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THE STRUCTURE AND COMPOSITION  
OF THE  
KAUTILĪYA ARTHAŚĀSTRA

by

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Thesis submitted for the Ph.D. degree

University of London

1968

## ABSTRACT

Chapter 1 summarizes the debate over the age and authorship of the Arthaśāstra and proposes to test the common assumption that it is the work of a single author.

Chapter 2 analyzes the five versions of the story of Candragupta and Cāṇakya or Kauṭilya and finds that the Jain version best preserves the original legend, being closely paralleled by the Pali; that the Kashmirian version is late, and the Mudrā-rākṣasa largely fictive; that the Classical version, while betraying its Indian origin, gives uncertain testimony as to the content of the original legend; and that Cāṇakya is an historical figure.

Chapter 3 finds, in the structure of the Arthaśāstra, a priori grounds for supposing a composite authorship; summarizes some previous studies of authorship using statistical methods; and reports the results of a pilot study of the Arthaśāstra which throws doubt on the assumption of a unique author.

Chapter 4 examines the distribution of certain words in Sanskrit works of known authorship, and having found that eva, evam, ca, tatra and vā are safe discriminators of authorship, examines their distribution in the Arthaśāstra. Books 2, 3 and 7 of the Arthaśāstra, by this test, are homogeneous within themselves but are the work of three different authors. The affiliations of the shorter books are discussed.

Chapter 5 inquires whether sentence-length and compound-length may be used to discriminate between different authors, and finds the former unacceptable but the latter promising.

Chapter 6 examines Arthaśāstra passages used by Bhāruci and Medhātithi in their commentaries on Manu and finds in the latter's reference to an Adhyakṣapracāra a possible predecessor of the Arthaśāstra.

Chapter 7 reviews the conclusions as to the composition of the Arthaśāstra in the light of a statistical study of Vātsyāyana's Kāmasūtra and briefly comments on the date and authority of the Arthaśāstra.

## ACKNOWLEDGEMENTS

To Professor A.L. Basham, late of the School of Oriental and African Studies, University of London, I record my special gratitude and admiration for his encouragement, for his example, and for his help in all matters during the initial stages of my research under his supervision. To Dr. J.G. de Casparis, who became my Supervisor on Professor Basham's departure for the Australian National University, I owe my thanks for his help in seeing that research to a conclusion.

I am greatly indebted to Dr. Michael Levison whose willingness to spend long hours in constructing the program for extracting data from Sanskrit texts by computer, to advise and correct my own untutored efforts to program, and generally to guide the most laborious side of my work without reward and at considerable trouble, has always astonished me. I wish also to thank Dr. Levison's staff in the Department of Computer Science, Birkbeck College, for their assistance, especially the appropriately-named Mr. Alan Sentence, who prepared my punched versions of Sanskrit texts for magnetic tape. The commercial punching of some of the texts onto paper tape was made possible by a grant from the Central Research Fund of the University of London; the computing was done at the University of London Computer Centre.

I am grateful to the Reverend A.Q. Morton of Culross, Fife, whose statistical methods I have adapted for my own purposes, for many hints and aids, and to Professor R. Morton Smith of the University of Toronto for the kind loan of some of his statistical studies.

I have greatly benefitted from the comments and criticisms of Professor D.R. Cox of the Department of Mathematics, Imperial College, on my handling of statistical matters at various stages of my research. More than that, the fact that I found the courage--the temerity, it may be--to venture into statistics is largely due to the kindness with which Professor Cox treated my amateur efforts, both my early 'pilot's study' and the work that has grown out of it. I want also to thank his student, Dr. Osborne Jackson, for his help, especially on sentence- and compound-length.

Professor Padmanabh S. Jaini, formerly of SOAS, now of the University of Michigan, has helped me over several Pali passages in Chapter 2 with his profound and vivid knowledge of that language. In dealing with the Classical stories of Candragupta I have been helped by discussions with Professor David J.A. Ross of Birkbeck.

But for the generous offer of Professor J. Duncan M. Derrett of SOAS to lend me a typescript of the Bhārucci manuscript in his possession, I could not have written Chapter 6. To Herr Dr. Dieter Schlingloff, Privat-Dozent at the University of Göttingen, I am grateful for the unsolicited arrival of an offprint which

set me on the problem of the relations of the Arthasāstra, Bhārucci and Medhātithi, though arriving at conclusions antagonistic to his, in the light of the Bhārucci text which, unfortunately, Dr. Schlingloff had not seen.

I have benefitted as well from offprints and discussions--all too brief--with Herr Dr. Friedrich Wilhelm, Privat-Dozent at the University of Munich, concerning the relations of the Arthasāstra and the Kāmsūtra, and from discussions with my friend, Dr. Shiva Gopal Bajpai, on the relations of the Arthasāstra and Manu.

My thanks are due to the staffs of the Library of SOAS, the India Office Library, and the British Museum Oriental Reading Room for their assistance, and especially to Miss B.V. Nielsen, of the Royal Asiatic Society Library, the unsung heroine of a neglected library, to whom I am grateful not only for bibliographical assistance but for the many cups of tea with which she kept me thawed while working there.

To the Misses Daphne Pulham and Nirmala Pishawadia of the History Department Office of SOAS I owe thanks for secretarial work.

To the authorities of SOAS I am thankful for a small grant in a time of need.

I cannot well conclude this round of thanks without mentioning at least two of my earlier teachers, one from high school and the other from college, historians both: Dr. Theodore N. Savides and Professor Robert H. Irrmann; nor without remembering the name

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which does not appear on the pages which follow, but whose excellent qualifications in both statistics and indology brought about a most fruitful and, for me, inspiring combination of the two, and whose untimely death has deprived me of a hoped-for source of criticism and guidance; I mean, of course, Professor D.D. Kosambi.

Finally, my special thanks to my dear wife Marcella, not only for humouring my horror of composing at the machine by typing the drafts at every stage, including the backbreaking last, but also for suffering my peevishness, frustration and irritation and generally sustaining my spirit during the four years gestation of this thesis.

I would gladly go on passing out bouquets to those who have helped me over the years, but an end must be made, and I do so with a general thanks to those unnamed. And so, enough; "For Monday comes when none may kiss."

Thomas R. Trautmann

London, Sunday, 5 November, 1967.

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## ABBREVIATIONS

- Arth. Arthasāstra (Kangle's edition, unless otherwise indicated).
- Bhār. Bhārucci's commentary, Ma<sup>n</sup>usāstra-Vivarāṇa on Manusmṛti (MS).
- CHI Cambridge History of India, vol. 1, reprint, 1962.
- Derrett J. Duncan M. Derrett: "A Newly-discovered Contact between Arthasāstra and Dharmasāstra: the Role of Bhāruccin", ZDMG 115, 1965, p. 134 ff.
- DPPN G.P. Malalasekera: Dictionary of Pāli Proper Names.
- Ghar. Manusmṛti with the Bhāṣya of Bhaṭṭa Medhātithi, ed. J.R. Gharpure.
- IHQ Indian Historical Quarterly.
- JA Journal Asiatique.
- JAOS Journal of the American Oriental Society.
- Jha Manu-Smṛti with the 'Manubhāṣya' of Medhātithi, vol. 2, ed. Ganganatha Jha.
- Jha (Notes) Ganganatha Jha: Manu-Smṛti: Notes. Part I: Textual.

- Jolly-Schmidt      The Arthasāstra of Kauṭilya, ed. J. Jolly and R. Schmidt.
- JRAS      Journal of the Royal Asiatic Society.
- Kam.      Kāmasūtra of Vātsyāyana (Dāmodara Sāstri's ed.).
- Kangle, Part 1      The Kauṭilya Arthasāstra, Part I, A Critical Edition with a Glossary, ed. R.P. Kangle.
- Kangle, Part 2      Ibid., Part II, An English Translation with Critical and Explanatory Notes.
- Kangle, Part 3      Ibid., Part III, A Study.
- \*Keith      A. Barriedale Keith: A History of Sanskrit Literature.
- KN      Kāmandakīya Nitisāra (T. Ganapati Sastri's ed.).
- KSS      Kathāsaritsāgara of Somadeva (ed. of Durgaprasad et al.).
- Lacôte      Félix Lacôte: Essai sur Guṇādhyā et la Bṛhatkathā.
- Mand.      Mānava Dharma Śāstra. Institutes of Manu, With the Commentaries of Medhātithi..., ed. Vishvanath Narayan Mandalik.
- MBV      Mahābodhivaṃsa (PTS ed.).

- Medh. Medhātithi's commentary, Manubhāṣya, on the Manusmṛti.
- Meyer Das Altindische Buch von Welt und Staatsleben  
Das Arthaśāstra des Kauṣilya, trans. J.J.  
Meyer.
- MT Mahāvamsa Tīkā (Vamsatthappakāsinī, PTS ed.).
- MV Mahāvamsa (PTS ed.).
- O.S. Oriental Series.
- PHAI Hemachandra Raychaudhuri: Political History  
of Ancient India, 6th ed.
- PP Parisiṣṭaparvan of Hemacandra (Sthavirāvalī-  
carita, Jacobi's 2nd ed.).
- PTS Pali Text Society.
- PTS Dict. T.W. Rhys Davids and William Stede: The Pali  
Text Society's Pali-English Dictionary.
- SBE Sacred Books of the East.
- Schlingloff Dieter Schlingloff: "Arthaśāstra-Studien",  
Wiener Zeitschrift für die Kunde Süd- und  
Ostasiens, 9, 1965, p. 1 ff.
- SKPAW Sitzungsberichte der königliche preussische  
Akademie der Wissenschaften.
- S.S. Sanskrit Series.

TSSTrivandrum Sanskrit Series.ZDMGZeitschrift der deutschen morganländischen  
Gesellschaft.ZIIZeitschrift für Indologie und Iranistik.

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CHAPTER 1: KAUTĪLIYA AND THE ARTHASĀSTRA

It is now just over 60<sup>+</sup> years since an anonymous pandit handed over a manuscript of the Kauṭīliya Arthasāstra to R. Shamasastri, chief librarian of the Mysore Government Oriental Library, Madras. The world of scholarship is greatly indebted to Shamasastri for having recognized the importance of this text; for having published by installments an English translation of the text in Indian Antiquary and the Mysore Review between 1905 and 1909; for having published the text in 1909, going into further editions in 1919, 1924, and, since his death, in 1960; and for having completed and published an English translation in 1915 which has gone into six editions.

Since Shamasastri's editio princeps several editions of the text have appeared: In 1923-4 a new edition with extensive notes by Julius Jolly and Richard Schmidt appeared in the Punjab Sanskrit Series, based on a copy of a manuscript in Malayalam script acquired by the Staatsbibliothek of Munich. In 1924-5 a three-volume edition, based chiefly on the original of the Munich manuscript of the Jolly-Schmidt edition, with Sanskrit commentary by MM. T. Ganapati Sastri, was published in the Trivandrum Sanskrit Series. The monumental German translation of J.J. Meyer belongs to the same period (six parts, 1925-6), as do the three volumes of Kauṭāliya Studien by Bernhard Breloer (1927-34).

Since the Second World War there have been two events of the first importance for the textual study of the Arthasāstra:

the discovery of the only known northern manuscript of the text (in Devanagari) at Patan Bhandar in Gujarat, published by Muni Jina Vijay in 1959; and the appearance in 1960 of a critical edition of the text, the work of Professor R. P. Kangle. Kangle's edition, taking account of all the manuscripts and commentaries now available, and executed with a thoroughness and accuracy sometimes wanting in previous editions, has put the study of the text on an altogether firmer footing than it has had hitherto, and will not be substantially improved upon until more manuscripts turn up, if then. It has been followed by an annotated English translation (1963) which, drawing as it does on some five decades of research on the Arthasāstra by Indian and Western scholars, has already become the standard, and by a study (1965) which provides an excellent survey of the Arthasāstra and a summary of research on it.

The bulk of scholarly literature that has grown up round the Arthasāstra since its rediscovery gives some measure of the interest and even excitement it has aroused. Kangle lists 10 different publications containing the text and commentaries, not counting further editions; 19 translations into 13 languages, including English, German, Italian and Russian (the rest being Indian languages); 11 books devoted solely to various aspects of the Arthasāstra, one of these being Breloer's three volumes; 45 books dealing in part with the Arthasāstra, including the literature on ancient Indian political thought and institutions which its publication inspired; and 96 articles on particular points of

Arthasāstra scholarship.<sup>1</sup> Since the publication of Shamasastri's edition in 1909 an average of almost two articles of importance and rather more than one book concerned in part or in whole with the Arthasāstra has appeared every year.

It is not difficult to account for the interest generated and the attention received by the Arthasāstra. The main indological concerns of the 19th century, philology apart, had been myth, religion and philosophy. The picture of a changeless India, its inhabitants preoccupied with meditation and metaphysical speculation, neither experiencing history nor writing it, prevailed; and no one was able to gainsay the remark of Max Müller that "The Hindu enters this world as a stranger; all his thoughts are directed to another world; he takes no part even where he is driven to act; and when he sacrifices his life, it is but to be delivered from it."<sup>2</sup> The rediscovery of the Arthasāstra proved a corrective to this notion, and within two decades over a dozen Indian scholars, and a few Western, had written books on ancient Indian political theory and institutions as if in direct response to Max Müller's dictum. None of these works or those which have subsequently appeared could have been written had the Arthasāstra remained unknown.

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1. Kangle, Part 3, p. 285 ff.

2. A History of Ancient Sanskrit Literature, p. 18.

The growth of scholarly interest in ancient Indian politics and history itself had causes, of which the most fruitful for Arthaśāstra studies was the nationalist movement of India. Hermann Jacobi, writing in the Sitzungsberichte der königliche preussische Akademie der Wissenschaften in 1912 (an article which gained an Indian public when it was translated and published in Indian Antiquary for 1918), called Kauṭilya 'the Indian Bismark'. A.B. Keith, the Scots indologist and constitutional lawyer, writing two years after the outbreak of the First World War, was decidedly not taken by the comparison;<sup>1</sup> but the expression found a receptive audience in India, and enjoyed a considerable vogue in scholarly literature. Nationalist aspirations seemed somehow fortified when the existence of ancient empires and schools of political theory was shown. On the other hand, to Vincent Smith, for whom the lesson of history was that India was most blessed when under a strong imperial rule, the Arthaśāstra told a different moral.<sup>2</sup> Nationalism, a powerful stimulant but often a baleful influence on scholarship, has doubtless relaxed its hold on

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1. Keith, JRAS, 1916, p. 131: "Kauṭilya was not Bismark, and India is not Germany."  
 2. See Johannes Voigt's excellent article on the Arthaśāstra and the nationalist movement, "Nationalist Interpretations of Arthaśāstra in Indian Historical Writing," St. Antony's Papers, no. 18, South Asian Affairs no. 2, 1966.

Arthasāstra studies since Independence, though not entirely.<sup>1</sup>

Given the popular reputation of Cāṅkya or Kauṭilya, its supposed author, as a machiavel, the new name for the diplomatic quarter in New Delhi, 'Chanakyapuri', may be regarded as somewhat equivocal; but we believe the motive behind the choice was patriotic.

To a large extent the reasons for the scholarly stir about the Arthasāstra may be found in the work itself. It holds a special position as the earliest extant work of its kind, to which all later arthasāstras are indebted; and besides its primacy in time, it is more extensive and fully worked out than any of its successors. It is, in its legal portions, an important source for the study of dharmasāstra. Most importantly, it is a rich store of information on numerous aspects of ancient Indian life. In the judgement of Moritz Winternitz, "The Kauṭillya Arthasāstra is a unique work, which throws more light on the cultural environment and actual life in ancient India than any other work of Indian literature."<sup>2</sup>

Winternitz goes on to say, "This book moreover would be of truly incalculable value if, as previous scholars have accepted, it really had as its author the minister of the famous king

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1. Prof. Gautam N. Dwivedi observes, "Patriotic sentiment favours at least a respectable antiquity for K(auṭilya)." Agra University Extension Lectures, Agra, 1966, p. 8.

2. Geschichte der indischen Litteratur, vol. 3, p. 517.

Candragupta Maurya and were it to be regarded as a work of the fourth century B.C. It would in that case be the first and only firmly dated product of Indian literature and culture from so early a time."<sup>1</sup> When a peasant finds an ancient coin and sells it in a distant bazaar, half the information it could yield to a numismatist is destroyed; similarly, when a piece of literature cannot be dated within limits suitable to his purpose, its value to the historian is greatly diminished. It is over the dating of the Arthasāstra and its ascription to Kauṭilya (alias Cāṅakya, alias Viṣṇugupta) that the fiercest controversies have raged. What is the basis of this ascription, and what reason is there to doubt it?

There are four passages in the work itself which make the ascription. At the end of the very first chapter (1.1.19) we read, "Easy to learn and understand, precise in doctrine, sense and word, free from prolixity of text, thus has this treatise been composed by Kauṭilya." At the end of the work we are told, "This science has been composed by him, who, in resentment, quickly regenerated the science and the weapon and the earth that was under the control of the Nanda kings" (15.1.73). There follows, after the colophon, a verse (marked as a later addition in Kangle's

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1. Idem.

text) which says, "Seeing the manifold errors of the writers of commentaries on scientific treatises, Viṣṇugupta (i.e. Kauṭilya) himself composed the sūtra as well as the bhāṣya." Finally, the chapter on edicts ends with the statement, "After going through all the sciences in detail and after observing the practice (in such matters), Kauṭilya has made these rules about edicts for the sake of kings" (2.10.63). There are, in addition, numerous places in which the opinion of Kauṭilya is given, oftenest in retort to the quoted opinions of predecessors, with the expression iti Kauṭilyaḥ, 'thus says Kauṭilya' or neti Kauṭilyaḥ, 'Not so, says Kauṭilya'. Only one Kauṭilya is known to literature, of whom the Purāṇas say, "A brahmin, Kauṭilya, will uproot them all (the Nandas) and, after they have enjoyed the earth one hundred years, it will pass to the Mauryas. Kauṭilya will anoint Candragupta as king in the realm."<sup>1</sup> Clearly, the initial presumption must be that this is the author of the Kauṭilya Arthaśāstra.

Why then has this ascription been challenged? To begin with, the passages mentioned are not sufficient testimony in support of Kauṭilya's authorship. All are terminal verses, of a sort easily added in later times. Kangle is almost certainly right in regarding one of them, the very last verse of the work, as such

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1. F.E. Pargiter's ed., pp. 26-8, trans. (with slight alterations) pp. 69-70.

an addition, because it is in a metre otherwise unknown to the work (Āryā), because it follows the final colophon and because it is the unique instance of the personal name Viṣṇugupta rather than the gotra name Kauṭilya in the Arthaśāstra. The expression iti Kauṭilyaḥ (neti Kauṭilyaḥ), if anything, gives weight to the view that the Arthaśāstra is the work of a later hand quoting the opinions of a venerated predecessor, to judge by parallel expressions in other works.

Objections to the ascription of the Arthaśāstra to Kauṭilya have been many and detailed; we shall mention only the more salient. The agreement between the Arthaśāstra and the Megasthenes fragments, a major source for the Mauryan period, is nowhere very good or detailed and, while the Arthaśāstra has been of aid in elucidating the Aśokan inscriptions, few strong points of agreement on matters specific to the age have emerged.<sup>1</sup> The Arthaśāstra presumes the use of Sanskrit in royal edicts in any case, and Sanskrit inscriptions do not become general in northern India until the Gupta period.<sup>2</sup> The book contains no reference to the Mauryans or their capital Pāṭaliputra and seems to presume a number of small states struggling for hegemony rather than a large empire.<sup>3</sup> Its geograph-

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1. See especially O. Stein: Megasthenes und Kauṭilya, Vienna, 1921, passim.

2. Stein, ZII 6, 1928, p. 45 ff.

3. E.g. Jolly in Jolly-Schmidt, p. 42.

ical horizons are broader than seems likely for the Mauryan period, and a number of place-names in the second book are probably late: Cīna for China (2.11.114) is thought to have originated only after the Tsin or Chin dynasty extended its dominion over the whole of China in the late third century B.C.; whereas Tāmpaparṇi in the Aśokan edicts refer to Ceylon, in the Arthaśāstra it refers to a river in South India (2.11.2), Ceylon being here called Pārasamudra (2.11.28-59), while the Periplus of the Erythrean Sea refers to Ceylon as Palaesimundu, "formerly called Taprobane";<sup>1</sup> coral from Alakanda must be the Mediterranean red coral of Egyptian Alexandria which Pliny remarks was as highly prized in India as were pearls in Rome, the trade with Rome scarcely dateable before the first century A.D.; Hārahūraka (2.25.25) and Prājjūṇaka (v.1. Prāghūṇaka, 3.18.8) probably refer to the Hūnas, Huns, not known in India before the late fourth century A.D.<sup>1</sup> Greek loanwords have been pointed out, the most notable being suruṅgā, 'underground passage, tunnel', to be derived from Greek συρῖγῆ, first noted in Polybius, c. 180 B.C.<sup>2</sup> The legal portions of the Arthaśāstra (Books 3 and 4) show many correspondences with passages in the Yājñavalkya Smṛti and it is asserted that the Arthaśāstra is more likely to have borrowed from the dharmasāstra than vice-versa;

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1. For a summary of the arguments, see Gautam N. Dwivedi, XXVI Congress of Orientalists, 1964, and Agra University Extension Lectures, Lecture 2, Agra, 1966.

2. Stein, ZII 3, 1925, p. 280 ff., English abstract by Winternitz, in IHQ 1, 1925, p. 429 ff.

Jolly argues, indeed, that the śāstras of artha and kāma were developed later than the dharmasāstras, under the influence of the trivarga scheme.<sup>1</sup> The strong affinity of Vātsyāyana's Kāmasūtra to the Arthasāstra shows that no long interval separates the two, and though the Kāmasūtra cannot be firmly dated, it is usually assigned to the fourth century A.D.<sup>2</sup> No work antedating the Christian era mentions Kauṭilya as author or unmistakably quotes from the Arthasāstra; indeed, the earliest such works (the Pañcatantra and Āryasūra's Jātakamālā) are probably of the Gupta period or at most just previous.

