

# ‘The *missī*-stained finger-tip of the fair’: A cultural history of teeth and gum blackening in South Asia

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## Abstract

This study presents the first systematic investigation of teeth and gum blackening as a form of body ornamentation in South Asia. While classical Sanskrit literature had affirmed the aesthetic appeal of jasmine white teeth, from around the middle of the sixteenth century blackened teeth, and sometimes gums, were noted as essential female adornments in some urban and courtly contexts. The agent of choice for teeth blackening became known as *missī*, a powdery mixture of (1) iron and copper sulphate, (2) a plant source of tannins, such as myrobalans, and (3) flavouring agents. The use of *missī*, thought to be sanctified by Fāṭimah, the Prophet’s daughter, became deeply engrained in Islamic culture across much of the subcontinent. Teeth blackening as a life cycle event related to sexual maturity and in its literary portrayals acquired distinct sexual overtones. It was integrated into the culture of courtesans and prostitutes where *missī* became synonymous with the ritual of selling a woman’s virginity. Although not a primary motivation, medicinal considerations also played a role in the use of *missī*. Early references to blackening the gums and edges of the teeth suggest a connection to an older tradition of filing the interstices between teeth which had become prohibited by Islamic law. Geographically and culturally distinct traditions of teeth blackening also prevailed among diverse indigenous groups living along the slopes of the Eastern Himalayas, from Nepal through Meghalaya and Assam to Nagaland. Here teeth were blackened by applying the wood tar of specific plants or chewing specific plant products. These practices related technologically and culturally to the wide-spread teeth blackening traditions of island and mainland South-east Asia and beyond.

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## 1. Introduction

For all the elaborate ways in which South Asian people have adorned their bodies for millennia, the deliberate ornamentation of teeth by intentionally turning them black is not one that typically comes to mind. Nonetheless, diverse expressions of teeth blackening can readily be uncovered across much of this subcontinent. If people in South Asia adorned themselves by teeth blackening, they certainly did not stand alone in the wider region. Throughout most of South-east Asia and well beyond, blackened teeth used to be the cultural norm more often than not, before Western contact and especially missionary influences imposed new aesthetic preferences (e.g., Zumbroich 2009, 2015).

In the nineteenth century the first occasional reports about teeth blackening in India appeared as part of British colonial ethnography and took an unsurprisingly dim view of the practice. The results of using an ‘antimony preparation’<sup>2</sup> on the teeth were thought of as ‘quite as barbarous to European eyes as the custom of tattooing’ and as ‘unnatural and offensive’ with the effect or even purpose of utterly destroying the ‘natural attractiveness’ of Indian women. Given that from a Western ethnocentric view an aesthetic appeal of the practice itself was quite impossible, other purposes of the practice had to be imagined. Some supposed that it was intended to make the ‘face appear fairer’, presumably in the sense of more European looking (Balfour 1857, 906 ; Burton 1877, I, 323; Martin 1837, I, 291). Others thought that the use of teeth blackener as a ‘varnish’ was an attempt to shield the enamel from the deleterious effects of betel chewing,<sup>3</sup> another practice looked upon with disdain (Williamson 1810, I, 117, 432, 489).

Post-colonial scholarship has been virtually silent on teeth blackening in South Asia, at best making it the subject of more or less accurate footnotes. The current study presents to my knowledge the first systematic investigation of teeth blackening as a form of body ornamentation in South Asia. It explores the practice from a wide range of vantage points, namely from its linguistic side, through its literary representations and from technological, medicinal and ethnobotanical perspectives.

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<sup>2</sup>Confusing it with the black eye cosmetic kohl that could contain natural sulfide of antimony (stibnite,  $\text{Sb}_2\text{S}_3$ ).

<sup>3</sup>A typical betel quids was composed of slices of the seed (‘betel nut’) of areca palm (*Areca catechu* L., Arecaceae) and slaked lime ( $\text{Ca}(\text{OH})_2$ ) wrapped in a betel leaf (*Piper betle* L., Piperaceae), see also Zumbroich 2008.

Teeth blackening traditions in South Asia fall geographically and technologically into two broad groups. On the one hand, there was a primarily urban culture of teeth blackening across much of the subcontinent that was methodologically fairly coherent in using a pre-made mixture called *missī*. On the other hand, various indigenous groups along the slopes of the Eastern Himalayas engaged in teeth blackening using different methods that relied on locally collected plant resources. Even though these two traditions also have points of contact, they will be discussed separately in this study.

## 2. The *missī* tradition

### 2.1. Linguistic explorations

In one of his ghazals, Mirza Asadullah Khan Galib, the most famous poet writing in Urdu around the middle of the nineteenth century, presented the following unusual simile for a betel nut (see footnote 3):

'The *missī*-stained finger-tip of the fair, call it' ...<sup>4</sup>

Here he evoked the image of a finger darkened by having been dipped into teeth blackener. To better understand the nature and application of *missī*, I will begin my linguistic analysis with a survey of the Urdu lexicon, where this tradition of teeth blackening received its most diverse lexical expressions in South Asia.

#### 2.1.1. The Urdu lexicon of teeth blackening

*Mis(s)ī*, was a powdery mixture, made among other items from vitriols, i.e. metal sulphates, that was applied to the teeth in order to tinge them black. It would be stored in a special metal box, sometimes even made of gold or silver, the so-called *misī-dān*. One of the purposes of the practise was 'to beautify oneself', described by the verb *missī-kājal* (*kājal* 'lamp black applied to the eyes'). Besides staining the actual teeth, *missī* could be also used to mark the interstices between the teeth (*rekhā*, 'black lines between the teeth') or, less frequently, to delineate the lips in black (*dhārī*, 'a line, to apply *missī* to the lips'). Apparently the practise had overtones of a decidedly sexual nature, as attested to by the verbal phrase *missī karnā* 'to deflower' and, perhaps more surprising, the term *missī lagāt* for a ceremony among prostitutes, which I will discuss later (Fallon 1879, 657, 722, 1098; Platts 1884, 1036).

<sup>4</sup> *Diwan-e-Ghalib* Quita [Fragments] IV; Ghalib 2003, 667.

