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Medicine within a Cultural Ecosystem Representations of Nature in Tamil Siddha Medico-alchemical Texts and the Integrating Role of the Siddhars' Literature¹

ABSTRACT: The paper examines the concept of Tamil siddha literature as an integrating force for the local cultural ecosystem. The research is based on texts ascribed to two prominent authors of Tamil siddha tradition, namely Siddhar Yākōpu and Siddhar Pōkar (ca. 17th cent.). The first part of the paper looks at representations of nature in the Siddhars' texts, and demonstrates that the authors attribute certain extraordinary powers and divinity to nature. This further suggests that such views on nature allow the Siddhars to interconnect different realms typically viewed as separate in the contemporary secular perspective where liberatory practices are positioned apart from domains like nature and medicine. Attempts to integrate various fields of siddha lore are evident in the Siddhars' texts, for instance, in *Vaittiya Kallāṭam*, which is analyzed in the second section of the paper. To this end, among others, the perspective of material ecocriticism is applied to examine the images of natural material substances in Tamil siddha texts.

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KEYWORDS: Tamil literature, siddha tradition, medicine, cultural ecology, material ecocriticism

Introduction

Tamil siddha medicine is one of the indigenous Indian medical systems that is practiced till today, mostly in the region of Tamil Nadu. It is closely related to alchemy and yoga, and is considered an essential component of larger Tamil siddha tradition. The authors of Tamil siddha literature, namely the Siddhars² (Tam. *cittar*, "perfected, fulfilled one"³), are popularly regarded as venerable sages and masters of knowledge in the field of traditional sciences, such as medicine, botany, astrology, etc., who, due to certain practices associated mainly with yoga and alchemy, have achieved perfection, supernatural powers (*citti*)⁴ and immortality. The medical teachings of the Siddhars, beyond the oral tradition, are transmitted through numerous texts composed in Tamil, usually tentatively dated to the period starting from the 16th cent.⁵

² In this paper, following the convention generally accepted in scholarly publications on the Tamil medical tradition in English, I use the Sanskritized appellation "Siddhar" in place of the original Tamil name *cittar*. On the hybridity of the name "Siddhar" at the cultural and linguistic levels, see Weiss 2009: 47.

³ The term *cittar* is a Tamil honorific version of the Sanskrit appellation *siddha*, meaning "fulfilled," "perfected," "one who has achieved success or the highest goal," "one who has acquired supernatural powers (Skt. *siddhi*)," which derives from the Sanskrit verb root *sidh*, i.e., "to succeed," "to achieve the goal," "to become perfect," "to be healed," "to be fulfilled."

⁴ The term *citti* is the Tamil equivalent of the Sanskrit noun *siddhi*, meaning, e.g., "accomplishment," "perfection," "fulfillment," "bliss," "prosperity," cf. *siddhi* in Monier-Williams 1899.

⁵ On the literature of Tamil siddha tradition, see, e.g., Zvelebil 1993; Venkatraman 1990; Little 2006 and 2022; Ganapathy 2003, 2004a and 2004b; Natarajan 2004, 2009 and 2022. On the medical tradition of the Siddhars, see, e.g., Zvelebil 1996; Sambasivam Pillai 1931–1994; Hausman 1996; Weiss 2008 and 2009; Sujatha 2009; Sieler 2015 and 2022.

As evidenced in the texts, medicine and alchemy of the Siddhars largely depend on the use of local natural ingredients, especially a wide variety of healing plants, animal products (e.g., honey, butter, mutton), and regional mineral substances (e.g., sea salt, niter, limestone, mica, sulfur). In the following section of the paper, I discuss how Tamil siddha medico-alchemical texts depict nature, which is primarily represented by minerals and plants. By analyzing the discourse on natural ingredients in the medico-alchemical literature, I indicate that the Siddhars attribute to nature certain extraordinary powers, agency, divinity, etc. I suggest that such a perception of nature enables the authors of Tamil siddha tradition to connect areas that are seen as separate from each other in the modern secular worldview which differentiates domain of liberatory practices from domains such as nature, physical matter, and medicine. Next, in the second section of the paper, using as an example a study of the selected passages of Tamil siddha text Vaittiya Kallātam, I examine how, within Tamil siddha tradition, this regional medicine, based on local natural resources, is integrated at the textual level with the wider system of sciences aimed at achieving immortality and liberation, such as alchemy and yoga. I argue that the medical literature of the Siddhars may be perceived as a unifying force, which connects local medicine based on regional natural materials with the broader system of the Siddhars' knowledge, thus fulfilling an integrating role for the regional cultural ecosystem.⁶ Furthermore, throughout the paper, I investigate what the descriptions of natural, physical substances used by siddha doctors suggest about the underlying

I examine Tamil siddha literature from the perspective related to cultural ecology, which "considers the sphere of human culture not as separate from but as interdependent with and transfused by ecological processes and natural energy cycles" (Zapf 2010: 137). The concept of literature as an ecological force has been discussed in detail by Zapf 2016. The author discerns threefold dynamic between literature and the wider cultural system. As summarized by Zapf (2010: 138), literature "is a textual form, which breaks up ossified social structures and ideologies, symbolically empowers the marginalized, and reconnects what is culturally separated." In this paper, I adapt to certain extent Zapf's concept of literature as an ecological force, which integrates various fields of the cultural system.

Siddhars' perception of the material, non-human nature, which is related to methodological perspective of material ecocriticism.⁷

My research is based on selected Tamil siddha medico-alchemical texts, ascribed mainly to two prominent Siddhars, namely *Pōkar Kaṛpa Viti* (*Pōkar's Recipes for Panacea*, hereafter PōKaṛVi) of Siddhar Pōkar, ca. 17th cent. R. Cuṇṇakkāṇṭam Āṛunūṛu (Six Hundred [Verses] on [Alchemical] Powders, hereafter CuṇKāṇ), Kurunūl Aimpattaintu (Fifty-five [Verses] of the Excellent Book, hereafter KuNū), and Taṇṭakam Nūṛṛippattu (One Hundred and Ten [Verses] of the Helping Stick, hereafter Taṇ) of Yākōpu alias Rāmatēvar (ca. 17th cent.). I will also refer to the text Vaittiya Kallāṭam (Kallāṭam¹¹0 of Medicine, hereafter VaitKal), which is also often ascribed to Yākōpu. The texts listed above are composed mostly in the form of practical manuals, consisting in major part of technical recipes for various medical and alchemical preparations. The formulae are usually concise and composed in metrical form. In such texts, nature is represented mainly by the notions related to the indigenous

Material ecocriticism focuses on the agentive aspect of matter understood also as physical nature (Iovino and Oppermann 2012a: 453). The nature is seen by material ecocriticism as an interacting agent rather than an inert and passive ground for human actions. The perspective is concentrated on the exploration of the interactions between the human and the non-human, as well as on the investigation of the concepts of other-than-human agency, challenging the anthropocentric notions on material world. On the material ecocriticism, see, e.g., Iovino and Oppermann 2012a, 2012b, 2014; Sõrmus 2016: 39–72.

