and impressing the teacher with their knowledge of the Earth's form through their learning of the 'ot' grapheme. While the grapheme is 'scientific' by classroom standards, NB proceeds to illustrate how the 'ot' grapheme not only diagrams the natural form 'Earth' but also iconizes the chalked *ol* (*holong*) used in Santal rituals. He then makes explicit the relation between the graphic logic of Ol-Chiki script and the ritual logic of Santal *ol*, even going to so far as to argue that the Ol-Chiki grapheme elucidates the 'real' form of the diagram, which is that of the Earth . In NB's formulation, the graphic form O 'ot' (and not the phoneme 't') recursively projects two distinct literacy practices, that learned in the classroom and that practised in ritual spaces onto the grapheme itself. Finally, after revealing the logic of Ol-Chiki, NB asserts how the iconic features of Ol-Chiki renders it a superior script in comparison to either Roman or Eastern Brahmi:

> NB: The form. It is like that. 'Is' ꠤ [s] is one. 'is.' 'Is' is 'plough.' The way a plough is,

that's 'is'. which is 'ol' [l]?This is 'ol' Ɔ one pen drawn through with a hand holding the pen … this is the shape of 'ol.' at the same time it is a backwards English 'p'. This he [Raghunath Murmu] took from nature itself. All scripts have an origin (*utpati*). If you ask what is the origin of the Bengali script, they [Bengalis] cannot tell you. Very few, one or two, 'kho' [থ] means 'sky', 'kho' means sky. 'kho''s meaning is sky but its shape is what kind … shapes do not appear. 'kho' means sky, that's all. 'Do' [দ]means 'ocean,' water, sea. This is what 'do' is. What is 'do's shape (*akṛti)*? Only one or two shapes they have given, like an 'o' on top of which is a 'chondrobindu' [the 'om' syllable] but the origin, no … it can't be said. Roman script, none have it. Actually, Roman script is not natural, right? Pandit Raghunath Murmu was such a great scientist, for that reason he [built the script] from natural things …

In this final excerpt, NB delineates the unique nature of Ol-Chiki script, when he argues that, unlike Eastern Brahmi (Bengali) or Roman, every Ol-Chiki letter has an 'origin' (*utpati*). By 'origin,' he suggests that the grapheme has semantic content beyond its phonemic value. While every Ol-Chiki letter may be located diagrammatically within the landscape, only a few letters in Bengali have an equivalent origin. As Indic scripts are syllabic, some of the graphemes, whose names are isomorphic with their syllabic content, are also words. For instance, he discusses the Bengali syllabic character 'kho' (থ, voiceless velar aspirated plosive) which is also a Bengali word for 'sky' or 'do' (দ) 'ocean' (voiced dental plosive). Though they may have semantic content, unlike Ol-Chiki, they lack a 'shape,' (*akṛti*) for they do not diagram their content in any way. In a striking inversion of missionary rationality, the Roman script is last on the scientific hierarchy due to its arbitrary nature. The letter-forms have no diagrammatic or semantic value, and therefore the script is not 'scientific' at all. Through the practice of script-making, a new criterion has emerged in which the 'scientific' nature of a script lies in how successful it is at graphically voicing both properties of *akṣara* in which each grapheme has an fixed phonetic value (largely derived from alphabetic Roman Santali) as well as the semiotic relations of Santal *ol*, in which the value of the written diagram spatially incorporates the diverse elements of ritual, landscape, and performance.

Ol-Chiki is by far the most popular of any Munda script and enjoys mass support, especially in the regions of southwestern West Bengal, northern Orissa and southern Jharkhand, and particularly among younger generations of Santals who grew up as the Jharkhand movement was waning. During my fieldwork from 2010 to 2012, I saw many new publications in Ol-Chiki, including magazines and newspapers, and the script was widely seen on signboards even in the small village in West Bengal where I did fieldwork.[69] In addition, select high schools and colleges are now teaching Santali in Ol-Chiki, increasing the previously limited literacy in the script. The success of Ol-Chiki, and the identification of Santali with Ol-Chiki script among younger generations of Santals, hides the rich history of independent and locally based script-making that was a very common practice from the mid-late twentieth century.

Hoḍ Ol *(Santal script)*

While currently Ol-Chiki is the predominant script in the area where I conducted fieldwork, I was surprised to find that even in the relatively small village in southwest West Bengal where I was based, I discovered someone who had also created their own independent script for Santali. Though this script was never circulated, and remained only familiar to its creator and a few intimates, my encounter with him highlights the passion that individuals in all corners of the Santali-speaking area displayed in creating scripts, as well as the political and social conditions, and attitudes towards language and writing that resulted in such a wide proliferation of independent scripts.