Table 1: Forms for teeth blackener in languages of South Asia

Language	Form	Gloss	Reference
<b>Dravidian</b>			
Kannada	<i>mishi</i>	myrobalan toothpowder	GBP 1884, 23, 266
Tamil	<i>tacaṇap-poṭi</i>	Black tooth-powder which colours and strengthens the teeth	University of Madras 1924-1936, 1714
Telugu	<i>kappu</i>	Cover; darkness; blackness; the dark colour applied to the teeth by some natives	Brown 1903, 245
	<i>missi</i>	teeth blackener	Ul Hassan 1920, I, 95
<b>Indo-Aryan</b>			
Baṅglā	<i>dāṇter misī</i>	a powder made to scour the teeth	D'Rozario 1837, 134
	<i>miṣi</i>	Dentifrice made of roasted tobacco and copperas	Biswas 2000, 867
Gujarātī	<i>miṣī</i>	Teeth-tinging powder, dentifrice	Mūlji 1862, 337
Hindi	<i>mis(s)ī</i>	Powder ( <i>made of vitriol, &amp;c.</i> ) with which the teeth are tinged of a black colour	Thompson 1884, 515
Marāṭhī	<i>missī</i>	Powder (composed of <i>hiraḍā</i> [ <i>T. chebula</i> ], <i>māyaphala</i> [gallnut], <i>lōhacūrṇa</i> [iron shavings] &c.) used for tinging the teeth of a black colour	Molesworth 1857, 653
	<i>miṣī</i>	Teeth-tinging powder	
Nepālī	<i>mis(s)ī</i>	Tooth-powder, tooth-paste	Turner 1931, 509
Oriyā	<i>missi</i>	Powder of copper-sulphate and green vitriol mixed up and used as tooth-powder; a black powder used as dentifrice	Praharaj 1936, 6555
Pañjābī	<i>missī</i>	Black oxide of manganese used for blackening the teeth; copper; land of light sandy soil	Singh 1895, 754
Sindhī	<i>miṣī</i>	A powder (made of vitriol &c.) with which the teeth are tinged	Stack 1855, 316
Urdu	<i>mis(s)ī</i>	A powder made of vitriols, etc. with which women blacken their teeth	Fallon 1879, 1098
<b>Indo-Iranian</b>			
Persian	<i>miṣī</i>	Made of copper; a sort of dentifrice for colouring of the teeth used in Hindūstān	Steingass 1892, 1241
<b>Munda</b>			
Santhali	<i>missi</i>	A powder with which the teeth are tinged a black colour	Campbell 1899, 17

### 2.1.2. *Missī* and related forms across South Asia

*Missī* in the meaning ‘teeth blackener’ is absent from the lexicon of Old and Middle Indo-Aryan languages. It became widely represented with slight variations, likely through a series of loans, in New Indo-Aryan languages across the north of the subcontinent. It was also loaned into geographically close languages, belonging to other language families, such as Persian, Santhali or Kannada (Table 1). In Dravidian languages other forms could take the place of *missī*, such as Telugu *kappu* with a primary meaning of ‘darkness, blackness’

(Campbell 1899, 17) or Tamil *tacaṇa-p-poṭi*, literally ‘tooth powder’, but here specifically ‘black tooth-powder which colours and strengthens the teeth’ (University of Madras 1924-1936, 1714). The absence of a loan of *missī* into Tamil and Malayalam, at least according to authoritative older dictionaries (Gundert 1872; University of Madras 1924-1936), suggests that the practice lost its prevalence towards the far south of India.

### 2.1.2. *The etymology of missī*

There are two possible etymologies to derive *missī* from an Indo-Aryan source. In New Indic the meaning ‘mixed’ is widely expressed by *mil-*, but also, if less frequently, derived from *\*miśr-*. Gujarātī and Sindhī *miśī* and Pañjābī *missī* ‘teeth blackening powder’ can be considered isolated examples of a derivation from *\*miśr-* in New Indic languages of western India.<sup>5</sup> However, it is doubtful that the quality of being ‘mixed’ was the most defining characteristic of *missī*. Alternatively one can derive *missī* from *\*māṣi* that goes back to Old Indo-Aryan and is widely reflected with a range of meanings, such as ‘lampblack, soot, ink’, thus capturing the essential quality of being a black colouring agent (comp. Sanskrit *maṣī*, Pali, Prakrit *masi-*; Monier-Williams 1990, 793; Turner 1931, 509; 1962-1966, 570, 583).

Drawing on an Indo-Iranian source, Fallon (1879, 1094, 1098) suggested that Urdu *missī* was derived from *mis* ‘copper’ or *miśī* ‘made of copper’, which are Persian loans into the lexicon of Urdu (see also Steingass 1892, 1224). This etymology reflects what made *missī* unique compared to many other black dyes or inks, as we will find out below, namely the addition of a copper component.

### 2.1.3. *Conclusions*

Based on the linguistic data presented here, the use of *missī* for teeth blackening had a wide geographical reach across the Indian subcontinent, but appears to have been centred in the north. Its relatively late appearance past Middle Indo-Aryan languages suggests a period after 1500 C.E., whereas the diverse terminology in Urdu and the possible Persian source in the etymology of the form, point towards the influence of Perso-Islamic culture for further inquiry.

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<sup>5</sup> According to Tedesco (1943, 5) with Turner suggesting a similar derivation from *\*mṛṣyatē* (1962-1966, 583).

## 2.2. The cultural history of *missī*

### 2.2.1. The whiteness of laughter in Sanskrit poetry

Another approach to understanding the cultural history of teeth blackening in South Asia is through literary sources that may make explicit the codified concepts of physical beauty of their period. Poetical conventions of classical Sanskrit literature, as explicated, e.g., in Rājaśekhara's *Kāvya-mīmāṃsā* ('Dissertation on Poetry')<sup>6</sup> of the early tenth century, draw a clear association between laughter and whiteness. Both were represented with similes like the foam (*phena*) on the river Ganges, the moon (*candra*), a swan (*haṃsa*) or Jasmine flowers (*mallikā*), to name just a few.<sup>7</sup> This whiteness of smiling and laughter in turn was inseparable from the whiteness of teeth (Rājaśekhara 1946, 219ff; Hara 1995). Even allowing for poetic license, it is reasonable to infer that in the courtly, cosmopolitan circles where Sanskrit poetry prevailed, impeccably shiny and white teeth were considered an ideal representation of beauty. This readily explains the absence of a form for 'teeth blackening' in the vocabulary of classical Sanskrit.

If there was any, even if incidental decoration of teeth, it would have been caused by the red stains from the frequent practice of chewing betel which in poetic terms could make teeth sparkle like fully ripened pomegranate seeds or rubies.<sup>8</sup> Having teeth that had the 'ability to retain colours' in the sense of 'being coloured with betel' was valued during intimate encounters in keeping with the sexual connotations of betel chewing (*Kāmasūtra* 2.5.2.; Vātsyāyana 1994, 140; 2002, 48). The purposeful decorations of teeth could also arise on the occasion of artistic performances as outlined in the *Nāṭyaśāstra*, one of the earliest treatises on Indian dramaturgy. To enhance the amorous looks on young women, it suggested to dye their otherwise pearl-like teeth with the petals or pollen of lotus (*Nelumbo nucifera* Gaertn., Nelumbonaceae).<sup>9</sup>

### 2.2.2. Early traces of *missī*

In the wake of Genghis Khan's (d. 1227) and his successors' conquests, drastic

<sup>6</sup>Rājaśekhara was the teacher and court poet of the Pratihāra kings Mahendrapāla and his son Mahipāla of Kannauj in Gujarat.

<sup>7</sup>Referring to the white flowers of *Jasminum grandiflorum* L. (Oleaceae).

<sup>8</sup>E.g., see the 12th century *Gita Govinda* 11,20; Jayadeva 2005, 308.

<sup>9</sup>The *Nāṭyaśāstra*, traditionally ascribed to Bharata, likely originated at some point between the first and fifth century C.E. and therefore around the same time period as the *Kāmasūtra* was compiled. The passage in question in the *Nāṭyaśāstra* does not occur in all manuscripts and is somewhat corrupted (XXIII, C.27b-31a; Ghosh1950, 415).

changes affected the political situation in northern India. Through refugees and direct occupation a broad spectrum of cosmopolitan Perso-Islamic culture was subsequently dispersed across the subcontinent. It is in this intellectual atmosphere of changing aesthetic paradigms of architecture, art and personal decoration, that the roots of teeth blackening in India can be located.