⁸ See Venkatraman 1990: 65. In this paper, for the sake of consistency in regard to spelling of other Siddhars' names, I use the transliteration of the Tamil version of Pōkar's name instead of its partially Sanskritized counterparts (e.g., "Bhogar"/"Bhōgar"/"Pōgar"), which are often found in English publications on this author. On the figure of Pōkar and his works see, e.g., Little 2006 and 2022; Ganapathy 2003 and 2004a; Natarajan 2009; Kedzia 2018.

On Siddhar Yākōpu, see, e.g., Natarajan 2004; Kędzia 2018.

¹⁰ According to *Tamil Lexicon*, the term *kallāṭam* is a name of a Śaiva shrine or a title of a love poem (see *kallāṭam* in *Tamil Lexicon* (1924–1936)).

However, the closer examination of the text reveals certain doubts about its authorship. On the controversy regarding the authorship of this work, see *muka-vurai* in Kurucāmikkōnār Can 1937: 1–2.

natural ingredients used for the drug preparation, such as various local herbs and animal products, as well as manifold minerals.

Nature in the Siddhars' medical and alchemical texts

According to T.V. Sambasivam Pillai, there are at least 3300 kinds of medicinal herbs recognized by the Siddhars (see *mūlikai vakai* in Sambasivam Pillai 1931–1994, vol. 5). Among them, a special class of herbs is distinguished, namely "*kaṛpam* herbs" (*kaṛpa mūlikai*). The term *kaṛpam* is the Tamil version of the Sanskrit noun *kalpa* ("treatment of the sick, manner of curing," "the art of preparing medicine, pharmacy," "the doctrine of poisons and antidotes," see *kalpa* in Monier-Williams 1899). In Tamil siddha medical texts, the term *kaṛpam* refers to therapies that aim at rejuvenation and perfection of the human body, rendering it youthful, healthy, and beautiful. *Kaṛpam* drugs are intended also to prolong lifespan or even immortalize the body. ¹² *Kaṛpam* herbs are thus credited with extraordinary rejuvenating and life promoting properties. Pōkar in the passage PōKaṛVi 204–206 provides a list of potent *kaṛpam* plants, used by some renowned Siddhars and by the author himself:

[...] [Our] ancestor, master Tirumūlar, ¹³ having eaten the eminent *karpam* of *karicālai* [herb], ¹⁴ lived in grace for seventy crores of eons. I have consumed [it too]. Kālānkinātar, ¹⁵ who gladly raised me,

On karpam medicines, see, e.g., Velan 1992; Kędzia 2017.

[&]quot;Tirumūlar" is the name of the author of *Tirumantiram* (12th cent.), which is acknowledged as a fountain text of Tamil siddha tradition and as a part of the canon of the Tamil Śaiva scriptures (see, e.g., Zvelebil 1973: 185–189; Zvelebil 1974: 92; Meenakshisundaran 1965: 132–133). On the dating of the text, see Goodall 1998: xxxvii–xxxix, n. 85; Goodall 2000: 213, n. 27.

¹⁴ Karicālai—Eclipta prostrata (L.) L. See karicalāṅkaṇṇi in Medicinal Plants in Siddha System of Medicine (2006).

¹⁵ Siddhar Kālānkinātar is the author of the text *Upatēcañānam-34* referred to by Venkatraman 1990: 131.

had eaten karpam [herb] called karantai, and remained in illuminating yogic absorption ($cam\bar{a}ti$, Skt. $sam\bar{a}dhi$) until the end of the day of Brahma. I have thrusted [it] in my mouth [too]. Having eaten $\bar{o}mam$ [plant], indeed, I, who am [just] a slave, have lived for five eons being gracious to the young!

The fragment suggests that the intake of the local herbs is a vital part of the Siddhars' practice aimed at prolonging life and achieving yogic goals. The text further continues listing medicinal plants and the extraordinary benefits that were enjoyed by the Siddhars after the ingestion of the herbs. Patañcaliyār²⁰ and Viyākkiramar²¹, after eating *ceruppaṭai*²² herb were able to perform se-

Karantai—East Indian globe-thistle (Sphaeranthus indicus L.). See kottakkarantai and vişnukkarantai in Pandanus Database of Indian Plants (1998–2009).

A day of Brahma (also called *karpam*, which contributes to the word play in the verse) is equal to 4,320,000,000 years of mortals. See *karpam* in *Tamil Lexicon* (1924–1936).

¹⁸ Ōmam—Carum copticum Benth. See ōmam in Medicinal Plants in Siddha System of Medicine (2006).

^[...] pāṭṭar tirumūla nātar
cirappāṇa karicālaik karpa muṇṭu
oppilelu patukōṭi yukamirun tār
ukantuyeṇai yīṇrakā lāṅkinātar
kappiṇēṇ karantaiyeṇra karpa muṇṭu
kaṇṭiravāc camāṭiyilē karpāntam niṇrār
appiṇēṇ aṭiyēṇṭāṇ ōma muṇṭu
aintuyukam piḷḷaikaṭku aruṭcey tēṇē (PōKarVi 204)

All translations are mine.

 $^{^{20}\,}$ "Patañcaliyār" is the Tamil honorific version of the name "Patañcali," i.e. the Tamil equivalent of the Sanskrit name "Patañjali."

This name, due to its relation to tiger (viyākkiram), may refer to the Tamil siddha author Pulippāṇi (17th–18th cent.), whose name means literally "tiger paw" (see Venkatraman 1990: 13). The figure is closely associated with Palani town, where Pulippāṇi's successors later accepted his name as a title. Presently, Pulippāṇi XIII is the head of an ashram in Palani, where he engages in teaching yoga and preparing traditional siddha drugs.

²² Ceruppaṭai—Coldenia procumbens L. See ceruppaṭai in Medicinal Plants in Siddha System of Medicine (2006).

vere penance for thousands of years and witness the cosmic dance of Śiva; Maccamuni, 23 having eaten vallārai 24 plant, and Kūrmamuni, 25 having eaten $karuv\bar{l}l^{26}$ plant, remained in yogic absorption for thousands of eons. The plants mentioned in the text, i.e., karicālai, karantai, ōmam, ceruppatai, vallārai, and karuvīli, are regional herbs used commonly in Tamil siddha medicine. The text however attributes to them extraordinary powers, suggesting that they not only heal, but also prolong life to an unimaginable extent and help to achieve mystic experiences as well as yogic absorption. The verses thus create an image of uncommonly potent plants, endowed with supernatural powers, which are the source of vogic successes of renowned and respected figures of Tamil siddha tradition. The vogic achievement of the Siddhars is presented as an effect of the intake of the herbs, rather than as a result of other yogic practices. The text links material, natural ingredients with the subtle sphere of spirituality and divinity.

Tamil siddha literature often credits herbs growing in the mountains with the most excellent properties, which indicates that wild plants from regions that are difficult to access by humans are seen as superior to their cultivated equivalents.²⁷ According to the

²³ "Maccamuni" is the Tamil version of the name of Matsyendranātha, the founder of Nāth tradition. On this figure, see, e.g., White 2009: 28; White 1996: 132–141, 222–240.

