# Introduction to
# INDIAN KNOWLEDGE SYSTEM
# Concepts and Applications

**B. MAHADEVAN**
Professor
Indian Institute of Management Bangalore

**VINAYAK RAJAT BHAT**
Associate Professor
Center for Indian Knowledge System
Chanakya University
Bengaluru

**NAGENDRA PAVANA R.N.**
Assistant Professor
School of Vedic Knowledge Systems
Chinmaya Vishwa Vidyapeeth
Ernakulam

TO
*The Great Sages and Saints of Ancient India and the lineage of Gurus who selflessly contributed to the IKS knowledge repository*

|| न हि ज्ञानेन सदृशं पवित्रमिह विद्यते ||

*There is nothing as purifying as knowledge*
Bhagavad-Gita (4.38)

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अखिल भारतीय तकनीकी शिक्षा परिषद्
(भारत सरकार का एक सांविधिक निकाय)
(शिक्षा मंत्रालय, भारत सरकार)
नेल्सन मंडेला मार्ग, वसंत कुंज, नई दिल्ली–110070
दूरभाष : 011–26131498
ई–मेल : chairman@aicte-india.org

प्रो. अनिल डी. सहस्रबुद्धे
अध्यक्ष
**Prof. Anil D. Sahasrabudhe**
Chairman

सत्यमेव जयते

आज़ादी का
अमृत महोत्सव

**ALL INDIA COUNCIL FOR TECHNICAL EDUCATION**
(A STATUTORY BODY OF THE GOVT. OF INDIA)
(Ministry of Education, Govt. of India)
Nelson Mandela Marg, Vasant Kunj, New Delhi-110070
Phone : 011-26131498
E-mail : chairman@aicte-india.org

# Foreword
## by Anil Sahasrabudhe

The formal Indian education system inherited from British policymakers famously known as Macaulian system has kept the Ancient Indian knowledge heritage out of the reach of the budding young students, citing reasons of lack of rigor and scientific value. This is arguably an incorrect perspective. However, truth is otherwise. Ours is one of the only continuing, surviving ancient civilization with huge repository of knowledge created by the forefathers, which can provide great value for any society. It enables the current generation to understand the thought processes and frameworks, analyse the received wisdom in a contemporary context and provide new opportunities to assimilate the accrued wisdom and synthesize new knowledge.

Therefore, All India Council for Technical Education (AICTE), the apex body for technical education spanning the Engineering and Management Education in India while revising the curricula in 2018, introduced a mandatory non-credit course on Indian Knowledge Systems (IKS) along with courses on constitution of India and environment science. While there are several books on the latter courses, unfortunately, there are no textbooks currently available for the subject that will help students understand the various components of IKS. Hence a textbook for the course on Indian Knowledge Systems (IKS) is a timely and valuable contribution to the education system in the country and I am happy to note that this book has been written to address the requirements of this course.

The book has detailed coverage of IKS topics, and the authors have taken the right approach to balancing the concepts with the applications. I notice extensive endnotes for each chapter that points to the depth of research the authors have carried out in culling out relevant ideas to the students. The chapters on Number Systems, Mathematics, and Astronomy truly showcase the scientific rigour and heritage that was existing in the country. Similarly, the chapters on Metal Working and other engineering applications will be true eye openers for the young engineering students. Another interesting feature of this book is the discover IKS exercises at the end of the chapters. This will provide further opportunities for the students to experientially discover the multi-faceted nature of IKS.

Although the authors claim that the book was mainly intended for the IKS course in Engineering institutions, I believe that the book can serve as a useful textbook for any undergraduate or postgraduate degree programs in the country wanting to introduce an elective course on IKS. Incidentally, the NEP 2020 does refer to Indian Knowledge Systems couple of times. The book will therefore be a valuable asset in the context of the New Education Policy (NEP 2020).

I hope the book will motivate professionals and IKS researchers to deep dive into each chapter and write a separate textbook based on each chapter.

(Anil Sahasrabudhe)

# Foreword
## by Subhash Kak

It is generally recognized that historical accounts of science in India, the world's third-largest economy on a purchasing power parity basis, are woefully inadequate and need to see beyond the colonial lens. Therefore, I am pleased that this book *Introduction to Indian Knowledge System – Concepts and Applications* written by B. Mahadevan, Vinayak Rajat Bhat, and R.N. Nagendra Pavana will provide the students with an excellent introduction to the astonishing breadth and depth of the Indian scientific and knowledge tradition.

Ṣā'id al-Andalusī, writing in Toledo, Spain in 1068 in the *Tabaqāt al-'Umam*, comparing science in different parts of the world declared that India was the most advanced nation: "The first nation to have cultivated science is India. India is known for the wisdom of its people." India appears to have remained ahead of others in science until about the seventeenth century.

India's sciences are based on fundamental principles, axioms, logical inference, and empirical observations and were generally written down in texts called śāstras and sūtras. For example, the Śulba-sūtra geometry includes the so-called "Pythagoras theorem" several centuries prior to its later discovery in Greece; there is also Pāṇini's astonishing grammar that describes the Sanskrit language in 4000 algebraic rules with a structure that is now compared to a computer program. The logic of Navya Nyāya is equivalent to mathematical logic, which is the foundation of analysis by modern machines.

Kaṇāda's physics has its laws of motion, and it speaks of nine classes of substances, some of which are non-atomic and some atomic. Every substance was taken to be composed of four different kinds of atoms, two of which had mass and two did not. A thousand or more years after Kaṇāda, Āryabhaṭa postulated that earth rotated and advanced the basic idea of relativity of motion. It is fascinating that Kaṇāda's ideas were communicated by Swami Vivekananda to Nikola Tesla in connection with the possibility of conversion of mass into energy.

It is generally believed that the discovery of infinite series and calculus by Newton and Leibniz heralded the Scientific Revolution that was to change the world. But new research has shown that the Kerala School of Mathematics had already developed calculus over two centuries prior. Some historians suggest that this advanced astronomical knowledge from Kerala went abroad via the Jesuits and sparked its further development in Europe.

The ancient Āyurveda texts include the notion of germs and inoculation and postulate mind-body connection, which has become an important area of contemporary research. Āyurveda uses tripartite analysis (three *doṣas*, for example), and since modern logic shows that ternary logic is more powerful than binary logic, this fact may prove to be an advantage in the further development of medicine.

There are indirect ways that Indian ideas led to scientific advances. Mendeleev was inspired by the two-dimensional structure of the Sanskrit alphabet to propose a similar two-dimensional structure of chemical elements. Erwin Schrödinger, a founder of quantum theory, credited ideas in the Upanishads for the key notion of superposition that was to bring about the quantum revolution in physics that has transformed modern science. A Vedantic vision guided Jagadish Chandra Bose in his pathbreaking discoveries in several fields, and he is considered the true father of radio science which, as we know, heralded a new age.

*Introduction to Indian Knowledge System – Concepts and Applications* provides a grand view of the Indian knowledge tradition, and it goes back to the Vedic texts for its overarching unity. The book covers various topics across linguistics, mathematics, astronomy, engineering, town planning, and architecture; it also shows the application of these ideas to health, psychology, and management. Apart from the careful study of motion, vibratory phenomena, acoustics, Indian sages studied the transforming power of fire. It was known that lightning bolts had electricity. Indian technology, which was quite advanced, was used in mechanical devices, engineering, art, and civil projects.

The phenomenon of consciousness is the frontier from the perspectives of biology and physics; it is also central to answering whether machines will become conscious. The Upanishads speak of two kinds of science: one about things and concepts and their mutual relationships (*aparā vidyā*); the other about consciousness (*parā vidyā*). The book will also serve as an excellent foundation for those who wish to investigate how the Indian tradition of consciousness science can be harnessed for further scientific advance and the betterment of the world.
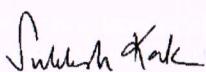
**Professor Subhash Kak**
Regents Professor
School of Electrical and Computer Engineering
Oklahoma State University–Stillwater
USA

# Foreword
## by S. Sadagopan

I have gone through this book in detail and it has been an *enriching, fulfilling* and *satisfying* experience. The authors have done an outstanding job covering a whole gamut of things, yet with sufficient depth, to avoid a superficial survey.

The authors have addressed the contributions to Foundational knowledge, Science, Engineering & Technology, and Humanities & Social Sciences through a structured classification. **IKS** (Indian Knowledge System) have evolved over centuries, in fact, over millenniums. It has a wide range, and the well-known among them being **Astronomy**, including planetary movements, solar-centric world, shape and diameter of the Earth; **Health and Well-being**, including plants & herbs, surgical procedures; **Mathematics and Computing**, including the discovery of zero, decimal system of numerals, and approximation algorithms for computation of Pi; **Languages and Linguistics**, including Panini's Sanskrit grammar; **Metallurgy**, including steel-making and zinc-smelting; and **Public Administration**, including Good Governance and Taxation.

Thanks to the Royal patronage over centuries, there was a system where scholars could study IKS throughout their lives without worrying about their daily livelihood. This led to several Schools of thought, often expounded by several principal works, notably, *Brahmasutra Bhashya* by **Sankaracharya**, *Sri Bhashya* by **Ramanujacharya**, *Gita Bhashya* by **Madhwacharya**, *Mulamadhyamakarika* by **Nagarjuna**, and *Pramana Samucchaya* by **Dignaga**. Several cities and towns could house thousands of scholars leading to Centres of learning, for example, **Kasi** in the North and **Kanchi** in the South. Institutions of learning, including **Nalanda** and **Takshashila**, paved the way for graduating generations of scholars.

Particular mention must be made of the many texts in IKS that are referred to in the footnotes at the end of the chapters. For most people, IKS works stop with *Ramayana, Mahabharata* and *Srimad Bhagavatam*; Patanjali's *Yogasutras* on **Yoga**, Sayana's *Sayana Bhashya* on **Vedas**, Bharata's *Natyasastra* on **Dance**, Kautilya's *Arthasastra* on **Economics**, Vishnu Sharma's *Pancha Tantra* **Stories**, Sushruta's *Sushruta Samhita* on **Medicine and Surgery**, and more recently Panini's *Ashtadhyayi* on **Sanskrit Grammar** that caught the attention of Computer Scientists. I particularly like the references to the less known and equally impactful works like *Rasa Ratna Samuccaya* that details complex **Metallurgy**, *Aryabhatiya* and Varahamihira's *Brihat Samhita* on **Astronomy**, *Shulba Sutras* on **Geometry**, *Lilavati* of Bhaskaracharya a treatise on **Mathematics**, Gautama's *Nyaya Sutra* on **Logic**, Kanada's *Vaiseshika Sutras* on **Ontology**, Narada's *Shilpasastra* on **Architecture** and **Civil Engineering**, Mayamuni's *Mayamata* (**Architecture**), Bhoja's *Yuktikalpataru* (**Ship-building**), and, Kshemasarma's *Kshemakutuhalam* on **Dietetics and Well-being**.

Most of these works were set in the Sanskrit language widespread across the country. With the higher education system switching completely to the English language over the past two centuries (more so after Indian Independence in 1947 CE), IKS became inaccessible to most Indians. There has been sporadic interest in the IKS, particularly from Western scholars, in specific areas, thanks to pioneering efforts of individuals; for example,

- Swami Vivekananda and BKS Iyengar – Indian Philosophical Systems and Yoga
- Pandit Ravi Shankar and MS Subbalakshmi – North Indian and South Indian Classical Music

Yet, for most University students in India today, IKS is not in their consideration set!

It is against this backdrop that the study of IKS (Indian Knowledge System) is an idea whose time has come. I am delighted that AICTE & UGC are making efforts to support scholars and textbook creators in the IKS domain.

I had a personal brush with reality when I was looking for an authentic and widely available text of Rig Veda that I realized that the Indian tradition was largely "oral". I ended up creating the first-ever digital edition of Rig Veda through the book *Rig Veda Samhita*, SAKSI, 1998.

This book by Professor Mahadevan et al. is a timely release, particularly in the Post Covid-19 World, when India plays a leading role in the science of discovering vaccines and managing distribution and logistics. It makes IKS accessible to a much larger set of readers, notably University students. The book is interspersed with illustrations and context setting "action points". It provides ample opportunities for further exploration through the pointers for further study that include several authentic works and Websites. I am sure the additional material provided through the companion website will make the book a place that young readers will visit multiple times.

Happy reading!
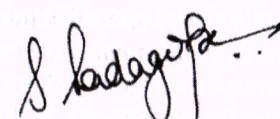
**Professor Sadagopan**
Chairman, BoG, IIITDM-Kancheepuram
Founder Director, IIIT-Bangalore

# Preface

India is a nation with a long civilizational history with recorded history, cultural artefacts, and evidence pointing to more than five millennia of existence. Not surprisingly, such a society would have discovered enormous knowledge cutting across various dimensions of human life and existence. Despite a continuous onslaught of foreign invasions for more than a millennium, the knowledge practices have more or less remained intact and have been passed on from generation to generation 'orally'. There have also been attempts to record the knowledge and practices in written form in the last millennium. However, during the last 200 years, this knowledge has been relegated to the background and the knowledge paradigm of the West has been imposed on the Indian society. Even after Independence, no concrete efforts were made to introduce indigenous knowledge in the educational curriculum formally.

However, knowing the thinking patterns and the knowledge repository created by the forefathers provides great value for any society. It enables the current generation to understand the thought processes and frameworks, and synthesize new knowledge. Arguably, no society can hope to flourish by simply severing itself from its past and embracing alternative ideas alien to the indigenous thoughts and practices. After some time, the need to revisit will be strongly felt, and the Indian society is currently going through such a phase.

The policymakers and the government have taken cognizance of this and have taken several steps to address this requirement. One of the steps is to introduce a course on the Indian Knowledge System (IKS) in higher educational institutions. Unfortunately, we do not have a textbook to teach this course. This textbook responds to this growing need felt by the Indian society at large and is primarily intended to facilitate offering a one-semester or two-semester course on IKS to undergraduate and graduate-level students. This textbook is a culmination of our efforts to offer a two-semester course on IKS in Chinmaya Vishwavidyapeeth, Ernakulam.

## ORGANIZATION OF THE BOOK

This book seeks to fill in the gap for offering a required course on IKS, recently mandated by AICTE. The proposed textbook seeks to introduce the epistemology and ontology of IKS to the Engineering and Science students in a way they can relate, appreciate and explore further should there be a keen interest in the matter. Moreover, the New Education Policy (NEP) has also provided a clear trajectory for imparting IKS in the higher education curriculum, necessitating a book of this kind in several higher education institutions in the country in the days to come.

The book presents the topics in a two-part study of IKS. The first is to develop an overall understanding of some key components of IKS. The second aspect is the application of IKS for some gainful use. Specific areas of applications can be studied in a focused manner by drawing the relevant portions of the IKS showcasing the potential for practical application either in theoretical advancement of concepts or practical use in addressing some issues that we may face either as an individual or at an institutional level. The book presents these aspects in four parts:

- Part I: Indian Knowledge System: An Introduction
- Part II: Foundational Concepts relevant for Science, Engineering, and Technology Applications
- Part III: Specific Concepts related to Science, Engineering, and Technology
- Part IV: Humanities and Social Sciences Applications

The details of the chapters and the topics discussed in the chapter are schematically presented below.

| Part I Indian Knowledge System: An Introduction | Part II Foundational Concepts in IKS for Science, Engineering and Technology | Part III Science, Engineering amd Technology in IKS | Part IV Humanities and Social Sciences in IKS |
|---|---|---|---|
| 1. Indian Knowledge System: An Overview | 5. Linguistics | 8. Mathematics | 13. Health, Wellness and Psychology |
| 2. The Vedic Corpus | 6. Number System and Units of Measurement | 9. Astronomy | 14. Governance and Public Administration |
| 3. Philosophical Systems | 7. Knowledge: Framework and Classification | 10. Engineering and Technology: Metals and Metalworking | |
| 4. Wisdom through the Ages | | 11. Engineering and Technology: Other Applications | |
| | | 12. Town Planning and Architecture | |

Although the book has been primarily developed for use by the engineering institutions, the structure and the contents lend itself easily to address the requirement in other University systems (Liberal Arts, Medicine, Science and Management) for such a book. Chapter 1 of the book provides these suggestions.

## UNIQUE FEATURES

One approach taken to present IKS has been to lay clear emphasis merely on the 'content' of IKS. Therefore, efforts were made to present the 'what' of IKS rather than the 'why' or 'how' of IKS. The application, implications, and practical relevance of IKS are often left for self-introspection by the students. Another approach is to merely showcase the practical relevance of IKS. However, to impress that IKS has application potential, the material is presented with generous and sweeping extrapolation and innovative interpretations. We have taken a middle path and have made special efforts to present IKS in a contextually relevant fashion by delicately balancing the 'why' or 'how' of IKS and the 'what' of IKS. Moreover, the textbook follows International best practices by incorporating several pedagogical features that will make learning effective and enjoyable for the students.

Chapter summaries, review questions, and exercises at the end of the chapters help students check their progress in comprehending the subject matter. Besides this, Multiple choice questions are also available at the companion website (https://www.phindia.com/introduction_to_indian_knowledge_system) for this textbook.

However, following features are also provided to make the process enjoyable for both the teacher and the student:

*IKS in Action:* This feature enables the students to develop an early appreciation of the subject matter being discussed and provides a context where the ideas discussed in the chapter have application.
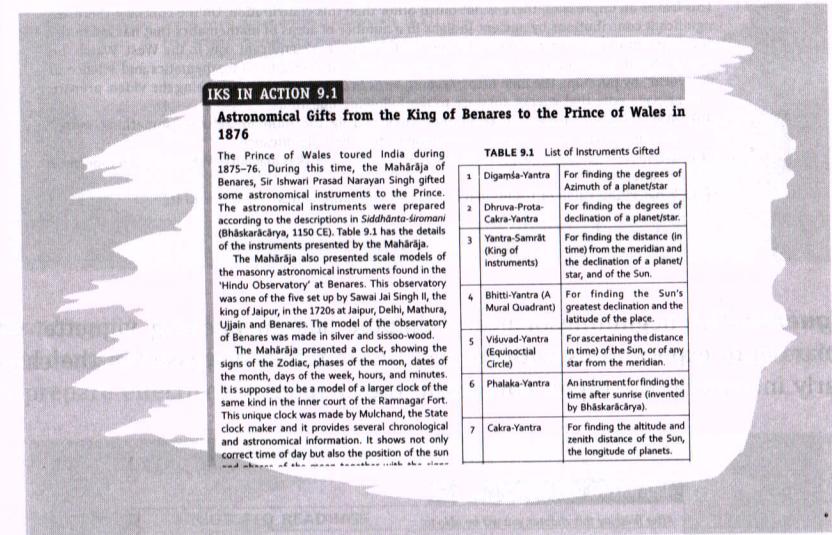


*Rich Illustrations:* The chapters are dotted with several illustrations by way of figures and tables that help concisely summarise complex concepts and facilitate easy understanding and retention by the students.



Source: https://commons.wikimedia.org/wiki/File:Illu01_head_neck.jpg

FIGURE 5.2 Origin of Sound from the Oral Cavity—An Illustration
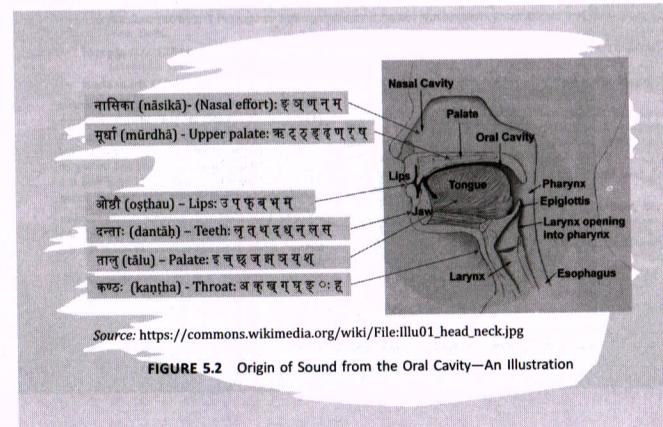
**Discover IKS:** Every chapter has an end-of-the-chapter feature that points to useful videos on some of the concepts discussed in the chapter. The videos are actual illustrations, existing artefacts, or expert opinions. Students are encouraged to go through the video and prepare a report of their understanding of the ideas presented. Students can develop applied learning, appreciation of concepts, and their relevance to practice.

**DISCOVER IKS**

1. India's contribution to mathematics has been a subject that has attracted considerable attention in recent times. Several attempts have been made to inquire into this issue. Watch this video produced by BBC, titled, *History of Indian Mathematics, Part-1* by pursuing the link: https://youtu.be/pElvQdcaGXE. After watching the video carefully, prepare a write-up to answer the following questions:

   (a) What are the main contributions of ancient Indians to the number system?
   (b) What is the importance of the number '0'? How does it contribute to science?
   (c) What are the contributions of Brahmagupta in use of numbers in mathematics?

2. It is often mentioned that India's contribution to the world of mathematics is the number zero. This leaves an impression there is not much other than this contribution. On the contrary, there are significant contributions by ancient Indians in a number of areas of mathematics that led to the development of mathematical thought and applications in a significant way in the West. Watch the talk by Prof. C.K. Raju on the topic, "Not just the Zero – India's gifts of mathematics and science to the world", by pursuing the link: https://youtu.be/22uZ3D5AgaE. After watching the video, prepare a three-page note that covers answers to the following questions:

   (a) Was India's contribution to Mathematics merely the number zero or something more? Enumerate the other salient contributions and their significance.
   (b) What are the salient aspects of Mādhava's sine table (kaṭapayādi)? What is the importance of sine table?
   (c) What is the value of traditional knowledge in mathematics? Do we need it?

**Opening Vignette:** The beginning of every chapter has an opening vignette, which helps develop a clear set of expectations with respect to the topics discussed in the chapter. It also generates early interest in the topics covered in the chapter.

**LEARNING OUTCOMES**

*After finishing this chapter, you will be able to:*

▸ Develop familiarity with the Science, Engineering and Technology (S & T) heritage of ancient and medieval India
▸ Understand the role of archaeological, and other evidence in assessing the S & T heritage of India
▸ Understand about ancient Indian pursuits in the area of metal and metalworking and idol making

This is a gold coin of the Gupta king Samudragupta (330–376 CE) kept at the British Museum. Samudragupta, with halo, standing facing left, wearing cap, decorated coat and trousers and earrings, holding a spear in left hand and making an offering with right hand over altar. In left field is a Garuda standard with ribbons and crescent above.

Stamping such coins with intricate details requires knowledge of mining, extraction of Gold and further metal forming techniques such as die casting.

Source: https://commons.wikimedia.org/wiki/File:SamudraguptaCoin.jpg

**Endnotes:** Material for the textbook has been drawn from several original sources and research papers. To establish authenticity and enable the students and the teachers to access the original sources of information, these have been listed at the end of every chapter.

**ENDNOTES**

1. For a good account of this refer to **Dharampal (2021)**. "Indian Science and Technology in the eighteenth century: Some contemporary European Accounts", Dharampal Classic Series 2, Rashtrotthaana Sahitya, Bengaluru.

2. See for example this extract from Chamaka Praśna — ... हिरण्यं च मे ऽयश्च मे सीसं च मे त्रपुश्च मे श्यामं च मे नील्लोहं च मे ... hiraṇyaṃ ca me 'yáśca me sísaṇi ca me trapúśca me śyāmaṃ cá me loham cá me ...

3. तिग्मं चिदेम महि वर्षो अस्य भसदश्वो न यमसान आसा । विजेह्मानः परशुर्न जिह्वां द्रविणेर द्रावयति दारु धक्षत् ॥ tigmam cidema mahi varṣo asya bhasadaśvo na yamasāna āsā | vijehmānaḥ paraśurna jihvāṃ draviṇa drāvayati dāru dhakṣat || Ṛgveda Saṃhitā 6.3.4

4. तद्यथा लवणेन सुवर्णं सन्दध्यात्सुवर्णेन रजतं रजतेन त्रपु त्रपुणा सीसं सीसेन लोहं लोहेन दारु दारु चर्मणा ॥ tadyathā lavaṇena suvarṇaṃ sandadhyātsuvarṇena rajata rajatena trapu trapuṇā sisa* sīsena lohaṃ lohena dāru dāru carmaṇā || **Swami Gambhirananda (2003).** "Chāndogya Upaniṣad", Advaita Ashrama, Kolkata, p. 308.

5. सोहितेन स्वधितिना मिथुनं कर्णयोः कृधि । अकर्तामश्विना लक्ष्म तदस्तु प्रजया बहु ॥ lohitena svadhitinā mithunaṃ karṇayoḥ kṛdhi | akartāmaśvinā lakṣma tadastu prajayā bahu || Atharvaveda 6.141.2

6. को अस्मिन्नापो व्यदधात्विषूर्तहः पुरूवृतः सिन्धुसुर्त्याय जाताः । तीव्रा अरुणा लोहिनीस्ताम्रधूम्रा ऊर्ध्वा अवाची पुरव त्राश्चीः ॥ ko asminnāpo vyadadhātviṣūrtaḥ purūvṛtaḥ sindhusṛtyāya jātāḥ | tīvrā aruṇā lohinīstāmradhūmrā ūrdhvā avācīḥ purava traścīḥ || Atharvaveda, 10.2.11

7. For a detailed report on this, please see, **Srinivasan, K.R. (1958).** "The Pallava Architecture of South India", *Ancient India*, **14**, pp. 114–138.

8. For more details on this and issues addressed in this section see, **Deva, K. (1959).** "Temples of Khajuraho in Central India", *Ancient India*, **15**, pp. 43–65.

9. For more details on this and the other issues addressed in this section see, **Singh, P.K., Dey, P., Jaina, S.K. and Mujumdar, P.P. (2020).** "Hydrology and water resources management in ancient India", *Hydrol. Earth Syst. Sci.*, **24**, pp. 4691–4707.

10. https://en.wikipedia.org/wiki/Stepwell Last accessed on Oct. 1, 2021.

11. **Jain—Neubauer, J. (1999).** "The stepwells of Gujarat ", *India International Centre Quarterly*, **26**(2), pp. 75–80.

**Suggested Readings:** A list of additional readings has been provided at the end of every chapter to help the students pursue further studies in the topics covered in the chapter. It also helps the teachers prepare effectively the topics covered in the chapter.

**SUGGESTED READINGS**

**Datta, B. and Singh, A.N. (1962).** *History of Hindu Mathematics: Parts I and II*, Asia Publishing House, Mumbai.

**Datta, B. (1932).** *Ancient Hindu Geometry: The Science of Sulbas*, Calcutta University Press, Reprinted Cosmos Pug., New Delhi, 1993.

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Our work in developing a textbook for IKS is perhaps the first of its kind. IKS is a generic phrase that covers practically everything pertaining to India. For a nation with more than 5000 years of recorded history, defining what constitutes IKS is itself a huge challenge. Literature, oral knowledge, societal practices, and knowledge assets in all Indian languages will technically fall under the ambit of IKS. We have taken a certain view on what constitutes IKS to make it manageable for a university-level course. We are aware that alternative views can be taken on this issue. We believe that our work will encourage other authors to bring more textbooks taking alternative perspectives on IKS.

**B. Mahadevan**
**Vinayak Rajat Bhat**
**Nagendra Pavana R.N.**

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A project of this magnitude is beyond our normal means, given the vastness of the subject matter to be covered. While we were self-motivated and focused on the task, a group of experts in IKS could play a significant role in ensuring we do not miss out on the essentials. It also required someone to closely monitor, go through the material, and offer critical comments for improving it. We were indeed fortunate to have a team of high-profile and accomplished academic colleagues in the area of the Indian knowledge system, who, despite their busy schedules, agreed to serve in our expert committee. The expert committee consists of the following members:

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2. Professor R N Iyengar, Distinguished Professor and Director, Centre for Ancient History and Culture, Jain University, Bangalore.
3. Professor Subhash C Kak, Regents Professor, School of Electrical and Computer Engineering, Oklahoma State University–Stillwater, USA.

4. Professor K Ramasubramanian, Humanities and Social Sciences, IIT Bombay.
5. Vidwan Chamu Krishna Shastry, Sanskrit Promotion Foundation, New Delhi.
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**B. Mahadevan**
**Vinayak Rajat Bhat**
**Nagendra Pavana R.N.**

# Guide to Transliteration Symbols Used in the Book

All Sanskrit words used in this book are presented using roman scripts as transliteration. The transliteration schema used in this book is based on International Alphabet of Sanskrit Transliteration (**IAST**). IAST is a transliteration scheme that allows a lossless romanization of scripts as employed by the Sanskrit language. The details are given below.

### Vowels

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| अ | a | उ | u | ऌ | ḷ | ओ | o |
| आ | ā | ऊ | ū | ॡ | ḹ | औ | au |
| इ | i | ऋ | ṛ | ए | e | ं/अं | ṃ/aṃ |
| ई | ī | ॠ | ṝ | ऐ | ai | ः/अः | ḥ/aḥ |

### Consonants

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| क | ka | च | ca | ट | ṭa | त | ta | प | pa |
| ख | kha | छ | cha | ठ | ṭha | थ | tha | फ | pha |
| ग | ga | ज | ja | ड | ḍa | द | da | ब | ba |
| घ | gha | झ | jha | ढ | ḍha | ध | dha | भ | bha |
| ङ | ṅa | ञ | ña | ण | ṇa | न | na | म | ma |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| य | ya | र | ra | ल | la | व | va | श | śa |
| | | ष | ṣa | स | sa | ह | ha | | |

### Others

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| क्ष | kṣa | त्र | tra | ज्ञ | jña | श्र | śra | s | ' |

# Part 1

# INDIAN KNOWLEDGE SYSTEM
## AN INTRODUCTION

# 1 Indian Knowledge System: An Overview

**LEARNING OUTCOMES**

*After finishing this chapter, you will be able to:*

▸ Understand and appreciate the importance of ancient knowledge to a society

▸ Understand the term 'Indian Knowledge System' (IKS)

▸ Familiarise with the key components of the IKS

▸ Develop some appreciation of IKS historicity

Built by Raja Raja Chola I. The construction was completed in 1010. This is one of the earliest granite temples in the world. Around 60,000 tons of granite is said to be used to build the temple. It has one of the tallest vimānas (temple tower) and its kumbham (the structure on the top) weighs approximately 80 tons.



*Source:* https://upload.wikimedia.org/wikipedia/commons/7/7d/Brihadeeswarar_Temple_Full_View.jpg

## IKS IN ACTION 1.1

### Do We Need Indian Knowledge System?

There is a question ruminating over our minds, "Why should we bother so much about Indian Knowledge System (IKS)?" IKS is not about merely knowing about some ancestral knowledge. If we closely follow the emerging patenting regime and the economic power arising out of a knowledge society, it becomes clear that the issue merits serious attention. It is about protecting received wisdom, economic security, and national pride.

Efforts by an international coalition of environmentalists to get the US patents on products of the neem tree cancelled did not fructify. We all know that we use neem leaves to keep away insects from our kitchen garden. Every farmer in India knew from time immemorial that it was a good pesticide among other things. Yet, a few years ago, a US company was awarded a patent for neem as a pesticide. The company claimed it had developed an agent that would make the active pesticide agent in neem last for more than the normal two weeks. Although our scientists had been tinkering around with research on neem for years, they had not applied for this specific process and the battle was lost. Nor we were able to bring our vast knowledge system to argue against the case. The patenting of traditional remedies from developing countries became a global issue after patents were granted for neem.

On the other hand, after a legal battle for more than a year India's Council of Scientific and Industrial Research (CSIR), has successfully forced the US Patent and Trademark Office (PTO) to revoke a contentious patent it granted two years ago to researchers in the United States on the use of powdered turmeric (Curcuma longa) for wound healing. The turmeric patent was granted in 1995 to two researchers, Soman K. Das and Harihar Kohli of the University of Mississippi Medical Center. Their six patent claims covered the oral and topical use

of turmeric powder to heal surgical wounds and ulcers.

Turmeric is a native Indian plant, and Indians have been using it for centuries for wound healing. With the support of several documents including books on home remedies and Āyurvedic texts, CSIR was able to argue the case. Das and Kohli contested CSIR's objections, but the patent office rejected all their claims. The patenting of indigenous knowledge by foreign corporations is a cultural threat to countries like India as well as an economic one. The case of turmeric is a perfect example since it plays such an extensive role in India's culinary and health practices, among its other uses.

As the turmeric patent case makes it evident, the current patent system seems to allow biopiracy. Patents on Neem, Amla, Jar Amla, Anar, Salai, Dudhi, Gulmendhi, Bagbherenda, Karela, Rangoon-ki-bel, Erand, Vilayetishisham, and Chamkura all need to be revoked based on the logic that these are part of Indian indigenous knowledge and 'prior art'.

India's fight for the turmeric patent was necessary to uphold 'national pride' and to dispel unfounded fears that India was incapable of protecting its traditional knowledge base. The then CSIR's director, Dr. Mashelkar highlighted the importance of documenting traditional knowledge, to provide evidence of prior knowledge. Our scientists and technologists need to wake up and focus their efforts on building scientific data on many of these traditional knowledge treasures that we possess and work towards getting them patented. Knowledge of IKS becomes critical in this journey.

*Source:* Jayaraman, K.S., US patent office withdraws patent on Indian herb. Nature 389, 6 (1997). https://doi.org/10.1038/37838 and several other reports available on the Internet.

India is a country with a long-surviving civilisational history and practice known to mankind. While the modern western scholars date the civilisation to at least 5000–8000 years, the indigenous sources and belief systems in India date the civilisation to a very ancient period, almost time immemorial. Notwithstanding these differences, a country with such a long history ought to have accumulated some knowledge over its long period of existence. There is an impression in contemporary society that all knowledge that we benefit from has originated from the West. Since the western civilisation is of relatively recent origin compared to Indian

or other civilisations such as the Chinese and the Egyptian, this also implies that all knowledge is of recent origin. This idea is counterintuitive and illogical.

Human beings are inherently knowledge generating in nature endowed with unique capabilities. By using the power of discrimination, reasoning, and rational thinking, human beings constantly process the newly acquired knowledge. Therefore, it is not surprising that a rich repository of knowledge accumulated in the Indian subcontinent and manifested in terms of traditions and practices. One or two examples help us understand this aspect. Indians were good in steel making until the 17th century. The Indian 'wootz' steel was used to manufacture what was famously known as 'Damascus blades' and despite several attempts by the metallurgists in the past, it was not possible to replicate the properties of the wootz steel. Indians' contributions in the fields of Number Systems, Mathematics, and Astronomy in the first millennia of CE contributed to several other developments. These ideas were percolating into the West via the Arabic countries, and they ought to have influenced the scientific developments in the West beginning from 15th century CE. Unfortunately, in our current educational system, we do not have an inkling of the nature of the contributions made by the Indians. This raises several questions. Where has all this knowledge gone today? Have we lost this knowledge totally? Is it of no use or interest to us today? Is there a sudden loss of continuity? What has caused this?

As many of us are aware, the ancient knowledge in India was preserved and transmitted 'orally' until a few centuries back. There was an uninterrupted lineage of 'Guru–Śiṣya' that took responsibility for the preservation and transmission of knowledge down the generations. Quite often, the teacher-student was a father-son combination and a group of related family members. These people formed a clan, who preserved the knowledge, practiced it by making a living, and transmitted it to their offsprings. The use of print media in recent history and the palm leaf scripts earlier have served to formally capture this oral knowledge and store it.

> ♦ Indians were extraordinary in steel making until the 17th century. The Indian 'wootz' steel was used to manufacture what was famously known as 'Damascus blades'.
> ♦ Due to major changes in the educational system in India introduced about 200 years back, there was a rather abrupt end to the process of knowledge transmission.

Unfortunately, due to major changes in the educational system introduced in India about 200 years back, there was an abrupt end to this process of knowledge transmission and the continuity is mostly lost. The newly introduced educational system demanded the society acquire only such knowledge as made available through the educational system. Those who aligned themselves to the new educational system were assured of jobs and salaries by the ruling class. Arguably, it would have taken about 50 years for most of the population to abandon old ways of doing things and come 'on board' the new system that promises economic prosperity. Once this transition happened, the oral transmission dwindled dramatically, created a sudden void and loss of continuity, thereby confining the knowledge to whatever was available in palm leaf manuscripts and other archives and personal collections.

We have continued with the British system of education in independent India, by keeping the ancient knowledge repository out of consideration. The erstwhile British policies on education excluded the ancient Indian knowledge citing reasons of lack of rigour and scientific values. This textbook is an effort to bring snippets of the Indian knowledge by providing a fresh relook at the corpus and culling out relevant portions that may generate renewed interest in the subject and motivate several to engage in a study of the knowledge repository of interest.

## 1.1 IMPORTANCE OF ANCIENT KNOWLEDGE

Ancient knowledge is the accrued knowledge over several generations and preserved in formal and informal means. Formal means include documented knowledge and informal means include shared values and practices through oral traditions. Sadly, as explained above, ancient Indian knowledge has been relegated to millions of palm manuscripts lying scattered all over the country and it is gathering dust. While several scholars are engaged in the process of bringing the hidden knowledge out of these manuscripts by researching and republishing such works, it does not match the scale required to make a meaningful impact. It is a herculean proposition to uncover the knowledge and bring it to the attention of modern society. On the other hand, the oral traditions continue in some rural pockets and are at the threat of getting extinct for want of patronage. The question in front of us is, "Does any society need to preserve, protect and pass on the ancient knowledge to the future generations?"

♦ If the underlying knowledge systems are abruptly withdrawn from society, the cultural practices will be rudely jolted.

♦ Ancient knowledge provides a head start to a society to march on the highway of innovation and new knowledge creation.

The thinking patterns and the repository of knowledge created by the forefathers in any society enable the current generation to understand the thought processes and frameworks of the previous generations. It will allow them to analyse the received wisdom in a contemporary context and identify new opportunities to assimilate the accrued wisdom and synthesize new knowledge. Therefore, keeping the current generation in the dark about the contributions of the ancestors is an inefficient, and a short-sighted option for society. Ancient knowledge serves multiple roles for society. Figure 1.1 schematically captures these.



**FIGURE 1.1** Importance of Ancient Knowledge

### Identity

The quintessential value that ancient knowledge brings to society is the identity it provides to fellow members of the society. Essentially it defines the context for several aspects of the day-to-day living of every individual. The social practices and norms have continuity as most

of them are transmitted from generation to generation through practices and supporting knowledge repositories. Therefore, preserving this knowledge and baton passing them on to the next generation is an important step for contemporary society. In the absence of this continuity, individuals lose their conviction on several living practices. They lose their ability to 'meaning making' of much of the knowledge. Eventually it challenges one's own identity and that of the society.

### Culture

Culture has several dimensions. In a direct sense, it is the manifestation of human intellectual achievement regarded collectively by society over time. From a social perspective, culture is nothing but the set of ideas, customs, and behaviour of society. In other words, culture provides a sense of identity at a societal level by providing a common medium for communication and the transaction of ideas. The prevailing knowledge and the literary traditions play a significant role in shaping the culture of the society. If the underlying knowledge systems are abruptly withdrawn from society, the cultural practices will be rudely jolted. It may create distortions and discontinuities in societal progress.

### Received Wisdom

Knowledge and innovation are in a continuum. Innovation and new knowledge creation in any society is 'path-dependent'. What it essentially means is that the road travelled so far determines the future path. Without the continuity of thoughts, it is very difficult to make further progress in terms of new ideas. The other equally important issue is the risk of reinventing the wheel. When the benefit of prior knowledge and the thought process is lost by society, it will lead to reinventing the wheel, making innovation and new knowledge creation inefficient. In this context, ancient knowledge plays the valuable role of 'received wisdom' and provides a head start to a society to march on the highway of innovation and new knowledge creation.

### Economic Value

One of the compelling arguments in support of the ancient knowledge systems is the huge potential it offers from an economic value standpoint. The emerging world order puts greater emphasis on knowledge society. The prevailing 'military power' will give way for 'knowledge power' and such nations who demonstrate the superiority of knowledge traditions are bound to lead the rest of the world. Transforming knowledge into economic value has been fully formalized with the global intellectual property rights regulations and patent laws. Therefore, the ancient knowledge system will be beneficial to a country like India (see IKS in Action 1.1 at the beginning of the chapter for an illustration of this idea).

♦ The prevailing 'military power' will give way for 'knowledge power' and such nations who demonstrate the superiority of knowledge traditions are bound to lead the rest of the world.

♦ Unless we preserve the ancient knowledge, we will not be able to prevent the spillover of our economic value arising out of our ancient knowledge.

Let us see an example to understand this aspect. The US patent and trademark office granted patent rights on knowledge of the usage of pigeon pea extracts for treating diabetes, hypoglycemia, obesity, and arthero-sclerotic cardiovascular disease (clogged arteries) to Insmed Inc, based in Richmond in Virginia. The company claimed its novelty in the invention of pigeon pea extracts for treating these diseases. In the patent applications, Insmed

acknowledged only a handful of uses of pigeon peas in traditional medicines by citing some references of journal articles that appeared in 1957 and 1968 that describe the effects of pigeon pea and its extracts on blood sugar. The patent application did not include references to the traditional use of pigeon peas in the treatment of the mentioned diseases.

Pigeon pea (botanical name *Cajanus cajan*) is commonly known as arhar or red gram in India. There are several instances of the use of pigeon pea extracts in traditional medicines in India. A study of plant medicines by researchers in the department of pharmacology at the All-India Institute of Medical Sciences (AIIMS) tested pigeon pea extracts as they are used to treat diabetes in Ayurvedic medicines. The scientists at the Council of Scientific and Industrial Research (CSIR) observed that there is a need to gather strong evidence from our traditional texts to challenge such patent rights. Unless we preserve and be aware of the ancient knowledge, we will not be able to prevent the spill over of our economic value arising out of our ancient knowledge[1].

## 1.2 DEFINING INDIAN KNOWLEDGE SYSTEM

Indian Knowledge Systems (IKS) is a generic phrase that covers practically everything about India. For a nation with more than 5000 years of recorded history, abundant cultural and archaeological artifacts, literature, and social and community practices defining what constitutes Indian Knowledge is itself a huge challenge. Literature, cultural and social practices, historical evidence, and other such knowledge assets available in all Indian languages, dialects, and geographical regions will all technically fall under the ambit of IKS. The other aspect of the issue is the time dimension. Knowledge is continuously synthesized by any society. Knowledge assets available in India from the pre-historic times to the current day will all qualify to be part of the IKS. Therefore, it requires an unambiguous scope for defining IKS for this book.

Arguably, IKS can evoke different meanings to different stakeholders. The term IKS has three words in it. To better understand what we mean by IKS in the context of this book, we shall analyse each of these words separately.

### Indian

By this term, we mean the indigenous sources of knowledge generated by the Indian society. The current political formation called 'India' is of recent origin and it alone does not qualify to be called 'Indian'. The term 'Indian' points to the undivided Indian subcontinent (Akhaṇḍa Bhārata). We mean the geographical area spanning from Burma on the east to modern-day Afghanistan in the west and Himalayas in the North to the Indian Ocean in the south. This region has common cultural, literary, and social practices, and has witnessed a continuous exchange of people, and ideas among them throughout the history of undivided India. Despite several political formations and princely states ruling this entire region for the last several hundred years until the consolidation begun from the 16th century CE, the society was unified under the common umbrella of social practices. Cāṇakya could get educated in Takṣaśilā in the western part of the sub-continent and be instrumental in establishing a powerful Mauryan empire with Pāṭalīputra as the capital in the Eastern part. Similarly, Pāṇini, a Sanskrit Grammarian from Gāndhāra in the North-Western corner of undivided India (now in Pakistan) could influence the thinking of people in the entire country on the Sanskrit language.

A second aspect to this is only such knowledge synthesized, codified, and made available by the 'Indians' is considered Indian knowledge. This implies that they ought to have been part

of the Indian subcontinent, born and lived there, and are part of the knowledge system in an integral fashion. This is especially important because India witnessed several foreign travellers who visited its universities, stayed for some time and wrote about the country, the knowledge, and cultural practices. These have significantly contributed to the export of this knowledge to the west and other parts of the world. For example, some reports have extensively studied the role of such authors in taking mathematical thinking to the west via the Arab world[2]. These are considered as 'about IKS' rather than IKS itself.