Indeed, the first indisputable literary presence of teeth blackening, though without mentioning the agent responsible, comes from the *Padmāvatī*, a work that was inspired by Sufi mysticism and pays rich tribute to a lineage of Persian Sufis. This epic poem was composed in 1540 by Malik Muhammad Jayasi (1477–1542) of Jais<sup>10</sup> in the Avadhi dialect of Hindi. Using the framework of the historic siege of Chittor (Rajasthan) in 1303, the work presented a tale of mystical love in the idiom of Sufi symbolism. Extolling the beauty of the heroine Padmāvatī, the author gave a *nakhaśikha* ('From toe-nail to top-knot') description of the heroine:

'Her teeth, like diamonds on a pedestal [*chauk*]:  
between each, deep, deep black.  
Like a gleam of lightning in a dark Autumn night,  
so are these thirty-two caused to flash.'  
(*Padmāvatī* 10, 9, 1; Jayasi 1944, 76-77)

The 'pedestal' can here be understood as the gums and the interstices between the teeth which are blackened.<sup>11</sup> Elsewhere the text also refers to teeth as white and black 'diamonds', indicating that it was the very contrast between white and black that allowed her teeth 'to display their splendour'.<sup>12</sup>

If blackening of the teeth and the gums was plausibly part of the aesthetic values espoused by the courtly culture of the new Mughal rulers, a promising place to search for it would be the *Ain-i-Akbari* ('The Institutes of Akbar', ca. 1590). This complete record about life at the court of Akbar (1542-1605) not only covered issues of governance, but also extensively the material culture of courtly life. Indeed, it discussed the sixteen female adornments (*solah*

<sup>10</sup>It is located some 110 kilometers south-east of Lucknow in today's Uttar Pradesh and was ruled until 1540 by the Delhi Sultanate.

<sup>11</sup>Since obviously the interstices cannot be blackened, technically it would be parts of the gum line and the lateral edges of the teeth. An alternative reading of this passage could take *chauk* to mean 'four front teeth' resulting in a different image.

<sup>12</sup>*Padmāvatī* 36, 11, 4; 49, 16, 6; Jayasi 1944, 262, 343. An analogous *nakhaśikha* in Mañjhana's *Madhumālātī*, another mystical romance written around 1550 in the Sufi tradition, makes no mention of blackened teeth (Mañjhana 2000, 38).

*śṛṅgār*), a concept of female beauty that had crystallised in poetic convention over the centuries in number, though not in content. However, the enumeration of adornments in the *Ain-i-Akbari* made references to chewing betel (*pān*), but there was no mention of teeth blackening.<sup>13</sup>

It is then perhaps surprising that the practice was represented in the writings of Keśavdās's (c. 1555-1617) who spent most of his life in Orchha, a vibrant principality in Bundelkhand that was largely independent of the Mughals of Agra some 210 kilometres away until the 1570's. In Orchha, Keśavdās was connected to the local court of Madhukar Shāh (r. 1554-1591) and his successor and helped turn Orchha into a centre of Brajbhāṣa poetry.<sup>14</sup> Keśavdās *Rasikpriyā* ('Handbook for Poetry Connoisseurs') of 1591, roughly contemporaneous with the *Ain-i-Akbari*, spelled out poetic conventions of the time. It enumerated the *solah śṛṅgār* as they applied to *nāyikā* (heroines) as follows:

‘Chew betel-leaves to sweeten breath,  
And cardamom - and then the teeth  
with powder black stain, lips paint red;  
Last collyrium in eyes that tease -  
Thus with sixteen adornments helped,  
Each moment you your spouse should please.’  
(Bahadur 1972, 32-33)

Evidence for teeth blackening much further to the south comes from the western Deccan plateau. While around the end of the sixteenth century this region remained outside the political reach of the Mughal empire, it had readily cultivated Perso-Islamic aesthetic influences for centuries (Eaton 2011). The *Kitab-i Nauras* ('Book of Nine Essences') is a collection of fifty-nine devotional songs and seventeen couplets composed by Sultan Ibrahim 'Adil Shah II of Bijapur (r. 1580-1627).<sup>15</sup> Ibrahim II was well-known for his patronage of the arts and religious unorthodoxy. Despite belonging to the Sunni sect of Islam, he was devoted to the goddess Sarasvatī as a patroness of music and learning. His *Kitab-i Nauras* therefore amalgamated hybrid influences from Hindu and Islamic be-

<sup>13</sup> Abu-'l-Faḍl 1894, 312. See Bhatnagar (2004, 29-32) for other lists of *solah śṛṅgār* which date to before the middle of the sixteenth century and do not mention teeth blackening.

<sup>14</sup> Brajbhāṣa was North India's most important literary vernacular of the early modern period. For a discussion of Keśavdās's later association with Jahangir's court in Agra, see Busch 2010, 277-282. See also Bahadur 1972, i-iv.

<sup>15</sup> The earliest manuscript copy of the *Kitab-i Nauras* has been dated to 1582 CE, though with some disagreement about the reading of the precise date (Najat Haidar 2011, 26).



liefs. In fact, in song 56 of the *Kitab-i Nauras* Sultan 'Adil Shah visualised himself as a Hindu god(ess), in the image of Sarasvatī:

'In one hand he has a musical instrument, in the other a book from which he reads and sings songs related to Nauras. He is robed in saffron-colored dress, his teeth are black, the nails are painted in red, and he loves all. Ibrahim, whose father is god Ganesh and mother the pious Saraswati, has a rosary of crystal round his neck, a city like Bijapur and an elephant as his vehicle.' (Najat Haidar 2011, 39)

The description of the saffron dress, indicating purity and renunciation, and of red-painted nails, a hint at the world of music, frame the reference to blackened teeth which may symbolise Sarasvatī's divine beauty.

With poetic references portraying the blackening of teeth, and sometimes gums, as an adornment fit for a heroine or even the divine, gauging the wider popularity of the practice among women in the courtly or cosmopolitan urban setting of the late sixteenth century is difficult. However, from the fact that it was transmitted that Zēb-un-Nisā (1628-1702), daughter of Emperor Aurangzeb, was not fond of teeth blackening (Krieger-Krynicky 2005, 130), we may conclude that by the mid-seventeenth century the practice must have been de rigueur at the Mughal courts.

### 2.2.2. *Missī as an Islamic practice*

A clearer picture does not emerge until considerably later, when nineteenth century British ethnographers began to take an interest in practices utilising *missī* as part of colonial efforts to describe, categorise and sub-divide their Indian subjects.<sup>16</sup> At this point teeth blackening was geographically wide-spread among married Muslim women across much of the Indian subcontinent.<sup>17</sup> Although some of the ingredients were items of trade that came from quite far away to the local

<sup>16</sup>These colonial sources have to be read with some caution. For example, there appears to have been a tendency to ascribe teeth blackening among non-Muslims to marginal groups like beggars, suggestive of constructing a 'physiognomic' identity of castes (e.g., GBP 1884, 22, 196). This is particularly evident in a description of the hereditary criminal caste of *sānsis*, whose women were said to be 'much given to the use of missī', as if it was an illicit and addictive substance, thus affirming the immoral nature of *sānsis* (Kennedy 1908, 247; see also Schwarz (2010, 69) for further insights into the typecasting of the Indian criminal).