Vallārai—Centella asiatica (L.) Urb. See vallārai in Medicinal Plants in Siddha System of Medicine (2006) and in Pandanus Database of Indian Plants (1998–2009).

²⁵ Certain sources list this figure among the great eighteen Siddhars. See Venkatraman 1990: 198–199.

²⁶ Karuvīli—none of the Indian plant databases available to me contains a record of this name. It is possible that karuvīli is a misspelled name of karuviļai, i.e., Drypetes roxburghii (Wall.) (see karuviļai in Pandanus Database of Indian Plants (1998–2009)). It is noteworthy that spelling errors are common in Tamil siddha literature.

Many contemporary siddha doctors credit herbs collected in Kolli hills with the strongest healing powers (personal communication from Dr. Kaviarasu Balakrishnan, traditionally trained siddha practitioner from Ariyankuppam, Pondicherry 2019).

texts, mountain herbs enable not only effective drug production, but also creation of alchemical gold.²⁸ Their transformative powers are extolled, for example, in the passage CuṇKāṇ 281–282:

[...] Beautiful herbs that grow in that place called "heaven" [i.e., in the mountains] indeed are very powerful. Pluck these, which are known to be aromatic. Extract the juices, quickly apply [them] on the [alchemical] substances. As you apply them on the nine great metals, 29 beautiful gold appears! [...] 30

Pōkar (PōKarVi 190–194) enumerates forty-five mountain herbs credited with special alchemical properties. The plants enable the operation of binding, i.e., consolidating substances and rendering them resistant to fire,³¹ on sixty-four materials, including mercury. Binding of mercury (*raca kaṭṭu*) is seen in Tamil siddha tradition as an essential alchemical operation, which a siddha adept should master (e.g., CuṇKāṇ 351, 404, 427, 564).³² As a result of binding,

On the other hand, Pōkar's text describes specially cultivated "black plants" (*karumūlikai*), i.e., common medical herbs cultivated on the specifically prepared soil containing marking nuts. The herbs change color to black in the fourth generation of crops due to soil qualities. According to Pōkar, they possess distinguished rejuvenating properties. See Kędzia 2017: 128–129.

²⁸ Creation of gold is one of the main goals of alchemists described in the Tamil siddha alchemical literature (see, e.g., CunKān 587, 560). Alchemical gold is presented as a source of livelihood for siddha practitioners (e.g., CunKān 366–374).

²⁹ In Tamil siddha tradition the group of nine metals (*navalōkam*) consists of gold (*pon*), silver (*velli*), copper (*cempu*), iron (*irumpu*), tin (*īyam*), lead (*vaṅkam*), zinc (*nākam*), platinum (*kuruttuvam*), and brass (*pittalai*).

[...] vāṇeṇra aviṭattil muļaikkappaṭṭa vaṭivāṇa mūlikaitāṇ koṭiyavēkam kāṇeṇra ataippiṭuṅkic cāruvāṅkik kaṭitākac carakkukkuc curukkuppōṭṭu vāṇeṇra navalōkan taṇṇilīya vaṭivāṇa taṅkamām vaḷakkamām (CuṇKāṇ 282)

See *kaṭṭu* in Sambasivam Pillai 1931–1994, v. 2, p. 1.

³² The theme of binding (Skt. *bandhana*) of mercury is present also in Sanskrit alchemical literature; binding is one of the operations performed on this metal by an alchemist. Sanskrit sources mention 25 or 26 bonds (*bandha*, see White 1996: 266–267.

mercury becomes hard, solid, and resistant to temperature. According to Pōkar, whoever masters mercury binding will never die: "Indeed, it is true that whoever binds the semen of Śiva [i.e., mercury] will never die" (PōKarVi 60).³³ Therefore, the text depicts mountain plants as crucial items, the action of which enables a siddha practitioner to achieve alchemical mastery. Alchemy is therefore seen as an interplay of human and non-human factors; only their interaction leads to alchemical success.

Mountain herbs endow the medical and alchemical substances with special powers (*citti*). Moreover, if eaten for a period of ca. 40 days, they, for example, bestow immortality upon their users, render the body young and beautiful, fix the breath, and enable certain extraordinary activities, like walking in the sky and acquiring knowledge of extraterrestrial worlds:

The power of the [medico-alchemical] substances is [located] in the powerful [mountain] herbs. If one eats [the herbs] for ca. 40 days, certainly there is no death [for him]. The body, becoming spotless, appears like the milky body of Manmatan [i.e., the love god]. All wrinkles and grey hair disappear. All deceptive [i.e., unfixed] breaths become fixed. ³⁴ It is possible to rise and ascend to the sky. Having risen and walked through all the rows of these [extraterrestrial] places it is possible to know all the universes. ³⁵

For a description of the 26 types of bonds and their healing properties, see, e.g., Angadi 2014: 119–128).

33 [...] civavintaik kaṭṭi nōrkku orukālum cāvillai unmai tānē (PōKarVi 60)

³⁴ Fixedness of breath and body is related to the yogic practices of Siddhars. According to Yākōpu, it ensures life lasting eons: "If you attain fixedness (*nilai*), [you] will [achieve] life for eons. Those who have not [achieved] fixedness will never flourish." (*nilaipeṛrāl nīṭuli vālalākum / nilaiyillār orupōtum vālamāṭṭār* (CuṇKāṇ 551)).

35 cattāna mūlikaiyil carakkuc citti cāppiṭṭāl manṭalantān cāvō illai mattāna manmatan pōl tēkamākum mācarru niraitiraikal ellām mārum ettāna vāciyellā mirukip pōkum ēralān kakanattil ērra māka Medicinal plants possess therefore not only powers to transform other alchemical substances, but also to perfect human body. They empower both, the physical materials used by the siddha practitioner, and the practitioner himself.

The texts portray untouched landscapes as the sites of amazing natural forces as well as the sources of valuable materials that Siddhars use in their practices. The powers of the unspoiled mountain nature are emphasized by Pōkar in the verses PōKarVi 184-189. The passage of a narrative character presents the story of a cow attacked by a tiger. To escape the tiger, cow ran away from the pasture and took refuge in the mountains. Pregnant at the time, she hid in a cave and due to lack of grass, began to feed on the leaves of viluti³⁶ plant that was growing in the cave. She ate *viluti* for seven months and then gave birth to a calf. Thanks to the properties of the shrub, both the cow and the calf achieved supernatural powers (citti). One day Pōkar, looking for viluti herbs, entered the cave. While the Siddhar was collecting the herbs, the cow and the calf approached him and began talking to him. They told him the stories of their previous lives, and Pokar taught them yoga. Then the cow ate viluti again, drank water from the mountain spring, and fed the calf with its own milk. As a result, she became the kāmatēnu, i.e., the mythical wish-fulfilling cow, and achieved the power of flying and many other supernatural powers.