To all of these arguments, objections have been raised. The testimony of Megasthenes, for instance, is fragmentary, in part fabulous, and, on several points of detail, such as the six boards of five governing the military, highly dubious. The Arthasāstra deals in typical situations, and so its lack of reference to the specificities of the Mauryan empire signifies nothing. The arguments from geographical data and the supposed presence of Greek loanwords are more or less vulnerable to criticism. The dependence of arthasāstra on dharmasāstra has been questioned on the basis of an attractive alternative theory, according to which the eighteen titles of law and the theory of royal administration originated in royal, arthasāstra circles and was incorporated into

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1. Jolly-Schmidt, pp. 12-21.

2. Ibid., pp. 24-30.

the dharma smṛtis as vyavahāra and rājadharmā, together with material on brahmanical (ritual) law from the older dharma sūtras.

In addition to such criticisms, those who support the ascription to Kauṭilya of the Arthaśāstra add more positive arguments in favour of their view by identifying archaisms in the text. These may be stylistic or linguistic (gerunds in -tva in compound verbs, Prakritisms, archaic terms), or they may deal with points of law (the Arthaśāstra permits widow remarriage and divorce on grounds of incompatibility) or matters such as coinage (the Arthaśāstra appears to be speaking of punch-mark coins, certainly not the Greek portrait coins or the dīnāras of Roman provenance or inspiration).

The debate continues. After six decades of scholarship there has been no general agreement on the date or authorship of the Arthaśāstra or even on any of the major points at issue. Some seven centuries, from the time of Candragupta Maurya through the fourth century A.D., separate the opposite poles of this debate. The only point on which there has been a large measure of agreement, tacit or express, is that the Arthaśāstra, though drawing on older works, has a single author. Jolly, no proponent of the traditional ascription of the Arthaśāstra, has said, "The arrangement of the subject-matter is very careful and a rare unity of plan and structure pervades the whole work, with an exact table of contents at the beginning, a list of particular devices used at the end, and many cross-references being scattered through the body of the work to which may be added the 32 references to previous chapters in the

last Adhikaraṇa."<sup>1</sup> "The whole work... is likely to have been composed by a single person, probably a Pandit belonging to a school of Polity and law...."<sup>2</sup> More recently Louis Renou , referring to the way in which the text is enclosed between the table of contents in the first chapter and the Tantrayukti or analysis of rhetorical figures in the final chapter, has said, "This enclosure attests the wish of Kauṭilya to compose a work which was coherent, closed to all additions, very advanced, in sum, from former treatises which in general possessed neither introduction nor conclusion and seemed to have been made up of successive layers. In short, it confirms the presence of an author."<sup>3</sup> Professor Renou has elaborated his meaning in a note: "While it is a strongly composed work, revealing the presence of a single author, the Kauṭilya has had to integrate materials of earlier provenance, as the archaisms of vocabulary and language reveal...It does not follow that a passage has been composed in a certain period (under the Mauryans, let us say), nor that the work had undergone a second, amplified edition very much later:

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1. Introduction to Jolly-Schmidt, p. 5.

2. Ibid., p. 44.

3. "Sur la forme de quelques textes sanskrits", JA 249, 1961, p. 184.

that is undemonstrable and perfectly improbable."<sup>1</sup>

Not only has unity of authorship been assumed, but inferences about the author's personality have been made from the text, and compared with the traditions concerning Kauṭilya. Jacobi, elucidating the verse which follows the final colophon of the Arthashastra, mentioned above, said, "The sense of Kauṭilya's words very probably is that he is vexed over the narrow-mindedness of his predecessors, and that he has without a moment's hesitation (āsu) thrown overboard their dogmatism: it implies the sense of contempt in which the 'Professors' are held by the statesman, which even Bismark was at no pains to conceal." This is further illustrated in the 'polemical' portions of the work. "The agreement obtaining between the words of Kauṭilya and the character of his work, and the personality that characterises them would be difficult to understand, if those were not the very words of the author."<sup>2</sup>

Kangle writes of the 'polemical' portions in a similar vein:

We do not have in this work a mere juxtaposition of the views of different authorities including the one claiming to be the author of the entire work, but almost invariably a resolute assertion, in a controversial tone, of this person's opinion against those of others which are rejected as unacceptable. This reflects a rather unusual temperament in an author, implying impatience with the opinions which the author considers to be wrong and an eagerness to assert his own opinions in their place. Such indeed, was, according to tradition, the temperament of Kauṭilya, who, in his intolerance of injustice and wrong, is said to have destroyed the ruling Nanda dynasty and placed his own protégé on the throne in their place. 3

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1. Ibid., p. 194 n. 6.

2. Jacobi, SPKAW, 1912, pp. 847-8; trans. IA 47, 1918, p. 194.

3. Kangle, Part 3, p. 102.

It is not our purpose to review each point of controversy over the age and authorship of the Kauṭīliya Arthaśāstra, thus prolonging a debate so long barren of consensus. The prospects of reaching anything like universal agreement, of finding compelling arguments along the lines the debate has proceeded so far seem faint. Perhaps the assumption of unique authorship, so widely held, requires investigation. Perhaps the complex structure of controversy built up over six decades rests on inadequate foundations. Certainly further progress will not be made through the further elaboration of arguments conceived for the most part in the 1910's and the 1920's.

In this thesis we address ourselves only to those problems to the resolution of which we believe we can contribute. Much has been said about the legend of Cāṅakya, but its literary history has not been systematically studied, and this, with certain conclusions about its historicity, forms the subject of our second chapter. The central chapters (3-5) present the results of a stylistic analysis of the prose portions of the Arthaśāstra, to determine whether the assumption of unique authorship is justified. Chapter 6 deals with the relation of the Arthaśāstra and two commentaries on Manu, the Vivarāṇa of Bhārucci and the Manubhāṣya of Medhātithi, which has a bearing on the question of the sources of the Arthaśāstra. The final chapter summarizes the results of our researches and takes a fresh look at the date and authorship of the Kauṭīliya Arthaśāstra.

CHAPTER 2: THE CĀṆAKYA-CANDRAGUPTA-KATHA

To say that the Arthaśāstra is ascribed to an historical character is to strain the term 'historical'. Rather, Kauṭilya, or Cāṇakya as he is more generally called, is a figure of legends which assign him an historical role; the historicity of the person, and much more so of his role, is a matter of some doubt. This question must be considered prior to the question of the ascription of the Arthaśāstra, and can easily be separated from it. For to legend he is known as Cāṇakya, while in his character as author of an arthaśāstra he is generally referred to by his gotra name, Kauṭilya. It is true that of the four Indian versions of the legend, the Mudrārākṣasa refers to 'Kauṭilya the cunning',<sup>1</sup> but this derives from its author's knowledge of letters, not legend. The only important exception to this generalization is the Purāṇas, which very briefly summarize Cāṇakya's career.<sup>2</sup> The purpose of this chapter, then, is to study what legend tells us of Cāṇakya; in a later chapter we shall consider what literature tells us of Kauṭilya.

The legends concerning Cāṇakya are preserved to us in works which for the most part must be dated during or after the Gupta

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1. Kauṭilya-kūṭilamatih, 1.7.

2. See above, ch. 1.

empire and thus are separated from the times to which they refer by many centuries, in some cases by more than a millenium. Nevertheless two versions which can be presumed to be independent show sufficient similarity to permit us to posit the existence of a popular cycle of tales concerning Nanda, Cāṅakya and Candragupta, a 'Cāṅakya-Candragupta-Kathā', from which these and other versions were drawn. These two versions, the Pali and the Jain, will be analysed first, followed by a consideration of the Kashmirian version, as preserved by Somadeva and Kṣemendra, and then the Mudrārākṣasa of Viśākhadatta and its ancillary literature. Next we will give a summary of our conclusions regarding these four versions and the contents of the primitive Cāṅakya-Candragupta-Kathā. Then we shall examine the Classical version which is at once the earliest notice and the most garbled telling of the legend. Finally we shall attempt to assess the historicity of the story.

### The Pali Version

Neither Cāṅakya nor Candragupta are known to the earliest work of the Ceylonese chronicle literature that remains to us, the Dīpavaṃsa, but they are mentioned in the Mahāvāṃsa and the legend is given in some detail in the commentary thereto, the Vaṃsatthappakāsinī or Mahāvāṃsa Tikā as we shall henceforth refer to it.

The story of the origin of the nine Nandas need not detain us.<sup>1</sup> Suffice it to say the nine were brothers, that the eldest, born of obscure family in the marchland, was captured by robbers and soon became their chief. The eight brothers joined the band and the eldest, dissatisfied with the mean business of plunder, led them against Pāṭaliputta and captured the sovereignty. The nine ruled in succession for a total of twenty-two years. Their names are given in the Mahābodhivaṃsa.<sup>2</sup>

Only the youngest of the nine, Dhanananda, is named in the Mahāvamsa Tikā and his story forms part of the Cāṅakya-Candragupta-Kathā.<sup>3</sup> He received his name ('the Wealthy Nanda' or 'delighting in riches') because he had become rich through hoarding wealth. After his anointment he was overcome with avarice (macchariya-); and when he had amassed 80 crores he secreted them in a hole in a rock in the Ganges. By taxing hides, lac, trees, minerals and so forth<sup>4</sup> he amassed a similar fortune and hid it as before: and

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1. Compy. on MV 5.14,15; MT 177.24-179.26.

2. P. 98: Uggasena-, Panduka-, Paṇḍugati-, Bhūtapāla-, Raṭṭhapāla-, Govindasāṅaka-, Dasasiddhaka-, Kevaṭṭa-, and Dhana-nanda.

3. MT 179.27-180.10.

4. camma-jatu-rukkha-pāsāṇa-pavattāpana-karaṇādīhi: ?'by (taxes) on hides, lac (or resins), trees, minerals (or stones) and (licensing) the opening of shops (āpana) and occupations'. Skt. karaṇa takes the sense 'traditional occupation of a caste'.

hence his name.

Then come two verses from the Mahāvamsa:<sup>1</sup> "When filled with bitter hate, he had slain the ninth Nanda, Dhanananda, the brahmin Cāṅakya anointed him called Candagutta, born a khattiya of the Moriyas, possessed of the royal splendour, as king of Jambudīpa." In the gloss the Ṭikā gives two explanations of the name Moriya. According to the first, "the splendour of the city in which they were raised gave them great joy (modāpi), and changing the letter 'd' to 'r' the word became Moriya; khattiya refers to their 'ancestral vocation'.<sup>2</sup>

According to the second, the Moriyas were a branch of the Sākiyas who, during the Buddha's lifetime, were all but exterminated by Viḍḍabha (the son of king Pasenadi of Kosala whom the Sākiyas had grievously insulted). The Moriyas managed to escape to Himavant, where they built a well-walled city surrounded by a moat in a delightful place abounding in forests and rivers. The tiles of the buildings were a blue, the shade of a peacock's neck, which attracted the birds, and the city became filled with the cries of peacocks (mora).

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1. MV 5.16-17: Moriyānaṃ khattiyānaṃ vaṃsajātaṃ sirīdharaṃ / Candagutto ti paññātaṃ Cāṅakko brāhmaṇo tato // navanaṃ Dhananandaṃ taṃ ghātetvā caṇḍakodhavā / sakale Jambudīpasmiṃ rajje samabhisikci so //

Translation adapted from that of Wilhelm Geiger (PTS), London, 1912.

2. MT 180.16 ff.: Moriyānan ti: attānaṃ nagarasiriyā modāpīti, ettha sañjātā ti, da-kārassa ca ra-kāraṃ katvā Moriyā ti; laddhavoḥārānaṃ khattiyānan ti attho.

Henceforth this people became known throughout Jambudīpa as Moriyas. This is a transparent attempt to link the family of the Buddha, the Sākiyas, with that of Aśoka, the Moriyas.

Following the gloss the Cāṅakya-Candragupta-Kathā proper begins.<sup>1</sup> But before relating the tale it is well to warn the reader that we are going to find in it inconsistencies which have an important bearing on the question of its affiliation to the Jain version.

Cāṅakka was a native of Takkaśilā, the son of a brahmin, learned in the three Vedas and in Mantras, skilled in political expedients (upāyakuśalo), deceitful, a politician (nītipuriso). After his father's death he supported his mother. The opinion became generally accepted that he bore the marks of one deserving of the royal umbrella, and on learning this his mother began to wail, for kings have no love for anyone, and she feared he would become king and neglect her. When he heard this Cāṅakka asked her where she thought this mark of royalty resided, and she told him it was his canine teeth; so out of filial piety he broke the teeth and continued to care for his mother. And he was plagued by all manner of human afflictions, not only broken teeth, but also ugliness, crooked<sup>1</sup> feet, and the like.

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1. MT 181.12-186.26.

2. vāṅka: an allusion to the name Kauṣilya? "The Dhṛp 5 gives "koṣilya" as meaning of vāṅk", PTS Dict., s.v. vāṅka.

One day he went to Pupphapura to take part in a disputation, for Dhanananda had given up his obsession for stowing away riches and the vice of avarice (-macchera-) had yielded place to the virtue of liberality. The king had constructed an almshouse and had arranged gifts for a crore of brahmins and a hundred thousand novices. When the almsgiving had begun Cāṇakka entered and sat down among the brahmins. When the king entered, accompanied by a large retinue, he was offended to see Cāṇakka seated amongst the brahmins of the assembly and ordered, "Throw this ugly brahmin out of here, and do not let him in again," in spite of the remonstrances of his alms-official. The king's men could not bring themselves to tell Cāṇakka to leave. He did so of his own accord, but not without wryly observing, "Kings are difficult indeed to sit on (i.e. to deal with)".<sup>1</sup> He broke his sacred thread, dashed his drinking pot against the threshold<sup>2</sup> and cursed the king: "May there be no welfare for Nandin to the four ends of the earth."<sup>3</sup>

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1. MT 182.26: rājāno nāma durāsadā hontī ti. The v.l. kuddho would be better than the duṭṭho of the same lāne as a gloss for Cāṇakka's attribute caṇḍakodhavā in MV 5.17.

2. Indakhīlam: the threshold was the foundation stone, its laying attended with mantras; to kick or stamp on it brought bad luck to the house.

3. imāya ca cāturantāya paṭṭhaviyā Nandinō vaḍḍhi nāma mā hotū ti.

The king angrily cried, "Capture the slave, capture him!" But Cāṇakka foiled his pursuers by adopting the guise of an Ājīvaka and went unnoticed in the palace precincts of the king himself, and the search was given up as fruitless.

Cāṇakka gained the friendship of Pabbata, the son of Dhana-  
nanda, whom he filled with ambitions to sieze the throne and with  
the help of a signet ring which the prince got from his mother,  
fled the palace through a secret trapdoor to the Viññhā forest.  
There, by a method the details of which are not given, he made  
eight kaḥāpaṇas out of every one and thus amassed 80 crores,  
which he hid. Searching about for another worthy to be king he  
came upon the youthful Candagutta of the Moriyas.

Candagutta's story is then related. His mother was chief  
queen of the Moriya king. She was pregnant when her king was  
killed by a usurping vassal and had to flee to Pupphapura. There  
she was delivered of a son but the devatās, by their magic power,  
caused her to abandon him in a pot near the gate of a corral.  
There the devatās caused a bull named Canda to stand guard over  
the infant, as the bull had stood over the young Ghosaka.<sup>1</sup> And  
as Ghosaka had been taken home by a cowherd, so, too, a cowherd  
found this baby and, taking a liking to him, brought him home.  
On his naming day he called him Candagutta because he had been  
protected (gutta) by the bull Canda.

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1. An allusion to a story which is preserved in the Dhammapada  
Commentary, 1.174 ff.

Candagutta was adopted and taken home by a hunter, a friend of the cowherd. One day while tending the cattle the boys of the village played king: Candagutta was chosen king, some were made vassals, others ministers, still others robbers. The robbers were caught and brought before Candagutta, who ordered that their hands and feet be cut off. An axe was improvised and their feet cut off. The king then said, "May they be rejoined" and the feet were miraculously restored to the legs. Cāṇakka saw this deed, astonished. He took the boy to the village and gave his foster-father 1000 kahāpaṇas with a promise to teach the lad a trade, and bore him off.

To both Candagutta and Pabbata, Cāṇakka gave a golden amulet worth a hundred thousand on a woolen thread, to be worn around the neck. Once while Pabbata was sleeping the others called out to him, and he prophesied in his sleep: "Of the two, Prince Pabbata will be abandoned and Candagutta will soon be highest king in Jambudīpa." On another occasion Cāṇakka wished to test the youths, so while Candagutta slept he ordered Pabbata to remove his woolen thread without breaking it or waking the owner, which Pabbata was unable to do. When Candagutta was set the problem, however, he solved it after the manner of Alexander and the Gordian knot: he cut off Pabbata's head, and Cāṇakka was not the man to be displeased at this. By the end of Candagutta's seven years' training, when he had reached manhood, Cāṇakka had found much in his protégé of which to be satisfied, and so he dug up the treasure

he had hidden long ago and levied an army with it which he presented to Candagutta.

They invaded the kingdom but were badly beaten by the populace and were forced to fly. The army disbanded and Cēṇakka and Candagutta returned disguised to the kingdom to scout things out. While wandering about they listened to the conversations of the people. At a certain village they overheard a woman scolding her son, to whom she had given a cake, when he asked for another after he had eaten the middle and thrown away the edges: "This boy acts just like Candagutta trying to get the throne." "How so?" the boy asked. "You, love, eat the middle of the cake and throw away the outside just as Candagutta, eager for kingdom, neglected to subdue the border villages and attacked the villages in the kingdom itself straightaway. So the villagers and others rose up and surrounded him and destroyed his forces. That was his mistake."

Cēṇakka and the young prince took this to heart, and again raised an army. They subdued the countryside starting from the borders until they reached Pāṭaliputta, which they took, and slew Dhanananda.

Before Candagutta was anointed Cēṇakka ordered a certain fisherman to find the place where Dhanananda had hidden his great wealth. When in a month he had done so, Cēṇakka killed the poor fellow and anointed Candagutta.

There follow four verses of the Mahāvamsa,<sup>1</sup> a statement of

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1. MV 5.18-21.

sources which we shall discuss presently, and the remainder of the Cānakya-Candragu<sup>p</sup>ta-Kathā.<sup>1</sup>

Cānakka ordered a certain jaṭṭila named Paṇiyatappa to rid the kingdom of robbers (or rebels) which he soon did.

He then took steps to render the king immune to poison by mixing small doses of it in his food, without the king's knowledge. One day the chief queen (daughter of Candagutta's maternal uncle) who was due to give birth in seven days' time, ate with Candagutta, and Cānakka arrived just in time to see the king giving her a morsel from his own plate. Judging the queen was as good as dead but hoping to save the unborn child, he cut off her head and slit open her belly with a sword to remove the foetus. He put it in the belly of a freshly-killed goat, replacing it with a new one for each of seven days, after which the boy was 'born' and named Bindusāra on account of being spotted with drops (bindu) of goat's blood. Cānakka then drops out of the narrative and is heard of no more.

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Let us see how far back we can trace these stories.

The Mahāvamsa or 'Great Chronicle' and its commentary deal with the history of Ceylon, both ecclesiastical and political,

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1. MT 187.5-188.12.

from the visit to the island of the Tathāgata to the time of king Mahāsena who reigned in c. A.D. 325-52;<sup>1</sup> the kings of Magadha are included only for their bearing on the early history of Buddhism. Little is known of the author of the Mahāvamsa, a certain Mahānāma, and estimates of its date vary between the fifth and sixth centuries A.D.<sup>2</sup> The author of the Mahāvamsa Ṭikā is unknown and the date of its composition is set as late as A.D. 1000 - 1250<sup>3</sup> or as early as the sixth or seventh centuries A.D.<sup>4</sup> This wide divergence in dating depends on whether one holds with Geiger, that the author knew the Mahābodhivamsa, or with Malalasekera, that the parallel passages in the two works are the result of the Mahāvamsa Ṭikā drawing on an earlier version of the Mahābodhivamsa in Old Sinhalese, of which the extant work is a Pali translation. Apart from this, Malalasekera argues for an earlier date from the fact that the Mahāvamsa Ṭikā drew upon Old Sinhalese chronicles which were the basis for the Mahāvamsa and which were superseded by that work; hence the Ṭikā must have been written shortly after the Mahāvamsa, because these Sinhalese works

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1. Geiger's date in MV trans. p. xxxviii.

2. G.P. Malalasekera, The Pali Literature of Ceylon, pp. 139-40; Geiger, op. cit., p. xii.

3. Geiger, op. cit., p. xi.

4. Malalasekera, op. cit., pp. 142-4; but in his edition of MṬ he ascribes it to the eighth or ninth centuries A.D., pp. civ-cix.

probably disappeared soon after.

It is these Old Sinhalese chronicles which we must now consider. Mahāvamsa 1.1-4 says that it followed the Mahāvamsa compiled by the ancients and from the Ṭīkā we learn that this earlier work was in prose with Pali verses interspersed, and that Mahānāma's chronicle was a translation into Māgadhī (i.e. Pali) verse, preserving the content but improving the style.<sup>1</sup> This lost work is generally referred to simply as Aṭṭhakathā;<sup>2</sup> it had the character of the medieval chronicles of European monasteries, and was a part of the Old Sinhalese commentaries on the Tipiṭaka, also called Aṭṭhakathā, whether integrated with or independent from them. The latter were drawn upon and superseded by Buddhaghosa's Pali commentaries on the Canon; and Malalasekera aptly remarks, '...the Mahā-vamsa bore to the Sinhalese vamsatthakathā exactly the same relation as Buddhaghosa's commentaries did to the scriptural atthakathā.'<sup>3</sup> The Sinhalese commentaries according to tradition were begun by Mahinda, who introduced Buddhism to Ceylon under Aśoka, and both commentary and chronicle are particularly associated with the Mahāvihāra of Anurādhapura, the ancient

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1. Malalasekera, MT, pp. lvi-lxi.

2. Also Sīhalaṭṭhakathā or Sīhalaṭṭhakathā Mahāvamsa, and probably the same are Mahāvamsaṭṭhakathā and Porāṇaṭṭhakathā.

3. Pali Literature of Ceylon, p. 144.

capital. The Mahāvihāra is said to have been built by Devānampiya Tissa, Mahinda's patron,<sup>1</sup> and the compilation of the chronicles probably continued to the time of Mahāsena when the persecutions of the king caused the monks to leave the monastery and brought about its demolition in order to provide building material for the Abhayagirivihāra, with an account of which the Mahāvamsa closes.

