

# Handwritten Notation in Karnatak Music

## *Memory and the Mediation of Social Relations*

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In the South Indian musical tradition known as *Karnāṭaka Saṅgīta*, or Karnatak music, notation is often handwritten during lessons by either the teacher or student. This tendency to write music notation out by hand persists despite the existence of published notation for many compositions. In this paper we argue that the practice of handwriting notation has important affordances for musicians that likely account for its persistence: affordances relating to memorisation, ideals of musical lineage, authenticity, value and creativity in the style. We show how each of these features are supported by current notational practices and explore the interrelationships between them.

This reflection on the practice of handwriting music notation is a collaboration between the well-known Karnatak violinist T. K. V. Ramanujacharyulu,<sup>1</sup> based in Srirangam, Tamil Nadu, and one of his students, Lara Pearson, who studied with T. K. V. in Srirangam for long periods between 2010–2012.<sup>2</sup> In addition, we draw from an interview conducted with another of T. K. V.'s students, Srirangam A. K. Shruthi Ranjani, with her kind permission. In a series of online discussions in late 2021 we explored aspects of Karnatak music notation of interest to each of us, and from this we distilled a number of key topics that will be elaborated on in this paper: namely, how notation is used (and not used), the skill of writing music notation, the ways in which handwritten notation assists in comprehending and assimilating a composition, the preservation of compositions across generations while also affording performer creativity, and the creation and maintenance of social connections across musical lineages. These topics intersect in various ways with wider themes of creativity, memory, material culture and the mediation of social relations, which will also be discussed in this essay. We propose that handwritten notation in this style is best understood as a prompt for memories, both of music and of people

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- 1 T. K. V. Ramanujacharyulu belongs to a musical lineage that extends back in time from his teacher, Nallan Chakravartula Krishnamacharyulu (1924–2006), to Parupalli Ramakrishnayya Pantulu (1883–1951), and back through several other teacher-student generations to the esteemed composer Sri Tyagaraja.
  - 2 It is common practice in India to refer to well-known figures using abbreviations of their names. Therefore, for brevity we sometimes refer to T. K. V. Ramanujacharyulu as T. K. V.

and events, and that, as a result, the notation can contribute to the forging and articulation of social connections. Music notation in general has previously been interpreted as mediating social relations,<sup>3</sup> but here we explore the particularly embodied case of handwritten notations, where the notations involve physical acts of inscription that take place in a specific social context. We explore this through an (auto)ethnographic methodology: as a case study that is based on our collective experiences.

Before progressing to the substance of our discussion, we provide a brief account of Karnatak music notation and how it is used in the practice.<sup>4</sup>

### Background: Karnatak Music and Notation

Karnatak music is a style that developed historically from music played in the temples and royal courts of South India. Following significant shifts in the socio-economic context of the practice between the late 19th to early 20th centuries,<sup>5</sup> the style is now largely performed on concert stages, although it is still often associated with temple festivals. Early evidence for written music notation in India exists in treatises from the first few centuries AD onwards with some percussion vocables in the earliest of these treatises, the *Nāṭyaśāstra*,<sup>6</sup> and melodic notation in later sources written between the 7th and 13th century AD, although both oral and written notation could stretch back a great deal further.<sup>7</sup> The form of notation used by Karnatak musicians today is known as *sargam* – a syllabic system that can be used both to speak/sing and write the music. The *sargam* syllables transliterated into Latin script are *sa*, *ri*, *ga*, *ma*, *pa*, *dha*, and *ni*. In practice these syllables are written using whichever script is most convenient considering the languages spoken by teacher and student (T. K. V. Ramanujacharyulu writes notation in Telugu, Tamil and Latin scripts). *Sa* is placed at whichever pitch suits the range of the instrument or vocalist, and the remaining syllables ascend from that point up to the octave above, with the precise pitch position of each syllable being defined by the *rāga*

3 Schuilling, “Notation Cultures”.

4 Karnatak music is a complex system, and it is beyond the remit of this paper to provide a full introduction to all features of the style. Readers looking for such background will find useful information in the following publications: Sambamoorthy, *History Indian*; Pesch, *Oxford Illustrated*; Powers, *South Indian Raga*.

5 Subramanian, *Tanjore Court*.

6 Ghosh, *Nāṭyaśāstra*.

7 Widdess, “Oral in Writing”.

(melodic framework). When written or sung in context these *sargam* syllables are known as *svaras*, a term often translated into English as ‘note’. Beyond pitch position, *sargam* notation also provides information on the duration of *svaras*, as well as the *tāla* (metrical cycle) in which the composition is to be performed. To lengthen a syllable by one count (sub-beat) we add a comma, and to lengthen it by two counts either two commas or a semicolon can be used. The end of the *tāla āvartana* (metrical cycle) is indicated by double vertical lines. Finally, the lyrics are also written below the syllables. An example of these main features can be seen in Figure 1, which shows the first few lines of a notation for the *kṛiti* (a form of composition) *Nādopāsana*, notated by T. K. V. Ramanujacharyulu in Latin script.