The story summarized above emphasizes the potencies attributed to the untouched and unspoiled nature, represented by the mountain spring and the *viluti* herb found in the cave. These elements of the natural mountain landscape are presented as sources of extraordinary powers that can be acquired by eating and drinking natural products. When coupled with yogic practices, consuming the herb and spring water enables the achievement of fabulous potencies. The *viluti* herb is thus presented as a natural item, which influ-

attāṇa aṭukkellām ceṇru ēri aṇṭaraṇṭa patamellām aṛiya lāmē (PōKarVi 194)

³⁶ vi<u>l</u>uti—Cadaba fruticosa (L.) Druce. See vi<u>l</u>uti in Medicinal Plants in Siddha System of Medicine (2006).

ences not only the realm of the physical matter, but also extramundane domain related to spiritual practices.

Apart from herbs, also natural minerals play an exceedingly important role in Tamil siddha system of medicine and alchemy. A very important substance of this class is pūnīru, the material crucial for production of essential alchemical substances such as cavukkāram or muppu, which are often considered to be the specialties of Tamil siddha medico-alchemical tradition. Cavukkāram is depicted. for example, in the text Cunnakkāntam Ārunūru of Yākopu as a marvelous universal catalyst possessing extraordinary transformative powers and as a foundation of all alchemical operations.³⁷ Certain passages indicate that it is even divinized; as suggested by CunKān 380, probably in terms of its power, the substance is comparable to Allah, which conveys the idea of its divine status in the siddha tradition and indicates creative capabilities of the substance that plays crucial part in the production of numerous alchemical preparations. Cavukkāram, further processed and mixed with an acidic liquid containing saltpeter (vetiyuppu ceyanīr), can transform other substances and "kill" them, which in siddha jargon refers to calcination (CunKān 253-254). The text therefore presents the substance as an active agent in alchemical operations, rather than just an inert material manipulated by an alchemist. Muppu, i.e., the material prepared with a mixture of three mineral ingredients, is imaged as a substance of a very similar character. It is credited with supernatural catalyst properties, and as such it is depicted as a material endowed with generative potency, which is described, e.g., in the Yākōpu's text Kuru Nūl Aimpattaintu.38

³⁷ According to Yākōpu, a siddha adept should master the production of *cavukkāram* at the very beginning of his alchemical practice. The creation of this essential substance is the first step to further alchemical actions (see, e.g., CuṇKāṇ 5, 98, 164, 284, 341, 538, 564, 596). Various formulae for *cavukkāram* are presented, for example, in the passages: CuṇKāṇ 10–11, 73–77, 325–328, 386–388. On *cavukkāram* in CunKān see Kedzia 2022.

³⁸ The text provides a recipe for *muppu*. The substance is composed of three main mineral ingredients, i.e., *pūnīṛu*, rock salt (*kalluppu*), and saltpeter (*veṭiyup-pu*). See KuNū 2–3, cf. Kṣdzia 2020.

 $P\bar{u}n\bar{i}ru$, which according to the texts is an important component of cavukkāram and muppu, is presented as a natural efflorescence, or a foam that turns into ashes in the rays of the rising sun. It appears only on the sites of certain salty ground.³⁹ Such *pūnīru* generating soil is described in a cryptic manner in the text ascribed to Siddhar Akattiyar as soil found in a desolate place devoid of vegetation, in which occur white, skull-like stones. 40 According to Cunnakkāntam Ārunūru, pūnīru should be collected only during three specific months of the Tamil calendar, i.e. pankuni (mid-March to mid-April), cittirai (mid-April to mid-May), and vaikāci (mid-May to mid-June). 41 Moreover, the texts suggest that it should be gathered only at a certain time of day. For example, according to the fragment CunKān 325-328, pūnīru should be collected "after erecting the house of red bricks" (cenkalatu vītukatti) and "in soothing red brick" (itamāna cenkalilē), which, according to the commentary attached to the contemporary edition of the text, refers to the time of day when the sun appears to be red (see Mōkan 2014a: 144-146). The "erection of a house" (vītu kattutal) in the first metaphor, implying a creation of something new, indicates that the passage refers to dawn, as a beginning of new day, rather than to dusk (see Kędzia 2022). Pūnīru is thus imaged as a rare and not easily available natural material. Such a way of presenting the substance associates it with a special value. The enigmatic character of the material, presented as an ephemeral efflorescence appearing only in specific spatiotemporal conditions, is amplified by obscure descriptions of the pūnīru producing sites. Stylistic devices, such as evasive metaphors, imbue the formulae with an aura of mystery. Furthermore, the

Certain similarities between $cavukk\bar{a}ram$ and muppu (e.g., the fact that both substances consist of three main ingredients with $p\bar{u}n\bar{v}_{L}u$ as a crucial element, extraordinary catalytic qualities, and distinguished status among other alchemical materials) suggest that the two names may be synonymous in Yākōpu's texts. See Kedzia 2022.

³⁹ See e.g., CuņKān 386.

⁴⁰ KarMupKuNū 11–12.

See CunKān 10, CunKān 325, CunKān 386.

texts provide secret names of $p\bar{u}n\bar{r}ru$ (e.g., CunKān 69), i.e.: $va\underline{l}alai$, pintam ("ball," "embryo"), $venc\bar{a}rai$ ("semen"), antam ("egg," "universe"). The text therefore suggests that the substance is an extraordinary, powerful material, which must be shrouded in secrecy.

As noted by Zapf

nature is only accessible to us through cultural, i.e., linguistic and textual forms, and [...] it is therefore crucial to analyze and reflect on the multiple ways in which nature is discursively represented, manipulated, repressed, empowered, or creatively used in the symbolic forms and textual practices of a culture. (Zapf 2010: 140)

In siddha texts examined above, non-human nature, represented by plants and minerals, is imaged as a powerful and empowering force. Natural ingredients of siddha medical and alchemical lore are credited with certain agency and capability of effecting changes in human and non-human materials. Moreover, in the Siddhars' perspective, natural material substances can influence the subtle realm related to spiritual practices as well. Non-human and lifeless nature, represented by mineral substances, is anthropomorphized or even divinized, and as such credited not only with agency, but also with extraordinary more-than-human potencies. Such descriptions convey agentive understanding of natural matter. The texts present nature as an active subject, rather than an inert backdrop of human actions, which challenges the anthropocentric worldview.

Such views on nature provide basis for integrating the practices related to physical realm (such as medicine and alchemical operations on material substances) and the liberatory practices, which are seen as separate in the contemporary secular perspective. As indicated by the verses presented above, in the Siddhars' framework the natural world connects the fields of the material and the spiritual, and such a perspective on nature enables the siddha tradition to link domains that are typically considered as distinct in a modern profane view

In the following section of the paper, I discuss the integration of various branches of traditional knowledge in Tamil siddha literature, taking as an example the medical text *Vaittiya Kallāṭam*.

The enigmatic discourse and the integrating role of Tamil siddha literature

Names of natural ingredients in the Siddhars' texts are not mentioned explicitly in some passages, but are hidden in various riddles, which appear in the medical and alchemical recipes.