These chronicles composed in the Mahāvihāra then, were probably added to year by year from contemporary events and the tales of visiting monks and pilgrims, and from this heterogeneous collection monographs may have been compiled on single topics such as the story of the Bodhi Tree, the foundation of the Thūpas and the deeds of Duṭṭhagāmaṇī.<sup>2</sup> From the material in these chronicles the Dīpavaṃsa, the Mahāvamsa, the Mahāvamsa Tikā, the Mahābodhivaṃsa and the historical introduction to Buddhaghosa's commentary on the Vinaya, the Samantapāsādikā, mainly drew.

The Mahāvamsa Tikā has other sources besides, of which we need only concern ourselves here with the Uttaravihāraṭṭhakathā, the chronicles compiled by the monks of the Uttaravihāra, more commonly called the Abhayagirivihāra. This monastery was founded

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1. MV 15.

2. Malalasekera, MT, p. lx.

by Vaṭṭagāmaṇi Abhaya after his restoration (29-17 B.C.)<sup>1</sup>,  
 "when two hundred and seventeen years ten months and ten days  
 had passed since the founding of the Mahāvihāra,"<sup>2</sup> on the site  
 where the Tīthārāma of the Jains (Nigaṇṭhas) had stood,<sup>3</sup> outside  
 the north, uttara, gate of Anurādhapura. Mahātissa became its  
 abbot, and as he grew in the royal favour the influence of the  
 Mahāvihāra declined until, as if the ghost of heresy hovering  
 about the site had been reanimated, the monks of the Abhayagirivi-  
 hāra fell away from the true faith and broke off relations with  
 the Mahāvihāra.<sup>4</sup>

There are several bits of evidence which suggest that the  
 doctrines entertained by the monks of the Abhayagirivihāra not  
 only diverged from those of the Mahāvihāra, but that they were  
 Mahāyanist in tendency. None of these is unequivocal, and the  
 canon of the Abhayagirivihāra appears to have been substantially  
 the Pali Tipiṭaka of the Mahāvihāra which we know. However that  
 may be, in the course of a long existence from the end of the  
 first century B.C. to the end of the twelfth century A.D., during

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1. Geiger, MV trans., p. xxxvii.

2. MV, 33.80.

3. MV, 33.42, 83.

4. MV, 33.95 ff. See the discussion in Étienne Lamotte, Histoire  
 du Bouddhisme indien, pp. 406-7, and see André Bareau, Les sectes  
 bouddhiques du Petit Véhicule, ch. 30: "Les Abhayagirivāsīn ou  
 Dhammarucika."

which it at times overshadowed its rival, the Abhayagirivihāra was in more or less constant communication with various monasteries of the Sub-continent with whose doctrines the hierarchy of the Mahāvihāra was out of sympathy.

The Mahāvamsa Tikā emanates from the Mahāvihāra, and draws freely on its Aṭṭhakathā. But it has drawn as well on the Aṭṭhakathā of the Uttaragiri- or Abhayagirivihāra, chiefly for materials on Indian history, which in some cases differed from those in the Mahāvihāra's Aṭṭhakathā, and in others were not to be found in the latter. The two diverge, for example, in the details of the kings from Mahāsammata to the Buddha; and the Abhayagirivihāra supplies stories of Susunāga, of the nine Nandas, and of Cāṇakka and Candagutta which are not found in the other chronicle. The chronicles of the two monasteries were undoubtedly much the same, since the monks of Abhayagirivihāra were drawn in the first place from the Mahāvihāra. It is probable that divergence of traditions came about quite naturally through faulty transmission of one species or another; but the stories not found in the Mahāvihāra chronicles must have come from outside Ceylon, hence from the Sub-continent, sometime after the founding of the Abhayagirivihāra in the last quarter of the first century B.C.

It would seem that the nine Nandas, Cāṇakya and Candragupta were known to the chronicles of both monasteries, although the Mahāvamsa Tikā chiefly draws upon that of Abhayagirivihāra for its narrative. In its gloss on Mahāvamsa 5.14 it states that the names of the ten sons of Kālāsoka are preserved in the (Mahāvihāra)

Aṭṭhakathā, and it is from that source that the Mahābodhivaṃsa no doubt also drew them.<sup>1</sup> This makes it probable that, in spite of the fact that the Ṭikā ascribes the story of the origin of the nine Nandas to the Uttaravihāraṭṭhakathā, at least the names of the nine, since they are preserved in the Mahābodhivaṃsa<sup>2</sup>, were also preserved in the Mahāvihāra chronicles. The Ṭikā professes, moreover, to abridge the Abhayagirivihāra account, and tell only what does not conflict with the orthodox tradition.<sup>3</sup> When we come to the Cāṇakya-Candragupta-Kathā proper, we are told, "Both the subjects of the anointment of Candagutta and the time previous to it are told in all detail in the Uttaravihāraṭṭhakathā. Those who wish may look them up there."<sup>4</sup> We have presented only the most important matter which is immediately taleworthy and does not conflict with the orthodox tradition. There, (in the Uttaravihāraṭṭhakathā), moreover, the story of Cāṇakka and the story of the taking of Candagutta by the cowherd and so forth differ.

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1. MBV, p. 98: Budhhasena, Korāṇḍavaṇṇa, Maṅgura, Sabbafījaha, Jēlika, Ubhaka, Sañjaya, Korabya, Nandivaddhana and Pañcamaka.

2. See above.

3. ...tesaṃ navannaṃ uppattikamañ ca Uttaravihāraṭṭhakathāyaṃ vuttaṃ. Mayam pi saṅkhepena tesaṃ uppathimattaṃ samayāvirodhamattaṃ kathayāma.

4. !

The rest we have presented as told in the (Mahāvihāra's) Aṭṭhakathā.<sup>1</sup> Thus while it is not necessary to suppose that the nine Nandas, Cāṇakya and Candragupta were entirely unknown to the Mahāvihāra chronicles, the details therein must have been very meagre; for the Ṭikā's author clearly hesitated to draw upon what in his eyes was a heretic tradition, and we must assume he has done so only for stories and episodes unknown to the Mahāvihāra.

The inconsistencies in the story as we have it are unlikely to have arisen through differences in the accounts contained in the two monasteries, for as we have seen the Mahāvihāra<sup>ra</sup> preserved little more than a mention of it, and the Ṭikā's author professed to tell nothing at variance with the orthodox Mahāvihāra tradition. Abridgement accounts for some inconsistencies. Probably the Uttaravihāraṭṭhakathā, for example, explained the method whereby Cāṇakka made eight kahāpanas out of one, and it may be due to carelessness on the part of the author of the Mahāvamsa Ṭikā that the boy 'king' Candagutta orders the 'robbers' hands and feet cut off, while actually only their feet are cut off and restored.

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1. MṬ 187.5 ff.: yo Candaguttassa abhisifcitakālo ca anabhisifcitakālo ca tesaṃ ubbhinnaṃ adhikāro ca, so sabbākārena Uttaravihāraṭṭhakathāyaṃ vutto. atthiken'etaṃ oloketvā gahetabbo. mayam pana accantaṃ kathetabbaṃ samayāvirodhaṃ mukhamattam eva dassayimha. ettha pi Cāṇakkassa adhikāro ca Candaguttassa dhanagopena gahitā ti ādi adhikāro ca viseso. itaraṃ Aṭṭhakathāyaṃ eva vuttaṃ dassayimhāti.  
The pana gopena of most MSS. would be preferable to dhanagopena.

But, making allowances for anomalies arising from abridgement and reworking by the author of the Mahāvamsa Ṭikā, the story gives on closer inspection, the appearance of a number of disparate anecdotes collected and arranged in chronological sequence without having been made wholly consistent, and this accords with the Ṭikā's testimony that even within the Uttaravihāraṭṭhakathā there were various stories of Cāṇakka and Candagutta. An excellent example of this is the story of the breaking of the teeth: Cāṇakka himself breaks them, moved by his mother's fears that he will become king and neglect her; yet in the very next episode he leaves for Pupphapura, and his poor mother is never again heard of. Indeed after the flight from the Nanda's palace, he goes about looking for someone else "worthy of the royal umbrella", that is, he intends to be a power behind the throne--so much for his mother's fears. The anecdote is a perfectly good one in itself, but it does not agree with the rest of the story.

Again, consider Dhanananda's avarice: Cāṇakka is drawn to the capital attracted by the king's generosity, and the commentator (we take it that it is he who speaks here) is constrained to explain that Dhanananda has changed his ways and is no longer avaricious. The use of both the alternate forms, macchariya and macchera in the two places probably points to a change in sources,<sup>1</sup> though, of

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1. MT 179.29, 181.32.

course, both anecdotes could have been preserved in the chronicles of the same monastery. Another alternation, that between the forms Pāṭaliputta and Pupphapura, may have a similar explanation; the use of both in the Mahāvamsa can be attributed to metrical reasons which do not hold for the Ṭīkā.<sup>1</sup> A third is of undoubted significance: Cāṇakka's curse is laid on Nandin while everywhere else the form is Nanda, Dhanananda.

Etymologizing tales are rarely necessary to the narratives they accompany, and the etymologizing of the name Moriya is no exception to this. The explanation of the name Candagutta, however, actually harms the economy of the narrative by requiring a double adoption: he is found by the cowherd who loves him as a son<sup>2</sup> and gives him his name, but is then adopted by a hunter. The rather lame etymology of Candagutta, 'protected by (the bull named) Canda'

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1. If this alternation has any significance, it would be necessary to show why 'Pupphapura' occurs in MT 181.10 (gloss) and .30 (linking sentence probably from the MT's author) while the MT's author elsewhere prefers the form 'Pāṭaliputta', 198.26 (against the Pupphapura of MV 5.39) and 199.21 (gloss). The other passages for Pāṭaliputta are MT 179.21 (nine Nandas), and 186.25 (killing of Dhanananda) and for Pupphapura, 183.25 (Moriya queen).
  2. puttasinehaṃ uppādetvā, 184.1.

is explicitly fashioned on the story of Ghosaka which required that he be found by a cowherd, and was evidently inserted into the familiar story of the abandonment of a royal babe and his adoption by the rustic, in this case a hunter, who finds him.

These inconsistencies are, we think, sufficient to vouch for the anecdotal character of the Cāṅakya-Candragupta-Kathā as it was preserved in the chronicles of the Abhayagirivihāra and as they have been preserved for us, in more or less connected sequence, by the Mahāvamṣa Ṭīkā. This catalogue of faults is, however, not yet complete, and can only be made so by comparing the Pali version of the story with the Jain, to which we now turn. Before doing so it only remains to add that this rather harsh critique of the Pali sources in no way detracts from the value of the Mahāvamṣa Ṭīkā or the pleasure we have derived from its stories.

### The Jain Version

The Jain version of the Cāṅakya-Candragupta-Kathā is found in several of the exegetical and commentatorial works of the Śvetāmbara canon, but it is convenient to deal in the first place with the legend as presented in Hemacandra's narrative of the Jain elders posterior to Mahāvira, Sthavirāvalīcarita, also called the Parīśiṣṭaparvan or 'appendix' to his long Sanskrit poem on the lives of the sixty-three eminent figures of Jain hagiology,

the Triṣaṣṭiśalākāpuruṣacarita.<sup>1</sup>

Cāṇakya was born to the brahmin Caṇin and his wife Caṇeśvarī, both pious Jains (śrāvaka), in Caṇaka, a village in the Golla district. He was born with a complete set of teeth, which the monks explained as an omen that he would become a king; but his father, fearing the pride of kingship would lead him to perdition, ground down his son's teeth, whereupon the monks foretold that he would be 'a king concealed behind an image', a power behind the throne (bimbāntarito rājā). Cāṇakya became a śrāvaka proficient in all the sciences and married a brahmin girl of good family. Once, when attending the marriage of her brother, her relatives teased her on account of her poverty. This spurred her husband to go to Pāṭaliputra, to the court of King Nanda, who, he had heard, was liberal to brahmins. When he entered he went straight-away to the king's seat and sat down. Nanda's son, entering with the king, saw the brahmin tread on the king's shadow and sit down. A slavegirl graciously offered Cāṇakya another seat, but he merely put his drinking pot on it; on the third he set his staff, on the fourth, his rosary and on the fifth his sacred thread. The dāsī in exasperation kicked him from his seat. This roused Cāṇakya to a fury, and he vowed: "I will uproot Nanda, together with his treasure and his servants, his friends and his sons, his army and

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1. Sthavirāḷīcarita or Parīśiṣṭaparvan (2nd ed.) ed. Hermann Jacobi. Cited as PP. The story is found at PP 8.194 to the end of the sarga.

his chariots, as a great wind uproots a tree."<sup>1</sup> With this he fled the capital.

Remembering he was to be a 'king concealed behind an image' he went looking for one worthy of kingship. He came upon a village where dwelt the wardens of the king's peacocks (mayūrapoṣaka). The chief's daughter was pregnant and had a craving (dohada) to drink the moon.<sup>2</sup> Cāṅakya agreed to satisfy this craving on condition that the child should belong to him. He took the girl to a shed on a full-moon night and had her drink a bowl of milk in which the moon was reflected through a window; as she drank, his confederates slowly drew a blind over the window. Her craving was satisfied, and the child was born, a boy, who was named Candragupta. Thus his name ('protected by the moon') is accounted for by the dohada story; and the surname Maurya is accounted for by making him son of a mayūrapoṣakā. Cāṅakya, with the object of amassing gold, resumed his wanderings, seeking those proficient in alchemy (dhātuvādaviśārādān).

Candragupta as a boy was recognized as king by his playmates. Cāṅakya, returning to the village one day, saw the boy-king, whom he did not recognize, and in order to test him asked for a gift.

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1. PP 8.225: sakośabhṛtyaṃ sasuhṛtputraṃ sabalavāhanam / Nandam unmūlayiṣyāmi mahāvāyur iva drumam //

2. The dohada motif is discussed by Maurice Bloomfield in JAOS, 1920, pp. 1 ff. and by N.M. Penzer, The Ocean of Story, Appendix III, p. 221 ff.

The boy stoutly told Cāṇakya he might take the herd of cows nearby, because no one would presume to disobey his order. Cāṇakya was pleased at this display of power and, learning who the boy was and promising him kingship, took him off to lay siege to Pāṭaliputra with troops hired by the wealth he had acquired by alchemy. The attempted invasion was easily repulsed and the two were forced to flee. They were about to be overtaken by a pursuivant when they came upon a lake. Cāṇakya dismounted and assumed the posture of an ascetic in deep meditation, ordering Candragupta to jump into the lake. The soldier came up and asked the 'ascetic' where Candragupta was, to which Cāṇakya replied by pointing to the water; and while the soldier was throwing off his armour Cāṇakya decapitated him with the soldier's own sword. Continuing their flight Cāṇakya asked Candragupta what he had thought when he pointed him out to the soldier; Candragupta said he thought his master would know best, and Cāṇakya inferred that Candragupta would remain under his influence as king. A second pursuivant was similarly outwitted when Cāṇakya chased away a washerman and resumed his work. To allay Candragupta's hunger he slit open the belly of a brahmin who had just eaten and fed his protégé with the contents.

Entering a village in search of food, Cāṇakya overheard a mother scolding her child, who had stuck his finger in the middle of a bowl of hot gruel and got burnt, for being a big a fool as Cāṇakya. He asked her what she meant; she replied that the child had stuck his finger in the middle rather than starting from the edge, which was cooler, just as Cāṇakya had struck at the capital

before securing the surrounding regions. Taking this to heart Cāṅakya went off to secure the allegiance of Parvataka, king of Himavatkūṭa, to whom he offered half Nanda's dominions if they were successful.

One town raised a stubborn resistance. Cāṅakya entered it disguised as a Śaiva mendicant, and 'foretold' that the siege would last as long as the idols of the Seven Mothers remained in the temple. The credulous people removed them and the forces withdrew at Cāṅakya's order, but returned to take the town by surprise when the people were celebrating their 'deliverance'. When the countryside was subdued they took Pāṭaliputra and Nanda was allowed to go into exile with as many goods as he could carry on one cart. As Nanda was driving off he met Candragupta on the road, and his daughter instantly fell in love with the new ruler, and chose him as husband by svayaṃvara. As she climbed off the heavily laden cart nine spokes of the wheel broke. Cāṅakya interpreted this omen to mean that Candragupta's dynasty would last for nine generations.

Parvataka fell in love with a girl whom, unbeknown to him, Nanda had fed on poison from birth (viṣakanyā). Cāṅakya approved his desire to marry. During the marriage ceremony, when he clasped her hand before the sacred fire, Parvataka was stricken from contact with the poisonous sweat which she exuded; and Cāṅakya prevented Candragupta from calling the physicians with the timely observation that he who owns half a kingdom and does not kill his partner is himself killed. So Candragupta became the sole ruler of Nanda's

former realm, 155 years after Mahāvīra's nirvāṇa.

Those of Nanda's men who remained in the kingdom were harassing the people. Cāṇakya discovered a weaver who, whenever he found roaches in some part of his house, immediately set fire to it; him he put in charge of the suppression of rebels, which was soon accomplished.

Cāṇakya paid off an old grudge against a village where he had once been refused food by issuing them an order capable of two interpretations, and burnt the village to the ground on the pretext of punishing disobedience.

To fill the treasury Cāṇakya took to gambling, staking eight dīnāras against one, using loaded dice. He also invited wealthy merchants to his home and plied them with wine; he took to boasting to them of his wealth, and when the merchants followed suit, Cāṇakya used this information to increase the king's treasury.

During a twelve year famine, two Jain neophytes made themselves invisible by rubbing their eyes with a magic ointment and ate off the king's plate. Cāṇakya strewed the palace floor with fine powder in which footprints appeared during the meal. Cāṇakya saw through the trick and ordered that thick smoke be made in the diningroom at the next meal, which caused the neophytes' eyes to water, and when the ointment was washed off by their tears they became visible. Cāṇakya complained about the young monks' behaviour to Ācārya Susthita who, however, blamed the laity for neglecting the duty of charity. And so Cāṇakya gave liberal alms henceforth.

Cāṇakya proved to Candragupta that the heretic teachers he

patronized were frauds, given to sensual pleasures, by strewing the floor of a part of the palace near the women's apartments with fine powder, and leaving the teachers there before bringing them to the king to discourse upon their doctrines; their foot-prints showed that they had sneaked to the window of the women's apartments to peep. The same test was applied to Jain monks the next day, but they remained seated the whole time. Candragupta made them his spiritual counsellors.

On Cāṅkya's order Candragupta's food was mixed with increasing doses of poison to make him completely immune to it. Queen Durdharā, who was pregnant, one day dined with the king and was almost instantaneously killed by the poison. Cāṅkya at once ripped open the queen's belly and extracted the foetus, a son, who had already been touched by a drop (bīndu) of the poison and was therefore called Bindusāra. Cāṅkya anointed him king when Candragupta died by samādhi.

Another minister, Subandhu, was jealous of Cāṅkya's ascendancy and turned Bindusāra against Cāṅkya by telling him that he had killed the queen. Cāṅkya fell from favour and turned his mind to supramundane things; but he resolved that his enemy should get his due reward for his pains. Accordingly he pronounced mantras over a perfume which he placed in a casket together with a note, and retired to a dunghill to starve himself to death. Bindusāra had meanwhile learned the truth of his mother's death, and was very angry with Subandhu. The latter promised to conciliate Cāṅkya and approached him ostensibly with that purpose, but left a glowing

coal in the dunghill, and Cāṇakya went up in flames.

But Cāṇakya's revenge was accomplished:<sup>1</sup> Subandhu entered Cāṇakya's house, hoping to find hoarded treasure. He opened the casket containing the rich perfume, which he breathed. He then read the note: whoever breathes this perfume must become an ascetic, least he die. Subandhu chose the former alternative.

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The similarity of this story to the Pali version will have been noticed, but it needs to be shown that where the Jain version differs it is almost always superior.

In the first place the contradiction of Cāṇakya's breaking of his teeth out of filial piety and then leaving his mother does not arise in the Jain version where it is his father who grinds them down from concern for his soul. There is no particular reason why teeth should be a royal omen anyway: what is remarkable is that, like Richard III, Cāṇakya was born with a full set, a detail lacking in the Pali version. The prophecy, after the grinding of the teeth, that he will be a 'king concealed behind an image', provides the motivation for his search for another worthy to be king, after his flight from Nanda, the search being mentioned in both versions; nor has this prophecy, which the Mahāvamsa Ṭīkā lacks, dropped out of the Pali version through abridge-

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1. PP 9.1 ff.

ment.<sup>1</sup>

In the Pali version Cāṇakya merely takes a seat among many in the almshouse: his ugliness, a result of the breaking of his teeth, is enough to throw the Nanda into a passion. In the Jain story he offers the king two excellent reasons to fly into a rage: he steps on the king's shadow and sits on his throne and then, piling insult on insult, puts his belongings on adjoining seats.

There is perhaps not much to choose between the two versions when we come to the etymologizing stories concerning Candragupta Maurya. The moon in the dohada motif does not 'protect' Candragupta and the story of the bull Canda is inept. The Jain story is probably inserted, as the Pali one was, since after satisfying the dohada and acquiring the boy, Cāṇakya leaves in search of a teacher of alchemy, and returns to find that the boy, whom he does not recognize, shows signs of royal worth; here the Pali version which does not involve Cāṇakya in Candragupta's birth is better. There is, again, little to choose between the two versions of the 'boy-king'; but the Pali version, with its appeal to the supernatural, is perhaps later. Probably Cāṇakya's making eight coins from one in the Pali version is due to alchemy (dhātuvāda),

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1. so pana pitari mate mātuposako ti ca rājachattāramahāpuñño ti ca loke sambhāvito ahoṣi. And after breaking out his teeth: Evam so mātuposako ti loke sambhāvito ahoṣi, with no mention of his royal worth (MT 181.16-17, 27).

the Jain version supplying the answer.

The Jain version excels the Pali in its telling of the 'unconsciously given advice' motif: in the Pali the boy eats the centre of the cake and throws away the edges, while in the Jain, the boy sticks his finger in the middle of a bowl of gruel and gets burnt; this and the advice he is given exactly correspond to the campaign of Cāṇakya and Candragupta.