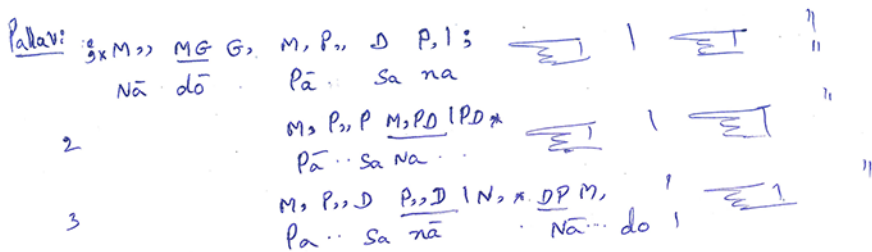


Fig. 11.1 First few lines of a notation for the *kṛiti* *Nādopāsana*, composed by Sri Tyagaraja, handwritten by T. K. V. Ramanujacharyulu in Latin script. The word *Pallavi* written at the top left, refers to the first section in a *kṛiti* composition. Following this, the letters ‘M, MG G’ and so on, stand for the *svara* syllables, *ma, ma ga ga*. The line under the ‘MG’ indicates that their duration is divided by two – they are performed twice as fast as they would be without the line underneath. The semicolon before the first *svara* indicates that the line starts with a silence of two counts (two sub-units of the beat), and the small cross after that emphasises that this *kṛiti* does not start on the first beat of the *tāla*. The two commas placed after the first ‘M’ indicate that it has a total duration of three counts (the syllable itself and two more counts). The lyrics ‘*Nādopāsana*’ are written below the *svara* on which they should be sung. Other features of this notation example are discussed later in this paper.

*Gamaka* (ornamentation) including oscillations, slides and repeated articulations are a prominent feature of the style.<sup>8</sup> In some *rāgas*, almost all *svaras*, except for *sa* and *pa*, should be played with *gamakas*. However, *gamaka* markings are typically absent from handwritten notation. As a result, the notation can only be interpreted with the knowledge of which *gamakas* should be played

8 Viswanathan, “Analysis of Rāga”; Krishna and Ishwar, “Carnatic Music”.

on which *svaras*. Historically, there have been systematic attempts to provide symbols for *gamakas* – examples can be seen in published anthologies such as the *Sangitā-sampradāya-pradarsinī* (1904)<sup>9</sup> and *Kṛtīmaṇimālai* (2005).<sup>10</sup> However, in practice such symbolic systems can be difficult for performers to interpret because the many subtle variations found amongst *gamakas* mean they tend to defy categorisation,<sup>11</sup> and thus also evade reduction to a set of symbols. As a result, such symbols are not typically part of the learning process. Furthermore, after a student has gained knowledge of a *rāga*, these symbols are largely unnecessary because the *gamakas* used in a given *rāga* and melodic context are prescribed according to tradition, and this knowledge is assimilated through the composition learning process. When reading a section of *sargam* notation without any *gamaka* markings, an experienced performer knows which *gamaka* can be sung on a *svara*, because in that *rāga* and in that particular melodic context (for example, whether it is within an ascending or descending phrase), there are usually only a limited number of options for which *gamaka* may be applied – often only one if the *svara* duration is short, sometimes more options if the duration is longer. Thus, the notation provides substantial information on what is to be performed, but this must be married with a great deal of additional knowledge that has been acquired by the musician over time.

An example of what is added to a notated phrase by the performer can be seen in Figure 11.2, visualising the first line of Nāḍopāsana (see notation in Figure 11.1) as performed by T. K. V. Ramanujacharyulu.

This figure is a representation of the pitch, or fundamental frequency ( $f_0$ ), which was analysed and exported from the software Praat,<sup>12</sup> a tool originally developed for phonetics analysis, but that is often also used by musicologists.<sup>13</sup> Such pitch plots can be helpful for conveying melodic movement that might otherwise be difficult to hear. An excellent example of this use can be found in Rao and van de Meer's *Music in Motion* website.<sup>14</sup> Examining Figure 11.2, it can be seen that the oscillating *gamakas* with which *ma* is performed differ according to their immediate melodic context: the oscillation on the first *ma* is much narrower compared to the third *ma*, because this third *ma* is part of