Regarding the matter of enigmatic discourse, the already mentioned text, Vaittiya Kallātam, is particularly remarkable. The text consists of three main chapters on medicine (Vaittiya Kāntam, 57 verses, hereafter VaitKān), alchemy (Vakāra Kāntam, 30 verses, hereafter VaKān), and mystic yogic experiences (Ñāṇa Kāṇṭam, 11 verses, hereafter NaKan) respectively. All three chapters contain fragments composed in a deliberately obscure manner. The medical chapter presents, for example, formulae for over a dozen of drugs, shrouded with a veil of mystery due to the use of diverse riddles. 42 There are also several types of word-puzzles based largely on polysemy, homonymy, and similarity in the sounding of words, thus resembling a pun. An example of such a pun is a single-word riddle, Civakāmi (VaitKān [4a]). The answer is cowry shell (kauri), which is one of the ingredients necessary for the preparation of certain medicine. 43 Civakāmi is one of the Tamil names for goddess Pārvatī, the consort of Śiva. But the Tamil name for cowry sounds identical to yet another popular name of Pārvatī, i.e., Kauri, the Tamil version of the Sanskrit name Gauri (literally "white," "yel-

⁴² Answers to the riddles from the medical chapter of *Vaittiya Kallāṭam* are provided by the glossary (*arumpatavurai*), which accompanied the verses already in the manuscript (see *mukavurai* in Kurucāmikkōṇār Caṇ 1937: 1–2).

The recipe that contains this pun refers to the drug called the "Divine Pill" (vān meļuku), intended as a medicine against a variety of diseases, such as a fever caused by the humoral substances (kapavātacannicuram), eight types of coughs (kācam), leprosy (kuṭṭam), worms (irai), wounds (raṇam) etc.

lowish," "shiny," "beautiful"). The pun is therefore based on the homonymy of the words: *kauri* ("cowry shell") and *Kauri* ("goddess Gauri"). To put it simply, term denoting a cowry shell which in Tamil is a homonym of the name of the goddess, has been replaced in the verse by another popular name of the consort of Siva (*Civakāmi*). The riddle, with its use of a wordplay, suggests connotations between the commonly available natural material (cowry shells) and the sphere of divinity, creating an aura of the extraordinary around the recipe and the preparation.

Another type of riddle occurring in the medical chapter of Vaittiya Kallāṭam requires the construction of the answer word from syllables that must be guessed with the use of clues provided in the verse; therefore, it resembles a charade. This kind of word puzzle often consists of several simpler puns based on ambiguity and homonymy, similar to the one quoted above. An example of this category of riddle is the enigma Māl tēvi (VaitKān 2). The phrase means literally "the goddess of Māl," and, as indicated by the glossary, it refers to orpiment,44 i.e., a mineral called aritāram in Tamil siddha tradition. To solve the enigma, first the noun Māl (one of the Tamil names of god Visnu), should be substituted with the synonymous name Ari (Skt. Hari, another name of Visnu), and then the noun tēvi ("goddess") should be replaced with a synonymous word in the context of the puzzle, i.e. tāram ("wife"). Putting both substitutes together $(Ari + t\bar{a}ram)$, we obtain the compound aritaram (literally: "Hari's wife"), which is a term denoting orpiment in Tamil siddha tradition.

As evident from the above examples, answers to puzzles found in the medical chapter of *Vaittiya Kallāṭam* refer mostly to common natural materials, such as minerals, as well as animal and herbal products. The riddles, often alluding to mythology, suggest their connections with the sphere of the sacred. Such enigmas distract from the mundane aspect of the material things that constitute their

⁴⁴ See *orpiment* in the database of minerals Mindat.org (https://www.min dat.org/show.php?id=3021, accessed on 9.08.2022).

answer, creating connotations with the subtle sphere of religion and spirituality, and thus creating a halo of the marvellous around the natural, physical ingredients of the medical recipes.

Another example of a similar kind of riddle occurs in the verse VaitKal 35: "leaves that know both happiness and pain" (cuka tukkam irantu ariyum ilai). The enigma refers to the leaves of a kuppaim $\bar{e}\underline{n}i$ plant.⁴⁵ In order to explain the answer to the puzzle, the name of plant is first divided into two segments. The first segment, kuppai, means literally, e.g., "excrement," "impurity," "garbage." Thus, it indicates the things that may cause a feeling of unpleasantness, referred to in the riddle by word tukkam (Skt. duhkha, "sorrow"). The second segment, mēni, can be translated, e.g., as "good health." The word *cukam* (Skt. *sukha*) that appears in the verse also has a similar meaning and may as well denote "happiness." The full name of the plant, i.e., kuppaimēni, is therefore a combination of the nouns kuppai and mēni, which are nearly synonymous with the nouns cukam ("happiness") and tukkam ("sorrow") used in the enigma. Additionally, the puzzle is a part of a riddle based on anthropomorphism, i.e., "leaves that know both happiness and pain" (cuka tukkam irantu ariyum ilai), which indicates the part of a plant that should be used in the recipe. Thus a plant that is quite common in Tamil Nadu is referred to in the verse as an item of unusual, even miraculous, character. A popular local herb is depicted as a plant with human-like knowledge and ability to feel. The anthropomorphism softens the boundary between the human and the non-human realms, presenting the herb as an agentive and sentient entity.

Aside from word-play puzzles, technical vocabulary (*paripāṣai*) contributes to the text's obscurity in the medical chapter of *Vaittiya Kallāṭam*. A noteworthy example of this kind of terminology is a term that in the medical chapter refers to the mineral sulphur, i.e. *nātam*. ⁴⁶ The term is ambiguous; generally, it means "sound,"

 $^{^{45}}$ Acalypha indica L., see kuppaimē \underline{n} i in Pandanus Database of Indian Plants (1998–2009).

 $^{^{46}}$ $N\bar{a}tam$ is the Tamil version of the Sanskrit word $n\bar{a}da$ ("sound," "roaring").

"roar," and, in the medical context, it refers to the female reproductive tissue. The noun $n\bar{a}tam$ occurs in all three chapters of VaittiyaKallātam, but in each chapter it can be translated in a distinct manner. In vogic chapter, nātam can be interpreted as sound, understood in various ways, for example, as a subtle, cosmological sound representing the supreme deity, from which the universe evolves, as the mantra $n\bar{a}ma \ civ\bar{a}va^{48}$ used in yogic practices of the Siddhars, as an element of the mantra $\bar{o}m$, or as an inner sound experienced by yogi during vogic practice. 49 In the alchemical chapter, the term $n\bar{a}tam$ refers to sulphur (as in the medical chapter) or to the mystic sound (as in the yogic chapter), depending on the chosen interpretation and context. 50 The ambiguity of terms referring to both physical materials and subtle ontological concepts creates a nimbus of mystery around material substances, obscures the line between the subtle and the tangible aspects of reality and blurs dichotomy between the material and the spiritual.

