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Osaka University
The Body of the Musician
The Embryology and Anatomy in Indian Musicology

Makoto Kitada

The Sanskrit musicological text from the thirteenth century, the Saṅgītaratnākara (= SR), 'the Ocean of Music', written by Śāṅgadeva is considered to be one of the most important texts on this subject.¹ It deals with musical theoretical topics like intervals (śruti, svara), scales (grāma), modes (jāti) etc., and also contains many compositions with their notations. But the contents of the second chapter of the first section, entitled Piṇḍotpatti Prakaraṇa, 'the Chapter of the Arising of the Embryo,' is rather peculiar. The first half of this chapter deals with Āyurvedic embryology and anatomy, and the second half deals with cakra-s and nāḍī-s, or the respiratory tubes, in accordance with Haṭhayoga. I studied this chapter for my dissertation,² where I formulated two questions: Why are these topics dealt with in a musicological text? Of what origin is the Ayurvedic theory of embryology and anatomy?

I would like to address the second question first. As the result

¹Sastri 1992: ix.
²Kitada 2006. See also Kitada 2003.
of my comparative study of classical medical texts and purāṇas which deal with embryology and anatomy, I found that the medical theory of the SR is closest to Vāgbhaṭa's Aṣṭāṅgasamgraha, although there are also many differences. It seems that the medical theory was handed down in the family of the author Śāṅgadeva. His was a family of medical doctors, originally from Kashmir but settled later in the kingdom of Yādavas in the Deccan. Therefore, his theories must come from a medical tradition either of Kashmir or of the Deccan, a tradition closely connected to that of Vāgbhaṭa, but nevertheless independent from it.

Actually I found a parallel text, the Śivagītā, which is a purānic text. Most of the embryological and anatomical verses in the Śivagītā are identical, word for word, to those in the SR. But this fact does not mean that the SR is indebted to the Śivagītā. The SR contains theories which are parallel to the classical medical texts like the Aṣṭāṅgasamgraha, but which are not contained in the Śivagītā. Meanwhile, some of the medical theories contained in the Śivagītā are more archaic than those in the SR. For instance, the SR contains a statement on the state in the first month of embryonic development in accordance with the classical medical texts, mentioning ghanā, peśī and arbuda according to the embryo's three sexes, while the Śivagītā contains a totally different system of embryonic development, mentioning budbuda, kalala, peśī, ghanā and pinda as the states in the first and second month without any association to the embryo's sex, which is not a classical medical theory, but a theory in accordance with the purāṇas. Therefore, it seems more logical to assume a third text which the SR and the Śivagītā are both indebted to.

5 i.e., male, female and the third sex.
This third text is supposed to be a treatise on medical science unknown to our days.

Now to the first, more difficult, question: why are topics like Ayurveda and Ṣaṭhavayoga dealt with in a musicological treatise? The reason for Ṣaṭhavayoga being dealt with is not difficult to find. The author Śaṅgadeva associates music with anāhata nāda, the subtle sound perceived only by Yogins. But the reason why embryology and anatomy are dealt with is not so easy to answer. I could assume the following:

Many non-medical texts like purāṇas also contain verses on embryology and anatomy. In such texts, these topics usually occur in relation to saṃnyāsins or ascetics. Ascetics investigate the wandering of the soul, including the birth of the human body, and describe the process of birth as the origin of pain and suffering. Thus the code of law, Yājñavalkyasmṛti, contains embryology and anatomy in its chapter on ascetics (yatidharma-prakaraṇa). Intriguingly, in this text, in the verses immediately after the verses on embryology and anatomy, the Ṣaṭhavayogic theory of respiratory tubes and the playing of music are mentioned. According to this statement, secular music, i.e. singing of songs from the Nāṭyaśāstra and playing the vīṇā or lute, are praised as a substitute means to attain mokṣa or liberation.

I assume that the SR is based on the Yājñavalkyasmṛti, namely the tradition of ascetics. As a matter of fact, the author Śaṅgadeva, in concluding the chapter Piṇḍotpatti, states that music is a means to attain liberation, a substitute for the
Hatha yogic meditation. 9

But his way of associating music with Hatha yoga is not very convincing. As previously remarked, Śāṅgadeva’s verses on embryology and anatomy are identical to the Śivagītā’s. Surely Śāṅgadeva quoted these verses from the medical treatise inherited from his ancestors. On the other hand, I found out that the verses on the nāḍī-s or respiratory tubes of Hatha yoga are parallel to the Yogayājñavalkya, the Hatha yogic text ascribed to the ancient sage. Unfortunately I could not identify the source of the verses on the cakra-s: the SR mentions 10 cakra-s, i.e. 3 cakra-s added to the well-known 7-cakra system. But I am convinced that these verses are also a quotation from another text. 10