### Knowledge

The second component of IKS is the 'knowledge', which is always tacit. It primarily arises in the form of the wisdom of the knowledge seekers. It is obtained by the insights gained by personal experiences with life situations, facing problems, and coming up with means of solving them. At other times, one obtains knowledge by means of intense observation of events, experimentation, conjecturing, and analysis. Knowledge may or may not be converted to a literary format. The tacit knowledge can be preserved and transmitted through an oral tradition without loss. India has a rich tradition of folklore practices even to date, that belongs to this category. While both these forms of knowledge are equally important and valuable it is impossible to formally study knowledge transmitted through oral traditions. Therefore, by 'knowledge', we mean in this book, a formal repository of knowledge available in literary sources.

The tacit knowledge gained by a seeker is eventually transmitted systematically in the form of some 'explicit' knowledge. This happens by way of proposing a new theory, framework, or literary work. Furthermore, knowledge pervades all three domains: spiritual, religious, and others addressing social and day-today issues. We can summarise the term 'knowledge' as that emanating from the wisdom and insights arising out of deep experiences, observation, experimentation, and analysis and validated, improved, and augmented further.

### System

By 'System' in IKS, we mean a structured methodology and a classification scheme to access the available corpus of knowledge. By its inherent nature, knowledge could be accessed in any manner depending on the interest, purpose, and capacity of the seeker. For an uninitiated, this vastness could throw a challenge as the seeker may be clueless as to where to begin and how to proceed. Therefore, the available knowledge needs to be collected, grouped, and arranged logically. Codification and classification of the available knowledge using a definite framework would constitute one dimension of the word 'System' in IKS. The other important requirement is the interconnection between the part of the knowledge in the classification framework. The framework used to represent knowledge should also provide some logical relationships between the different parts of the proposed framework. This helps easy understanding of the overall contribution of the knowledge and how the different components of the knowledge complement each other. We take up this issue for discussion in the next section and present a systematic approach to classifying IKS for this book.

## 1.3 THE IKS CORPUS—A CLASSIFICATION FRAMEWORK

There are many ways to define and identify what constitutes IKS. For example, one approach is to merely pick the important topics representative of the knowledge corpus such as the Vedas,

Yoga, Vāstu, Śilpa Śāstras, Āyurveda, Buddhism, and Jainism to define IKS. Another approach is to select phrases such as Indian Psychology, Indian Arts, Dance, and Architecture and put together related works into it to construct IKS. These examples bring out the components of IKS. However, whether they will qualify to be a good framework for IKS or not depends on their ability to meet the requirements of a classification framework for IKS.

The usefulness of a classification framework depends on three factors: completeness, compactness, and inter-connectedness.

- *Completeness* ensures that all important components of the IKS are included in the proposed framework. If significant omissions are found in the classification, it makes the IKS non-exhaustive and non-representative.

- *Compactness* indicates the efficacy of the grouping of various topics in IKS in a congruent and logical fashion. This makes the representation simple, concise, and easy to understand and remember.

- *Inter-connectedness* brings logical relationships among the various sub-classifications. The classification framework will identify how the different components are logically connected. Thus, it presents a unified picture of the entire knowledge.

Closer scrutiny of the IKS knowledge repository provides us the following details:

(a) As already noted, the knowledge is available in both formal literary sources and informal non-literary sources.

(b) Among the literary sources, we can broadly identify three categories. One of the major sources is the Vedic and allied literature, which we shall designate as Sanātana-dharma literature, presented mainly in the Sanskrit language. This comprises the religious and philosophical part consisting of the Vedic and allied corpus, which forms the core and a good repository of other literature spanning areas such as sciences, architecture, and aesthetics. The second major source is the literature on other dharmic traditions. The third group is a large repository of knowledge in other Indian languages and dialectics.

(c) The non-literary source is predominantly available through a rich set of oral traditions found throughout the country.

Figure 1.2 pictorially presents the classification scheme based on the above observations. Let us see some details of these categories.

### Sanātana-dharma – Core Literature

This comprises a vast repository of knowledge starting with the Vedas, known as Śruti. Although the Vedic corpus is oral in nature and is still transmitted using oral methods, these have been later systematically documented in written form. The Vedas are considered foundational by the Indian society and several important literary works were developed later, which substantially added to the Vedic corpus by facilitating better understanding and implementation of the ideas presented in the Vedas. This literature owed its allegiance to the Vedas and extracted their cardinal assumptions and principles from the Vedas. For example, six schools of philosophical thought, known as Darśanas developed their basic assumptions from the Vedas while stating their prescriptions. The Vedic and allied repository has several sub-components and divisions and is best understood from a classification methodology adopted, which we will see in the Section 1.4.
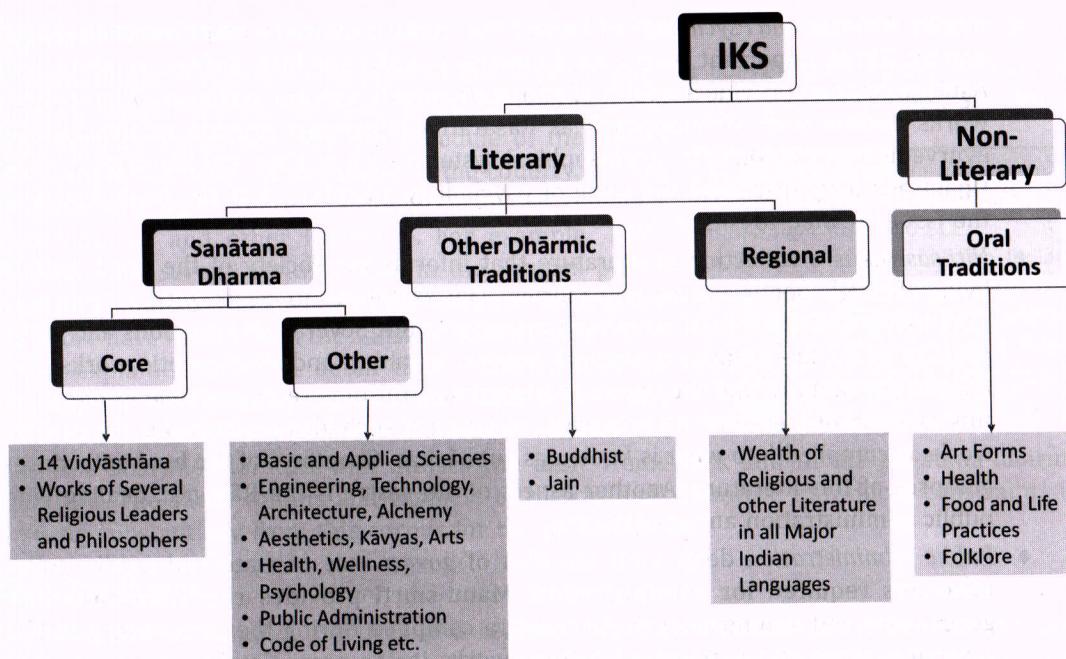
**FIGURE 1.2** The IKS Corpus – A Classification Framework

### Sanātana-dharma – Other Literature

The other literature consists of works that addressed key issues of day-to-day life such as health, wellness, science, engineering, technology that aided societal progress and development, and aesthetics and art forms. Although they were primarily addressing a variety of issues, they still owed their allegiance to Sanātana-dharma and acknowledged the core assumptions laid out in the Vedas as the ultimate source for valid knowledge and drew relevant ideas wherever it applied to their work. For example, the work on astronomy of Āryabhaṭa recognizes the ideas of what constitutes a year, and the notion of four yugas from the Vedic corpus while proceeding with specific discussions on the mathematical aspects.

This literature flourished from the first millennia in the BCE and was continuously augmented by multiple works. Several areas were covered in this category, and the following are prominent among them:

- *Basic and applied sciences* (Mathematics, Astronomy, Plant Sciences). A series of studies were carried out continuously from the beginning of CE. Later works improved, expanded, and added new components to the existing knowledge repository as evident from the literary sources. We discuss these aspects in Chapters 6, 8, and 9 of the book in some detail.

- *Engineering and Technology* (Metalworking Technology, Shipbuilding, Dams and Watershed Management, Alchemy, Cosmetics, Perfumes, Dyes, Town Planning, and Architecture). The literature presents both evidence of these as well as specific ideas and techniques developed in many of these topics. Chapters 10, 11, and 12 look at these aspects of IKS.

♦ *Health, Wellness, and Psychology* addressed the crucial issue that we face in contemporary society. Three important works on Āyurveda (Caraka-samhitā, Suśruta-samhitā, and Aṣṭāṅga-hṛdaya) provide a wealth of information on health and wellness. Other related works dealing with alchemy such as Rasaratna-samuccaya provide information on āyurvedic formulations. The philosophical systems such as Yoga and Sāṃkhya and the Upaniṣads have discussed the issue of psychology. Chapter 13 of the book discusses the issues related to this theme.

♦ *Nīti-śāstras* is a collection of literature that informs the society of the good code of living through poetic verses and stories. The sāmānya-nīti deals with elements of good living, and the role of ethics and morality in life. Several life situations and wide-ranging topics are addressed through stories, parables, and short poetic works. The famous pañcatantra and the works of Bhartṛhari are some representative examples of this category of literature. An extensive collection of such ideas scattered in the various works is compiled into what is known as subhāṣitas. Chapter 4 of the book introduces glimpses of this literature. Another aspect of nīti-śāstra is the Rāja-nīti, dealing with public administration and governance.

♦ *Public administration* deals with the idea of governance of state and public policy measures required for administration. Manu-smṛti provides rich information on governance and administration. Arthaśāstra compiled during the 3rd century BCE is a seminal work and it triggered further works in the area. Notable among them is the Nīti-sāra of Kāmandaka. Chapter 14 of the book takes up this issue for discussion.

♦ *Aesthetics, Kāvyas, and Performing Arts* is another area with rich contributions. The Sanskrit language is the vehicle through which the entire knowledge corpus of the Sanātana-Dharma (both the core and the other) is presented. Linguistics and phonetics of the Sanskrit language is a fundamental work that sets the stage for rich literature development. Chapter 5 of the book introduces some concepts related to the Sanskrit language. Works of great poets such as Kālidāsa, Daṇḍin, and Bāṇabhaṭṭa, works such as Kāmasūtra of Vātsyāyana, and Nāṭyaśāstra of Bharata are some of the examples.

## Other Dharmic Traditions

Other dharmic traditions have stayed out of the Vedic framework but have immensely contributed to IKS in the religious, philosophical, and other domains. Two of them, the Buddhist and the Jain literature are noteworthy, and they have contributed right from 500 BCE to IKS. While the religious and philosophical part of the literature is based on the respective tenets of the school of thought, other literature has applications in areas of science, technology, and other areas.

Buddhist literature has dealt with the religious concepts in its canonical texts. However, there are several Buddhist works in which many issues such as mathematical concepts, maritime activities and alchemy are also discussed. The work of Nāgārjuna, Rasaratnākara in the 1st century CE is an early contribution to alchemy. The Jain sacred literature consists of canonical texts. They considered mathematics as an integral part and have dedicated 'Gaṇitānuyoga', a portion of their literature to mathematics[3]. Tattvārtha-sūtra, composed by Umāsvāti during 2nd–3rd century CE is an important Jain literature. Some popular Jain texts dealing with mathematics include Anuyogadvāra-sūtra, Vyavahāra-sūtra, and Sūrya-prajñapti. Mahāvīrācārya's work, Gaṇita-sāra-saṃgraha (850 CE) is one of the important contributions to the development of mathematics in India.

## Regional Literature

The separation of regional languages in this figure is only for convenience. Ideally, it could be included under Sanātana-dharma. Indian subcontinent has a rich and diverse mix of cultural and linguistic variations. The 8th schedule of the Indian constitution has listed 22 languages of the country. In each of these languages, there is a huge corpus of religious, philosophical, and other literature. For example, Tamil literature has several contributions in the Sangam period (first millennium BCE). Several of the works in the regional literature have drawn from the Sanskrit resources and have either explained them in detail in the chosen regional language or extrapolated them further with some more ideas. The new literature created broadly follows the Sanātana-dhārmic literature and utilises the basic framework laid in the Sanātana-dharma literature. The sheer volume and vastness of the regional literature introduces constraints in drawing substantially from this corpus for the present book.

> ♦ The Buddhist and the Jain literature have contributed significantly to IKS right from 500 BCE.
> ♦ The 8th schedule of the Indian constitution has listed 22 languages of the country and in each of these there is a huge corpus of sacred and other literature.

## Oral Traditions

The diversity of cultural practices and regional preferences have paved the way for oral traditions to preserve and transmit knowledge across generations. These have been primarily in the form of folklore artistic endeavours, skilful jobs, food and life practices, and health. The 64 Kalās mentioned in the IKS literature are mostly skill-based and artistic chores that are orally transmitted.

Sanskrit has been the dominant language for transacting knowledge for a long time in India. Therefore, for the purpose of the book, the main sources of knowledge to discuss various aspects of IKS are drawn from the Sanskrit literature. As we have already seen, the Sanātana-dharma literature, the Jain and some of the Buddhist literature are presented using Sanskrit as the medium of language. The choice of a Sanskrit-based knowledge repository does not imply that similar knowledge was not available in other regional languages in the country. However, as noted earlier, the process becomes complex and unwieldy to present all these in a single book. The other aspect for inclusion is that the knowledge shall be quoted, cross-referenced, and acknowledged by the indigenous people in the domain. This provides internal consistency and validation of the knowledge by the indigenous society.

The other issue that merits attention is, "how recent a history we must include in the definition?" The culture of new knowledge creation is an unhindered process in the country until the early 19th century. However, beginning the 16th century CE, there has been a wave of invasions in the country, introducing newer dimensions and priorities in society. Therefore, there is a greater focus to preserve the existing knowledge repository. Further, beginning the 16th century the ascend of the Western knowledge systems and scientific discoveries had its influence on the native knowledge practices also. Therefore, the knowledge sources dated up to the 16th century CE are mainly considered for the purpose of this book.

## 1.4 CATURDAŚA-VIDYĀSTHĀNA

A classification framework for the Sanātana-dharma literature as we have defined in the previous section is available within the resources itself[4]. In this framework, the literature

is systematically organised under 14 major divisions. Therefore, it is referred to as "Caturdaśa-Vidyāsthāna" (Caturdaśa in Sanskrit means fourteen). The components of the 14-part knowledge contain the four Vedas (and their Upa-Vedas), the six Vedāṅgas, Purāṇas, the Dharma-śāstras, Nyāya in its detailed form and Mīmāṃsā (both Pūrva and the Uttara portions). The Mīmāṃsā and the Nyāya (in its expanded form) together constitute the six darśanas. A pictorial representation of the above classification is available in Figure 1.3.
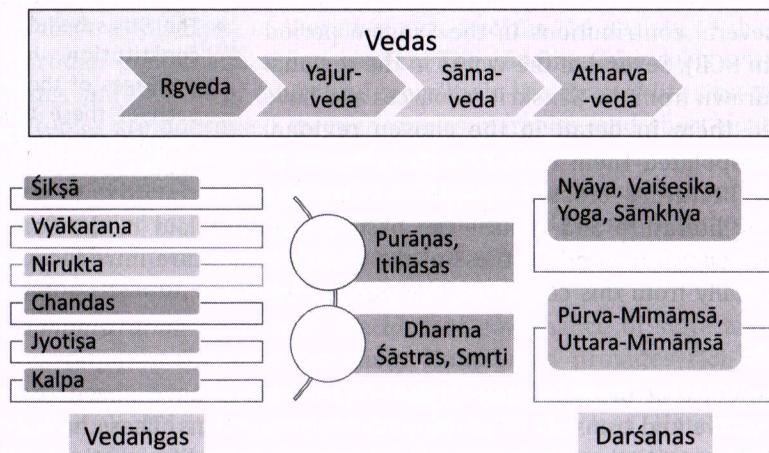


**FIGURE 1.3** A Pictorial Representation of Caturdaśa-Vidyāsthāna

## Vedas

The Vedas are the primordial source of knowledge in the scheme of the Sanātana-dharma literature. They are also known as Śruti as they are not authored by anyone but heard by the seers of the Vedic lore. The mantras that were revealed to them were later orally passed down the generations through a lineage of 'Guru–Śiṣya'. The other sources of knowledge are considered secondary to the Vedas. The primary purpose of the other knowledge is to expand the ideas contained in the Vedas so that it has practical applications and relevance. The other purpose is also to clarify the Vedic intent by way of stories, explanatory notes, and operational guidelines for daily life. The Upa-Vedas are typically associated with the Vedas on account of the material being found in the respective Vedas. In this sense, they are integral to the Vedas.

> ♦ The Vedas are the primordial source of knowledge in the scheme of the Sanātana-dharma literature.
> ♦ Purāṇas contains a rich repository of ideas that seek to explain various aspects of the Vedic thoughts, several socio-cultural ideas and practices for living.

Since the primordial source of the Sanātana-dharma literature is the Vedas, it provides the overall defining framework for living. The larger issue of meaning and purpose of life as stated in the Vedas need to be understood clearly. Therefore, there is a need to expand the tenets contained in this framework. Detailed explanations in terms of 'how-to' aspects of the ideas expressed in the Vedas is also required. Moreover, whenever conflicting situations emerge in the applications of the principles, we need to know how to resolve them. Some of the other components of caturdaśa-vidyāsthāna serve to address these requirements in the context of the Vedic repository.

## Vedāṅgas

To benefit fully from the Vedas some complementary tools and skills are required. These help to understand the exact meaning and intent of what is presented in the Vedas and follow them based on specific instructions provided. These are collectively referred to as Vedāṅgas. Chapter 2 of the book has more details on the Vedas and the Vedāṅgas.

## Darśanas

It is a natural quest for everyone to understand three forces that operate and interact with one another: an individual (Jīva), the Universe (Jagat), and a larger force governing the other two (variously referred to as Īśvara, Brahman etc.). Establishing the connection between these three becomes an issue of philosophical thinking. Darśana essentially means a philosophical thought or view. There are six schools of philosophy in the Sanātana-dharma literature and other schools outside the realm of this. These are discussed in some detail in Chapter 3 of the book.

## Purāṇas and Itihāsas

Purāṇas contains a rich repository of ideas that seek to explain various aspects of the Vedic thoughts using detailed stories and anecdotes. They present several socio-cultural ideas and practices for living. Furthermore, they address some of the common issues that mankind faces and provide answers using the overarching framework of the Vedas. The stories in the Purāṇas relate to pre-historic events and the subject matter discussed follows a set pattern[5]. Itihāsas, on the other hand, relate to historical events that have taken place which can be associated with specific timelines. As we know, Mahābhārata and Rāmāyaṇa are two well-known itihāsas. In some sense, this literature represents the wisdom that we have accrued through the ages. Chapter 4 of the book discusses these aspects in some detail.

## Dharma-śāstras and Smṛtis

Let us think for a moment about what we practice in our modern-day work life. For example, if we need to be part of a company as an employee, we are supposed to know the rules and norms of the organisation, the do's and don'ts, expectations on the part of the employer and the co-workers, social etiquettes, our limits and entitlements and the consequences of wrong actions. If this clarity is not there, there will be chaos and we will end up with unproductive work. If this is the situation in an office, such norms and rules are essential in a society where several entities have complex interactions among them, both in structured and unstructured ways. In other words, a guide to lead a dhārmic life based on the principles of the Veda is required.

The dhārmic principles engrained in the Vedic corpus are presented in multiple formats in our knowledge traditions. Smṛtis are rule books with specific operating guidelines of how to put the dhārmic principles into action and what are the consequences of not doing so. Itihāsas demonstrate dhārmic principles 'in action', through case studies and real-life situations. Nīti-śāstras and Subhāṣitas are pearls of wisdom articulated by learned people in the society, clearly showing the value of adhering to the dhārmic principles in life. A discussion of some of these topics is available in Chapter 4 of the book.

## IKS IN ACTION 1.2

### Caturdaśa-Vidyāsthāna and the Income Tax Act, 1961

The value of the various components defined in the Caturdaśa-Vidyāsthāna framework is best understood by relating it to a modern-day concept. For the sake of simplicity let us take the Income Tax Act (IT Act) 1961 of the Government of India. This act is the basis for all matters pertaining to the issue of tax incidence, in the hands of those who have earned income, collection of tax, refund, and penalties and legal action, etc.

The bare act will be very concisely stated, and it may at most run to 30 pages. The bare act will merely contain statements of sections and sub-sections laying out the schema for the income tax matters in the country. This by itself cannot be put to direct use as there will be several questions in terms of implementing it in practice. Therefore, another book, *A Guide to Income Tax Act 1961* will be published. This book may be about 500 pages. In this book, details will be provided as to how to operationalize the provisions enlisted in the bare act. Detailed guidelines, step-by-step procedures, sample calculations, and do's and don'ts will be provided to improve our clarity and understanding of the IT Act 1961. In this manner, it will enable us to put the IT Act to practical use. Even as greater details about the Act are provided in this book, the basic tenets laid out in the act will not be violated in letter and spirit.

However, even after providing such an elaborate guideline for putting IT Act 1961 to practice, in actual implementation numerous situations would have emerged. This provides an opportunity to check our understanding of the Act, its intentions, and our ability to adhere to it correctly. The judiciary system often steps in by providing the needed clarifications by constantly interpreting the Act.

A vast accumulated repository of such judgments delivered adds to the corpus of knowledge about IT Act 1961. By knowing these situations, our ability to adhere to the IT Act 1961 will only become better as we could avoid several traps by not reinventing the wheel. Therefore, another book will be published, *A Book of Case Laws in IT Act 1961*. This book will have more than 10,000 pages and will keep growing as more and more case laws are handled over time. This new book will inform us of the consequences of adhering or otherwise and ways of adhering to the provisions of the IT Act better.

The Caturdaśa-Vidyāsthāna framework that we have discussed in this chapter exactly resembles this situation. The Vedas are the equivalent of the IT Act 1961. The Smṛtis is equivalent of the guidebook to IT Act 1961. The Itihāsas, Nīti-śāstras, and Subhāṣitas play the role equivalent to the book on the case laws in IT Act 1961. Similar to the IT Act example, the Smṛtis and other Dharma-śāstras will not violate the Vedas in letter and spirit. They will merely facilitate the process of adhering to the tenets enjoined in the Vedas by those who follow it.

## 1.5 HISTORICITY OF IKS

Dating of the Indian literature is a major challenge for today's researchers, primarily on account of several reasons. The Indian knowledge repository pre-dates the western civilisational knowledge repository by several millennia. The western knowledge sources originated mostly in the common era (several of them in the last millennia). On the other hand, several works constituting the Indian knowledge belong to the BCE and attributed to 500 BCE or before. The method of representing knowledge, storing, and archiving ought to be very different between these two eras. Applying our contemporary methods of dating the knowledge to such old knowledge sources can pose serious limitations.

The other related challenge is that as we already mentioned, most of the Indian knowledge repositories in the BCE were oral. The earliest available sources in the form of temple inscriptions and palm leaf manuscripts are often considered by contemporary researchers as reliable. In this manner, the dating of the Indian knowledge becomes conservative, approximate, and much later than what ought to have been its original date. Western knowledge repository began in an era well established with written literature and therefore using the parameters that work well for such knowledge repository to others who preceded them may not yield the correct picture. This is perhaps the reason that Western scholars and independent Indology researchers have been able to accurately date the Indian contributions in the common era (post 100 CE for example) but not those belonging to the BCE. Sometimes, some stone inscriptions and archaeological artifacts help the process of resolving some of these confusions.

> ♦ Dating of the Indian literature is a major challenge.
> ♦ A useful source of data to fix the date of the Indian knowledge is the astronomical references found in the texts.

Another useful source of data to fix the date of the Indian knowledge is the astronomical references found in the texts. This could be one of the possible sources and so far, we have not been able to cover much ground. Fortunately, in an era of information technology-driven research, some novel methods help us to date the literature using the wealth of astronomical data that we have in the Indian knowledge repository. A case in point is the dating of the Śatapatha-brāhmaṇa using the astronomy software Skymap Pro. There is a mention of the fact that Kṛttikā stars never deviate from the east in Śatapatha-brāhmaṇa. The Skymap Pro software can plot a night sky in any place in the Universe between 4000 BCE and 8000 CE. Using this software, some studies suggest that the Śatapatha-brāhmaṇa ought to have been written sometime around 3000 BCE.[6]

Despite these limitations and constraints, an effort has been made to present the available information to get some idea of the historicity of the IKS. Table 1.1 presents a sample of some important works on IKS separated by some periods. As evident from the table, we can broadly divide the IKS into three time periods:

### Before 3,000 BCE

In modern parlance, this era is categorised as the dark ages. This is indeed a dark age for Western civilisation since no evidence of any organised knowledge repository (either oral or written) is available. However, in India considerable amount of work had already been done and the resultant knowledge was orally shared among generations of people living. The main contributions include the Vedas, Purāṇas, and the Itihāsas. Despite several attempts to date these resources, as new evidence (such as the discovery of new underwater archaeological artifacts in Dvārakā), and methods to date the knowledge becomes available (such as new planetarium software) the earlier estimations are proved to be erroneous. Culturally, in India, it is believed that these texts belong to antiquity and any attempt to date them will be futile.

> ♦ Earlier estimates of time periods for Vedas, Purāṇas, and the Itihāsas prove to be erroneous as new evidence and methods to date the knowledge becomes available.
> ♦ In an oral tradition, the entire knowledge is to be committed to one's memory. Therefore, it needs to be concise, and specific.

### 3,000 BCE to 500 CE

This period roughly starts with the beginning of recorded human history as per the western context and extending as far as 500 CE, which coincides roughly with the fall of the roman empire. As evident from the table, while the rest of the World was picking up the elementary skills of organised living, the Indian counterpart had been actively creating many new and useful knowledge for the society. Significant contributions were made in the areas of Linguistics, Literature, Health and wellness, Mathematics, and code of living. In modern parlance, this is an indication of the vibrancy of society and its receptiveness to new ideas and methods of improving the quality of life.

**TABLE 1.1** A Sample List of the IKS Repository

| Sl. No. | Name of the Work | Keyword 1 | Keyword 2 |
|---------|------------------|-----------|-----------|
| **Before 3,000 BCE** | | | |
| 1 | Vedas | Dharma (Code of Living) | Several Other Topics |
| 2 | Purāṇas* | | |
| 3 | Mahābhārata, Rāmāyaṇa | | |
| **3,000 BCE to 500 CE** | | | |
| 1 | Vedāṅga-jyotiṣa | Astronomy | |
| 2 | Manu-smṛti | Public Administration | Dharma (Code of Living) |
| 3 | Śulba-sūtras | Mathematics | Dharma (Code of Living) |
| 4 | Suśruta-saṃhitā | Health | Wellness |
| 5 | Aṣṭādhyāyī, Nirukta | Linguistics | Grammar |
| 6 | Nāṭyaśāstra | Art Forms | Dance, Theatre |
| 7 | Buddhist Texts | Philosophy | Mathematics |
| 8 | Nyāya and Vaiśeṣika Sūtras | Logic, Epistemology | Knowledge Framework |
| 9 | Jaina Mathematical Works | Mathematics | |
| 10 | Arthaśāstra | Public Administration | Finance, Foreign Policy |
| 11 | Chandaḥ-śāstra | Metrical Pattern, Prosody | Binary Maths Ideas |
| 12 | Yoga-sūtras | Control of Mind | Philosophy |
| 13 | Kāmasūtra | Art Forms | Dharma (Code of Living) |
| 14 | Mahā-bhāṣya | Sanskrit Language | Grammar |
| 15 | Rasaratnākara | Alchemy | |
| 16 | Caraka-saṃhitā | Health | Wellness |
| 17 | Sāṃkhya-darśana | Philosophy | Psychology |
| 18 | Amarakośa | Linguistics | Lexicography |
| 19 | Sūrya-siddhānta | Astronomy | Mathematics |
| 20 | Bṛhat-saṃhitā | Astronomy, Mathematics | Several Other Topics |
| **500 CE to 1,800 CE** | | | |
| 1 | Āryabhaṭīya, Ārya-siddhānta | Astronomy | Mathematics |
| 2 | Pañca-siddhāntikā | Astronomy | |
| 3 | Mayamata | Architecture | |
| 4 | Brāhmasphuṭa-siddhānta | Astronomy | Mathematics |
| 5 | Mānasāra | Architecture | Town Planning |
| 6 | Āryabhaṭīya-bhāṣya, Mahābhāskarīya | Astronomy | Mathematics |
| 7 | Nārada-śilpa-śāstra | Architecture | Iconography |
| 8 | Gaṇita-sāra-saṅgraha | Mathematics | |
| 9 | Siddhānta-śekhara | Astronomy | |

| Sl. No. | Name of the Work | Keyword 1 | Keyword 2 |
|---------|------------------|-----------|-----------|
| 10 | Yukti-kalpataru | Shipbuilding | Several Other Topics |
| 11 | Samarāṅgaṇa-sūtradhāra | Architecture | Several Other Topics |
| 12 | Siddhānta-śiromaṇi | Astronomy | Mathematics |
| 13 | Kāśyapa-śilpa-śāstra | Temple Architecture | Iconography |
| 14 | Aṣṭāṅga-hṛdaya, Rasaratna-samuccaya | Alchemy | Health, Wellness |
| 15 | Kerala School of Mathematics | Mathematics | Astronomy |
| 16 | Graha-lāghava | Astronomy | |

* As per modern researchers, these are variously dated much later.

### *500 CE to 1,800 CE*

During this era, Indians have made significant strides in the area of mathematics, astronomy, philosophy, and spirituality. With strong foundations in mathematics, several allied areas have also grown, notable among them are architecture and technology. It is no wonder that some of the best temple complexes, rust-free iron pillars in the open ground, and musical pillars in several temples have withstood the onslaught of time and bear testimony to these skills even today. In this period the supremacy of the Indians in the areas of astronomy and mathematics continued to be strengthened as there were continuous contributions on several aspects. Several contributions have also been made in other areas such as alchemy, metalworking, etc.

## 1.6 SOME UNIQUE ASPECTS OF IKS

### 1.6.1 Nuances of an Oral Tradition

IKS is by and large an oral tradition by its very nature as we have already seen. If knowledge needs to be transmitted orally, it requires a few things. In a written tradition there is scope for being elaborate. Specific ideas can be taken up for a detailed discussion running to several pages. For example, one can have a separate discussion on the philosophical ideas in a certain work, another can analyse from a perspective of aesthetics and grammatical structure, a third can dwell on religious aspects, etc. However, in an oral tradition, the entire knowledge is to be transmitted orally and committed to one's memory. Therefore, it needs to be concise, and specific. Moreover, it may be difficult to have one treatise for one subject, say mathematics, and another for spirituality, etc. Therefore, we will find that in several works the issues discussed are many. The Nyāya, though being a philosophical school of thought discusses other subjects such as Logic and argumentation and valid means of knowledge. The Purāṇas and Itihāsas, for example, are encyclopaedic in nature. Issues discussed include cosmology, cosmogeny, politics, public administration, aesthetics, morals of life, and so on. Even in a work on mathematics, we may find apart from mathematical concepts, poetry, and philosophy among other things.

To generalise the above discussion, the pattern of IKS literature shows that a single work can provide simultaneously ideas on three streams seamlessly: Spiritual, Religious, and Secular. Therefore, the charm and power of IKS lie in its multi-dimensional perspective. Let us take the case of Bhagavadgītā as an example to understand this aspect prevalent in IKS literature. A true devotee of Lord Krishna may want to read Gītā as it is a matter of religion to him. On the other hand, a spiritual seeker may view Gītā as a spiritual text. However, there is a third aspect to Gītā, which many of us maybe not aware of. This is the 'secular' perspective. By this we mean

a set of ideas that help us conduct our life sensibly from day-to-day, working perspective. Let us look at specific examples from Gītā to bring clarity to the idea.

### Religious vs Material Dimensions

Verses 7 and 8 in Chapter 4 of the Gītā quintessentially brings the *Avatāra-puruṣa* dimension. Whenever there is a deterioration of dharma the God takes one more incarnation (*Avatāra*) to uphold the dharma. The incarnation of God is to protect the good people, destroy the evil ones and restore dharma in society once again. That is how the *Avatāra Puruṣa* concept manifests in terms of the context, and purpose of the incarnation.

The above verses could be interpreted from a 'secular' perspective to convey an idea often taught in several engineering and management schools. *Stability and long-term sustainability of the system happens because there are* **regenerative points***. When the system attains disequilibrium and shows signs of being unstable, measures have to be taken to restore the equilibrium in the system. If the regenerative points are not there, the system will become unstable and eventually perish.*

This is a typical 'systems engineering' idea according to which there are regenerative points in the system. The regenerative points indicated in the above translation corresponds to the incarnation idea in the original verse. One can relate this idea even to some well-known concepts in Economics and Management. The demand-supply equilibrium, pricing decisions in alternative market structures, how organisations continue to root out bad CEOs or Managers over time, the mechanisms to prevent opportunistic behaviours, in the long run, could all be explained by this idea expressed through these verses.

### Spiritual vs Material Dimensions

In Chapter 2 of Gītā, Krishna brings into focus the notion of time. Let us consider verse 22 in the chapter[7]. The meaning of this verse is as follows. *Just as a person discard worn pieces of cloth and takes new ones, the ātman also discards old bodies and acquires new ones.* This *verse*

> ♦ In IKS a single work can provide simultaneously ideas on three streams: Spiritual, Religious, and Secular.
> ♦ A large number of works in IKS are in verses set to a metrical structure irrespective of whether the subject matter is literature, mathematics, or engineering.

explains the idea of a chain of birth and death events taking the analogy of a shirt. There is a spiritual angle to it as true seekers of knowledge will deeply contemplate it. However, if we reflect on this verse furthermore, we can explore other interpretations. One such interpretation is, *To be successful and sustainable organisations need to continuously engage themselves in discarding old ideas (mindset!) and embrace new ones. This is the fundamental building block of innovation and creating competitive advantage.*

When we interpret the verse in this manner, it reminds us of the recent work in economics on creative destruction and innovation. The biggest challenge in organisations is mindset inertia. This puts realistic limits to creating better organisations over time. In this verse, the need for discarding old ideas and mindset is emphasized by describing the process of death. Another example can be found in a paper[8] that shows how a verse in Chapter 3 of Gītā (3.27) indeed connects to some of the issues related to cybernetics and control theory.

### 1.6.2 Typical Presentation Style – Sūtras, Encryptions

A related aspect to the above, which makes IKS unique is the use of specific structural aspects to make it a concise piece of work. Notable among them are the following:

♦ A large number of them are in verses set to a metrical structure. This is used irrespective of whether the work is original or a commentary on another work. It is also independent of whether the subject matter is literature, mathematics, or engineering. Since the work is in prosody, it requires the author to use minimum words and syllables that conform to the metrical structure. For example, one of the approximations for the value of $\pi$ is given in a verse as follows:

चतुरधिकं शतमष्टगुणं द्वाषष्टिस्तथा सहस्राणाम् ।
अयुतद्वयविष्कम्भस्यासन्नो वृत्तपरिणाहः॥

caturadhikaṃ śatamaṣṭaguṇaṃ dvāṣaṣṭistathā sahasrāṇām |
ayutadvayaviṣkambhasyāsanno vṛttapariṇāhaḥ ||

This verse computes the value: $\pi = \dfrac{\text{Circumference}}{\text{Diameter}} = \dfrac{62832}{20000} = 3.1416$

♦ Typically, mnemonics (sutras) are employed to convey the message. A mnemonic is a memory mechanism and a learning technique that facilitates information retention or retrieval in human memory. For example, Piṅgala in his work on Chandaḥ-śāstra dating back to the 2nd century BCE defined eight groups of binary numbers each of word length 3 (equivalent to what is now known in computer science as De Bruijn sequence). This can be represented using a simple mnemonic: यमाता-राजभान-सलगम् (yamātā-rājabhāna-salagam). Chapter 6 has more details on this. We discuss more details of sūtras in Chapter 5 of the book when we analyse the Sanskrit language and syntax.

♦ Several innovative methods are used to make the message concise and amenable to a metrical presentation. A good example is to use encryptions to represent an idea. In Chapter 6 we discuss two methods, the Kaṭapayādi system, and the Bhūta-saṃkhyā system to represent numbers in unique ways so that these could be easily remembered and incorporated in a verse while discussing mathematical operations, numbers, and results. Another shining example is the Āryabhaṭan system for number representation, with which he could represent the entire sine table (of differences) values in a verse (a couplet)[9].

## 1.7 ORGANISATION OF THE BOOK

A proper understanding of IKS and its relevance to contemporary society requires a two-part study of IKS. The first is to develop an overall understanding of some key components of IKS. This is important before we explore the nature of applications. Therefore, Part I of the book provides a quick introduction to the key components of IKS. The second aspect is the application of IKS for some gainful use. Specific areas of applications can be studied in a focused manner by drawing the relevant portions of the IKS showcasing the potential for practical application either in theoretical advancement of concepts or practical use in addressing some issues that we may face either as an individual or at an institutional level. The rest of the book presents these aspects in three parts:

♦ Part II: Foundational concepts relevant for Science, Engineering, and Technology applications.

- ◆ Part III: Specific concepts related to Science, Engineering, and Technology.
- ◆ Part IV: Humanities and Social Sciences applications.

The details of the chapters and the topics discussed in the chapter are schematically presented in Figure 1.4.
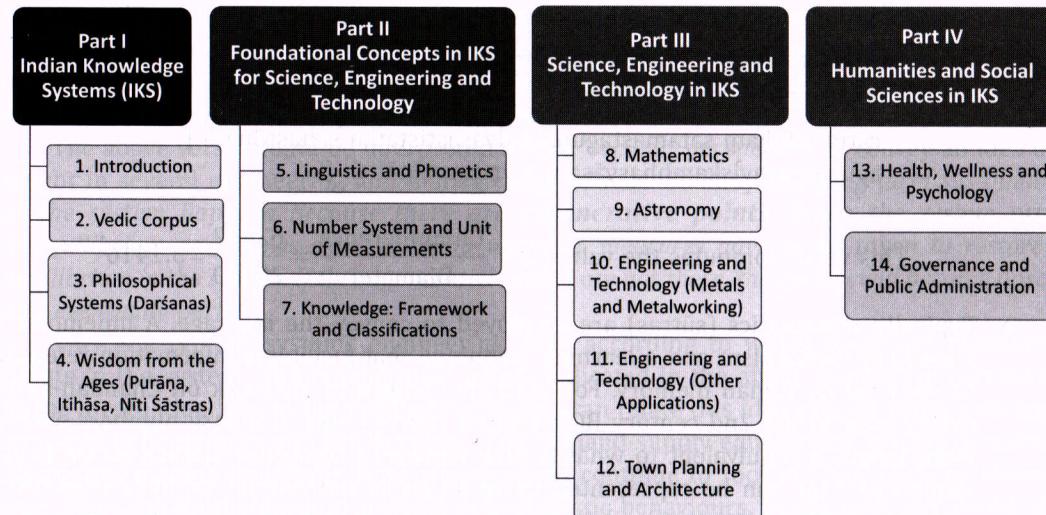


**FIGURE 1.4** Organisation of the Chapters in the Book

## Textbook use for Alternative Streams

The selection of topics and the material included in the chapters are done with a broader audience in mind. Three streams of programs have been identified as possible users of the textbook: Engineering, Liberal Arts, Commerce, and Science. While the first two parts of the book help develop an overall understanding of IKS, the remaining chapters in the textbook can be selectively used as a curriculum for each of the streams based on the relevance of these topics to the respective streams. We provide in Figure 1.5 a suggestive set of chapters for each of the streams identified above.



**FIGURE 1.5** Suggested Chapters for Different Streams

## SUMMARY

- ▶ The ancient knowledge in India was preserved and transmitted 'orally' until a few centuries back. There was a rather abrupt end to this process of knowledge transmission.
- ▶ It is very important to know the thinking patterns and the repository of knowledge created by the forefathers as it provides numerous values to society.
- ▶ Transforming knowledge into economic value has been fully formalized with the intellectual property rights regulations and patent laws. This is one area where the ancient knowledge system will benefit a country like India.
- ▶ Knowledge is a systematic body of literature emanating from the wisdom and insights arising out of deep experiences, observation, experimentation, and analysis and validated and augmented over time.
- ▶ The knowledge is available in both formal literary sources and informal non-literary sources.
- ▶ Among the literary sources, we can broadly identify three categories: Sanātana-Dharma literature, presented mainly in the Sanskrit language, literature on other dharmic traditions, and a large repository of knowledge in other Indian languages and dialectics.

- ▶ Buddhist and the Jain literature have significantly contributed to IKS from 500 BCE. The Jain sacred literature consists of canonical texts. 'Gaṇitānuyoga', a portion of their literature is dedicated to mathematics.
- ▶ In each of the regional languages, there is a huge corpus of sacred and other literature.
- ▶ A classification framework for Sanātana-Dharma literature, referred to as 'Caturdaśa-Vidyāsthāna', has organised the knowledge repository under 14 major divisions.
- ▶ The Vedas are the primordial source of knowledge in the scheme of IKS. Vedāṅgas provide complementary tools and skills to fully appreciate the content and also benefit from the Vedas.
- ▶ Normal methods used to date literature are grossly inadequate and misleading in the case of IKS.
- ▶ IKS literature shows that a single work can provide simultaneously ideas on three streams seamlessly: Spiritual, Religious, and Material.
- ▶ On account of the oral transmission, IKS literature is fundamentally a concise piece of work. To make it concise, specific structural aspects are deployed.

## REVIEW QUESTIONS

1. What is the current status of IKS in India? Briefly explain the reasons for its current status.
2. Do you think ancient knowledge is useful for a society? Support your answer with suitable arguments.
3. Define the term 'Indian Knowledge System'. Briefly explain what you understand by each word in this term.
4. Outline the broad classification of the IKS repository. How do the categories in the classification framework differ from one another?
5. What do you understand by the term 'Caturdaśa-vidyāsthāna'? Briefly explain the various components of this framework.
6. Comment on the statement, "The components of 'Caturdaśa-vidyāsthāna' are all related to the Vedas".
7. Briefly state the salient features of IKS when viewed from a historicity point. What are the areas of key contributions?

8. Indian knowledge repository pre-dated several of the Western works in several areas. Do you agree with the statement? Prepare a note either supporting the statement or otherwise.

9. Comment on the statement, "The oral tradition employed by ancient Indians necessitated use of some unique methods to represent the knowledge".

## DISCOVER IKS

1. There is a general trend in the Indian psyche to follow many of the ideas and practices of the west. While inter-mingling of culture and practices is welcome, there is a need to also understand the distinctive features of the Indian society. Rajiv Malhotra discusses this issue in the video: https://www.youtube.com/watch?v=2WYZtS_LLog. After watching the video prepare a two-page note to answer the following questions:
   (a) How is the Indian mind and practices different from the West?
   (b) How has the Western thought influenced the Indian thinking? How has this percolated into current thinking?
   (c) Can you identify a few areas in which the Indian society is distinct from the West?

2. Indians had several indigenous practices in science and technology. Some of them have been recorded in literary works while several others are transmitted through an oral tradition. Watch this video, in which Anupam Mishra illustrates several water harvesting practices of the people of Rajasthan living close to the desert, with scanty annual rainfall: https://www.ted.com/talks/anupam_mishra_the_ancient_ingenuity_of_water_harvesting?language=en or https://www.youtube.com/watch?v=eJCTAXb_BWs. After watching the video, prepare a two-page note to answer the following questions:
   (a) Briefly outline the annual rainfall in the region and the status of their water availability.
   (b) What are the methods adopted for water conservation and harvesting? Have they been effective in meeting the water requirements of the region?
   (c) How do the modern systems of water conservation and harvesting compare with this? Do you have any advice for modern-day water conservationists?