The Pabbata of the Pali version only serves to secure Cāṇakka's escape from the palace, after which he is discarded. Although he lingers on after the finding of Candragutta, Cāṇakka was already looking for 'another worthy of the royal umbrella' after the flight: from this it is clear that Pabbata is not the man, and the 'test' is superfluous in his case as in that of Candagutta, who has already shown signs of a royal future in his childish games. By contrast Hemacandra's Parvata<sup>ka</sup> is as his name should indicate, a hill-king of Himavaṅtkūṭa, rather than Nanda's son. An alliance with him is most fitting as Cāṇakya has just seen that he must subdue the border regions before taking the capital, and once victorious he is discarded in a way worthy of Cāṇakya's reputation.

The story of Nanda's hidden wealth and the search for it is lacking in the Jain version, which therefore does not present Nanda as avaricious on the one hand and generous on the other. The Pali version of the pacification of the country-side is very cryptic, and it is possible that its source made the choice of a jaṭila to accomplish it seem more appropriate. But the Jain

version provides us with an appropriate agent in the person of a weaver who carries his zeal in destroying roaches to extraordinary lengths, and explains, moreover, that the 'robbers' are the remaining adherents of Nanda.

The anecdote of Bindusāra's birth is the one etymologizing story which the two versions have in common, and they are so close as to leave little basis for choice.

There is little that is specifically Jain in the story. True, Cāṅkya and his parents are made out to be adherents of Jainism, and Candragupta and Cāṅkya are both said to have ended their days in the manner of Jain ascetics, though involuntarily in the case of the latter. That Candragupta was attracted to Jainism may well be true: in Jain legend he occupies the place of Aśoka in Buddhist. Then there are the two anecdotes of monkish misdemeanors which do not serve to advance the story.

The remainder of the stories found in the Parisiṣṭa Parvan but not in the Pali works are also loosely attached to the thread of the narrative and can be considered inessential. Such is the case in the episode where Nanda's daughter, smitten by love for Candragupta, gets off the cart to mount his chariot and in so doing nine spokes of the cartwheel are broken, signifying a duration of nine generations for the new dynasty. Prognostications of this sort would seem to be obligatory in describing the rise to power of the founder of a line of kings. Of the first Nizam of Hyderabad, it was said that when at his coronation he gave a mere seven chappatis to a mendicant holy man for his blessing, the holy man foretold that

as many Nizams would reign, a prophecy which has been realised.<sup>1</sup> But this episode in our story serves further to legitimize the usurper Candragupta by marrying him to a Nanda princess, an end which other versions achieve by making Candragupta a son or grandson of the Nanda.

The mocking of Cāṇakya's wife for her poverty, since it provides motivation for his going to the court of Nanda, may be an exception to this. It is possible, too, that Cāṇakya's rivalry with Subandhu formed part of the original Cāṇakya-Candragupta-Kathā, since this finds mention in Pali literature: from Dhammapāla's commentary on the Theragāthā we learn that the thera Tekicchakāni was the son of the brahmin Subhandhu. This Subandhu displayed wisdom in deeds and skilfulness in means; and Cāṇakka, out of jealousy and a fear that Subandhu would surpass him at court, got Candagutta to throw the poor man into prison, whereupon his son fled and took holy orders.<sup>2</sup> Subandhu does not figure in Cāṇakka's demise as remembered in the Samsthāraka and other edifying Jain collections on the deaths of famous men, according to which, though a wicked man, he died by voluntary starvation in the approved Jain

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1. Taya Zinkin in The Guardian, 25 February, 1967.

2. Paramatthā Dipanī (Theragāthā Aṭṭhakathā), commy. on TG 6.2 (commy. vss. 381-6), p. 163.

manner,<sup>1</sup> but this is understandable.

In composing the Parisiṣṭa Parvan Hemacandra drew chiefly on what has been called the kathānaka literature, legends and anecdotes concerning the deeds of Jain patriarchs and famous men, which are preserved in the cūrṇis and ṭikās attached to the canonical sūtras and niryuktis,<sup>2</sup> The Cāṇakya-Candragupta-Kathā from the birth of Cāṇakya to the filling of the treasury is preserved in Prakrit in the Uttarādhyāyana Ṭikā<sup>3</sup> and the Cūrṇi and Ṭikā on the Avāśyaka Niryuṅkti;<sup>4</sup> of the remainder of the stories, which, as we have seen, are only loosely connected to the main narrative, "many details can be traced in the Avāśyaka-, Uttarādhyāyana- and

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1. Pāḍaliputtammi pure Cāṇakko nāma vissuo āsi savvāraṃbhaniyutto iṅgiṇimaraṇaṃ aha nivanno /

Quoted in An Illustrated Ardha-Magadhi Dictionary, s.v. Cāṇakko; the passage is given as Samsthāarakapraṅirṇa 73, Pinḍaniryukti 500 and Bhaktapratyākhyānapraṅirṇa 162.

2. See Jacobi, PP, p. v ff. The other source of the PP is the Prakrit poem Vasudevahiṅḍi on Vasudeva, Kṛṣṇa and the like.

3. Uṭ 3.1 printed in PP, p/ 336 ff. Prakrit prose interspersed with Prakrit and Sanskrit verses.

4. AN 9.64.38, Jacobi, PP, p. ix. I have not been able to ascertain whether this story is identical to the above.

other Kathānakas."<sup>1</sup>

The Sthavirāvalīcarita was composed sometime between A.D. 1159 and 1172.<sup>2</sup> Its source, the Kathānaka literature, belongs to a period beginning with the end of the first century A.D. and ending with Haribhadra, c. A.D. 750.<sup>3</sup> The antiquity of the Jaina Siddhānta and its exegetical literature is a subject of much controversy, as tradition has it that the canon was first fixed at the Council of Pāṭaliputra in Candragupta Maurya's time, but only set down in writing at the Council of Valabhī in the 5th-6th century A.D., i.e. 980 years after the nirvāṇa of Mahāvīra.<sup>4</sup> It is generally agreed that at least some of the canon must have been in written form from early times, but the opinions vary as to how accurately the present canon represents that of the Council of Pāṭaliputra. However, there is general agreement that the Kathānaka literature is old; and Haribhadra, who wrote a Sanskrit ṭīkā on the Āvaśyaka and other sūtras and niryuktis, relied on ancient Prakrit commentaries, and "retained the narratives (Kathānakas) in their original Prakrit form."<sup>5</sup>

It might be asked whether the greater coherence and consistency of the Jain version of the Cāṅakya-Candragupta-Kathā has been on

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1. Jacobi, PP, p. ix.

2. Bühler's reckoning in Jacobi, op. cit., p. xxv.

3. Ibid., p. vii.

4. See M. Winternitz, History of Indian Literature, vol. 2, pp. 431-2.

5. Ibid., p. 481.

imposed on it by Hemacandra, binding together diverse anecdotes much as the author of the Mahāvamsa Tikā did. Hemacandra was, after all, a veteran storyteller by the time he began the Parisiṣṭa Parvan. But in the first place the bulk of the story is preserved in connected form in Hemacandra's Prakrit source, and in the second, it can be shown by comparison of the two that he is here as elsewhere true to the essentials of his original, casting it into a more polished and smoothly flowing narrative and filling it out with description and dialogue. By way of illustration we refer to one of the choicest episodes, where the dāsī asks Cānkaya to take another seat. This is the Prakrit version:

The slave-girl spoke: "Sir, take the second seat." "Be it so." On the second seat he puts his water-pot; likewise on the third his staff; on the fourth his rosary; on the fifth his sacred thread. "Impudent!" she said, and expelled him. He became angry and says to her...1

This is what Hemacandra makes of the scene:

Cānkaya was politely addressed by a certain slave-girl of the king: "Take thou this second seat, Oh twice-born." "My water-pot shall stay here," he said, placed

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1. PP p. 337. The English scarcely does justice to the compression of the original: bhaṇio dāsīe. bhayavaṃ biye āsane nivesāhi. evaṃ hou. bitīe āsane kuṇḍiyaṃ thavei. evaṃ taḷe daṇḍayaṃ. caṭṭthe gaṇettiyaṃ. paṃcame jaṇovafiyaṃ. dhiṭṭho tti nicchūḍho. padosam āvaṇo. aṇayā ya bhaṇāī.

the water-pot there and did not leave the first seat. Likewise he obstructed the third with his staff, the fourth with his rosary and the fifth with his sacred thread. The slave-girl saw this. "Oh, impudent! He does not leave the first seat; on the contrary, he obstructs the other seats as well. What sort of a brahmin is this impudent fellow?" and, kicking Cāṇakya, ejected him. Cāṇakya flew into a rage like a snake beaten with a stick, and in full view of everyone made this vow....

The repetitions of Hemacandra ("water-pot here", "water-pot there") are perhaps lapses occasioned by fatigue after the 34,000 ślokas of the Triṣaṣṭiśalākāpuruṣacarita; but there is no denying that the flat Prakrit version has been enlivened.

It might further be argued that this merely displaces the problem one step back without solving it. But if the Prakrit version is coherent and self-consistent, that is the only literary merit it has. When the episodes of a story disengage themselves from each other and are transmitted as anecdotes they suffer alterations which make them discordant when reunited, as we have argued has happened in the Mahāvamsa Tīkā with regard to the Cāṇakya-Candragupta-Kathā. But when the story is transmitted as a whole it may well undergo changes but the integrity of the whole is preserved and tends to conserve the original features. For these reasons we are inclined to consider the Jain version not only the better but the older of the two.

### The Kashmirian Version

Two works, Somadeva's Kathāsaritsāgara<sup>1</sup> and Kṣemendra's Bṛhatkathāmañjarī<sup>2</sup>, retell the Cāṇakya-Candragupta-Kathā as it was presented in an earlier Kashmirian version of the lost Bṛhatkathā of Guṇāḍhya. Our story here is merely an episode of the tale of Vararuci, which in turn forms a part (though indeed a dispensable part as we shall see) of the legend of how Guṇāḍhya came to write his Bṛhatkathā.

Vararuci (who is identified with Kātyāyana, the grammarian) and his two fellow-pupils, Indradatta and Vyāḍi, journey to king Nanda at Ayodhyā to ask for a crore of dīnāras as fee for their guru Varṣa. When they arrive Nanda has just died; but Indradatta manages by yoga to slip into Nanda's body and reanimate it, and grants Vararuci's petition. The minister Śakaṭāla guesses the true state of affairs and has Indradatta's abandoned body burnt, thus permanently imprisoning him in Nanda's; but 'Yogananda', fearing Śakaṭāla's revenge, casts him in a dungeon, together with his hundred sons and gives them rations sufficient only for one; the sons give all the food to their father, so that he may live to take revenge, and starve to death. Yogananda takes Vararuci

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1. Vss. 1.5.108-25; trans., p. 55 ff.

2. Vss. 2.213-18.

as his minister. In the course of time Yogananda's character deteriorates and Vararuci quits the court for the forest to become an ascetic; Śakaṭāla is restored to his office but secretly thinks of revenge. Vararuci learns of the fate of Yogananda and the accomplishment of Śakaṭāla's revenge from a brahmin recently come from Ayodhyā.

One day Śakaṭāla happened upon a brahmin, Cāṇakya, digging up the earth in his path and on inquiry learned that he was rooting up some darbha grass because it had pricked his foot. Śakaṭāla decided that one so resolute in satisfying his anger was the man through whom to destroy Yogananda. He invited Cāṇakya to preside over the king's śrāddha, occupying the seat of honour, for a fee of 100,000 dīnāras. Śakaṭāla lodged Cāṇakya in his own house and secured the king's approval of the priest; but when the feast day arrived and Cāṇakya assumed his seat at the head of the assembled company, another brahmin, Subandhu, grudged him the honour. Śakaṭāla referred the matter to Yogananda who awarded Subandhu the seat rightfully belonging to Cāṇakya; Śakaṭāla, who told him the king's decision, told him also that he, Śakaṭāla, was not to blame. Cāṇakya blazed up in anger and unbound his top-knot, solemnly vowing that Yogananda would be destroyed within seven days, and until that came about his hair would remain unbound. He escaped Yogananda's wrath by fleeing to Śakaṭāla's house unnoticed, and there, with materials supplied by Śakaṭāla, performed a magic rite which caused Yogananda a burning fever which killed him on the seventh day. Śakaṭāla then had Yogananda's son,

Hiranyagupta, put to death, and established instead Candragupta, a son of the true Nanda, in the kingship; he made Cāṅkya, 'equal in ability to Bṛhaspati', the new king's puṛohita; and considering his vengeance complete and weighed down by sorrow for his sons, killed by Yogananda, he retired to a forest to practice austerities.

Kṣemendra, the indefatigable abridger of the Mahābhārata and Rāmāyana, gives us a cramped and crabbed telling of the story which is so brief it can be quoted in full:

At my (Vararuci's) request he explained: "After you left, the king and his son were destroyed by the craft of Śakaṭāla. He saw in the path kuśa grass uprooted on account of anger at the wounding of a foot; and purposefully (invited) the wrathful brahmin to the king's śrāddha. This unendurable man, Cāṅkya by name, with loosened top-knot, was ushered in and seated at the foot of the assembly. Śakaṭāla told him, 'You are despised by the king,' and he blazed up at these words. Cāṅkya then (went) in secret to Śakaṭāla's house. He performed magic; and the king, together with his son, was thereby killed, after seven days. Then, while the fame of Yogananda yet remained, Candragupta, son of the previous Nanda, was established in sovereignty by the energetic Cāṅkya. Thus burning within through hatred Śakaṭāla having ruined the king and his following, went with wisdom to the forest and did penance."

Three Sanskrit versions of the lost Bṛhatkathā of Guṇāḍhya, written in the 'demons' language' Paisāci, are extant: the Nepalese Bṛhatkathāślokaṅgraha of Budhasvāmin and the two Kashmirian versions of Somadeva and Kṣemendra which derive from the

lost Bṛhatkathāsaritsāgara<sup>1</sup> in late Prakrit.<sup>2</sup> Of Budhasvāmin nothing is known, and his date is judged to be about the eighth or ninth centuries A.D.<sup>3</sup> Kṣemendra's work belongs to the second quarter of the eleventh century<sup>4</sup> and thus antedates Somadeva's, which is assigned to the third or fourth quarter;<sup>5</sup> from this it follows that the Kṣemendra's extremely cryptic version must be based on the Prakrit original and not on Somadeva's work.

A comparison of the Kashmirian and Nepalese versions shows that Somadeva preserved most of the contents of his original in

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1. Félix Lacôte: Essai sur Guṇāḍhya et la Bṛhatkathā, Paris, 1908, p. 65. Cited as Lacôte.
  2. Lacôte: Apabhraṃśa (p. 65); Prakrit (p. 123).
  3. Lacôte, p. 147.
  4. Lacôte, p. 145: his Bhāratamañjarī is known to have been composed in 1037, his Daśavatāracarita in 1066; the other two mañjaris, on the Rāmāyana and the Bṛhatkathā, are then early productions closer to the former date (Bühler).
  5. Loc. cit.: Somadeva, according to the praśasti with which the work opens, wrote for the pleasure of Sūryavatī, mother of king Kalāśa and grandmother of Harṣa. Since Kalāśa is there called king but Harṣa merely śrī, the work must have been composed between the accession of Kalāśa and the death of Sūryavatī (who died before Harṣa's accession), i.e. 1063-4 to 1081 or 1082 (Bühler).

rearrangement, while Kṣemendra compressed it drastically (though he preserved some material not in Somadeva) but adhered to the confused order of the original. It further shows that the legend of Guṇāḍhya, and therefore the Cāṇakya episode it contains, was found in the Kashmirian Bṛhatkathāsaritsāgara but not in the Nepalese version nor, it follows, in the original Bṛhatkathā. Finally, it is very probable that Vararuci's story and all it contains (including the Cāṇakya episode) is a late addition to the Guṇāḍhya legend. Let us consider the evidence for this conclusion.

Although the Nepalese Bṛhatkathāślokaśaṃgraha lacks the legend of Guṇāḍhya, there is a Nepalese version of the legend in the Nepālamāhātmya,<sup>1</sup> which differs in omitting the tale of Vararuci, with its Cāṇakya episode. Internal analysis of the legend shows the Nepalese version to be the older. In the Kashmirian version Śiva relates to Pārvatī a long story about the vidyādharas, but it is overheard by the gaṇa Puṣpadanta who is foolish enough to tell it to his wife. Pārvatī learns this from her and in her anger lays a curse on Puṣpadanta to the effect that he must become a human, Vararuci, in Kauśāmbī; likewise the gaṇa Mālayavat, for

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1. Chh. 27-9, text in Lacôte, p. 291 ff. There is also a third Kashmirian version, Rājanaka Jayaratha's Haracaritacintāmaṇi, which, however, is based on Somadeva and Kṣemendra: Lacôte, p. 61.

his temerity in interceding on Puṣpadanta's behalf, becomes Guṇāḍhya of Supraṭiṣṭhita in Pratiṣṭhāna. The curse is to be lifted when Puṣpadanta-Vararuci tells the tale to the piśāca Kāṇabhūti in the Vindhyās (who, as if things were not complicated enough, is a yakṣa suffering under a curse from Kubera), and when Mālayavat-Guṇāḍhya receives the story from Kāṇabhūti and publishes it to the world. And so it fell out. Vararuci, after leaving Yogananda's court passes on the story to Kāṇabhūti, and Guṇāḍhya, who had become minister to king Sātavāhana and who, as a result of losing a wager, yielded his post to a rival, Śarvavarman (who had succeeded in teaching the king Sanskrit in six months), had forsworn the use of Sanskrit, Prakrit or the vernaculars, hears the tale in Paisācī from Kāṇabhūti. Eventually a part of the tale is published by king Sātavāhana, who composes the Kathāpīṭha, containing the Guṇāḍhya legend, by way of introduction. This, then, is the Bṛhatkathā. In the Nepalese version the transmission of the story is much more direct: a bee, Bhr̥ṅgin, overhears Śiva's tale and is reborn as Guṇāḍhya at Mathurā; he becomes paṇḍit to king Madana of Ujjain but loses his office to Śarvavarman (omitting the business of the wager) and at the advice of the ṛṣi Pulastya, writes the tale in Paisācī. Lacôte concludes with justice that the tale of Vararuci "is a whole, perfectly distinct from the story of Guṇāḍhya" which could not originally have been part of it: there is no point of contact between Vararuci and Guṇāḍhya save through an intermediary, the piśāca Kāṇabhūti, who is himself

superfluous to the legend.<sup>1</sup>

The story of Vararuci is loosely affiliated to the Jain story of the ninth Nanda as told by Hemacandra, where the rivalry of the minister Śakaṭāla and the poet, philosopher and grammarian Vararuci is described.<sup>2</sup> But the differences are enormous. In the Jain version it is not Śakaṭāla, for example, who is imprisoned with his sons, but Kalpaka, minister to the first Nanda; there is no Yogananda, and Śakaṭāla, who does indeed fall out of favour with his king, does not live to carry out his revenge, but soon dies and passes on his office to his son. As for the Kashmirian Cāṇakya episode, it agrees with the Jain only in the circumstances of Cāṇakya's curse, and even there only distantly. Cāṇakya's rivalry with Subandhu, moreover, properly belongs to the period after Candragupta's anointment.

The material is lacking to account fully for these great differences. What can be discerned, however, is that we are presented here not so much with the Cāṇakya-Candragupta-Kathā as with a tale which would better be titled "Śakaṭāla's Revenge". Cāṇakya's resolve to root up the darbha grass because it had pricked his foot, as a hyperbolic illustration of his irascibility, is successful, but it belongs to a story in which the dominating figure of Cāṇakya has shrunk to that of an unwitting tool in Sakaṭ-

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1. Lacôte, pp. 31-2.

2. PP 8.

āla's hands, much as the weaver who exterminates roaches in the Jain version is the tool of Cāṇakya. It is not indeed Cāṇakya here who is "equal in ability to Bṛhaspati", guru of the gods and author of an arthaśāstra, but Śakaṭāla. It is difficult to see why Śakaṭāla should here have become so important that the Cāṇakya-Candragupta-Kathā has become a pendant to the story of Nanda and Śakaṭāla. But if we approach the story from the direction of the Guṇāḍhya legend, we can see that once Vararuci is brought in, his rivalry with Śakaṭāla, known to folk-lore, must be incorporated too, and that Śakaṭāla must be a dominating figure. Thus is Cāṇakya made to serve the needs of the story.

But why was Vararuci brought in in the first place? For grammar's sake. The two features of the Kashmirian Guṇāḍhya legend lacking in the Nepalese version, that is, the story of Vararuci and the wager, serve the greater glory of grammar. Vararuci, also known as Kātyāyana, is identified with the author of the Varttikās or Pāṇini, and indeed Pāṇini's grammar is revealed to him on account of his severe penances in the Kashmirian story; to him are also ascribed a Prakrit grammar, the Prākṛtaprakāśa; the fourth book of the Kātantra and the Līṅgānuśāsana; the Vāraruca-saṃgraha; a lexicon; the Vedic Puṣpasūtra and, in addition to these grammatical works, a Vārarucakāvya mentioned in Patañjali.<sup>1</sup> In the legend one of Vararuci's fellow-pupils is Vyāḍi, author of a

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1. A.B. Keith, A History of Sanskrit Literature, p. 427.

lost Vyāḍisaṃgraha on Pāṇini,<sup>1</sup> and they and their guru Varṣa are mentioned by Rājaśekhara as composers of grammatical śāstras.<sup>2</sup> To Śarvavarman is ascribed the Kātantra by which he is enabled to teach king Sātavāhana Sanskrit in six months and so win his wager with Guṇāḍhya; the Kātantra was very influential in Kaśmir.<sup>3</sup> Finally Guṇāḍhya himself was, if not a grammarian, certainly a renowned author in Prakrit. "En accouplant les deux légendes, on obtenait un cycle de contes qui englobait les plus célèbres grammairiens, manière d'épopée bien fait pour flatter les pédants, glorification des héros de la grammaire!"<sup>4</sup>

Thus the Cānakya-Candragupta-Kathā, a late arrival to its vehicle, has suffered distortions due to the special interests of the Kashmirian legend of Guṇāḍhya, so that it has been changed almost out of all recognition from its original form.

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1. Mentioned in Patañjali. Keith, p. 426.