<sup>17</sup>E.g., Maharashtra: GBP 1883, 11, 83, GBP 1882, 13/1, 233; Gujarat: GBP 1899, 9/2, 28, 52; Mysore: Franci 1908, 18, 207; Rajasthan: Mathur 1986, 89; Singh 1998, 673).

markets, it was relatively inexpensive.<sup>18</sup> As sold by the Muslim caste of *attārs* (perfumers) in Maharashtra it cost around half a rupee per pound, comparable to the price of rice flour with fragrant powder (*abir*; GBP 1882, 13/1, 236). Its use notably also cut across social classes from Dalits (North India: Fallon 1886, 162; Poona: GBP 1885, 18/1, 438) to the aristocratic elite, such as the Begums of Lucknow (Hasan 1983, 162).

An apparently strong, if almost certainly apocryphal rationale for the use of *missī* was that it was considered an article of toilet sanctified by Fāṭimah, the daughter of the Prophet (*d.* 632 C.E.). In Punjab on special occasions, such as weddings, births, etc., a *rat jagā* ('vigil', social gathering) was held which included an offering to Fāṭimah. Such offerings consisted of seven kinds of fruit and vegetables, in plain or sweetened rice, on which were placed *missī*, *phulel* (scented oil), *surma* (kohl, see footnote 2), henna,<sup>19</sup> coloured thread, sandalwood and five ānā as a 'lamp fee' (Rose 1907, 253). A similar practice of offering of food to Fāṭimah, known in Gujarat as *bībī kī sahnak* ('Lady's earth dish'), involved applying *missī*. Out of respect for Fāṭimah the use of *missī* by menstruating women was sometimes avoided (Gujarat: GBP 1899, 9/2, 52, 152; Enthoven 1920, 192).

A unique occasion when teeth blackener was applied to a boy was during the circumcision rite when *missī* became part of the boy's decoration before he was carried in a procession around the town (Sharif *et al.* 1921, 48). Especially in the actual Muslim marriage rituals *missī* played an important role that locally might still continue today. During the rite of *tel charhāna* ('oil pot offering'), which was particularly important in Punjab, the groom was anointed with oil and his teeth rubbed with *missī*. Thereupon among other items *missī* was taken to the bride and applied to the teeth of the bride by a happily married woman, hoping that the bride may become as old and happy as the woman who applied it, and that by sharing the *missī* with the groom she may also share his love (Sharif *et al.* 1921, 72). Similarly significant was the decoration of the groom and bride with *missī* as they paraded through town during *varāt*, the hometaking of the bride (e.g., Sātāra (Maharashtra): GBP 1885, 19, 131; Deccan: Enthoven 1920, 110-111).

Among a minority of strict Muslims, the use of *missī*, especially based on the claimed association with Fāṭimah, created resistance. This was expressed by Ismail Hadji Maulvi-Mohammed (1781-1831) in his treatise *Taqwiyat al-Iman*

<sup>18</sup> Buchanan observed in 1800 that *mailtuta*, blue vitriol, for sale at the market at Gubbi (Karnataka) came all the way from Haveri, some 300 kilometers away (1807, II, 32).

<sup>19</sup> A brown dye produced from the leaves of *Lawsonia inermis* L. (Lythraceae) used to paint patterned designs, often on the palms.

(‘The Strengthening of Faith’) of 1824. As a leading theorist of the Wahhabi sect in India he tried to purge foreign accretions from Islamic faith and declared:

‘Those who say ... that on making the offering to Her Highness, the redness of certain herbs, as well as “**Missi**” (a stuff with which the Indian women blacken their teeth) and Henna are most essential; ... are all liars and guilty of Shirk.’ (Shamahat Ali 1852, 355)

Here the reformist objected to *missī* for being part of the idolatrous worship of Fāṭimah, and this objection was given extra weight by labelling it a practice specific to India. This criticism by a minority appears to have had little effect on the *missī* practice (and Maulvi-Mohammed himself was exiled soon after publication of his inflammatory treatise).

### 2.2.3. *Missī as a sexualising agent*

Seemingly in contrast with *missī* as a religiously inspired practice, it acquired increasingly lascivious overtones. In the most famous Urdu *masnavi* (narrative poem), known as *Sīhr ul-bayan* (‘The Enchanting Story’, completed in 1785) Mir Hasan (1736/7-1786) described a celebration at an imaginary Mughal court where *missī* metaphorically expressed the licentious mood at sunset:

‘On all sides, in great numbers, were spread the carpets of joy,  
On which the merry-makers were dancing; ...  
So well were the teeth of some [dancers] tinged with *missī*,  
and such the freshness of their lips,  
That they appeared as evening and dawn of day at the twilight; ...’<sup>20</sup>

Perhaps the best literary examples of *missī* as a form of seductive beautification arose from *rekhti* poetry, here in a ‘head-to-foot’ (*sarapa*) description of the beloved’s beauty:

That forehead gem’s a killer! The braided coiffure a wonder:  
Her perfumed hair and fragrant forelock choice.  
In speech she’s like no other, from toenails to hair-plait unique:

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<sup>20</sup>These lines, quoted from Hasan (1871, 9), are a translation of The Masnavi of Mir Hasan (1736/7-1786), officially known as *Sīhr ul-bayan* (‘The Enchanting Story’). Mir Hasan spent the majority of his life in Faizābād, in today’s Uttar Pradesh. For another simile describing vibrantly red lips tinged with *missī* by invoking Badakhshan, the country of rubies, covered by evening smoke, see Hasan 1871, 53.

Those powdered-black teeth, complete the picture!  
 How lovely on her body lies her lace chemise!  
 ... (Petievich 2004, 130)

In the *rekhti* genre (as opposed to *rekhta*) male poets presented Urdu *ghazals*, speaking from a female vantage point and often transporting their readers into the courtesanal milieu. The author and innovator of *rekhti*, Sa'adat Yar Khan 'Rangin' ('the Colourful', 1755/56-1834/5), had spent much of his *Sturm und Drang* in the company of courtesans in Lucknow. He subsequently composed his poetry in an female urban idiom that challenged social and literary conventions, even though his audience was the Lakhnavi elite (Petievich 2004, 127-128; Vanita 2004). Rangin's familiarity with the world of courtesans explains the racy and suggestive overtone of his poetry, in which *missī* could be, as above, a perfecting or a bewitching ornamentation:

God knows how many hearts her teeth's sharp set,  
 she will apply that witching *missī* bright as jet.<sup>21</sup>

As a seductive decoration, *missī* was best reserved for the youthful and would earn the elderly scorn, as from the later *rekhti* poet Mir Yar Ali Khan 'Jan Sahib' (1818?-1897?):

'Her head with age is shaking,  
 still her teeth she needs must paint.' (Fallon 1879, 252)

Exactly because it was a sexualising, if effeminising agent, the use of *missī* crossed the gender barrier at some point during the Mughal period. Evidence comes from a late seventeenth century treatise belonging to the genre of *mirzā nāmāh* which sought to define *mirzā'ī*, gentility (Ahmad 1975). Derived from what was originally a Persian title for princes and noblemen, in India *mirzā'ī* eventually came to describe a sense of personal cultivation that integrated outward bodily deportment and inner morality. Such prescriptions for behaviour extended to the sexual conduct of imperial servants, and the treatise in question projected an ideal of heterosexual and authoritative masculinity that stood in contrast to the apparent public homoerotic attachments at the Mughal court. The *mirzā nāmāh* therefore stipulated for the 'true' *mirzā* as follows:

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<sup>21</sup> Here the poet used the term *dhārī* 'a line to apply *missī* to the lips', i.e. specifically referring to highlighting the lips with *missī* (Fallon 1879, 657).