3. Western researchers consider the time between Sindhu–Sarasvati civilisation (3rd millennium in BCE), and 500 BCE as 'dark ages', as they have no information about India. It does not mean people suddenly forgot to read and write. Watch this interview with S. R. Rao, Archaeologist on excavation of Dvārakā: https://www.youtube.com/watch?v=R1PGp7706HY. After watching the video, prepare a two-page note to answer the following questions:
   (a) What is the significance of the excavation of Dvārakā for Indian civilisation?
   (b) What is the relationship between Sindhu–Sarasvati civilisation and Dvārakā?
   (c) What are the contents of the excavated portion of underwater city, Dvārakā?

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## ENDNOTES

1. For more details on this see, https://www.financialexpress.com/archive/us-firm-bags-patent-on-arhar-extracts/89352/ Last accessed on May 1, 2020.

2. For more details, see, **Ifrah, G. (2005).** "The Universal History of Numbers II", Penguin Books, pp. 1–24.

3. For some details see Chapter 4: From Zero to Infinity: Mathematics in Jain and Buddhist Literature in **Joseph, G.G. (2016).** "Indian Mathematics: Engaging with the World from Ancient to Modern Times", World Scientific, pp. 97–114.

4. In the Śivamahāpurāṇa vāyavīya saṃhitā the 25th verse in Chapter 1 brings this idea, अङ्गानि वेदाश्चत्वारो मीमांसा न्यायविस्तरः । पुराणं धर्मशास्त्रं च विद्या ह्येताश्चतुर्दश ॥ aṅgāni vedāścatvāro mīmāṃsā nyāyavistaraḥ | purāṇaṃ dharmaśāstraṃ ca vidyā hyetāścaturdaśa || One can see the same verse quoted in Vāyu Purāṇa, Mahābhāratam and Yājñavalkya Smṛti also. To explain this more clearly, the Viṣṇu Purāṇa has classified this into 18 parts, as evident from these two ślokas, अङ्गानि वेदाश्चत्वारो मीमांसा न्यायविस्तरः । पुराणं धर्मशास्त्रं च विद्या ह्येताश्चतुर्दश ॥ 3.6.28 आयुर्वेदो धनुर्वेदो गान्धर्वश्चेत्यनुक्रमात् । अर्थशास्त्रं परं तस्मात् विद्या ह्यष्टादश स्मृता: ॥ 3.6.29 . aṅgāni vedāścatvāro mīmāṃsā nyāyavistaraḥ | purāṇaṃ dharmaśāstraṃ ca vidyā hyetāścaturdaśa || 3.6.28 āyurvedo dhanurvedo gāndharvaścetyanukramāt | arthaśāstraṃ paraṃ tasmāt vidyā hyaṣṭādaśa smṛtāḥ || 3.6.29 These can be referred in the book Published by Gitapress, Gorakhapur.

5. Purāṇas are characterised by certain 'Lakṣaṇas'. These are discussed in Chapter 4 of the book.

6. For full details on this see, **Narahari Achar, B.N. (2000).** "On the Astronomical Basis on the Date of Satapatha Brahmana: A Re-examination of Dikshit's Theory", *Indian Journal of History of Science*, **35**(1), pp. 1–19.

7. वासांसि जीर्णानि यथा विहाय नवानि गृह्णाति नरोऽपराणि । तथा शरीराणि विहाय जीर्णान्यन्यानि संयाति नवानि देही ॥ 2.22. vāsāṃsi jīrṇāni yathā vihāya navāni gṛhṇāti naro'parāṇi | tathā śarīrāṇi vihāya jīrṇānyanyāni saṃyāti navāni dehī || 2.22. For details see, **Swami Chinmayananda (2002).** "The Holy Geeta", Central Chinmaya Mission Trust, Mumbai.

8. For details, see **Beer, S. (1994).** "May the Whole Earth be Happy: Lokasamastāḥ Sukhino Bhavantu", *Interfaces,* **24**(4), pp. 83–93.

9. Āryabhaṭa gives the sine difference table using his system of representation of numbers in the following verse:

मखि भखि फखि धखि णखि अखि ङखि हस्झ स्ककि किष्ग श्घकि किघ्व ।

घ्लकि किग्र हक्य धकि किच स्ग झश इव क्ल म फ छ कलार्धज्याः ॥

makhi bhaki phakhi dhakhi ṇakhi ñakhi ṅakhi hasjha skaki kiṣga śghaki kighva |

ghlaki kigra hakya dhaki kica sga jhaśa ṅva kla pta pha cha kalārdhajyāḥ ||

These represent the following numbers which are nothing but Rsine differences: 225, 224, 222, 219, 215, 210, 205, 199, 191, 183, 174, 164, 154, 143, 131, 119, 106, 93, 79, 65, 51, 37, 22, 7. For more details, see **Kripa Kumar Shankar (1976).** "Āryabhaṭīya of Āryabhaṭa", Indian National Science Academy, New Delhi. Chapter 1, Gītikā Section, Verse 12, p. 29.

CHAPTER

# 2 The Vedic Corpus

**LEARNING OUTCOMES**

*After finishing this chapter, you will be able to:*

▸ Get introduced to the overall organisation of the Vedic Corpus

▸ Familiarise with the four Vedas and their sub-components

▸ Recognise the multi-faceted nature of the knowledge contained in the Vedic Corpus

▸ Appreciate the role of the Vedāṅgas and develop a basic familiarity of the Vedāṅgas

The figure given below is a brick alter identified as Śyena-Citi excavated from an ancient site at Purola in Uttarakhand. The remains of pottery are assignable to 1st century BCE–2nd century CE. Vedic people lived a life in which Yajña was central to their life practices. A Yajña is performed in an altar, such as the one shown here.



*Source:* https://www.asidehraduncircle.in/uttarkashi.html
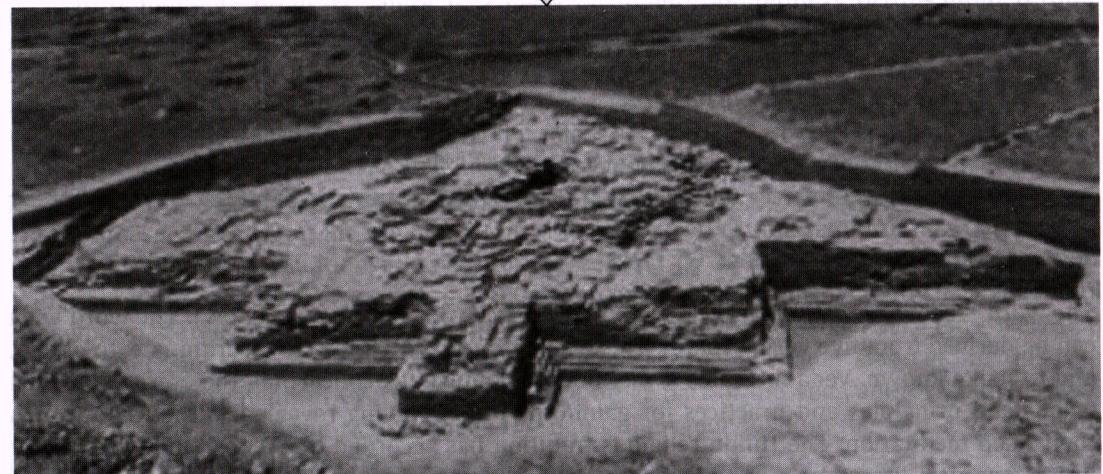
## IKS IN ACTION 2.1

### Yajña and Project Management

In order to understand the various divisions of the Veda better, we need to inquire into some of the governing principles behind the living style of the Vedic people. The life of the Vedic people in some ways revolved around Yajñas. Every aspect of life and celebration was linked to Yajña, where the devatās were invoked and offerings made. Agni was the carrier of the offerings to the intended devatā.

These were performed to request for material blessings, wealth, health and overall evolution of an individual. They were also performed as an expression of gratefulness for the bounty showered on oneself and the society at large. A large corpus of the Vedic knowledge provided intricate details for performing the yajña related rituals. Therefore, there was a very evolved structure and methodology to the performance of yajña. The way the yajña was done provides a good insight into the project management skills that they brought into the act.

Certain types of yajñas require a team of 18 people for managing the entire set of activities. The yajamāna and his wife are the first two required because they are the underlying cause for the yajña to happen. They are perhaps seeking specific favours from the devatā or are expressing their sense of gratitude to the devatās. In order to perform the yajña 16 more people consisting of four groups of four each are required.

The first group is called 'Hotṛ-gaṇa', consisting of four people, a head and three assistants, who are experts in the Ṛgveda. They invoke the intended devatā by uttering relevant hymns from the Ṛgveda.

The second group of four is called 'Adhvaryu-gaṇa', whose job is to indeed perform the rituals and make offerings. They are experts in the Yajurveda

and use the relevant mantras and prescribed practices from Yajurveda. The third group of four experts from Sāmaveda is called 'Udgātṛ-gaṇa'. They select the relevant mantras from Sāmaveda and sing in praise of the invoked devatā.

The fourth group is called 'Brahma-gaṇa' and are experts from Atharvaveda. They play the role of overall supervision of the yajña, ensuring that the rituals happen as per plan and prescribed methods. They intervene and rectify any deviations and address issues emerging during the conduct of the ritual.

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        Hotṛ-gaṇa (4)      Adhvaryu-gaṇa (4)
          Hotā + 3            Adhvaryu + 3

  Yajamāna                                    Brahma-gaṇa (4)
  Yajamāna patni       The Altar              Brahmā + 3

