

Research Aspects in Vedic Chandas-shastra

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ABSTRACT

In this paper, we show the importance of the Vedanga *Chandas shastra* as also the various aspects that require deeper study and research for enhancing knowledge in the subject, which is scarcely available. We also propose introduction of the study of manuscripts and publication of rare, unknown texts in academic curricula to be undertaken for study in traditional institutions like Veda pathashalas, vidyapeethas and universities, harnessing the power of ICT.

INTRODUCTION

There are fourteen vidyasthanas covering 4 Vedas, 6 Vedangas and 4 Upangas. *Chandas shastra* is a Vedanga likened to the feet of Veda, as it gives rhythm and motion. This is referred at छन्दः पादौ तु वेदस्य (पाणिनि शिक्षा). The Chandas Sutra by Pingala Naga is the first basic treatise setting out the tenets of the discipline for Vedic and Laukika metres. Prosody and its characteristics are explained in great detail, including mathematical concepts like combinatorics, while deriving variation permissible under seven basic metres, viz. गायत्री, उष्णिक, अनुष्टुप्, बृहती, पङ्क्ति, त्रिष्टुप् and जगती.

Indian Heritage Group (IHG) of Centre for Development of Advanced Computing (C-DAC), a scientific society under the Department of Information Technology, Ministry of Communication and Information Technology of the Government of India, at its Knowledge Park Campus, Bangalore, is engaged in pioneering research work in the field of Sanskrit and Vedic Processing computationally for two decades now and has developed application programs for all 14 vidyasthanas for preservation, study and propagation of ancient Vedic heritage of the country. We would be reporting some of the work done and further course of action needed for the field in this paper.

FEATURES

छन्दोभिः पादभूतैस्तु त्रिलोकीं क्रमतो हरेः । गायत्र्याद्यैरमोघं नः छन्दः कल्पयताच्छुभम् ॥

We begin with defining what is chandas and examine its various aspects. There are different descriptions about chandas in Vedas ranging from being the source of creation to pervading all space to being the carrier of Lord Vishnu, as the celestial bird Garuda's form to being veritabily everything in cosmic creation. We consider the scriptural passages from Taittiriya branch of Krishna YajurVeda to understand some of these and their significance.

Chandas (metre) is a component of any mantra [besides, Rishi and Devata] in RgVeda, SamaVeda or Atharva Veda, while prose or text form of mantras in Yajur Veda will not necessarily have the metre as the structure is distinct. Also, brahmanas of all Vedas do not have chandas, again, with the exception of Krishna Yajur Veda, as, there, mantra and brahmana portions are found

combined in both.

The episode of Lord Vishnu, the supreme deity, encompassing the three worlds as *Trivikrama*, from the previous stage of *Vamana* (a dwarf boy) is known in Vedas as well as puranas. "इदं विष्णुर्विचक्रमे त्रेधा निदधे पदम् । समूढमस्य पाँसुरे ॥ त्रीणि पदा विचक्रमे विष्णुर्गोपा अदाभ्यः । ततो धर्माणि धारयन् ॥ विष्णोः कर्माणि पश्यत यतो व्रतानि पस्पशे । इन्द्रस्य युज्यः सखा ॥, त्रेधा विष्णुरुगुगयो वि चक्रमे । महीं दिवं पृथिवीमन्तरिक्षम् ।" etc., describe the greatness of His attributes and His divine Act of encompassing the whole Universe.

In the yajnas, the yajamana is prescribed to take strides for victory emulating this divine feat of Lord Vishnu and the steps to be taken by the yajamana is called *Vishnu-krama*, itself. As soon as one gets up in the morning, before setting foot on ground (from bed etc., where one sleeps), it is ordained to recite this Vishnu-krama mantra: विष्णोः क्रमोस्यभिमातिहा गायत्रेण छन्दसा पृथिवीमनु विक्रमे निर्भक्तः स यन्दिष्णो, विष्णोः क्रमोस्यभिश्चिहा त्रैष्टुभेन छन्दसा न्तरिक्षमनु विक्रमे निर्भक्तः स यन्दिष्णो, विष्णोः क्रमोस्यरातीयतो हन्ता जागतेन छन्दसा दिवमनु विक्रमे निर्भक्तः स यन्दिष्णो, विष्णोः क्रमोसि शत्रूयतो हन्तानुष्टुभेन छन्दसा दिशोनु विक्रमे निर्भक्तः स यन्दिष्णः । (तै.सं.1.6.16). This ensures the fulfillment of one's desires.