'He should avoid the company of such [self-proclaimed], self-opinionated, bastard *mīrzās* who tie their turbans with great delicateness... who have the habit of eating *pān* frequently and blackening their teeth with *missī*.'<sup>22</sup>

Having blackened teeth had become one of the defining criteria for the so-called 'bastard' *mīrzās*, that one could encounter in the halo of the imperial court. Their excessive bodily decoration were a means to project cultivation of taste and to signal their own homoerotic proclivities.

#### 2.2.4. *Missī and commercial sexual services*

Colonial ethnography of the late nineteenth century tell us that at some point in time the connection of *missī* with sexuality was taken one step further through its association with commercial sexual services. Already part of Muslim marriage rites in a traditional sense, teeth blackening became integrated in the formal introduction of typically higher classes of Muslim prostitutes into their profession, since this act was performed like a marriage ceremony. This might involve in hereditary classes an actual child of a prostitute. More often an unfortunate girl who had been purchased from her destitute parents by another prostitute or simply was abducted, would be trained in dance and song in order to eventually have her virginity sold off to the highest bidder. When this occasion arose, the girl was dressed like a bride and her teeth were blackened for the first time with *missī*, whereupon she was taken in procession through the streets, followed by a feast for fellow performers and prostitutes. This so-called *missī* ceremony has been described with slight variations, e.g., for *kasbans*, *nāikans* of Maharashtra and Karnataka, *kanjars* of Punjab and *tawa'if* of Awadh (in today's Uttar Pradesh; GBP 1883, 16, 84; GBP 1884, 21, 225; Crooke 1896, 364-368; Rose, Ibbetson and MacLagan 1911, 454-455).<sup>23</sup>

Whether, in fact, a *missī* celebration would occur and the level of its extravagance was dependent on the social standing and the level of financial sponsorship a prostitute was able to solicit. Such festivities found their most elaborate expression in the first half of the nineteenth century among the *deredar tawa'if*

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<sup>22</sup>Quoted from Ahmad (1975, 105). See Hanlon (1999) for a detailed analysis of the genre and, in particular, the issue of sexuality. That the consumption of betel is also noted as effeminising is perhaps surprising, though perhaps had more to do with the manner and frequency with which it was consumed.

<sup>23</sup>In India prostitution was a regionally variable, highly stratified and shifting social institution that intersected with other institutions, such as courtesanry. The practice of selling sex could be accompanying cultural interludes or *vice versa*, but in the confines of this paper I will speak in categorisations that might otherwise deserve further differentiation.

of Lucknow.<sup>24</sup> In this most privileged class of courtesans in the city many traced their lineage back to Mughal courtesans and were highly trained in traditional song and dance. Their *missī* celebration could involve dancers from as far away as Kashmir, singers from Delhi and go on for a whole week with hundreds of guests. Its extraordinary expense had to be born by the male sponsor of the *tawa'if* who also would afterwards support her with a retaining allowance (Hasan 1983, 117-121; Ruswa 1970, 53). Following the annexation of Awadh in 1856 by the East India Company, the structures of patronage that *tawa'ifs* relied on were dismantled with an accompanying decline of the courtesan institution (and an emerging demand for brothel prostitution). This, of course, impacted the conduct of *missī* ceremonies for *tawa'ifs* of Lucknow on which the rules had therefore become relaxed by the end of the nineteenth century (Crooke 1896, 367).

The enactment of the *missī* ceremonies by Muslim prostitutes became even less of an expression of a specific religious identity towards the south of India where Islam was less predominant. In Bijapur (Karnataka) for some *kasbans* the designation as Muslim was clearly *pro forma* as it was the result of their having been expelled from their Hindu castes to eventually join this Muslim caste of prostitutes (GBP 1884, 23, 244-245, 304 ). Locally the use of *missī* could also extend to Hindus, such as among the related caste of *kalāvantīn* (also of Bijapur), who were dancers that followed the precepts of Lingayatism.<sup>25</sup> If one of the dancing girls became pregnant, it was essential that a ministrant of their sect of Hinduism would apply *missī* to her teeth, presumably in fulfilment of a retroactive marriage ceremony (GBP 1884, 265-266).

In Andhra Pradesh *bhogams* were a class of entertainers who followed either the Hindu or Muslim faith. On the Hindu side all *bhogams* underwent a traditional Hindu marriage ceremony to an idol of Krishna before they entered the business of prostitution (though not all were *devadāsīs*, see below). For Muslim *bhogams*, the same ceremony was enacted, except that the idol of Krishna was replaced with a dagger (*khanjir*). In addition, for Muslim *bhogams* the *missī* rite of blackening her teeth was also performed and supplemented by tying a string of glass beads round the girl's neck (Ul-Hassan 1920, I, 91-95).

Even further south, especially in Tamil Nadu, the *devadāsī* institution, involving women specifically 'dedicated' to service for a deity and temple, dominated commercial sexual services, but there is no evidence that the use of *missī* played any role for *devadāsīs*.

<sup>24</sup> Literally, 'tent owning courtesans', with various explanations how this designation originated.

<sup>25</sup> A Shaivite denomination in India whose monotheistic worship centred on Lord Shiva in the form of *liṅgam*.

### 2.3. The composition of *missī*

Across the Indian subcontinent *missī* consistently had three classes of ingredients. First, there was a source of metal ions, namely iron sulfate or iron shavings dissolved in lime juice as well as copper sulfate. Second, there were dried plant materials providing tannins,<sup>26</sup> such as the fruits of chebulic, emblic and belliric myrobalans and a number of other products commonly used for tanning and dyeing at the time. Lastly, flavouring agents, such as cloves, could be added to the mixture to ameliorate its objectionable taste.

Chemically the teeth blackening powder was formulated analogously to the ancient formula for gall inks. It relied on the formation of iron complexes with tannic acids or gallic acids to form complex iron gallates or tannates. As part of this process the initial, relatively pale water soluble ferrous ( $\text{Fe}^{2+}$ ) complexes turn black as they oxidise to water insoluble ferric ( $\text{Fe}^{3+}$ ) complexes (Reissland and Ligterink 2011). The production of *missī* differed in a number of important respects from gall ink. Not only was a mixture of different plant products used as a source of tannins,<sup>27</sup> but the components were also mixed in a dry state.<sup>28</sup>

The presence of copper sulfate in the mixture remains somewhat perplexing. Iron sulfate ('green copperas') and copper sulfate ('blue copperas') were often commingled in their natural sources and consequently mined and used together. However, during the period in question, obtaining relatively pure iron or copper sulfate would have been unproblematic. Indeed, copper sulfate was in use as a mordant in textile and leather dyeing in India, but it is doubtful that the addition of copper sulfate actually aided the staining of the teeth since copper tannates produced at best a brown colour. In fact, there is evidence that, e.g., in the production of gall ink the presence of copper could interfere with the production of the black pigment (Reissland and Ligterink 2011). It is therefore ironic that the presence of copper sulfate (Persian *mis*, copper) defined *missī* linguistically, when, in fact the ingredient was technologically redundant for teeth blackening.