          Udgātṛ-gaṇa (4)
            Udgātā + 3
```

Ṛgveda: – Hotṛ-gaṇa; Yajurveda – Adhvaryu-gaṇa
Sāmaveda – Udgātṛ-gaṇa; Atharvaveda – Brahma-gaṇa
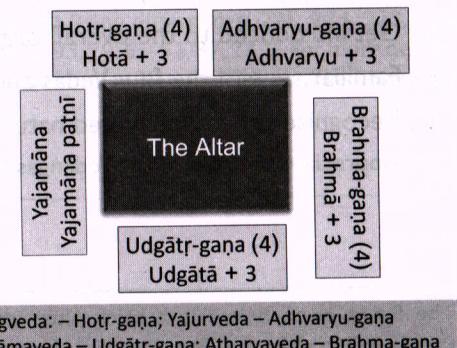
**FIGURE 2.1** Organisation of a Yajña

Yajñas differ in size and scale, some of them running to several days involving huge outlay. Therefore, a high level of organisation and management skills need to be put in place. This explains why the Vedic people have exhibited such project management skills in performing a yajña, which was central to their living.

## 2.1 INTRODUCTION TO VEDAS

The word 'Veda', is generally derived from the Sanskrit root विद् (vid - to know). The word Veda can be derived from five verbal roots[1]. These mean to exist, to know, to discriminate, to obtain, and to make known. Veda indicates a vast body of knowledge concerning the eternal spiritual values and principles and practices for gainful and happy living revealed to the ṛsis through their deep meditation. The Hindu religious tradition has accorded the Vedas the highest place in its canonical literature and are revered as the basic scriptures. The Vedas are not merely considered as scriptures but as the fountainhead of Indian culture and human civilisation. It is believed in the Indian tradition that the Veda is the poetry of Gods and it neither fades nor

becomes stale by the passing of time. The actual dating of the Vedas has been a subject matter for considerable debate. The latest date attributed by many modern researchers falls a few millennia before the common era.

Vedas are a unique repository of knowledge that distinguishes itself from other forms of knowledge. Normally, we attribute knowledge to a person. However, the Vedic corpus is generally understood as a non-human source (known as **Apauruṣeya**). Vedas are revealed to the ṛsis from time to time in their state of deep contemplation. That is why it is apauruṣeya. Despite this, we will find that specific Vedic mantras are associated with certain ṛsis. The ṛsis are associated with certain mantras, not as authors but as those who indeed discovered the mantra through their deep concentration and focus. In this sense, the ṛsis of the Vedic lore are 'seers' of the mantras and not the authors.

> ♦ Veda is transmitted orally and preserved intact from time immemorial.
> ♦ Vedas have a well-developed system of phonetics that has ensured its preservation.
> ♦ Recognized by UNESCO as heritage.

The Vedic repository is preserved and transmitted through an oral tradition. Hence, the Vedas are referred to as śruti, 'what is heard'. From an operational perspective, the Vedic knowledge was transmitted in an unbroken line of transmission from teacher to student that was formalized early on. It has survived several thousand years on account of scientific methods of oral rendering. This has been possible on account of a well-developed system of phonetics, known as **Śikṣā**, one of the vedāngas. This ensured an impeccable textual transmission superior to the classical texts of such antiquity. This is perhaps the reason for the UNESCO recognising the Vedas as a heritage for preservation.

The seers concluded that the purpose of human life is to realise oneself, rid oneself of limitations and constraints, and experience bliss by knowing the absolute truth. Given this objective, they proposed a path for the evolution of an individual. During the early stage of one's life, each one of us is supposed to engage in the world of activities, contribute actively, and enjoy a secured living. Towards this end, the seers proposed the **Karma-kāṇḍa**. The karma-kāṇḍa nudges an individual to obtain a purity of mind as we engage with the world. Since the Vedic living was centrally focused on Yajña, several instructions and operating frameworks pertaining to the Yajña form part of the karma-kāṇḍa.

As individuals progress, there is a need for single pointedness of the mind through contemplation and focus. In the Vedic corpus, the **Upāsanā-kāṇḍa** provides these ideas for an individual. The word Upāsanā literally means sitting near (Upa + āsanā). It is a method of developing a certain attitude to worship. In simple terms, Upāsanā refers to a state of concentration where 'whatever is meditated upon' is completely identified and absorbed with self. It provides a systematic method and an opportunity to harness the inherently wandering mind towards a defined goal through contemplation. Through systematic practices prescribed in the upāsanā-kāṇḍa, an individual will be able to develop calmness of the mind and mental equipoise. Several meditation practices are prescribed in the Vedas as part of the upāsanā. Upāsanā ideas are indeed very valuable in the modern world. A purified and sharpened mind becomes a storehouse of energy, and it enables an individual to perform very effectively both in his professional life as well as in his meditative practices. At a later stage of life, this is an important requirement for every individual. The other part of the Veda addresses the issue of self-realisation. The **Jñāna-kāṇḍa** opens the mind of an individual to its limits and facilitates much deeper inquiry about oneself.

English language-based work on Vedas in India is very minimal. The western efforts seem to have taken a main place in the modern-day English language-based sources on Vedas and

their interpretations. The Western approach to the study of the Vedic corpus has primarily been in extracting the archival material and publishing them afresh, with English commentaries. In the Western approach, they often view the entire exercise as purely intellectual and linguistic in nature. Since most of them would have had very little opportunity to experience and imbibe native traditions, the work could ignore or overlook traditional and cultural dimensions that are required to present the knowledge in an appropriate context and perspective. Moreover, the Western works generally ascribe to the Aryan invasion theory and use that as one of the main lenses to study the Vedic scriptures. One needs to be aware of these aspects while dealing with such works.

## 2.2 THE FOUR VEDAS

As per the tradition it is held that the Vedas were originally three and they together were called the Trayī Vidyā. Ṛk is typically a hymn and is distinct from Yajus, which is a sacrificial formula. Certain Ṛks were, set to singing and they are called the Sāmas. These Sāmas were sung at sacrifices or at the time of extracting the Soma juice. The fourth Veda is the Atharvaveda, recognised later and it contains some hymns as old as the Ṛgvedic hymns, while others are evidently of later date in terms of the structure, style of the language and matter. Although the Vedas existed for a long time there was a need to organise them systematically so that the available knowledge is put to correct use by society. The credit to organise the Vedic repository in the manner we understand it today goes to Kṛṣṇa-Dvaipāyana popularly known as Vyāsa. Vyāsa organised the Vedic corpus into four major divisions: Ṛgveda, Yajurveda, Sāmaveda and Atharvaveda. To ensure that the knowledge is passed down to future generations without interruption, he taught these divisions to four of his primary disciples and made each of them responsible to primarily propagate one of the four. Paila was associated with Ṛgveda, Vaiśampāyana Yajurveda, Jaimini Sāmaveda and Sumantu Atharvaveda.

> - Ṛgveda is the oldest, largest and the main repository.
> - Ṛgveda should be studied by one who wants to understand Indian literature and spiritual culture.
> - Lofty and interesting set of ideas found in Ṛgveda makes it contextually relevant.

### Ṛgveda

The Ṛgveda represents the earliest sacred book of India. It is the oldest and biggest amongst all the four Vedas[2]. All the features of classical Sanskrit poetry can be traced to the Ṛgveda. In the Ṛgveda we find the origins of the religious and philosophical development of the most ancient society. Thus, both for its poetry and its religious and philosophical importance, the Ṛgveda should be studied by one who wants to understand Indian literature and spiritual culture. The Ṛgveda priest is known and Hotṛ (see the opening box for a description of the roles of the priests in the conduct of a yajña), who employs the mantras to sing the praise of devatā invoked during the ritual. The Ṛgvedic hymns are various and not always prayers addressed to the god to whom a sacrifice is being offered. The Ṛgvedic verses are essentially the utterances of the Vedic sages on several topics in the form of poetry.

The inherent curiosity and quest for new knowledge of ancient Indians are quite evident from the varied theme and character of the sūktas in the Ṛgveda. These provide a rich repository of creative thinking, opening our understanding to several aspects of life and their inter-connections. The origin of the Universe, for example, is a question that has captured

the attention of today's scientists. However, there are several sūktas in the Ṛgveda which has taken up this theme. The Nāsadīya-sūkta (RV10.129) which speculates on the origin of the Universe has attracted several commentaries both in Indian darśanas and in Western philology. The other sūktas that inquired into the origin of the Universe include Hiraṇyagarbha-sūkta (RV10.121) and Puruṣa-sūkta (RV10.90). The lofty and interesting set of ideas that one finds in Ṛgveda makes it special and contextually relevant. It promotes a high sense of unity in diversity by proclaiming that the truth is one but learned ones articulate it in different ways (*ekam sat viprāḥ bahudā vadanti*, RV1.164.46). Rich philosophical ideas expounded in Vedānta literature have their seeds in the Ṛgveda mantras. These sūktas are set in a highly mystic and poetical form that requires correct understanding to derive the full benefit of the intended message.

### Yajurveda

Yajurveda confines itself to the major issue of conducting the sacrifices. The word Yajurveda is derived from the root *Yaj, m*eaning, the worship associated with sacrifice. This Veda mainly focuses on yajña and a list of various yajñas is found in this Veda. The mantras in Yajurveda are mostly in prose form although a small fraction is in the metrical form, among these many are borrowed directly from the Ṛgveda. The mantras in Yajurveda are referred to as yajus[3]. The Adhvaryu-priest who is mainly charged with the performance of sacrifices makes use of the yajus. The Yajurveda is essentially a guidebook for the Adhvaryu priest who had to do practically all ritualistic works in a sacrifice. The Adhvaryu priest needs to perform a variety of tasks including the selection of a plot of land for the sacrificial altar, offering oblations to the sacred fires with relevant mantras for the devatā. Though the major topic of Yajurveda is Yajña, many other topics are discussed in it. These include human anatomy, metals, constellation, seasons, numbers and geometry, grains, and yogic insights.

> - Yajurveda mainly focuses on Yajña and a list of various yajñas are found in this Veda.
> - Yajurveda is in two major branches: Kṛṣṇa-Yajurveda and Śukla-Yajurveda.

The Yajurveda is divided into two branches: the Kṛṣṇa (Black) and the Śukla (White). The distinguishing aspect is that the Kṛṣṇa-Yajurveda is more ancient than the Śukla-Yajurveda. Till the time of Sage Yājñavalkya, Yajurveda was a single scripture. Sage Yājñavalkya learned Yajurveda from his guru Vaiśampāyana. Later, because of some misunderstanding between them, Yājñavalkya is said to have learned the new Veda which is known as Śukla-Yajurveda and the earlier one is known as Kṛṣṇa-Yajurveda. Yājñavalkya transferred this knowledge to fifteen of his disciples. The śākhās of Śukla-Yajuveda are named after these disciples.

### Sāmaveda

The word Sāmaveda is derived from the Sanskrit root, 'Sāma' indicating 'to please, pacify or satisfy'. Essentially, it refers to the singing of Ṛgveda mantras. The mantras in Sāmaveda are typically referred to as 'Sāma'. It is a Ṛgveda mantra set to music. Sāmaveda currently has three branches viz. Kauthuma, Raṇāyanīya, and Jaiminīya. However, there are references in Mahābhāṣya of Patañjali, Śrīmad-Bhāgavata-Mahāpurāṇa, and other sources which suggest that there were 1,000 branches of Sāmaveda, indicating different traditions and versatile ways of singing the mantras. In a yajña, Sāmaveda is used to please the devatās by singing mantras after making the offering.

Sāmaveda is divided into two parts: Pūrvārcikam and Uttarārcikam, consisting of a total of 1,875 mantras[4]. Out of these, except 75 mantras, the rest are taken from the Ṛgveda saṁhitā. There are more than 150 seers associated with Sāmaveda. Unlike the other three Vedas, the mantras of the Sāmaveda, are related to musical scales, similar to the seven scales of classical music. Therefore, in some ways, the origin of Indian classical music lies in the Sāmaveda.

### Atharvaveda

The etymology of the word 'Atharvan' brings out the multi-faceted nature and characteristics of this Veda. It means one which brings wellness, seen by sage Atharvan and one with no falsehood or movement. As already mentioned, it is generally believed that the Atharvaveda is a later addition to the original set of the three Vedas (Ṛg–Yajur–Sāma), chronologically speaking. The Atharvaveda priest is known as Brahman, whose main job is overall coordination and monitoring of the Vedic ritual. Before starting any activity in the yajña, Brahman's permission is sought. When there are deviations or changes, the Brahman steps in and makes the necessary amendments. In other words, the Atharvaveda priest plays the crucial role of quality control and compliance when rituals are performed. Viewed from this perspective, the Atharvaveda priest must be a knower of all the other three Vedas to flawlessly execute this task of overall coordination and quality control.

Originally, nine śākhās of this Veda are known to have existed, but only two are extant: Paippalāda and Śaunakīya. Of the two, it is only the latter that is available in a complete form. The hierarchy of the arrangement of mantras in Atharvaveda is quite similar to what we see in Ṛgveda. At the highest level, the Atharvaveda-saṁhitā is divided into four books. There are 20 kāṇḍas or books in all. Except for Books 15 and 16, the text is in poem form deploying a diversity of Vedic metres. Each kāṇḍa is again subdivided into sūktas or hymns, and the sūktas into mantras. There are 6,077 mantras, in 736 sūktas. About a sixth of the Atharvaveda texts adapts verses from the Ṛgveda. In particular, the last kāṇḍa, i.e., the 20th, has borrowed heavily from the Ṛgveda-saṁhitā.

### Messages in the Vedas

Vedas are the quintessential wisdom that forms the foundation for the Sanātana-dharma and is considered as the ultimate reference for every aspect of living in India. The subject matter covered in the Vedic repository is vast. The details about performing several rituals to propitiate the devatās form a major component, however, several other issues are addressed. These include, for example, inquiring into the origin of the Universe, human beings' intricate relationship with nature, reflecting on some observed celestial happenings leading to astronomical insights, marriage, health and wellness, and larger questions such as our purpose in life, and many methods of inquiring into these subjects. There is a rigor with which several aspects of life are inquired into.

> ◆ Atharvaveda has details on diseases and their cure.
> ◆ Prayers for prosperity and peace in the Vedas invariably included all the living organisms in the Universe, not just the mankind.

Prayers for prosperity and peace in the Vedas invariably included all living organisms in the Universe, not just mankind. For example, in the Śānti-sūkta in the Atharvaveda, the prayer is to bless both the two-legged and four-legged creatures with peace and prosperity. In certain other mantras, mention of eight-legged creatures and nine-legged creatures is also indicated. Similarly, peace and prosperity are prayed for the Earth, the Interspace, and Space above. Such is the vastness of appeal and degree of inclusivity in the thinking of the Vedic people.

Our ability to succeed in our endeavours require a unified vision of what needs to be achieved, the oneness of thought and purpose. Therefore, developing a mutual understanding born out of the unity of mind and heart is critical to achieving success. The Atharvaveda mantras found in 6.64 bring out this issue unambiguously[5]. The mantra begins by saying, "let us all agree and be united with minds focused on one common issue". The mantra further encourages the seeker to have a resolve that is one and the same, with harmonious hearts and minds so that all may happily consent and together entertain one common purpose. In another mantra (Atharvaveda 7.12), the prayer says, "Let all the members of the cabinet of the king have same voice and thoughts so that the king is profited by the advice given by the eminent scholars in this cabinet."

The Atharvaveda-saṁhitā has some special features because of which it stands apart from the other three Vedas. It deals more with the worldly things 'here and now' than the 'hereafter'. It facilitates this process with the sacrifices which are a means to them. A major part of this Veda is concerned with diseases and their cure, rites for prolonging life, rites for fulfilling one's desires, building construction, trade and commerce, statecraft, penances, and propitiatory rites. Atharvaveda is the only source of knowledge that gives vast detail about the earth starting with the idea that the earth is not a mere physical structure. More specifically, the content in Atharvaveda can be classified under various heads based on the theme of the issues discussed in the mantras. Table 2.1 has a listing of these heads. The Saṁhitā portion also contains high philosophical ideas as elicited in the Upaniṣads. Even the literary style is more sophisticated compared to the other three Vedas. On account of these differing subject matters and language sophistication, some scholars conjecture that this work is of a later origin and perhaps included in the Vedic corpus much later.

**TABLE 2.1** A Thematic Classification of Ideas Presented in the Atharvaveda

| Name | Description |
|---|---|
| भैषज्यानि (Bhaiṣajyāni) | Mantras which refer to various medicines for different diseases |
| आयुष्यानि (Āyuṣyāni) | Mantras for long life |
| पौष्टिकानि (Pauṣṭikāni) | Mantras to be recited at the time of ploughing the field, on the occasion of house construction or while exercising certain commercial transactions |
| प्रायश्चित्तानि (Prāyścittāni) | Mantras which do away with the bad and inauspicious matters |
| स्त्रीकर्माणि (Strīkarmāṇi) | Mantras are exclusively related to the life of woman folk, e.g. marriage, love, child welfare and so on |
| राजकर्माणि (Rājakarmāṇi) | Mantras on political notions of the Vedic times |
| ब्रह्मण्यानि (Brahmaṇyāni) | Mantras on philosophical speculations of the Atharvaveda |

## 2.3 THE FOUR DIVISIONS OF EACH VEDA

Close scrutiny of the Vedic corpus reveals to us certain aspects of the knowledge presented. Some portions of the Veda are hymns sung in praise of the devatās while certain others consist

of specific know-how, instructions, and dos and don'ts related to conducting of yajña and related rituals. Other components provide food for thought encouraging deep inquiry into human nature, and our relationship with the Universe and God. Clearly, the intended audience for these is different and so are the objectives. There were different groups of devatās addressed in these portions as well. Sage Vyāsa organised each Veda into distinct portions considering these issues. These divisions in each Veda were based on the material presented, the primary objective and use of the material, the target audience, and the focus. Accordingly, each Veda is further sub-divided into a two-level hierarchy as shown in Figure 2.2. At the first level, we have the Mantras and Brāhmaṇas. While the Mantras portion, also known as Saṁhitā has the hymns in praise of devatās, the Brāhmaṇas have the remaining portions of the Veda. While the Brāhmaṇas have substantive content addressing the ritualistic aspects, one can still distinctively cull out two other portions within the Brāhmaṇas, namely Āraṇyakas and Upaniṣads. We can therefore divide the Vedas into four portions: Saṁhitā, Brāhmaṇa, Āraṇyaka, and Upaniṣads.



**FIGURE 2.2** Classification of Each Veda into Sub-components

Table 2.2 provides a summary of the current status of the Vedic repository classified in this fashion[6]. As evident from the table, in all the four Vedas, there have been a number of śākhās (or schools of study) that were existing as per the documentation available. However, we seem to have lost most of this over time. The two portions of Yajurveda, Kṛṣṇa and Śukla have their own unique set of Mantras, Āraṇyakas, Brāhmaṇas, and Upaniṣads.

**TABLE 2.2**   A Summary of the Content in the Four Veda

| | *Ṛg Veda* | *Yajur Veda* | *Sāma Veda* | *Atharva Veda* |
|---|---|---|---|---|
| No. Mantras (Saṁhitā) | 10,552 | 7,154 **Kṛṣṇa:** Taittirīya, Kāṭhaka, Maitrāyaṇīya **Śukla:** Vājasaneya (Mādhyandina, Kāṇva) | 1,875; only 75 unique | 6,077 (last kāṇḍa is heavily borrowed from Ṛgveda) |
| Śākhās | 21, only 5 available now | **Kṛṣṇa:** 85, only 4 available now **Śukla:** 17, only 2 available now | 1000, only 3 available now | 9, only 2 available now |
| Āraṇyakas | Aitareya, Śāṅkhāyana | **Kṛṣṇa:** Taittirīya **Śukla:** Bṛhadāraṇyaka | Talavakāra or Jaiminīya | None |
| Brāhmaṇas | Aitareya, Kauṣītakī | **Kṛṣṇa:** Taittirīya **Śukla:** Śatapatha | 9 Brāhmaṇas (Tāṇḍya-mahā-brāhmaṇa important) | Gopatha Brāhmaṇa |
| Major Upaniṣads | Aitareya, Kauṣītakī | **Kṛṣṇa:** Taittirīya, Kaṭhopaniṣad **Śukla:** Bṛhadāraṇyaka, Īśāvāsya | Chāndogya, Kena | Praśna, Muṇḍaka, Māṇḍūkya |

## Saṁhitā

Saṁhitā constitutes the main portion of each Veda and consist of a certain number of mantras mostly presented in metrical form. For example, in the Ṛgveda-saṁhitā, there are 10,552 mantras. The ṛṣis who discovered these mantras are identified in the sūkta itself. The sūkta also indicates the devatā to whom it is addressed, and the metre used to compose these mantras. In the Ṛgveda-saṁhitā, we find a mention of over 400 ṛṣis and several categories of devatās. Four main devatās, viz., Indra, Agni, Varuṇa, and Mitra have been given the pride of place in the hymns. Nearly one-third of the mantras are addressed to Indra and a quarter to Agni. The ṛṣis are identified with a first name and a second (perhaps last) name. For example, the names of ṛṣis found include Viśvāmitra Gāthin (male ṛṣi) Dakṣiṇā Prājāpatyā (Female ṛṣi). Figure 2.3 shows the organisation of the Ṛgveda-saṁhitā. There were over 25 women ṛṣis who have composed hymns in the Ṛgveda.

> ♦ Each Veda consists of Saṁhitā, Brāhmaṇa, Āraṇyaka and Upaniṣads.
> ♦ There were 25 women rishis who have composed hymns in Ṛgveda.

## Brāhmaṇas

The term Brāhmaṇa here does not relate to the modern word 'Brahmin', used to denote a caste. These are a collection of knowledge mainly confined to the issue of rituals and rites written in prose. If we go by the sheer volume, Brāhmaṇas form a large portion of the Vedic repository. Typically, one or more Brāhmaṇas are associated with every Veda and contain commentaries and explanatory notes pertaining to the mantras used. They describe different types of yajñas with all the ritualistic details. For example, the Aitareya-brāhmaṇa describes the Soma sacrifice, Agnihotra, etc. Similarly, the Kauṣītaki-brāhmaṇa provides details on food sacrifice, full-moon sacrifices, and sacrifices of the seasons. In the Śatapatha-brāhmaṇa details of Agnicayana, Aśvamedha-yajña, Upanayana, and Svādhyāya are explained.

Several aspects of the rituals are mentioned in the Brāhmaṇas portion. First, the reasons for performing rituals are mentioned. Besides, Brāhmaṇas prescribe the mantras from the Saṁhitās that need to be recited for the rituals. For example, in the Taittirīya-brāhmaṇa, we have the following instruction. One shall sprinkle water around (the food) reciting the mantra ऋतं त्वा सत्येन परिषिञ्चामि (*ṛtaṁ tvā tvartena pariṣiñcāmi*) in the evening. During the day the mantra सत्यं त्वर्तेन परिषिञ्चामि (*satyaṁ tvartena pariṣiñcāmi*) shall be recited (for the same action). The Brāhmaṇa also provides detailed instructions for preparing the altar for the yajña. An example from the Taittirīya portion illustrates this. The passage describes the process of building the main sacrificial platform (Uttara-vedī). A pit shall be dug up to the height of yajamāna's knee. It shall be filled with water up to the height of his ankle. After covering it with lotus flowers, leaves and lotus sticks the Agni has to be brought in for beginning the yajña[7]. As we can see, the content of Brāhmaṇas is technical material pertaining to the rituals. Therefore, several portions of the Brāhmaṇa literature may not appeal to a general reader.

Sāmaveda has the largest collection of Brāhmaṇas (eight). Tāṇḍya-mahā-brāhmaṇa, also known as Pañcaviṁśa-Brāhmaṇa, contains 25 chapters. The details on the conduct of Somayaga are given in this Brāhmaṇa. Another Brāhmaṇa known as Ṣaḍviṁśa-brāhmaṇa contains 26 chapters as the name suggests. This deals with several topics including the origin of Agni, provisions for śāntis for various ills affecting the nation, such as misfortunes like the untimely death of people, diseases, bad dreams, diseases affecting elephants and other animals, splitting of earth, earthquake, fire in earth, earth expelling water and inundation of earth in running

water. The importance of the seven notes-based singing, the Sāma-gāna for those who cannot perform yajñas, and the description of the Sāmaveda tradition are available in the Sāma-vidhāna-brāhmaṇa. The importance of the guru-śiṣya tradition and various vidyās such as Madhu-vidyā and Śāṇḍilya-vidyā are discussed in Chāndogya-brāhmaṇa. The lineage of the ṛṣis can be found in the Vaṃśa-brāhmaṇa.
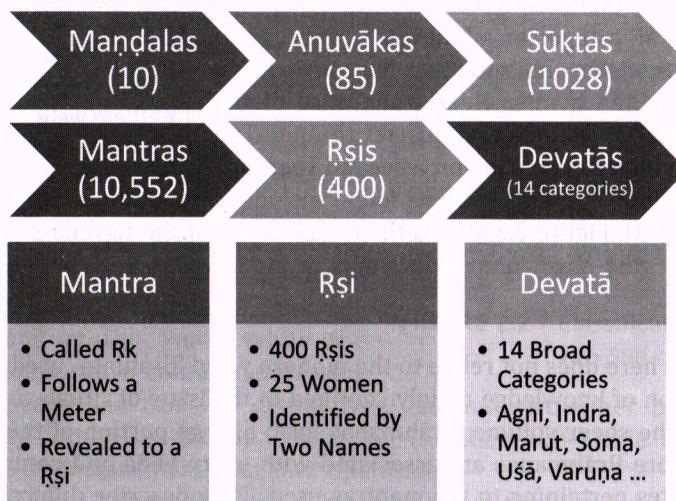


**FIGURE 2.3**  Organization of Ṛgveda Saṃhitā

## Āraṇyakas

Āraṇyakas form the third portion of Vedas and their content appears to be similar to that of Brāhmaṇas, as both of them discuss yajña practices. However, there is an important difference that one can notice. While Brāhmaṇas approach the yajña from the perspective of the rituals to be conducted, Āraṇyakas take a philosophical approach while discussing a yajña. Their main interest is to explain the symbolism and philosophical aspects of a ritual. Not only the prescribed rituals, but the daily chores such as breathing, and eating have been given a deep meaning. It is mentioned that one must perform these activities contemplating the meaning behind these activities and such a person will be rewarded for that[8].

- ◆ Āraṇyakas inquire into the philosophical aspects of a yajña.
- ◆ Āraṇyakas are considered as bridge between Brāhmaṇas and Upaniṣads.
- ◆ Āraṇyakas represent the Upāsanā kāṇḍa of the Vedas.

Because of the philosophical nature of its content, the Āraṇyakas are supposed to be learnt from a guru in a secluded place far from the human dwellings and crowded places of living. This is suggestively indicated as a forest area (Araṇya) and hence this portion is called Āraṇyakas. Āraṇyakas are usually found at the end of Brāhmaṇas and have Upaniṣads in their concluding portion. Thus, Āraṇyakas expose the profound thought process involved in rituals helping one purify his mind paving the way for the next stage of life. Hence, Āraṇyakas are considered a bridge between Brāhmaṇas and Upaniṣads. There are currently six Āraṇyakas available, these are associated with the first three Vedas. No Āraṇyaka is associated with Atharvaveda.

## Upaniṣads

By far the loftiest thoughts of the Vedic seers find their expression in the group of compositions known as Upaniṣads. These are philosophical treatises dealing with the ultimate problems of life that every one of us confronts. The word Upaniṣad means sitting near a Guru and receiving his wisdom through a teaching-learning process. The Upaniṣads have taken different approaches to impart knowledge. In the Praśna-upaniṣad, the entire teachings are organised into six questions asked one each by the six students and the Guru's reply to it. On the other hand, the Kaṭha-upaniṣad begins with a story of a young boy Naciketas and the journey of his quest to know the truth about death and immortality. Chāndogya-upaniṣad and the Bṛhadāraṇyaka-upaniṣad are large compositions bringing several messages, anecdotes, and teachings on multiple issues that we face. The profound conversation between King Janaka and Yājñavalkya appears in the Bṛhadāraṇyaka-upaniṣad, at the end of which the sage says, "Janaka, you indeed obtained fearlessness". The Indian emblem 'Satyam Eva Jayate' is a bold proclamation in the Muṇḍaka-upaniṣad.

Notwithstanding these differences in the styles of presentation, the common theme of the Upaniṣads seems to be focused on the knowledge of the Brahman. There is an in-depth study of human beings in terms of their nature and psychology. There are vivid descriptions of the relationship between the living being (jīva), the Universe that forms the context for the living being (Jagat), and the all-encompassing diving force at play (Īśvara). The Upaniṣads contain the Mahā-vākyas (meaning the ultimate pronouncements or sentences of truth).

Originally over 1,180 Upaniṣads were supposed to have been part of the Vedic corpus. Unfortunately, as in the case of other components of the Veda, several of them are lost. Currently, we have been able to locate around 200 Upaniṣads. These are found mostly in the Brāhmaṇa portion of the Vedas. Figure 2.4 lists the 108 Upaniṣads under the four Vedas. Among the available Upaniṣads, 10 are considered principal Upaniṣads as they have been commented upon and often used to support arguments in related subjects by great spiritual masters in the country. Besides, another 4–5 Upaniṣads are also popular as they too have been frequently mentioned by the spiritual masters.



**FIGURE 2.4**  108 Upaniṣads in the Four Vedas

The Upaniṣads not only provide deep spiritual and philosophical insights into life. They also serve as a fountainhead of knowledge and wisdom for us to lead a successful life in this world as we pursue material benefits for a happy life. A case in point is the last anuvāka in Śikṣāvallī of Taittirīya-upaniṣad that has a typical setting of the final address by the Guru to his batch of students as they pass out of the gurukula. This can be considered equivalent to the modern-day convocation address. A reading of this portion reveals to us that there are seven waves of thought that the Guru wants to leave with the students as they step into the outside world[9]. These are summarised below:

- ◆ Advice on one's own mode of living with reference to society and oneself
- ◆ Regulating one's relationship with the previous generation and the present elders

♦ Relationship with oneself and one's teachers

♦ One's attitude towards the learned and the wise in society

♦ Charity and the laws of giving

♦ Remedy for doubts regarding one's own duty and conduct in life

♦ Doubts regarding one's relationship with others falsely accused in the world

### Know the Charioteer of Your Life Journey

The most inert part of us is the body. There is no motive force to the body by itself. Only because of the *prāṇa* the body gets activated. This is the reason for a person who is so fond of halwa unable to open his/her eyes wide after he/she is dead when a cup of oven fresh halwa is brought in front of him/her. The *indriyas* are better than the body. This is because our *indriyas* can travel far and wide and reach places. For example, in a split moment the *indriyas* can take us to a beautiful tourist spot in the US.

The *manas* is truly a super-*indriya*, as it can do all the functions of the *indriyas* when none of them are at work. Otherwise, how can we explain watching vividly our favourite movie in dream or taking our son to a cricket match in a dream. The *buddhi* is considered superior to the *manas* as it has the capability to analyse and decide what is right and what is wrong. The *manas* can only deploy instructions to the *indriyas* and the body. It is poor in deciding what is right and what is wrong. This is the reason for the Kaṭha-upaniṣad teaching, know the buddhi to be the charioteer of your life (बुद्धिं तु सारथिं विद्धि–*buddhiṃ tu sārathiṃ viddhi*).

The soul is superior to everything as it is the very storehouse of energy (*prāṇa*) without which none of the above can perform. It is like having number of electrical gadgets, but they will work only as long as there is electricity. Once you pull the plug everything comes to a grinding halt.

## 2.4 VEDĀṄGAS

During the earlier times, the Vedic language was easy to recite and understand. With passing time natural changes occurred in the spoken language of the people and it slowly drifted away from the Vedic language. Therefore, these people needed support to read and comprehend the Vedic text. Because of the importance of Vedic texts, a lot of effort has gone into preserving the text in its original form. A specific body of knowledge, practices, and tools and techniques was created to preserve the Vedas and appropriately use them. Eventually, these became an integral part of the Vedic literature, hence called Vedāṅgas, literally limbs of the Vedas.

> ♦ The loftiest thoughts of the Vedic seers are found in the Upaniṣads.
> ♦ Upaniṣads pertains to the jñāna-kāṇḍa of the Vedas.
> ♦ There are 10 principal Upaniṣads.
> ♦ The Mahā-vākyas are found in the Upaniṣads.

One can identify six complementary requirements for the preservation of Vedic corpus and the practices prescribed therein and the proper use of them.

♦ Vedic texts being oral in nature have to be preserved in their original form. This requires listening to the sounds properly and reproducing them the same way they were heard.

♦ The words and sentences of the text had to be understood, without any ambiguity.

♦ The metres to which the mantras are set had to be systematically understood and their rules followed properly.

♦ There is a need for a complete guide to lead a life as prescribed in the Vedas. This requires unambiguously spelt out practices and norms for various activities to be performed.

♦ A properly structured set of instructions to perform the rituals prescribed in the Vedas, right from building the yajña-śālā to carrying out elaborate rituals such as the soma-yāgas need to be established.

♦ A method to fix the time to do all these prescribed activities is also necessary.

There are six Vedāṅgas; Śikṣā, Vyākaraṇa, Nirukta, Chandas, Kalpa, and Jyotiṣa addressing these roles. Figure 2.5 lists these roles of the Vedāṅgas. Though the seeds of all these Vedāṅgas are found in Vedas itself, people wrote elaborate texts on these topics to make them clear and updated them as and when required. Thus, we have several texts authored by various people at different points in time explaining these. While these Vedāṅga texts help us decipher the Vedic texts and know their practical applications, they have other values of practical applicability in other fields also. Works such as Pāṇini's Aṣṭādhyāyī, Piṅgala's Chandaḥ-śāstra, śulba-sūtras and many works related to jyotiṣa-śāstra are some of the examples. We will see the applications of these in other chapters.



Oral Preservation – Phonetics, Pronunciation etc. (Śikṣā)

Present Knowledge Properly – Grammar (Vyākaraṇa)

Prevent Corruption – Rules for Presenting Knowledge (Chandas)

Ensure Correct Meaning – Book of Synonyms and Etymology (Nirukta)

Establish Norms, Rules and Practices – Manual (Kalpa)

When to do – Methodology for Timing Events (Jyotiṣa)
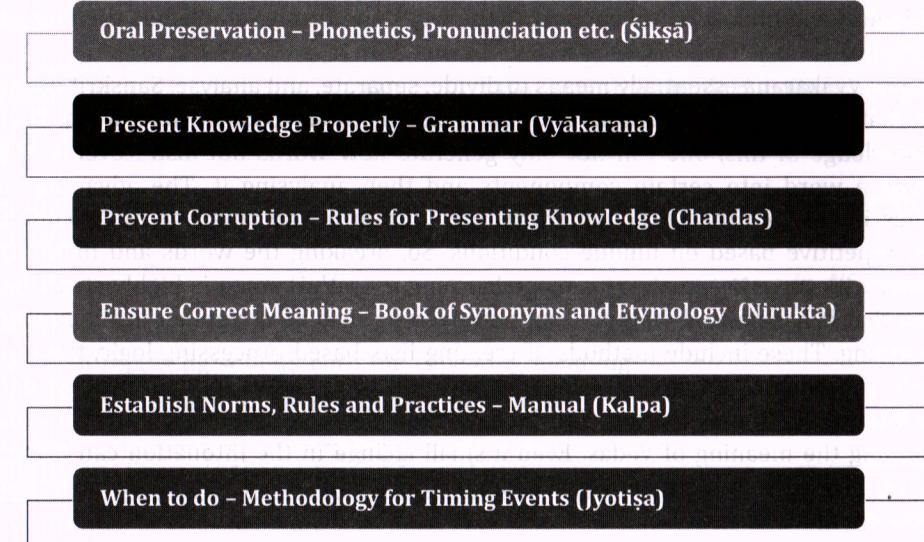
**FIGURE 2.5** The Role of Vedāṅgas

### 2.4.1 Śikṣā

The word śikṣā means 'to acquire knowledge'. In the Vedic context the discipline that deals with pronunciation is called Śikṣā. This was the first thing students were taught in the ancient educational system; hence it is called śikṣā. This has been described in Taittirīya Upaniṣad very briefly[10]. It was further elaborated in śikṣā-śāstra. Śikṣā essentially is the science of pronunciation. As preserving the Vedic text from any form of corruption is the most important thing, śikṣā directs our attention to all the details of the process involved in pronunciation. Śikṣā-śāstra, therefore, is a systematic approach to the art and practice of phonetics. It defines the characteristics of the basic units of the sound of the language known as varṇa and explains what causes the sound pertaining to a varṇa to emanate. There are several books on śikṣā-śāstra. The most popular work today is 'Pāṇinīya-śikṣā' which is attributed to Pāṇini, the famous grammarian.

The nāda (sound) generated by the confluence of air and space (in the vocal cord) takes the form of a varṇa (the smallest component of a language) by the contact made between various parts of the tongue and the places of articulation[11]. With these fundamentals of origin of the sound from the oral cavity, it further describes the process of pronouncing the varṇas. We shall see some more details of this in Chapter 5 of the book.

## 2.4.2 Vyākaraṇa

Grammar is the foundational aspect of any language. Therefore, to understand the Vedic repository, rules of grammar are required. Vyākaraṇa is one of the Vedāṅgas that deals with this issue. The tradition of Vyākaraṇa dates to the Vedic period[12]. However, the credit goes to Pāṇini for presenting a structured work of the Sanskrit Vyākaraṇa. Despite several other works on Vyākaraṇa, Pāṇini's Aṣṭādhyāyī became popular because of its brevity. Another great master of Vyākaraṇa, Patañjali wrote a commentary on Aṣṭādhyāyī, known as Mahā-bhāṣya, which provided logical and philosophical support to the work and firmly established the monumental work of Pāṇini.

The term Vyākaraṇa essentially means to divide, separate, and analyse. Sanskrit grammar is unique in that it devises unambiguous and rule-based methods to construct a word. Therefore, with a knowledge of this, one can not only generate new words but also 'reverse engineer' by breaking a word into certain components and then analysing it. The advantage of this method lies in the fact that although words are infinite in the language, their components are fewer, repetitive based on unique conditions. So, breaking the words and mapping their components with meanings makes language learning easy. Vyākaraṇa is highly structured and rule-based that it has several features that parallel what has been applied in the modern-day data processing. These include methods of creating lists-based processing logic, the use of an algorithmic approach to process language, application of recursive logic to process data, etc. A unique feature of Pāṇini's work is that he gave the rules of svaras, which are very essential in determining the meaning of Vedas. Even a small change in the intonation can bring about a significant difference in the meaning at times. Out of 4000 sūtras, Pāṇini has dedicated over 400 to give the rules of svaras.

We shall see more details of Vyākaraṇa in Chapter 5 of the book.

## 2.4.3 Nirukta

Nirukta is etymology, which is extracting the meaning of a word using linguistic theories and considering phonetic changes. While issues with understanding the meaning of the Vedas are addressed by vyākaraṇa-śāstra, Nirukta engages in the same task with a different approach. The objective of vyākaraṇa is to ascertain a correct form of a word to express a certain meaning. On the other hand, Nirukta analyses a given word to extract its meaning. Yāska, wrote Nirukta in the 5th century BCE, which is a commentary on Nighaṇṭu, a collection of rarely used words in the Vedas. Nighaṇṭu can be equated with a thesaurus, where synonyms of various genres are collated. Some of these words are used in a totally different sense in a Vedic context. Therefore, the study of the Nirukta is indispensable for the understanding of the Veda[13]. Like other Vedāṅgas, this developed as a major discipline on its own in later times. It appears that 'Nirukta' is the most ancient work available on etymology anywhere in the world.

There are 1770 words grouped in three parts namely Naighaṇṭuka-kāṇḍa consisting of three chapters, Naigama-kāṇḍa, and Daivata-kāṇḍa each consisting of one chapter. Naighaṇṭuka consists of 69 groups of synonyms. Words with multiple meanings are organised in each of these groups. Table 2.3 has details on the overall organisation of Nighaṇṭu. The need for a work such as Nirukta arises primarily on account of different meanings associated with words in the context of Vedic texts. In the absence of this, there is a danger of associating a word with a wrong meaning and interpreting the Vedic text wrongly. Sometimes, the error can mislead the knowledge seeker and present the Vedic corpus in poor light simply on account of ignorance. (See box for an example of this).

**TABLE 2.3**  Organisation of Nighaṇṭu

| Kāṇḍa | Adhyāya | No. of Words | Contents |
|---|---|---|---|
| Naighaṇṭuka | 1 | 415 | 17 groups of synonyms |
| | 2 | 516 | 22 groups of synonyms |
| | 3 | 410 | 30 groups of synonyms |
| Naigama | | 278 | Words with multiple meanings in 3 groups |
| Daivata | | 151 | Names of Devatās in 3 groups |

In the process of arriving at the meanings associated with the words, a four-step approach is employed:

◆ Observe the repeated occurrence of letters or a group of letters in different words
◆ Observe the repetition of the same meaning in different words
◆ Map repeating sounds with the repeating meanings
◆ Assign meaning to the component of a word

### Risks in Translating Vedic Literature

The words used in Vedic literature sometimes have unique meanings, very different from the normal usage. Nirukta plays a crucial role in ensuring the correct meaning is obtained by providing a list of synonyms of words used in Vedic literature. In the absence of this knowledge, there is a risk of wrong translation as is evident from the translation of Tāṇḍya-brāhmaṇa by a Dutch scholar, W. Caland. See below the original mantra and the translation adopted.

यावद्वै सहस्रं गाव उत्तराधरा इत्याहुस्तावदस्मात् लोकात् स्वर्गो लोक इति तस्मादाहुः सहस्रयाजी वा इमान् लोकान् प्राप्नोति ॥
(Tāṇḍya-brāhmana 16.8.6)
*yāvadvai sahasraṃ gāva uttarādharā ityāhus-tāvadasmāt lokāt svargo loka iti tasmād-āhuḥ sahasra-yājī vā imān lokān prāpnoti ॥*

The translation reads as follows:

The world of heaven is as far removed from this (earthly) world, they say, as **thousand cows standing one above the other** (emphasis added). Therefore, they say, "He who sacrifices with a sacrifice at which a thousand dakṣiṇās are given reaches these worlds".

For any sensible-minded person, such a translation will be unacceptable. How can one stack 1000 cows one over the other and hope to assume this is the distance between the earth and heaven?

There are 21 synonyms listed in a group in Nirukta. They are 'Gauḥ, gmā, jmā, kṣmā, kṣā, kṣamā, kṣoṇiḥ, kṣitiḥ, avaniḥ, urvī, pṛthvī, mahī, ripaḥ, aditiḥ, iḻā, nirṛtiḥ, bhūḥ, bhūmiḥ, pūṣā, gātuḥ, gotrā'. In normal usage, the word 'गौ: (gauḥ)' stands for a cow. Whereas in Veda it can mean many other things such as earth, a cow, a moving object, the Sun. All these meanings are extracted from a modified form of the verbal root 'गम् (gam)'. The meaning of the root 'gam' is to move. The same has been taken as the verbal root 'गो (go)'. Hence, the earth is called 'go' as the beings here move on it. The 'cow' is called 'go' since it used to go out far away from the village for grazing. The Sun is called 'go' because it appears to be moving. Now of these meanings whichever suits a context must be taken. The meaning of "go" in this mantra must relate to the earth and not to the cow.

This example demonstrates how a lack of knowledge on Nirukta can mislead Indologists in their efforts to translate the Vedic corpus into English and other foreign languages.

*Source for the translation:* Caland, W. (1982), *Pañcaviṃśa-brāhmaṇa,* Satguru Publications, New Delhi, p. 440.

### 2.4.4 Chandas

Rhythm is the key aspect of an oral tradition be it Vedic mantras or music. The saṃhitā portion of the Vedas are almost entirely in prosody. Therefore, the study of the metres to which they are set is important. Chandas is the metre of poetic composition. There are many references to these metres and their characteristics in Vedic texts themselves. The major treatise on Vedic metres currently in usage is Chandaḥ-śāstra by Piṅgala written around 300 BCE. This also lays the foundation for many other metres used in classical Sanskrit literature.

Before we get to know the details of Chandas, let us get introduced to some basic terms. A chandas (metre) can be viewed using a three-level hierarchy. See Figure 2.6 for a schematic representation of the same. The lowest unit or building block of a metre is a syllable, called akṣara. A certain number and pattern of akṣaras make up a pāda (quarter) and a certain number of padās make a metre. Let us consider the following mantra from the Ṛgveda to understand this concept: स्वादिष्ठया मदिष्ठया पवस्व सोम धारया । इन्द्राय पातवे सुतः ॥ This mantra indeed consists of three padās, each of eight syllables. This metre is called gāyatrī metre. The details are in Table 2.4.
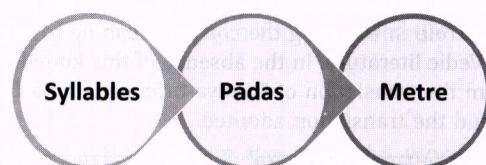


**FIGURE 2.6**  The Hierarchical Structure of Metre

#### Metres in the Vedas

There are seven main metres used in the Vedas. The majority of these metres have four quarters in them. Some metres have three. There are also some exceptions with varying numbers of padās. The Vedic metres differ from one another on two counts; the number of padās that constitute a metre and the number of syllables in each pāda. Table 2.5 has the details of chandas and the numbers padās and syllables for each of them. There is much more variety of chandas

with varying numbers of padās and syllables in them. Further, by the addition or removal of syllables from an existing metre, some more variations are created, making it a large variety in reality. Chandas plays a crucial role in the preservation of the Vedic corpus and loss-less transmission down the generations. Any addition or removal of even a single syllable from a mantra will become evident at once as the rhythm of the mantra will be lost. Thus, chandas helps in preserving intact not only the Vedic texts but also any literature set in prosody. This also helps in removing the doubts in meaning and makes the recitation of mantras joyful.

**TABLE 2.4**  Three Level Hierarchy of a Metre – An Illustration

| Mantra | स्वादिष्ठया मदिष्ठया पवस्व सोम धारया । इन्द्राय पातवे सुतः ॥ svādiṣṭhayā madiṣṭhayā pavasva soma dhārayā \| indrāya pātave sutaḥ \|\| |
|---|---|
| Metre | Gāyatrī Metre |
| Pādas (3) – each of 8 syllables | Pāda 1: स्वादिष्ठया मदिष्ठया (svādiṣṭhayā madiṣṭhayā); Pāda 2: पवस्व सोम धारया (pavasva soma dhārayā); Pāda 3: इन्द्राय पातवे सुतः (indrāya pātave sutaḥ); |
| Syllables (24) | svā-di-ṣṭha-yā-ma-di-ṣṭha-yā-pa-va-sva-so-ma-dhā-ra-yā-in-drā-ya-pā-ta-ve-su-taḥ |

We shall see more details and other applications of the chandaḥ-śāstra in Chapters 6 and 8 of the book.

**TABLE 2.5**  Details Pertaining to Vedic Metrers

| Chandas | Number of pādas | Number Syllables per pāda |
|---|---|---|
| Gāyatrī | 3 | 8 + 8 + 8 = 24 |
| Uṣṇih | 3 | 8 + 8 + 12 = 28 |
| Anuṣṭup | 4 | 8 + 8 + 8 + 8 = 32 |
| Bṛhatī | 4 | 8 + 8 + 12 + 8 = 36 |
| Paṅkti | 5 | 8 + 8 + 8 + 8 + 8 = 40 |
| Triṣṭup | 4 | 11 + 11 + 11 + 11 = 44 |
| Jagatī | 4 | 12 + 12 + 12 + 12 = 48 |

### 2.4.5 Kalpa

Kalpa focused on several operational aspects of the issues discussed in the Vedic corpus. In simple terms, Kalpa can be thought of as a guide or a user manual that provides instructions and directions to lead all aspects of life including personal, family, and social dimensions. A study of the Kalpa-sutras sheds light on all important aspects of ancient Indian life as it covers household life, ceremonies, and law. One can see elaborate descriptions of different types of yajñas and methods of performing



Śrauta-sūtras

Śulba-sūtras

Gṛhya-sūtras

Dharma-sūtras
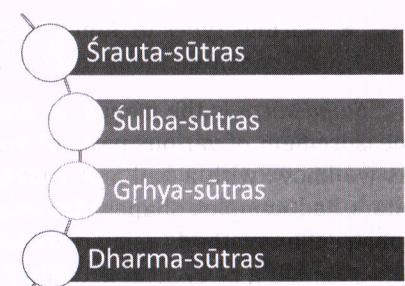
**FIGURE 2.7**  Components of Kalpa

these, their frequency, etc. There are vivid descriptions of how to prepare the Agni, the types of people involved, and their roles, the type of offerings to be made, and other resources required.

There are different schools of Vedic studies and each of these schools has its own set of basic instructive texts called Kalpa-sutras. These comprise four types of texts (see Figure 2.7 for a pictorial representation of the same):

- Śrauta-sutras – Guide for Vedic rituals
- Śulba-sutras – Rules for measurements and construction of fire altars, sacrificial place, etc.