When I first met him, the creator of *Hoḍ Ol*, Raghunath Hembrom (who unfortunately passed away in 2015) was an elderly man educated in the Anglican mission in a nearby town [See Figure 6]. In southwestern Bengal, unlike north Bengal and north Jharkhand, the missions did not educate in Santali Roman script, nor were church services in Santali; Bengali was the primary medium of church business and education. However, even then, Hembrom, though educated in Bengali, had a

Figure 6. Raghunath Hembrom of Jhilimili, Bankura West Bengal, holding up a copy of his script, Hoḍ-Ol (photo taken by the author).

copy of the Santali Bible in Roman script and was somewhat familiar, though not proficient, in Roman script Santali. He said that when he was growing up, he did not think 'in his wildest dreams' that Santali would become a written language, but as he grew older, he became more and more drawn into the Jharkhand movement and began to participate in the language movement. He said that he knew about Ol-Chiki and knew many people involved with ASECA, but he never became proficient in the script.

Having become involved in the Jharkhand movement in his area, he set out to devise a script that would address the problems he saw in Santali written in the Eastern Brahmi script, especially the 'checked consonants' and the reduced vowel series. Throughout his later life, he worked on devising a new script, *Hoḍ Ol* (Santal script), and created a set of primers, a glossary, and, like Raghunath Murmu, a grammar in which the particular sound-to-script ideology could be explained. In his script, many of the letters had 'meanings' that distinguished them and marked them as Santali. For instance, the letter 'r' was identified as 'ro,' which is the equivalent syllabic identification of the grapheme in Bengali. However, for Hembrom, what distinguished the 'ro' in Santali from the 'ro' in Bengali was that the 'ro' in Santali meant 'fly,' whereas in Bengali, it was meaningless. Along with a few other consonants (what Hembrom has called *agil aḍang*, 'original sounds'), these were the 'original words' that were there from the time of the first Santal ancestors, Pilchu Hadam and Pilchu Budhi. He said that unlike Ol-Chiki, in which 'r' was represented by 'ir' r ('harvest'), in his system the graphic form is equivalent to the syllabic pronunciation, which then has an equivalent semantic meaning in Santali. In this way, *Hoḍ Ol* both relates back to the ancestors, but also imports the syllabic ideology of Brahmi-derived scripts (which is used to justify the script's distinction) in the sound to script analysis.

Hoḍ Ol illustrates an interesting compromise between literacy in Brahmi-derived scripts and the Santali phonetic template (based on Roman script) that I have witnessed in a few different more recently created scripts. Unlike Ol-Chiki, *Hoḍ Ol* is organized in a fashion that mimics the phonetic organization of Brahmi-derived scripts (based on *śikṣā* phonetics), and the names, like Brahmi-derived scripts, are syllable-sounds. Yet, like the other Santali scripts, and unlike Brahmi script systems, the script is alphabetic, with each vowel separately represented through an addition of an underlying dot that 'connects' it to the preceding consonant. Second, like in Ol-Chiki and other Santali scripts, aspirated sounds are also represented by a diacritic and are not given a separate graphic character like in Brahmi.[70] Third, Hembrom places a heavy importance on the 'checked consonant' series, providing a whole set of diacritics which attach to the vowel to create the glottalized 'checked' sounds. These are called the *ayu aḍang* (mother sounds) and are seen to ground the phonetic system, distinguishing the *Hoḍ Ol* system from Brahmi, in which these sounds cannot, according to Hembrom, be adequately represented. Finally, unlike in Brahmi or Roman script, and like the other Santali scripts mentioned, the grapheme itself, in uniting with the phoneme is given a semantic content. Hence, the 'script' is not in fact arbitrary; what makes it Santali is that graphemes carry meaning apart from their phonetic pronunciation. These meanings are, in some cases, projected back as a history of the Santal community, linking the script with the *bonga*-s and the ancestors.