9 Diksitar, *Sangitā*.

10 Ayyangar and Varadan, *Kṛtīmaṇimālai*.

11 Viswanathan, "Analysis of Rāga", p. 22.

12 Boersma and Weenink, *Praat*.

13 Van der Meer, "Praat for Musicologists".

14 Rao and van der Meer, *Music in Motion*.

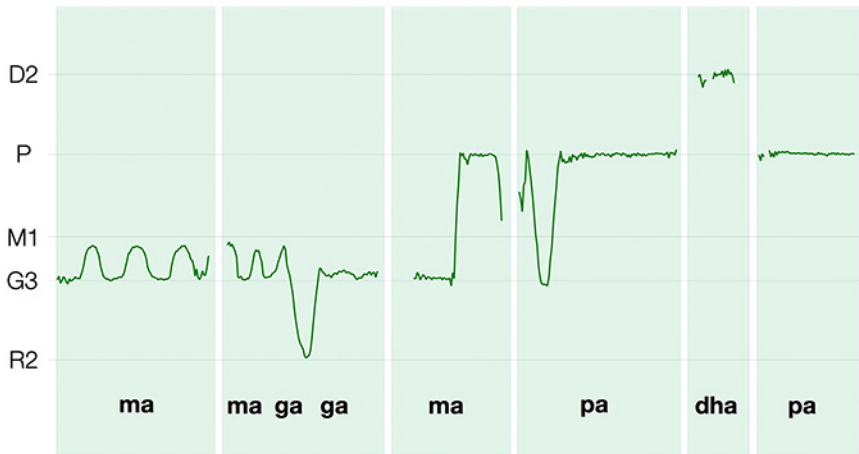


Fig. 11.2 A visualisation of melodic movement in the opening of Nādopāsana as performed by T. K. V. Ramanujacharyulu. The green line shows the pitch movement (extracted using Praat pitch analysis software), and the left axis shows the theoretical *svara* positions of this *rāga*. The *svaras* being performed are shown under the relevant section of the melodic line (*ma*, *ma ga ga*, etc.). The audio can be heard here: <https://youtu.be/5XNoRQnvOF8>

a phrase that ascends up to *pa* and so the oscillation involves the *pa* to which the melodic line ascends.<sup>15</sup>

Having explained some of the features of Karnatak music notation and its relationship to what is performed, we next outline key aspects of notational writing practices in the style.

### The Practice of Handwriting Music Notation

In Karnatak music pedagogy, notation is often written out by hand during lessons, either by the teacher or the student. Alternatively, due to shifts in available technologies, teachers might now sometimes pass a student printed scans of notation they had handwritten previously for another student. Published notation does exist, and might sometimes be used for fundamental exercises in the very early stages of learning. But the use of published notation beyond that point is generally not favoured by most musicians for a variety of reasons

15 See Pearson, “Coarticulation” for more background on *gamaka* and melodic context.

that will be explored below. Typically, beyond the fundamental learning stages, published notation will only be used when a performer wishes to learn something that was not imparted by their own teacher, or perhaps occasionally to check some detail that is unclear in their own notation.

It is important to note that for the majority of currently performed compositions there exists no notation written in the composer's hand. Oral transmission and memorisation of compositions are the primary modes employed in this style, with notation acting in a supporting role.<sup>16</sup> For example, in the case of Sri Tyagaraja (1767–1847), one of the most admired Karnatak composers, his compositions were notated by his disciples, notably by Venkataramana Bhagavathar.<sup>17</sup> Due to the dominance of oral transmission in the style, relatively few of such early notations are viewable, and these are typically difficult to access outside of research contexts. For example, copies of some of Venkataramana Bhagavathar's notations of Tyagaraja's compositions are available through the Government Oriental Manuscripts Library, Chennai.<sup>18</sup> Although there is research interest in such early notations, for performers, ideas of 'authenticity' appear to lie more in fidelity to their teacher's and lineage's renditions than to these early notations. For example, T. K. V. Ramanujacharyulu suggests that such early notations were not necessarily written optimally, and that he prefers to trust the process of oral transmission supported by notations from his own teacher. Furthermore, as will become apparent in the discussions below, there is a subtle interplay in Karnatak music between the upholding of tradition and the enabling of individual creativity, and this interplay is afforded by the way that compositions are transmitted, including through the practice of handwriting notation.

Building on this background, we now present our autoethnographic case study on notation practices in Karnatak music. We begin with some of the more foundational aspects, including how notation is used, or not used, before progressing to the social and creative implications of this practice. The comments below reflect the experiences and ideas of the authors and interviewees, which we would like to emphasise are not necessarily common to all Karnatak music practitioners.