2. Keith, p. 339.

3. Keith, p. 431.

4. Lacôte, p. 32.

The Mudrārākṣasa and Its Ancillary Literature

Mudrārākṣasa, or 'The Signet-ring of Rākṣasa' is the title of the only extant drama of Viśākhadatta.<sup>1</sup> It is in seven acts, and depicts the conciliation of Rākṣasa, the hereditary minister of the Nandas, by Cāṇakya, the cunning minister of Candragupta Maurya, whom Cāṇakya had raised to the throne of Pāṭaliputra after engineering the destruction of the Nanda dynasty. Lying in the background of the action of the drama are the military operations of Malayaketu and his coalition of barbarian chiefs against Pāṭaliputra and Candragupta's army; but the foreground is dominated by the strife between Rākṣasa and Cāṇakya, in which Cāṇakya succeeds in defeating Malayaketu's advance not by force but by keenness of intellect and craftiness of policy, and in this he is shown a good practitioner of the dicta of arthaśāstra, where devious stratagems are advocated in preference to the use of force, which is of uncertain outcome. It is consistent with this that the princes of the play are only of secondary importance: the intended invasion of Pāṭaliputra never materializes and Candragupta is the humble pupil of Cāṇakya, much as Malayaketu is mere putty in the hands of Rākṣasa, which he shapes to his purposes, until Cāṇakya intervenes. In the prologue the angry Cāṇakya enters with his

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1. Mudrārākṣasa by Viśākhadatta, ed. Alfred Hillebrandt. See also the trans. by H.H. Wilson, Select Specimens of the Theatre of the Hindus, vol. 2, p. 137 ff.

top-knot undone,<sup>1</sup> an allusion to his vow to destroy the Nandas; only at the end of the last act does he bind up his hair in token that the vow has been fulfilled. When the play opens the Nandas have already been annihilated, but their minister Rākṣasa has escaped, to whom we must now understand the vow extends: "While Rākṣasa is at large, is Nanda's line truly uprooted or Candragupta's fortunes made secure?"<sup>2</sup>

The events preceeding the opening of the play are sketched to Rākṣasa by one of his agents, Virādhaḡuḡpta, in the second act: Cāṇakya had allied Candragupta with Parvateśvara (Parvata, Parvataka), a mountain king, against Nanda. They led their victorious forces, which included Sakas, Yavanas, Kirātas, Kēḡbojas, Pārasikas and Bāhlikas, against Kusumapura (Pāṭaliputra). Rākṣasa left the capital after the Nandas had been destroyed to raise the resistance, and sent a 'poison maid' (viṣakanyā) to assassinate Candragupta; but, as we learn in Cāṇakya's first soliloquy in Act I,<sup>3</sup> the latter deflected the plan and got Parvata killed instead and the blame fixed on Rākṣasa into the bargain. Parvata's son, Malayaketu, knows the truth about his father's death and has fled to Rākṣasa's camp with Bhāḡurāyaṇa, who poses as a friend but is in fact a tool of Cāṇakya. Returning to Virādhaḡuḡpta's narrative in Act II we further learn that Cāṇakya had persuaded Vairodhaka, brother of

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1. p. 4: tataḡ praviśati muktāḡ śikhāḡ parāḡmṛśan sakopaś Cāṇakyaḡ.

2. p. 7: agrḡhīte Rākṣase kim utkhātaḡ Nandavaḡśasya kim vā sthairyam utpāditaḡ Candraguptalakṣmyāḡ ?

3. pp. 8-9.

Parvata, that his death was the doing of Rākṣasa, and as a consequence Vairodhaka and Candragupta were reconciled and a division of Nanda's empire agreed upon. Cāṇakya, knowing the chief architect to be faithful to Rākṣasa, ordered him to prepare a triumphal arch for Candragupta's progress to the palace, which was to be held at midnight, ostensibly for astrological reasons. He had Vairodhaka lead the procession, heavily decked with robes and jewels and mounted on Candragupta's elephant, attended by Candragupta's bodyguards. Rākṣasa's agents arranged that the temporary arch fell on Vairodhaka, whom they mistook for Candragupta, and in this way he, too, was eliminated and his death ascribed to Rākṣasa. Returning once again to Cāṇakya's soliloquy in Act I, we learn that Malayaketu with Rākṣasa's guidance seeks to avenge his father's death, and in this project has got the aid of a great army of barbarian kings<sup>1</sup> and later<sup>2</sup> the foremost of these are specified as Citravarman of the Kaulūtas (i.e. Kūlu); Nṛsiṅha of the Malayas; Puṣkarākṣa of the Kāśmīras; Siṃdhuṣeṇa of the Saindhavas (i.e. Sindh); and Meghākṣa of the Pārasīkas (i.e. Persia). In Act V Rākṣasa, detailing the disposition of the troops, adds to this list the Khaṣas, Magadhans, Gandhārans, Cedis, Śakas, Yavanas and Hūṇas:<sup>3</sup> some, at least, of these had been

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1. p. 6: mahatā mleccharājabalena.

2. pp. 21-2.

3. p. 142.

allied with Candragupta under Parvata.

The play itself proceeds as follows: In Act I an agent informs Cāṇakya that there remain in Pāṭaliputra three persons sympathetic to Rākṣasa: the Jain monk Jīvasiddhin (who in truth is another of Cāṇakya's many agents), the scribe Śakaṭadāsa, and the head of the jeweller's guild Candanadāsa. The last-named harbours Rākṣasa's wife; and Cāṇakya's agent has recovered her husband's signet-ring, which she dropped unawares. Cāṇakya then writes a letter to Malayaketu, in very vague terms, warning him of the treachery of his barbarian allies, has it copied by the unsuspecting scribe, Śakaṭadāsa, and seals it with Rākṣasa's ring. He orders the supposed monk Jīvasiddhin to be 'banished'; arrests Candanadāsa; and orders Śakaṭadāsa to be impaled, but arranges for an agent posing as the scribe's friend to rescue him and take him to Rākṣasa. At the end of the act we find that several of Candragupta's princes have fled to Malayaketu's camp; but this is merely part of the strategy of the wily Cāṇakya.

The second act takes place in Rākṣasa's house. A servant brings the minister a present of jewels from Malayaketu. His agent, Virādhagupta, apprises him of the failure of several attempts on Candragupta's life: Vairodhaka has mistakenly been killed by the assassins intended for Candragupta; Cāṇakya has foiled a poisoning attempt by his shrewd observation; bravos concealed in an underground passage leading to the king's bedroom were discovered from a trail of ants carrying fragments of a meal, coming through a wall, and the bravos were burnt to death; and so Cāṇakya

has foiled each plan in turn. The scribe, Śakaṭadāsa, arrives accompanied by his 'rescuer' Siddhārthaka. The latter presents Rākṣasa with a signet-ring which he claims to have found at Candanadāsa's doorstep; it is, of course, the minister's own ring, and as a reward Siddhārthaka is given some of Rākṣasa's jewels, originally presented him by Malayaketu. At the close of the act a merchant arrives selling jewels. The unsuspecting Rākṣasa is pleased with them, and purchases them.

Act III takes place in Candragupta's palace in Pāṭaliputra. The business of the act is for Cāṇakya and Candragupta to feign anger with each other for the benefit of Rākṣasa's agents, who are in the court disguised as musicians. The occasion is the preparations for the festival of the autumnal full moon (Kaumudī-mahotsava), which Candragupta has ordered and Cāṇakya has forbidden on account of Malayaketu's approaching invasion. Candragupta, in a show of pique at the overruling of his command, pretends to dismiss Cāṇakya from office and in so doing he suggests that Rākṣasa is the better minister. Rākṣasa's spies leave, convinced that the two have parted company forever.

In Act IV we are again at Rākṣasa's house. The minister suffers from a violent headache and fatigue from sleeplessness over his projects. Malayaketu approaches, conversing with Bhāgurāyaṇa, one of Candragupta's seemingly disaffected princes, who suggests to the king that the other princes' distrust of Rākṣasa is due to his hatred more toward Cāṇakya than toward Candragupta.

they feel, Bhāgurāyaṇa insinuates, that once Cāṇakya were discarded, Rākṣasa might be tempted to cast his lot with Candragupta, since he is the hereditary Nanda minister and Candragupta is a son of Nanda by a lesser queen. Before entering Rākṣasa's house they hear the messenger report that Candragupta has dismissed his minister and praised the superior merits of Rākṣasa, and Malayaketu's suspicions are fully aroused. Nevertheless he departs to prepare for an immediate march on Pāṭaliputra before it is too late. Rākṣasa then consults a Jain monk--none other than Jīvasiddhin, Cāṇakya's agent--to determine whether the time is auspicious for beginning military operations. The monk assures him that, albeit it is a full-moon day, as the other signs are propitious, only a lunar eclipse would prohibit the undertaking.

Malayaketu's camp is the scene of the ensuing act. The seeming monk Jīvasiddhin convinces Malayaketu that it was Rākṣasa who had his father murdered, not Cāṇakya; but Bhāgurāyaṇa prevails on him to leave Rākṣasa unharmed while the invasion lasts. Then Siddhārthaka, the 'rescuer' of the scribe Śakaṭadāsa, is caught with the letter which Cāṇakya has devised, bearing Rākṣasa's seal, copied in the scribe's hand, and addressed to Candragupta. The burden of the letter is that the five mleccha princes can be bought off with promises of land and wealth; and Rākṣasa, the 'writer', wishes for himself only Cāṇakya's exile and the ministerial office. As Siddhārthaka wears the jewels Rākṣasa had given him. Malayaketu is convinced that he is really the minister's agent and that he is guilty of treachery. Rākṣasa is summoned. He arrives

wearing the jewels which earlier he had purchased from the travelling merchant; they are in fact the jewels of Parvata, Malayaketu's dead father, and are recognized as such. The upshot is that Rākṣasa is dismissed and the five barbarian kings put to death: those who coveted land by being buried beneath a mountain of it; those who coveted elephants and wealth by being trampled by elephants.

Act VI reverts to Pāṭaliputra; we learn that Malayaketu's allies have left him in disgust at his brutal treatment of the five mleccha kings, and that the plan of invasion has been dropped; Rākṣasa has fled to the capital, but not unobserved by Cāṇakya's numerous spies; and Cāṇakya himself has publicly been 'reinstated' in Candragupta's favour. Enter Rākṣasa, who learns through one of his arch-enemy's agents, posing as a friend of the jeweller Candanadāsa, that this last is about to be executed for refusing to yield Rākṣasa's wife and children to the state. Rākṣasa hastens to the execution grounds determined to give himself up in exchange for his noble friend's life. This he does in Act VII, the final act of the play. Cāṇakya, victorious at last, forces Rākṣasa to accept his own ministerial dagger (śastra) for Candanadāsa's freedom. Malayaketu has been captured by the seemingly disaffected princes; and Rākṣasa extracts a pardon for him from Candragupta. His vow now fulfilled, Cāṇakya at last binds up his hair and retires from public life. Candanadāsa is freed and his goods restored. At the very end of the play Cāṇakya gives this benediction:

"Once the Support of Creatures, the Earth, encompassed by destruction, clung to the tusk of the Self-Born Viṣṇu who had assumed the form of a might boar; now she, set atremble by the barbarians, (flies) to the stout arms of the true king. May His Majesty King Candragupta long protect relatives, servants and Earth!" 1

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There is very little in the drama by which one can arrive at a date to which to ascribe it, but J. Charpentier has fixed on this final passage, taking it to be addressed to the reigning monarch for whom the play was written, and sees in it an exhortation to protect the realm against the threat of barbarian invasion from the northwest, in particular by the Hūnas.<sup>2</sup> He specifies

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1. vārāhīm ātmayones tanum atanubalām āsthitasyānurūpām  
yasya prāk potrakotiṃ pralayaparigatā śisriye bhūtadhātrī /  
mlecchair udvejyamānā bhujayugam adhunā pīvaram rājabhūrteḥ  
sa śrīmad bandhubhṛtyaś ciram avatu mahīm pārthivaś Candraguptaḥ //

(7.29, p. 202)

Wilson, op. cit., pp. 251-2, puts the speech in Rākṣasa's mouth.

2. JRAS 1923, p. 585 ff. Wilson (op. cit., vol. 2, p. 251) wrote, "This allusion to Mlechchas is corroborative of the Drama's being written in the eleventh or twelfth century, when the Patan princes were pressing upon the Hindu sovereignties." Jacobi ascribed it to 2 December, A.D. 860, on astronomical data and a (now known to be corrupt) reading of Avantivarman for Candragupta in the final verse.

that monarch as Skanda Gupta, who in fact did repel the Hūṇas' onslaught. A number of scholars have preferred the reign of Candra Gupta II Vikramāditya, the namesake of Candragupta Maurya of the play, which is all the more fitting when it is remembered that Viśākhadatta is said to have written another drama, Devi-Candragupta, dealing with the expulsion of the Śakas of Ujjain by the Gupta king.<sup>1</sup> The difficulty is that the Hūṇas were not menacing India at so early a date, two generations previous to Skanda Gupta. But if, as is the generally accepted view, we take Kālidāsa to be contemporary with Candra Gupta II, we can at least say the Hūṇas were known at that time, for the great poet places them on the Vaṅkṣu (Oxus) in the Raghuvamśa. Viśākhadatta may merely have added these Hūṇas to the list of peoples threatening Gupta power, while their chief contemporary rivals were the Śakas.

But whether the play is a Gupta or post-Gupta composition, it is its affiliation with other versions of the Cāṇakya-Candra-gupta-Kathā which chiefly concerns us. And here it is of cardinal importance to remember that, unlike the other versions, the Mudrā-rākṣasa was composed for a limited and highly sophisticated audience whose members we must suppose to have been thoroughly familiar with arthaśāstra through their education and with intrigue through experience; and it is arthaśāstra and intrigue, not the charming

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1. Konow, Speyer and Hillebrandt in Sten Konow, Das indische Drama, p. 70 ff.; K.P. Jayaswal in IA 1913, p. 265 ff; Sastry in IHQ 7, p. 163 ff.; rejoinder by Charpentier in ibid., p. 629.

tales of popular legend, which form the substance of the Mudrā-rākṣasa. No doubt its setting is drawn from legend, and it belongs to that class of plays called nāṭaka, the subject of which, according to the Sāhityadarpana, should be mythological or historical.<sup>1</sup> But the Daśarūpaka admits of fictitious or partly fictitious and partly traditional nāṭakas,<sup>2</sup> and the Mudrārākṣasa is of this latter sort. The problem, then, is to separate what is legendary from what is fictitious--fictitious, that is, in the sense of being a conscious product of the artistic imagination.

Three motifs in the events which precede the opening of the play are found in the other literature and are easily recognized as traditional, Cāṇakya's vow, the alliance with Parvata, and Candragupta's paternity. As to the vow, Cāṇakya's wrath is everywhere referred to, the untying of the top-knot is found in the Kashmirian version, but the extension of the vow to include Rākṣasa's capture is an invention to serve the requirements of the play. Similarly the alliance of Candragupta with the hill-king Parvata against Nanda, and his subsequent 'accidental' death in the embrace of the poison-maiden is traditional, and supports the Jain version as against the Pali. But Parvata's brother Vairodhaka, the agreement to divide the kingdom, and his assassination are all inventions

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1. Wilson, op. cit., vol. 1, p. xxiv.

2. Idem.

by the simple process of dittography: the Parvata episode has been told twice over, and both times the result is that Rākṣasa gets the blame. Finally it is briefly mentioned that Candragupta is a son of Nanda, and so has some claim to legitimacy in his seizure of power. This is legend, but probably late legend, as it is otherwise found only in the Kashmirian version and the literature ancillary to the Mudrārākṣasa.

It is not possible to decide whether the main theme of the play, the conflict of the ministers, has any legendary basis. The name Rākṣasa is unknown to the other versions, nor do any of them bring Cāṇakya into collision with Nanda's minister; the Kashmirian version, on the contrary, have the two working hand in glove, Nanda's minister Śakaṭāla in this case being the hand. On the other hand the conflict of ministers is a popular theme, and it is possible that Cāṇakya's rivalry with Subandhu of the Jain and Pali versions has somehow been displaced so that Subandhu becomes minister to Nanda under the name Rākṣasa. The Kashmirian version would then represent a half-way house in such a displacement.

The composition of the barbarian host is also problematical. But the mention of the Hūnas is a grave anachronism, and whether one believes with Charpentier that it is purposeful (i.e. fictional), as relating to circumstances contemporary with the play's first performance, or embodying a received tradition, it has no historical significance whatsoever. The earliest form of the story on which Viśākhadatta based his play knew only one ally, Parvata, and again by a sort of dittography, this time repeated over and over, all

the known varieties of barbarians have been confederated to make the threatened clash louder and more magnificent. One would be hard put to think of a barbarian people who had been overlooked--the Chinese perhaps?--some manuscripts include them. We are reminded of the host assembled at Kurukṣetra (in which Cīnas and Hūṇas also occur). Nor could they have come, in Indian historical experience, from any other direction but the northwest. If, then, the troop lists are a part of legend, the legend used was in a late form; if fiction, it is of no use in the study of legend, much less of history. What remains of the Mudrārākṣasa is, we contend, fiction.

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Not only has the Mudrārākṣasa attracted sufficient interest through the centuries to ensure its survival to the present day, but a fair amount of literature has grown up around it, not only proper commentaries with line-by-line glosses and Sanskrit 'shadow' (chāyā) for the speeches in Prakrit, but also more or less independent works dealing with the story of Nanda, Cāṇakya and Candragupta previous to the events of the play. The commentaries generally summarize events leading up to the action of the play in 'prefaces', pūrvapīthikās, and we may conjecture that these prefaces, because of the inherent interest of their contents and because the Cāṇakya-Candragupta-Kathā proper deals with the events leading up to Candragupta's anointment, before the beginning of the play, gave rise to independent works containing no commentatorial material. We shall

briefly note two such independent works, the prose Mudrārākṣasa-  
pūrvasaṃkathānaka of Anantaśarman<sup>1</sup> and Ravinartaka's Cāṇakyakathā  
in verse.<sup>2</sup>

In Anantaśarman's work the Nanda Sudhanvan reigns at Pāṭali-  
putra with Śakatara as his chief minister, and Rākṣasa as another  
of his ministers. When the Nanda dies, an ascetic enters the  
dead body by magical means and bestows liberal alms on his pupils.  
But Rākṣasa is suspicious of his master's new generosity and dis-  
covers the ascetic's lifeless body, which he burns, thus imprison-  
ing the imposter in Nanda's body, and takes up service with King  
Parvataka (Parvateśvara). Śakatara secretly kills the Nanda on  
a hunting expedition when he reads an inscription prophesying that  
Lakṣmī would abandon either the king or the minister, and the heir,  
Ugradhanvan, is installed on the throne. The new king, however,

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1. Ed. Dasharatha Sharma (Ganga O.S. no. 3), containing as an  
appendix the "still later perhaps and certainly much balder in  
style" anonymous Mudrārākṣasanāṭakapūrvapīṭhikā, the contents  
of which are similar to Anantaśarman's work.

2. Ed. with Bengali trans. by Satish Churn Law (Calcutta O.S.  
no. 6), based on a manuscript from the library of the Rajah of  
Cochin. Wilson, op. cit., p. 141 ff., has translated a similar  
Sanskrit work from a manuscript in Malayalam characters.

discovers the murder of his 'father' and throws Śakatara together with his hundred sons into prison, with rations sufficient only for one. The father and sons decide to give all the food to Vikatara, the youngest, who promises to avenge their deaths. Vikatara is released, and Rākṣasa returns as chief minister. Vikatara one day happens upon a wrathful brahmin, Cāṇakya, who is energetically trying to destroy all the kuśa grass in the world because his father had been wounded by kuśa and died. He thinks Cāṇakya a suitable tool for his revenge and invites him to chair the king's śrāddha. When the king sees him in the seat of honour he turns him out, and Cāṇakya unbinds his top-knot, vowing not to tie it up again until the Nanda dynasty is destroyed. Candragupta, here presented as a son of the late king, joins forces with Cāṇakya and Parvataka, and they take Pāṭaliputra and vanquish the Nandas.

The entire story is very similar to that in Somadeva's Kathāsaritsāgara. Most of the motifs can be traced to the original Kashmirian version, to which Anantaśarman's work must stand in close relation, probably via the Kathāsaritsāgara itself. Thus the minister Śakatara (Śakaṭāla), the Yogananda episode with the burning of the imposter's body, the imprisonment of the minister and his sons with rations sufficient for one (though here the youngest son survives rather than the father), the wounding by grass, the vow and the unbinding of the hair are held in common. The alliance with Parvataka comes direct from the Mudrārākṣasa,

but Rākṣasa, who is a double for Śakaṭāla of the Kashmirian version in the burning of the imposter's corpse, and whose role as a minister of Parvataka accords badly with the Mudrārākṣasa, plays a role which Anantaśarman has perhaps invented for him in the absence of any traditions about him. The prophecy of Lakṣmī is of unknown origin.

In Ravinartaka's Cāṇakyakathā Nanda is given two wives, one a kṣatriya and the other a śūdra. The śūdra queen, Murā, gives birth to a boy who is named Maurya, but the high-born queen gives birth to a lump of flesh, which the minister cuts into nine pieces, putting each into a jar, whence nine sons are born. The nine sons reign in rotation, a year at a time, determining the order by lots; Maurya becomes commander-in-chief of the army. The nine brothers become jealous of Maurya's continual power while they have to wait their turn for the kingship; so they cast him and his hundred sons into prison with rations for one. They give their rations to the youngest, Candragupta, who promises revenge. The king of Siṅhala (Ceylon) sends the Nandas a cage containing a lion with instructions to make the lion run out without opening the cage. The nine Nandas are nonplussed, and fetch Candragupta out of confinement to solve the riddle. He perceives that the lion is of wax, and pokes a red-hot iron rod into it, whereupon the lion melts and runs out of its cage. Candragupta's opportunity for revenge comes when he meets the wrathful Cāṇakya uprooting the grass which had pierced his toe. He invites the brahmin to preside over the śrāddha where he is turned out of his seat of honour by the Nandas, and, unloosening

his top-knot, vows to accomplish their destruction.

The similarity of this southern work to the Kashmirian version is very tenuous, but we may remark that of the four main versions discussed, only the Kashmirian contains the 'wounding by grass' motif, so a relationship may exist. The nine sons from a lump of flesh may derive from the story of Gandhārf in the Mahā-bhārata; the sources of the wax lion episode is unknown.