<sup>26</sup>A class of secondary plant metabolites, also known as polyphenols, that are water-soluble phenolic compounds with the property of being able to bind and precipitate larger molecules, such as alkaloids, proteins or polysaccharides.

<sup>27</sup>Other plant products not listed in Table 2 were also used, e.g., the bark and leaves of *Terminalia catappa* L. (GBP 1886, 25, 244).

<sup>28</sup>This may explain the following Urdu riddle: 'To sight it is brown, touch it is black' (Falcon 1879, 1192). The answer was *missī*, since it was perhaps sometimes purchased as a brown powder, yet developed a black colour once it was applied to the teeth in a moist environment.



**Table 2:** It lists side-by-side the ingredients of three regional recipes for the compounding of *missī* with their constituents translated into contemporary nomenclature.

Ingredient	Rajasthan (Irvine 1841, 137)*	Maharashtra (GBP 1886, 24, 216-217)	Deccan (Sharif 1921, 306-307)	Notes
<b>Metal</b>				
Blue stone, Blue vitriol, Copper(II)sulfate	<i>lila tootiya</i>	<i>morchut</i>	<i>nīlā tūtiyā</i>	No internal uses, but used as caustic agent to combat fungus by Muslim practitioners (Ainslie 1826, I, 513; Irvine 1848, 59).
Iron sulfate	<i>hira kussees</i>	sulphate of iron		Few medicinal applications, but widely used in dyeing (Ainslie 1826, I, 529-532).
Iron filings			<i>bīr</i>	Solubilised by combining with lime juice.
<b>Acidifier</b>			lime juice	
<b>Tannin source</b>				
Dried fruit of <i>Terminalia chebula</i> Retz. (Combretaceae)	<i>chaipal harra</i>		<i>harrā</i>	Chebulic myrobalan, alone or as part of <i>triphalā</i> , had numerous medicinal applications and was widely used in tanning (Meulenbeld 1999-2002; Watt 1908, 1073-1076).
Dried fruit of <i>Phyllanthus emblica</i> L. (Phyllanthaceae)		<i>āvalkāti</i>		Emblic myrobalan, the second constituent of <i>triphalā</i> , had wide medicinal uses and was a dye (Watt 1908, 886-887).
Dried fruit of <i>Terminalia bellirica</i> (Gaertn.) Roxb. (Combretaceae)		<i>bibha</i>		Belliric (beleric) myrobalan, also part of <i>triphalā</i> , with medicinal and lesser dyeing uses (Watt 1908, 1073-1073).
Extract of heartwood of <i>Acacia catechu</i> (L. f.) Willd. (Fabaceae)	<i>kuth</i>	<i>catechu</i>		'Dark catechu' ( <i>cutch</i> ), the catechu-tannic acid rich fraction, was used for dyeing; 'Pale catechu' ( <i>kath</i> ), the catechin-rich fraction was preferred for medicinal and chewing (Balfour 1857, 316-318; Watt 1908, 8-14).
Gum of <i>Butea monosperma</i> (Lam.) Taub. (Fabaceae)	<i>chooni gond</i>			Bengal kino was collected from artificial scars in the bark; it hardened into a ruby coloured, brittle, astringent gum with medicinal applications (Balfour 1857, 237-238; Watt 1908, 189-190).
Gall nuts on <i>Quercus infectoria</i> Olivier (Fagaceae)			<i>mājūphal</i>	Gall nuts were imported to India for medicinal and dyeing purposes (Balfour 1857, 872-873; 1531; Watt 1908, 911).
<b>Flavourant/perfume</b>				
Cloves, i.e. flower buds of <i>Syzygium aromaticum</i> (L.) Merr. & L.M. Perry (Myrtaceae)		<i>lavangchur</i>		Traditional flavourant for betel chew, medicinal applications include oral hygiene (Zumbroich 2012).
Flowers of <i>Acacia nilotica</i> (L.) Willd. ex Delile (Fabaceae)			<i>kīkar kīphalī</i>	Yellow, globose, strongly perfumed flower heads (Baden-Powell 1868, 345; Watt 1908, 14).**

\* Irvine (1841, 137) also lists a recipe for 'White missi', a mixture of pounded naturally occurring Calcium carbonate and cinnamon, i.e., essentially a mild abrasive tooth powder with flavouring.

\*\* Although the source explicitly refers to 'flowers', the amount prescribed equals that of chebulic myrobalan. Perhaps *kīkar kīphalī* here refers to the pods of high tannin content which are elsewhere implied in tooth powder (Watt 1908, 7).



### 2.3.1. *Missī* as a medicinal compound

Even if the prevailing reason for the use of *missī* remained aesthetic and symbolic, it was also sometimes thought of as providing not only spiritual (through its association with Fāṭimah), but also medicinal benefits. After all, some of the ingredients were well-known components of local pharmacopoeias. Around Pune, for example, *missī* was thought of as a strengthening treatment for women after childbirth (GBP 1885, 18/2, 182; see also Mathur 1986, 89). Other medical uses given in colonial accounts are rather less specific. An influential pharmacological compendium considered the application of the 'oxyde of copper' a treatment for tooth ache (Ainslie 1826, I, 513), and elsewhere it was thought of as an astringent applied to the gums (Irvine 1848, 74). Irrespective of whether the application of *missī* provided any benefits for teeth or gums, from our current perspective it might have harboured a significant risk of chronic copper toxicity depending on the exact composition and frequency of application.

## 3. Teeth blackening traditions of the slopes of the Eastern Himalayas

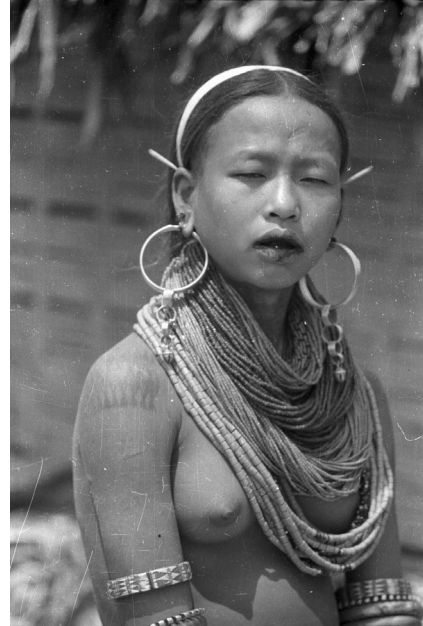
In the north-east periphery of the subcontinent teeth blackening was practised by indigenous groups in a manner quite distinct from the tradition of using *missī*.

### 3.1. Nagaland

In the north-east of Nagaland, the blackened teeth of the Konyak Naga<sup>29</sup> and, living in proximity, those of the Wancho Naga attracted particular attention since their black teeth visually complemented elaborate facial tattoos among men (Fürer-Haimendorf 1938). Even though the early anthropological fieldwork by Christoph von Fürer-Haimendorf (1909-1995) documented the practice, the visual record appears to be limited to women who were apparently more apt to display their blackened teeth (Figs. 1-3). The Konyak and Wancho Naga accomplished teeth blackening by burning pieces of split green bamboo and collecting the wood tar and carbon deposits on a moistened metal blade that was held into the fire. From the blade the material was spread on the teeth with the fingertips, taking care to avoid the gums with the caustic

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<sup>29</sup> The ethno-linguistic groups collectively referred to as Nagas are culturally more coherent than linguistically, although they all fall within a subset of Tibeto-Burman.