16 Vijaykrishnan, "Function of Notation"; see also Widdess, "Orality", focusing on North Indian music.

17 Premalatha, "Music Manuscript", pp. 9–10; Sambamoorthy, "Walajahpet Manuscripts".

18 Premalatha, "Music Manuscript", p. 9.

### The Use and Non-use of Notation in Karnatak Music

We should first consider the ways in which musicians write and then use notations. Initial transmission of a composition usually proceeds phrase by phrase, where the phrase is first demonstrated by the teacher and then imitated by the student. If notation has already been provided or is being written by the teacher during the demonstration-imitation process, then the student might occasionally look at it while listening or singing. Thus, even on first hearing a composition, the student may be actively connecting what is written with what is heard from the teacher – a process of bringing together notation, aural experience and the physicality of performance, with each mediating the other.

The notation is next used when the student practises the composition in their own home, where it can act as a prompt for their memory of what was played in the lesson. By the time of the next lesson, the student is typically expected to have the composition memorised or rather “by-hearted” – a term used by T. K. V. Ramanujacharyulu. Amanda Weidman notes how this term “by-hearted”, used also by her violin teacher, implies a “a process of making something in the body”, while “memorised” suggests “actively working to keep something in one’s memory”.<sup>19</sup> The ideal in Karnatak performance practice is that the composition is assimilated by the musician, that it becomes part of them.

At the next lesson, the student typically attempts to play without notation, and once they come to perform on stage no notation should be used. Only rarely is notation seen on stage. It might be used in this context if a new composition is to be performed at short notice, but in general it would be seen as an admission that the performer has not made it their own, has not “by-hearted” the composition, and so does not have command of it. Thus, the notation is used to help a performer by-heart the composition, while the non-use of notation in performance ensures that it must be by-hearted – that the performer must make it their own.

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19 Weidman, “Ethnographer as Apprentice”, p. 220.

## The Skill of Writing Music Notation for Assimilation: Visual and Spatial Qualities

It has been argued in work on “notational iconicity” in written language, that writing cannot be viewed simply as a “fixed version of spoken language”,<sup>20</sup> but that instead its visual qualities and two-dimensional spatiality must also be considered as holding epistemic potential. The same can be argued of music notation. Handwritten notation in particular can have noteworthy visual and spatial qualities, which we discuss below.

During our conversations for this project, two initial themes that emerged were the skill of writing music notation and the pleasure that a student takes in their teacher’s skilfully written notations. Considering that notation is primarily used as a prompt for memory, one skill of writing notation is to include just enough information to do this job, without excessive detail. T. K. V. Ramanujacharyulu recalled of his own teacher’s notations, “We enjoyed his notations”, going on to say that “There will be no doubt in his notation. [...] If we have some knowledge, we can sing those notations”. He clarified that the notation should bring to mind what was taught orally, without overwhelming the reader with details or confusing them with inconsistencies.

Although *gamakas* are not typically indicated in handwritten notation, symbols for these may occasionally be added. T. K. V. Ramanujacharyulu acquired the tendency to sometimes add symbols for *gamakas* from his own teacher Nallan Chakravartula Krishnamacharyulu (1924–2006). For example, a small wavy line over a *svara* syllable indicates that it should be played with an oscillating *gamaka*, and a long swooping line joining two *svaras* stands for a sliding *gamaka* between the two (see Figures 11.3 and 11.4). These two symbols have an iconic relationship with both the sound of the *gamaka* as well as the physical movement used to create it,<sup>21</sup> thus making the symbol easy to grasp.

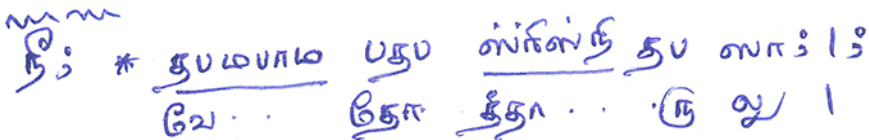


Fig. 11.3 A line of notation in Tamil script, written by T. K. V. Ramanujacharyulu, with wavy lines over the first *svara* ‘n’ indicating that it should be played with an oscillating *gamaka*.

<sup>20</sup> Krämer, “Notational Iconicity”, p. 303.

<sup>21</sup> Pearson, “Inscription, Gesture”.



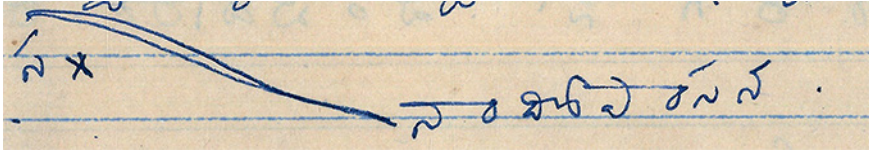


Fig. 11.4 A fragment of notation written by T. K. V.'s teacher, Nallan Chakravartula Krishnamacharyulu in Telugu, with a long swooping line indicating a sliding (*jāru*) *gamaka* from the 'sa' at the left of the page, to the recapitulation of the *pallavi* – here represented by the lyrics (*sāhitya*), and not by the *svara* names, because by this point in the composition, the *svaras* for that part of the *kṛiti* have been written many times and so do not require repeating.