The creation of new scripts appears then to have been a common enough practice throughout the Santali-speaking area. During my fieldwork, I met two living script-creators, both elderly gentlemen (one from southeast West Bengal and the other from northern Jharkhand), and collected samples of numerous other scripts, all retaining an alphabetic instead of syllabic grapheme to phoneme correspondence, as well as the distinct emphasis on the 'checked' glottalized stops, that was emphasized in Bodding's original outline. Script-making, I argue, was a distinct social practice among many educated Santals, arising in response to a disjuncture between different literacy ideologies governing the semiotic relations between graphic and verbal communicative practices. On the one hand, Santali *ol*, a ritualized form of writing in which graphic marks mediated relations between Santals and their landscape, ancestors, kin-groups, and the *bonga*-s, since it did not conform to a logocentric conception of script, was not considered 'literate' and was placed in a realm of orality or illiterate practice. Instead, the languages of India considered to have long-standing traditions of literacy (with the exception of Persio-Arabic) were written in Brahmi-derived scripts that semiotically encoded the Brahmanical *śikṣā* organization in which a fully elaborated syllabic-phonetic system supposedly preceded writing, into a rigid structure known as *akṣara*. It was against this perceived rigidity in the Brahmi scripts that missionaries, using a Romanized system of writing which they considered flexible and arbitrary, attempted to create an alternative and independent sound to script relation for Santali. However, as schooling continued to occur in Brahmi scripts [Devanagari, E. Brahmi (Bengali) and Utkal (Oriya)], the Sanskritic ideology of sound to script correspondence continued to dominate conceptions of literacy, such that the phoneme was considered the preeminent reference for correct speech (and by extension, writing).

In delineating an independent Santali phonemic system through the alphabetic Roman script, the missionaries had thus inadvertently created a template that could serve as a phonetic ground (similar to the *akṣara-samāmnāya*) upon which a process of script-making could take place. Script-making endowed the Santali *akṣara* (the sound-script unit) with 'meaning' in which Santals related graphemes to a larger visual and spiritual field, uniting meaning with form in a single semiotic constellation. As NB suggests, the constellation combines the science of Santali *ol* (*citra* 'drawing') with a science of Santali phonetics (*akṣara*). It is within these two competing material communicative logics that script-making as a social practice emerged.

Writing Munda languages in eastern India

While the Santals present the most clear and prolific case for script-making as a social practice among speakers of Munda languages, the above argument extends to other Munda-speaking communities in eastern India as well. For instance, in addition to Ol-Chiki, Zide describes two other scripts: Sorang Sompeg and the Varang Kshiti script for the Sora and Ho, respectively, who live in the eastern Indian regions of Jharkhand and Orissa.[71] Like Ol-Chiki, the Sorang Sompeg script was revealed to religious leader Mangei Gomango in 1936 after penance in the forest. The script was a manifestation of 'Akṣarā Brahma' (Letter-Brahma) and the letters are still worshipped today on a stone slab at the 'Akṣarā Brahma' shrine in southern Orissa. Each letter, according to Zide, is derived from a particular deity-name [See Figure 7].[72] The Varang Kshiti script for Ho, created by a religious leader Lako Bodra, is

Note: The last symbol in the fourth row is not a vowel, but a diacritic. [Ed.]

Table 1. The tabular arrangement of the Sora characters.
(Source: Mahapatra 1978-79.)

Figure 7. Sora Sompeng script sample, Table 1 from Zide, *Three Munda Scripts* (used with permission).

used to write a specific register of Ho used for ritual purposes called Ho Hayam (or 'hieratic Ho') to be separated from Ho Kaji or ordinary Ho. [See Figure 8][73] The shape of each character is connected with an organ of the body that is involved in the production of the sound, as well as particular lexical meanings.[74] The Ho intermediate primer is named 'Bah buru bonga buru' emphasizing the script's connection with the *bonga*-s.[75] While I am unaware of the status of Sorang Sempeng, from my travels to southern Jharkhand, I know that Ho Hayam and Lako Bodra are still celebrated among the Ho around Ranchi district; thus even if the script is not used to the same extent as Ol-Chiki, it enjoys the popular allegiance of some sections of the community.

While the former scripts were created along with Ol-Chiki around the mid-twentieth centuries, other scripts among Munda-speaking people were created as late as the 1990s. For instance, in

Table 7. The Ho alphabet
(Source: *Bah Buru Bonga' Buru*, an intermediate Ho reader; title in Hindi:
Hoo Padya-Gadya Samgraha [Ho Verse-Prose Collection], Ranchi, 1984.)
(Information parallel to but not identical with that in Table 6.)

Figure 8. First page of a Varang Kshiti Ho Primer, Table 7 from Zide, *Three Munda Scripts* (used with permission).