The enigmatic discourse of the medical chapter of *Vaittiya Kallāṭam*, the examples of which I have presented above, has several potential functions. First of all, it protects the medical formulae codified in the work from the reach of the people from outside the tradition. By making it impossible to prepare drugs solely on the basis of textual instructions obscured by riddles and without practical apprenticeship under an experienced master, the enigmatic text prevents people from outside the siddha tradition from undermining the efficacy of the described medicines, thereby safeguarding the prestige of the medical tradition and the text itself.

Moreover, the puzzles, by juxtaposing vocabulary from different domains, suggest mutual connections between various elements

⁴⁷ In Indian medical theories, menstrual blood is considered the female reproductive tissue and equivalent of male semen.

 $^{^{48}}$ $N\bar{a}ma\ civ\bar{a}ya$ is the Tamil transliteration of the Sanskrit $pa\tilde{n}c\bar{a}k\bar{s}ara$ mantra $(n\bar{a}mah\ \dot{s}iv\bar{a}ya)$.

⁴⁹ See, e.g., ÑāKān 4.

 $^{^{50}}$ See, e.g., VaKāṇ 2. In some verses of the alchemical chapter, the term may be interpreted as both sulfur and a sound.

of the surrounding world. Therefore, they convey a worldview according to which the universe is an integrated system of different but interdependent domains.

Furthermore, the use of ambiguous *paripāṣai* terms indicates the underlying concept of the equivalence of microcosm (represented by physical materials such as sulphur) and macrocosm (associated with cosmological sound). Similar view regarding the correspondence between the Absolute and the microcosm of the human body is expressed more explicitly also in other texts of Tamil siddha tradition, for example in *Taṇṭakam Nūṛruppattu* of Siddhar Yākōpu:

Through the universe, I know the body that is like a scripture [i.e. it makes it possible to know about the Absolute]. Through the body, I know the mother of $V\bar{e}t\bar{a}nta$ [i.e. the supreme goddess, the Absolute].⁵¹

In the body indeed I saw the Goddess who is the foundation [of the Universe], dear, [in the body I saw] the girl $V\bar{a}lai^{52}$. [...]⁵³

The universe outside [the body is] the universe of the body.⁵⁴

The enigmatic discourse in the medical part of *Vaittiya Kallāṭam* serves yet another purpose, namely, it integrates the chapter on medical knowledge with the other two parts of this work concerning alchemy and yoga. The alchemical and yogic sections of the book, as already mentioned, are also composed in an intentionally obscure manner. However, the vague, even perplexing discourse of these chapters results from the use of partially different methods than those used in the medical part. In the alchemical chapter, the enigmatic character of the text is related to the possibility of twofold interpretation of its fragments, resulting mainly from the polyse-

vētame<u>nr</u>a karuva<u>r</u>intē<u>n</u> aņṭattālē vētāntat tāya<u>r</u>intē<u>n</u> piṇṭattālē (Taṇ 2).

⁵² Vālai is the name of a goddess worshiped in Tamil siddha tradition as the embodiment of Kuntalini (Skt. Kundalini) and the creator goddess (see Natarajan 2022).

⁵³ karuvāṇa kāmiyaṭā vālaippeṇṇaik/ kaṇṭēṇē piṇṭamatiṇ [...]. (Taṇ 14).

^[...] antapaki rantapintam (Tan 51).

mantic character of the important technical term nātam (v.s.), the symbolism of gold,⁵⁵ and the analogy between certain aspects of alchemical operations and of the process of yogic practice. ⁵⁶ Certain parts of the text may refer at the same time to instructions regarding alchemical operations on material substances and metaphorical descriptions of vogic experiences, which is a peculiarity of the vague discourse in the alchemical chapter of Vaittiya Kallātam. In addition, in the alchemical chapter, the reader finds frequently metaphors, metonyms, symbols, as well as puzzles based on word plays, resembling enigmas from the medical chapter. The alchemical chapter is not provided with a glossary, which is basically due to the fact that the ambiguous text does not have a single correct interpretation, but its various readings, relating to the world of matter and to subtle experiences, are complementary and indicate the multifaceted nature of alchemy. Alchemy is presented in the text as an arcane branch of knowledge that requires teacher's explanation and which is practiced in seclusion and secrecy (e.g., VaKān 1, 25, 26). Its esoteric nature is associated with the main alchemical goals, which are the achievement of eternal youth, immortality, supernatural powers and liberation, as well as the creation of gold.

In the chapter related to yoga ($\tilde{N}\bar{a}\underline{n}a$ $K\bar{a}\underline{n}tam$), the esoteric character of the text results from replacing conventional technical

⁵⁵ Gold is a symbol of immortality, perfection, or final salvation (see, e.g., Zvelebil 1993: 135, cf. Somasundaram 2004a: 157). In certain fragments of the text, gold can be interpreted as alchemical gold (i.e., gold created by an alchemist), or as immortality achieved by a Siddhar with the use of alchemical and yogic methods. See, e.g., VaKān 2.

⁵⁶ For example, heating physical substances in the calcination capsule, to which references appear often in the alchemical Tamil siddha texts, corresponds to the experience of increased warmth associated with yogic practices, referred to in yogic literature, also from outside the Siddhars' tradition (cf. Mallinson and Singleton 2017: 182–183). The yogic texts of the Siddhars mention the "fire" or "heat" (*kaṇal*) that accompanies the mystical yogic experience associated with the supreme chakra (see, e.g., Somasundaram 2004b: 254–255). Metaphorical images of yogic practices referring to alchemical heating in clay capsules and other activities performed on physical substances often appear in the Siddhars' texts on yoga (see, e.g., Ganapathy 2004c: 460).

names (as well as names of, e.g., deities) with metonyms, periphrases, metaphors, and wordplay puzzles. Large fragments of the text are elliptical; metaphorical and paradoxical phrases as well as symbolic expressions also occur frequently in the verses. Like $Vak\bar{a}ra$ $K\bar{a}ntam$, the chapter $N\bar{a}na$ $K\bar{a}ntam$ was not provided with an explanatory glossary. This relates to the fact that the ambiguous passages in $N\bar{a}na$ $K\bar{a}ntam$ refer largely to mystical experiences connected with the higher, more subtle and elusive level of reality, which conventional language is incapable of describing.

Writing in the context of the Kartābhajā tradition of Bengal, Hugh B. Urban argues that secret language plays the role of a discursive strategy that provides information with an aura of mystery, power, and symbolic value. He defines secrecy in the context of esoteric traditions as a form of accumulation of capital, understood as all material and symbolic goods, such as status, prestige, valuable knowledge and relationships (Urban 2001: 20). Due to the riddles used in the first chapter of Vaittiya Kallāṭam, which create a mysterious character of the medical chapter of this opus, medical teachings acquire the status of esoteric knowledge, available only to people familiar with the arcana, similarly to the teachings related to alchemy and yoga. This is the type of secret knowledge, as Urban points out, that can function as a cultural and social capital. The very fact that the knowledge is an elusive object guarded by use of linguistic means, turns it into an uncommon and desirable commodity and a valuable resource that provides its owner with certain intangible assets and prestige. Traditional medicine, related to the local folk culture, and equipped with a secret discourse is presented thus as a science equal in status to the fields of knowledge concerning the highest goal of man, i.e., liberation, which are alchemy and yoga.