- Gṛhya-sutras – Deals with house-hold ceremonies
- Dharma-sutras – Guide for social duties

*Śrauta-sutra* provides details of various rituals prescribed in the Vedas. These are to be performed at various intervals. Some of them are quite elaborate and require a large number of people to perform (such as Aśvamedha or Rājasūya-yajña). These are invariably done by kings as the outlay is huge. Some rituals are performed for many days and months. The role of Śrauta-sutras is to provide some sort of an operations manual laying out minute details. It systematically describes all the activities in a ritual, the roles to be taken by various people, the sequence of various activities, etc. One is supposed to maintain three *Śrauta-agnis* to perform *yajñas* as per Śrauta-sutra; Gārhapatya (maintained always), Āhavanīya and Dakṣiṇāgni. Gārhapatya is a circular one placed on the west, whereas Āhavanīya is square and is on the eastern side. On the other hand, a Semi-circular altar called Dakṣiṇāgni is in the south. These are supposed to have an equal area and are to be built in five layers using burnt bricks of prescribed numbers and sizes. It is no wonder therefore that ancient Indians made good approximations to the value of $\pi$ to solve the problem of designing a circle and square of the same area. There are many different shapes and sizes of the Vedic altar specified in Kalpa. For instance, the darśa-pūrṇa-māsa altar has a unique shape. See Figure 2.8 for an illustration of these Vedic altars.

Some of the major rituals prescribed are as follows:

- Agnihotra – this is a ritual the custodian of the three fires has to perform twice every day. An offering of ghee and milk is made into the sacrificial fire.
- Darśapūrṇamāsa-iṣṭi – This is a ritual performed on the day after the full moon and no moon days. It involves several people other than the yajamāna. Rice puddings baked in the sacrificial fire are the main offerings in this ritual.
- Cāturmāsya-iṣṭi – As the name suggests this ritual is performed once in four months.
- Various types of Somayāgas – These are the long rituals that go for more than a week. A sixteen-member team is involved, and it is an elaborate ritual.

*Śulba-sutra* is the manual to build a sacrificial room and altars. Śulba means a thread. The measurement of various parts of the yāga-śālā is done with the help of a thread and two nails. As we know, with a nail and a thread we can only generate a circular shape. However, Vedic altars had complex shapes (for example a flying falcon). Ancient Indians devised interesting construction methods using circular constructions. Therefore, we can infer that they had a good understanding of cyclical geometry. Expectedly, Śulba-sutras contain minute and basic details about measurement and construction of sacrificial place: वेदी (vedī), चिति (citi), मण्डप (maṇḍapa). These involved details on the construction of squares, rectangles, circles, etc. Further, minute

details ensuring accurate construction of the altar (*vedī*) including orientation, size, shape, and areas are specified. The Kalpa specifications also require that altars of very different shapes need to be of the same area.

*Gṛhya-sutra* is a guide to perform domestic ceremonies. Everyday rituals such as sandhyā-vandanam, the sixteen saṃskāras, sacraments of a person to be performed right from garbhādhāna (insemination) to antyeṣṭi (last rites), the five mahāyajñas are some of the topics covered here. To perform these domestic ceremonies, the householder (*Gṛhasta*) is required to maintain the Agni (**Gṛhyāgni**) from marriage unto death for all household rites. These rites are meant to worship the Gods through a variety of yajñas to obtain material benefits, good health, and progeny. The ceremonies are also performed for the achievement of targeted desires and results and the welfare of society in general.

*Dharma-sutra* is the overall guide for an individual to be part of the society in a gainful manner. Dharma-sutra is mainly concerned with rules of conduct that an individual needs to follow so that he/she can have a harmonious living in society. The rules for the people of different occupations, duties of an individual at various levels of his life, guidance for the rulers to rule the state are some of the important topics described here. These evolved as systematized laws which were in the form of customs. It covers issues such as lawful occupations of the class of society, stages of life, dietary laws, punishments, forms of government, taxation administration, and army. In a way, these sutras provide details on public policy, governance, and administration.



दर्शपूर्णमासावेदी
(Darśapūrṇamāsāvedī)

आहवनीयाग्नि
(Āhavanīyāgni)
(East)

गार्हपत्याग्नि
(Gārhapatyāgni)
(West)

दक्षिणाग्नि
(Dakṣiṇāgni)
(South)
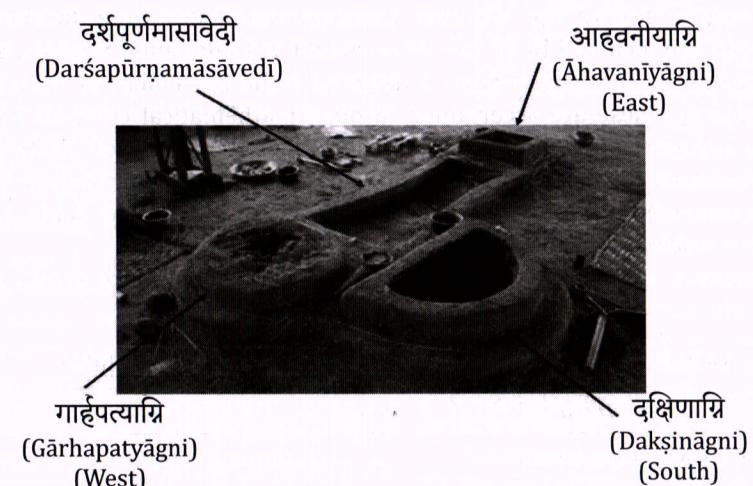
**FIGURE 2.8** A Typical Set of Altars for Śrauta Rites

### 2.4.6 Jyotiṣa

Like several other ancient civilizations, Indians were using the natural calendar which is based on keen observation of the sky with moon and stars. This knowledge of the movement of stars and planetary bodies is called jyotiṣa. In India, the lunar and the solar cycles play a very important role in the cultural and spiritual development of the Vedic people. These practices continue even today as all the festivals and practices are inextricably linked to the Moon, the

Sun, and other stars and constellations. Having studied several aspects of the Vedic life, Lagadha composed Vedāṅga-jyotiṣa[14] at a period of time when the sun was in Dhaniṣṭhā nakṣatra during the winter solstice. Jyotiṣa occupies a special place in the Vedāṅgas, and it is compared to the jewel of the hood of the snake and the crest of the peacock[15].

Jyotiṣa-śāstra is classified into vaidika (related to Vedas) and laukika (related to the world). The Jyotiṣa which is connected to Vedas is called Vedāṅga-jyotiṣa, which was followed by the people during the Vedic period. Vedāṅga-jyotiṣa is classified into two recensions: Ṛgvedic Vedāṅga-jyotiṣa – 36 verses and Yajurvedic Vedāṅga-Jyotiṣa – 43 verses. The Atharvaṇa-jyotiṣa is known to be taught by Prajāpati to Kaśyapa. Jyotiṣa-śāstra is further classified into three parts and each of those further into two each[16]. Figure 2.9 schematically presents the classification of Jyotiṣa-śāstra.

Siddhānta deals with the various measures of time; planetary theory, arithmetical computations as well as algebraical processes, location of the earth, the stars and the planets, and description and usage of instruments[17]. Samhitā consists of the scientific and mathematical concepts of astrology. Although listed as one of the three divisions. In reality, the issues discussed are included in all the three skandhas (Siddhānta, Saṃhitā, and Horā). It can be divided into three sections. Section 1 deals with the movement of the planets in the several Rāśis (zodiacs). These are ascertained through mathematical computation, known as tantra. In Section 2, horoscope and nimitta (Omens) issues are discussed. Section 3 provides details to precisely locate the correct position of lagna, which is the first step in Jātakarma. In addition to these issues, Saṃhitā deals with many aspects of human life. Table 2.6 lists some of the major topics discussed in the Saṃhitā.

Jyotiṣa is intricately connected to astronomy. We discuss some more details in Chapter 9 of the book.



**FIGURE 2.9** Classification of Topics in Jyotiṣa Śāstra

**TABLE 2.6** The Breadth of Topics Discussed in Saṃhitā

| No. | Topic Discussed | Details |
|---|---|---|
| 1 | दैवज्ञ-लक्षणम् (Daivajña-lakṣaṇam) | Qualities of an Astrologer |
| 2 | ग्रहाणां चार-विचारः (Grahāṇāṃ cāra-vicāraḥ) | Planetary Movements |
| 3 | भूकम्पोल्कादि-लक्षण-विचारः (Bhūkampolkādi-lakṣaṇa-vicāraḥ) | Characteristics of Earthquakes, Meteors etc. |
| 4 | वास्तु-विचारः (Vāstu-vicāraḥ) | Architecture |
| 5 | जलान्वेषण-विचारः (Jalānveṣaṇa-vicāraḥ) | Exploration of Water Springs |
| 6 | देवालय-प्रतिमादि-निर्माण-क्रमः (Devālaya-pratimādi-nirmāṇa-kramaḥ) | Temple Construction and Sculpture |
| 7 | शकुनादि-विचारः (Śakunādi-vicāraḥ) | Omens |
| 8 | शरीर-लक्षणादि-विचारः (Śarīra-lakṣaṇādi-vicāraḥ) | Body Parts – Characteristics |

### IKS IN ACTION 2.2

#### Pañca-mahā-yajña

The term Yajña typically invokes in our mind an altar in which offerings are made to a deity with a certain expectation of tangible material benefits, usually of a self-centred nature. The critical aspect of Yajña is giving (or sharing) without a sense of attachment. This puts our life into perspective and provides broad guidelines for us to imbibe the value of peaceful coexistence in our daily life. This can happen only when we are able to practice 'care and share' as a daily habit. The concept of pañca-mahā-yajña (Five Great Sacrifices) as our daily duty was instituted to practically implement this idea.

In the Indian tradition, the role of a householder was considered very important in maintaining sustenance of the society. The responsibility of a householder to provide for the sustenance of the life around him is formalised with pañca-mahā-yajña. Every householder is expected to perform this every day and if one does not undertake these yajñas he may not even qualify to be a householder.

This is a mechanism to care for and share his food with the other entities in the creation and it subtly reminds himself every day of his responsibility towards all creation. The importance of pañca-mahā-yajña is evident from the references to it found in all Indian literature: in the Vedas, the itihāsas and purāṇas, smṛtis and dharmaśāstras.

♦ *Bhūta-yajña* is for all created beings. By offering Bhūta-yajña, we take care of small living beings around us (such as birds, domesticated animals, worms, insects etc.). By being very conscious of the environment we can extend this idea to plants, rocks and rivers. This is the extended thinking of bhūta-yajña. This is a good approach to address the vexing ecological problems that we face today.

♦ By *Manuṣya-yajña* we derive the joy of helping destitute, orphans, unexpected guests, poor and the needy by offering whatever we can

(in cash or kind, food) to them. This can be the bedrock of social sustainability and can positively impact the society.

● By *Pitṛ-yajña* we give away food for the sake of our ancestors and offer our respects and deep sense of gratitude to the departed souls in our family who are responsible for what we are today.

● By offering *Deva-yajña*, we express our thankfulness for what the Gods bless us (in terms of rain, and other bounties of nature) and continue to receive them in a framework of mutual dependence. The most manifested form of the Devas are the five great elements (space, air, fire, water and earth). This daily act makes us acutely aware of the need to keep our ambience in absolute rhythm with our activities and thereby minimize pollution (air, water, earth etc.) levels.

● By *Brahma-yajña* (by reciting the Vedic hymns, Upaniṣads etc. and teaching them to others) we show our enormous respect to the great seers and rishis, who gave us the wisdom that we can ever have. We also assure them by this act that this great knowledge is being handed down the generations with reverence and a sense of responsibility.

Pañca-mahā-yajña is related to the Indian understanding of human life as a gift that is sustained by all aspects of creation. Man is thus born in and lives in debt, to all creation, and it therefore becomes his duty to recognize this debt and undertake to repay it every day.

Panca-mahā-yajña, therefore, is not performed for the sake of earning merit or virtue. It is merely a matter of endeavouring to repay debts that are incurred by being born and living in the world. It is about being humanly responsible.

## 2.5 VEDIC LIFE: DISTINCTIVE FEATURES

So far, we have seen some of the salient features of the Vedas, the material presented in the Vedas, and the issues described in various parts of the Vedas. Based on this limited understanding, we can develop some broad ideas about certain distinctive features of the Vedic life. These can be discussed under the following heads:

*Vedas Extol Living a Zestful and Exuberant Life:* There is a misconception that Vedic people de-emphasized materialism and instead chose to lead a simple life with no minimum comforts. However, the mantras, the prayers, and the things that they asked for (the karma-kāṇḍa of the Vedic literature is abundant with such examples), we can infer that they aspired to live a life full of energy, enthusiasm, hopes, desire to explore and innovate to make their life better and comfortable.

*Balanced Life Priorities:* The Vedic thinking (discussed in great detail in the jñāna-kāṇḍa) also presents a balanced view of life, where the attainment of material riches and prosperity was considered important, but not at the cost of spiritual orientation to life. The inquisitiveness of the people and a desire to know and innovate enabled them to develop ideas, knowledge, and thought processes that addressed both material progress and spiritual progress. This resulted in the development of karma kāṇḍa and jñāna kāṇḍa aspects in the Vedic repository. As a result, the Vedic living ought to have advocated for the all-round development of an individual in terms of physical, mental, intellectual, and spiritual dimensions.

> ◆ Vedic thinking presents a balanced view of life where material prosperity and spiritual orientation are important.
> ◆ Yajña was central to day-to-day living in Vedic times.
> ◆ Vedic life recognized the overarching role of natural systems in sustainability.

*Emphasis on Sustainable Living:* The practicality of Vedic life proposed a model that was economically and ecologically viable, and socially sustainable. The Vedic people recognised the importance of mutual dependence and co-existence with nature and other living beings. This is well documented and articulated in the numerous hymns in *Ṛgveda* on several aspects of nature. The principle of mutual dependence pervades much more than what we normally imagine. Man, and nature have a strong relationship of mutual dependence. Living entities and non-living entities also are mutually dependent. Our ancestral wisdom and practices in everyday living seem to have understood this aspect and respected it. Numerous references convey this idea. For example, as we already saw, *in Śānti-sūkta*, the well-being of not just the living entities, but also of natural systems is sought through the prayers.

*The Primacy of Agni:* This is primarily because Yajña was central to day-to-day living. Every activity and celebration in life was done with Yajña and dāna (gifting). It was recognized as a way of showing reverence and gratitude to the Gods for making things happen the way they are. Agni was considered the main deity and carrier of the offering to all the other devatās. Therefore, it is not surprising that the first mantra of Ṛgveda begins with a celebration of Agni as the priest and the giver of all riches to us.[18] The notion of Yajña as conceptualized by the Vedic seers is much larger than what is ordinarily understood as an act of sacrificial offering to Agni in an altar. It was a grand principle of 'give and take' and 'live and let live' and thereby ensure social sustainability in addition to the narrow environmental sustainability that we are currently debating on.

*A Life Guided by Ṛta, Satya, and Dharma:* There are larger principles that shaped the paradigms of good living. Ṛta in simple terms is the cosmic order or equilibrium which ensures that the Universe functions in its natural state. The nearest English word that one can think of is rhythm. In the Rigveda, the term *Ṛta* appears as many as 390 times and has been characterised as

'the one concept' which pervades the whole of Ṛgvedic thought[19]. The actions that individuals and society take in their living are not supposed to disturb the ṛta. In Taittirīya-upaniṣad, second chapter it is mentioned that the wind blows, the sun, the fire, Indra, and the Lord of death perform their daily routines in consonance to this cosmic order[20]. While ṛta is an overarching concept, its life practice was facilitated by the concept of satya and dharma. These two operational guidelines ensure the cosmic order is not disturbed.

## SUMMARY

▸ Vedas are the quintessential wisdom that forms the foundation for the Sanātana dharma and is considered as the ultimate reference for every aspect of living in India.

▸ The Ṛgveda represents the earliest sacred book of India and the biggest amongst all the four Vedas.

▸ The Yajurveda is more pronouncedly a ritual Veda for it is essentially used by the Adhvaryu to do all ritualistic works in a sacrifice.

▸ The mantras of the Sāmaveda, have musical scales, similar to the seven scales of classical music. It can be considered as the origin of Indian classical music.

▸ A major part of Atharvaveda is concerned with diseases and their cure, rites for prolonging life, rites for fulfilling one's desires, building construction, trade and commerce, statecraft, penances, and propitiatory rites.

▸ Each Veda consists of Saṃhitā, Brāhmaṇa, Āraṇyaka, and Upaniṣads.

▸ Mantras are also known as saṃhitās. They constitute the main portion of each Veda. In the Ṛgveda Saṃhitā, there are 10,552 mantras.

▸ The Brāhmaṇas contain commentaries of the mantras used and explanatory notes pertaining to the mantras. They describe different types of Yajñas with all the ritualistic details.

▸ Upaniṣads are philosophical treatises dealing with the ultimate problems of life that every one of us confronts.

▸ The common theme of the Upaniṣads focuses on the knowledge of the Brahman. The other related themes include the spiritual nature of human beings, the study of human beings in-depth in terms of their nature and psychology.

▸ Knowledge of the six Vedāṅgas helps one develop a correct understanding of the Vedic repository and its use.

▸ Śikṣā essentially is the science of pronunciation and it helps in preserving the Vedic text from any form of corruption during oral transmission.

▸ While the objective of Vyākaraṇa is to ascertain a correct form of a word to express a certain meaning, Nirukta analyses a given word to extract its meaning.

▸ A chandas (metre) can be viewed using a three-level hierarchy. The lowest building block of a metre is an akṣara. A certain number and pattern of akṣaras make up a pāda and a certain number of padās make a metre.

▸ Kalpa can be thought of as a guide or a user manual that provides instructions and directions to lead all aspects of life including personal, family, and social dimensions.

## REVIEW QUESTIONS

1. What do you understand by the term 'Veda'? Why is the Veda called 'apauruṣeya'?
2. What are the four Vedas? What is the basis on which these have been classified?
3. Describe the organisation of a Yajña. Who is involved and what are their roles?
4. How is the knowledge further classified and arranged in each of the Vedas?

5. Prepare a one-page note outlining the salient features of Ṛgveda Saṁhitā.

6. What are some of the major areas in which Atharvaveda has contributed?

7. What are the key differences between the Saṁhitā (Mantra) portion and the Brāhmaṇa portion of a Veda?

8. What are the key contributions found in the Brāhmaṇas of Sāmaveda?

9. What is the meaning of the word 'Upaniṣad'? What is the purpose of Upaniṣads?

10. Comment on the statement, "There are several useful perspectives that one can derive from the Vedic corpus". Do you agree with this statement? Prepare a note with supporting arguments.

11. What is the relevance of Vedāṅgas in the context of the Vedic repository?

12. Comment on the statement, "Vyākaraṇa and Nirukta address the same issue of analysing words and their meanings".

13. Why is Śikṣā considered an important Vedāṅga? What role does it play in the oral tradition of the Vedic preservation?

14. What are the building blocks of a chandas? Explain the main forms of chandas deployed in a Vedic repository.

15. What do you understand by the term 'śulba-sūtra'? What is the use of it?

16. Distinguish between gṛhya-sūtra and dharma-sūtra.

17. Why do the Vedic people need Jyotiṣa?

18. Briefly outline the salient features of life during Vedic times. Are there any useful ideas to imbibe in our modern-day living?

## DISCOVER IKS

1. Upaniṣads comprise the highest forms of knowledge in the Vedic repository. They contain very useful ideas in one's life. What are these messages and how does it help us? Watch the video available on the following site: https://youtu.be/27INqc3-8xo. Prepare a note that covers the following aspects:

    (a) What is the positioning of the Upaniṣad in the Vedic repository? How many Upaniṣads are there?

    (b) What are the key messages found in the Upaniṣads?

    (c) What kind of transformation an individual will go through benefited from the message of Upaniṣads?

2. It has been a matter of great debate as to what is the date for the Vedic corpus. At one level, the content is valuable that any effort to fix the date accurately is less valuable. Nevertheless, there is always a curiosity to know when Vedas were recorded in history. Prof. G C Tripathi's paper on the date of Ṛgveda is available in the following video: https://youtu.be/HraoKemxmiU. Listen carefully to the talk and prepare a three-page note to answer the following questions:

    (a) What was the date assigned by the Western Indologists for the Vedic period?

    (b) Why should we consider dates earlier than what was proposed? Give some specific reasons to support the argument.

    (c) Identify four specific arguments presented in the talk that support the dating of the Ṛgveda.

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केदारदत्त जोशी **(2005):** श्रीमद्दैवज्ञवराहमिहिराचार्येण विरचितं बृहज्जातकम्, मोतीलाल बनारसीदास, दिल्ली ।

## ENDNOTES

1. The word Veda can be derived from five different verbal roots. They are:

   - विद्यते = अस्ति इति वेदः (विद सत्तायाम्), vidyate = asti iti vedaḥ (vida sattāyām), that which exists for ever.

   - विदन्ति = जानन्ति धर्मादीन् अर्थान् अनेन इति वेदः (विद ज्ञाने), vidanti = jānanti dharmādīn arthān anena iti vedaḥ (vida jñāne), that through which one knows things such as dharma.

   - विन्दते = विचारयन्ति एनम् इति वेदः (विद विचारणे), vindate = vicārayanti enam iti vedah, that which people think about.

   - विन्दति = प्राप्नोति अनेन इति वेदः (विद्ऌ लाभे), vindati = prāpnoti anena iti vedaḥ (vidḷ lābhe), that through which we obtain dharma etc.

   - वेदयति = ज्ञापयति इति वेदः (वेद चेतनाख्याननिवासेषु), vedayati = jñāpayati iti vedaḥ (veda cetanākhyānanivāseṣu), that which makes things like dharma known to us.

2. तस्माद्यज्ञात्सर्वहुत ऋचः सामानि जज्ञिरे । छन्दांसि जज्ञिरे तस्माद्यजुस्तस्मादजायत ।
   tasmādyajñātsarvahuta ṛcaḥ sāmāni jajñire | chandāṃsi jajñire tasmādyajustasmādajāyata | (Ṛgveda 10.90.9).
   http://www.sanskritweb.net/rigveda/rv10.pdf Last accessed on Oct. 1, 2021.

3. The explanation for the term "yajus" is as follows: यजन्ति येन (मनुष्या ईश्वरं धार्मिकान् विदुषश्च) पूजयन्ति शिल्प-विज्ञान-सङ्गतिकरणं च कुर्वन्ति तत् यजुः । yajanti yena (manuṣyā īśvaraṃ dhārmikān viduṣaśca) pūjayanti śilpa-vijñāna-saṅgatikaraṇaṃ ca kurvanti tat yajuḥ |

4. Pandit Shripad Damodar Satvekar (1958), "Sāmaveda Saṃhitā, Pardi, Gujarat.

5. Extract from Atharvaveda 6.64 on oneness and mutual understanding:

   सं जानीध्वं सं पृच्यध्वं सं वो मनांसि जानताम्।
   देवा भागं यथा पूर्वे संजानाना उपासते ॥१॥
   समानो मन्त्रः समितिः समानी समानं व्रतं सह चित्तमेषाम्।
   समानेन वो हविषा जुहोमि समानं चेतो अभिसंविशध्वम्॥२॥
   समानी व आकूतिः समाना हृदयानि वः ।
   समानमस्तु वो मनो यथा वः सुसहासति ॥३॥

   saṃ jānīdhvaṃ saṃ pṛcyadhvaṃ saṃ vo manāṃsi jānatām|
   devā bhāgaṃ yathā pūrve saṃjānānā upāsate ||1||
   samāno mantraḥ samitiḥ samānī sāmanaṃ vratam saha cittameṣām|
   samānenā vo haviṣā juhomi samānaṃ ceto abhisamviśadhvam||2||
   samānī va ākūtiḥ samānā hṛdāyāni vaḥ |
   samānamāstu vo mano yathā vaḥ susahāsāti ||3||

   For details see, पद्मभूषण डा श्रीपाद दामोदर सातबलेकर (1985). "अथर्ववेद का सुबोध भाष्यः द्वितीय भाग" स्वाध्याय मण्डल

6. **Swami Harshananda (1992).** "A Bird's Eye View of Vedas", Ramakrishna Math, Bengaluru.

7. जानुदघ्नीमुत्तरवेदीं खात्वा, अपां पूरयित्वा गुल्फदघ्नम्, पुष्करपर्णैः पुष्करदण्डैः पुष्करैश्च संस्तीर्य jānudaghnīmuttaravedīṃ khātvā, apāṃ pūrayitvā gulphadaghnam, puṣkaraparṇaiḥ puṣkaradaṇḍaiḥ puṣkaraiśca saṃstīrya (taittirīyāraṇyakam 1/22/78,79,80); **A. Mahadeva Shastri**, *The Taittiriyaranyaka*, Vol. I, Government Branch Press, Mysuru, p. 132. प्राचीनवंशं करोति prācīnavaṃśaṃ karoti (taittirīya saṃhitā 6/1/1) **A. Mahadeva Shastri**, *The Taittiriya Samhita*, Vol. X, Government Branch Press, Mysuru, 1990, p. 1.

8. (स्वर्गं लोकं गमयति) य एवं विद्वान् अश्नाति पिबति चाऽऽशयति च पाययति च (शांखायनारण्यकम् 10.8) (svargaṃ lokaṃ gamayati) ya evaṃ vidvān aśnāti pibati cā"śayati ca pāyayati ca (śāṃkhāyanāraṇyakam 10.8) **Pathak, S. (1922).** *Shankhayanaranyakam*, Anandashram Press, p. 39.

9. For more details on this, see **Swami Chinmayananda (2014).** "Taittirīya Upaniṣad", Central Chinmaya Mission Trust, pp. 107–133.

10. शीक्षां व्याख्यास्यामः । वर्णः स्वरः । मात्रा बलम् । साम सन्तानः । इत्युक्तः शीक्षाध्यायः । (तैत्तिरीयोपनिषद् 1.1)
    śīkṣāṃ vyākhyāsyāmaḥ | varṇaḥ svaraḥ | mātrā balam | sāma santānaḥ | ityuktaḥ śīkṣādhyāyaḥ | (taittirīyopaniṣad 1.1)
    For more details on this, see **Swami Chinmayananda (2014).** "Taittirīya Upaniṣad", Central Chinmaya Mission Trust.

11. आकाशवायुप्रभवः शरीरात् समुच्चरन् वक्त्रमुपैति नादः । स्थानान्तरेषु प्रविभज्यमानो वर्णत्वमागच्छति यः स शब्दः ॥ (आपिशलशिक्षा 1) ākāśavāyuprabhavaḥ śarīrāt samuccaran vaktramupaiti nādaḥ | sthānāntareṣu pravibhajyamāno varṇatvamāgacchati yaḥ sa śabdaḥ || (āpiśalaśikṣā 1) **Pandit Yudhishthir Mimamsak**, Śikṣā sūtrāṇi, Ramalal Kapur Trust, 1983, p. 1.

12. वाग्वै पराच्यव्याकृताऽवदत् ते देवा इन्द्रमब्रुवन्निमां नो वाचं व्याकुर्विति ........... तामिन्द्रो मध्यतोऽवक्रम्य व्याकरोत् तस्मादियं व्याकृता वागुद्यते । (तैत्तिरीयसंहिता 6.4.7) vāgvai parācyavyākṛta'vadat te devā indramabruvannimāṃ no vācaṃ vyākurviti ........... tāmindro madhyato'vakramya vyākarot tasmādiyaṃ vyākṛtā vāgudyate | (taittirīyasaṃhitā 6.4.7) **Mahadeva Shastri, A. (1897),** *The Taittirīya Saṃhitā of the Kṛṣṇa Yajurveda*, Vol. X, Government Branch Press, Mysuru, 1897, p. 433.

13. Sāyaṇa, in the introduction to his commentary on the Ṛgveda (ऋग्वेदभाष्यभूमिका) says: अथ निरुक्तप्रयोजनमुच्यते । अर्थावबोधे निरपेक्षतया पदजातं यत्रोक्तं तन्निरुक्तम् atha niruktaprayojanamucyate | arthāvabodhe nirapekṣatayā padajātaṃ yatroktaṃ tanniruktam—Now the purpose of the will be *Nirukta* explained. *Nirukta* is that work which explains the origin of words with certainty for the purpose of understanding.

14. **K.V. Sarma (1985).** "Vedāṅga-Jyotiṣa of Lagadha", Indian National Science Academy, New Delhi. Ṛgveda Jyotiṣa. verse 6, p. 23.

15. यथा शिखा मयूराणां नागानां मणयो यथा । तद्वद्वेदाङ्गशास्त्राणां गणितं मूर्धनि स्थितम् । (याजुषज्यौतिषम् ४) yathā śikhā mayūrāṇāṃ nāgānāṃ maṇayo yathā | tadvadvedāṅgaśāstrāṇāṃ gaṇitaṃ mūrdhani sthitam | (yājuṣajyautiṣam 4) **Sudhakara Dvivedin, M. (1908).** *Yājuṣa Jyautiṣam*, Medical Hall Press, Banares, p. 4.

16. स्कन्धत्रयात्मकं ज्योतिश्शास्त्रमेतत् षडङ्गवत् । गणितं संहिता होरा चेति स्कन्धत्रयं मतम् ॥ skandhatrayātmakaṃ jyotiśśāstrametat ṣaḍaṅgavat | gaṇitaṃ saṃhitā horā ceti skandhatrayaṃ matam || Ch 1, verse 5, p. 2. For details see, पुन्नश्शेरी नम्पि नीलकण्ठशर्मा, "प्रश्नमार्गः", श्रीगीर्वाणिवाणीपुस्तकशाला, पाल्काट् । For English version you may refer to — https://archive.org/details/PrasnaMargaBVR/ Last accessed on Oct. 1, 2021.

17. त्रुट्यादिप्रलयान्तकालकलना मानप्रभेदः क्रमाच्चाराश्च द्युसदां द्विधा च गणितं प्रश्नास्तथा सोत्तराः । भूधिष्ण्यग्रहसंस्थितेश्च कथनं यन्त्रादि यत्रोच्यते सिद्धान्तः स उदाहृतोत्र गणितस्कन्धप्रबन्धे बुधैः ॥ truṭyādipralayāntakālakalanā mānaprabhedaḥ kramāccārāśca dyusadāṃ dvidhā ca gaṇitaṃ praśnāstathā sottaraḥ | bhūdhiṣṇyagrahasaṃsthiteśca kathanaṃ yantrādi yatrocyate siddhāntaḥ sa udāhṛtotra gaṇitaskandhaprabandhe budhaiḥ || **Arkasomayaji, D. (1980).** "Siddhānta Śiromaṇi of Bhaskarācārya, Rashtriya Sanskrit Santhan, New Delhi, p. 2.

18. The first mantra of Ṛgveda: अग्निमीळे पुरोहितं यज्ञस्य देवमृत्विजम् । होतारं रत्नधातमम् ॥ agnimīḷe purohitaṃ yajñasya devamṛtvijam | hotāraṃ ratnadhātamam || Ṛg Veda 1.001.01. http://www.sanskritweb.net/rigveda/rv01-001.pdf Last accessed on Oct. 1, 2021.

19. **Ramakrishna, G. (1965).** "Origin and Growth of the Concept of Ṛta in Vedic Literature". Doctoral Dissertation: University of Mysuru.

20. भीषाऽस्मा द्वातः पवते । भीषोदेति सूर्यः । भीषाऽस्मादग्निश्चेन्द्रश्च । मृत्युर्धावति पञ्चम इति । bhīṣā'smād vātaḥ pavate | bhīṣodeti sūryaḥ | bhīṣā'smādagniścendraśca | mṛtyurdhāvati pañcama iti | Taittirīya Upaniṣad, 2.7. For more details on this, see **Swami Chinmayananda (2014).** "Taittirīya Upaniṣad", Central Chinmaya Mission Trust.

CHAPTER

# 3 Philosophical Systems

### LEARNING OUTCOMES

After finishing this chapter, you will be able to:

▶ Understand the broad classification of Indian philosophical systems

▶ Understand salient features of the philosophical systems belonging to the Vedic school

▶ Understand salient features of the philosophical systems belonging to the non-Vedic school

This is an idol of Pārśvanātha, the 23rd Tīrthaṅkara of Jainism found in Madhya Pradesh. According to the Jain sources Pārśvanātha lived during 872 BCE–772 BCE. He was born to King Aśvasena and Queen Vāmadevī of Vārānasi and belonged to the Ikṣvāku dynasty. He lived as a prince until the age of 30 after which he renounced the world to become an ascetic. According to the Śvētāmbara texts, Pārśvanātha's four restraints were non-violence (ahiṃsā), non-possession (aparigraha), non-stealing (asteya) and truth (satya).

*Source:* By I, Sailko, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=17563914

### Father–Son Conversation in Taittirīya-upaniṣad

Upaniṣads mainly confine the discussions to questions that are existential in nature and constantly coaxes an individual to deeply introspect about his 'true identity'. In this process, they provide several alternative means to inquire into various questions that are philosophical in nature. Origin of the Universe, the human beings and other living organisms, goals of life, the variant and invariant aspects of the reality, the planes of existence of an individual, the notion of Brahman and means of knowing the Brahman are some of the themes discussed.

Due to the peculiar nature of the subject matter, Upaniṣads employ several methods of imparting knowledge. Teaching in the Upaniṣads is often done in a conversational mode between the teacher and the student. In this format, the student is constantly persuaded to develop deep understanding through self-inquiry, rather than giving a ready answer to the question that he is facing. The conversation between the father–son duo in Taittirīya-upaniṣad is an example.

Bhṛgu desirous of knowing Brahman approaches his father Varuṇa and asks him to share with him the knowledge of Brahman. The father curtly replies, "that from which all the beings are born, that which supports their life, that into which they enter and dissolve in the end is Brahman". Further, he tells his son that it can only be known through deep introspection with a single pointed focus (tapas).

Bhṛgu starts the tapas and realises that beings are born out of food (here food does not have the literal meaning, it points to the larger system of entities manifesting in this earth, sustaining life forms), they live with the support of food, and when they die they become one with the food, therefore food must be Brahman.

However, after some more introspection, he was unsatisfied and approached his father again. The father merely repeated, "it can only be known through deep introspection with a single-pointed focus (tapas)." Bhṛgu was therefore sent back to do more tapas to know Brahman.

This process continued and Bhṛgu developed a deep understanding of the layers of the consciousness such as vital force (prāṇa), mind (manas), and knowledge (vijñāna) as Brahman respectively, only to refute it later by self-reflection. He finally realised that bliss (ānanda) is Brahman and since he did not have any more confusions and conflicts in his mind he concluded that bliss is Brahman.

This episode highlights how the Vedic seers continuously strived to know the truth with repeated questioning of their understanding and experiences. The episode also brings out the fact that philosophical questions such as understanding 'the reality' is to be deeply contemplated and experienced by the self through whatever effort it requires, and a knowledgeable person can at best be only a guide to him.

This episode brings another interesting aspect of acquiring knowledge. An elderly, wise and knowledgeable individual has an opinion about the deep philosophical issue. However, by merely accepting it one does not get the knowledge. Rather it needs efforts on the part of the seeker to self-reflect to gain the knowledge.

This importance given to one's own experience of truth has been the hallmark of Indian philosophical systems.

Let us consider a simple question, "Why should one not commit theft?" A religious preacher would point to the injunctions that prohibit such actions. On the other hand, a modern-day rationalistic professional would say, "because it is against the law of the land and would introduce costs and complexities in life". The important point is why should the God or the sovereign issue commands? If there is something fundamental to an individual that can resolve such questions that one faces in life, then it provides a sound footing to handle dilemmas and confusions in life. At a fundamental level, the goal of every individual is to be happy and

progress or evolve in life. Nobody is known to have been longing for 'sadness and grief' in their life. Despite this simple truth, the notion of happiness is not yet well understood despite being the most fundamental instinct of living beings.

All the endeavours of living beings are towards avoiding what is unpleasant and attaining what is pleasant. In the search for answers to several questions in life, we inquire into certain fundamental questions about life; Who am 'I' and what is my source and destination? What are the nature of the Universe and that of God? Are there any universal laws for an individual to remain happy forever? A study of such questions of existential nature belongs to the domain of philosophy. Philosophical thinking flourished in different parts of the world. In this chapter, we shall see some details of the Indian philosophical systems.

In the process of finding answers to the questions that we raised, people have developed their holistic understanding of the world and shown the way to attain the final goal of life. This holistic view of the world is called Darśana. The word Darśana is derived from the Sanskrit root, *dṛś*, 'to see', suggesting that these philosophical systems provide a true worldview and a vision for life and help us resolve the issues that we face in our life. These different traditions of Darśanas or 'Schools of Philosophy' have enriched Indian thinking and had their influence on all aspects of life, including worship, rituals, art, literature, and medicine.

## 3.1 INDIAN PHILOSOPHICAL SYSTEMS – DEVELOPMENT AND UNIQUE FEATURES

Phrases such as 'happiness' require 'individuals' as the unit of analysis. Further, as one inquires deep into this question, the focus shifts to the Universe, which provides the context for the individual to make his inferences and choices in life. Inevitably, the notion of an all-pervading Universal force (known as the Divinity or God) also becomes another important dimension in this analysis. Therefore, the study of these aspects invariably happens in a context consisting of three aspects: an individual (Jīva), the Universe (Jagat), and the God (Īśvara).

The beginning of the philosophical inquiry in India can be traced to the Vedic literature. The Ṛgvedic seers enquired about the forces causing natural phenomena such as rain, day and night, growth of life and recognised these forces as Dvatās (Gods). Hence, we see several mantras in praise of these Devatās, describing their nature and deeds. The Ṛgvedic hymns delved into a rigorous inquiry trying to realise the root force behind the functioning of these Devatās. They realised the concept of 'Puruṣa', all-encompassing supreme being, and proclaimed, all this is nothing but the Puruṣa' (पुरुष एवेदं सर्वं – Puruṣa evedaṃ sarvam). According to them, knowing the Puruṣa is the path to overcome death, and there is no other way to go.

> ♦ The philosophical systems provide a true worldview and a vision for life and help us resolve the issues that we face in our life.
> ♦ The teachings of the Upaniṣads suggest that attainment of the knowledge of Brahman is the highest goal of human life.

We also see a serious inquiry about the origin of the Universe in the famous Nāsadīya-sūkta of Ṛgveda. The sūkta is inquisitive about what was there in the beginning, before this whole world was created? It begins with the speculation that there was neither existence (Sat) nor non-existence (Asat) and then proceeds to ask several questions; What was it covered with? Was it covered with water? The darkness? Who knows and who can articulate where from this creation came into existence? The one who created this, does he know this or does he not? Upaniṣads are full of such philosophical inquiries and thoughts. What was described as 'Puruṣa'

in the Ṛgveda is referred to as 'Brahman' in the Upaniṣads. Brahman and Ātman are the concepts that are discussed widely in the Upaniṣads. The teachings of the Upaniṣads suggest that attainment of the knowledge of Brahman is the highest goal of human life. Brahman is said to be beyond words, cannot be expressed completely by anyone, hence Upaniṣads have adopted various ways to describe Brahman. It is said to be the ultimate reality to be known, for after having known it nothing else remains to be known. The Upaniṣads further clarify that this truth cannot be known using the sensory organs as we would in the case of any worldly entity, it called for preparing oneself to 'experience' the truth from within. The ultimate goal of the Upaniṣads is to prepare an individual for this eventual 'personal experience'. There are multiple passages and anecdotes to drive the goal of one's life, the path of liberation, and the means of achieving it.

The philosophical inquiry continued in India further giving rise to several schools, each one developing its own understanding of the world. Each of these schools presents its view with rigorous intellectual exercise and uncompromised importance on the self-experience. The ideas were codified in the basic texts of their Darśana, in the form of sūtras in most cases, and commentaries and sub-commentaries through the guru-śiṣya tradition spread the thoughts further. Before we study the specific characteristics of the schools and their differences it is important to know certain broad parameters and unique aspects of the Indian philosophical thought and their relevance to various schools of thought.

> ♦ Unlike the Western counterpart, the Indian philosophical thought is closely intertwined with religious thought.
> ♦ The ultimate goal of the human life is clearly spelt out and the path for attaining the same is also articulated in all the darśanas.

- ♦ Unlike the Western counterpart, the Indian philosophical thought is closely intertwined with religious thought. The philosophical systems provide a broad basis for addressing larger existential issues of individuals and the religious schools draw from these to suitably configuring socio-cultural practices, norms of behavior, ethical standards, and values that shape one's life. The religious dimension provides the operating principles for the mundane life based on these specific configurations.

- ♦ Two generic classes of philosophical systems could be thought about; Vedic schools of philosophy (which has six schools of thought as we will see shortly), and Non-vedic schools (Jaina philosophy, Buddhist philosophy, and the Cārvāka philosophy).

- ♦ Despite the classification based on the religious dimension, all the religious-oriented philosophical systems agree on certain common parameters. This includes the notion of accumulation of fruits of action (Karma), birth–death cycle (Saṃsāra), and the notion of free will. On account of this, they all talk about the common goal of liberation (Mukti)[1]. These aspects distinguish the Indian philosophical systems from the Western.

- ♦ The ultimate goal of the human life is clearly spelt out and the path for attaining the same is also articulated in all the darśanas. However, the darśanas have divergent opinions on the specifics of these.

- ♦ Since darśana is all about knowledge, the term knowledge (Jñāna) and other related terminologies are well defined. Furthermore, all the Indian schools of philosophy also employ epistemological tools (Pramāṇa) for the establishment of valid knowledge. However, each school differs from the other in the set of epistemological tools considered for analysis.

♦ Despite divergent views on some of the philosophical concepts and foundational premises between these schools, there is a healthy culture of respectful and peaceful coexistence of these schools of thought. There was no effort to demean, dismiss or downgrade one school by the other using any emotional, dogmatic, irrational, or unscientific methods. Instead, there was a healthy tradition of the followers of the schools to engage in dialogues and debates. These demanded a highly advanced intellectual exercise, be it writing a book refuting the argument of the opposing point of view or engaging in the dialogue following strict rules of debate.

♦ One of the Vedic schools, Nyāya provided a de facto framework for all other schools to engage in such intellectual debates. In fact, the ontologies of Sāṃkhya and Vaiśeṣika schools have been adopted by most other schools with little modifications to suit their theories.

♦ There are historical accounts of several such debates that took place throughout the country for several centuries, which continue even today. Thus, several schools of philosophy have flourished in India, interacted extensively with each other, and have organically co-existed for millennia.

Figure 3.1 provides a schematic of the classification of the Indian philosophical systems into Vedic and non-Vedic systems.
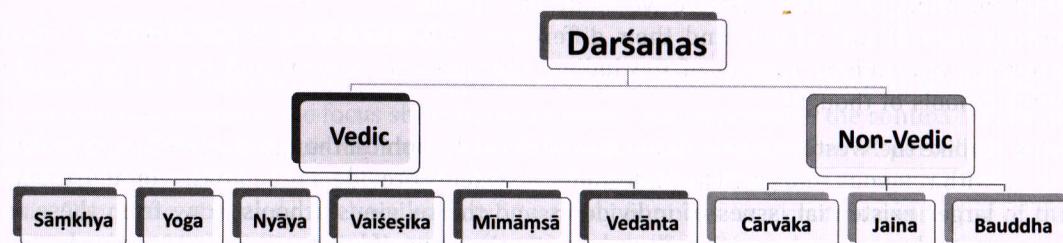


FIGURE 3.1   Indian Philosophical Systems (Darśanas)

## 3.2   VEDIC SCHOOLS OF PHILOSOPHY

Figure 3.2 summarises some of the salient features of vedic schools. All the schools have a common goal, i.e. to answer questions such as, "Who am I?" and "What is the process for final liberation? To know oneself and escape from the cycle of birth–death and get liberated, correct knowledge needs to be obtained. The schools differ in presenting how to obtain the right knowledge and use it as the means for the ultimate liberation of the 'self'. The context for the philosophical discussion is the three inter-related concepts of God – Universe – Individual". All schools have employed several constructs involving these three entities in discussing the path for self-evolution and liberation. The six schools differ in the approach taken to reach the goal. In the case of Sāṃkhya and Yoga systems, there is the centrality of the role of the 'matter' in this journey. A good understanding of the evolution of nature leading to the context paves the way for liberation. On the other hand, Nyāya and Vaiśeṣika systems have prominently focused on the importance of obtaining the 'right knowledge' in the journey of liberation. Therefore, these systems elaborately focused on getting the right knowledge of oneself and the other entities. On the other hand, Mīmāṃsā and Vedānta proposed that the Vedic repository provides guidance

for an individual in his journey of liberation. While Mīmāṃsā stressed on the importance of the ritualistic part of the Vedic corpus (Karma-kāṇḍa), Vedānta emphasised on the knowledge leading to self-experience (Jñāna-kāṇḍa).
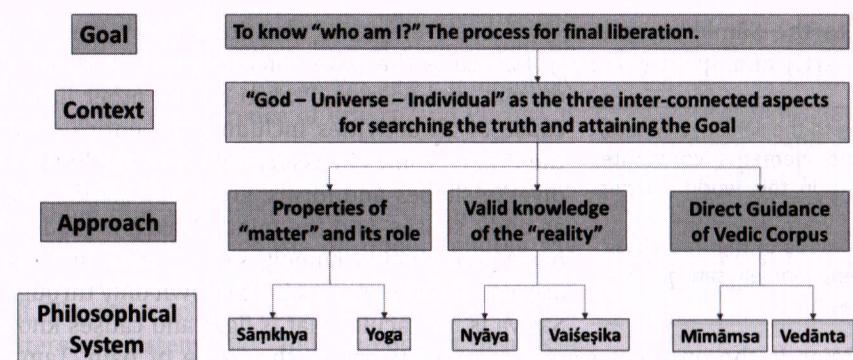


FIGURE 3.2   The Six Vedic Schools – Some Salient Aspects

## 3.3   SĀṂKHYA AND YOGA SCHOOLS OF PHILOSOPHY

The Sāṃkhya–Yoga philosophical system begins with the basic premise that Prakṛti, the source of the physical Universe and the 'self' are sub-ordinate to a larger force called Puruṣa and liberation of the 'self' involves getting to know the right knowledge of the Puruṣa and Prakṛti and their relative role. According to these schools of thought, Prakṛti is the first cause of the Universe (of everything except the spirit) and entirely accounts for whatever is physical, both matter and force. Prakṛti is conceived as constituted of the tri-guṇas. The evolution of Prakṛti causes the Universe, bringing the multi-various forms and entities. The preponderance of the three Guṇas and their role in establishing the link between

> ♦ Vedic schools acknowledge the authority of the Vedic text whereas Non-Vedic schools dont.
> ♦ The context for philosophical discussion is three inter-related concepts of God – Universe – Individual.

Puruṣa and Prakṛti is another common ground for both the philosophical systems. Finally, both the schools agree that the process of final liberation involves the realisation of the true nature of Prakṛti and Puruṣa.

Sāṃkhya school does not acknowledge the existence of an ultimate God (Īśvara). On the other hand, Yoga acknowledges the existence of a supreme being. Yoga has an emphasis on a more structured, practical methodology for cessation of all activities of the mind. To facilitate this process, the Yoga system of philosophy provides a practical step-by-step approach for this journey. On the other hand, Sāṃkhya school emphasises more of contemplation and analysis leading to experiential knowledge.

### 3.3.1   Sāṃkhya-darśana

Although sage Kapila is supposed to be the author of the Sāṃkhya system, there is no available evidence or material to substantiate this. The earliest authoritative material available on Sāṃkhya is the Sāṃkhya-kārikā by Īśvarakṛṣṇa. This is a work in seventy verses and has a lucid exposition of the Sāṃkhya system. Sāṃkhya argues that the root cause of all pains and

sufferings is the lack of the correct knowledge (Saṃkhyā). By a proper understanding of the ontology of Sāṃkhya-darśana, the causes of pain and the way to end it can be explained.

### Puruṣa and Prakṛti

According to the Sāṃkhya system, two basic elements constitute everything in this world, matter (Prakṛti) and spirit (Puruṣa). Puruṣa is the pure consciousness, sentient, changeless, eternal, and passive. Prakṛti on the other hand is the root cause of all activities including the entire creation. When the Prakṛti comes in association with the Puruṣa it assumes diverse shapes and forms, gross and subtle, and manifests as body, senses, and the mind. Prakṛti is made of the three basic constituents namely sattva, rajas, and tamas. These are also called guṇas and are known only through inference. Sattva is the faculty that is light and causes knowledge and pleasure. Rajas is the one that causes movement and is the cause of pain. Tamas is heavy, causes ignorance and indifference. Before the manifestation of the Prakṛti its constituents, sattva, rajas, and tamas are in equilibrium.

> ◆ According to the Sāṃkhya system, two basic elements constitute everything in this world, matter (Prakṛti) and spirit (Puruṣa).
> ◆ Prakṛti is made of the three basic constituents namely sattva, rajas, and tamas.

The evolution of the Prakṛti results in creating the following elements:

- 'Mahat', which is also called 'Buddhi'
- Ego or Self-consciousness (Ahaṅkāra), which introduces the sense of 'I' and 'mine'
- Mind (Manas), the master of the organs and the conduit between the internal and external instruments
- Five sense organs (Jñānendriyas): ears, skin, eyes, tongue, and nose
- Five organs of action (Karmendriyas): the mouth (speech), hands, feet, sex organs, and anus
- Five generic classes attributable to objects perceived through sense organs (Tanmātras): sound, touch, form or colour, taste, and smell
- Five gross elements (Bhūtas): ether, air, fire, water, and earth.

Figure 3.3 illustrates the evolution of Prakṛti described above. When the Puruṣa is conditioned by the twenty-three elements it becomes embodied and perpetually transmigrates from one body to another. This is the cause of all mundane existence, and this continues so long as it does not discriminate the difference between Puruṣa and Prakṛti[2]. Once the conscious self comes out of this ignorance, through the actual knowledge, he realises that he is separate from the Prakṛti and its manifestations, he does not feel pleasure, etc. anymore. This is called liberation (kaivalya, i.e. mokṣa) in the Sāṃkhya doctrine.