Bani hisir, or Mundari bani, Mundari script, Rohidas Singh Nag (1990-ies) ୨ⱱⱶ ʊⱶⱸⱶჿ

୰ /a/	Ⱨ /ap/	∩ /al/	ʓ /ay/	୧ /aṃ/		
੩ /ā/	Ⴁ /āj/	ଷ /āb/	٩ /āñ/	੭ /āḥ/		
Ɤ /i/	Ⴁ /is/	୰ /iḍ/	ⴧ /it/	੮ /ih/		
ꝺ /u/	Ⱦ /uc/	੮ /ud/	ⴽ /uk/	8 /ur/		
Ɛ /e/	⋒ /eṇ/	੭ /eg/	൧ /em/	Ⅴ /en/	Ⴎ /eṭ/	੨ /eḷ/

diacritics

·	٠	ˊ	—	੮
muhartaṃ	ikirtaṃ	tayartaṃ	echedtaṃ	ajadtaṃ

numbers

0	I	L	Z	M	੨	Γ	⌐	੭	7
0	1	2	3	4	5	6	7	8	9

Figure 9. Bana Hisir script, from Krylova, *Original scripts of Munda languages*, 7 (used with permission).

Mayurbhanj district in Orissa, the home of Raghunath Murmu, Pandit Rohidas Singh Nag created 'Bani Hisir' for the Mundari language [See Figure 9], and agitations have occurred as far back as 2006 to demand Bani Hisir be adopted for Mundari language education over Devanagari in order to 'ensure phonetic accuracies.'[76] As the script originated in Mayurbhanj, and is mainly embraced by Mundari-speakers in northern Orissa and southern Jharkhand, the long-standing popularity of Ol-Chiki in these areas may have contributed to an environment where script has gained currency as a semiotic vehicle for cultural assertion.[77] The script itself works on a similar principle to Ol-Chiki, with letter names forming words, and organized alphabetically, with each consonant and vowel represented separately. According to Krylova, many of the forms could arguably be derived from Ol-Chiki and Varang Kshiti graphemes, suggesting a new historically distinct orthographic tradition is emerging in the Adivasi areas of eastern India,[78] generating not only distinct scripts, but also new possibilities for political, social, and literary expression.

Beyond South Asia?

While Santali and other Munda scripts certainly differ from the other major script systems circulating in South Asia (Brahmi, Persio-Arabic, and Roman), they do share qualities with recently created scripts, particularly in Southeast Asia. In many ways, Southeast Asia has a shared

history with that of the Indian subcontinent. In both regions, the use of Brahmi script was widespread, although the influence of Chinese script has been much more prominent in Southeast Asia. In addition, both regions were colonized and experienced the arrival of Christian missionaries, who converted minority-language communities and laid the groundwork for the development of orthographies.

While many minority-language communities, such as the Lahu or Karen, continue to use different styles of Roman orthography,[79] invented scripts did appear among the Hmong and for the Eskayan language in the Philippines, among others.[80] These scripts have striking parallels with the Santal and other Munda-language cases. For instance in all these situations, scripts appeared to their creators in the early twentieth century, they contain trace influences of both Brahmi and Roman (to varying degrees), as well as diagrammatic elements that relate the marks to wider ritual relations, histories, and bodies.[81] The similarities call for a more trans-regional and comparative approach that could illuminate the ways shared histories of contact and experiences of colonialism shaped the creation of new scripts in different parts of Asia and in the world at large.

Conclusion

South Asia has a rich graphic history, and, as the articles in the volume illustrate, the various orthographic traditions have provided communities around the subcontinent with extensive semiotic resources for cultural assertion in independent India, demonstrating how script has played a crucial role in mediating what is commonly referred to as 'language' politics. As Hull has argued for bureaucratic writing in contemporary Pakistan, scripts do not simply 'represent' language, politics, or social identity, but in many ways shape them, attracting different kinds of publics as they circulate both temporally and geographically.[82] Scripts for Munda languages emerged right before and during the heyday of the movement for an independent Jharkhand, revealing that the struggle for Jharkhand was not only limited to control over state resources, but also provided the social milieu in which new expressive forms emerged, including literature, poetry, song, drama, and script. Even after the Jharkhand movement failed to realize the goal of uniting the Adivasi-majority districts in eastern India, the spirit of the movement persists as a younger generation of Santals in places like southeast West Bengal, left out of the Jharkhand state, have eagerly embraced Ol-Chiki, which has enjoyed a surge of popularity and visibility in Santali-speaking areas, or Mundari activists in Mayurbhanj have started propagating the recently developed Bani Hisir.