The enigmatic language of the medical chapter appears therefore to play an integrating role *vis a vis* alchemy and yoga, placing medicine within the larger ambit of siddha knowledge system, associated with prestige and the extraordinary. Although the goals of medicine presented in the text are largely related to the elimination of common diseases and ailments, with the use of mysterious dis-

course, medicine is transmitted as an esoteric science, and a branch of knowledge relatable to the disciplines that are aimed at liberation. Thanks to the esoteric language, the drugs against ordinary afflictions are imaged in the text as extraordinary preparations, the action of which, similarly to alchemical and yogic practices, transcends the effects of ordinary medicines.

Concluding remarks

As evident in the texts referred to above, Tamil siddha authors frequently contest anthropocentrism and endow nature, represented often by herbal and mineral substances, with generative and agentive potencies. Nature provides siddha doctors with a variety of powerful ingredients, which effect transformations on physical materials as well as on a human body, and which promote spiritual and mystical experiences related to yoga. As I have argued in the first part of this paper, the siddha authors credit nature, represented by the natural products used in various siddha practices, with divinity and more-than-human potencies. Nature in the perspective of the Siddhars is a site of extraordinary powers. Such view, in opposition to the modern secular framework, which places nature and matter separately and away from spiritual practices, allows siddha authors to integrate medicine, alchemy and practices aimed at liberation. The integration of the fields of knowledge is evident in Tamil siddha texts, such as Vaittiya Kallātam, discussed in the second section of this paper.

Vaittiya Kallāṭam may be considered as an example of Tamil siddha text, which influences local culture, connecting regional medicine within the system of esoteric sciences related to liberation and represented by alchemy and yoga. The text fulfills therefore the ecological role for the regional cultural ecosystem, intertwining local medicine, closely linked to the natural environment of the region, with the system of traditional sciences serving the highest goal of a human, i.e., salvation. Medicine, due to the application of eso-

teric language, is transmitted as a branch of knowledge of salvific status, and therefore highly valuable and respectable. The use of ambiguous technical vocabulary in the text indicates the permeability of boundaries between various fields of traditional lore, such as alchemy, medicine, and yoga, which can be considered as mutually interpenetrating areas of the siddha knowledge system.

References

Primary sources

- CuṇKāṇ = Mōkaṇ, Ār. Ci. (ed.). 2014a. Cuṇṇakkāṇṭam Ārunūru. In: Ār. Ci. Mōkaṇ (ed.). *Yākōpu cuṇṇak kāṇṭam 600 (mūlamum uraiyum)*. Ceṇṇai: Tāmarai nūlakam.
- Ganapathy, T. N. (ed.). 2003. *The Yoga of Siddha Boganathar*. Vol. 1. Quebec: Babaji's Kriya Yoga and Publications.
- —. 2004a. *The Yoga of Siddha Boganathar*. Vol. 2. Quebec: Babaji's Kriya Yoga and Publications.
- —. 2004b. *The Yoga of the Eighteen Siddhas: An Anthology*. Quebec: Babaji's Kriya Yoga and Publications, Inc.
- —. 2004c. Danvantiri Jñānam—12 (Wisdom). In: T. N. Ganapathy (ed.). *The Yoga of the Eighteen Siddhas: An Anthology*. Quebec: Babaji's Kriya Yoga and Publications, Inc.: 459–474.
- KarMupKuNū = Mōkan, Ār. Ci. (ed.). 2014b. Karpa muppu kuru nūl 100. In: Ār. Ci. Mōkan (ed.). *Akastiya munivar aruļiya muppu cūttirankal*. Cennai: Tāmarai nūlakam.
- KuNū = Mōkan, Ār. Ci. (ed.). 2015. Kurunūl 55. In: Ār. Ci. Mōkan (ed.). *Yākōpu vaittiyacintāmaņi*—700 uraiyuṭan. Cennai: Tāmarai nūlakam.
- Kurucāmikkōṇār Caṇ, I. R. (ed.). 1937. Vaittiyarka! yāvarum pukalperra Vaittiya kallāṭam śrīlaśrī Irāmatēvareṇra Yākōpu avarka! tiruvāymalarntaruliya cāstirankal patiṇēlukkum ceypākankalum arumpatavuraiyum cērntatu. Maturai: Śrī Rāmaccantira vilāsam piras.
- PōKarVi = Pōkar Karpaviti. 2004 [1981]. In: Cittar Kāyakarpam. Ed. by Citta maruttuva ilakkiya ārāycci āvaṇatturai and citta maruttuva maiya ārāycci nilaiyam. Pututilli: Āyurvēta, cittamaiya ārāyccik kalakam.

- Somasundaram, P. S. (ed.). 2004a. Maccamuni: Kāraṇa Jñāṇam-10 (Source of Wisdom). In: T. N. Ganapathy (ed.). *The Yoga of the Eighteen Siddhas: An Anthology*. Quebec: Babaji's Kriya Yoga and Publications, Inc.: 155–168.
- —. 2004b. Sundarānandar. Selections from Śiva Yōga Jñānam—32 (Wisdom of Śiva Yoga). In: T. N. Ganapathy (ed.). The Yoga of the Eighteen Siddhas: An Anthology. Quebec: Babaji's Kriya Yoga and Publications, Inc.: 247–270.
- Taņ = Rāmaccantiran, Es. Pi. (ed.). 2017b. Taṇṭakam 110. In: Es. Pi.
 Rāmaccantiran (ed.). *Irāmatēvar ennum Yākōpu 1. Pañcamittiram*300. 2. Taṇṭakam 110. 3. Kallāṭam. 4. Vakāra kāṇṭam. 5. Ñāṇa Kāṇṭam. Uraik kurippukaļ. Cennai: Tāmarai nūlakam.
- VaitKal = Rāmaccantiran, Es. Pi. (ed.). 2017a. Vaittiya kallāṭam. In: Es. Pi. Rāmaccantiran (ed.). *Irāmatēvar ennum Yākōpu 1. Pañcamittiram 300. 2. Tanṭakam 110. 3. Kallāṭam. 4. Vakāra kānṭam. 5. Ñāṇa kānṭam. Uraik kurippukal.* Cennai: Tāmarai nūlakam.

Secondary sources

- Angadi, R. 2014. *A Textbook of Rasaśāstra (Iatro-Chemistry and Āyurve-dic Pharmaceutics)*. Varanasi: Chaukhamba Surbharati Prakashan.
- Foundation for Revitalisation of Local Health Traditions (FRLHT). 2006. Medicinal Plants in Siddha System of Medicine [CD].
- Goodall, D. 1998. *Bhatta Rāmakanttha's Commentary on the Kiranatantra*. Vol. 1. Pondicherry: Institut Français de Pondichéry, École française d'Extrême-Orient.
- —. 2000. Problems of Name and Lineage: Relationships between South Indian Authors of the Śaiva Siddhānta. In: *Journal of the Royal Asiatic Society*, 10(2): 205–216. https://doi.org/10.1017/S1356186300012463.
- Hausman, G. J. 1996. Siddhars, Alchemy, and the Abyss of Tradition: 'Traditional' Tamil Medical Knowledge in 'Modern Practice'. PhD Dissertation. Ann Arbor: University of Michigan.
- Iovino, S. and S. Oppermann. 2012a. Material Ecocriticism: Materiality, Agency, and Models of Narrativity. In: *Ecozon@*, 3(1): 75–91. https://doi.org/10.37536/ECOZONA.2012.3.1.452.
- —. 2012b. Theorizing Material Ecocriticism: A Diptych. In: *Interdisciplinary Studies in Literature and Environment*, 19(3): 448–476.