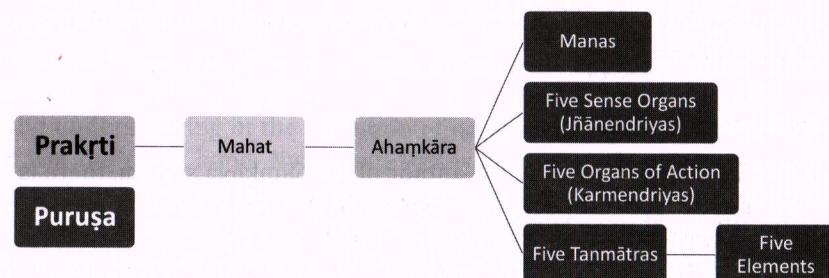
**FIGURE 3.3** Prakṛti and its Evolution into Matter

### 3.3.2 Yoga-darśana

Yoga as a school of philosophy is said to have been founded by Patañjali through his yoga-sūtras. Some Indologists assign a date of 5th century CE for this work, while many others associate this work with Patañjali, who wrote the Mahābhāṣya for Pāṇini's grammar. In that case, it will be dated to the 2nd century BCE. Yoga serves as a methodology to the realisation of the difference of Prakṛti and Puruṣa. It elaborately establishes the necessary practices an individual needs to go through to have the realisation of this separation. The unique thing that establishes Yoga as distinct among the other darśanas is its emphasis on understanding the mind, its various states, its cognitive activities, and methods to control it. The other schools have a difference of opinion on the matters of epistemology, and the concept of mokṣa with Yoga. However, they accept methods prescribed in yoga to gain control over the mind.

> ◆ Twenty-three elements act as the seed, out of which the body (consisting of the internal (subtle) instruments and the external (gross) organs) is produced.
> ◆ According to Yoga philosophy, to attain liberation, an individual must focus on the physical, psychological, and moral states of his being.

The Yoga philosophy rests on the basic premise that if a person wants to understand his true nature, and experience bliss eventually, he must focus on the physical, psychological, and moral states of his being and make simultaneous progress on all the three. To achieve this, the basic prescription is to develop the capacity for single-pointed concentration of the mind. Therefore, Yoga-sūtras begin with the definition that 'Yoga is the cessation of mental modifications'[3]. Unless a person arrives at this stage, it will not be possible for him to understand the notion of 'existence' and the secrets of nature may not get revealed. Therefore, the operational part of Yoga provides a practical set of 'actionable' steps that an aspirant can go through sequentially to reach this state. Further Yoga system observes that a journey of constant practice with dispassion makes a person perfect[4] and he will feel within himself the universal truth with no sense of separateness. While Sāṃkhya prescribes a method of analysis and contemplation, yoga argues for mind control through sustained practices as prescribed. Yoga system provides an eight-step process to gradually attain complete cessation of the activities of mind. Figure 3.4 presents the eight steps in a pictorial fashion. The details of the eight steps are as follows:

- **Yama:** The ultimate journey to complete cessation of the activities of the mind starts with the first step which is forbearance or control over mind, body, and speech. Five activities are prescribed for practice in this stage; abstaining from harming (Ahiṃsā), speaking the truth (Satya), not stealing others' belongings (Asteya), keeping away from lust (Brahmacarya), and resisting from accumulating wealth (Aparigraha). According to Patañjali these are to be followed irrespective of time, place, and status by a sādhaka and this is called mahāvrata (greatest of all austerities).

- **Niyama:** The five kinds of forbearances, specified in the previous step relate to abstaining from negative injunctions. On the other hand, in the second stage, five kinds of observances, which are positive commands are prescribed. The five niyamas include cleanliness of body and mind (Śauca), being happy with what one possesses (Santoṣa), tolerating heat, cold and other physical difficulties and purifying the senses and the body (Tapas), the study of Vedas and other scriptures (Svādhyāya) and the meditation of Īśvara (Īśvara-praṇidhāna). These two stages are to be practiced by an individual (sādhaka) at all times.
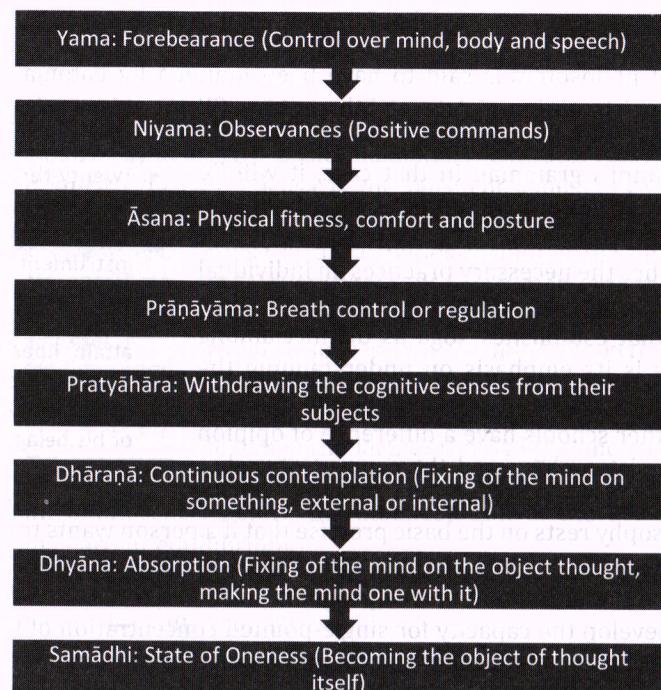
**FIGURE 3.4** Aṣṭāṅga-yoga – Eight Step Process

- **Āsana:** A meditative posture where one can sit comfortably for a long time. Various modes of keeping the body in position at the time of performing Yoga are prescribed in this stage. As per Yoga-sūtra, the sitting posture must be firm and comfortable for the sādhaka[5].

  Henceforth, all the aspects are of the meditation process.

- **Prāṇāyāma:** This stage focuses on controlling the breath. Breath is directly connected to the mind, hence having it in control is the key to controlling the activities of the mind. Patañjali prescribes four types of prāṇāyāma practices meant for controlling the mind.

- **Pratyāhāra:** The next stage of practice is withdrawing the cognitive senses from their objects, bringing them to a state as if they were not in contact with their objects.

  The first five stages are external in terms of effort (bahiraṅga-prayoga) and help the practitioner purify the thoughts and regulate or moderate the inner self by avoiding various distractions. Once this stage is reached, it will be possible to focus on internal efforts (antaraṅga-prayoga). The last three stages of the 8-step process provide details on this.

- **Dhāraṇā:** Focusing the mind on an object, not letting it perceive other objects by constant practice is the next stage of this process.

- **Dhyāna:** Meditating continuously on an object without break is called dhyāna. It is achieved by fixing the mind on something, external (such as a picture, OM sign, a deity)

or internal (using the tip of the nose, and the space between the two eyebrows as a reference to focus inside or visualising OM in the mind).

- **Samādhi:** The final step in this process is being completely absorbed into the object of meditation, known as samādhi. Once a person reaches here the activities of his mind completely cease, leading to the realisation that he, the conscious 'self' is separate from Prakṛti and thus becomes liberated, free from all pains.

Cessation of all mental activities of the mind, the final goal of Yoga has a very useful bye product. On account of the journey in the path of mind control, Yoga can help an individual address the vexing problem of stress-induced lifestyle leading to health and wellness challenges that modern society is facing. We have briefly touched upon this aspect in the chapter on health, wellness, and psychology. The current popularity of Yoga globally stems from this aspect of Yoga practices. However, it must be understood that Yoga is a way of life, with a grand purpose of realising the true nature of oneself and liberate one from the limitations of the mundane world arising out of the duality of pain and pleasure. We should never lose sight of this ultimate objective of Yoga as a darśana.

## 3.4 NYĀYA AND VAIŚEṢIKA SCHOOLS OF PHILOSOPHY

The Nyāya–Vaiśeṣika school begins the analysis with the world that an individual experiences. By experience, it means all varieties of valid knowledge, whether perceptual or non-perceptual. Therefore, it starts with the assumption that whatever is obtained by uncontradicted experience must necessarily be real. The Nyāya–Vaiśeṣika school proceeds with an analysis of the experience to understand reality, also known as *knowable*. Both Nyāya and Vaiśeṣika set out in their journey of the 'knowable' and define various categories to describe the same. In this process, two possibilities emerge to conduct the study in greater detail. The first is about the 'ways of knowing the reality' and the second is about the 'objects in the reality that is knowable'. The Vaiśeṣika school provided a greater emphasis on the latter, mainly studying the reality itself in its various aspects. On the other hand, the Nyāya school proposed a methodology for an investigation into the problem of knowledge in its relation to reality. Nyāya and Vaiśeṣika schools place a greater emphasis on obtaining the 'right' knowledge for liberation.

### 3.4.1 Nyāya-darśana

The original theory of Nyāya school is found in the Nyāya-sūtra, a set of aphorisms developed by Gautama. The aphorisms are organised into five chapters, each having two sections. It was followed by many other seminal works. By the end of the 11th century CE, Gaṅgeśopādhyāya took different positions on some of the theories of the school and established a new school called Navya-nyāya, meaning the new Nyāya School. The navya-nyāya school has contributed extensively to discussing details of inference and verbal cognition. These discussions and the set of technical terminologies developed by the navya-nyāya school have influenced the other schools so much that in the later times all other schools laid significant emphasis on these topics and adopted the language to discuss the issues in their respective schools as well.

- Yoga provides a structured and practical eight-step process to gradually reach a stage of complete cessation of the activities of Citta.
- Yoga can help an individual address the vexing problem of stress-induced lifestyle leading to health and wellness challenges that modern society is facing.

The Nyāya philosophy starts with the proposition that one attains liberation only when he/she acquires the knowledge of the truth. The knowledge of the truth drives away miseries and an individual escapes the cycle of birth–death leading to final liberation. The Nyāya system, therefore, placed enormous emphasis on the means of obtaining 'right knowledge'. Therefore, the unique contribution of Nyāya school is its detailed inquiry of knowledge (Pramā) and valid cognition and its means (Pramāṇa). The elucidation of the correct way of thinking and arriving at the right conclusions, the art of debating, well laid out rules for a debate to arrive at the most reasonable conclusion are the main contributions of the Nyāya school. On account of this, Nyāya is commonly understood as 'argumentation'. Nyāya concepts and the art of debating to establish true knowledge became a useful tool for all philosophical systems. It has over time assumed the de facto methodology to establish valid knowledge. The details of these have been explained in Chapter 7 (see Section 7.4 for details).

The goal of a self is not to gain pleasure but to be liberated from all kinds of pains once for all. This is liberation according to the Nyāya school. Īśvara or the God is the creator of this universe. An individual self must try to gain the correct knowledge of the self, i.e., he/she is not the body, or the mind or the senses, which often people mistake 'the self' out of delusion. Then he ceases to have attachment for the fruits of his/her actions, as all actions an individual does are aimed at gaining worldly pleasure. When he/she gives up the desire for the results of his/her actions, he/she no more accumulates the effects of his actions, good or bad, which are the cause of the birth and death cycle. When an individual has finished experiencing the effects of his/her past actions there is no reason for his/her birth and he/she will be free from the birth–death cycle. Ultimately, he/she will be free from pain.

### 3.4.2  Vaiśeṣika-darśana

Vaiśeṣika was propounded by Kaṇāda and his work was organised into aphorisms in ten chapters, each consisting of two sections. The exact date of the work is hard to establish, however, it is believed that it is earlier than Nyāya-sūtras. A 5th century CE commentary on Vaiśeṣika-sūtras was authored by Praśastapāda. A lucid exposition of the Vaiśeṣika-sūtras is available in the commentaries Kiraṇāvalī (Udayana, 984 CE), Kandalī (Śrīdhara) and Upaskāra (Śaṃkara Miśra, 1650 CE).

> ♦ Nyāya deals with 'ways of knowing the reality' and Vaiśeṣika with 'objects in the reality that is knowable'.
> ♦ Nyāya and Vaiśeṣika schools place a greater emphasis on obtaining the 'right' knowledge for liberation.

The word Vaiśeṣika is derived from the word 'Viśeṣa', meaning difference or unique attributes in a thing. According to this school, diversity, not unity is fundamental to the Universe. Although the multitude of forms and shapes exist they can be reduced to certain types. It is by virtue of this that 'knowables' are divisible into three classes of dravya, guṇa, and karma, but also into sub-classes such as cows, redness, or moving. While there is some sense of 'alikeness' in the manner described above, it must be remembered that if there are two things that resemble each other in every aspect, there must be something distinctive since there are 'two' of them. This is the basic concept of Viśeṣa. The Vaiśeṣika school proceeds along this line to systematically present the 'knowables' that form all the 'real' entities in the universe using certain categories.

Sāmānya is a very important aspect in the scheme of classification. When we classify many things into one category, consider the similarities. For example, we designate a particular set of animals 'cow' because they bear some common features in them. That common quality, which

we shall say 'cowness', is the reason for all such animals being referred to as a cow. It is an inherent property that all these animals carry by their nature. This is called sāmānya or jāti. Because of this sāmānya, we can group, categorise or generalise things.

Viśeṣa essentially becomes important as Vaiśeṣika school considers all entities to be different from each other. In this approach, the difference is sought by an examination of the constituents of an object of knowledge. Proceeding in this manner, differentiating by examining the constituents finely, the Vaiśeṣika school eventually proposes smallest particles, ultimate atomic material (Paramāṇus), which have no more constituents and are therefore not further divisible. Hence Vaiśeṣika school accepts a property called 'viśeṣa' in Paramāṇus. Using this elemental matter, the difference of the constituted bodies can be explained.

> ♦ The word Vaiśeṣika is derived from the word 'Viśeṣa', meaning difference or unique attributes in a thing.
> ♦ The Vaiśeṣika school presents the 'knowable' that form all the 'real' entities in the Universe using certain categories.

According to Kaṇāda, six sub-categories constitute existence, and knowledge of them is considered the essence of the supreme good[6]. The final liberation or salvation comes as a result of real knowledge produced by proper understanding of the six categories listed out in the sūtra. The desire to end the misery of the birth–death cycle leads one to acquire the knowledge of the categories from a master. This knowledge removes ignorance once and for all and the individual is free from love, hate, etc. As he does not accumulate further any merit or demerit on account of this clarified knowledge of the reality, in a certain finite cycle of birth–death, he would have exhausted all the exiting merits and demerits, leading to final liberation.

## 3.5  PŪRVA-MĪMĀṂSĀ AND VEDĀNTA SCHOOLS OF PHILOSOPHY

In Chapter 2, we discussed the details about the Vedic corpus, where we remarked that the Brāhmaṇas, the portion of the Vedic corpus has details on the ritualistic aspects. This portion is typically referred to as karma-kāṇḍa of the Vedic corpus. On the other hand, the Upaniṣads lay greater emphasis on the knowledge of the Brahman. This portion is known as Jñāna-kāṇḍa. The Pūrva-mīmāṃsā school has established its tenets based on the karma-kāṇḍa and the Vedānta school has established its tenets based on the Jñāna-kāṇḍa. The Vedānta school is also known as Uttara-mīmāṃsā on account of its reliance on the latter portion of the Vedic corpus.

Both the schools share common beliefs in several of the philosophical principles. This includes the notion of ātman, the existence of karma, rebirth, and long and seemingly endless cycles of birth–death. Therefore, the common goal of these two systems is to liberate the ātman from the clutches of birth–death. However, the major difference lies in the path to liberation. In the case of the Pūrva-mīmāṃsa school, it is believed that ultimate liberation is obtained only by engaging in various rituals that purify the karma and extinguishing them eventually. In the case of the Vedānta school, it is argued that total detachment from worldly activities is the only way to exhaust all the karma. With a purified mind one will then experience the ultimate knowledge 'within' to liberate.

### 3.5.1  Pūrva-mīmāṃsā-darśana

The word 'Mīmāṃsā' conveys different meanings: reflection, consideration, profound thought, investigation, examination, and discussion. In the context of the Pūrva-mīmāṃsā school of

philosophy, Mīmāṃsā means 'reflection' or 'critical investigation' and is primarily based on a tradition of deep contemplation on the meanings of Vedic texts which it relies on as the authority for its principles. Between the Saṃhitā and Brāhmaṇas, the Pūrva-mīmāṃsā school places greater emphasis on the Brāhmaṇas and draws from it substantially as it is the part of Vedic corpus that has elaborate procedural details on the Vedic rituals.

> ♦ The Pūrva-Mīmāṃsā school has established its tenets based on the karma-kāṇḍa and the Vedānta school has established its tenets based on the Jñāna-kāṇḍa.
> ♦ The Pūrva-Mīmāṃsā text provides rules for the interpretation of the Vedas and provides philosophical justifications for the observance of Vedic rituals.

The Pūrva-mīmāṃsā school was established by Jaimini, who is said to be the student of Veda Vyāsa. Jaimini presented his aphorisms numbering over 2500 in twelve chapters, which are further divided into sixty sections. The text provides rules for the interpretation of the Vedas and also provides philosophical justifications for the observance of Vedic rituals, by offering meaning and significance of Vedic rituals to attain Mokṣa. Over the centuries many commentaries were written on this text, most important being the Śābara-bhāṣya written by Śabara-svāmin, the only extant commentary on all the 12 chapters of the Mīmāṃsā-sūtras. The major commentaries were written on the text as well as the *Śābara-bhāṣya* by Kumārila Bhaṭṭa and Prabhākara Miśra. These texts have collectively put together robust rules of language analysis which enables one to not only examine injunctive propositions in any scripture but also examine the alternate related or reverse propositions for better understanding.

The main aim of the school is to ascertain the meanings of the Saṃhitā and Brāhmaṇa portions of Veda which lay importance on the karma, performing rituals, and thereby attaining dharma, a quality that is acquired by an ātman which prompts him to the respective results such as svarga (heaven). Eventually, with purified actions, such a person attains liberation (mokṣa). If one does not resort to dharmic actions, then he is likely to continue in the cycle of birth and death (Figure 3.5). Hence it is also called 'dharma-mīmāṃsā'. Along with ascertaining the intended meaning of the Vedic texts in this context, the school provides a philosophical explanation as to how a ritual performed results in the desired outcome. Thus, it holds the status of a darśana or school of philosophy.
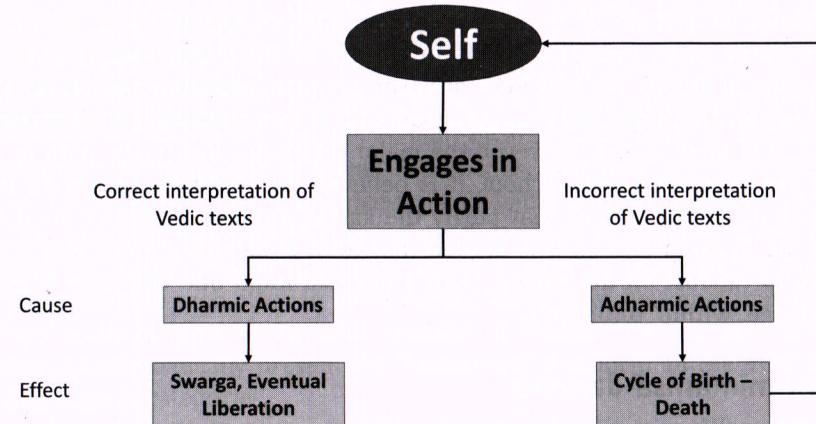


**FIGURE 3.5** Pūrva-Mīmāṃsā – The Path to Liberation

The ultimate goal of human beings is to seek joy and happiness in this life and the next. The Pūrva-mīmāṃsā school of philosophy argued that this is possible only when one engages in actions that are considered as dharmic. Such actions are prescribed by the Vedic texts, and it is important to properly interpret and understand the Vedic sentences, words, and meaning. Therefore, it is not surprising that the Pūrva-mīmāṃsā school was centrally concerned with the philosophy of language and correct interpretation. On account of a special emphasis on the correct interpretation of the Vedic text concerning various injunctions and prohibitions, Pūrva-mīmāṃsā developed into a good source for hermeneutics. The laws of interpretation formulated by Jaimini and his successors are quite general and applicable to literary works outside the Vedas too. Pūrva-mīmāṃsā principles are widely utilised for arriving at a right interpretation of all old texts, particularly legal treatises, and the legal fraternity could greatly benefit from the knowledge of Pūrva-mīmāṃsā.

### 3.5.2 Vedānta (Uttara-mīmāṃsā-darśana)

All Vedānta schools of philosophy derive a considerable part of their material from the Upaniṣads. The Vedānta schools of philosophy rely on three major texts, known as 'Prasthāna-traya', for establishing their tenets. This includes the Brahma-sūtras, a collection of about 550 aphorisms written by Bādarāyaṇa (Vyāsa), the Bhagavadgītā, and the Upaniṣads. The proponents of the Vedānta schools have written detailed commentaries on the three major texts and through that have established the unique position that they have taken in articulating their version of Vedānta philosophy. In general, the Vedānta schools look upon Brahman as the absolute and are predominantly philosophical in their approach. In this section, we shall briefly see the salient aspects of Advaita, Viśiṣṭādvaita, and Dvaita schools of Vedānta.

> ♦ Pūrva-mīmāṃsā texts have put together robust rules of language analysis which enables one to examine injunctive propositions in any scripture.
> ♦ Pūrva-mīmāṃsā principles are widely utilised for arriving at a right interpretation of all old texts, particularly legal treatises.
> ♦ Liberation in Advaita vedānta is not reaching something new but recognising what is one's inherent nature.

#### Advaita-vedānta

Śaṅkara (688–720 CE) propounded a monistic philosophy, known as Advaita, with the conception of the attribute-less God (Nirguṇa-brahman) as the ultimate reality. The Upaniṣads describe Brahman as one without form, name, and attributes, known as Nirguṇa-brahman. Śaṅkara built further on Gauḍapāda's foundational work through his kārikā (set of verses) for Māṇḍukya-upaniṣad and gave more strength and structure and formalised the Advaita-vedānta. The other main aspects of his philosophy include the doctrine of Māyā, the identity of the Jīva with the Brahman and the conception of mokṣa as the merger of Jīva in Brahman. Śaṅkara's commentary on the Brahma-sūtra is remarkable for its charming style and highly logical and consistent arguments. Śaṅkara has made immense contributions to Indian philosophical thought through numerous commentaries and independent works which run to several thousand pages. He also made robust institutional arrangements in different parts of India to preserve and promote Advaita-vedānta. The conceptualisation of Nirguṇa-brahman of Śaṅkara at the outset will resemble closely the śūnya-vāda (emptiness or nothingness) of Buddhists. However, through elaborate commentaries on the three major texts, Śaṅkara has established the uniqueness of his proposition.

Advaita-vedānta postulates oneness of Jīva and Īśvara and in its scheme of things, the Īśvara and the Jīva deploy similar mechanisms to create the world. Īśvara represents the macrocosm with Māyā as the mechanism to create the physical universe. In the same manner, the Jīva uses avidyā (ignorance) as the mechanism to create its own world constituting a parallel microcosm. Viewed in this manner, the Māyā is the cosmic illusion for the Īśvara to create the world out of himself and avidyā the source of illusion for the Jīva. The rejection of the world as something illusory by the Advaita school does not advocate cessation of all worldly activities that we undertake under the garb of it being 'unreal'. Instead, it brings out different stages of knowledge an individual experiences. So long as the identity of oneself with the Brahman is not realised, the empirical world, the activities, and the knowledge about these are true. This is similar to the conditional knowledge of the dream until one wakes up. Therefore, in the Advaita school, two types of knowledge are proposed corresponding to two realms of reality that we have. One is a transactional reality of the changing world and the associated empirical knowledge that we have which helps us to engage in day-to-day chores of life. On the other hand, once the identity with the Brahman is realised, it produces the knowledge that reality is changeless and that oneness of everything is eternal. And this knowledge of oneself results in realisation of bliss. This is considered to be the 'true or ultimate' knowledge.

Śaṅkara proposed a two-stage approach to realise 'true' knowledge. By merely engaging in the world of activities, one does not obtain the 'true' knowledge. In the first stage, we need to engage with the world and perform the required activities to purify the mind. This is the karma yoga that Bhagavadgītā advocates. Once the mind is purified, the second stage is to engage in deep contemplation and self-reflection on one's real nature which will reveal the 'true' knowledge[7]. Liberation in Advaita-vedānta is not reaching something new but recognising what is one's inherent nature. The two-stage approach indeed leads an individual towards this goal.

## Viśiṣṭādvaita-vedānta

Rāmānuja (1017–1137 CE) proposed the philosophy of Viśiṣṭādvaita. Viśiṣṭādvaita combines the bhakti (devotion) to a personal God, who has name, form, and shape and who saves his devotees from all miseries of the world and the impersonal God as espoused in the Upaniṣads into a single school of thought. Brahman or the ultimate reality is also referred to as Viṣṇu, etymologically meaning that which pervades everything. The attribute-less Brahman held by the Advaita school is rejected as metaphysical abstraction and Brahman is conceived, by Viśiṣṭādvaitin as God with attributes like possessing a bodily form, with infinite good qualities and glories.

The ultimate is one, according to Viśiṣṭādvaita, but is not the attributeless. Matter, Jīva and Īśvara are three entities recognised in the Viśiṣṭādvaita school. The matter and the Jīva are considered as the body of Īśvara and are sustained by Him and existing entirely for Him. In other words, the three are inseparable unity, the first two being subjected to the restraint of the third in all its forms. This is the core of the conceptualisation in Viśiṣṭādvaita. An example of a blue lotus illustrates this concept. The blueness (a quality) is quite distinct from the lotus (substance). However, blueness depends on the substance for its very being and is not considered external to the lotus. According to Rāmānuja, all things are eventually forms of Īśvara and all names are his only. Every word is a symbol of Īśvara and points to Him only.

According to Viśiṣṭādvaita school, the cycle of birth and death and the associated sorrows are due to the forgetfulness of an individual of the relation between them and Nārāyaṇa. One

attains freedom by gaining knowledge of the nature of self and attaining the feet of the Lord in his abode, Vaikuṇṭha. However, in order to gain this knowledge, each Jīva has to put forth the effort to attain liberation. The nature of the effort to be invested requires a continuous and unwavering meditation with love on the Supreme Being. This is referred to as Bhakti in the Viśiṣṭādvaita school. Bhakti is generated with total observance of religious duties as prescribed in the scriptures. The concept of total surrender to the Lord (Prapatti) is also considered as the direct means to liberation. In fact, according to Viśiṣṭādvaita, both bhakti and prapatti are two sides of the same coin and hence they function as the direct means to attain the feet of the Lord.

> - Viśiṣṭādvaita combines the bhakti to the personal God, and the impersonal God as espoused in the Upaniṣads into a single school of thought.
> - The quintessential aspects of Dvaita Vedānta are that Viṣṇu is the supreme God, the world is real and there is a difference between God and the jīvas.

## Dvaita-vedānta

Madhvācārya (1238–1317 CE) is the founder of the Dvaita-vedānta school. Madhvācārya established Udupi as the center of the Dvaita-vedānta. Like the other schools of Vedānta, Madhva derives his philosophical tenets from prasthānatraya, the purāṇas and Mahābhārata. The quintessential aspects of Dvaita-vedānta are that Viṣṇu (Hari) is the supreme God, the world is real and there is a difference between God and the jīvas. All jīvas are dependent upon Viṣṇu, and liberation consists in the enjoyment of bliss that is inherent in oneself. Finally, pure devotion is the means of attaining it.

The Dvaita school clearly admits two independent and mutually irreducible substances that make up the Universe: the Jīva and the Īśvara. However, of the two, Īśvara is independent whereas the jīvas are dependent on Īśvara. The matter making up the physical universe was considered real, unlike illusory as in the case of Advaita. The Dvaita school also refuted the idea of Viśiṣṭādvaita that the matter and the jīvas are different yet form a part of Īśvara. For Dvaita, there are clear differences among them, despite being dependent on Īśvara. Difference (Bheda) is the very essence of Dvaita philosophy. Madhva advocated five-fold differences: between Jīva and Īśvara, among jīvas, Jīva and matter, Īśvara and matter and one material thing and another.

Madhva acknowledged the reality of human misery and bondage. According to Dvaita-vedānta, it is the Īśvara who causes the individual to be unaware of the relationship of the ātman with God. Hence, he alone eventually brings liberation through his grace. In this process, a self-effort on the part of the Jīva is an essential component. According to dvaita school, the jīvas have an innate nature (svarūpa) that never changes. This svarūpa should not be confused with the habits of a person at a superficial level. This acts at a deep level and thus differentiates one jīva from another. The purpose of the creation is to allow this and provide a conducive environment to the jīva to manifest to fullest of his nature. Depending on the composition of sattva, rajas and tamas guṇas in the svarūpa, the jīvas perform karmas accordingly and attain mokṣa, or niraya (hell), or be bound in the birth–death cycle for ever. The doctrine of jīvas that are liberated and those eternally damned has a parallel in Jaina's religious thought also.

In Dvaita-vedānta, liberation is achieved through the knowledge of the greatness of Īśvara. Similar to Viśiṣṭādvaita philosophy, Īśvara in Dvaita-vedānta is a personal God with attributes of name and form, who can be reached through devotion (bhakti). Through bhakti combined with meditation, one can dispose oneself to the experience and grace of Īśvara. The Jīva, on his part, must prove himself worthy of it by good works (karma), acquisition of right knowledge (jñāna-yoga), and single-minded devotion (bhakti-yoga).

Table 3.1 provides a comparative picture of the three schools of Vedānta, summarising the salient aspects of the schools on several elements of philosophical thinking.

**TABLE 3.1**  A Comparison of the Salient Features of the Three Schools of Vedānta

| No. | Criterion | Advaita | Viśiṣṭādvaita | Dvaita |
|---|---|---|---|---|
| 1 | Basic reference for establishing the tenets | Upaniṣads, Bhagavadgītā, Brahmasūtra | Upaniṣads, Bhagavadgītā, Brahmasūtra | Upaniṣads, Bhagavadgītā, Brahmasūtra |
| 2 | Concept of Īśvara | One, attribute-less (Nirguṇa-brahman) | One, personal God (Saguṇa-brahman) – Viṣṇu or Nārāyaṇa, Independent, Ultimate | One, personal God (Saguṇa-brahman) – Viṣṇu or Hari, Independent, Ultimate |
| 3 | Concept of Universe (Jagat) | Not real, mere illusory experience, made of Prakṛti and Guṇas | Real, made of Prakṛti and Guṇas | Real, made of Prakṛti and Guṇas |
| 4 | Jīva–Jagat–Īśvara relation | All are one and the same – Brahman | All are part and parcel of Īśvara, Jīva and Jagat depend on Īśvara | All are uniquely different, Jīva and Jagat depend on Īśvara |
| 5 | Valid means of knowledge (Pramāṇas) | Perception, inference, comparison, verbal testimony, presumption, non-apprehension | Perception, inference, verbal testimony | Perception, inference, verbal testimony |
| 6 | Liberation | Experience oneness with Brahman | Attaining the feet of the Lord | Knowledge of the greatness of Īśvara |
| 7 | Path to liberation | Jñāna-yoga, Karma-yoga as a pre-requisite | Bhakti and Prapatti, Bhakti-yoga, Karma-yoga and Jñāna-yoga as pre-requisites | Bhakti-yoga, Grace of Īśvara |

## 3.6  NON-VEDIC PHILOSOPHICAL SYSTEMS

There are other philosophical systems that lie outside of the realm of the Vedic corpus. These philosophical systems did not consider the Vedas as an authoritative text and are called Non-Vedic philosophical systems. These schools do not also accept the entity Īśvara. Jaina, Bauddha, and Cārvāka schools are prominent among them.

### 3.6.1  Jaina School of Philosophy

The word 'Jaina' is derived from the Sanskrit root 'ji', to conquer, essentially indicating someone who has successfully subdued his passions and obtained mastery. The Jaina school considers twenty-four Tīrthaṅkaras, starting from Vṛṣabhadeva to Mahāvīra as prophets and masters of the philosophy. Tīrthaṅkaras appear periodically in the world to educate and lead people to cross over the ocean of rebirth. This is similar to the notion of avatāra-puruṣas, who by their conduct and teaching help the human beings cross the ocean of saṃsāra (endless birth–death

cycle). Although in contemporary terms Mahāvīra is well-known among the twenty-four, he is regarded as the last of the twenty-four Tīrthaṅkaras. According to the Jain tradition, Mahāvīra lived during the 6th century BCE. There is a vast literature in which the doctrines of the school are recorded. The details of the Jaina school of philosophy can be found in the canonical texts of Jainism, which are largely based on the teachings of the Tīrthaṅkaras. Jain philosophy refuses to acknowledge the authority of the Vedas and the notion of a supreme God, however, several concepts in the Jaina school are in line with the Vedic schools of philosophy.

During the early part of the common era (during 4–5th century CE), two sects of Jains, Śvetāmbaras (white-clad ascetics) and Digambaras (sky-clad ascetics) emerged. There are some differences between the two sects in certain aspects such as rituals, ascetic practices, and monastic organisation. Despite this, on matters of philosophical principles and concepts, they remain similar. Both the sects accept the authority of the Tattvārthasūtra, composed by Umāsvāti during 2nd–3rd century CE. The Tattvārthasūtra has been commented upon by both Śvetāmbara and Digambara scholars over the centuries and is, therefore, an important Jain text.

According to Jain ontology, the fundamental categories of being are a soul (Jīva), a matter of which the substances in the world are formed (Pudgala), space (Ākāśa), time (Kāla), the principle of motion (Dharma), and the principle of rest (Adharma). Jīvas are infinite and so are the material particles. These particles also possess innumerable qualities and jīvas with their limited ability cannot describe them completely. Hence our knowledge of any substance is not absolute but relative. Jaina school proposes a methodology to address this issue and argues that capturing reality perfectly with the language is not possible.

This is analogous to six blind men trying to describe how an elephant looks like. Each one of them will describe an elephant in a manner that is both right and not right. It is right in a limited sense and not right if we take it as the ultimate description of the elephant. However, the description of the reality can be sufficiently enhanced through appropriate qualification of the claim made. This approach is known as 'syād-vāda', meaning conditional predication. 'Syāt' in Sanskrit essentially means, 'maybe'. In this context, it would mean, 'in a certain sense of the term' or 'from a certain point of view'. Using this concept, the Jaina school lists seven possibilities for the truth values. With syādvāda, Jain philosophers are able to analyse claims made by various systems of thought and show them to be relative assertions of the truth as understood by the Jain tradition.

♦ The concept of rebirth and other world is completely dismissed in Cārvāka philosophy.

♦ The details of the Jain School of Philosophy can be found in the canonical texts of Jainism, which are largely based on the teachings of the Tīrthaṅkaras.

In the Jaina school, the cycle of birth–death is attributed to tiny particles of matter (Pudgala) that have embedded themselves into the Jīva. This is called karma and in the Jain philosophy, spiritual growth is to overcome this karma. An analogy of a wet cloth explains how karma affects the Jīva. Just as a wet cloth becomes sticky when worn, the kārmic matter gets attached to the Jīva. The passions that we get attracted to are compared to the water in a wet cloth. A wet cloth attracts dust, in the same manner, the Jīva attracts karma. According to the Jain philosophy, the passions are evoked by experiences, which arise due to the kārmic particles that have previously bonded with the Jīva. Just as the seeds ripen eventually and bear fruit, the karma is supposed to have an impact on the jīva in terms of some experiences. These experiences could be pleasant, painful, or neutral, and evoke corresponding passions of attraction, aversion, or indifference. The passions, in turn, attract more kārmic particles or seeds, and the entire process repeats itself.

The Jīva is stuck in bondage with the matter because of his karma and passions. Hence freeing the self from the matter is the way to liberation. The association of the matter with Jīva is due to the ignorance about himself and the world. The real knowledge which can destroy the ignorance is not easily obtained by the Jīva, for that he has to listen to the teachings of the great masters, the Tīrthaṅkaras, who are liberated from the bondage. From a practical point of view, the goal is to purify the Jīva of kārmic matter, in a way by cleaning the karma so that the Jīva can radiate in its inherent blissful nature. To achieve this goal, Jain philosophy considers ascetic practices as essential. Since karma is considered as a physical substance that has bonded with the Jīva, Jain philosophy puts special emphasis on ascetic practices in terms of what one must and must not do, as a means to 'clean up' the karma. Three gems are prescribed: right faith, right knowledge, and right conduct[8]. Right faith is given utmost importance as any activity undertaken with false convictions loses much of its value. Right knowledge pertains to a good understanding of the Jain philosophy. Right conduct is also placed huge importance in the Jain philosophy. The individual must control the passion with the right conducts, of which ahiṃsā is the most important one.

Once a person begins to diligently practice the ethical restraints and prescribed ascetic disciplines, the karmas slowly drop away and the pure knowledge, which is the inherent nature of the Jīva begins to radiate. By these practices, the passions can be calmed and through a two-way process of cleaning existing kārmic matter and preventing further accumulation of karma, the Jīva can attain the final goal.

### 3.6.2 Bauddha School of Philosophy

The Bauddha (or Buddhist) school of philosophy is largely based on the teachings of Gautama Buddha. Buddha was born as Siddhārtha during the 4th–5th Century BCE. Although Buddhism originated in ancient India, it later spread to several parts of Asia. There are two forms of Buddhism: the northern form and the southern form. The form of Buddhism prevailing in Nepal, Tibet, China, Korea, Vietnam, Taiwan, Singapore, and Japan is called northern Buddhism (also synonymous with Mahāyāna) while the form prevailing in Sri Lanka and other parts of Southeast Asia including Cambodia, Laos, Myanmar, and Thailand is called Southern Buddhism (also known as Theravāda). The earliest form is the northern version, and it includes several sub-traditions such as Zen, Nichiren, and Shingon. Kaniśka is supposed to have convened a great council of the Northern Buddhists in the 1st century CE. Lalitavistara is an important work composed by the Northern Buddhists sometime during the 2nd–4th century CE. Tibetan Buddhism drifted away from the primitive Buddhism in India and is supposed to have adopted forms and ceremonies, which were unknown to Gautama and his followers.

According to early texts, Gautama was moved by the suffering of life and death. Further, on account of rebirth, this suffering is experienced in an endless cycle of birth–death. His enlightenment showed him the path for liberation from this suffering forever, by reaching a state of Nirvāṇa. Gautama's teachings were initially oral and in the later period, they developed into a complete philosophical system with several treatises written by the followers of the school.

Buddha's philosophy focuses on the means of ending the suffering of the individuals. It is based on four noble truths (catvāri ārya-satyāni). Figure 3.6 graphically illustrates this. These are elaborated as follows:

1. *There is suffering:* According to Gautama, "Birth is suffering, decay is suffering, illness is suffering, death is suffering. The presence of objects we hate is suffering, not being

able to obtain what we desire is suffering." The Buddhist philosophy argues that the human being is a compound of five aggregates and clinging to them leads to suffering. The five aggregates include the following:

(a) The form made of four elements (earth, water, fire, and air), five sense organs, five attributes of matter (smell, form, sound, taste, and touch), two distinctions of sex (male, female), three essential conditions (thought, vitality, and space) and two means of communication (gesture and speech)

(b) Consciousness

(c) Feeling: Sensations of pleasure and pain

(d) Formation

(e) Perception and Potentialities which lead to good or bad results

These five aggregates include all physical and mental elements and powers of man and are impermanent in nature. Consciousness arises from other aggregates and mental factors from the contact of consciousness and other aggregates.
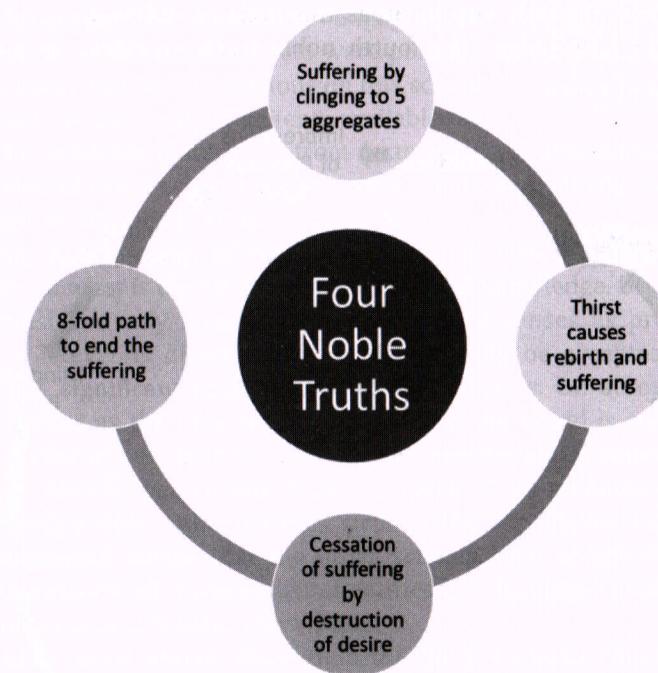


**FIGURE 3.6** The Four Noble Truths of Buddhism

2. *There is the cause of suffering:* In Gautama's words, "Thirst leads to rebirth accompanied by pleasure and lust, thirst for pleasure, thirst for existence, thirst for prosperity".

3. *The cessation of suffering:* The cessation of suffering will be possible with the complete cessation of thirst, which amounts to the absence of passion and complete destruction of desire.

4. *There is a path to end the suffering*: Buddhist philosophy prescribes a holy eight-fold path that enables one to lead a holy moral life and that will lead one to the final goal of liberation. The eightfold path includes right views, right resolve, right speech, right conduct, right livelihood, right effort, right mindfulness, and right concentration.

The ultimate goal in Buddhist philosophy is to reach Nirvāṇa. Nirvāṇa is not a state reached after death, but something that is attainable in this very life. It is the sinless calm state of mind attained due to freedom from desires and passions, a state of perfect peace, goodness, and wisdom. Once a person reaches Nirvāṇa, the cycle of birth and death ends, which is the final goal leading to liberation.

As we have seen above, the central issue in Buddhist philosophy is to strive for the cessation of suffering. The Buddhist philosophy systematically argues how sufferings happen using a cause–effect cycle. Figure 3.7 illustrates this cycle leading to suffering. As seen in the figure, the root cause of the suffering is ignorance. Due to ignorance, the impressions of the previous birth lead to initial consciousness. The body and the mind and the sense organs evolve out of this consciousness. Once the sense organs are in contact with the senses and gather the experiences of life, the thirst for enjoyment drives the process leading to rebirth and suffering. Therefore, the only way to break this cycle of suffering is to remove ignorance by acquiring the right knowledge. The fourth noble truth provides the path for removing ignorance.
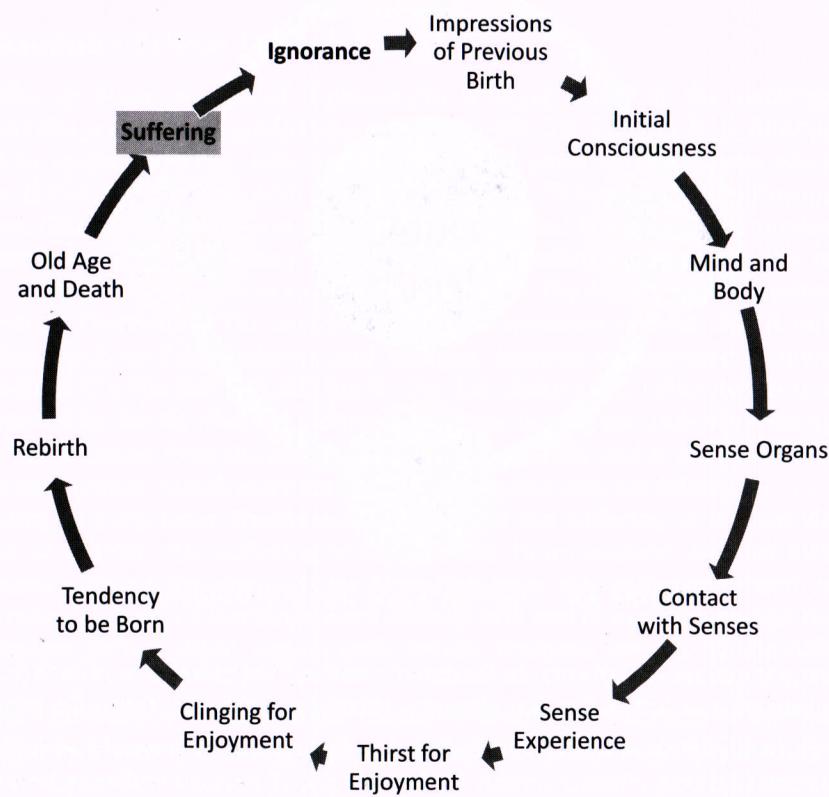


**FIGURE 3.7** The Cycle of Suffering

### 3.6.3 Cārvāka School

Cārvāka school of thought closely maps to the trait of materialism, which emphasises a life of enjoyment based on certain principles and assumptions about life. The word Cārvāka literally means 'sweet-tongued' (cāru–vāka), in a way signifying that the ideas appear attractive at the outset. This is because the system only advocates two of the four puruṣārthas, pleasure and wealth as objectives of living. This school is also called Lokāyata. The Cārvāka school considers matter as the ultimate reality and rejects the idea that there is a divine or a transcendental power behind the matter, called Prakṛti conceptualised by the Sāṃkhya–Yoga school.

Philosophical systems in India had systematic methods for the presentation of the key concepts in the system. This began with a book (of aphorisms), followed by a growing literature of a few commentaries and sub-commentaries. In the case of the Cārvāka system, we do not seem to have such extensive literature on the school. No text of the Cārvāka school is available to us today which discusses its tenets in totality. The absence of canonical texts and a lineage of followers who were able to establish the tenets of the system by constantly engaging in intellectual debates to establish their tenets were perhaps responsible for its decay. Current discussions on this school of thought are based on the scanty fragments available for some analysis[9]. The available material is from texts such as Sarva-darśana-saṅgraha where, during the discussion of these schools, some verses are quoted. Mostly we get to know about this system through refutations from its opponents.

> ♦ No text of the Cārvāka school is available to us today which discusses its tenets in totality.
> ♦ According to Cārvāka school whatever is directly perceivable can only be accepted as valid means of knowledge.

One of the major differences of the Cārvāka school with that of the Vedic schools of philosophy pertains to what is the accepted means of valid knowledge. Unlike all other schools, Cārvāka school considers only direct perception through senses as pramāṇa[10]. Essentially this implies that whatever is directly perceivable can only be accepted as valid means of knowledge. This has significant implications for metaphysics. On account of this, Cārvāka school considers matter as the only reality using which the world is made of. Furthermore, the world is constituted of only four basic categories, namely, earth, water, fire, and air, which are all physical and directly perceivable. Ether or space is not accepted as the fifth element because it is not perceivable. Other entities such as the sky, ātman, mind, īśvara, dharma, reincarnation, svarga, and mokṣa that the other schools have accepted are rejected in the Cārvāka system. In essence, all transcendental entities are dismissed using the argument that only direct perception provides valid knowledge.

There is nothing called ātman other than the body. Cārvāka considers the four basic elements of the world as the basic constituents of the body too. When the individual constituents exist in a disjointed state, they are bereft of life and consciousness. However, when these come together the body is formed, and by a peculiar combination of these constituents, the life-breath and consciousness appear in the body. The concept of rebirth and other world is completely dismissed in this system. The arguments primarily stem from the limitation of using only direct perception as the means of valid knowledge. There are no means available for determining the existence of the 'other world'. Moreover,

there is no 'other world' because of the absence of any 'otherworldly' being. Since the existence of consciousness in the other world cannot be substantially established through direct perception, which is the only means available for valid knowledge, these ideas are dismissed.

Once a person dies, there is no afterlife. Pleasure and pain are felt in no other place than the body, hence there is no need to accept something called the ātman which is not confirmed by the pramāṇa. Since there is no ātman and there is no rebirth the highest goal of human life is to have pleasure in one's lifetime. Once the body is confined to the flames and burnt to ashes, how can it ever return, therefore enjoyment 'here and now' is the goal of living in this school of thought[11].

The salient features of the Cārvāka school of philosophy are summarised in Figure 3.8.
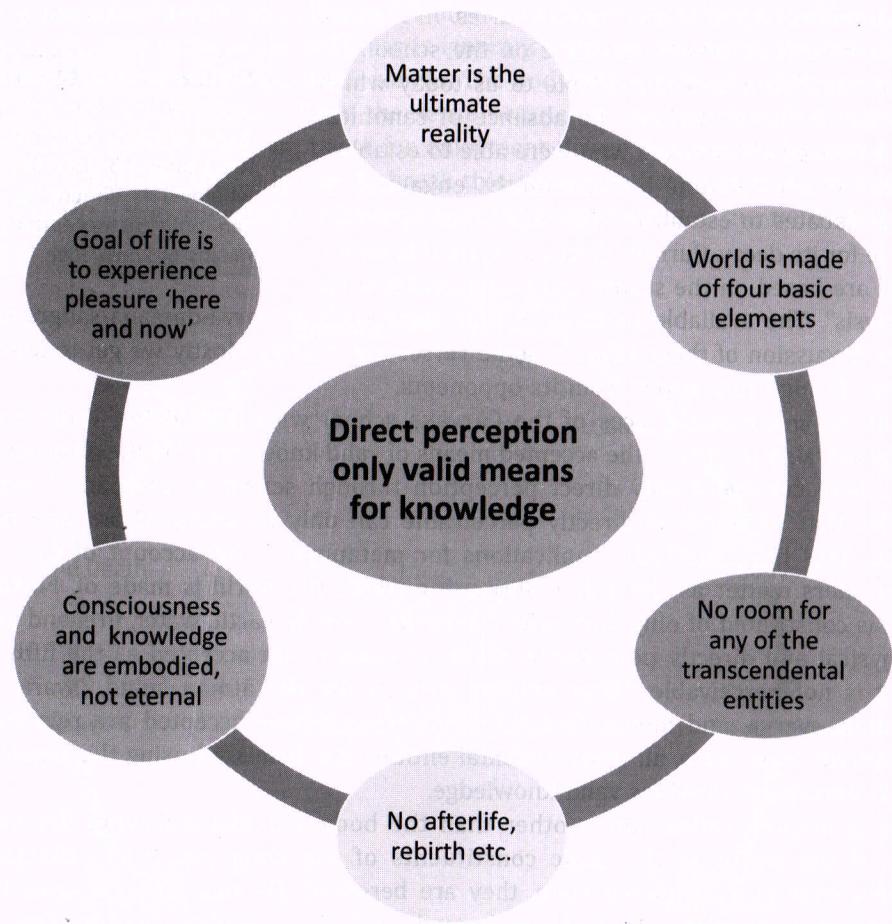


**FIGURE 3.8** Salient Features of the Cārvāka School

## SUMMARY

▶ The word darśana is derived from the Sanskrit root, dṛś, 'to see', suggesting that these philosophical systems provide a true worldview and a vision for life and help us resolve the issues that we face in our life.