However, this is possible only when He [Lord Vishnu] is willing and hence the verse above prays that the chandas {both the shastra [the science of prosody] and His 'Will'} of Lord Hari (since Vedas begin and end with the name Hari being recited as also all letters of Vedas are veritably names of Hari), who pervaded the three worlds with the chandas (metres) Gayatri etc. as His Feet, be favourable to those devoted to Him, as His Will is never obstructed, i.e, is always carried out.

The Chando-ratha (Metric Chariot)

The fact that Chandases give rhythm and motion to Vedas is obvious from recitation, but is it figurative usage in the case of Lord Vishnu pervading the Universe? No. There are two specific references that denote that indeed, chandas give motion physically to cosmic activities. One is as the celestial bird *Garuda*, vehicle of Lord Vishnu, being *chando-maya*, very embodiment of Chandases [or Vedas], having them as his wings. सुपर्णोसि गरुत्मान् त्रिवृत्ते शिरो गायत्रं चक्षुः स्तोम आत्मा साम ते तनूर्वामदेव्यं बृहद्रथन्तरे पक्षौ यज्ञायज्ञियं पुच्छं छन्दाँस्यङ्गानि धिष्णियाः शफा यजूषि नाम । सुपर्णोसि गरुत्मान् दिवं गच्छ सुवः पत । (तै.सं.4.1.), छन्दाँसि सौपर्ण्याः जगत्युदपतत्,त्रिष्टुगुदपतत्.....,गायत्र्युदपतत् (तै.सं.6.1.), छन्दाँसि यस्य पर्णानि यस्तं वेद स वेदवित् । (गीता), छन्दोमयेन गरुडेन समुह्यमानः (यादवाभ्युदये) etc. Figuratively also, these texts imply that Lord Vishnu, the immanent ruler in all beings, is described by and is the sole purport of all Vedas, as declared in scriptures like, सर्वे वेदा यत्पदमामनन्ति तपांसि सर्वाणि च यद्ददन्ति । यदिच्छन्तो ब्रह्मचर्यं चरन्ति तत्ते पदं संग्रहेण ब्रवीम्योमित्येतत् ॥, सोध्वनः पारमाप्रोति तद्विष्णोः परमं पदम् ।, तस्मिन्सुपर्णो मधुकृत्कुलायी भजन्नास्ते मधु देवताभ्यः । तस्यासते हरयः सप्त तीरे स्वधां दुहाना अमृतस्य धाराम् ॥ (तै.सं.4.2.), तद्विष्णोः परमं पदं सदा पश्यन्ति सूरयः । दिवीव चक्षुराततम् ॥ तद्विप्रासो विपन्यवो जागृवाँसः समिन्धते । विष्णोर्यत्परमं पदम् ॥ (कठोपनिषत्), वेदैश्च सर्वैरहमेव वेद्यः (गीता), वेदात्मा विहगेश्वरः (यामुनार्याः) etc. *Chandas* refers to Vedas also as they are identical with the metrical structure.

The second instance is about the Chandases (poetic metres) being referred as

a chariot for the Lord Vishnu, Who, residing in the Sun's orb, supervises the entire Universe and controls the destinies of all beings. आ सत्येन रजसा वर्तमानो निवेशयन्नमृतं मर्त्यं च । हिरण्ययेन सविता रथेना देवो याति भुवना विपश्यन् ॥ (तै.सं.3.4.), सोब्रवीत्प्रजापतिः। छन्दोसि रथो मे भवत । युष्माभिरहमेतमध्वानमनुसञ्चराणीति । तस्य गायत्री च जगती च पक्षावभवताम् । उष्णिक् त्रिष्टुप् प्रष्टौ । अनुष्टुप् पङ्क्तिश्च धुर्यो । बृहत्येवोद्धिरभवत् । स एतं छन्दोरथमास्थाय । एतमध्वानमनु समचरत् । (तै.ब्रा. 1.5.59).