The history of script in this region, in addition to elucidating an ongoing political and social history of relations between Adivasis and state institutions and postcolonial Indian democracy, opens up new research in the study of South Asian grammatology as well as to other regions. It might be easy to dismiss these scripts as experiments by semi-literate groups who are still mired in what is essentially an 'oral' tradition. However, as I have argued, these scripts are fully organized and elaborated graphic systems, and they are uniquely structured relative to other indigenous scripts of South Asia. Yet, they did not emerge in a vacuum; they express a long engagement with literacy, combining features of Sanskritic and western literacy traditions with ritual-based diagrammatic writing that has been widely practised on the subcontinent. Thus, these scripts, like all scripts, are constellations that bind together the grammatological history of a people and a region.

Epilogue

In the small village of Jhilimili, located in West Bengal very close to the Jharkhand border, I would go listen to Raghunath Hembrom, a local script-maker explain to me about his life's work, *Hoḍ Ol*, and how it was his dream to publish the script so that Santal society would understand the mysteries and beauty of their native tongue. As we would talk about his script, we would sit in the shadow of the large awning of the neighbour's house, in which the front is painted with a

rising sun, and Ol-Chiki letters proclaiming 'Hansda Bakol' (Hansda family). Often, Hembrom's grand-nephew, just entering class 9, would come in and discuss with me how he will start 'Ol-Chiki' class at the local high school. Ol-Chiki has become entrenched in Jhilimili as the manifestation of the Santali script, accepted by the state, introduced in schools, and embraced by the younger generations. The dis-junctures between Roman, Brahmi, and ritual writing that compelled older people to make scripts before the spread of Ol-Chiki are in part now answered through the learning of Ol-Chiki itself. Hembrom passed away in 2015, all his painstakingly crafted documents remain packed away in some forgotten corner of his house; his children and grandchildren uninterested amidst the daily bustle of their lives. It is very unlikely that there will be another script-maker like Hembrom among the current generation of Santals in Jhilimili, especially given the politics around Ol-Chiki. Yet, as I have tried to argue, the history of Ol-Chiki and its use cannot be divorced from lone script-makers like Hembrom, scattered throughout villages in the remote regions of eastern India who also, like the creator of Ol-Chiki, Raghunath Murmu, felt spiritually compelled to devote their lives to script, even if their scripts remain tucked away in obscurity. It was Hembrom's simple request that he wished to live to see an example of his script in print, so the world could have a glimpse at the work to which he dedicated his life. Unfortunately Hembrom died in 2015; this article therefore is dedicated to his memory.

Notes

1. The term 'scheduled tribe' or ST for short is the official designation by the Government of India of the various Munda-speaking communities discussed in this article. The designation is enshrined in Articles 341 and 342 of the Constitution of India, though the decision to include certain communities is left up to individual states. In South Asia, the English word 'tribal' is often used to refer to ST communities. Here, I will use the term Adivasi (lit. ancient inhabitant) which is a term that members of scheduled tribes have often used to refer to themselves in the context of political activism. For a greater discussion on STs and their designations, see Karlsson and Subba, eds. *Indigeneity in India* or Rycroft and Dasgupta, eds. *Politics of Belonging in India: Becoming Adivasi.*
2. For example, see colonial-era publications such as Bodding, *Santal Folk Tales*; Canney, *Santals and their Folklore*, or more recent examples such as Patnaik, *Folklore of tribal communities: Oral literature of the Santals, Kharias, Oraons, and Mundas of Orissa.*
3. For instance, one can see the mission statements of the many 'Tribal research institutes' sanctioned by the Government of India, Ministry of Tribal Affairs at http://tribal.nic.in/Content/TribalResearchWebsites.aspx.
4. See Patnaik, *Folklore of tribal communities: Oral literature of the Santals, Kharias, Oraons, and Mundas of Orissa* or Devy, ed. *Painted Words.*
5. http://sahitya-akademi.gov.in/sahitya-akademi/projects-schemes/tribal_oral_literature.jsp, Accessed July 28, 2016.
6. Banerjee, *Double Bind*, 126.
7. Banerjee, 125.
8. Bannerjee, 113.
9. Banerjee, 126.
10. In this vein, the article continues a line of argument made by Carrin, *The Santal as Intellectual* where she argues that exposure to literacy created an intellectual tradition in Santali from the late colonial period onward, one outcome of which, as this article describes in detail, is the creation of scripts.
11. For population numbers, see Osada, Toshiki, and Mayasuki Onishi, *Language atlas of South Asia.*
12. See, for instance, Tagore's famous poem *Santal women* or Ray's portrayal of Santals in the classic film *Aranyer dinrātri* (based on the novel by Sunil Gangopadhyay).
13. In a study about script multiplicity, the choice of orthography for use for transcription is always fraught. Given that this article is to be read primarily by audiences familiar with the Roman script, I have chosen to use a modified Roman script with minimal diacritics to represent Santali words. The following transcription conventions are used in this article, retroflex consonants (e.g. ḍ), retroflex flaps (ṛ), palatized nasals (ṅ), glottal stops (k', t', c'), reduced vowels (ạ). As a disclaimer, in no way am I arguing that this script is more accurate than Ol-Chiki or Santali Roman or any other script in representing the sounds of Santali. For a table showing the equivalences between this transcription system, Roman Santali, and Ol-Chiki, please see pg. XIV of Choksi, *Scripting Autonomy.*
14. Carrin-Bouez, *Les Diagrammes Santal*, 108. For this same observation in Bhili languages, see Devy, *GN Devy Reader*, 7, particular his essay 'Writing and aphasia,' for Sohra, see Elwin, *A Verrier Elwin Reader*, 183.