- —. 2014. *Material Ecocriticism*. Bloomington–Indianapolis: Indiana University Press. https://doi.org/10.1093/isle/iss087.
- Kędzia, I. 2017. Mastering Deathlessness: Some Remarks on Karpam Preparations in the Medico-Alchemical Literature of the Tamil Siddhas. In: *History of Science in South Asia*, 5(2): 121–142. https://doi.org/10.18732/hssa.v5i2.16.
- —. 2018. Global Trajectories of a Local Lore: Some Remarks about Medico-Alchemical Literature of the Two Tamil Siddha Cosmopolites. In: *Cracow Indological Studies*, 18: 93–118. https://doi.org/10.12797/ CIS.18.2016.18.05.
- —. 2020. The Transforming Science: Some Remarks on the Medico-Alchemical Teachings in Selected Works of Siddha Yākōpu, with Special Reference to the Kuru Nūl Aimpattaintu. In: *Cracow Indological Studies*, 22(1): 155–185. https://doi.org/10.12797/CIS.22.2020.01.07.
- —. 2022. The Triggers of Transformation. On Cavukkāram Preparations in the Teachings of Siddhar Yākōpu alias Irāmatēvar. In: *Asian Medicine*, 17(1): 60–84. https://doi.org/10.1163/15734218-12341507.
- Little, L. R. 2006. Bowl Full of Sky: Story-Making and the Many Lives of the Siddha Bhogar. PhD Dissertation. Berkeley: University of California.
- —. 2022. Nine Poisons and a Broken Promise: Changing Narrative, Cultural Loss, and the Commodification of the Nine Arsenic Icon at Palani. In: *Asian Medicine*, 17(1): 186–212. https://doi.org/10.1163/15734218-12341511.
- Mallinson, J. and M. Singleton. 2017. *Roots of Yoga*. London: Penguin Books.
- Meenakshisundaran, T. P. 1965. *A History of Tamil Literature*. Annamalainagar: Annamalai University.
- *Mindat.org*. Hudson Institute of Mineralogy. 1993–2021. https://www.min dat.org (accessed on 10.08.2022).
- Monier-Williams, M. 1899. A Sanskrit-English Dictionary: Etymologically and Philologically Arranged with Special Reference to Cognate Indo-European Languages. Oxford: The Clarendon Press. https://www.sanskrit-lexicon.uni-koeln.de/ (accessed on 12.08.2022).
- Natarajan, K. 2004. 'Divine Semen' and the Alchemical Conversion of Iramatevar. In: *The Medieval History Journal*, 7(2): 255–278. https://doi.org/10.1177/097194580400700206.

- —. 2009. 'Entering the Universe of Fire and Light': The Life and Philosophy of Pokar from Pokar Elayiram. In: *Studies in Humanities and Social Sciences*, 12(1/2): 147–164.
- —. 2022. Virgin Creatrix / Bountiful Womb: Tamil Siddha Equivocation towards Women. In: *Asian Medicine*, 17(1): 37–59. https://doi.org/10. 1163/15734218-12341506.
- *Pandanus Database of Indian Plants*. Seminar of Indian Studies, Faculty of Arts, Charles University, Prague, Czech Republic. http://iu.ff.cuni.cz/pandanus/(accessed on 12.08.2022).
- Sambasivam Pillai, T. V. 1931–1994. *Tamil-English Dictionary of Medicine, Chemistry, Botany and Allied Sciences*. 5 Vols. Madras: Government Central Press.
- Sieler, R. 2015. Lethal Spots, Vital Secrets: Medicine and Martial Arts in South India. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190243852.001.0001.
- —. 2022. Mercurial Medicines: Unraveling the Significance of Mercury in Contemporary Siddha Medicine. In: *Asian Medicine*, 17(1): 148–185. https://doi.org/10.1163/15734218-12341510.
- Sõrmus, M. 2016. Nature and Culture in Contemporary British and Estonian Literature: A Material Ecocritical Reading of Monique Roffey and Andrus Kivirähk. PhD Dissertation. Tallinn: Tallinn University.
- Sujatha, V. 2009. The Patient as a Knower: Principle and Practice in Siddha Medicine. In: *Economic and Political Weekly*, 44(16): 76–83.
- *Tamil Lexicon*. University of Madras. 1924–1936. Madras. http://dsal.uchi cago.edu/dictionaries/tamil-lex/ (accessed on 12.08.2022).
- Urban, H. B. 2001. The Economics of Ecstasy. Tantra, Secrecy, and Power in Colonial Bengal. New York: Oxford University Press. https://doi. org/10.1093/019513902X.001.0001.
- Velan, A. S. 1992. *Longevity and Kalpa Medicine of India*. Madras: Directorate of Indian Medicine and Homeopathy.
- Venkatraman, R. 1990. A History of the Tamil Siddha Cult. Madurai: Ennes Publications.
- Weiss, R. S. 2008. Divorcing Ayurveda: Siddha Medicine and the Quest for Uniqueness. In: D. Wujastyk and F. M. Smith (eds). *Modern and Global Ayurveda: Pluralism and Paradigms*. New York: SUNY Press: 77–100.
- —. 2009. Recipes for Immortality: Medicine, Religion and Community in South India. New York: Oxford University Press.

- White, D. G. 1996. *The Alchemical Body: Siddha Traditions in Medieval India*. Chicago–London: The University of Chicago Press. https://doi.org/10.7208/chicago/9780226149349.001.0001.
- —. 2009. Sinister Yogis. Chicago—London: The University of Chicago Press.
- Zapf, H. 2010. Ecocriticism, Cultural Ecology, and Literary Studies. In: *Ecozon*@, 1(1): 136–147. https://doi.org/10.37536/ECOZONA.2010.1. 1.332.
- —. 2016. *Literature as Cultural Ecology: Sustainable Texts*. London: Bloomsbury Academic.
- Zvelebil, K. V. 1973. *The Smile of Murukan: On Tamil Literature of South India*. Leiden: Brill. https://doi.org/10.1163/9789004642829.
- —. 1974. Tamil Literature. Wiesbaden: Harrassowitz.
- —. 1993 [1973]. *The Poets of the Powers: Magic, Freedom, and Renewal*. 2nd ed. Lower Lake: Integral Publishing.
- —. 1996. The Siddha Quest for Immortality. Oxford: Mandrake of Oxford.