Although such occasional notation of *gamakas* is helpful to the beginner, it is not obvious what function these symbols have for more advanced students who are likely to already know that the particular *svara* in the given *rāga* and context should be played with the notated *gamaka*. One possibility is that the occasional addition of details beyond what is strictly necessary creates a kind of surplus, which is experienced as a decoration of the manuscript and contributes to the pleasure taken by the student when viewing the notation. From a design perspective, the swooping and curving lines are certainly arresting. Another possibility is that the emphatic nature of the drawn line, which plunges across the page, is highlighting that the *gamaka* should be similarly prominent, further drawing on an iconicity between the image and the desired sound.

One interesting feature of handwritten notations from T. K. V. and his teacher is the tendency to use 'ditto' symbols (see Figure 11.5) – an indication that the preceding section or line above should be repeated. Many Karnatak compositions follow a theme and variations format, where the melodic line is first presented simply and then repeated several times with embellishments. As a result, from one line (*vākya*) to the next some phrases will be identical and others will change. The person handwriting the notation can save time by writing a type of ditto mark, indicating either "repeat the above" or "repeat the previous phrase", instead of writing out the identical phrase again (see Figure 11.5).

In addition to saving time when writing the notation, this mark nicely acts as a prompt that the dittoed phrase is identical while others change – the practice efficiently maps out similarity and difference across the page in an immediately graspable way. In such cases the layout could be said to hold epistemic potential.<sup>22</sup>

22 Krämer, "Notational Iconicity".

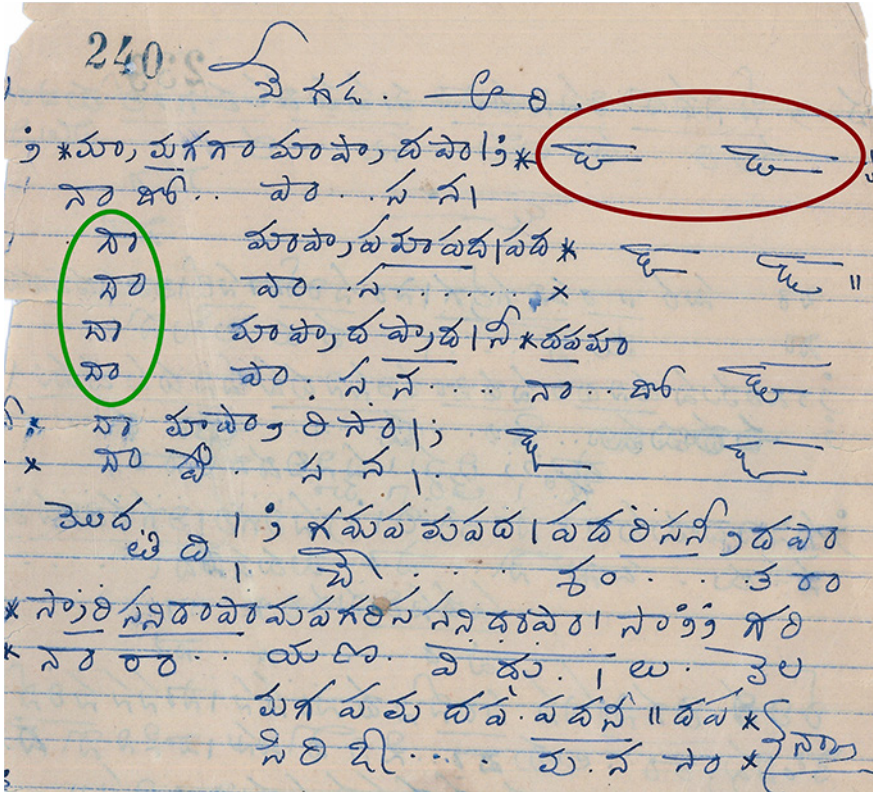


Fig. 11.5 Notation by Nallan Chakravartula Krishnamacharyulu in Telugu, Showing two forms of ditto mark. The symbols ringed in green on the left of the page indicate 'repeat as above', while the pointing finger symbols circled in red on the right of the page indicate 'repeat the phrase to the left'.