▶ The philosophical inquiry in India gave rise to several schools, each developing its own understanding of the world. Each of these schools presents its view with rigorous intellectual exercise and uncompromised importance on the self-experience.

▶ While the Hindu schools of philosophy rely on the Vedic text as the ultimate authority and means for valid knowledge, the Jaina philosophy relies on their canonical texts.

▶ The schools differ in presenting how to get the right knowledge and use it as the means for the ultimate liberation of the soul. The context for the philosophical discussion is the three inter-related concepts of God–Universe–Individual.

▶ According to the Sāṃkhya system, two basic elements constitute everything in this world, matter (Prakṛti) and spirit (Puruṣa). Puruṣa is the pure consciousness, sentient, changeless, eternal, and passive. Prakṛti on the other hand is the root cause of all activities including the entire creation.

▶ The unique thing that establishes Yoga as distinct among the other darśanas is that its emphasis on understanding the mind, its various states, its cognitive activities, and methods to control it. Yoga provides a structured and practical eight-step process to gradually reach a stage of complete cessation of the activities of Citta.

▶ Both Nyāya and Vaiśeṣika set out in their journey of the 'knowable' and define various categories to describe the same. The first is about the 'ways of knowing the reality' and the second is about the 'objects in the reality that is knowable'.

▶ The Nyāya system, placed enormous emphasis on the means of obtaining 'right knowledge'. Therefore, the unique contribution of Nyāya

school is its detailed inquiry of knowledge (Pramā) and valid cognition and its means (Pramāṇa).

▶ The main aim of Pūrva-mīmāṃsā school is to ascertain the meanings of the Saṃhitā and Brāhmaṇa portions of Veda which lay importance on the karma, performing rituals, and thereby attaining dharma as a means for liberation.

▶ The Vedānta schools of philosophy rely on three major texts: Brahma-Sūtras, Bhagavadgītā, and the Upaniṣads, known as prasthānatraya, for establishing their tenets.

▶ Śaṅkara propounded a monistic philosophy, known as Advaita, with the conception of the attribute-less God (Nirguṇa-brahman) as the ultimate reality.

▶ Matter, Jīva and Īśvara are three entities recognised in the Viśiṣṭādvaita school. Though all the three are ultimate, the first two have an absolute dependent relationship with Īśvara.

▶ The Dvaita school clearly admits three independent and mutually irreducible substances that make up the Universe: the Jīva, the Jagat and the Īśvara.

▶ Several concepts of the Jain school of thought is in line with the Vedic schools of philosophy. With syād-vāda, Jain philosophers are able to analyze claims made by various systems of thought and show them to be relative assertions of the truth as understood by the Jain tradition.

▶ Buddha's philosophy focuses on the means of ending the suffering of the individuals. It is based on four noble truths. The ultimate goal in Buddhist philosophy is to reach Nirvāṇa. Nirvāṇa is not a state reached after death, but something that is attainable in this very life.

▶ Cārvāka school of thought closely maps to the trait of materialism, which emphasises a life of enjoyment based on certain principles and assumptions about life. The concept of rebirth and other world is completely dismissed in this system.

## REVIEW QUESTIONS

1. Outline the salient features of Indian philosophical systems.

2. What do you understand by the terms 'Vedic and Non-Vedic' schools of philosophy?

3. What are some of the common features of the Vedic schools of philosophy? What are their main differences?

4. Prepare a one-page note each, enumerating the commonalities and differences between the following schools of philosophy:
   (a) Sāṃkhya and Yoga
   (b) Nyāya and Vaiśeṣika
   (c) Pūrva-mīmāṃsā and Vedānta

5. Briefly describes the salient aspects of the following schools of philosophy:
   (a) Sāṃkhya
   (b) Yoga
   (c) Nyāya
   (d) Vaiśeṣika
   (e) Pūrva-mīmāṃsā

6. What do you understand by the term 'Puruṣa and Prakṛti'?

7. Explain the term 'Aṣṭāṅga-yoga'.

8. What are the key differences and commonalities among the three schools of Vedānta?

9. What is the role of karma-yoga, bhakti-yoga, and jñāna-yoga according to the three Vedānta schools?

10. Comment on the statement, "Cārvāka school of philosophy has taken a different approach compared to other philosophical systems".

11. Prepare a one-page note outlining the salient features of the Jaina school of philosophy.

12. Compare and contrast the Jaina school of philosophy with that of the Buddhist school.

13. What are the key recommendations of the Buddhist school of philosophy to attain liberation?

## DISCOVER IKS

1. All Indian schools of philosophy share certain common features. They also differ on certain aspects and these features primarily drive the basic tenets of a particular school of thought. The video in the link below is a talk by Swami Tadatmananda on the relative differences between Buddhism and the Advaita-vedānta school of philosophy: https://www.youtube.com/watch?v=Wq2eukYfRoA. After watching the video, prepare a two-page note to answer the following questions:
   (a) What are some of the common ideas between Advaita and Buddhism?
   (b) What are the key differences between the two schools?

2. One of the distinguishing aspects of Jainism is their special attention to ahiṃsā. It is their core belief that we need to make several lifestyle changes to truthfully practice ahiṃsā. There are other such principles such as non-possession (aparigraha). These practices are to be diligently followed by the followers of Jain irrespective of whether the person is a householder or a monk. The video traces the life of Jain monks and provides some clues as to how they practice these virtues in their daily life: https://www.youtube.com/watch?v=jqExyhLTFaA
   After watching the video, develop a three-page note to answer the following questions:
   (a) What do you understand by the 'low consumption' principle? What are its implications for modern living, both to an individual and the society?

   (b) Does the ascetic life of a Jain monk promote environment-friendly practices? How?
   (c) How do the Jain monks contribute to the wellbeing of the members of the society?

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## ENDNOTES

1. For some more details on this, see, **Dasgupta, S. (1975).** *A History of Indian Philosophy – Volume I*, Motilal Banarsidass, Delhi, pp. 71–75.

2. This idea is brought out concisely in the Gītā in Chapter 13, verse 21: पुरुषः प्रकृतिस्थो हि भुङ्क्ते प्रकृतिजान्गुणान् । कारणं गुणसङ्गोऽस्य सदसद्योनिजन्मसु ॥ १ ३–२ १ ॥ puruṣaḥ prakṛtistho hi bhuṅkte prakṛtijāngunān | kāraṇaṃ guṇasaṅgo'sya sadasadyonijanmasu ||13–21|| See for details, **Swami Chinmayananda (2002).** "The Holy Geeta", Central Chinmaya Mission Trust, Mumbai, pp. 880–882.

3. For details see, **Arjunwadkar, K.S. (2006).** "Yogasutras of Patañjali", Bhandarkar Oriental Research Institute, Pune, p. ४. योगश्चित्तवृत्तिनिरोधः ॥ yogaścittavṛttinirodhaḥ || Yoga Sūtra 1.2.

4. *Ibid.* p. १८. अभ्यासवैराग्याभ्यां तन्निरोधः ॥ abhyāsavairāgyābhyāṃ tannirodhaḥ || Yoga Sūtra 1.12.

5. *Ibid.* p ११२. स्थिरसुखमासनम् ॥ sthirasukhamāsanam || Yoga Sūtra 2.46. The same idea is conveyed in verse 11 in Chapter 6 of Bhagavadgītā, "शुचौ देशे प्रतिष्ठाप्य स्थिरमासनमात्मनः । नात्युच्छ्रितं नातिनीचं चैलाजिनकुशोत्तरम् ॥६–११॥ śucau deśe pratiṣṭhāpya sthiramāsanamātmanaḥ | nātyucchritaṃ nātinīcaṃ cailājinakuśottaram ||6–11|| See for details, **Swami Chinmayananda (2002)**. "The Holy Geeta", Central Chinmaya Mission Trust, Mumbai, pp. 390–392.

6. This is formally stated in the Vaiśeṣika Sūtra 1.1.4 as, धर्मविशेषप्रसूताद् द्रव्य-गुण-कर्म-सामान्य-विशेष-समवायानां पदार्थानां साधर्म्य-वैधर्म्याभ्यां तत्त्वज्ञानात् निःश्रेयसम् । dharmaviśeṣaprasūtād dravya-guṇa-karma-sāmānya-viśeṣa-samavāyānāṃ padārthānāṃ sādharmya-vaidharmyābhyāṃ tattvajñānāt niḥśreyasam | See for details, **Sinha, N. (2008)**. *The Vaisesika Sutras of Kanada*, Cosmo Publications, New Delhi, pp. 8–9.

7. See for example in Vivekacūḍāmaṇi the verse: चित्तस्य शुद्धये कर्म न तु वस्तूपलब्धये । वस्तुसिद्धिर्विचारेण न किञ्चित् कर्मकोटिभिः ॥ cittasya śuddhaye karma na tu vastūpalabdhaye | vastusiddhirvicāreṇa na kiñcit karmakoṭibhiḥ || 11 See for details, **Swami Chinmyananada (2003)**. "Vivekachoodamani", Central Chinmaya Mission Trust, Mumbai, pp. 21–22.

8. सम्यग्दर्शन-ज्ञान-चारित्राणि मोक्षमार्गः । samyagdarśana-jñāna-cāritrāṇi mokṣamārgaḥ | Umāsvāti, as quoted in **Hiriyanna, M. (1994)**. *Outlines of Indian Philosophy*, Motilal Banarsidass, New Delhi, p. 166.

9. To know more about this limitation and the current attempts to cull out and make sense of the existing material on Cārvāka school, see, **Bhattacharya, R. (2002)**. "Cārvāka Fragments: A New Collection", *Journal of Indian Philosophy*, **30**, pp. 597–640.

10. *Ibid.* प्रत्यक्षमेकमेव प्रमाणम् ॥ pratyakṣamekameva pramāṇam ||

11. यावज्जीवं सुखं जीवेत् नास्ति मृत्योरगोचरः । भस्मीभूतस्य देहस्य पुनरागमनं कुतः ॥ yāvajjīvaṃ sukhaṃ jīvet nāsti mṛtyoragocaraḥ | bhasmībhūtasya dehasya punarāgamanaṃ kutaḥ || **Uma Shankar Sharma (2008)**: "Sarva-Darśana-Saṅgraha", Chowkhambha Vidyabhawan, Varanasi. Chapter 1, Verse 1, p. 3.

CHAPTER

# 4  Wisdom through the Ages

**LEARNING OUTCOMES**

*After finishing this chapter, you will be able to:*

▶ Develop a basic understanding of Purāṇic repository and the issues addressed

▶ Understand the broad contents and the importance of the two epics (Rāmāyaṇa and Mahābhārata) and their contrasting approach

▶ Familiarise with the issue addressed in Nīti-śāstras in general and get to know some popular nīti texts

▶ Appreciate the complementary role played by Subhāṣitas in sharing some useful nuggets for life

Pañcatantra tales have captured the imagination of a vast section of the population. Temple architecture depicts stories from Pañcatantra such as this one found in the North face of Temple 2, Nalanda (7th century CE). In this tale, the turtle is escaping from hunters (not shown) thanks to two geese, who bear it on a stick that it is grasping with its jaws. Unfortunately, it opened its mouth to boast of the escapade, which caused him to fall to its death (food for the hungry boy and girl below).

*Source:* Own work, G41rn8, https://commons.wikimedia.org/wiki/File:Nalanda_Temple_2_ei7-42.jpg

## IKS IN ACTION 4.1

### Pañcatantra – A Treatise on Statecraft through Stories

Stories provide a powerful medium through which one can impart education on a wide range of topics. In modern parlance, stories are used as the basis for discussing several real-world problems. In business schools, case study methodology employs stories to analyze complex problems and various decision options. A shining example of the use of stories for education is Pañcatantra, a collection of stories involving the animal kingdom as the main characters. The text was composed by Viṣṇu Śarman.

The genesis of this text provides interesting insights into the power of storytelling in bringing the accumulated wisdom to use. Once a king named Amaraśakti had three sons who were ill-minded and were disinterested in learning. The king engaged a teacher, Viṣṇu Śarman to make his sons educated and eligible in governance at the earliest.

As the sons of kings were not interested in studying the śāstras Viṣṇu Śarman discovered a unique way to teach through stories. It had five Tantras (books), which is a set of stories on Governance, life, ethics, and morals, popularly known as Pañcatantra. It is also considered an important text on Nīti-śāstra.

Pañcatantra is considered as a Nīti-śāstra' as it deals with wise conduct in life. It consists of several stories nested within stories. Most of the characters are animals, who talk to each other and conduct several chores of life. Human characteristics, behaviour patterns, and even ethical values are ascribed to these animals. The wisdom in the five books deals with the following:

- Book 1: The Loss of Friends (*Mitra-bheda*) consists of a series of fables describing the conspiracies and causes that lead to close friends breaking up.
- Book 2: Winning of Friends (*Mitra-lābha*) emphasises the importance of friendships, teamwork, and alliances.

- Book 3: Crow and the Owl (*Kākolūkīyam*) contains eighteen fables discussing certain aspects of war and peace. It suggests that a battle of wits is a more potent force than a battle of swords.
- Book 4: Loss of Gains (*Labdha-praṇāśam*) presents some examples and consequences thereby highlighting actions to avoid.
- Book 5: An ill-considered action (*Aparīkṣita-kārakam*) presents twelve fables about hasty actions and jumping to conclusions without establishing facts and proper due diligence. Unlike the previous four books, the characters in book five are human beings.

The first book is the longest covering nearly half of the content and the last two books together constitute about 7% of the total.

The charm of Pañcatantra lies in its ability to frame complex matters of statecraft into stories involving nīti and daṇḍa from the Arthaśāstra and presenting them in easily relatable fables. For example, in Book 3 concerning the war of crows and owls, six acts of royal policy, i.e. Ṣāḍguṇya (peace, war, change of base, entrenchment, alliance, and duplicity) discussed in Arthaśāstra are quoted.

Much of the wisdom of ancient Indian statecraft which we are aware of today is attributable to Arthaśāstra. Pañcatantra, seems to have derived its inspirations and main messages from it. It is an intelligent rendering of Arthaśāstra using a pedagogical device consisting of a didactic story-based tool.

The captivating style of storytelling adopted by Pañcatantra has attracted people far and near. It appears that there is a version of Pañcatantra in every major language of India, and there are several versions of the text in more than 50 languages around the world.

Human beings face several challenges and moral and ethical dilemmas in life and constantly look for guidance to resolve them. These issues are eternal, not problems that only the current day society faces. Therefore, in our search of the answers to these, it is desirable to look back and understand how the ancestors addressed them. Every society develops a body of knowledge over time shaped by the accumulated experiences of the people, the inferences made out of situations faced and experiments conducted. These experiences and insights are shared and stored for posterity through literary works. These showcase the cultural practices, history, science and technology, social customs, assumptions about life, and know-how prevailing at the time the literary work was created. It also describes how some of the challenges faced in personal and public life were addressed. It also provides useful guidelines to society on several issues faced in life. Therefore, the accumulated body of literature serves as the repository of wisdom through the ages. With a long civilizational history, India has a rich body of knowledge and experience that has developed within the society from time to time, captured through a variety of literary works.

In this chapter, we shall have a glimpse of the ancestral wisdom recorded in various literary works. Purāṇas and Itihāsas mainly belong to this category. The origin of the purāṇas and the itihāsas is not yet accurately established, but it dates back to antiquity. However, in the recorded history, several literary works have been authored in Sanskrit and other regional languages.

## 4.1 PURĀṆAS – AN ENCYCLOPAEDIC WORK

In the history of Indian literature, Purāṇas occupy a unique position. Purāṇas are literary sources of ancient and medieval Indian history and culture. The larger purāṇic repository provides valuable insights into the history of philosophy and religion and is a storehouse that provides deep insights into all aspects and phases of the society, culture during the ancient and medieval times in India. Purāṇas may be described as a popular encyclopaedia of ancient and medieval religious, philosophical, historical, personal, social, and political aspects of the society.

On account of the diversity of people and issues discussed in the purāṇic repository, purāṇas have significantly contributed to maintaining cultural pluralism in India. They played a role in influencing classical art forms such as dance and music and promoted social practices such as the celebration of various festivals. The spread of the cultural heritage among the masses has been, to a large extent, possible only because of the purāṇas. Moreover, they have played a pioneering role in motivating and practice of ethical and moral values in the life of the people of Indian society using stories as a powerful medium to communicate the ideals. In this manner, Purāṇas have provided means by which socio-cultural values can blend with religious values and dharmic living.

- Purāṇas are one of the most important literary sources of ancient and medieval Indian history and culture.
- Purāṇas are companion texts to help understand and interpret the Vedas.

The literary beauty and story-based narration of ideas through a living tradition called 'Hari Katha' have perennially attracted the masses towards the purāṇas. On account of this, purāṇas enjoy a unique position in the sacred literature of ancient India. They closely align with the epics in form and substance. Purāṇas enable us to know the true import of the ethos, philosophy, and religion of the Vedas and are companion texts to help understand and interpret the Vedas. Therefore, knowledge of purāṇas is considered very important as evident from the following observations in some of the purāṇas[1]:

- Skanda-purāṇa – Śruti (Vedas), Smṛti (Rāmāyaṇa, Mahābhārata, Manu-smṛti, etc.) and Purāṇas are the three eyes of a scholar. One who sees the world with his three eyes is indeed a part of the supreme God.
- Viṣṇu-purāṇa – One who is a scholar of all the four Vedas, with its limbs and Upaniṣads in it and has no knowledge of purāṇas cannot be ever considered as a complete scholar.

As in the case of the knowledge repository in ancient India, purāṇas have been handed down the ages through oral transmission. Therefore, it is difficult to establish the period to the authorship of the purāṇas as there is no explicit mention. The current version available to us may be the work of several authors over the centuries.

However, using the information available in the purāṇas, Indology researchers have made some guesstimates. Accordingly, some of the extant Mahā-purāṇas, e.g. Vāyu, Brahmāṇḍa, Viṣṇu, Matsya, and Mārkaṇḍeya are assignable to a period of 300 CE – 660 CE, while some others such as Agni, and Garuda are assignable to a period of 600 CE – 900 CE and some others are assigned to a period later than 900 CE[2]. On the other hand, in the Indian tradition, the antiquity of purāṇas is established using the available material in the purāṇas itself. According to Matsya Purāṇa, Brahmā remembered the purāṇas even before the Vedas[3]. We find mention of the word Purāṇa in the Vedas and Upaniṣads. For instance, in Chāndogyopaniṣad it is mentioned that Purāṇas can be considered as the fifth Veda[4].

> ♦ The study of purāṇas and the upa-purāṇas are critical to developing an understanding of the social and religious institutions in India.
> ♦ Purāṇas deal with the evolution of the Universe, the recreation of the Universe, genealogies of Gods and seers, and the history of royal families.

### 4.1.1  Mahā-purāṇas, Upa-purāṇas and Sthala-purāṇas

The purāṇic repository can be broadly divided into three: Mahāpurāṇas (Major Purāṇas), Upa-purāṇas (Minor Purāṇas), and Sthala-purāṇas (Regional Purāṇas).

- ♦ *Mahā-purāṇas,* the largest ever composed literature in the history of mankind, is very extensive. There are 18 mahā-purāṇas[5] and they are estimated to contain among them about 400,000 verses. The text in the purāṇas is in the form of several stories, anecdotes, clarificatory concepts, and rules and observances in a narrative style, often in the form of a reply to some issues raised during a dialogue between the narrator (usually a sage) and the audience (usually a group of sages, king, etc.). It enumerates stories of different forms of God, various kings, ṛṣis, etc. Usually, each purāṇa focuses on one form of the trinity (Brahma, Viṣṇu, Śiva) and celebrates the chosen trinity by narrating events centred around that trinity. For instance, Bhāgavata-purāṇa and Viṣṇu-purāṇa hold Viṣṇu as a supreme being, and Liṅga-purāṇa holds Śiva, etc. Some major purāṇas have discussed in detail a focused theme. For example, the Skanda, Padma and Bhaviṣya purāṇas deal mainly with pilgrimage to holy places (Tīrta-māhātmyas). The purāṇas cover a wide range of issues including the creation process and the geographical details, various rituals and their importance, certain scientific aspects, etc.
- ♦ *Upa-purāṇas* are similar to the mahā-purāṇas but are smaller in size. The number of Upa-purāṇas cannot be established with certainty, though about 100 of them can be enumerated from different sources. However, it is generally believed that there are eighteen of them which are prominent[6]. The list of upa-purāṇas differ in the verses found in various purāṇas[7]. So, it is difficult to list the names of eighteen upa-purāṇas exactly.
- ♦ *Sthala-purāṇas* are a class of sacred works which provide a connection between the land and the Divine in many forms. Each sthala-purāṇa is focused on a specific geographical place (usually a famous temple in a city) and weaves information centred

around the presiding deity. Various local cultural practices, customs, festivals, and other social practices form part of the narration. There are many Sthala-purāṇas in different languages of India. However, most of them are in Sanskrit.

Figure 4.1 graphically illustrates the purāṇic repository and its key features.
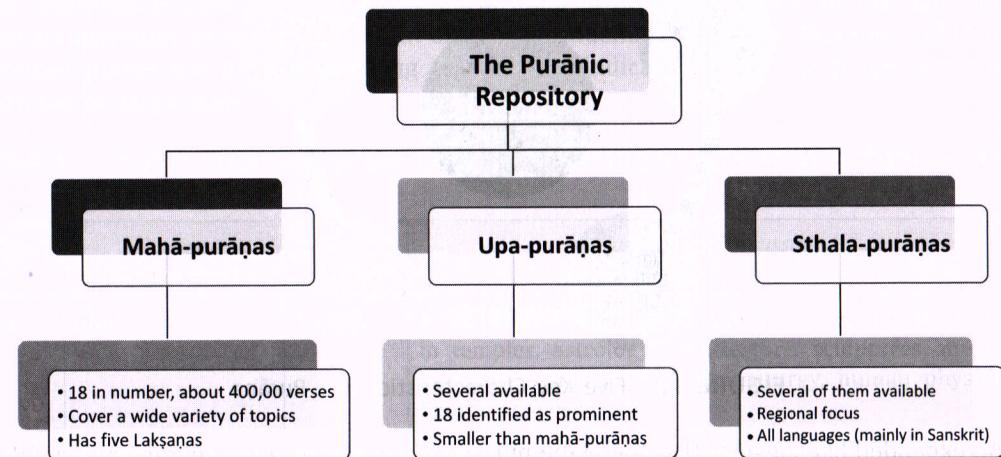


**FIGURE 4.1**  The Purāṇic Repository

### 4.1.2  Contents of the Purāṇas

There are five key characteristics of purāṇas, known as pañca-lakṣaṇas[8]. Figure 4.2 graphically presents these five key characteristics, and the details are as follows:

- ♦ **Sarga** (Creation of the Universe). Bhāgavata describes the process as, "from the agitation of the original modes within the unmanifest material nature, the mahat-tattva arises. From the mahat-tattva comes the element false ego, which divides itself into three aspects. This threefold false ego further manifests as the subtle forms of perception, the senses, and the gross sense objects. The generation of all these is called creation"[9].
- ♦ **Prati-sarga** (Destruction and re-creation). It means the creation after creation, i.e., the continued creation of primitive matter. Just as a seed produces additional seeds, activities that promote material desires in the performer produce moving and non-moving life forms[10].
- ♦ **Vaṁśa** (Dynasties of kings). Bhāgavata-purāṇa defines Vamśa as the present, past and future lineage of kings created by the Brahman[11].
- ♦ **Manvantara** (Times of different Manus). It is a time span that plays an important role in the understanding of human history. Purāṇas give the detailed explanation of the various activities that happened and different people (king, ṛṣis) that existed during the time of each Manu[12].
- ♦ **Vaṁśānucarita** (Stories of the dynasties). It also includes the stories of the ṛṣis and kings born in those dynasties[13].
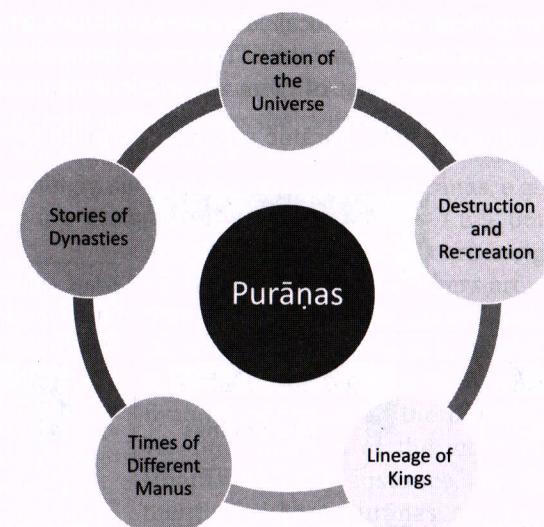
**FIGURE 4.2** Five Key Characteristics of a Purāṇa

An expanded list suggests that the Mahā-purāṇas have to satisfy ten characteristics, (Daśa-lakṣaṇas), which additionally includes means of livelihood (vṛtti), protection of the universe (rakṣā), final emancipation (mukti), jīva, unmanifest (hetu), and Brahman (apāśraya). Besides the ten characteristics, the Purāṇas deal with the glorification of Brahmā, Viṣṇu, Sūrya and Rudra, and the four puruṣārthas (dharma – righteous conduct and living, artha – economics and polity, kāma – desire, and mokṣa – emancipation). The Purāṇas also contain, besides, a good deal on supplementary topics of religious instruction, rituals, dāna, vratas, bhakti, yoga, and also medicine, music, grammar, poetics, metrics, dramaturgy, astronomy, and astrology, architecture, sculpture, iconography, polity, raja-dharma, etc. Table 4.1 provides a compact summary of the issues discussed in the 18 mahā-purāṇas other than those covered under the purāṇa-lakṣaṇas described above.

### 4.1.3 Issues of Interest in the Purāṇas

*Food and Medicine*

Purāṇas contain several discussions related to the plant kingdom and its role in addressing food, medicine, and other requirements of society[14]. The Brahmavaivarta-purāṇa (4.126: 53–54) mentions a balanced diet consisting of staple food, vegetables, and fruits that people used to take. Based on the information available in the Agni, Matsya, and Brahmavaivarta purāṇas we can infer that rice (dhānya), wheat (godhuma), barley (yava), pulses (śimbi or śamīdhānya), and sesame (tila) are some of the common plants used for edible purposes. Different varieties of dhānya are mentioned in the purāṇas in connection with religious and dietic purposes. As per Agni-purāṇa, paddy was cultivated on a large scale and people performed

> ♦ Purāṇas contain several discussions related to the plant kingdom and its role in addressing food, medicine, and other requirements of society.
> ♦ Several purāṇas have discussions on astronomy, which consists of ideas in the pre-telescope age.

religious functions for enhancement of production of rice. The Agni-purāṇa contains a description of different varieties of dhānya or paddy, such as deva-dhānya, śyāmakā, and nīvāra. The Matsya-purāṇa mentions eighteen varieties of rice and during the religious performance called aśvaratha-dāna, the observer had to fill in four jars with eighteen types of rice. In the Agni-purāṇa, wheat and barley are recommended as food items for the observers of religious vows, particularly yava is eaten by the performers of prājāpatya-vrata. In the Agni-purāṇa, there are mentions of tax on profits out of pulse production. It is stated that one-eighth of the produced pulses are paid to the king as tax. This indicates to us that pulses were being cultivated on large scale.

**TABLE 4.1** Topics Discussed in the Eighteen Mahā-purāṇas (other than those related to purāṇa-lakṣaṇas)

| Sl. No. | Purāṇa (Alphabetical) | No. of Verses | Topics Discussed |
|---|---|---|---|
| 1. | Agni | 16,000 | Rules for worship of various deities, installations of images in temples, astrology, architecture, sculptures, medicine, toxicology, principles of dramaturgy, human physiology, figures of speech |
| 2. | Bhāgavata | 18,000 | Most authoritative text dealing with Śrī Kṛṣṇa's life, cosmic form of God, Creation of the world, Uddhava-gītā, list of kings who ruled after Kṛṣṇa, a graphic description of Kaliyuga |
| 3. | Bhaviṣya | 14,500 | Sixteen Saṃskāras, Rules concerning the studies of Vedas, Varṇāśrama Dharma, Vratas, Types of Dāna, Genealogy of the king who will come in future and the way they will rule the country |
| 4. | Brahma | 10,000 | What is available seems to be more a compilation of chapters from Mahābhārata, Viṣṇu, Mārkaṇḍeya and Vāyu purāṇas |
| 5. | Brahmāṇḍa | 12,000 | The subjects of creation, Geography of earth and Bhāratavarṣa, 14 worlds, types of hells, Balineese translation of this purana has been found in the Bali island |
| 6. | Brahmavaivarta | 18,000 | Āyurveda, Sandhyā ritual, Śāligrāma worship, Kaliyuga, Greatness of Tulasi leaves, Code of conduct for married women and widows, Greatness of Bhārata-deśa, building construction |
| 7. | Garuḍa | 18,000 | Cosmography, astronomy, astrology, omens, portents, medicine and knowledge of precious stones, journey of Jīva after death, rites to be performed during and after death, Torments of hell, encounter with pretas, Yamaloka |
| 8. | Kūrma | 18,000 | Duties of four Varṇas and Āśramas, evolution of Prakṛti, Description of physical features of the world and of Jambūdvīpa, Division of Vedas, after death rites, Prāyaścittas, Pralaya |
| 9. | Liṅga | 11,000 | Music and its propagation, Dānas and their fruits |

*(Contd.)*

**TABLE 4.1** Topics Discussed in the Eighteen Mahā-purāṇas (other than those related to purāṇa-lakṣaṇas) (*Contd.*)

| Sl. No. | Purāṇa (Alphabetical) | No. of Verses | Topics Discussed |
|---|---|---|---|
| 10. | Mārkaṇḍeya | 9,000 | Descriptions of hell, Karma and its fructification, Some aspects of Yoga, Geographical description of Bhārata and Śrāddhas |
| 11. | Matsya | 14,000 | Vratas, Dānas and their fruits, Greatness of holy places like Prayāga, Vārāṇasī and river Narmadā, Duties of Kings, Omens, Iconography, Building construction |
| 12. | Nāradīya | 25,000 | Vratas, Duties of the people of various Varṇas and Āśramas, Six Vedāṅgas, Ritualistic workshop, Fasting on Ekādaśī days |
| 13. | Padma | 55,000 | Description of the various worlds of goblins, gandharvas, heaven and so on, Varṇāśrama dharmas, Vratas and religious vows, Various types of Śrāddhas |
| 14. | Skanda | 81,000 | Detail descriptions of several places of pilgrimage such as Kāśī, Purī and Ujjainī, Advaita-vedānta, Various aspects of Lord Śiva, and methods of meditations, Satyanārāyaṇa-vrata |
| 15. | Vāmana | 10,000 | Certain vratas, Doctrine of karma |
| 16. | Varāha | 24,000 | Dharma śāstra, Pilgrimage, Dāna, images of deities and their worship, Aśouca, Śrāddha, Theory of karma, Hells, Cosmology, Sins |
| 17. | Vāyu | 24,000 | Geographical descriptions of places, Importance and greatness of Gaya, Famous places of pilgrimage, Details of Śrāddha ceremony, Science of music |
| 18. | Viṣṇu | 23,000 | Four Varṇas and Āśramas, The impact of Kali, Philosophical ideas of the Vedas, Description of Kaliyuga, Bhakti as main Sādhanā |

*Source:* Compiled from **Swami Harshananda (2000).** "The Purāṇas", Sri Ramakrishna Math, Bengaluru.

The use of plants, herbs, and shrubs is evident from the descriptions in the Agni-purāṇa. Thirty-six plants such as harītakī, nimba, akṣa, and bald were used in combinations for the treatment of different kinds of diseases. Similarly, in the Matsya-purāṇa nearly seventy-five plants have been identified to have great medicinal value (mahauṣadha). According to the Agni-purāṇa, the physicians used to treat mental disorders with certain plants and herbs such as hiṅgu, suvarcalā, and vyoṣa. In the Agni-purāṇa, mention is also made of food and medicine of the elephants. It is observed that plants such as yava, vrīhi, ṣaṣṭika, śāli, godhūma, and ikṣu are recommended diet for the elephants.

### Foetal Development: Stages of Growth

The development of a human embryo from the time of fertilisation until the child is born has been well understood in modern medicine. The current state of knowledge informs us of certain key stages of this growth. We see a parallel in Bhāgavata-purāṇa on this subject. In Bhāgavata-

purāṇa, the third book discusses the creation process in some detail. In the 31st chapter of Book 3, the first eight verses describe the various stages of the growth of an embryo into a new-born child[15]. The stages described in Bhāgavata-purāṇa can be illustrated using a simple graphic. Figure 4.3 depicts the various stages mentioned in the purāṇa.
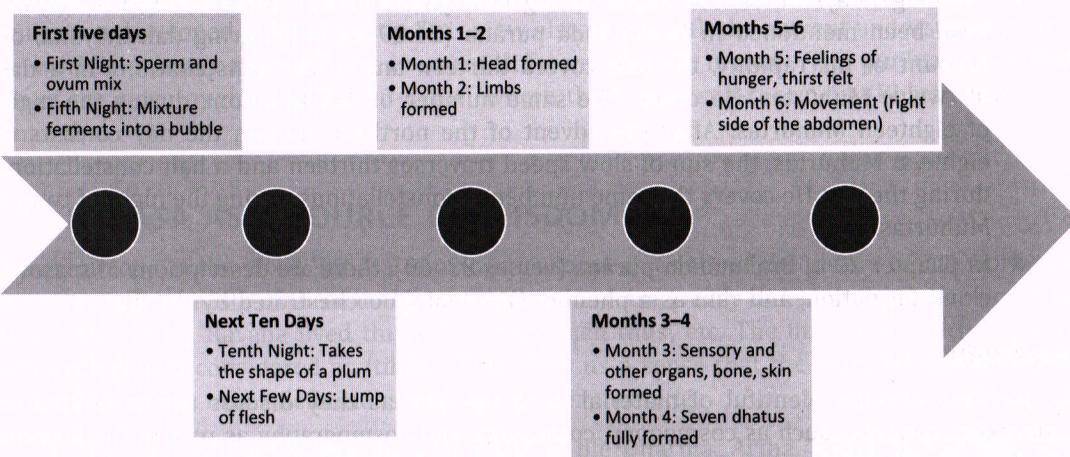


**FIGURE 4.3** Stages of Foetal Development as per Bhāgavata-purāṇa

As seen from the figure, in the first ten days after fertilisation, a lump of flesh is formed. In two months, the head and the limbs are formed. During third and the fourth month the sensory organs and the seven basic materials that make up the human body are formed. In the sixth month the foetus begins showing movements. Similar descriptions are found in Agni-purāṇa and they are mostly aligned to the discussion in the āyurvedic texts. Moreover, these descriptions are also aligned with the current understanding of the medical field. However, with the available gadgets and improvements in scanning and other technology we are able to obtain a much deeper undersatnding of the stages of embryonic growth today.

### Astronomy

Several purāṇas have discussions on astronomy, which consists of ideas in the pre-telescope age. The issues discussed invariably cover the movement of the Sun and the Moon, day and night, months, and seasons, which are basic ideas in astronomy. There are also discussions related to the stellar region, size of the planets, and other stars. These discussions are found in Brahmāṇḍa-purāṇa (Chapters 21–24), Matsya-purāṇa (Chapters 124–128), Viṣṇu-purāṇa (Chapters 2.08–2.12) and Vāyu-purāṇa (Chapters 1.50–1.53). It may, however, be noted that some of the ideas especially related to the distances, positions, and dimensions of planets are inaccurate and outdated due to the advance of modern astronomy. Let us see a glimpse of some of the details available in Brahmāṇḍa-purāṇa[16]:

♦ All the basic details of astronomy are specified in Chapter 21. This includes the notion of a solar month and solar year, ṛtus, dakṣiṇāyana and uttarāyaṇa, names of twelve solar months and their mapping to ṛtus, equinoxes and the need for intercalary months in a lunisolar calendar.

♦ It is mentioned (21.49–21.50), "the two quarters of the East and West are remembered through sunrise and sunset. While it blazes in front, (the heat is felt) behind as well as at the sides. Where the sun appears rising, it is remembered as sunrise to the people there-of, where the sun vanishes, it is called sunset to the people there".

♦ The longer days and shorter nights during uttarāyaṇa and the reverse during dakṣiṇāyana have been mentioned in Brahmāṇḍa purāṇa (21.89–21.93), During dakṣiṇāyana, on account of his rapidity, the sun covers thirteen and a half constellations in a day of twelve Muhūrtas. He covers the same number of constellations during the night of eighteen Muhūrtas. After the advent of the northern transit, the day consists of eighteen Muhūrtas, the sun of slow speed traverses thirteen and a half constellations during the day. He covers the same number of constellations during the night of twelve Muhūrtas.

♦ In Chapter 22 of Brahmāṇḍa-purāṇa (verses 23–60), there are descriptions of seasons, cloud formation, and rain as a phenomenon mainly orchestrated by the sun.

### Geography

The purāṇas provide plentiful of material on geography as they discuss topics related to modern-day concepts such as cosmogony, cosmology, and cosmography as part of the lakṣaṇa of 'creation'[17]. These ideas are found in varying details in the purāṇas and often are repeated in all the purāṇas with similar details. There are descriptions of the origin of the Universe and the Earth, oceans, and continents, mountain systems of the world regions, and geography. There are also specific references to the geography of Bhārata. The facts contained require careful analysis and understanding, as at first reading it is like fantasy. However, certain assumptions that the purāṇas have made in their analysis of geography and people concur with current-day thinking and therefore it merits serious study of the matter.

┌─ **Padma-purāṇa: Composition of the Foetus at the Time of Child Birth** ─┐

In the Padma-purāṇa, Book 2, Chapter 66, there is a conversation between Yayāti and Mātali (the charioteer of Indra). In response to a question that Yayāti asked about the birth and death of human beings, there is an elaborate description of the birth and death process. In verses 22–38, there is a description of the formation of the embryo and the subsequent stages of foetal development similar to what we find in Bhāgavata-purāṇa.

Further, there are vivid descriptions of the composition of the foetus at the time of its ejection out of the uterus (childbirth) in verses 49–66. Some salient aspects are as follows:

♦ Bones in the skeleton – three hundred and a hundred more (i.e. four hundred).

♦ Muscles – five hundred. It is all around covered with small soft hair numbering three crores and half. The body is full of crores of these gross and subtle, visible and invisible, fleshy tubular organs from within.

♦ The teeth – thirty-two, the nails – twenty.

♦ The quantity of various substances: bile (in the body) – one kuḍava (160 gms); phlegm – half an āḍhaka (1.28 kg), marrow – five palas (200 gm) and the buttocks are half of it, lump of flesh – five palas; fat – ten palas; thick blood – three palas; the quantity of marrow is four times that of the blood; semen – half a kuḍava.

*Source:* पद्मपुराणम्/खण्ड: २ (भूमिखण्ड:)/अध्याय: ०६६ - विकिस्रोत: (wikisource.org);
https://www.wisdomlib.org/hinduism/book/the-padma-purana/d/doc364273.html.
└──────────────────────────────────────────────────────────────┘

The purāṇas, for example, state that the common origin of all races of mankind is traceable to one centre on this planet. This is in accordance with the modern monogenist theory which holds that all varieties of humankind are of single zoological species. The purāṇas also present a picture in which the seven different human groups radiated from the common centre and occupied seven different regions of the world. In each of these regions, human society and civilization developed independently. This view also aligns with the current understanding that the world's primary races belong to seven different climatic regions. The purāṇas state that one of the seven regions is 'Jambū-dvīpa', where the Indian sub-continent (Bhārata-varṣa) is situated.

## 4.2   ITIHĀSA AS A SOURCE OF WISDOM

The etymology of the word 'Itihāsa' provides us some clues about the nature of the work and its contents. It consists of three components, Iti + ha + āsa (verily did exist thus). For example, 'Rāma lived thus', 'Rāvaṇa lived thus', 'This happened thus', etc. The literature which explains such examples is considered as Itihāsa. This gives us a sense that the word Itihāsa points to 'history'. However, other definitions convey a wider meaning:

♦ The text which teaches the four goals of life Dharma, Artha, Kāma, and Mokṣa, and which deals with the stories of historical happenings is called Itihāsa[18].

♦ The text explains the story of the past[19].

♦ According to Kauṭilya – history (*Purāṇa, Itivṛtta*), tales (*Ākhyāyikā*), illustrative stories (*Udāharaṇa*), *Dharmaśāstra*, and *Arthaśāstra* are (known by the name) *Itihāsa*[20].

Therefore, Itihāsa is not merely a collection of stories related to some past events but an attempt to see the events through the lens of the four puruṣārthas. Though several literary works are considered as Itihāsa, only Rāmāyaṇa and Mahābhārata, also known as the great epics, have earned the fame of two major Itihāsas. At a cursory glance, the separation as Purāṇas and Itihāsas may appear artificial as both focus on narrating stories related to past events. However, there are crucial differences between the two:

♦ Itihāsas are narrations of the story in which the narrator has been part of the story. Thus, Mahābhārata authored by Vyāsa is a story in which he was also one of the actors, living at the time. So is the case of Vālmīki in Rāmayaṇa.

♦ In this sense, Itihāsas are not stories about a distant past, as in the case of purāṇas. Therefore, there is a certain element of historicity to the Itihāsas, and these have been dated. On the other hand, establishing the period for the events narrated in purāṇas is not possible as they belong to a very distant past.

♦ In the case of purāṇas, there are five lakṣaṇas, as we have already seen. This involves discussion of multiple lineages of royal dynasties and ṛṣis. In contrast, in the two Itihāsas, there is a clear focus respectively on a single dynasty. In the case of Rāmāyaṇa, the focus is on the 'solar dynasty' (Sūryavaṃśa) and in the Mahābhārata, the focus is on the 'lunar dynasty' (Candravaṃśa). While the main flow of the story revolves around these respective dynasties, there are narrations of some purāṇic stories in Itihāsas, more as a side story to illustrate some point.

♦ By design, itihāsas are not meant to be encyclopaedic in nature, as in the case of purāṇas. Instead, the focus is to narrate the events using the lens of the four puruṣārthas, as mentioned already.

### 4.2.1 Uniqueness of the Two Epics

The two Itihāsas, Rāmayaṇa and Mahābhārata occupy a very unique position in the repository of the Indian knowledge system. According to Swāmī Vivekānanda, "The Rāmayaṇa and the Mahābhārata are the two encyclopaedias of the ancient Āryan life and wisdom, portraying an ideal civilisation, which humanity has yet to aspire after[21]". It is a common belief in Indian society that there is nothing that is not covered in these two Itihāsas. Several poetries, texts on governance, and Nīti śāstra have been inspired by these two epics.

> ♦ Itihāsa is stories related to some past events viewed through the lens of the four puruṣārthas.
> ♦ Rāmayaṇa and Mahābhārata are the two encyclopaedias of the ancient Āryan life and wisdom, portraying an ideal civilisation.

These two great epics have deeply influenced Indian society for time immemorial as is evident from several references to the heroes of the two epics in local matters throughout the length and breadth of the Indian sub-continent. In several sthala-purāṇas and local traditions we find examples such as, 'This rock contains the footprints of Rāma, the mountain got split into two unable to bear the weight of the Hanumān, the colour of this river is like this because mother Sītā had washed her clothes here, this is the cave where the Pāṇḍavas spent their Vanavāsa' etc. Another indication of the great influence of the two epics on society is evident from the fact that classical Indian literary works (mahā-kāvyas) selected the themes from the two epics. For example, Kālidāsa's Raghuvamśa, Kumāradāsa's Jānakī-haraṇa, and Bhaṭṭi's Bhaṭṭi-kāvya (Rāvaṇa-vadha) were based on Rāmayaṇa. Similarly, Kālidāsa's Abhijñāna-śākuntala, Bhāravi's Kirātārjunīya, Māgha's Śiśupāla-vadha and Śrīharṣa's Naiṣadhīya-carita were based on Mahābhārata. Similarly, Indian drama, dance, movies, and other performing arts have been greatly influenced by the two epics.

The two epics have taken different approaches to the issues of life and the propagation of dharma. Interestingly, both address the core issue of dharma and one's duty towards personal, family, and societal obligations. However, by virtue of the differences in their approach, they arrive at different answers to the questions related to the core issue. On account of this, they together serve as a complete handbook for sensible and successful living. Rāmayaṇa's approach is simple and straightforward. Despite personal sufferings, the duty is clear, there is little scope for ethical and moral dilemmas. Presenting an ideal picture of life, characters, relationships, and values to be pursued, it seeks to elevate an individual to a higher plane. This approach may be called a 'normative approach' to life (essentially suggesting what ought to be done in life).

On the other hand, Mahābhārata has taken what could be referred to as a 'descriptive approach' (essentially illustrating what the reality of life is). In this approach, by presenting the actual happenings, and the moral and ethical dilemmas that different actors faced, the epic showcases the decisions made by the actors and their consequences in the long run. Rather than presenting the ideals of life, it shows life as it unfolds with all its attendant challenges. Instead of informing us what our duty is it merely presents using several anecdotes and nested stories of how various people discharged their duties and what the fallout was. The richness and the value of Mahābhārata lie in the fact that it is full of unsolved ethical riddles

and dilemmas, which are faced by ordinary human beings, wherein the characters struggle to find what is right, make mistakes and suffer the full consequences.

It is remarkable to notice that the two epics are not a mere piece of poetic or literary work but a living entity deeply engaging the lives of the Indian people, not merely of the intelligentsia, but also all sections of the society.

## 4.3 RĀMĀYAṆA – KEY ISSUES AND MESSAGES

Rāmayaṇa consists of seven books which are called as Kāṇḍas, organized into 645 sargas (chapters), and 23,672 verses[22]. Rāmayaṇa is a vast history of Rāma but also consists of many other related instances. In India, we have more than 40 versions of Rāmayaṇa in different languages like the Rāmacaritmānas in Avadhi, Kamba-Rāmayaṇa in Tamil, Mādhava-Kaṇḍali in Assamese, Goṇa Budha's Raṅganātha-Rāmayaṇa in Telugu, Jagamohan-Rāmayaṇa in Oriya, Narahari-Rāmayaṇa in Kannada, etc. The story of Rāma is very well known in most parts of the world. It has been directly written in various languages in different countries.

> ♦ Rāmayaṇa takes a 'normative' approach while Mahābhārata takes a 'descriptive' approach to present events and decisions.
> ♦ Indian drama, dance, and other performing arts have been greatly influenced by the two epics.

The Vālmīki-Rāmayaṇa is translated into many languages. There are reportedly around three hundred versions of Rāmayaṇa.

The Rāmayaṇa has played a significant role in cultural transmission between Indian and other Asian countries. It has travelled from India to other parts of Asia such as China, Turkestan, Burma, Thailand, Java, Cambodia, and Vietnam during the first millennium in the common era. It is interesting to note that almost all countries of Southeast Asia have the Rāma story, albeit in varied forms and content. From the thirteenth century onwards, several Thai kings assumed the title Rāma, and the tradition continues. According to Rāmayaṇa, Rāma is not merely a human being but an embodiment and a living entity of the concept of Dharma. Through several characters, Rāmayaṇa provides a rich opportunity to understand important aspects of peaceful co-existence and successful living.

**Bāla-kāṇḍa** deals with the birth and childhood of Rāma and his brothers. Viśvāmitra takes along with him Rāma and Lakṣmaṇa through the forest and eventually to Mithilā leading to the marriage of Sītā to Rāma. One of the key messages that we can glean from this section is the importance of knowing the reality of life in the country by the king-to-be. Rāma's journey with Viśvāmitra through the forest and villages provided an opportunity for him to develop this awareness. This reminds us of an important principle stated in modern management parlance. In organisations, great leadership requires a good knowledge of the issues and realities facing the organisation. This is obtained only when the leader can connect to the people and situations in the organisation physically and mentally.

**Ayodhyā-kāṇḍa** describes the fast turn of events in which an attempt to coronate Rāma as the next heir apparent to the throne by Daśaratha was aborted and instead Rāma was sent to the forest for 14 years. The desire of Kaikeyī, the mother of Bharata, to install him as the prince went futile and Daśaratha died of shock and grief. This part of the epic provides an important message to the young that life can be a roller coaster ride. There is a need to understand that events in everyone's life can turn adversarial at any time. Rāma demonstrates that to be successful in life one needs to develop mental equanimity to handle such unforeseen events

in one's life. The conversation between Bharata and Rāma in the final portions of this section contains a wealth of information on public policy and administration and larger issues of life. We shall see some aspects of this in Chapter 14 of the book.

**Araṇya-kāṇḍa** marks the large-scale elimination of rākṣasas in the forest in response to the request from the sages and seers, who were constantly harassed by these people. It also portrays the forceful and deceitful kidnapping of Sītā by Rāvaṇa. The epic reminds us that goodness needs to be protected from evil forces, lest it becomes unsustainable. The conversation between Mārīca and Rāvaṇa brings out an important message that while removing a poisonous snake that entered into a freshwater lake, the only source of livelihood for a village, 1000's of good fishes will die for no fault of theirs. It reminds us of the fact that an evil action by an individual will eventually trigger a bigger reaction from the system and in the process of eliminating the evil, several good aspects may also get destroyed.

**Kiṣkindhā-kāṇḍa** describes the efforts on the part of Rāma and Lakṣmaṇa to find Sītā, who was abducted by Rāvaṇa. The grief that they underwent was unparalleled as they were not even aware of what happened to Sītā and who took her away. The meeting of Sugrīva through the good offices of Hanumān instilled a ray of hope in their search. The epic brings out the importance of friendship, especially during periods of great distress. It also reminds us of the importance of wise counselling to wade through the challenges that we face in our life.

**Sundara-kāṇḍa** describes the heroic efforts of Hanumān to cross the ocean to locate Sītā and repose confidence in her. It also describes the horrifying state of affairs for Sītā and the grit and determination with which she faced the situation. The epic beautifully demonstrates the strength of the character of Sītā, with which she discovered unlimited courage within and faced the adversity with grace and purpose, which can inspire the womenfolk. Other messages include statecraft, dealing with ambassadors, and the presence of mind and tact required for assessing the strength of an opponent.

> ♦ Rāmāyaṇa encourages one to contemplate the difference between 'goodness' and 'greatness' and the need to have both to succeed in life.