**Fig. 1:** Neikhao, a Konyak Naga woman from the village of Oting in Nagaland (Mon District) with blackened teeth in an image taken by Fürer-Haimendorf in Octobre 1936 (© School of Oriental and African Studies Library (London), PPMS19\_6\_NAGA\_0728).

**Fig. 2:** Ngapnun, a Konyak Naga woman from the village of Longkhai (Mon District) and daughter of the *ang* (village chief), is seen with blackened teeth as well as signs of recent betel chewing on her lips (April 1937). Fürer-Haimendorf (1970) noted that Ngapnun was particularly aware of her rank and never paid attention to him while he photographed her (© School of Oriental and African Studies Library (London) PPMS19\_6\_NAGA\_2389).

mixture (Neuenhofer 2004; Roy 2004, 12-13). While the practice appears to be still alive among Konyak Naga, among Wancho it is restricted to older people. Younger, more educated Wancho actively discourage the practice because it is considered, together with tattoos, as an obstacle to finding a spouse (Borooah 2000, 385, 395; Neuenhofer 2004).<sup>30</sup>

<sup>30</sup>Plausibly other Naga groups also engaged in teeth blackening in the past. An early source ascribed teeth blackening to 'Anzang' (Southern Rengma) Nagas (Waddell 1900, 25), though there is no mention of teeth blackening nor betel chewing in a somewhat later extensive ethnography (Mills 1937).



**Fig. 3:** In this image from 1954 a young Konyak Naga woman of the village of Niausa (Tirap district, Arunachal Pradesh) displays her blackened teeth (© Estate of Verrier Elwin).

**Fig 4:** This and the subsequent figures show images were taken in the last fifteen years and demonstrate that teeth blackening is still being practised by the older generation. Konyak Naga near Shangnyu (Mon district; 2009; © Christa and Günter Neuenhofer, Bocholt, Germany).

### 3.2. Assam

In Assam the Nath (Yogi)<sup>31</sup> used the wood tar from *Melastoma malabathricum* L. (Melastomataceae; *phutuka*), for the purpose of teeth blackening. Again, it was produced by heating a stick and collecting the black exudate (Sikdar & Dutta 2008, 43). Indeed, there is evidence that formerly teeth blackening was more wide-spread among women, but also men in Assam. Young women used to chew the stipules and buds of *Talauma hodgsonii* Hook. f. & Thomson (Magnoliaceae) to blacken their teeth and lips (e.g., Peal 1893, 245). The Karbi of central Assam employed the wood tar of *Croton caudatus* Geisel. (Euphorbiaceae; *so-ik*, *kung kung*), *Murraya koenigii* (L.) Spreng. (Rutaceae; *theng sakso*,

<sup>31</sup> Unlike the other (ethno-linguistic) groups discussed here, the Nath community constitutes an endogamous caste of Shaivites that speaks Assamese.



**Fig 5:** Wanchao Naga of Longkhao village (Tirap district, Arunachal Pradesh; 2003; © Christa and Günter Neuenhofer, Bocholt, Germany).

**Fig 6:** Wanchao Naga (Tirap district, Arunachal Pradesh, 2003; © Christa and Günter Neuenhofer, Bocholt, Germany).

‘curry plant’) or of other plants for teeth blackening (Jain 1997, 316; Teron & Borthakur 2012, 595, 598). There were also clear points of contact between the practices of teeth blackening and betel chewing; the stem of an unidentified jungle plant was sometimes added to *tamul*, the betel quid, in order to blacken teeth or lips (Bronson 1867, 388). Besides aesthetic preference and medicinal benefits, the practice also bestowed auspicious protection. Particularly during major Assamese festivals like *bohag bihu*, teeth blackening was done in order to avoid any similarity with the skulls on burial grounds that overtly displayed shiny white teeth (Rajkhowa 1973, 61).

### 3.3. Plant based teeth blackening from Nepal to Manipur

The Garo who are believed to have migrated from Tibet over two millennia ago to the Garo Hills on the western end of the Meghalaya plateau, used the fruit of *Paederia foetida* L. (Rubiaceae; *kasim* or *pas(s)im*) to blacken their teeth (Rongmuthu 1960 163, 361-362). In the Darjeeling district the same fruit was





Fig 7: Wancho Naga Queen in Niauxa (Tirap district, Arunachal Pradesh, 2003; © Christa and Günter Neuenhofer, Bocholt, Germany).

used by Lepcha (known as *tuk-pyt rik pót*)<sup>32</sup> as well as by ‘Paharia’<sup>33</sup> (known as *padebiri*). They all shared the belief that chewing this fruit also provided specific protection against toothaches by killing the ‘tooth worm’.<sup>34</sup> In Nepal the black seeds of *Neohymenopogon parasiticus* (Wall.) Bennet (Rubiaceae) are still chewed for some period by village women in order to leave black marks between their teeth as an adornment (Manandhar 2002, 57).

In Manipur both the Meitei as well as the Maring Naga utilised a fruit called *yachubi* (Manipuri ‘teeth staining’; Gordon 1837, 257, 287) for teeth blackening. *Yachubi* turns out to be the blackish red fruit of *Melastoma malabathricum* L., which to this date some Maring Naga continue to use for the purpose.<sup>35</sup> Before Christianisation of the Maring Naga, *ha-sang*, teeth blackening, used to be a rite of passage as juveniles were introduced into their youth dormitory (*r’khang*; The Nagas World 2013). While chewing the fruit to blacken teeth was understood to benefit gums and teeth, chewing the stem of *yachubi* was also the most predominant form of treating dental problems in the tradition of Meitei herbal medicine (Ningombam *et al.* 2014, 68; Potsambang *et al.* 2008, 144).

#### 4. Discussion

Across mainland and island South-east Asia as well as Near Oceania betel chewing and teeth blackening almost always went hand in hand. Even though the two practices were distinct, they were aesthetically, ritually and otherwise strongly associated. In most of the Indian subcontinent betel chewing prevailed since around 500 B.C.E. (Zumbroich 2008, 119), but there is as of yet no compelling evidence that teeth blackening gained a foothold until about two thousand years later. It is very likely that during this time period people from the Indian subcontinent would have regularly come in contact with others that did

<sup>32</sup>Literally, ‘fire fly creeper fruit’, though it is not clear how the association with the fire fly arose (Mainwaring & Grünwedel 1898, 22, 332).

<sup>33</sup>Identified as emigrants from eastern Nepal (Gamble 1879, i, 49).

<sup>34</sup>In Mizoram the stem and leaves of *Paederia foetida* L. were chewed and kept in the mouth to treat toothache among Mizo (*vawihuih hrui*; Lalmuanpuui *et al.* 2013, 26; Lor-rain 1940, 546) and Mara Chin (*veihna*; Parry 1932, 171). Use of the plant was also thought to harden the gums and firm the teeth in this region, but it is unknown what significance any associated teeth blackening carried.