Further to helping the reader quickly grasp the progression of the composition, the use of these markings is also relevant when we consider that some musicians visualise the notation as they play, recalling it from memory. T. K. V. Ramanujacharyulu, for example, pictures the notation in his mind's eye, and remembers where the different *saṅgatis* (variations on initial themes) fall on the page. This is one of the reasons that he prefers to have notation for everything he performs. Even for compositions he has “by-hearted” simply from listening, he prefers to also have written notation so that he can picture it while playing. On a related note, his student, A. K. Shruthi Ranjani states that “sometimes in a concert, when we accidentally forget a *saṅgati*, if we just close our eyes and try to remember that part of a page where that *saṅgati* comes in, it

becomes easier for us to remember it" (online interview 23rd November 2021). In particular, it can be hard to remember the sequence of *saṅgatis*, and there is a danger of either skipping lines or combining elements from different lines. Visualising the notation can help avoid this.

Of course, it should also be possible to visually recall published notation, but T. K. V. Ramanujacharyulu suggests that the visual idiosyncrasies of handwritten notation make it easier to grasp and remember than the relative uniformity of published notation. If we look at the notation in Figure 11.5, for example, we see forms appearing from the notation due to features such as the ditto marks and grouping of *svaras* and *saṅgatis*. T. K. V. mentions that he often writes *svaras* within rapid phrases smaller and more densely packed than those for slower phrases. Also, idiosyncratic features such as the long swooping slide (*jāru*) *gamaka* in Figure 11.4 create areas of focus and shapes across the page that may help to create strong visual memories.

In her work on the art of memory in the Middle Ages, Mary Carruthers notes that advice given in that period for memorisation of long texts often involved breaking them into smaller sections and also memorising locations of these sections on the page.<sup>23</sup> Describing a mnemonic system of Hugh St. Victor, Carruthers writes:

The images of written text are impressed as they appear in the particular codex from which they were first memorized, including their location on the page (recto, verso, top, middle, bottom), the shapes and colors of the letters themselves, and the appearance of each page including marginalia and illuminations, to make a clear visual image. Finally, Hugh advises that the physical conditions under which one had memorized the original material should also become part of one's total memory of it.<sup>24</sup>

Thus, position on a page and idiosyncratic visual features were acknowledged in the Middle Ages as being helpful for recalling material. Handwritten Karnatak notation similarly includes many features, such as subdivision into sections through spacing, section marks and design elements, that are likely to be helpful in initially grasping and then later recalling the musical material. Skilfully written notation exploits such affordances of space and design.

<sup>23</sup> Carruthers, "Art of Memory", pp. 21–23.

<sup>24</sup> *Ibid.*, p. 21.

## Preserving Compositions Across Generations While Affording Creativity

One of the key purposes of notation is to help students remember the version they were taught orally, and thus to preserve the version of the composition as performed in the lineage. For T. K. V. Ramanujacharyulu, the notations act to create a degree of discipline – he states that without notation “everybody can change anything”. As a young performer, A. K. Shruthi Ranjani has a related perspective, finding that the notation is a type of “protection” from the influence of other versions of the composition that she may hear at concerts or on the radio – essentially protecting her from the influence of other lineages and styles of playing. She also experiences the notation from her teacher as being a form of “authentication” that the version she performs is correct with regards to her own lineage (online interview, 23rd November 2021). As noted earlier, authenticity in the Karnatak style lies predominantly in the lineage, with a great deal of faith placed in oral transmission in that context. But in addition, notation can be viewed as a technology for further guaranteeing that authenticity, by prompting the memory of the orally transmitted version.

Considering this emphasis on discipline, preservation and authenticity, it may seem surprising that there is an equally important imperative towards creativity and thus variation in the way compositions are performed. If the idea of handwritten notation was only to preserve versions of compositions through the lineage, then it would be logical for the teacher to simply pass on the notation that they received from their own teacher. However, this is not the typical approach. Instead, teachers often write it out afresh for their own students. When asked why he writes notations for his students, T. K. V. replies that he wishes to make some additions, to add some of his own musical thoughts, or *manodharma*. *Manodharma* can be translated as “attribute of the mind or imagination” and is a term often used in Karnatak music to refer to the creativity contributed by the performer. This creativity is largely in the form of extemporisation on existing melodic material, whether that material is either part of a composition, or melodic fragments woven together by the performer in formats such as *rāga ālāpana*.<sup>25</sup> The type of musical thoughts that T. K. V. might add to a composition include his own *saṅgatis* – variations on the initial themes. But he adds the caveat that such additions should only

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25 *Rāga ālāpana* is a *manodharma* format with neither *tāla* (metrical cycle) nor regular underlying pulse, where the performer expresses a *rāga* by skilfully weaving together phrases characteristic of the *rāga*, while also creating some of their own variations and developments that follow the *rāga* grammar.

be made by those with sufficient experience. It is part of the Karnatak tradition that performers are allowed and even expected to embellish compositions, either on the concert stage or when teaching, because this demonstrates their grasp of the material. In addition, musicians generally enjoy making such embellishments – it is part of the pleasure of performing in this style.