> ♦ Mahābhārata discusses a variety of topics including law, philosophy, religion, and custom.

**Yuddha-kāṇḍa** describes the royal battle that erupted between Sugrīva's army and Rāvaṇa's army, eventually culminating in large-scale elimination of rākṣasas and their king Rāvaṇa as prophesied by Mārīca. Before the war, Rāvaṇa bluntly dismissed several attempts by his near and dear to instil a sense in him by pointing to the dangers of the imminent war and the need to broker peace with Rāma by giving up Sītā. Kumbhakarṇa while advising Rāvaṇa says, "One who takes the timely advice concerning Dharma, Artha and Kāma, about the pros and cons of the deeds from his scholarly councilors never gets into trouble[23]". Rāvaṇa was very powerful but he flouted the advice given by his great councilors and well-wishers like Vibhīṣaṇa, Mārīca, Mālyavān, Maṇḍodarī, and Kumbhakarṇa. This led to his downfall and death. The epic forcefully brings out the benefits of wise counseling and the dangers of hasty decisions arising out of an inebriated mind polluted with attachment to unreasonable and unethical desires.

**Uttara-kāṇḍa** has a collection of related stories not necessarily in chronological order as in the case of the previous books. It discusses certain events in Rāvaṇa's life not mentioned in the other books, the birth of Lava and Kuśa and the departure of Rāma and Sītā from this world.

The epic throughout depicts Rāma and Rāvaṇa in equal measure when it comes to 'greatness'. While describing the final encounter between Rāma and Rāvaṇa, Vālmīki remarks that it is impossible to find a simile to describe this, "Just as the vastness of the sky has no

simile and the majesty of the ocean also does not have a simile, in the same manner, there is no analogy to the war between Rāma and Rāvaṇa"[24]. Unfortunately, in terms of 'goodness' Rāvaṇa was no match to Rāma. The epic encourages one to contemplate the difference between 'goodness' and 'greatness' and the need to have both to succeed in life. Greatness without 'goodness' is a definite recipe for eventual disaster as demonstrated by Rāvaṇa. On the other hand, 'goodness' without 'greatness' may not enable one to cover much ground in his life.

Rāma lived as a human being and faced the day-to-day situations and conflicts of life from an ordinary human plane. This makes Rāmāyaṇa special and realistic. The Rāmāyaṇa describes situations where there are moral dilemmas and conflicts between two rights. Rāma was a perfect role model, who lived through the good and enjoyable aspects of life yet in a detached fashion. He was detached from power, wealth, greed, fame, and desire. He was kind and even minded to even those who opposed him. His ability to face difficult situations in life and to gracefully handle success and tragedy is an excellent example to follow.

The Vālmīki Rāmāyaṇa beautifully depicts the dharma of personal life, family life, and social order. The human characters in Rāma, Lakṣmaṇa, Bharata, Kausalyā, and Sītā bring out the principles of ideal living. It emphasises the ideal relationships between father and sons, between brothers, and between husband and wife. The concept of dharma as the way to a meaningful life could be a powerful theme for positive mental health. Many conflicts in life can be resolved using this perspective. These anecdotes, the conflicts, and the situations are the real nuggets of wisdom for the people.

## 4.4 MAHĀBHĀRATA – A SOURCEBOOK FOR WORLDLY WISDOM

Mahābhārata is one of the greatest poems in the world composed by Kṛṣṇa-Dvaipāyana (Veda Vyāsa). According to the available information, the original and first version of Mahābhārata which was named Jaya consisted of only about 8,000 verses and then the second version had 24,000 verses which was named Bhārata[25]. It was later extended to up to 1,00,000 verses and was named Mahābhārata. There are multiple versions of the epic available. Therefore, a long-term project under the auspices of BORI, Pune started in 1919 under V.S. Sukthankar to prepare a critical edition of Mahābhārata. After collating information from 1,259 manuscripts and several years of work, a critical edition was finally brought out in 1966. The critical edition consists of more than 89,000 verses organised under 18 Parvas.

Multiple editions and redaction of the original text of Mahābhārata may appear to be a cause of concern. However, the leading incidents and characters of the epic have not been affected and modified by these changes. Mahābhārata depicts the trials and tribulations that various kings of the lunar dynasty went through. To a large extent, the story focuses on the dispute between two families, the Kauravas and the Pāṇḍavas. The story unfolds steadily in the text but is interspersed throughout with a variety of topics including law, philosophy, religion, custom, and to some extent, geography and cosmography combined with several episodes and legends adding to the richness of the message. Table 4.2 concisely presents the broad organisation of the text and the major topics covered in the text. The issues discussed in the text can be broadly summarized under five major heads:

> ♦ Mahābhārata presents the reality of life and allows the reader to pick up their lessons for living.
> ♦ Nītis are the guidance to take a person to the path of Dharma by providing the right perspectives about life and life goals.

TABLE 4.2  Overall Structure and Organisation of Topics in Mahābhārata

| Parva | Chapters | Topics |
|---|---|---|
| Ādi | 225 | Stories of the ancestors of Kuaravas and Pāṇḍavas; birth and education of Kauravas and Pāṇḍavas; enmity in their childhood; Draupadī's marriage to Pāṇḍavas; Arjuna's marriage to Subhadrā |
| Sabhā | 72 | Performance of Rājasūya yajña by Yudhiṣṭhira, the game of dice maneuvered by Duryodhana, and its tragic consequences |
| Āraṇyaka | 299 | Pāṇḍavas in exile, several stories from the past, famous conversation known as Yakṣapraśna |
| Virāṭa | 67 | The stay of the Pāṇḍavas incognito in the kingdom of Virāṭa, Virāṭa's princess Uttarā gets married to Abhimanyu |
| Udyoga | 197 | Unsuccessful peace parleys and preparation for the war, the famous discourse of sage Sanatsujāta to Dhṛtarāṣṭra |
| Bhīṣma | 117 | Śrimad *Bhagavad Gītā*, detailed descriptions of the first ten days of the war, Bhīṣma mortally wounded by Arjuna |
| Droṇa | 173 | The heroic exploits of Droṇa and his death through a planned strategy; Abhimanyu's tragic death |
| Karṇa | 69 | Death of Duśśāsana, the second of the Kaurava brothers, fall of Karṇa at the hands of Arjuna |
| Śalya | 64 | Final encounter between Bhīma and Duryodhana on the last day of the war |
| Sauptika | 18 | The gruesome massacre of the Pāṇḍava army in the night during sleep by Aśvatthāman |
| Strī | 27 | Lamentations of the widows of the dead warriors |
| Śānti | 353 | Wonderful discourses on all aspects of *dharma* by the patriarch Bhīṣma at the request of Yudhiṣṭhira, Bhīṣma's demise, Yudhiṣṭhira's coronation |
| Anuśāsana | 154 | |
| Āśvamedhika | 96 | Departure of Śrī Kṛṣṇa to Dvārakā, Aśvamedha Yajña by Yudhiṣṭhira |
| Āśramavāsika | 47 | Departure of Dhṛtarāṣṭra to the forest along with Gāndhārī, and Kuntī; their subsequent death in a forest fire |
| Mausala | 9 | Mutual destruction of the Yādava heroes and also the death of Śrī Kṛṣṇa |
| Mahāprasthānika | 3 | Final journey of the Pāṇḍavas, their death on the way, Yudhiṣṭhira alone reaching heaven |
| Svargārohaṇa | 5 | |
| Harivamśa | 118 | Supplement of Mahābhārata |
| **Total** | **2,113** | |

♦ **Birth, Childhood, and Rivalry:** The first two books (Ādi Parva, Sabhā Parva) of Mahābhārata describe in detail the ancestral details of the Kauravas and the Pāṇḍavas, their birth, the early childhood and the growing rivalry between the cousins of the two families. The growth both in terms of the popularity of Yudhiṣṭhira and his brothers, their material richness, and the respect that they commanded was seeding jealousy in Duryodhana and his brothers and it reached a flashpoint in winning a dubious game of dice and ill-treating Draupadī. Ironically, several elders, well-wishers, and wise people were party to this treacherous act, directly or otherwise.

♦ **Banishing of Pāṇḍavas:** The next two books (Āraṇyaka-parva, Virāṭa-parva) of Mahābhārata vividly describe a variety of events that unfolded when the Pāṇḍavas were asked to go to the forest as a compromise to restore their kingdom if they successfully complete the tenure. The possibility of unfair treatment on their return ought to have loomed large in their minds, based on their past experience of dealing with the Kauravas. Therefore, Pāṇḍavas make use of this time to gather enough strength and support, and blessings from the Gods to face any eventual war.

♦ **Failed peace parleys leading to war:** The next seven books starting from Udyoga-parva describe the failed efforts from both the Pāṇḍava side and the Kaurava side to avert the war. It is followed by the description of the great war that erupted which resulted in total decimation of the Kaurava side, killing of Duryodhana and all his Kaurava brothers and several prominent people on both sides of the army and ends with the lamentations of the widows and the ladies.

♦ **Post-war conversation between Yudhiṣṭhira and Bhīṣma:** The next two books (Śānti-parva and Anuśāsana-parva) deals with the detailed conversation between Yudhiṣṭhira, who is going to be coronated as the king and Bhīṣma, who was waiting to give up his mortal body. This section has a wealth of information on several aspects of life, public policy and administration, spiritual and materialistic aspects of life, dharma, and the other puruṣārthas.

♦ **The exit of the characters:** In the last five books starting from Āśvamedhika-parva, the epic discusses the role of Yudhiṣṭhira as a king. This is followed by the exit of all the remaining main characters, including Pāṇḍavas, Draupadī, Kṛṣṇa, Dhṛtarāṣṭra, and his cohort Gāndhārī, and Kuntī.

At a cursory level, Mahābhārata comes across as merely a historical account of two warring factions of the Pāṇḍavas and Kauravas. However, a deeper understanding of the epic will reveal to us several hidden treasures of wisdom. Rather than presenting an ideal, 'textbook' like character, the epic presents the reality of life and allows the reader to pick up their lessons for living. The epic presents almost all the characters in different shades of grey bringing out the reality of decision making and the dilemmas that one faces in life. Even Kṛṣṇa, who is considered omnipotent and worshipped as a god is portrayed objectively. There is no attempt to conceal the faults of the characters, be it the venerable characters such as Bhīṣma and Droṇa or others such as the Pāṇḍavas. For example, as a part of the dying declaration, Duryodhana puts to shame some acts of the Pāṇḍavas and points to the instances wherein they had cheated.

The topics in Mahābhārata has such a wide canvas that it covers several aspects of human life. Therefore, it is observed, "whatever knowledge related to Dharma, Artha, Kāma, and

Mokṣa found in the Mahābhārata may be found elsewhere; but what is not here may not be found elsewhere"[26]. Unlike the Rāmāyaṇa, the stories in Mahābhārata are several, rich in their content and cover a wide range of issues of interest to the society. Anuśāsana-parva provides several interesting insights on governance and administration. In the conversation with Bhīṣma, Yudhiṣṭhira brings forth the moral conflicts and ethical dilemmas that he faces in administration and seeks advice from Bhīṣma. In this Parva, several principles related to Dharma and Artha could be found, which will find relevance in modern-day economics. It also deals with the issue of charity and provides guidelines for individual duty and code of conduct.

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**The Conversation between Yudhiṣṭhira and a Yakṣa**

The episode involving the conversation between Yudhiṣṭhira and a Yakṣa found at the end of Āraṇyaka-parva is an example of using interesting episodes as a medium to share wisdom of life. In an episode in which the Pāṇḍavas visit a mysterious lake to quench their thirst, Yudhiṣṭhira was the last to visit the lake, the other four were found lying dead near the lake. Yudhiṣṭhira encounters a Yakṣa and there is an interesting conversation between the two.

During the conversation more than 126 questions were asked by Yakṣa, one of which was, "What is the most surprising aspect of life?" He replied, "Everyday several living beings die and yet those who are still living desire a state of permanence in the world". This encourages one to reflect the necessity of developing a certain level of detachment thereby keeping aloof from overindulgence in materialistic pursuits. The epic has several such life-altering lessons. Table 4.3 has a list of some of the questions and the answers.

**TABLE 4.3**   Some Words of Wisdom from the Yakṣa-praśna Episode

| Sl. No. | Questions | Answers |
|---------|-----------|---------|
| 1 | What remains the most beneficial when it is falling? | Rain |
| 2 | What remains the most beneficial even when it is thrown away? | Seed |
| 3 | What is faster than the wind? | Mind |
| 4 | What is more numerous than grass? | Thoughts |
| 5 | Who is the householder's friend? | Wife |
| 6 | Who is the friend of a dying person? | Charity |
| 7 | What is the greatest gain? | Health |
| 8 | What is the greatest happiness? | Contentment |
| 9 | By giving up what can one become lovable? | Pride |
| 10 | By giving up what will one not feel sad? | Anger |
| 11 | By giving up what can one become wealthy? | Desire |
| 12 | By giving up what can one become happy? | Greed |

Dharma is arguably a very intricate subject, not lending itself to a simple bulleted set of ideas. Communicating this idea is not an easy task. On the other hand, staying away from the subject citing reasons of complexity in articulating the idea is not desirable. The value

of several anecdotes and nested stories in Mahābhārata lies in tiding over this difficulty. For example, during the conversation with Yudhiṣṭhira, Bhīṣma brings the point that dharma varies in accordance with the demands of the situation: there is one dharma for moments of strength and another in times of distress. Even during a famine, a king ought to maintain his exchequer and his army. Since wealth is critical to meet these requirements, a king may use appropriate means to obtain wealth. In such cases, he will not incur sin. Figure 4.4 provides a summary of some salient aspects of the two epics as evident from the above discussions.

| Rāmāyaṇa | Mahābhārata |
|----------|-------------|
| • 645 chapters, 23,672 verses | • 1,00,000 verses, over 2,000 chapters |
| • Normative approach – Ideal 'textbook' like characters of life | • Descriptive approach – Characters present the 'reality' of life |
| • All countries in SE Asia have the Rāma story | • Rich collection of deeply nested stories |
| • Descriptions of dharma of personal and social life and social order | • Many niggets of wisdom – Yakṣa Praśna, Vidura Nīti, Sanat-sujātīya, Bhagavad Gītā |
| • Notion of 'Goodness' vs 'Greatness' | |

**FIGURE 4.4**   A Summary of Some Salient Aspects of the Two Epics

## 4.5 NĪTI-ŚĀSTRAS – COLLECTION OF SNIPPETS OF WISDOM

Nītis are the guidance to take a person to the path of Dharma by providing the right perspectives about life and life goals. The role of Nīti-śāstras lies in providing us helpful directions to resolve such conflicts by providing snippets of wisdom culled out or distilled from past experiences. It utilises verses set in poetic metres to concisely communicate the message.

In the ancient Indian tradition, our ancestors have identified four principal categories of goals in human life, i.e., Dharma, Artha, Kāma, and Mokṣa. Dharma is the enabling framework for leading a life that is self-fulfilling, sustainable, and allows us to peacefully co-exist with other human beings and other entities in the Universe. It is the nearest explanation for modern-day sustainability and provides us a broad set of dos and don'ts to achieve our life goals. It is the basic edifice for us to build our mansion of life. Artha provides the material wherewithal to fulfil our life goals, needs, and wants. It addresses the larger issues of health, well-being, and wealth required to satisfy our basic needs and other wants not in conflict with dharma. Kāma on the other hand, is the set of desires, spanning across biological, physiological, and intellectual dimensions that one wants to attain in this lifetime. Mokṣa is the liberation of an individual from the clutches and limitations of life and a means to realize one's true potential and nature.

Nīti texts take into consideration the very basic rule that all puruṣārthas are generally guaranteed to the individuals by the Universe. It is when he realises all the four types of goals his life is comprehensively successful. Nīti acknowledges this fact and helps people in attaining the same. However, Nīti-śāstras predominantly focus on the first three goals. It is assumed that once an individual perfects the art of managing the first three goals in a non-conflicting manner, his transition to the fourth will happen seamlessly and naturally. In practical life, human consequences are so varied that it is not so easy to pursue one goal at a time. There arise conflicts between various goals and one finds it difficult to resolve decision-making dilemmas

in such situations. To steer individuals forward in these tough situations, Nīti-śāstra provides helpful guidelines that help in the trajectory of an individual's life such that such conflicts are reduced to the minimum.

Though there is no specific classification of nīti texts, from the available works we can broadly classify the repository into two: Nitya or Sāmānya-nīti and Rāja-nīti.

- The unit of analysis in the case of Sāmānya-nīti is the individual. These texts focus on the good aspects of living and provide helpful insights on the code of conduct, differences between a wise person and others, good and evil, and success and failure in life pursuits. It also emphasises the need for harmonious living in society. For example, the Nīti-śataka, which is an example of a text dealing with sāmānya-nīti is about various aspects of conduct in this world, such as the nobleness in adhering to a promise, the value of learning, self-respect, valour, moral courage, and large-mindedness. Besides, it inculcates the importance of industry, the traits of a true friend, and a contrast of the conduct of a virtuous and noble-hearted man with that of a selfish and little-minded individual.

- Rāja-nīti, on the other hand, focuses on the political and administrative tasks and provides ideas on several dos and don'ts for a king. Arthaśāstra of Kauṭilya is an important text in this category. Other works such as Pañcatantra, Nīti-sāra of Kāmandaka are inspired by Kauṭilya's work. The Śānti-parva of Mahābhārata is a nīti text as it has considerable material on both Rāja-nīti and Sāmānya-nīti. Similarly, the kaccit sarga in Ayodhyā-kāṇḍa in Rāmāyaṇa has a good discussion on Rāja-nīti. We discuss Rāja-nīti aspects in detail using Arthaśāstra in Chapter 14 of the book.

Strict separation of a text into one of the two may not be possible always. For example, Vidura-nīti and Pañcatantra have topics relevant to both. However, within any text, we can delineate these two themes unambiguously. Table 4.4 has a brief list of some popular nīti texts for Sāmānya-nīti. The Rāja-nīti texts will be covered in Chapter 14 of the book.

**TABLE 4.4**   Some Selected Nīti Texts

| Sl. No. | Name of the Work | Brief Description of the Work |
|---|---|---|
| 1 | Bārhaspatyam | Must be considered only as redactions of the śāstra by later scholars since both these belong to oral tradition. Many of the chapters and contents are extinct. |
| 2 | Śukra-nīti | |
| 3 | Vidura-nīti (Part of Mahābhārata) | Consists of 700 verses – response to Dhṛtarāṣṭra's questions – discusses elements of good living, personal values, governance and administration, etc. |
| 4 | Pañcatantra (Viṣṇu Śarman) | Uses a series of fables to impart principles of ethical and moral living as well as elements of Rāja-Nīti. |
| 5 | Hitopadeśa (Nārāyaṇa Paṇḍita) | Inspired by Pañcatantra, follows a similar style of using fables to impart principles of ethical and moral living and elements of Rāja-nīti. |
| 6 | Nīti-śataka (Bartṛhari) | A collection of 100 verses to impart various aspects of Sāmānya-nīti. |

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**Virtues of a Wise-person: Insights from Vidura-Nīti**

Vidura-nīti is a collection of 700 verses in Mahābhārata, that describes the conversation between Dhṛtarāṣṭra and his brother Vidura, just before the war is to begin. In fact, Dhṛtarāṣṭra knew for certain that the war is imminent as multiple efforts to broker peace between the cousins failed. He became restless and suffered from sleeplessness. When he mentioned his difficult situation to Vidura, and sought his wise counselling. Vidura replied, "A thief, a lustful person, one who has lost all his wealth, one who failed to achieve success, weak and one who has been attacked by a strong person suffer from sleeplessness". He hoped that the king does not belong to any of these six categories, nor is he suffering from coveting other's wealth. Over the next 680 verses he discussed several aspects of good living and good governance.

During the course of the long conversation, Vidura enumerated several qualities of a wise person. Chapter 1 of Vidura-nīti (verses 20–34) has these details. Some of them are listed below:

- One who knows the self and follows the Dharma;
- One who is not drawn by the anger, exultation, pride, shame, stupefaction and vanity;
- One who practices the good and denies the bad;
- One whose work or secrecy is not known by others till it is accomplished;
- One whose acts are not disturbed by cold, heat, fear, lust, prosperity or adversity;
- Never disregards any task; never strives for unattainable; never grieves for the lost and never loses the senses during hard times;
- Neither revels at honours nor grieves at slights, remains cool and unagitated like a lake in the course of Ganga;
- Strives, having commenced anything till it is completed, who never wastes his time, and who has his soul under control;
- Exerts to the best of his might, and disregards nothing as insignificant.

*For details, see,* **Rustagi, U. (2009).** *"Viduranītiḥ",* J.P. Publishing House, Delhi. ISBN: 81-86702-47-4. Ch. 1, Verses 20–34, pp. 14–18.

## 4.6   SUBHĀṢITAS – A COLLECTION OF INSIGHTS FROM VARIOUS TEXTS

The concise poetry which communicates the valuable message for the society with some interesting examples is called Subhāṣita. These are nothing but a systematic collection of insightful observations, examples, and principles of life from a wide range of existing repositories of literary works. The motivation for putting together an interesting collection of ideas from various texts comes from certain traditions of the great Indian poets. The poets had two objectives in mind while composing kāvyas; one is to narrate the chosen story, the other is to contextually bring worldly wisdom using the opportunity of narrating certain incidents in the story. Consider the following examples:

**EXAMPLE 1:** In the first chapter of Sundara-kāṇḍa, Vālmīki vividly narrates the journey Hanumān takes in crossing over the seas to reach Laṅkā in search of Sītā. As soon as Hanumān reaches the other side of the shore Vālmīki makes an interesting observation about the qualities required to achieve success in one's pursuits:

*O Lord of vānara he in whom these four qualities, fortitude, vision, intelligence, and dexterity exist, as in you, will achieve his mission and not get lost.*[27]

**EXAMPLE 2:** In Kirātārjunīya, a mahākāvya by Kavi Bhāravi, one finds several valuable messages for us to imbibe. Consider the following messages:

*A blade of grass bends due to a lack of strength. It flies away due to a lack of weight. A person without honor is just like grass – without inner strength or weight.*[28]

*If a person does not deal with a crook in a crooked manner, he is bound to face defeat. They must be paid back in their coin. Just like how an arrow most certainly hits (and hurts) that part of the body (however small) that is not covered by the armor, such deceitful people search and hurt only those people who are innocent and incapable of deceit themselves.*[29]

When Bhīma was impatient and angry and was keen to take revenge on Kauravas, Yudhiṣṭhira had to calm him and at this point, the following message appears:

*One should not act in haste. Action without thinking leads to big problems. Wealth chooses that person by itself who acts after thinking properly.*[30]

**EXAMPLE 3:** In the Udyoga-parva of Mahābhārata we find the following interesting message:

*There are five kinds of people who one must listen to and respect – knowledgeable people, pious people, close friends, well-educated people, and the elderly. Such a person will never tread along the wrong path due to ignorance.*[31]

It follows from the above examples, that it may be worthwhile to cull out such insightful messages from the existing repository and present such a collection in a single work. Subhāṣitas are such classified messages, usually organized under specific themes. For example, all ideas on friendship from various texts could be arranged into one section, the value and importance of dharma into another, and so on. The themes and messages found in subhāṣitas are so varied that it forms nearly an encyclopaedic material when it comes to inculcating values, ideas, and principles for sensible living and addressing several issues that we may face in our lives. The genre is also varied ranging from prayers to the almighty, imparting serious values through curt messages, fun-filled verses, pun, and riddles. We shall see some examples.

### Verses Teaching Morality, Philosophical Truths

> ♦ Subhāṣitas are systematic collection of insightful observations, examples, and principles of life from existing repositories of literary works.
> ♦ The themes and messages in subhāṣitas form nearly an encyclopedic material inculcating values, ideas, and principles for sensible living.

*Scriptures and disciplines are many, obstacles are many during learning those and the lifespan is very less. So, one must try to learn the quintessence of the scriptures like the way the swan takes (separates) milk from the water.*[32]

*Sorrow is involved in both earning the wealth as well as protecting it. There is a pain in gain and pain in loss. Alas! Wealth is always the resort of grief.*[33]

*The flowers in the palms make both the palms fragrant. Similarly, the affection of people with a kind heart is equal on both sides. They never differentiate one from another and respect and love all equally.*[34]

### Verses for Pure Entertainment

*O king of doctors, the brother of Yamarāja (lord of death) salutations to you. Yama only takes life, but you take both lives as well as the money.*[35]

### Brain Teasers, Puzzles Based on a Pun

This is a poem in which there is a dialogue between Gopī and Kṛṣṇa where Gopī is enquiring

something and Kṛṣṇa answers that. Whatever Kṛṣṇa answers have two meanings and Gopī takes the second meaning and plays with Kṛṣṇa:[36]

(*Gopī*)    : *Who is tapping the door with the finger?*
(*Kṛṣṇa*)  : *O! crooked one! (I am) Mādhava. (also means spring season).*
(*Gopī*)    : *Is it the spring season?*
(*Kṛṣṇa*)  : *No, (I am) Cakrapāṇi the one with the Discuss in hand (also means a potter).*
(*Gopī*)    : *Is it a potter?*
(*Kṛṣṇa*)  : *No, I am the one bearing the world.*
(*Gopī*)    : *Is it the serpent Śeṣa (who is said to bear the world on his head), the king of the snakes?*
(*Kṛṣṇa*)  : *Not me, (I am) the one who controlled the frightful snake (Kāliya).*
(*Gopī*)    : *Are you Garuda, the king of birds? (and enemy of snakes).*
(*Kṛṣṇa*)  : *No, (I am) Hari (also means a monkey).*
(*Gopī*)    : *Are you the chief of the monkeys?*

*In this manner, Lord Padmanābha who was not smart and was unable to respond to the Gopī may protect me.*

Though the messages contained in the subhāṣitas are relevant to all the ages in the Indian tradition these are specially taught to the children so that they can imbibe these ideas while they are young and can make use of this wisdom all through their life. As a part of subhāṣitas, they are taught the value of Dharma, knowledge, truthfulness, friendship, love towards nation, etc.

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#### Selected Subhāṣitas on Friendship from Nīti-śataka

There are several subhāṣitas that extol the virtues of friendship, the value, and true attributes of good friendship. We shall see some of them from Nīti-śataka here:

आरम्भगुर्वी क्षयिणी क्रमेण लघ्वी पुरा वृद्धिमुपैति पश्चात् ।
दिनस्य पूर्वार्द्धपरार्द्धभिन्ना छायेव मैत्री खलसज्जनानाम् ॥ 50

*Ārambha-gurvī kṣayiṇī krameṇa laghvī purā vṛddhim-upaiti paścāt |*
*dinasya pūrvārddha-parārddha-bhinnā chāyeva maitrī khala-sajjanānām || 50*

In the morning the shadows are long but get shortened as the day advances. In the afternoon shadows are short but they get longer and longer as the Sun gradually sets. The friendship with wicked persons and the noble ones decreases and increases accordingly.

संतप्तायसि संस्थितस्य पयसो नामापि न श्रूयते मुक्ताकारतया तदेव नलिनीपत्रस्थितं दृश्यते ।
अन्तः सागरशुक्तिमध्यपतितं तन्मौक्तिकं जायते प्रायेणाधममध्यमोत्तमजुषामेवंविधा वृत्तयः ॥ 59

*saṃtaptāyasi saṃsthitasya payaso nāmāpi na śrūyate muktākāratayā tadeva nalinī-patra-sthitaṃ dṛśyate |*
*antaḥ sāgara-śukti-madhya-patitaṃ tan-mauktikaṃ jāyate prāyeṇādhama-madhyamottama-juṣāmevaṃ-vidhā vṛttayaḥ || 59*

A drop of water instantly gets burnt up when it falls on a hot piece of iron. But when it falls on a lotus leaf it shines like a pearl. When it falls into an oyster shell in the ocean on the day of Svāti nakṣatra, it becomes a real pearl. The quality of contact determines the result of such a company.

दुर्जनः परिहर्तव्यो विद्ययालंकृतोऽपि सन् । मणिना भूषितः सर्पः किमसौ न भयंकरः ॥43

*durjanaḥ parihartavyo vidyayālaṃkṛto'pi san | maṇinā bhūṣitaḥ sarpaḥ kimasau na bhayaṃkaraḥ ||43*

A wicked person should be avoided even if he is learned. Is not a Cobra dangerous even if it is wearing a jewel on its head?

## SUMMARY

- With a long civilisational history, India has a rich body of knowledge and experience that has developed within the society from time to time, captured through a variety of literary works.

- The purāṇic repository provides valuable insights into the history of philosophy and religion and is a storehouse that provides deep insights into all aspects of the society, culture, and living during the ancient and medieval times in India.

- The purāṇic repository can be broadly divided into three; Mahā-purāṇas (Major Purāṇas), Upa-purāṇas (Minor Purāṇas), and Sthala-purāṇas.

- There are 18 mahā-purāṇas and they are estimated to contain among them about 4,00,000 verses. The number of Upa-purāṇas cannot be established with certainty, though about 100 of them can be enumerated from different sources. There are many Sthala-purāṇas, in different languages of India, most of them in Sanskrit.

- The purāṇas contain several discussions related to the plant kingdom and its role in addressing food, medicine, and other requirements of society. Since one of the themes of the purāṇas is to describe the creation process, there are discussions on the stages of childbirth from the embryo.

- Several purāṇas have discussions on astronomy, which consists of ideas in the pre-telescope age. The purāṇas have material on geography as they discuss topics related to modern-day concepts such as cosmogony, cosmology, and cosmography.

- Itihāsa is not merely a collection of stories related to some past events but an attempt to see the events through the lens of the four puruṣārthas.

- The two epics, Rāmāyaṇa and Mahābhārata address the core issue of dharma and one's duty towards personal, family, and societal obligations, but have taken different approaches.

- The Vālmīki Rāmāyaṇa beautifully depicts the dharma of personal life, family life, and social order. The anecdotes, the conflicts, and the situations discussed in the epic are the real nuggets of wisdom for the people.

- Mahābhārata depicts the trials and tribulations that various kings of the lunar dynasty went through. The story is interspersed throughout with a variety of topics including law, philosophy, religion, custom, and to some extent, geography and cosmography.

- Nītis are the guidance to take a person to the path of Dharma by providing the right perspectives about life and life goals. They do not take the approach of storytelling but utilizes verses set in poetic metres to concisely communicate the message.

- Sāmānya-nīti focuses on the good aspects of living and provides helpful insights on the code of conduct, differences between a wise person and others, good and evil, and success and failure in life pursuits.

- Rāja-nīti focuses on the political and administrative tasks and provides ideas on several do's and don'ts for a king.

- The concise poetry which communicates the valuable message for the society with some interesting examples is called Subhāṣita. These are nothing but a systematic collection of insightful observations, examples, and principles of life from a wide range of existing repositories of literary works.

- The messages contained in the subhāṣitas are relevant to all the ages in the Indian tradition; these are specially taught to the children so that they can imbibe these ideas while they are young and can make use of this wisdom all through their life.

## REVIEW QUESTIONS

1. Briefly enumerate the composition of the purāṇic repository. What is the use of the purāṇic knowledge?

2. What are the key characteristics of purāṇas? How does it help in assessing the contents of a purāṇa?

3. Prepare a one-page note on the issues of contemporary interest discussed in purāṇas.

4. What are some of the observations found in the purāṇas on foetal development?

5. What do you understand by the term 'Itihāsa'? What issues do they address?

6. What are the main differences between a purāṇa and an itihāsa?

7. Comment on the statement, "Rāmāyaṇa and Mahābhārata have taken contrasting approaches to bring the key message of life".

8. Summarize the key messages found in each kāṇḍa of Rāmāyaṇa. What is the relevance of these messages to contemporary society?

9. Briefly enumerate the key contributions of Mahābhārata to contemporary society.

10. What do you mean by nīti-śāstra? What are the key issues discussed in such works?

11. How is sāmānya-nīti different from rāja-nīti? What are some of the contributions of these texts? Provide one or two examples.

12. Comment on the statement, "Subhāṣitas, Nīti-śāstras, and Itihāsas address the same set of issues".

## DISCOVER IKS

1. Rāmāyaṇa is a historical story that has closely weaved into the cultural ethos and daily lives of the Indian society for time immemorial. Despite this, using the current lens to analyse such historical works, we face certain questions. Watch this video of Sadguru Jaggi Vasudev, in which some of these issues come up as part of the discussion: https://www.youtube.com/watch?v=PoSIhO-hYC8. After watching the video, prepare a two pages note to answer the following questions.

   - Is it fair to consider Rāmāyaṇa a mythological story or a historical piece? Why or why not?

   - Are there interesting take-aways from Rāmāyaṇa, even though the epic is more than 6000 years old?

   - Despite certain difficult events described in the Rāmāyaṇa, why is the character Rāma worshipped even today?

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## ENDNOTES

1. See for example the following verses from various purāṇas: (i) श्रुतिस्मृतिपुराणानि विदुषां लोचनत्रयम् । यत्रिभिर्नयनैः पश्येत् सोंऽशो माहेश्वरो मतः ॥ śrutismṛtipurāṇāni viduṣāṁ locanatrayam | yastribhirnayanaiḥ paśyet so'ṁśo maheśvaro mataḥ || (skandapurāṇaṁ 4.1.27. **Kshemaraj Krishnadas (2006).** *The Skandamahāpurāṇam* (श्रीस्कन्दमहापुराणम्), Nag Publishers, Jawaharanagar, Delhi–110007, 4.1.27. (ii) यो विद्याच्चतुरो वेदान् साङ्गोपनिषदो द्विजः । न चेत् पुराणं संविद्यान्नैव स स्याद्विचक्षणः ॥ (विष्णुपुराणम्) yo vidyāccaturo vedān sāṅgopaniṣado dvijaḥ | na cet purāṇaṁ saṁvidyānnaiva sa syādvicakṣaṇaḥ || **Hari Narayan Apte (1905).** "Vāuyupurāṇam", Anandashram Mudranalaya, Pune, Ch. 1, Verse 200, p. 8.

2. For details see, **Vinit, N. (2007).** "Nilamatapurana: A Study of Temples and Tirthas", Proceedings of the Indian History Congress, Vol. 68, Part One (2007), pp. 149–152.

3. प्रो॰ गङ्गाधर पण्डा **(2006).** संस्कृत वाङ्मय का बृहद् इतिहास, त्रयोदश-खण्ड पुराण, उत्तरप्रदेश संस्कृत संस्थान, लखनऊ । पुराणं सर्वशास्त्राणां प्रथमं ब्रह्मणा स्मृतम् । अनन्तरं च वक्त्रेभ्यो वेदास्तस्य विनिर्गताः ॥ (पद्मपुराणम् सृष्टिखण्डः – अ - 104) purāṇaṁ sarvaśāstrāṇāṁ prathamaṁ brahmaṇā smṛtam | anantaraṁ ca vaktrebhyo vedāstasya vinirgatāḥ || (padmapurāṇam sṛṣṭikhaṇḍaḥ – a - 104), p. 1.

4. *Ibid.* स होवाच ऋग्वेदं भगवोऽध्येमि यजुर्वेदं सामवेदमथर्वाणं चतुर्थमितिहासं पुराणं पञ्चमं वेदानां वेदम् । (छान्दोग्योपनिषद् 7.1.1), sa hovāca ṛgvedaṁ bhagavo'dhyemi yajurvedaṁ sāmavedamatharvāṇaṁ caturthamitihāsaṁ purāṇaṁ pañcamaṁ vedānāṁ vedam | (Chāndogyopaniṣad 7.1.1) p. 1.

5. There is an easy way to remember all the eighteen mahāpurāṇas. The verse goes thus: मद्वयं भद्वयं चैव ब्रत्रयं वचतुष्टयम् । अनापलिङ्गकूस्कानि पुराणानि प्रचक्षते ॥ madvayaṁ bhadvayaṁ caiva bratrayaṁ vacatuṣṭayam | anāpaliṅgakūskāni purāṇāni pracakṣate || This verse can be referred in श्रीमद्देवीभागवतपुराणम्, गीताप्रेस गोरखपुर । Skandha 1, Ch. 3. Verse 2. https://archive.org/details/DeviBhagavataWithHindiTranslationVolume1GitaPress/page/n1/mode/2up. Last accessed on Oct. 1, 2021.

6. प्रो॰ गङ्गाधर पण्डा **(2006).** "संस्कृत वाङ्मय का बृहद् इतिहास, त्रयोदश-खण्ड पुराण", उत्तरप्रदेश संस्कृत संस्थान, लखनऊ । अष्टादशपुराणानामेवमेवं विदुर्बुधाः । एवञ्चोपपुराणानाम् अष्टादश प्रकीर्तिताः ॥ (ब्रह्मवैवर्तपुराणम् श्रीकृष्णजन्मखण्डः: 131/22) aṣṭādaśapurāṇānāmevamevaṁ vidurbudhāḥ | evañcopapurāṇānām aṣṭādaśa prakīrtitāḥ || (brahmavaivartapurāṇam śrīkṛṣṇajanmakhaṇḍaḥ 131/22)

7. *Ibid.* pp. 23–25.

8. *Ibid*, p. 6. The following verse summarises the five key characteristics of a purāṇa: सर्गश्च प्रतिसर्गश्च वंशो मन्वन्तराणि च । वंशानुचरितं चैव पुराणं पञ्चलक्षणम् ॥ वायुपुराणम् ४/१० sargaśca pratisargaśca vaṁśo manvantarāṇi ca | vaṁśānucaritaṁ caiva purāṇaṁ pañcalakṣaṇam || राधावल्लभ त्रिपाठी (२०१२), "श्रीवायुमहापुराणम्". राष्ट्रीय संस्कृत संस्थान, नई दिल्ली. 4/10.

9. प्रो॰ गङ्गाधर पण्डा **(2006).** "संस्कृत वाङ्मय का बृहद् इतिहास, त्रयोदश-खण्ड पुराण", उत्तरप्रदेश संस्कृत संस्थान, लखनऊ I. अव्याकृतगुणक्षोभान्महतस्त्रिवृत्तोऽहमः । भूतमात्रेन्द्रियार्थानां सम्भवः सर्ग उच्यते ॥ avyākṛtaguṇakṣobhā nmahatastrivṛto'hamaḥ | bhūtamātrendriyārthānāṁ sambhavaḥ sarga ucyate || Bhāgavata purāṇa 12/7/11, p. 7.

10. **Pt. Thaneshchandra Upreti (2003).** *Viṣṇumahāpurāṇam of Maharṣi Vedavyāsa*, Parimal Publications, Delhi, 1/2/23 p. 13.

11. प्रो॰ गङ्गाधर पण्डा **(2006),** "संस्कृत वाङ्मय का बृहद् इतिहास, त्रयोदश-खण्ड पुराण", उत्तरप्रदेश संस्कृत संस्थान, लखनऊ I. राज्ञां ब्रह्मप्रसूतानां वंशस्त्रैकालिकोऽन्वयः । rājñāṁ brahmaprasūtānāṁ vaṁśastraikāliko'nvayaḥ | p. 8. Bhāgavata purāṇa, 12/7/16.

12. **Pt. Thaneshchandra Upreti (2003).** *Viṣṇumahāpurāṇam of Maharṣi Vedavyāsa*, Parimal Publications, Delhi, Introduction, pp. 65–66.

13. *Ibid.* राज्ञां ब्रह्मप्रसूतानां वंशस्त्रैकालिकोऽन्वयः । वंशानुचरितं तेषां वृत्तं वंशधराश्च ते ॥ rājñāṁ brahmaprasūtānāṁ vaṁśastraikāliko'nvayaḥ | vaṁśānucaritaṁ teṣāṁ vṛttaṁ vaṁśadharāśca te || Bhāgavata purāṇa 12/7/16.

14. For more details on the food and medicinal aspects found in the purāṇas see, **Bhattacharjee, S. (2010).** "Studies on flora in the puranas with special reference to Matsya Purana, Agni Purana, and Brahmavaivarta Purana", Unpublished Ph.D thesis, Department of Sanskrit, Gauhati University.

15. Śrimad Bhāgavata Mahāpurāṇa (Part-I) Gita press, Gorakhpur. (Rendered into English by – **C.L. Goswami, M.A. Shastri).** The relevant verses from Bhāgavata-purāṇa are reproduced here:
श्रीभगवानुवाच - कर्मणा दैवनेत्रेण जन्तुर्देहोपपत्तये । स्त्रिया: प्रविष्ट उदरं पुंसो रेत:कणाश्रय: ॥ 3.31.1
कललं त्वेकरात्रेण पञ्चरात्रेण बुद्बुदम् । दशाहेन तु कर्कन्धूः पेश्यण्डं वा तत: परम् ॥ 3.31.2
मासेन तु शिरो द्वाभ्यां बाहवङ्घ्याद्यङ्गविग्रह: । नखलोमास्थिचर्माणि लिङ्गच्छिद्रोद्भवस्त्रिभि: ॥ 3.31.3
चतुर्भिर्धातव: सप्त पञ्चभि: क्षुत्तृडुद्भव: । षड्भिर्जरायुणा वीत: कुक्षौ भ्राम्यति दक्षिणे ॥ 3.31.4
मातुर्जग्धान्नपानाद्यैरेधद्धातुरसम्मते । शेते विण्मूत्रयोर्गर्ते स जन्तुर्जन्तुसम्भवे ॥ 3.31.5
कृमिभि: क्षतसर्वाङ्ग: सौकुमार्यात्प्रतिक्षणम् । मूर्च्छामापाद्यतेऽरुक्कैस्तत्रत्यै: क्षुधितैर्मुहुः ॥ 3.31.6
कटुतीक्ष्णोष्णलवणरूक्षाम्लादिभिरुल्बणै: । मातुर्भुक्तैरुपस्पृष्ट: सर्वाङ्गोत्थितवेदन: ॥ 3.31.7
उल्बेन संवृतस्तस्मिन्नन्त्रैश्च बहिरावृत: । आस्ते कृत्वा शिर: कुक्षौ भुग्नपृष्ठशिरोधर: ॥ 3.31.8
Śrībhagavānuvāca –
karmaṇā daivanetreṇa janturdehopapattaye | striyā: praviṣṭa udaraṁ puṁso reta:kaṇāśraya || 3.31.1

kalalaṃ tvekarātreṇa pañcarātreṇa budbudam | daśāhena tu karkandhū: peśyaṇḍaṃ vā tata: param || 3.31.2

māsena tu śiro dvābhyāṃ bāhvaṅghryādyaṅgavigraha: | nakhalomāsthicarmāṇi liṅgacchidrodbhavastribhi: || 3.31.3

caturbhirdhātava: sapta pañcabhi: kṣuttṛdudbhava: | ṣaḍbhirjarāyuṇā vīta: kukṣau bhrāmyati dakṣiṇe || 3.31.4

māturjagdhānnapānādyairedhaddhāturasammate | śete viṇmūtrayorgarte sa janturjantusambhave || 3.31.5

kṛmibhi: kṣatasarvāṅga: saukumāryātpratikṣaṇam | mūrcchāmāpnotyurukleśastatratyai: kṣudhitairmuhu: || 3.31.6

kaṭutikṣṇoṣṇalavaṇarūkṣāmlādibhirulbhaiḥ | mātṛbhuktairupaspṛṣṭa: sarvāṅgotthitavedana: || 3.31.7

ulbena saṃvṛtastasminnantraiśca bahirāvṛta: | āste kṛtvā śira: kukṣau bhugnapṛṣṭhaśirodhara: || 3.31.8

16. For a full reading of the astronomical details available in Brahmāṇḍa purāṇa, see **Tagare. G.V. (2000).** *The Brahmāṇḍa Purāṇa: Part I*, Chapters 21–24, Motilal Banarsidass, Delhi, pp. 198–247.

17. For a comprehensive coverage of the geography in purāṇas refer, **Ali, S.M. (1966).** *The Geography of the Puranas*, People's Publishing House, New Delhi.

18. **Kṛṣṇadas, K. (1998).** *The Viṣṇudharmottarapurāṇam*, Nag Publishers, Delhi. धर्मार्थकाममोक्षाणामुपदेशसमन्वितम् । पूर्ववृत्तकथायुक्तम् इतिहासं प्रचक्षते ॥ dharmārthakāmamokṣāṇāmupadeśa samanvitam | pūrvavṛttakathāyuktam itihāsaṃ pracakṣate || 3/15/1-2, p. 312.

19. **Pt. Haragovinda Śāstrī (2012).** "Nāmaliṅgānuśāsana or Amarakośa of Amarasimha", Chaukhambha Sanskrit Sansthan, Varanasi, ISBN: 81-86937-29-3. इतिहास: पुरावृत्तम् । 1/6/4.

20. **Kangle, R.P. (2019).** *Kauṭilīya Arthaśāstra (Part II)*, Motilal Banarsidass Publishers, New Delhi. ISBN: 978-81-208-0039-7. पुराणमितिवृत्तमाख्यायिकोदाहरणं धर्मशास्त्रमर्थशास्त्रं चेति इतिहास: । purāṇamitivṛttamāk hyāyikodāharaṇaṃ dharmaśāstramarthaśāstraṃ ceti itihāsaḥ | 1/5/14, p. 7.

21. **Swami Suparnananda (2016).** "The Cultural Heritage of India (Vol. II)", The Ramakrishna Mission Institute of Culture, Gol Park, Kolkata, Chapter 2, p. 14.

22. The Rāmāyaṇa edition of Gītā Press Gorakhpur is based on the critical edition of Rāmāyaṇa brought out by the Oriental Research Institute. MS University, Baroda. The number of sargas and verses is based on this.

23. **Ravi Prakash Arya (2013).** *Rāmāyaṇa of Vālmīki*, Volume–III, Parimal Publications, Delhi. काले धर्मार्थकामान् य: संमन्त्र्य सचिवै: सह। निषेवेतात्मवान् लोके न स व्यसनमाप्नुयात्। हितानुबन्धमालोच्य कार्याकार्यमिहात्मन: । राजा सहार्थतत्त्वज्ञै: सचिवै: स हि जीवति ॥ kāle dharmārthakāmān yaḥ sammantrya sacivaiḥ saha | niṣevetātmavān loke na sa vyasanamāpnuyāt | hitānubandhamālocya kāryākāryamihātmanaḥ | rājā sahārthatattvajñaiḥ sacivaiḥ sa hi jīvati || Yuddhakāṇḍa, Ch. 63, Verses 12–13, p. 170.

24. See the 107th sarga in yuddhakāṇḍam for details:
गन्धर्वाप्सरसां संघा दृष्ट्वा युद्धमनूपमम् । गगनं गगनाकारं सागर: सागरोपम: ॥ 6.107.52
रामरावणयोर्युद्धं रामरावणयोरिव । एवं ब्रुवन्तो ददृशुस्तद्युद्धं रामरावणम् ॥ 6.107.53
gandharvāpsarasāṃ saṃghā dṛṣṭvā yuddhamanūpamam | gaganaṃ gaganākāraṃ sāgaraḥ sāgaropamaḥ || 6.107.52
rāmarāvaṇayoryuddhaṃ rāmarāvaṇayoriva | evaṃ bruvanto dadṛṣustadyuddhaṃ rāmarāvaṇam || 6.107.53

25. चतुर्विंशतिसाहस्रीं चक्रे भारतसंहिताम् । उपाख्यानैर्विना तावद् भारतं प्रोच्यते बुधै: ॥ caturviṃśatisāhasrīm cakre bhāratasaṃhitām | upākhyānairvinā tāvad bhāratam procyate budhaiḥ || Mahābhārata, Ādi Parva, 1/102. See for detail, **M.N. Dutt (2018).** *Mahābhārata*, Volume–I, Parimal Publications, Delhi.

26. *Ibid*. p. 173. धर्मे चार्थे च कामे च मोक्षे च भरतर्षभ । यदिहास्ति तदन्यत्र यन्नेहास्ति न तत्क्वचित् ॥ dharme cārthe ca kāme ca mokṣe ca bharatarṣabha | yadihāsti tadanyatra yannehāsti na tatkvacit ||

27. यस्य त्वेतानि चत्वारि वानरेन्द्र यथा तव । धृतिर्दृष्टिर्मतिर्दाक्ष्यं स: कर्मसु न सीदति || yasya tvetāni catvāri vānarendra yathā tava | dhṛtirdṛṣṭirmatirdākṣyaṃ saḥ karmasu na sīdati || Vālmīki Rāmāyaṇam 5.1.198

28. शक्तिवैकल्यनम्रस्य नि:सारत्वाल्लघीयस: । जन्मिनो मानहीनस्य तृणस्य च समा गति: || śaktivaikalyanamrasya niḥsāratvāllaghīyasaḥ | janmino mānahīnasya tṛṇasya ca samā gatiḥ | 1.106. See for details, **Kale, M.R. (2008).** *Pañcatantra of Viṣṇuśarman*, Motilal Banarsidass Publishers, Delhi. p. 17.

29. व्रजन्ति ते मूढधिय: पराभवं भवन्ति मायाविषु येन मायिन: । प्रविश्य हि घ्नन्ति शठास्तथाविधान् असंवृताङ्गान् निशिता इवेषव: ॥ vrajanti te mūḍhadhiyaḥ parābhavam bhavanti māyāviṣu yena māyinaḥ | praviśya hi ghnanti śaṭhāstathāvidhān asaṃvṛtāṅgān niśitā iveṣavaḥ|| 1.30. See for details, **Kale, M.R. (2008).** *The Kirātārjunīyam of Bhāravi*, Canto I–III, Motilal Banarsidass Publishers, Delhi, Ch. 1, Verse 30.

30. *Ibid*. सहसा विदधीत न क्रियाम् अविवेक: परमापदां पदम् । वृणुते हि विमृश्यकारिणं गुणलुब्धा: स्वयमेव सम्पद: ॥ sahasā vidadhīta na kriyām avivekaḥ paramāpadām padam | vṛṇute hi vimṛśyakāriṇam guṇalubdhāḥ svayameva sampadaḥ || 2.30

31. प्रज्ञावृद्धं धर्मवृद्धं स्वबन्धुं विद्यावृद्धं वयसा चापि वृद्धं । कार्याकार्ये पूजयित्वा प्रसाद्य य: संपृच्छेत्र स मुह्येत् कदाचित् || prajāvṛddham dharmavṛddham svabandhuṃ vidyāvṛddhaṃ vayasā cāpi vṛddham | kāryākārye pūjayitvā prasādya yaḥ saṃpṛcchenna sa muhyet kadācit || Viduranīti 8.23 https://archive.org/details/HindiBookVidurNeetiCompleteByGitaPress/page/n137/mode/2up. Last accessed on Oct. 1, 2021.

32. अनेकानि च शास्त्राणि स्वल्पायुर्विघ्नकोटय: । तस्मात्सारं विजानीयात् क्षीरं हंस इवाम्भसि ॥ anekāni ca śāstrāṇi svalpāyurvighnakoṭayaḥ | tasmātsāraṃ vijānīyāt kṣīraṃ haṃsa ivāmbhasi || Garuḍapurāṇam 2.49.84. Source: https://sa.wikisource.org/wiki/गरुडपुराणम्/ प्रेतकाण्ड:_(धर्मकाण्ड:)/ Last accessed on Oct. 1, 2021.

33. अर्थानाम् अर्जने दु:खम् अर्जितानां च रक्षणे । आये दु:खं व्यये दु:खं धिगर्था: कष्टसंश्रया: ॥ arthānām arjane duḥkham arjitānām ca rakṣaṇe | āye duḥkham vyaye duḥkham dhigarthāḥ kaṣṭasaṃśrayaḥ || 1.164. See for details, **Kale, M.R. (2008).** *Pañcatantra of Viṣṇuśarman*, Motilal Banarsidass Publishers, Delhi, p. 29.

34. अञ्जलिस्थानि पुष्पाणि वासयन्ति करद्वयम् । अहो सुमनसां प्रीतिर्वामदक्षिणयो: समम् ॥ añjalisthāni puṣpāṇi vāsayanti karadvayam | aho sumanasām prītirvāmadakṣiṇayoḥ samam || 1.03. For details see, **Acharya, N.R. (2011).** "Subhāṣita-ratna-bhāṇḍāgāra", Chaokhamba Sanskrit Series Office, Varanasi. Ch. 1, सज्जनप्रशंसा, Verse 3, p. 45.

35. वैद्यराज नमस्तुभ्यं यमराजसहोदर । यमस्तु हरति प्राणान् वैद्य: प्राणान् धनानि च ॥ vaidyarāja namastubhyaṃ yamarājasahodara | yamastu harati prāṇān vaidyaḥ prāṇān dhanāni ca || Sambhashana Sandesha, Samskrita Bharati, Bengaluru. May 1999, p. 21.

36. अङ्गुल्या क: कवाटे प्रहरति कुटिलो माधव: किं वसन्त: नो चक्री किं कुलाल: न हि धरणिधर: किं फणीन्द्रो द्विजिह्व: ।
मुग्धे घोराहिमाथी किं खगपति: नो हरि: किं कपीन्द्र: इत्थं लक्ष्म्या कृत: असौ हतवचन: पातु लक्ष्मीधवो व: ॥ aṅgulyā kaḥ kavāṭe praharati kuṭilo mādhavaḥ kiṃ vasantaḥ no cakrī kim kulālaḥ na hi dharaṇīdharaḥ kiṃ phaṇīndro dvijihvaḥ |
mugdhe ghorāhimāthī kiṃ khagapatiḥ no hariḥ kim kapīndraḥ itthaṃ lakṣmyā kṛtaḥ asau hatavacanaḥ pātu lakṣmīdhavo vaḥ || Ukti Pratyukti Stotra of Sri Vadirajayati. Verse 1. https://www.transliteral.org/pages/z140123204237/view. Last accessed on Oct. 1, 2021.