Here, we have the description of the seven basic Chandas (metres) being referred as the balancing factors at three layers, each layer accounting for a total of 72 syllables. तस्मा एतानि सप्त चतुरत्तराणि छन्दोस्युपादधुः । The bottom layer has *Gayatri* (24 syllables) and *Jagati* (48 syllables) form the wheels; the one above it, the wooden yoke cross-beam/outer horses [load-carriers] support, has *Ushnik* (28 syllables) and *Trishtup* (44 syllables); the one above it, the horses [load-carriers], has *Anushtup* (32 syllables) and *Pankti* (40 syllables) and finally, the top plank [seat] is *Brhati* itself {repeated becomes 36 + 36 = 72 syllables}. The existence of seven horses for Sun is known from many sources. सप्त त्वा हरितो रथे वहन्ति देव सूर्य । शोचिष्केशं विचक्षण ।, सप्त युञ्जन्ति रथमेकचक्रम् । एको अश्वो वहति सप्तनामा ।, सप्ताश्वस्तुविजातो रवेण । वि सप्तरश्मिरधमत्तमांसि ।, सप्तसप्तिः, etc.

In Pingala's Chandas Sutra also, metres of varying syllables starting from 1 to 104 are described. Hence, the similarities and symbolism together make them being referred as various objects in different contexts.



RESEARCH ISSUES

First of all, a comprehensive database of mantras with their chandas details needs to be prepared. The design of the structure of this database is crucial to extract various, relevant information for getting clues to significance and symbolism employed in the scriptural texts. With the help of other Shastras and mathematical sciences, these can then be studied. The characteristics like number of syllables, their value (like light/heavy), arrangement, number of quarters, exceptions, permutations and combinations, occurrences in different Vedas, examples of variations from the norm etc. are required to understand the formulations of the yajnas prescribed in many shakhas like the satra section (Kanda 7 of Taittireeya Samhita) etc.

We also need to study various commentaries and other literature related to chandas shastra and extract and abstract the conceptual content like the significance and symbolism involved. The available palm-leaf/paper manuscripts could be digitized, transcribed and programmatically processed to accelerate the pace of the study. We have developed certain software tools and utilities to assist scholars in such an endeavour. We would be glad to train and/or assist in formulation of algorithmic approach to these studies.

Updating of academic curriculum to reflect the scholastic needs of each branch of study is a crying need. We should also fully exploit the power of ICT and other modern methodologies to facilitate research and encourage dedicated researchers. Publication of seminal theses can boost the attention given to this discipline. Study of Veda-bhashyas like that of Sri Bhatta-Bhaskara Misra will also help in this regard.

At IHG, C-DAC (KP), we have developed certain software like Pandulipi Samshodhaka and C-VYASA, which have the potential to be of substantial help here. We invite scholars to make use of these and interact with us for bettering these based on actual end user needs. Feedback on the efficacy of the tools/utilities will also make them mature.

CONCLUSION

Hence, it will be in the fitness of things that, for all the Vedas, a comprehensive and exhaustive listing of pending/unknown issues related to Chandas [be they at varna, matra, svara, pada levels] and identified already in the published literature is surveyed to chalk out a working document for launching a serious research effort immediately. Commentaries by Halayudha, Yadava Prakasha and others as seen from Pandit Parameshwara Aithal's descriptive Bibliography of Veda-lakshana literature may be procured, studied and results/ publications brought out at the earliest.

Organising meetings of scholars to initiate suitable measures periodically and at major centres of academic excellence will contribute to accelerated progress and help in knowledge dissemination owing to superior technological advances in the recent past. Special Interest Groups and other such for a may also be constituted to focus and find solutions effectively.

In the end, I wish to see Pujya Guruji's dream of young Vedic scholars achieving great feats in our ancient wisdom and being leaders in the modern times come true sooner than anticipated with sustained, dedicated efforts.

Shubhamastu. Sri Krishnarpanamastu.