### The Primitive Cāṅakya-Candragupta-Kathā

Let us briefly recapitulate what we have said with regard to the Indian versions of the Cāṅakya-Candragupta-Kathā before looking at the Classical version.

Of the four versions the Pali and Jain are very close in content and because of this, since we have no reason to suppose one is borrowed from the other, we conclude that they drew independently from an early version of the Cāṅakya-Candragupta-Kathā. These versions, then, may have originated in Magadha, or at any rate, in eastern India or the Midlands, and cannot be regarded as indigenous to Gujarat and Ceylon. The Pali version, on internal evidence, is the reunion of separately transmitted episodes or anecdotes, while the Jain was handed down more or less as a whole, and this would tend to conserve its original features and its consistency. The Jain version is by an large superior to the Pali, both as a story and as a guide to the primitive form of the Cāṅakya-Candragupta-Kathā.

The Kashmirian version cannot be traced to early times, nor can its origin be traced outside Kashmir. The story is here distorted

to suit the special needs of its vehicle, the story of Vararuci, in which it is preserved as a mere anecdote. The story of Vararuci's rivalry with Nanda's minister Śakaṭāla is fairly old and not restricted to Kashmir since Jain sources preserve a version of it. Taking the Vararuci story in an earlier form, the Kashmirian version adds the Yogananda motif and relates his downfall in the episode of "Śakaṭāla's Revenge" which is our Cāṇakya-Candragupta-Kathā with the emphasis displaced from Cāṇakya to Śakaṭāla. This change of emphasis shows among other things that the motif of Cāṇakya destroying the grass because it has wounded his foot is not original to the Cāṇakya-Candragupta-Kathā because it requires that Cāṇakya be the instrument of someone else's revenge. Finally, because Vararuci was known as a great scholar and poet, and in particular as the author of a Prakrit grammar, his story was inserted into the legend of Guṇāḍhya, another renowned figure of Prakrit letters, with further alterations, by making Vararuci a gaṇa suffering under a curse.

Viśākhadatta has also distorted the Cāṇakya-Candragupta-Kathā in the Mudrārākṣasa, but for different reasons. His play is a consciously artistic creation and as such freely has recourse to invention. Besides, the play opens after the events of the Cāṇakya-Candragupta-Kathā proper have taken place, its theme being rather the application of the rules of arthaśāstra in intrigue. It preserves little of the original story, but where it does (Parvataka and the poison-maiden) it gives independent confirmation of the superiority of the Jain version to the Pali. Its ancillary litera-

ture is of little value in determining the original form of the Cāṇakya-Candragupta-Kathā, though a thorough study of this literature and of current folk-tales might be revealing.

The minimum elements of the primitive Cāṇakya-Candragupta-Kathā can then be listed as follow:

1. Breaking of the Teeth. The brahmin Cāṇakya was born with a complete set of teeth, which was interpreted as an omen that he would become king. His father, out of regard for his salvation, grinds them down. It is prophesied that he will rule through another. As he grows up he learns all the brahmanical lore (he must be a learned brahmin to be able to expect a gift from the Nanda).

2. Teasing of the Wife; Her relatives teased Cāṇakya's wife for her poverty. Cāṇakya learns this and sets out for the court of Nanda, noted for his generosity. (This is somewhat doubtful since the Pali version lacks it.)

3. Ejection from the Assembly. Cāṇakya arrogantly sits on Nanda's seat in the assembly. Nanda, insulted, roughly orders him expelled. Cāṇakya, in anger, vows Nanda's destruction, and flees. (The untying of the top-knot may be original.)

4. Cāṇakya's Wanderings. In the course of his wanderings his plans for revenge mature in two ways: he learns alchemy, by which he amasses a fortune to hire mercenary troops, and, looking for a puppet king (in keeping with the prophecy), he finds Candragupta Maurya, a boy playing 'king', who shows promise when put to a test. (Etymologizing stories were easily inserted here when the need for them came to be felt.)

5. Unconsciously Given Advice. Cāṇakya and his protégé lead their troops against the centre of the kingdom (or against Nanda's capital) and are defeated. The army disbands. Wandering incognito they overhear a woman scolding her son for being as big a fool as Cāṇakya: he has put his finger in the middle of a bowl of gruel and burnt it, rather than starting from the cooler edges, just as Cāṇakya has attacked the centre without first subduing the hinterland.

6. Parvata. Acting on this advice Cāṇakya concludes a pact with Parvata, a hill-king, promising him half the kingdom. The allies succeed but Cāṇakya arranges (or does not prevent) the death of Parvata by the embrace of a poison-maiden. Candragupta is anointed.

7. Pacification of the Kingdom. The next logical step is to rid the kingdom of the remaining elements loyal to Nanda. For this Cāṇakya enlists the services of a fanatical weaver whose suitability for the job is illustrated when Cāṇakya sees him set fire to the roach-infested parts of his house.

8. Bindusāra. Cāṇakya, to make Candragupta immune to poison puts increasing doses of it in his food. His pregnant queen eats from his plate. Cāṇakya slits open the queen's belly with a knife and thus saves the heir, who is named Bindusāra because a drop of poison or goat's blood from the carcass in which he is kept until 'birth' touches him. (This is somewhat doubtful, but is common to the Jain and Pali versions, and contributes to the story of Cāṇakya's downfall.)

9. Rivalry with Subandhu. That stories of a rivalry with Subandhu leading to Cāṅkya's death belong to the original Cāṅkya-Candragupta-Kathā is quite likely, though their content cannot be determined since the Pali sources give only meagre details which show no agreement with the Jain.

### The Classical Version

It has been usual to regard Classical notices of Nanda and Candragupta as deriving from contemporary eye-witness accounts, and thus as having a character altogether different from, as well as independent of, the Indian legends we have been discussing. But this is by no means the case. Four of the five Alexander-historians, Diodorus, Curtius, Justin in his epitome of Trogus and Plutarch (the 'good' Arrian being the fifth), preserve material which in the case of Nanda is probably derived from Indian legend, and in the case of Candragupta is certainly so.

In these accounts Nanda appears as Agrammes (Curtius) or Xandrames (Diodorus). Whether Agrammes represents Ugra, Ugrasena, Augrasainya<sup>1</sup>, or Agrama<sup>2</sup>, or Xandrames, Candramas<sup>3</sup>, or some other

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1. PHAI, p. 233. Uggasena (Ugrasena) is the name of the first Nanda in MBV (see above); his descendants would have the patronymic Augrasainya.

2. Christian Lassen, Indische Alterthunskunde, vol. 2, 2nd. ed., p. 210, fn. 2.

3. J.W. M'Grindle: The Invasion of India by Alexander the Great, London, 1893, p. 409.

name, it is not necessary to decide: it is clear that he is a predecessor of Candragupta and contemporary with Alexander, that is, a Nanda. Diodorus and Curtius give the story in great detail.<sup>1</sup>

King Phegeus (Phegelas, in some manuscripts of Curtius) described to Alexander the country beyond the Beas: first there is a desert which takes twelve (or eleven) days to cross; beyond is the Ganges, which Diodorus gives as 32 stadia broad; and on the further side of the river are the Praisioi and Gandaridai (Gangaridae and Prasii) whose king Xandrames (Agrammes) has a standing army of 20,000 horse, 200,000 foot, 2000 chariots and 4000 (3000) elephants. Alexander treated this intelligence with some scepticism and referred it to Porus, who verified it and added that this king was held in contempt by his subjects, as he was the son of a barber who had become the paramour of the queen. The reigning king was assassinated by this woman (or by the barber who, under the pretense of acting as guardian to the royal children, usurped the throne and murdered the princes). Diodorus is not clear as to whether this barber actually reigned, but we may take it from Curtius that he did so. It is here, partly as a result of these reports, that Alexander's men refused to advance further into India.

In Plutarch's compressed account the mutiny takes place after the battle with Porus when the army balks at Alexander's intention

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1. Diodorus 17.93; Curtius 9.2. Where the details in Curtius differ they are put in brackets.

to cross the Ganges, and the forces of the Gandaritai and Praisiai on the opposite bank have been swollen to 80,000 horse, 200,000 foot, 8000 chariots and 6000 elephants, in contrast to the 20,000 foot and 2000 horse of Alexander.<sup>1</sup> We are clearly dealing with the same story here: Plutarch makes the Ganges 32 stadia broad; he recognizes that the forces on the further bank are enormous, but interjects that they are not exaggerated, for not long afterwards Androkottos (Candragupta) "made a present to Seleucus of five hundred elephants, and with an army of six hundred thousand men overran and subdued all India"; and has Androkottos refer to the hatred and contempt in which his predecessor was held by the subjects, "for his baseness and low birth." Justin has Alexander defeat the Praesidae and Gangaridae among others, before reaching the Cuphites (Beas?) where the enemy awaiting him has 200,000 cavalry, whereupon his men beg him to go no further, an impossibly garbled account of the same tale.<sup>2</sup>

The fundamental difficulty in accepting this story as historical is its impossible geography. If there is a desert to cross on the eastward march, Phegeus belongs on the lower Indus, and it is no longer a mere eleven or twelve days to the Ganges, nor is

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1. Life of Alexander, ch. 62, Bernadotte Perrin's trans. Note that Plutarch does not precisely say what scholars have sometime attributed to him, that Alexander had reached the Ganges. See Schachermeyr, cited below.

2. 12.8.

Pāṭaliputra on the opposite bank. If it is eleven or twelve days from the Beas, the upper Ganges must be intended, and while the sway of Magadha may already have been established in that region, there is in any case no desert to cross. If, finally, Pāṭaliputra is to be approached from the north bank, having crossed the upper Ganges, it will take much longer to reach and again there is no desert to be traversed. This is the fundamental difficulty, but there are others.

Could we trace the Phegeus story with certainty to one of the members of Alexander's expedition its credibility in spite of its weak geography would be greatly enhanced. But we cannot. The five extant historians wrote three hundred to five hundred years after the events they describe had taken place. If we are not mistaken, there is a fair measure of agreement nowadays that Diodorus and Curtius consulted a common source for those parts of Alexander's progress through India where they show close agreement, as in the Phegeus episode; that Diodorus' principle source on India for Book 17 is Cleitarchus; that Cleitarchus did not accompany Alexander's expedition, but drew on the histories of Onesicritus, Nearchus and others, perhaps including Aristobulus, who did.<sup>1</sup> None of the named fragments of these primary historians mentions Phegeus.

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1. See, e.g., Lionel Pearson: The Lost Histories of Alexander the Great, p. 224, and ff. But each of these statements except the first has its opponents. W.W. Tarn, Alexander the Great, vol. 2, section F: Aristobulus the main source of Diod. Bk. 17; Wells, intro. to Pliny, Hist. Nat., vol. 2 (Loeb): Cleitarchus accompanied Alexander.

The story perhaps derives from Cleitarchus' book, but beyond that we cannot go. Some scholars consider it possible that Cleitarchus made it up.<sup>1</sup>

Further difficulties are found in Arrian, the best of the five historians. He knows nothing of Phegeus, but has something quite different to say: report had it that the land beyond the Beas was fertile, not desert; that its populace was brave in war, and ruled by an aristocracy, that is, in Indian terms, a gaṇa or saṅgha, not the kingdom, rājya, of Nanda; that this aristocracy governed with moderation; and, what most worked upon the imaginations of the Macedonians, that it had a great number of exceedingly large and fierce elephants.<sup>2</sup> Arrian's Alexander intended to reach the Ganges and the Eastern Sea,<sup>3</sup> a matter on which we shall have more to say later on. Nor was Porus on hand to corroborate Phegeus' intelligence, for he had been sent back to garrison the cities which had surrendered before Alexander reached the Beas.<sup>4</sup>

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1. Fritz Schachermeyr: "Alexander und die Ganges-Länder", ch. 7, in Alexander the Great: The Main Problems, ed. G.T. Griffith; see also Tarn, ibid., app. 14.

2. Anabasis 5.25. Strabo 15.1 states that the country across the Hypanis (Beas) is very fertile, that little of accuracy is known of it, and that the government is aristocratic, consisting of 5000 councillors, each of whom provides the state with an elephant.

3. Anabasis 5.26.

4. Anabasis 5.24.

There are many instances of a fundamental disagreement among the Alexander-historians over Alexander's itinerary, a disagreement which begins in 327 B.C. and ends some time in the following year, when Alexander was on, or setting out for, the lower Indus. It seems that the royal Journal for that period did not survive the expedition with the result that, unfortunate for historians of India, the accounts of the Punjab are very discrepant.<sup>1</sup> Consider, as another instance, the disagreement over the location of Sopeithes, who in Diodorus and Curtius, is king of the territory immediately before Phegeus', of which, luckily, the materials for a resolution are available. Strabo<sup>2</sup> remarks that some put the Cathaeans and Sopeithes, one of their kings, between the Hydaspes and Acesines (Jhelum and Chenab), some beyond the Acesines and Hyarotis (Chenab and Ravi). The first case corresponds to Sopeithes' position in

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1. Charles Alexander Robinson, Jr.: The Ephemerides of Alexander's Expedition. Robinson attributes the beginning of this disagreement to the arrest of Callisthenes, through whose history, it follows, the Journal for the first part of Alexander's expedition was preserved for later historians. The disagreement itself is attributed to the burning of Eumenes' papers (i.e. the Journal) mentioned in Plutarch's Life of Eumenes. The Journal for the remainder of the expedition was probably published by Strattis of Olynthus after Alexander's death.

2. 15.1.30.

Arrian,<sup>1</sup> and second in Diodorus<sup>2</sup> and Curtius.<sup>3</sup> Strabo further says that in Sopeithes' kingdom there is a mountain of salt sufficient for the whole of India, whether on the authority of Onesicritus who very probably had something to say of Sopeithes,<sup>4</sup> or some other such as Aristobulus, who certainly did.<sup>5</sup> The mountain of salt settles the matter: Sopeithes' kingdom must have included the Salt Range between the Jhelum and Indus, some miles downriver from Jhelum city where the battle with Poros is supposed to have taken place, in agreement with Arrian.

From this it might be supposed that Phegeus, too, has been transposed, and that he belongs somewhat further along the river

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1. Anabasis 6.2.
  2. 17.91, 92.
  3. 9.1.
  4. Strabo 15.1.30 = Onesicritus F 21 (FGH 134), but "wie weit das exzerpt aus O geht, ist nicht zu sagen", etc., (Jacoby, commentary). Cleitarchus knows of the mountain of salt (FGH 137 F 28 = Strabo 5.2.6). Sopeithes in Diodorus and Curtius is probably Onescicritus via Cleitarchus.
  5. FGH 139 F 40 = Plutarch Pro Nob. 19 on the dogs (of Sopeithes).

from Sopeithes. But this is out of the question. Phegeus would have to go much further south, on the Indus, to find the Rajasthan Desert to the east of him. His intelligence concerning the east could hold little interest for an Alexander who was now bent on determining once and for all whether the Indus was the upper course of the Nile or whether it emptied into Ocean. But above all, such information given at such a place would lack the dramatic sequel which the mutiny provides, which in turn would impress it upon the minds of the members of the expedition who wrote the first histories. It is anyhow likely that some of the information Phegeus is made to impart was known to Alexander before he reached the Beas.

Let us try to reconstruct what happened. We must, first of all, steel ourselves against the subtle wiles of Tarn's dialectic and assert that in all probability Alexander had heard of the existence of the Ganges and had presumed from what he heard that it emptied its waters into Ocean, before he set out eastward from the Jhelum.<sup>1</sup> For centuries India from the Punjab to the Gangetic

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1. Tarn, op. cit. In the following three paragraphs (and elsewhere) we have made use of Sachachermeyr's excellent article cited above.

Valley had been a single culture area with numerous cities and plenty of contact from one end to the other. In Taxila especially Alexander could have got the information he needed. Not only were traders from the Ganges attracted by this important emporium between India and Persia, but princes and scholars went there for study, because the region was renowned for the purity of its speech. Geographic and political information on the Gangetic valley, then, was to be found in Taxila; and it is unthinkable that a man of Alexander's ambitions and interests would not have sought it out, or could not get it for want of good interpreters. This information must have included, at a minimum, the fact that the Ganges flowed into the sea, which Alexander took to be 'Ocean'; something about the Nanda as the dominant power and perhaps his capital, Pāṭaliputra; and probably the name Prasioi (Prācyāḥ, 'Easterners') by which the Greeks henceforth referred to the Magadhans.<sup>1</sup>

This is in accord with the fact that Alexander's progress from the Jhelum to the Beas was no small excursion but a full-scale expedition in which the main body of the army accompanied him.<sup>2</sup>

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1. Whether the name Gangaridai was known to Alexander, on the other hand, is very problematical. In Megasthenes it refers to inhabitants of what is now Bengal, but elsewhere they are bracketed with the Prasioi. The name has no recorded Sanskrit equivalent.

2. See Schachermeyr for proof.

His goal was the eastern edge of the world, or in any case a distant one, else the army would have no reason to revolt, as they most certainly did.

So far, Alexander's knowledge of the Ganges and his resolve to reach it is a matter of a priori considerations and inference only. But Arrian<sup>1</sup> has Alexander say in the course of his harangue to the mutinous soldiers on the Beas that the Ganges and the Eastern Sea are not far away (an understatement suited to the occasion), that this Eastern Sea was connected with the Hyrcanian (Caspian), and the Hyrcanian with the Persian and Indian Gulfs, since Ocean encircled the earth. It is clear that Alexander wished to explore the Indus, to decide whether it flowed into Ocean or into the Nile; but his doubt on the matter made the Ganges the better means by which to settle the problem of Ocean.

To the best of our knowledge, then, Alexander had determined to reach the Ganges long before he reached the Beas; and it follows from this that Phegeus is represented as having told him what he already knew, at least in large part. What Alexander needed to know was the nature of the peoples immediately across the Beas. This is what a local chief would be best informed about; and this, we believe, with Arrian, is what Alexander learned on the banks of the Beas. The reports of a well-governed people, brave in war and possessed of elephants sufficed to spark the mutiny among the war-

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1. Anabasis 5.26.

weary troops and officers.

Even if the words with which he is credited were not his, there is some reason to believe that Phegeus himself is not fictitious. In the first place historians, however bad, are not in the habit of creating characters, especially characters with names, out of thin air. In the second, the name itself seems to correspond to a Sanskrit Bhaga or Bhagala, attested in the Ganapātha, a work not too distant in time and probably composed in the Punjab.<sup>1</sup>

We now come to what Phegeus and Porus said. We have argued that they did not say it; we would argue further that it is not a Greek invention, for it has an Indian ring to it. To an Indian, an army had to have four 'limbs', infantry, cavalry, chariots and elephants, to be an army. It was a matter of definition; long after chariots disappeared from the battlefield, 'army' was catur-āṅga,<sup>2</sup> four-limbed, as in the Indian game of 'chess', which is the same word. The Greeks had indeed observed that the Indian army contained chariots, but the battle of the Jhelum left them profoundly indifferent to them, so indifferent that Pliny regularly lists the numbers of foot, horse, and elephant of the princes of

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1. Bāhvādi. The variant Phegelas or Phegelis is found in some MSS. of Curtius. See Sylvain Lévi in JA 15, 1890, "Notes sur l'Inde à l'époque d'Alexandre", p. 239. But the Greeks have probably not observed Lévi's 'lois de transcription' with such precision as his article suggests.

2. There is a 16th cent. nīti text entitled Hari-Hara-Caturaṅga.

India, but passes over the chariots in silence.<sup>1</sup> Somehow these limbs have escaped amputation in Diodorus, Curtius and Plutarch; had Trogus' history not been condensed by Justin, we might have found the four limbs there, too.

Another element provides a possible point of contact with Indian legends, the Nanda's barber-father, found also in Hemacandra.<sup>2</sup> Raychaudhuri raises various objections against seeing agreement here: Hemacandra's Nanda is the son of a barber and a common courtesan, ganikā, not a queen; he becomes king without their intervention; and he is the first of the nine Nandas, not the last, Alexander's contemporary.<sup>3</sup> The first point is minor, and indeed given the low reputation of the Nandas, it is easy to see how his mother might be downgraded with the passage of time from queen to courtesan; but it is somewhat ungallant to describe a ganikā, known for her beauty, character and decorum, and her skill in the 64 arts,

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1. Pliny, Hist. Nat. 6.21.8-23.11, cf. Solin. 52.6-17. Neither Pliny nor Solinus enumerate chariots, so that their source is unlikely to have mentioned them, while on the other hand, his Indian informants undoubtedly did. Schwanbeck regarded these passages as Megasthenes fragments (see M'Crindle's trans., F 56 and 56B), though Müller and Jacobi did not.

2. PP 6.231-2.

3. PHAI p. 232.

rewarded by kings and praised by the noble, the highest representative of her class,<sup>1</sup> as 'common'. The second and third points must be taken together. The Indian sources are in complete discord on the number of generations the nine Nandas are to be spread over. Hemacandra says they ruled in succession as father to son,<sup>2</sup> but relates stories only of the first and the last; the Mahāvamsa Tīkā similarly relates stories only of the first and the last, but makes the nine Nandas brothers<sup>3</sup> while the Purāṇas take a middle course, dividing them into Mahāpadma and his eight sons.<sup>4</sup> Bad as they are, the Purāṇas are least likely to be entirely false, and agree with the Classical version in giving the Nandas two generations. Given these conflicting traditions we cannot be certain how distant from Alexander the first Nanda was, but it is reasonable to suppose that the Greeks, hearing this legend of a predecessor of Candragupta, whom they knew to have come to power after Alexander's departure, made him a contemporary. It remains true that the Classical accounts make the first Nanda to rule a barber, while Hemacandra makes him the son of a barber. But with the confusion in the matter of generations and weighed against the striking

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1. Kāmasūtra 1.3.20-1; 6.6.54.

2. PP 8.2.

3. MT 5.179.

4. Pargiter, loc. cit.

agreement of the barber-father motif, this detail must be considered of lesser importance. If there is one note of agreement in the Indian traditions concerning the first Nanda, it is that he was of obscure, even sūdra origin, and in Indian society a barber ranks low indeed.