Thus, in Karnatak music, there is a balance between maintaining a degree of fidelity to existing versions of compositions within the lineage, and leaving room for some variation – some creative play by the performer.<sup>26</sup> This creative play is enabled in part by the particular notation technologies and practices employed. For example, the practice of writing notation afresh leaves room for the creative play of the teacher, while the practice of memorising the composition rather than performing it from notation affords spontaneity in performance. This combination of discipline through memorisation and notation, together with latitude for performer creativity through the way notation is written and used, is characteristic of the style.

### Handwritten Notation and the Mediation of Social Relations

Connected with its ability to act as a prompt for musical memory, affording both preservation and creativity in the style, the handwritten notation produced in lessons also plays a role in creating a sense of connection across teacher-student lineages. During our discussions, Lara Pearson recalls that reading the notation written by her teacher, T. K. V. Ramanujacharyulu, takes her back to the times when she would sit before him, watching him write the notation, waiting for him to sing a line for her to repeat. The notation reminds her of her teacher and the experience of learning with him, and, as a result, it can prompt any number of emotions including feelings of gratitude for what was learnt, as well as of regret at having practised less in recent years. In these ways, the notation has a sort of agency, prompting memories of people and events, and thus also emotions and ideas.

T. K. V. Ramanujacharyulu states that when seeing his teacher's notation "I picture that day's lesson", and that "the memories will be so emotional sometimes". One cherished memory, prompted by a particular notation that we discussed, is that as a small boy he would sometimes sit informally beside his teacher while the notation was written out, rather than in the normal and more formal position in front of the teacher. Specific markings can also spark memories. For example, on discussing one of his teacher's notations, T. K. V.

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<sup>26</sup> Pearson, "Improvisation in Play".

points out that he had handwritten some additional *saṅgatis* after his teacher had orally imparted the extra *saṅgatis* especially for him. He notes that “I will be very emotional while singing those lines, I have *darshan* of my guru”. *Darshan* is the experience of viewing a holy person or deity, and is considered a blessing. The use of this word indicates that for T. K. V., his teacher’s notation can act as a blessing – the notation comes to stand for the teacher and also his relationship to the teacher. More light-hearted memories are also sparked by idiosyncratic details in the notation. For example, T. K. V. mentions that his teacher would write the *rāga* name *ritigow!a* as “*rigow*” for brevity, reminding T. K. V. of his teacher’s sense of fun.

In such ways, handwritten notations can prompt memories of our teachers, making our connection to them more tangible in the moment. In addition, A. K. Shruthi Ranjani feels that the notation engenders feelings of connection with her lineage. She notes, “Our Sir, he learned from his guru, and he learned from his guru. So like this, if we move on back in time, we somehow touch Tyagaraja Swami [the composer Sri Tyagaraja]” (online interview, 23 November 2021). She speaks of the “prestige” and “authentication” provided by this connection, which is made tangible through the notation written for her by her teacher, T. K. V. Ramanujacharyulu.

Both of the forms of social connection discussed – to the immediate teacher and thus also to the extended lineage – are afforded in particular through the fact of the notations being handwritten. The connection to lineage is afforded through oral transmission combined with handwritten notation, which allows for the version learnt by the teacher to be passed on to their students in turn. In the case of the memories of one’s teacher, it is the notation’s handwritten qualities, its idiosyncrasies, that link the notations so strongly to the moment in which they were written and to the character of the teacher as expressed in the inscriptions. Drawing on the work of Alfred Gell on art and agency,<sup>27</sup> Georgina Born characterises music as “spinning forms of connectedness across time and space”,<sup>28</sup> and thus mediating social relations. Handwritten music notation also acts in this way, reinforcing particular social relations via the memories it prompts and through the meaning these memories have for the musicians who were given the notations. It seems possible that all music notations, even published notation, could act in this way to some extent, due to the way they refer back to the time they were used and the events that took place at that

27 Gell, *Art and Agency*.

28 Born, “Musical Mediation”, p. 16.

time.<sup>29</sup> But the handwritten nature of the notations discussed in this paper intensifies this tendency towards connectedness. In handwritten notations we see the traces of the teacher's hand on the page – that is to say, their mark, the trace of their physicality and existence. As a result, it is easy to feel the presence of the teacher on viewing their notation, and all of the social relatedness that this presence implies.