9SR 1.2.163cd-168:

$\text{eva} \text{vindhe tu dehe } \text{'smin mala-saṅcaya-samvṛte}||163cd ||$
$\text{prasādayanti dhīmanto bhuktiṁ muktim upāyataḥ}|$
$tatra syāt saṅgūnād dhīyānād bhuktiṁ muktis tu nirgūṇāt||164||$
$\text{dhyānanam ekāgra-cittaika-sādhyaṁ na sukaraṁ nṛṇām}|$
$\text{tasmād atra sukhopāyaṁ śrīman-nādam anāhatam}||165||$
$\text{gurūpadīśta-mārgena munayaṁ samupāsate |}$
$\text{so } \text{pi rakti-vihīnaṁ na manoraṅjako nṛṇām}||166||$
$\text{tasmād āhata-nādasya śṛtuyādi-dvārato 'khilam |}$
$\text{geyam vitanvato loka-raṅjanaṁ bhavabhaṁjanam}||167||$
$\text{utpattim abhidhāsyāmas tathā śṛtuyādi hetutāṁ}||168ab||$ (This verse, while concluding the Pindotpattiprakaraṇa, opens the next chapter.)

10Concerning this topic, I would like to call attention to the following fact. In SR 1.2.119, Śāṅgadeva mentions another work of his own, the Ādhyātmaviveka. The English translator, R. K. Shringy (Shringy 1999: Introduction, xiv) states that this text is no more available to us. Intriguingly Avalon 1924 presents the same 10-cakra system, based on the description in the SR. But besides the SR, he refers to another text entitled Ādhyātmaviveka! The respective descriptions of the cakra-s which Avalon quotes from this ‘Ādhyātmaviveka’ are very similar to those in the SR.

Therefore I would like to suggest that Avalon is possibly mentioning here the identical Ādhyātmaviveka, i.e. the work composed by Śāṅgadeva. However, we have to remain cautious with regard to this matter, for the book mentioned in SR 1.2.119 seems to be a treatise on anatomy, while the one mentioned by Avalon is obviously a treatise on cakra-theory.
Śāṅgadeva took these three parts from three separate sources and joined them together, without providing logical connections between one another. The text makes an awkward impression: one part is abruptly interrupted and the next is suddenly started, and the gap between them remains explicitly perceptible.

Therefore I am very skeptical as to what degree these statements on cakra-s and respiratory tubes reflect the reality of the musical practice of that time. One could certainly speculate that the music described in the SR was utilized for the Haṭhayoga practices of meditating on the cakra-s and controlling the respiratory tubes. But the text, being a mere patchwork of fragments which originally had nothing to do with one another, provides neither proof nor concrete information. In my opinion, the author Śāṅgadeva probably only quoted the verses on cakra-s and respiratory tubes to legitimize the practice of secular music.

Anyway the cakra-theory does not occur further in the other parts of the book. The chapter following the Piṇḍotpattiprakaraṇa, which describes the process of producing the intervals and the octave, does not contain any single word belonging to the cakra-theory. The commentaries (Kālidāhi and Sudhākara), which explain the concise expression of the original text in more detail, do not mention the cakra-s either.11

R. K. Shringy, who translated the SR into English, mentions a very useful text for elucidating the character of the Piṇḍotpattiprakaraṇa, namely Śāradātanaya’s Bhāvaprakāśana (‘the Manifestation of Aesthetic Mental States’) which is a dramaturgical

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11 However, it is also true that practice does not anticipate a consistent system of theory. A musician might describe his musical practice by more than one system which could differ from one another. E.g. a musician might describe his personal experience of voicing by using the vocabulary of the cakra-theory, while he might rely on another theoretical system to explain the origin of intervals and octave.
text containing a chapter on music. This chapter on music, in the opening verses, deals with embryology and anatomy in relation to music. The author, Śāradātana, was almost a contemporary of Śāṅgadeva. Therefore the two authors might supplement each other reciprocally.

Shringy believes that Śāradātana supports Śāṅgadeva’s argument on the relationship between music and cakra-s. In this context I may quote Shringy’s statement: ‘He (= Śāradātana) relates the seven tones to seven different places located in the body […] These places roughly correspond to the psychophysical centres (= cakra-s). It can, therefore, be concluded that the line of thought linking musical sound (āhata nāda) to the yogic experience of anāhata nāda already existed in his time.’

I examined the verses of the Bhāvapratikāśāna in question. What Shringy states seems to be true up to a certain degree, but the matter is actually a little more complicated. The verses do not directly deal with the cakras, but with a different theory.