The Phegeus episode, then, is not historical as it stands, nor is it Greek invention. Perhaps we can get closer to the true state of affairs if we separate Porus' testimony from Phegeus'; for Porus would have known something of Nanda and as a member of the old Vedic aristocracy of the Punjab, as his name (Pūru, Paurava) indicates, he would quite naturally have held in contempt the upstart Magadhan dynasty. Thus Porus could have told Alexander something of the sort, though not at this juncture, and the silence of Arrian is in that case somewhat surprising. But it may be that Plutarch holds the answer when he says that Candragupta "often said" that Alexander could easily have conquered Magadha, since the king, Nanda that is, was hated and despised for his evil disposition and mean origin.<sup>1</sup> The barber-father business sounds as natural in the mouth of Candragupta the usurper as in that of Porus the man 'of family', and the story could have been transmitted westward in Seleucid times by one of the ambassadors. But taken as a whole, the Phegeus episode is a later construction as the garbled geography,

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1. Life of Alexander, ch. 62.

impossible in Seleucid times, shows. It is an attempt with the aid of hindsight and legend to heighten the drama of the mutiny on the Beas.

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In the story of Candragupta's rise to power we are on firmer ground. Here it is Justin who gives the fullest account, in his section on Seleucus:<sup>1</sup>

(II) After the division of the Macedonian empire among the companions (of Alexander, Seleucus) carried on many wars in the east. First he took Babylon; then, his strength increased by this success, he subdued the Bactrians. (III) He then passed over into India (II) which after Alexander's death, as if it had shaken the yoke of servitude from its neck, had slain his prefects. The author of this freedom was Sandrocottus, but after the victory the title of freedom changed to servitude; since, having seized the throne he oppressed with servitude the very people whom he had freed from foreign domination. (I) This man was of mean origin, but was prompted to aspire to royal power by the divine will. For when he had offended king Nandrus by his impudence, and was ordered by the king to be slain, he sought safety in the swiftness of his feet. When from fatigue he lay down and fell asleep, a lion of enormous size approached the slumberer and, having licked from him the freely flowing sweat and gently waking him, left him. This prodigy first inspired in him hope of royal power and gathering together (a band of) robbers<sup>2</sup> he instigated the Indians

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1. 15.4.10-21.

2. Not 'mercenaries' (PHAI p. 265, fn. 2), since latro in that sense is ante-classical, being found in Ennius (died 169 B.C.) and Plautus (died 184 B.C.), but not later (Lewis and Short); while Trogus must be later than 20 B.C. (Tarn, Alex., vol. 2, p. 126).

to a new sovereignty. (II) Thereafter (deinde), when he was preparing for war against Alexander's prefects, a wild elephant of great bulk came up to him of its own accord and as if tamed to gentleness took him on its back and became his leader in war and conspicuous in the battlefield. (I) Having thus acquired the throne (II) Sandrocottus was in possession of India when Seleucus was laying the foundations of his future greatness. (III) Seleucus having made a treaty with him and composing his affairs in the east, went to war with Antigonus.

Plutarch merely mentions that Androcottus, as a youth, saw Alexander, and afterwards frequently said that Alexander could easily have conquered the country because the king (Nanda) was despised, etc.<sup>1</sup>

That Candragupta offended 'Nandrus' and not Alexander (as the older editions read) is quite certain. The honour of this discovery goes to Alfred von Gutschmid, who made it over a hundred years ago.<sup>2</sup> Gutschmid found that where Bongarsius' edition (Paris, 1581) read procacitate sua Alexandrum, the variants given were (1) procacitate Talenauandrum, (2) procacetade sua nandrum and (3) procate tale sua nandrum, from which he inferred an original procacitate (s)ua nandrum. Referring the matter to J. Jeep, who, at the time, was preparing an edition of Justin for Teubner, he learned that four of the five good manuscripts read 'Nandrum', and of the five worse manuscripts one read 'Nandrum', a second had

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1. Cited above.

2. "König Nanda von Magadha in 15ten Buche der Historien des Pompejus Trogus", Rheinisches Museum für Philologie 12, 1857, p. 261 ff.

'Alexandrum' in the margin, a third had it in the text, a fourth had mandrū and a fifth taleuandrum. 'Nandrum' subsequently appeared as the preferred reading in Jeep's edition<sup>1</sup> and again in the 1935 Teubner edition of Otto Seel, wherein three classes of texts totaling seventeen different manuscripts read 'Nandrum', 'Alexandrum' being noted for one manuscript and a siglum representing "codices deteriores aut aliquot aut singuli". But we dwell on the matter because the opinion has got abroad that the reading 'Nandrum' is merely an emendation of modern editors, due to a rather cross remark once made by so influential a scholar as Hemachandra Raychaudhuri.<sup>2</sup>

We have inserted Roman numerals in the text of our translation of the Justin passage to indicate three spans of time: (I) from the birth of Candragupta to his overthrow of Nanda, (II) from the death of Alexander (324 B.C.) to Seleucus' capture of Babylon, (312 B.C.) and beyond, to the time (III) of his crossing into India (305 B.C.?), his pact with Candragupta and war with Antigonus which terminated at Ipsus in 301 B.C. The first two spans may overlap somewhat, that is, the passage gives us no reason to believe that

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1. Editio minor, Leipzig, 1872.

2. IC 2, 1935-6, p. 558, and to the same effect, PHAI, p. 265, fn. 1: "Such conjectural emendations by modern editors often mislead students who have no access to original sources and make the confusion regarding the early career of Chandragupta worse confounded."

the overthrow of Nanda was accomplished before or after Alexander's death.

Let us take Justin's testimony in chronological order. (I) He mentions Candragupta's low birth, his flight from Nanda, his encounter with the lion, his collecting a band of brigands. What follows is awkwardly worded, but nevertheless clear in meaning: Indos ad novitatem regni sollicitavit, that is, in place of the old regnum of Nandrus Rex, he established a new regnum of his own, or in other words, he "instigated the Indians to overthrow the existing government" as M'Crindle had it.<sup>1</sup> It is implied that he succeeded in this, for the story now enters a new scene marked by deinde.<sup>2</sup> (II) Candragupta, then, was saluted by a wild elephant in an auspicious manner, and went to war with Alexander's prefects, killed them, and liberated the Indians (of the Punjab) from Macedonian rule, completing the conquest, in all likelihood, by the time Seleucus took Babylon. (III) Some time after, Seleucus went into India, but made a pact with Candragupta and withdrew to make war

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1. Op. cit., p. 328. Prof. D.J.A. Ross points out that a parallel to this unusual phrase would be novae res, 'revolution', 'constitutional change' in novi rebus studere.

2. So Gutschmid, op. cit.

on Antigonus.<sup>1</sup>

A good deal of controversy has arisen over the question whether in Justin Candragupta first takes the throne of Magadha and then attacks the Punjab, or whether he gains the Magadhan throne from the Punjab by virtue of his successes there. In this connection we must consider the ingenious argument of N.K. Bhattasali, that after collecting a band of robbers Candragupta cannot yet have become king, for the elephant-omen which follows signifies that he is to be a king, not that he already is one; thus the conquest of Magadha must follow that of the Punjab.<sup>2</sup> The Matter

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1. Tarn, The Greeks in Bactria and India, pp. 46-7, has drawn an incredible amount of misinformation from this passage. Parvataka was not Porus (see below); Justin does not say that "Candragupta got his kingdom at the time when Seleucus was laying the foundations of his future greatness", but that having got the throne Candragupta "was possessing India" (the position of Sandrocottus shows that ea tempestate goes with Indiam possidebat; Tarn achieved his interpretation at the cost of straining the word-order and the sense and tense of possidebat); The Jain dating of Candragupta's accession (312 or 313 B.C.) is unlikely to be exact because it is expressed in terms of the Vikrama era, which was not yet in existence, let alone known by that name, or in terms of the nirvāṇa of the Mahāvīra, for the date of which traditions vary by 60 years. For two other remarks on this remarkable paragraph, see below.

2. "Mauryya (sic) Chronology and Connected Problems", JRAS 1932, p. 273 ff.

can be settled if we concentrate on the question of whose was the kingship by seizing which Candragupta became king.

Now in the main Justin speaks as if Candragupta became king as a result of a victory over Alexander's prefects, and this is only natural from a Greek or Roman point of view. He states that "having seized the throne he (Candragupta) oppressed with servitude the very people whom he had freed from foreign domination"; the regnum here is clearly that of Alexander's men, for the populum of the regnum is the people of the Punjab under foreign domination, not the Magadhan people under Nanda's rule. Justin goes on to say that Candragupta "was prompted to aspire to royal power by the divine will" and elaborates by giving two omens: the flight from Nandrus, leading to the lion-omen which "first (primum) inspired in him hope of royal power", followed by preparation for war against the prefects of Alexander and the elephant-omen. "Having thus acquired the throne" would at first seem to refer to the whole of this action, and were it the case that Candragupta fled from Alexandrus Rex, we could only conclude that Justin has Candragupta acquire the throne by wresting it from Alexander's successors, without reference to the throne of Magadha. Yet as we have seen, Alexandrum regem is merely a lectio facillior for Nandrum regem, and it is against Nanda's sovereignty that Candragupta "instigated the Indians to a new sovereignty."<sup>1</sup>

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1. Bhattasali is in error when he says "the existing government" refers to the "Greek" government, since the term is M'Crindle's, not Justin's, while ad novitatem regni must refer, by contrast, to Nandrum regnum.

The conclusion seems inescapable that according to Justin's testimony Candragupta became king, king of Magadha, that is, by overthrowing the Nanda, and again that he became king of all India, by virtue of a victory over Alexander's prefects. Were it the case that Justin regarded the seizure of Nanda's throne as the sole test of kingship, but meant to imply that the seizure took place after the war with Alexander's prefects, his opening statements would no longer make sense. The duplication of royal omens probably means that we are here dealing with two separate stories combined into one narrative, the beginning of the second marked by deinde.

That the royal omens which befall Candragupta--the lion which licks his sweat while he is asleep and the elephant which takes him on its back--that these are Indian legends has been recognized before, though without very full documentation.<sup>1</sup> The lion as a royal beast is well-illustrated by the Aśokan pillars; the throne is regularly called siṃhāsa, 'lion-seat'; and lions coupling with princesses

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1. Lassen, op. cit., p. 207, fn. 3: "Dass diese dichterischen Ausschmückungen Indischen Ursprungs sind, ergibt sich sicher daraus, dass eine Löwe, der als König der Thiere galt und mit dessen Namen die Krieger Sinha oder Löwen genannt werden, so wie ein Elephant, der als besonders den Königen und Kriegern zuhöriges Thier betrachtet wurde, in dieser Erzählung auftreten." More vaguely M'Crindle, op. cit., p. 406: the omens "reflect the true spirit of oriental romance, and were no doubt derived from native traditions which somehow found their way to the west."

to procreate kings are found in the legends of Vijaya<sup>1</sup> and Sātavāhana.<sup>2</sup> The other element, waking to sovereignty, is found in the story of the auspicious chariot which comes upon the sleeping Bodhisattva, which we shall describe presently, and the motif common in Indian hagiology, in which a cobra spreads its hood over a sleeping man, signifying that he is to become a saint or a king, is somewhat similar. Thus the elements of the lion-omen can be paralleled, though we are unable to provide a parallel for the ensemble. It should be remarked that the lion is equally a Persian and Hellenistic royal beast,<sup>3</sup> and lions are more frequent in stories west of the Indus than east, so that until an exact parallel is found there must be some doubt as to its provenance. But not very much; a story of Candragupta and Nanda in Latin literature must necessarily have an Indian source.

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1. MV 6.8-9.

2. KSS.

3. The Aśokan lion-capitals are of Persian inspiration; Philip of Macedon dreams he has fixed a seal bearing the image of a lion on his pregnant queen's womb, which means that she will give birth to a lion-like son, Plutarch, Life of Alexander, ch. 2.

For the elephant-omen we have reasonably good parallels, for it is a variant of the very common and well-defined motif of "choosing a king by divine will"<sup>1</sup> of which the fullest form can be illustrated from Hemacandra's story of the first Nanda:<sup>2</sup>

The Nanda, as we have seen, was the son of a courtesan and a barber. He had a dream that his entrails surrounded the city, and told this to a learned brahmin, who, perceiving it to be a royal omen, married his daughter to him, adorned him and led him in a marriage procession around the city. At the same time king Udāyin died leaving no heirs; so his counsellors anointed the five instruments of divine will,<sup>3</sup> the royal elephant, the royal horse, the

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1. See N.M. Penzer, KSS, p. 175 ff, and especially Franklin Edgerton, "Pañcadvivādhivāsa or Choosing a King by Divine Will" in JAOS 33, 1913, p. 158 ff. for full discussion and references. See also Stith Thompson: Motif Index of Folk Literature, and Stith Thompson and Jonas Balys: Motif and Type Index of the Oral Tales of India, entries H171, "King selected by elephant's bowing to him"; N683, "Stranger accidentally chosen king. Picked up by sacred elephant"; and T63, "Princess's husband selected by elephant bowing to him". References in Thompson and Balys are very numerous, and the tales come from all parts of the Sub-continent.

2. PP 6.231-43.

3. 6.236: pañcadvivāny abhiṣiktāni mantribhiḥ; more usually the instruments are 'imbued' (adhivāsītāni) with divine power, Edgerton, loc. cit.

umbrella, the water pot and the two chowries. These instruments began wandering about the king's household, but then left the palace and came upon Nanda's procession. The elephant trumpeted loudly, anointed Nanda with the contents of the water-pot and lifted him up on to its neck; the horse neighed "as if pronouncing a benediction"; the umbrella opened over him "like a lotus at dawn"; and the chowries began to shake "as if dancing"; whereupon he was made king.

This motif, common in ancient literature and in modern folk tales from Kashmir to Ceylon, admits of several variations: the number of 'divine instruments' may be only three or even one, typically the elephant, sometimes the horse. The elephant may place a garland on the new king's neck.<sup>1</sup> Or it may simply lift the man onto its back without sprinkling him with the waters of consecration, as in the Kathāsaritsāgara story where in a certain city it was the settled custom that on the death of the king the citizens would set an auspicious elephant to wander, and whosoever the elephant lifted to its back was anointed king. The man so chosen in the story was a partial incarnation of the Bodhisattva.<sup>2</sup> The new king is generally of humble origin and he may be sleeping when he is found. This last element is found in a story in the

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1. Vikramacarita story 14, in the Southern and Metrical Rescensions, cited by Edgerton, ibid., p. 159.

2. KSS 10.9.23-4, trans. vol. 5, p. 155.

Kathākośa;<sup>1</sup> and in the Jātakas, when the king dies without heirs, the chariot of state, loaded with the five royal insignia and yoked to four lotus-coloured horses, is sprinkled by the house-priest and, attended by the fourfold army and followed by musicians, comes upon the sleeping Bodhisattva, who at first turns over on his other side, but finally accepts office.<sup>2</sup>

The fact that the elephant in Justin's story picks Candragupta up and puts him on its back recalls these selection stories; but the fact that the elephant was wild, but approached Candragupta "as if tamed to gentleness" suggests that the story may also have been influenced by that of Nālāgiri.<sup>3</sup> This was the name of a fierce elephant from the royal stables of Ajātasatru, whom Devadatta

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1. Tawney's trans., p. 4.

2. The phussa- or maṅgala-ratha motif in Jāt. 378, 445, 529 and especially 539. Similarly the idol is regarded as being 'asleep' until the installation, by awakening songs and dances, it is 'imbued' with divinity (adhivāsyā). So Varāhamihira's Bṛhatsaṃhitā 60.15 quoted in Edgerton, ibid., p. 165: suptām (sc. pratimām) sunṛtyagītair jāgarakaiḥ samyag evam adhvāsyā, daivajñapradīṣṭe kāle saṃsthāpanaṃ kuryāt. This is the sense of the adhivāsana ceremonies daily performed in the great South Indian temples, which begins with the playing of music and exhortations to the god to awake.

3. DPN sv. Nālāgiri.

caused to be intoxicated and set upon the path of the Buddha. When the elephant was bearing down upon him, a woman dropped her child in terror at the Buddha's feet; and as the elephant was about to attack it, the Buddha spoke to him, suffusing him with love, and stroked his head. Nālāgiri, overcome, sank to his knees and learned the dharma from the Buddha. In this way was the wild elephant "tamed to gentleness". Here, too, an exact parallel to Justin's story has yet to be found, but the existing parallels are sufficiently close to permit no doubt as to the Indian origin of the classical tale.

We may note in passing that Tarn assigns a passage from Plutarch which is of undoubted Indian provenance to the same source from which the Justin extract we have been discussing has come: "But when a certain man named Menander, who had been a godking of the Bactrians, died in camp, the cities celebrated his funeral as usual in other respects, but in respect to his remains they put forth rival claims and only with difficulty came to terms, agreeing that they should divide the ashes equally and go away and should erect monuments to him in all their cities."<sup>1</sup> Menander was of

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1. Moralia 821 D, E, trans. Harold North Fowler. Tarn, op. cit., pp. 45-50: 'Trogus' source'.

course a king of India, not Bactria, and the quarrel about who should have his ashes, their division amongst several cities, and the raising of stūpas over them is a replica of the story of the Buddha's funeral. Here, then, is another clear instance of Indian legend in Classical literature, in this case from the cycle of legends which gave birth to the Milinda Pañha and Menander's posthumous fame throughout Buddhist lands.<sup>1</sup> Thus about the beginning of the Christian era fragments of the Cāṇakya-Candragupta-Kathā and also of a Milinda-Kathā reached the West.

Finally we must briefly look at Plutarch's testimony that Candragupta, when a mere youth, met Alexander. Such a story, if true, cannot be of Greek origin; the members of Alexander's expedition would not have remembered an obscure Indian youth. It could have come from an Indian source, even from Candragupta himself; or it could be a Greek fabrication, to bring Alexander into contact with the greatest Indian king known to the Greeks, much as Plutarch, in the same passage (and this is undoubtedly invention), says that

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1. It is of course unnecessary to suppose (Tarn, op. cit., p. 47) that 'Trogus' source' knew the story of the Mahāparinibbāna Sutta and that stūpas were raised to dead cakravartins, unless 'Trogus' source' was the Indian with whom the legend began.--Since in the course of this section we have had several occasions to differ from Tarn, perhaps this is the appropriate place to record our admiration for his writings, which, while at times misleading, at times maddening, we have always found stimulating.

even to the present day the kings of the Praisiai (of whom Candragupta had been one) cross the river to make offerings "in the Hellenic fashion" on the twelve altars Alexander had erected to mark the limit of his eastward advance. We believe the story is false. It could be true; but to see in this doubtful meeting the source of Candragupta's vision of empire is in the same spirit as, and only a little more credible than, Plutarch's stretch about the altars.<sup>1</sup>

The earliest dateable fragments of the Cāṇakya-Candragupta-Kathā, then, are preserved in Classical literature. The question arises whether we can infer anything from these fragments about the original form of the Kathā, more primitive than that we have arrived at by a comparison of Indian literary sources. What, to take the most striking example, are we to make of the fact that Cāṇakya is not known in Classical literature, and that Justin ascribes to Candragupta what the extant Indian versions ascribe to his minister-- for Cāṇakya did offend Nanda by his impudence, Nanda did order him killed, or rather captured, in the Mahāvamśa Tīkā, and the brahmin did "seek safety in the swiftness of his feet". May we conclude that Cāṇakya was unknown to early legend and is a later invention to whom were ascribed certain of Candragupta's exploits in the earlier form? Or has Trogus made one character out of two?

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1. George MacDonald in CHI, p. 386; Charles Alexander Robinson, Jr.: Alexander the Great, p. 173. Taken rather differently in PHAI, p. 268.

We believe it would be most unwise to infer anything from the silence of the Classical texts. Not only are the passages we have been considering brief and secondary (we would especially like to know what Trogus himself said), but they are foreign as well, so that the chances for the survival of characters who were otherwise unknown and episodes which were unintelligible to the Classical authors were small. Where some agreement is to be found between an Indian and a Classical story, as in the story of Nanda's barber-father, and the fact that Diodorus and Curtius on the one hand and the Purānas on the other divide the Nandas into two generations, they reinforce each other; but where there is no corroboration from Indian sources, for example as to whether the lion-omen is original and central to the Kathā, we have no basis for judgement, and the mere priority of the extant Classical sources is of little consequence. With the elephant-omen we are in a better position, for at least we have enough material with which to construct a theory, namely that the Greeks have transferred the motif from the story of the Nanda to Candragupta, the Magadhan king best known to them. For Nanda's baseness and tyranny are well known both to Classical and Indian literature, and when in Justin we find these characteristics attributed to Candragupta, together with the elephant-omen proper to Nanda, we may at least suspect that distinct elements of Indian legend have coalesced to make them compact and portable for their long journey westward.

The Cāṇakya of History

A good deal of ancient Indian history seems to have been written on the principle that when good sources are lacking, bad sources become good. Consider the proposed identification of Porus of the Alexander-historians with the Parvata(ka) of the Indian sources. This identification is made on the grounds that the Mudrārākṣasa places Parvataka in the Northwest, giving him Yavana or Greek allies (ignoring the Śakas, Hūnas and their ilk); the Pali and Jain versions are said to substantiate this to the extent of sharing a tradition of attack from the edges of Nanda's domain (the bowl of gruel!). But, as we have argued, the troop lists of the Mudrārākṣasa show a proliferation of barbarians, which is itself a sign of lateness (in addition to the anachronisms) and these are quite naturally, if not designedly, drawn from those in the Northwest. Not only do the Jain and Pali accounts fail to corroborate this detail, they contradict it; according to the Jain version, Parvata was king of Himavaṭkūṭa, which should be vaguely north, not the Punjab, and the Pali apparently makes the campaign begin from the Vindhyās (Viñjhāṭavi).<sup>1</sup> Yet the tale that

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1. Cāṇakka and Pabbata fly to the Viñjhāṭavi; thence Cāṇakka and Candagutta attack Nanda; when their army is broken they wander through the janapada and start afresh on the edge of the kingdom. The place is not specified.

Porus helped Candragupta, while it is not explicitly fostered today, still survives under the surface of historical writing, not only in the most commonly accepted date of Candragupta's accession, 321 B.C., but even that of the Buddha's Parinirvāna, 483 B.C., derived from it with the aid of the Ceylonese traditions. Actually the Ceylonese tradition dates the Buddha quite independently in 486 or 485, giving Candragupta a date of c. 324 B.C., a fact too seldom recognized.<sup>1</sup> It is much more likely that Candragupta seized Magadha first, before advancing on the Punjab which, in the wake of Alexander's death and with the growing power of Magadha, was falling into anarchy.