15. Boone, Introduction in Boone and Mignolo, ed. *Writing without words*, 15.
16. Using such systems as the basis for challenging logocentric conceptions of writing, Harris has argued that in fact no writing system has ever transparently reflected speech. See Harris, *Rethinking writing*. Also, in their recent reference work on literacy, Collins and Blot conclude: 'there are no final answers, but we may be reasonably sure that writing does not occur suddenly against a background of pure speech.' *Literacy and literacies*, 164.
17. Carrin-Bouez, 108.
18. The diagrams enact a 'lieu du partage' Carrin-Bouez, 111.
19. ibid., 111.
20. Examples can be seen in ibid. 114–115.
21. See Timalsina, *Language of images*.
22. Soren (soldier), Murmu (priest), Tudu (drummer), Mandi (rich), Hansda (hunter), Kisku (kings), Hembrom (merchants), Bhaske (cooks). There are a few more (such as Besra, Pauriya, Chode as well, but they are rarer).
23. Santalia, vol 8 1448, D/E.
24. Salomon notes, the 'Brahmanical-Hindu tradition had very little to say about writing as such … in striking contrast with its profound fascination with (spoken) language and grammar.' This is in contrast, he says, to the Buddhist and Jain traditions, which 'exhibit a higher esteem for the written word.' Salomon, *Indian epigraphy*, 8.
25. Kelly, *Writing and the state*, 15; Deshpande, *Ancient Indian Phonetics*, 7.
26. Prakrits include any of the several middle Indo-Aryan languages such as Śauraseni, Māgadhī, etc., which existed alongside Sanskrit and later evolved into modern Indo-Aryan, e.g. Hindi, Bengali, etc. From available evidence, Brahmi script was first used extensively to write in Prakrits for imperial edicts during the reign of Ashoka Maurya, around third century CE.
27. Patel writes 'there seems to be no doubt that the linguistic design of Brahmi was worked out by Hindu scholars to represent the Sanskrit language before it was used for Māgadhi Prakrit or Pāli … The arrangement for the phonological units of Sanskrit was used to create the syllabic-phonetic design of Sanskrit.' *Linguistic and cognitive aspects*, 321.
28. ibid., 14.
29. This is called the so-called 'magic square' where consonants are first learned starting with velar stops (*ka*) and following in an alternating pattern [unaspirated/aspirated and voiceless/voiced] with series typically ending in nasal. This was elaborated in texts such as the Taittirīya Prātiśākhya of the Black Yajur Veda and the Ṛktantram of the Sāmaveda as well as in subsequent śikṣā texts such as the famous Pāṇinīya-śikṣā. See Deshpande, *Ancient Indian phonetics*.
30. Kelly, *Writing and the state* 20, also Salomon, *Indian epigraphy*, 30.
31. Patel, *Linguistic and cognitive aspects*, 323.
32. The alphabet used for Bengali, Assamese, and other eastern Indian languages, also called Eastern Nagari script, although here, and especially when referring to multiscriptal Santali materials, I use the term 'Eastern Brahmi' to keep it distinct from Devanagari.
33. This is also the case for most (though not all) conjuncts. While the situation between script and pronunciation is complicated and varies throughout the subcontinent, the Bengali example is used to simply illustrate that script standardization took place without taking regional pronunciation into account (which widely varied, even in the pronunciation of Sanskrit). Therefore, the *akṣara* (or fundamental script-sound unit) did not represent regional pronunciation as it did a transcendent phonemic set. The 'true' reality was one that was not empirically present in the world, similar to what Shulman argues for Sanskrit, and later vernacular aesthetics in classical India. See Shulman, *More than real*.
34. In using the word 'ideology of language' (or more commonly, language ideology), I draw on the tradition of language ideology research in sociolinguistics and anthropology. Ideologies of language 'enact links of language to group and personal identity, to aesthetics, to morality and to epistemology.' Woolard and Schieffelin, *Language ideology*, 55–56.
35. While this was an old ideology, it was popularized and spread during the British colonial period, where linguistic policy was often developed together with Brahmin consultants who argued that Sanskrit, and its phonology, was the origin of all Indian vernaculars. This view shaped the learning and understanding of India's vernacular languages and also led to theory of the historical origins of Indo-European and the founding of modern linguistics. This argument is exhaustively made in Trautmann, *Aryans and British India*.
36. This is similar to Barnard Cohn's observation in his study of the lower-caste Chamar community in a central Indian village, where he observed that it is primarily through literacy in the vernacular languages where 'for the first time' they 'relate to the high tradition of India.' 'Literacy' therefore is one of the prime factors in the 'drive for Sanskritization.' *An anthropologist among the historians*, 293; 319.
37. Santali had been adapted to the eastern Brahmi script as early as 1840, when American missionary Jeremiah Phillips opened up a mission school in Jellasore, Orissa. His works such as the 1851 *Introduction to Santal language* were written in Santali in Eastern Brahmi. Eastern Brahmi was also adapted by non-missionized