<sup>35</sup>The colouring agents have been identified as a gallic acid derivative, a galloyl-glucopyranoside, and a derivative of Punicacortin A. The dyes extracted from the fruit are also used for dyeing fabric in Manipur (Potsambang *et al.* 2008, 144).

blacken their teeth, e.g., through oceanic trade contacts with South-east Asia. One can only speculate about the cultural reasons why teeth blackening was adopted or developed relatively late in South Asia. Perhaps the elaborate systems of medicine, such as *āyurveda*, that promoted dental hygiene and teeth cleaning, might have had a part in it.

This paper locates the emergence of *missī* as a teeth blackening agent in the wider context of Perso-Islamic culture no later than the first half of the sixteenth century. This is supported by the potential Persian etymology of the form *missī*, by an 'origin myth' that ties teeth blackening to Fāṭimah, the daughter of the Prophet, and its many other connections to Islamic practices. By the time literary traces of the practice can be detected in the sixteenth century, teeth blackening, which could also encompass the blackening of the gums, already had a relatively far flung geographical reach, even if it was by no means ubiquitous in Islamic urban culture.

Early references to blackening the gums and edges of the teeth, as noted in the *Padmāvatī*, provide another interesting link to Islamic cultural history. In Arab societies around the time of Muhammad, evenly separated teeth were considered aesthetically so desirable that Muslim women took to filing the interstices between the teeth. While the Qur'an broadly forbade 'changing the creation of Allah' (Quranic Arabic Corpus 2009-2011, chapter 30, verse 30), the Sunni canon of *ḥadīths*, presumed sayings or acts of the prophet Muhammad compiled by Muslim scholars around the ninth century C.E., contained various *ḥadīths* specifically condemning such filing of teeth to create regular spaces.<sup>36</sup> Conceivably, marking the interstices between teeth with black lines, *rekḥā*, might have been a reflection of this old practice, and *missī* was employed as a proxy for permanently filing the teeth. Although the perspective of Islamic law was never equivocal nor static on issues of body modifications, it was generally more permissive towards the use of temporary decorations, such as the eye cosmetic *kuhl* (kohl) or the decorative brown dye *ḥinnā* (henna).<sup>37</sup> If the

<sup>36</sup>The *Sunan al-Sughra*, collected by Aḥmad al-Nasā'ī (died 915 C.E.), contains various examples in the Book of Adornment:

'I heard the Messenger of Allah cursing *Al-Mutanammisat* [women who pluck their eye brows], women who have their teeth separated, and women who have tattoos done, those who change the creation of Allah, the Mighty and Sublime.' (Aḥmad al-Nasā'ī 2012, *ḥadīth* 5105). See also Lane 1863-1893, book 1, part 6, 2438.

<sup>37</sup>Indeed, according to the *ḥadīth* literature, Muhammad himself used *kuhl* on his eyes and *ḥinnā* on his beard. It must be noted, though, that especially with respect to the use of henna the position of the *ḥadīth* literature turns out to be far more complex than portrayed here.



above hypothesis proves to be correct, the earliest uses of *missī* were to blacken the gum lines and edges of the teeth, and this was eventually extended to all of the teeth and even the lips.

Over the centuries the use of *missī* certainly underwent various other transformations, too. This pertained to the composition of the teeth blackener which, e.g., in late accounts could also contain roasted tobacco, thus adding a stimulant quality (Biswas 2000, 867). However, most significant was that what originally was celebrated as an adornment, sanctified by Fāṭimah, to become attractive for one's spouse came to be synonymous with the deflowering of a prostitute by the highest bidder. The strong association of teeth blackening with sexuality (male circumcision), and especially the inception of sexual activity (female loss of virginity) in South Asia points towards the connection between the oral and the genital as symbolised by the *vagina dentata*. Indeed, imagining the mouth as a castrating vagina is neither foreign to the Islamic tradition nor the myths of India (e.g., Elwin 1943; Raphael 1996, 154).

The close association between *missī* and sexual activity would naturally lead one to question whether a potential functional relationship between the two was perceived in some way. Reaching further back in history, a *misī* was noted as by far the best-known oral (as opposed to mechanical) contraceptive in the Greek Hippocratic corpus of the sixth to fourth century B.C.E.:

'If a woman does not want to be pregnant, moistened [or diluted] *misī*, as much as a *vicia* bean, in water, and have her drink it. For a year, thereabouts, she does not get pregnant.'<sup>38</sup>

The nature of *misī* is not entirely clear, but *misī* likely referred to a copper compound, such as copper sulphate. According to Dioscorides it originated from Cyprus, but neither he nor Galen subsequently mentioned its use as a contraceptive. A prescription containing copper water reappeared as an oral contraceptive in the medical work of Aëtius of Amida (502-575 C.E.). Subsequently copper compounds are no longer mentioned in the context of contraception, neither in Western medical compendiums nor in Arabic or Persian medicine (Riddle 1992, 95; Jütte 2008; Yarmohammadi 2013). As much as it might be compelling to hypothesise that in the composition of *missī* a Hippocratic notion of contraception resonated, this is not borne out by the evidence.

<sup>38</sup>Quoted from *De morbis mulierum* I, 76. A similar recipe appears in the Hippocratic *De natura muliebri* 98. (Fuchs 1900, 382-383; Riddle 1992, 74-75). *Misī* as a mineral is discussed by Plinius in his *Historia Naturalis*, book 34, chapter 31 'Misī: Thirteen remedies' (Plinius 1857, 199-200).



At best the connection between the Hippocratic *misý* and the South Asian *missī* was of an etymological nature, if Persian *mis* as the source of *missī* was itself derived from a Greek root.

In the (non-*missī*) traditions of teeth blackening by many of the groups along the slopes of the Eastern Himalayas, ethno-medical considerations played a role in their choice of plant agents. For example, one of the plants in use, *Paederia foetida* L., was part of many indigenous pharmacopoeias and, indeed, has been shown to contain a wide range of active components,<sup>39</sup> as is the case with *Melastoma malabathricum* L. (Joffry 2012). Especially *Paederia foetida* L. was therefore used from Madagascar to Taiwan as a teeth blackener/oral medicine (Zumbroich 2011, 102). Nonetheless, these practices in the Eastern Himalayas cannot be reduced to their beautifying or medicinal dimensions, which tend to dominate the scant Western documentations. Whether as a rite of passage or by imparting spiritual protection, teeth blackening was embedded in the complex ritual and mythological fabric of the respective cultures, even if the details prove to be hard to disentangle at this point.

Teeth blackening among the Tibeto-Burman speaking groups of the Eastern Himalayas can technologically and culturally be located in a broader context. The specific processes of collecting burn products on a metal blade and of chewing parts specific plants is highly reminiscent of processes widely used across South-east Asia and beyond (compare Zumbroich 2009, Fig. 6), as is the use of teeth blackening as a rite of passage. The question whether these similarities are coincidental or of a genetic nature is not at all straightforward to answer, since there is considerable uncertainty regarding the historic movements of many of the groups of the Eastern Himalayas, such as the Naga. This appraisal of teeth blackening in the Himalayan region might therefore contribute to the discussion of indigenous histories.

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<sup>39</sup> E.g., alkaloids (paederine), anthraquinone, iridoids (asperuloside, paederoside, scandoside), phytosterols (sitosterol, campesterol), triterpenoids (ursolic acid). See Zumbroich (2011) for references and further discussion of teeth blackening as a medicinal practice.

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