### Music Notation as Material Culture

The above discussion helps us understand handwritten notations not only as prompts for musical memory, but also as examples of material culture that connect people across time and space.<sup>30</sup> They are artefacts created by musicians, and their material existence is typically greatly valued. The comments of musicians suggest that the notations are viewed as being skilfully created and cherished products of lessons. Although not all Karnatak music students receive handwritten notations from their teacher, those who do might consider themselves to be privileged as a result. For example, Shruthi Ranjani finds that “it's really a prestige, it's really a privilege to have [handwritten] notation for everything that we learn” (online interview, 23 November 2021). The notations are often written in hard-backed school notebooks or large format desk diaries, because other forms of notebooks are not necessarily available or affordable across India, but they are nevertheless typically preserved with care. During our discussions, Lara Pearson mentioned that she used to feel anxious about potentially losing her original notation copies, and so would make photocopies of them at frequent intervals. Although the loss of the originals would be upsetting, due to the pleasure of holding the original artefact, a copy would at least retain many of its valued qualities.

As artefacts and examples of material culture, the notations might be considered to have a degree of agency, to have certain powers over the musicians who read them. In the context of archaeology but speaking more widely to material culture in general, Bjørnar Olsen argues that we should pay more attention to things and the powers they hold for us, explaining this using the

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29 Between published and handwritten notation, there is the third case of annotated published notation, which has been discussed by authors including Kaastra (2011) and Payne and Schuiling (2017), who view such annotation practices as integral elements of social and creative interactions.

30 Schuiling and Payne, “Introduction: Notation”.

example of “habit memory” – the way in which memories are stored in the body as practices or habits:

Biking is often used to exemplify this type of memory: even after a long pause we master the ability to bicycle again – our clever body still remembers how to bike ten years after we climbed off the bike. But again, something is missing in this story: *the bike*. The other half of the story is entombed in this celebration of the body and we are once again left with the ‘sound of one hand clapping’ (Bateson). But try to bike without a bike; try to think of your day-to-day practices without things.<sup>31</sup>

Similarly, we might forget a composition if we fail to play it for several years, but then with the physical notation in front of us, often we quickly recall it and play it almost immediately. Not necessarily because we are reading the notation syllable by syllable, phrase by phrase, but sometimes because the composition comes back in a flash as we glance at the first line. In addition, as discussed above, details of that time and of our teacher might arise on viewing the notation, perhaps also prompting us to contact them again or practise more frequently. Thus, notations, via the memories they provoke and affordances they hold for us, may influence our thoughts and actions.

### Concluding Thoughts

In summary, we have reflected on some of the meanings and affordances of handwritten music notation in Karnatak music – the ways in which notations can connect across time and place, both musically and socially. Karnatak musicians’ appreciation of the value of handwritten notation means that the practice is likely to persist to some extent, notwithstanding apparent time-saving aspects of other options available, such as scans of previously handwritten notations and commercially published notation. Even scans of a teacher’s previously produced notations preserve some of the valued qualities, such as conveying the lineage’s version of the composition, and also being written in the teacher’s hand, with their idiosyncratic way of notating and the resulting potentially beneficial graphic and spatial qualities. Notation scans do however lack some of the personal connections of notation handwritten during lessons – there will be no memory of the teacher writing out the notation, and therefore potentially less of a connection made between the notation and the particular lesson as an event. Prints of scans passed to the student also lack

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<sup>31</sup> Olsen, “Material Culture”, p. 97.



the process whereby the learning of composition phrases is intertwined with the writing of the notation, where each refers to the other and a connection is forged through the memory of that process.

More broadly, the practice of handwriting notation affords the creation of connections, and this is central to its power: connecting musical sounds, physical sound-producing actions, feelings about people and places, and thoughts regarding lineage and authenticity. Furthermore, each of these points of connection support the others: social relations matter, in part, because of the associated musical connections, while the musical connections are valued also for their social implications. The memories and thoughts that may be prompted when a student views their notation cause it to have a form of agency: it holds the power of that which went into its creation, and also of its continued material existence. As long as the notation exists, it holds the potential for dynamic interplay between musician and artefact, with repercussions for the musician in this scenario, forcing them to remember this or that detail, reminding them of something that had been forgotten or put aside. Through this interplay, which depends on memory, connections are sparked, and because they are based on memory, they will eventually be lost. All of this plays into the power of the handwritten notation practice described.

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### List of Figures

- Fig. 11.1: First few lines of a notation for the *kṛitī* Nāḍopāsana, composed by Sri Tyagaraja, handwritten by T. K. V. Ramanujacharyulu in Latin script.
- Fig. 11.2: A visualisation of melodic movement in the opening of Nāḍopāsana as performed by T. K. V. Ramanujacharyulu.
- Fig. 11.3: A line of notation in Tamil script.
- Fig. 11.4: A fragment of notation written by T. K. V.'s teacher, Nallan Chakravartula Krishnamacharyulu in Telugu.
- Fig. 11.5: Notation by Nallan Chakravartula Krishnamacharyulu in Telugu.