The theory presented in the Bhāvaprakāśāna is pseudo-Āyurvedic. According to this theory, which looks like an Āyurvedic one, the seven musical tones originate in the seven dhatu-s, or the seven elements of the human body, namely the well-known seven links of the metabolic chain according to

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12 SR (b), p. 393ff., Appendix II.
14 The Bhāvaprakāśāna actually presents two different theories. One of them (pp. 184-186) is, however, not relevant to my discussion here. It is stated that the seven musical tones arise in various areas in the human body, namely the throat, the root of the palate (tālū-mūla), the lips, the middle of the head, and the teeth; these areas are connected to each other with the nāḍī-s or respiratory tubes. A similar, but slightly different theory is dealt with by the Sudhākara commentary on SR 1.3.24ab-25 (SR(a), pp.102-103). There, the areas of sound manifestation are: the nose, throat, chest, palate, tongue, teeth, navel, head (śīrṣa), and heart.
Ayurveda. These seven elements are skin, blood, flesh, fat, bone, marrow, and semen.\(^{15}\) The *Bhāvaprakāśana* intriguingly states that the *dhamanī*-s, or vessels, nourishing the seven *dhātu*-s are situated in certain areas of the human body. The four vessels nourishing semen are in the ‘bulb’ (*kanda*) of the base area; the three nourishing marrow are in the navel; the two nourishing bones are in the heart; the four vessels for fat are in the throat; the four for flesh are in the root of the palate; the three for blood are in the head; and the two for skin are in the middle of the brows. The seven musical tones, which originate in the seven *dhātu*,- therefore arise in the seven areas of the body, namely the base area (*ādārāra*), the navel, heart, throat, the root of the palate, the head, and the middle of the brows successively. Actually, this theory deviates from the classical medical theory of Ayurveda. The numbers of the vessels (4, 3, 2, 4, 4, 3, 2) have no equivalents in the classical medical theory. These numbers are in reality derived from the musicological theory: the octave contains 22 microtones, and the respective intervals between the seven musical tones are 4, 3, 2, 4, 4, 3, 2 microtones successively.\(^{16}\)

After this statement, the *Bhāvaprakāśana* mentions the lotus of the heart and the hollow in the heart which is called ‘*da-hara*’. This statement concerning the heart is not Ayurvedic, but Ṣaṭṭhayogic in origin. So this musicological school presented in the *Bhāvaprakāśana* seems to try to integrate the Ayurvedic theory of the seven *dhātu*,- with the Ṣaṭṭhayogic theory of the heart-lotus. In other words, this school has a theory which has similarities to Ayurveda and Ṣaṭṭhayoga, but is, at the same time, independent of the two.

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\(^{15}\) According to the classical medical theory, the first link of this chain is usually nutritious fluid. But musicological works mention skin as the first; cf. Das 2003:547.

Concerning this, one question springs to mind: whether these seven areas of the human body in which the seven dhātu-s and the seven musical tones arise could be identified with the seven cakra-s. These areas, namely the base area (ādharma), the navel, heart, throat, the root of the palate, the head, and the middle of the brows, seem to correspond closely to the cakra-s, as Shringy has already noted. But they are not called ‘cakra’ at all in this text. The question is whether it is appropriate to consider this theory, which is contained in the Bhāvaprakāśana, to be identical to the cakra-theory in the SR.

Actually there is another text which mentions dhātu-s and cakra-s in relation to music, namely Mataṅga’s Brhaddeśī, which is a musicological text of an earlier date than the SR and is quoted in the Sudhākara commentary on the SR (1.3.56-59; (a), p.120, ll.6-10). The Brhaddeśī (anuccheda 29) contains the statement that the seven musical tones are derived from the seven dhātu-s of the human body too. In the same paragraph, the Brhaddeśī states that the seven musical notes are also related to the seven cakra-s and seven continents! This passage suggests that the musical tones, dhātu-s and cakra-s are somehow associated with one another. But this statement is too fragmentary to provide any substantial facts which would help answer the question posed.

BIBLIOGRAPHY

Primary Texts

Mataṅga, Brhaddeśī

The Body of the Musician

Śāradātanaya, Bhāvaprakāśana

Śāṅgadeva, Saṅgītaratnākara (=SR)
(a) Saṅgītaratnākara of Śāṅgadeva with the Kālānīdhi of Kallinātha and the Sudhākara of Śīṃhabhūpāla, vol. 1, adhyāya 1, ed. S. Subrahmanya Sastri, revised by S. Sarada, The Adyar Library and Research Centre, Madras 1992 (The Adyar Library Series 30).

Yogājñāvalkya

Yājñavalkyasmṛti

Secondary Literature

Avalon, Arthur
Comba, Antonella

Das, Rahul Peter

Gomperts, Amrit

Hara, Minoru

Kitada, Makoto

Sastri, S. Subrahmanya

Shringy, R. K.

Vallauri, Mario

Yamashita, Tsutomu