Santals, for instance, see the discussion of Ramdas Tudu's 1893 publication *Kherwal Bongsho Dhorom Puthi*, published a decade after Skrefsrud's *Stories of the Santal Ancestors* in Roman Script (1883).

38. See Phillips, *Introduction to Santal Language*; Skrefsrud, *Grammar of Santal language*; Bodding, *Materials for a Santal Grammar.*

39. Bodding, n.d. Santalia Ms Fol 1686, 9:2, probably written around the turn of the century. Bodding writes that the Brahmi scripts, particularly the inherent vowels, are too rigid for the representation of Santali vowels and 'do not lend themselves easily to diacritic marks' unlike Roman which has proved 'serviceable' to many languages all over the world. Bodding is validating the theory of *akṣara* while asserting the principle of arbitrariness for Roman script.

40. This assertion is echoed by Skaria, *Writing, orality and power*, when he discusses the move from 'monumental' to 'fetishistic' writing among the *Adivasi*s of the Dangs, in west India. The fetish could be seen from the fact that writing was primarily seen as representation instead of being recognized as embedded in actual social relations. However, Skaria's notion of 'monumental' subordinates writing to the construction of a 'powerful symbol' instead of seeing how writing is viewed as a semiotic modality which has the power to construct and sever social relations.

41. Carrin-Bouez, 'De la langue au discours.'

42. Skrefsrud, *Stories of the Santal Ancestors.*

43. Bodding, *Santal Folk Tales; Santal Medicine.*

44. Bodding, 'Kherwar Movement among Santals.'

45. Andersen, 'Revival, syncretism, anti-colonial discourse.'

46. The scripts used to write Bengali, Hindi, and Oriya, respectively.

47. Choksi, 'Scripting the border.'

48. See Cody, *Light of knowledge* for how non-literate Dalit women are sceptical of literacy activists' attempt to impart literacy in a 'practical' manner which differs from the way script to sound correspondence is socialized in school.

49. I heard the script being used with the word *diku* which in Munda languages is the term used for caste-Hindus (non-Adivasis) as well as Indo-European languages such as Hindi or Bengali. *Diku* is opposed to *hoḍ* (in Santali) [or variations such as *horo* (Mundari), *ho* (Ho)] which means people, or *Adivasi* and Munda languages.

50. See Sammadar, *Memory, Identity, Power.*

51. Singh, Presidential speech to All India Adivasi Mahasabha, 28 Feb, 1948. In Munda and Mullick, *Jharkhand movement.*

52. For references on the Jharkhand movement, see the edited collection Munda and Mullick, eds. *Jharkhand movement*; and some classic articles such as Corbridge, *The ideology and economy in tribal society*, and Ghosh, 'Jharkhand movement in West Bengal.'

53. Hansdak, *Santali language development* [in Santali].

54. I alone collected many scripts that Hansdak' did not include, one of which, *Hoṛ Ol*, is discussed in this article. For examples of different scripts, see Appendix B of Choksi, *Scripting Autonomy.*

55. The book, among other of Murmu's later Monj Dander Ank' works, was transcribed and circulated in Eastern Brahmi by publication houses in Jhargram, West Bengal. The books usually have a few pages written in Monj Dander Ank' to remind readers of Murmu's vision and intentions in creating and writing in the script.

56. 'Ishrong eser aḍang-te hoṭok' reyak' hoy khon oka roḍ oḍok'a, ona reyak' bayan-ba beg yan sap' kate noa ol tol akana' Murmu, *Ishrod'*, 1.

57. The relationship between priests and writing stretching back far into the past is elaborated in the Santali song: *Murmu Thakur ko do baba/puthi baba ko paḍhao a/Badoli koynda gaḍ te/likhon chalak'kan.* The Murmu priests/read books/on Badoli koynḍa fort/writing is occurring. From Hembrom, *Shaontali Sahityer Itihas* [in Bengali], 19.

58. see Das, 'Tribal revolt in Orissa'; Lotz, 'Casting a glorious past.'

59. See Orans, *The Santal.*

60. See Pal, *Selection of script for Santali* [in Bengali].

61. Raghunath Murmu, from a speech given in Hooghly, West Bengal, 1978: 'in our country they [upper-castes] call it *ṭhar* [mute sounds] … you must have all heard that before, but it is a language (*bhasha*), not some unformed speech … as old as Sanskrit and so it must have a script (*ol*).' From *ASECA West Bengal* [in Santali], 11.

62. Zide, 'Three Munda scripts,' 211.

63. Lotz, 251–252.

64. The International Phonetic Alphabet is an alphabetic, Roman-based script used by linguistics to represent all known human phonetic distinctions. It is the universal manifestation of a phonetic representational graphic register.

65. The revelation story could be read as Murmu's attempt to 'catch up' to so-called high cultures that already had writing. While this may be true to some extent, my point here is to discuss how the revelation story reconnected orthographic script with the activities of *bongas*, reminiscent of ritual diagramming.

66. A popular song I heard (in both Orissa and West Bengal) during my fieldwork described Murmu's penance in the forest: *Bidu Chandan onol bonga/jiwi janwar bir bonga/seba seba-tem kanka len/bir buru-rem* Bidhu Chandan, the *bonga* of prose, the forest *bongas* you [Murmu] stayed silent with them in them forest.

67. Especially Murmu's own drama *Bidhu-Chandan* which tells the tales of two lovers in the ancient past from two warring kingdoms who secretly communicated using the proto-version of the script. See Lotz, 253–255.

68. While space was too limited to print the original interview excerpts in Santali, the author will provide the original Santali-language transcripts of the excerpts upon request.

69. See Choksi, *From language to script* for an account of the preference for Ol-Chiki in newer Santali-language publications in West Bengal and Choksi, *Surface politics* for an ethnographic account of Ol-Chiki use in public space in one southwestern West Bengal village.

70. In most of the scripts aspirated sounds are marked with a special character, such as Ol Chiki, a separate special grapheme (H) is required for the marking of aspirates. By marking the aspirate, *Hoḍ Ol* remains faithful to the underlying *akṣara* which sees aspiration as separate, not inherent, to the Santal phonemic structure.

71. Zide, 'Three Munda scripts.'

72. Zide, 201.

73. Zide, 215.

74. ibid. This phenomenon is present in the Meitei Mayek script (Brandt, this volume), and in Eskaya, see note 80.

75. Zide, 223.

76. BMS to intensify agitation on Mundari language, 16 May 2006, http://www.oneindia.com/2006/05/15/bms-to-intensify-agitation-on-mundari-language-1147760918.html, accessed August 1, 2016.

77. According to Mundari scholar Toshiki Osada (personal communication), the script is rarely used in the plurality-Mundari-speaking areas around Ranchi.

78. Krylova, 'Original Scripts of Munda Languages.'

79. For more, see Pine, *Landscapes of literacy*.

80. There are over 10 newly created writing systems in Southeast Asia, though most remain poorly described (P. Kelly, personal communication).

81. The standard reference on Pahawh Hmong is Smalley, et al. *Mother of wrting*. Eskaya, which is very complex, and also includes the invention of a distinct linguistic register, is documented in P. Kelly, *Introducing the Eskaya writing system*.

82. Hull, *Government of paper*.

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