There are other sources from which to reconstruct the history of Candragupta's reign, especially the fragmentary account of Megasthenes, however difficult to interpret, and brief passages such as

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1. We refer to the 'Dotted Record' which is a Ceylonese document in China, not an independent Chinese dating. P.H.L. Eggermont: The Chronology of the Reign of Asoka Moriya, ch. 6, scrutinized the Record, but fails to take sufficient account of its Ceylonese origin, or to recognize that Geiger's date of 483 B.C. for the Buddha is approximate only, resting on the (also approximate) date of 321 for Candragupta. See now W. Pachow, "A Study of the Dotted Record", JAOS 85, 1965, p. 342 ff. for some further ambiguities in the testimony. The claims for the Dotted Record are not, of course, historical, but it shows the existence of a Ceylonese tradition for the date, which otherwise would be a matter of inference only.

Pliny's, to the effect that Seleucus ceded Gedrosia, Arachosia, Paropamisadae and Aria to Candragupta, with which Tarn has dealt so harshly and recent archeology so kindly. But there is nothing exterior to the Cāṇakya-Candragupta-Kathā, we would argue, which provides the story of Candragupta's rise to power with the independent support it so badly needs.

The idea that the attack on Nanda began on the frontier, even the idea that a preliminary attempt on the heartland was repulsed, could well be historical, since they can be told without recourse to the 'bowl of gruel' story, while the 'bowl of gruel' story cannot stand without them, and might therefore be seen as a later development in the career of the Kathā. But given the charming but preposterous story of the gruel and the vague, descriptive name of Parvata, the hill-king, we can only adopt a cautious course and say, it may have been. The Cāṇakya-Candragupta-Kathā provides evidence. What we need is something more like proof.

The entire legend can, of course, be called in question. Scepticism, however, is a poor substitute for criticism. For in a legend such as this, concerned with historical figures, apparently of early origin and of great duration and geographical scope, it is more economical to suppose that it has a basis in fact than that it is a pure product of the imagination. No doubt it has the character of folklore and has suffered the common fate of folklore in its transmission. But we believe it provides sufficient grounds to believe that Cāṇakya is as historical a figure as Nanda or Candragupta. His name, unlike Parvata's, gives us no reason to doubt

this,<sup>1</sup> and although as hero of the story his role vis-à-vis Candragupta is no doubt exaggerated, it must have been a prominent one to have become current in folk literature. To doubt Cāṇakya's existence places a greater strain on the imagination: some other origin for the stories of him would have to be found.

Quite another matter, however, is the question of Kauṭilya and the Arthasāstra.

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1. From caṇaka, 'chick pea', in PP.

CHAPTER 3: THE ARTHAŚĀSTRA AND THE STATISTICAL METHOD IN  
AUTHORSHIP PROBLEMS

Content and Style

The opening chapter of the Arthaśāstra is a table of contents, giving a complete list of the topics contained in each book and a reckoning of the total number of books, chapters, topics and ślokas in the entire work. The remainder of Book 1 contains a definition of arthaśāstra in its relation to other works, a discussion of ministers, royal agents and princes, and rules for the king's personal life. Book 2, entitled Adhyakṣapra-  
cāra ('Activity of the Overseers') is much the longest and most important in the entire work; it deals in great detail with all subjects of the internal administration of the kingdom. Book 3, one of the longer ones, is a systematic exposition of the law, while Book 4, concerned with the detection and punishment of crime, also contains a good deal of legal material. Book 5 is a miscellany which concludes the discussion of the internal affairs of the kingdom: secret punishment and replenishing the treasury by dubious means; the salaries of the king's men; the conduct proper to servants and courtiers; and the steps the minister should take when the king dies to secure the integrity of the kingdom. The sixth book introduces foreign affairs in two short chapters, leading to the long Book 7 on the six measures of foreign policy (ṣaḍguṇya). Book 8 interrupts the scheme somewhat by discussing the vices which kings must avoid, together with

calamities of the various elements of the state. Book 9 discusses marching to war: the proper times, the types of troops, the dangers, etc., and Book 10 takes up the subject of war itself: camps, battlegrounds, battle-arrays. The eleventh book is very short, consisting of a single chapter on means by which the king should undermine the tribal states. Book 12 advises the weaker king on how to deal with his enemies, by assassination, instigation, fire, poison and trickery. Book 13 describes the taking of a fort and the pacification of newly conquered lands. Book 14 contains spells, potions and occult means generally by which the enemy may be deceived and his troops harmed, and one's own troops protected, very much in the spirit of the Atharvavedic lore. The final book (Tantrayukti) analyses the types of rhetorical figures used in the Arthasāstra into 32 types, such as indication, analogy, implication, and the like, quoting passages from the body of the work in illustration of each of these. Similar analyses may be found in the medical samhitās of Caraka and Suśruta.

The language of the text shows some archaisms:<sup>1</sup> gerunds in -tva of compound verbs in the causative, potential passive participles used in an active sense, and words or senses for known words which if they cannot with confidence be called archaic, are, in any case, peculiar, and some of them remain obscure. There is a good number of words hitherto known only from the

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1. See Kangle, Part 3, pp. 38-9; J. Jolly, Indo-Germanische Forschungen, 31, 1912-13, p. 204 ff.

lexicons, and these "illustrate the connexion of the Arthaśāstra with the popular language, and may indicate a later rather than an earlier date" for it.<sup>1</sup> There are some Prakritisms and deśi words.

Cross-references within the Arthaśāstra are fairly numerous and heighten the economy and sense of unity of the text. Typically a subject dismissed with an expression ending in vyākhyātaḥ (e.g. 2.29.34), indicating that the subject is to be understood by extension of the preceding. More rarely references are made to later parts of the book using vyākhyāsyāmaḥ (e.g. 7.14.11). Reference is sometimes made to other topics or books by title (e.g. 5.6.15, 17, 22), sometimes not (6.1.7, 9). References to other topics or books tend to increase in frequency as one progresses through the text.

One of the most striking characteristics of the Arthaśāstra is the frequency and manner with which earlier authorities are cited.<sup>2</sup> These authorities may be the schools of the śāstra, individual teachers, or the teachers (ācāryāḥ) generally. In 25 places opinions are cited which are attributed to the schools: Bārhaspatyas, Auśanasas, Mānavas, Pārāśaras and Āmbhīyas. In 28 places the views of individual teachers are given, and the order

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1. T. Burrow, JRAS, 1967, p. 40.

2. See H. Jacobi, SKPAW, 1912, p. 832 ff.; Kangle, Part 3, p. 42 ff.; and above all, F. Wilhelm, Politische Polemiken im Staatslehrbuch des Kauṭalya.

of citation is generally the same, though the whole list of authorities may not be cited on any one occasion: Bhāradvāja, Viśālākṣa, Piśuna, Kauṇapadanta, Vātavyādhi, Bāhudantīputra. Except for the Pārāśaras who are usually cited after Viśālākṣa amongst the individual teachers, the two classes of authorities are not quoted together. Finally, in 59 cases the opinions of the Ācāryas are quoted, twice those of eke and once apare. Usually one or a number of authorities within a group are cited, followed by neti Kauṭilyaḥ and the concluding view. The opinions of the schools are stated dogmatically without justification or discussion. Occasionally the individual teachers are made to refute the opinion of the teacher just quoted (1.8, 1.15, 1.17). In the third chapter of Book 8 there is a very intricate scheme of debate in which Kauṭilya refutes singly the opinions of the individual teachers as to the relative gravity of a pair of vices, giving arguments in favour of the better and against the worse, treating thus the first two, then the second and third, then the third and fourth of the list of lust-born vices. The scholarly debates which emerge have an air of artificiality about them, and Wilhelm has shown that the style and vocabulary of the individual teacher's opinions are uniform with that of the rest of the text.<sup>1</sup> Sometimes the view of an individual teacher or of the Ācāryas is quoted without rebuttal, and sometimes an opinion is followed by iti Kauṭilyaḥ,

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1. Wilhelm, p. 10 et passim.

even where no opposing views have previously been cited.

### Structure

The text of the Arthaśāstra is broken up into 15 books (adhikaraṇas), 150 chapters (adhyāyas, literally 'lessons'), and 180 topics (prakaraṇas).<sup>1</sup>

Each book deals with a different subject, and has a title which is named in the table of contents (1.1) and in the colophons at the end of each chapter. They are numbered one to fifteen in the table of contents and the colophons. The books vary greatly in length, and may contain only one chapter and topic.

Chapters are numbered serially from the beginning of each book; they have no titles, and they vary considerably in length. Each chapter ends with at least one śloka, typically a summarizing or a memorial verse (kārikā); where the argument of the prose is continued in the concluding verses, the very last verse or two is generally of the summarizing kind. Verses occasionally appear within the prose portion of the text, and some of these internal verses occur in the citations of earlier authorities. There are a few triṣṭubhs and jagatīs in Book 2 and a few hypermetric or

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1. See Kangle, Part 3, p. 25 ff.; L. Renou, "Sur la forme de quelques textes Sanskrits", JA 249, 1961, p. 183 ff.

otherwise irregular ślokas are met with, chiefly in Book 14. Only once (10.3.29) are verses introduced with a standard formula, in this case apīha ślokau bhavataḥ. Each chapter ends with a colophon giving the title and number of the book, the title of the topic or topics and the number of the chapter, reckoned both from the beginning of the book and from the beginning of the entire text.

The text is further divided into topics by subject matter. In general the topics contain a single, well defined subject. They may be very short, often dismissing a subject in a single sentence by reference to preceding discussion. Where a chapter contains more than one topic, the end of the first topic is often marked by a simple iti or an expression in iti (e.g. 1.18.12 where the end of the topic entitled aparuddhavṛttam is announced by ity aparuddhavṛttam) or some other device such as a nominal construction with iti/tu defining the end of one topic and the beginning of the next (e.g. 3.16.28-9: ity asvāmivikrayaḥ/ svasvāmisaṃbandhas tu ...). Some of the endings are unmarked and difficult to identify. Topics have no colophons of their own, and are not numbered in the chapter colophons.

This triple division of the text of the Arthaśāstra contains a number of anomalies which call for explanation. The chief of these is that the chapter and topic boundaries overlap. At the one extreme topic 116, mitra-hiranya-bhūmi-karma-sandhayaḥ, 'Facts for Securing an Ally, Money, Land and an Undertaking', is spread over four chapters (7,9-12) by dividing it into sub-topics

(mitrasandhi and hiranyasandhi, bhūmisandhi, anavasitasandhi and karmasandhi); at the other extreme five topics (103-7) are fitted into a single chapter (7.4). Occasionally a single chapter contains part of a topic and the whole of the next (e.g. 1.12 containing part of topic 7 and the whole of 8).

The scheme of books and topics is quite clear and rational, being based on subject matter, but it is difficult to see on what principle the division into chapters was made. Certainly it was not subject matter, for then there would be no need to duplicate the scheme of topics, nor, for instance, would the offices of the superintendent of passports and of the superintendent of pastures have been lumped in one chapter (2.34, topics 52, 53). One would presume the object to have been to group topics into 'lessons' of equal length, so nearly as that is possible without disturbing too much the integrity of the topics. But if so, it is difficult to account for such things as the spreading of topic 1 over three short chapters (1.2-4) totalling 35 sūtras on the one hand, and the failure to subdivide 2.12, topic 30, the longest chapter of the text at 117 sūtras, into two or more chapters, as elsewhere has been done.

There is one remaining anomaly. The first chapter of the Arthasāstra is unique in containing no topic. One of the manuscripts (the Devanāgarī) gives it a title in the colophon, prakaraṇādīkaraṇasamuddeśa, although no other chapter has a title, only the books and topics; and yet it is clear from the fact that according both to the statement in 1.1.18 and from a count

in the text itself that there are the right number of topics, 180, without considering chapter 1.1 to contain a topic.

When we turn to two works which are heavily indebted to this text, so much so that we can call them heirs of the Arthasāstra, we find the scheme of internal divisions has been rationalized. The Nītisāra of Kāmandaka draws from the Arthasāstra more by the way of content than of form; Vātsyāyana's Kāmasūtra closely follows its form but is naturally different in content.

The Nītisāra opens by invoking Viṣṇu (1.1), then Viṣṇugupta (1.2-6), "who, resembling Śaktidhara Skanda, by his power and the power of his counsel brought the earth to that moon among men, Candragupta" and "who extracted the glorious ambrosia of nītisāstra from the ocean of arthasāstra. This abridgement," it continues, "preserving the sense, (has been made) out of love for the kingly science from the system of him who, of keen intellect, fathomed the depths of the sciences".<sup>1</sup> The Nītisāra (unlike the Arthasāstra) is a wholly metrical work, containing some 1224 verses, or about a quarter of the extent of the Arthasāstra as we now have it. Book 1 of the Arthasāstra, apart from the table of contents (1.1), is best preserved in the Nītisāra; Books 2, 3 and 4 are almost entirely passed over, in spite of the fact that Book 4--Kaṇṭakasaḍhana-- shares its title with Nītisāra 6, topic 15. Books 5 to 10 are represented in whole or part in the Nītisāra but very little if anything of Books 11 to 15. The

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1. darsanāt tasya suddr̥ṣo vidyānāṃ pāradr̥ṣvanah /  
rājavidyāpriyatayā saṅkṣiptagratham arthavat // 1.7

Arthaśāstra material is often much compressed but there is additional material from the Epics and from other arthaśāstras, including the quoted views of authorities which cannot be traced in the Arthaśāstra.<sup>1</sup> Yet, perhaps 70% of the Nitisāra derives directly or indirectly from the Kauṭīliya Arthaśāstra.

The Nitisāra is divided into chapters (sargas) and topics (prakaraṇas). Colophons occur at the ends of chapters.<sup>2</sup> There are 20 chapters and 36 topics; a chapter may contain as few as one and as many as six topics, but topics are never spread over more than one chapter. The body of the chapter is in ślokas, with verses in ornate metres at the end (there are a few exceptions), generally of the summarizing kind; a few verses in these metres are sometimes found in the body of the chapter. Thus while Kāmandaka departs considerably from the form of the Arthaśāstra, it is possible to see formal analogies, and a simplification and rationalization of the scheme of textual divisions.

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1. 5.88	Bṛhaspati	8.28	Viśālākṣa
8.5	Bṛhaspati	8.39	Pārāśara
8.20	Maya	9.57	Bharadvāja
8.21	Puloma	9.60	Bṛhaspati
8.22	Uśanas	10.18	Bāhudantisuta
8.23	Maya or Maharṣi	10.19	Mānavas
8.24	Mānavas	11.39	Bṛhaspati

2. In Ganapati Sastri's ed., there are topic colophons in lighter type.

The Kāmasūtra of Vātsyāyana shows great stylistic affinities to the Arthasāstra.<sup>1</sup> The opinions of earlier authorities are quoted, then rebutted, in the Arthasāstra manner. Though the content is, of course, much different, the Kāmasūtra uses enough of the rarer terms of its predecessor that a translator ignores the Arthasāstra at his peril. Kāmasūtra 5.5.8, for example, tells us how the sūtrādhyakṣa should approach widows, unprotected women and women who have left their homes. K. Rangaswami Iyengar translates sūtrādhyakṣa as 'law officer'.<sup>2</sup> But the topic of the Arthasāstra (2.23, topic 40) devoted to this functionary makes it clear that he is a superintendent of yarns, in charge of the king's looms, employing widows and other sorts of women who are cast adrift and who otherwise would be without protection and work. It thus becomes clear who the sūtrādhyakṣa is and how he has access to these women. Some of the expressions characteristic of the Arthasāstra recur here, as samānaṃ pūrveṇa, 'and so on, exactly as before', and constructions with vyākhyātaḥ.

Of interest to us is that the Kāmasūtra preserves the three-fold divisions of its text into adhikaraṇas, adhyāyas and prakaraṇas, or books, chapters and topics, with the usual features such as titles only for books and topics, memorial verses and colophons only at the ends of chapters, as in the Nītisāra.

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1. See Shamasastri's translation of Arth., 6th ed., Preface, pp. xi-xii; F. Wilhelm, "Arthasāstra und Kāmasūtra".

2. Lahore, 1921.

But each chapter consists of one or more topics; a topic is never parcelled out amongst several chapters, and chapter size does not vary so enormously as in the Arthaśāstra. There are, no doubt, formal differences between the two works. The Kāmasūtra has no Tantrayukti at the end, and though it has a first chapter containing a table of contents, it differs in listing the number of chapters and topics in each book, and in giving a geneology of the śāstra. The opening chapters of the two works are similar in giving a reckoning of the total number of books, chapters, topics and ślokas (units of 32 syllables each) in the respective works and in opening the table of contents with identical expressions: tasyāyāṃ prakaraṇādihikaraṇasamuddeśaḥ (Arth. 1.1.2, Kam. 1.1.19f.). They differ again, however, in that the first chapter of the Arthaśāstra contains no topic (and, in all but one manuscript, no title) while the first chapter of the Kāmasūtra is also the first topic, entitled precisely: prakaraṇādihikaraṇasamuddeśa. Thus the anomalies in the structure of the Arthaśāstra have been resolved in the Kāmasūtra.

The anomalies of the Arthaśāstra's scheme of chapters and topics has only seldom been remarked upon. Winternitz did so in a footnote and concluded that the division into chapters seems to be the work of a later redactor.<sup>1</sup> Keith drew the same conclu-

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1. Geschichte der indischen Litteratur vol. 3, p. 510, n.1: "In dem Buch selbst ist aber jeder Hauptabschnitt in eine Anzahl Kapitel (adhyāya) eingeteilt, die nur teilweise mit den Prakaraṇas zusammenfallen. Es scheint, dass diese Adhyāya-Einteilung das Werk einer späteren Redaction ist."

sion,<sup>1</sup> but Kangle drew none.<sup>2</sup> Renou, sensible to the implication that if the division into chapters was a secondary development, the verses terminal to the chapters must be regarded as "a foreign corpus adjoined to a received text", found that "ordinarily they are of no use to the argumentation and certain formal indices show that the end of the prose coincides with the end of the reasoning. Nevertheless certain compact groups of verses have their utility in perfecting a doctrine; and, what is more telling, there are several signs indicating that there is a continuity in sense between the prose and the verse." He concluded, "The question cannot be resolved without nuances."<sup>3</sup>

No doubt there are nuances. Nevertheless we hold that there is excellent reason to regard the division into chapters, the terminal verses, the entirety of Arthasāstra 1.1 with its table of contents and its enumeration of book, chapter, topic and śloka totals and, since it refers to the first chapter, Book 15 (Tantrayukti), as the work of a later, tidying and organizing hand, reworking a text already divided by books and topics, and already possessing an adequate introduction in Arthasāstra 1.2.

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1. History of Sanskrit Literature (2nd. ed., Oxford, 1941), p. 452:

"There is the possibility that this division (into adhyāyas) is secondary, possibly also the verses which mark it out."

2. Kangle, Part 3, pp. 25-6.

3. Renou, op. cit., pp. 185-6, paras. 2, 3.

When one considers the significance of the anomalies of the work's structure, beside the clear structure of the Nītisāra and above all of the Kāmasūtra, one can say not merely that the heirs of the Arthasāstra have rationalized its organization in their own works, but that no single author would himself be likely to create such anomalies.

Once it is accepted that the division into chapters is secondary, it follows that the terminal verses and colophons must also be secondary, for they would have no place in a work divided by topics. The occasional usefulness of the verses to the argument of the prose, or occasional continuity with the prose scarcely weighs against their usual lack of utility and continuity in this. Then, the first chapter of the book could not have been completed, and need not have been composed before this reorganization, since the following chapter (1.2) forms a suitable introduction to a pre-existing work, and the table of contents and enumeration of books, etc., presuppose a finished work. Finally, if 1.1 as a whole is the work of a later redactor, it follows that Book 15 is as well, since in quoting 1.1.1, 3 (15.1.5, 6) it presupposes a finished opening chapter. In particular this organizing hand must be the author of 1.1.18: "The enumeration of this treatise amounts to fifteen Books, one hundred and fifty Chapters, one hundred and eighty Topics and six thousand ślokas." This reorganization must have taken place before Vātsyāyana, whose work duplicates its every feature (except the Tantrayukti), including the passage just quoted,

which finds a correspondence in Kāmasūtra 1.1.88, which says the work contains 7 books, 36 chapters, 64 topics and 1250 ślokas.<sup>1</sup> The commentary on the Kāmasūtra suggests that these numbers are not arbitrary: there are 64 topics, for example, because there are 64 kālas or arts of the courtesan. And this gives us a clue to two of the anomalies of the Arthaśāstra structure; for, given the desire to redivide the work in chapters or lessons of reasonable size, the desire to achieve significant, round numbers of chapters and topics may have compromised the principle of (roughly) equal size and the first chapter was then not made a topic so as not to exceed the figure of 180 topics.

To this organizing hand must also be ascribed the opening passage of the Arthaśāstra (1.1.1):

pr̥thivyā lābhe pālāne ca yāvānty arthaśāstrāni  
pūrvācāryaiḥ prasthāpitāni prāyāśas tāni saṃhr̥tyaikam  
idam Arthaśāstram kṛtam.

Kangle translates thus:

This single (treatise on the ) Science of Politics has been prepared mostly by bringing together (the teachings of) as many treatises on the Science of Politics as have been composed by ancient teachers for the acquisition and protection of the earth.

The phrase 'the teachings of' is a gratuitous emendation

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1. And before Daṇḍin who says (Daśak. p. 131, 11.10-12): adhīṣṭva  
tāvad daṇḍanītim. iyam idānim ācārya-Viṣṇuguptena Mauryārthe  
ṣaḍbhiḥ ślokaśahasraiḥ saṃkṣiptā. "Learn, therefore, the science of politics. Now this has been abridged in six thousand ślokas by the teacher Viṣṇugupta for the Maurya."

which interprets the passage in a way which the bare wording of it does not warrant. On the other hand Kangle is probably right in taking the gerund samhṛtya in the sense of 'having brought together, collected', though the sense 'having condensed' cannot be ruled out since Daṇḍin, equating it with samkṣip-, 'abridge' takes it so.<sup>1</sup> In any case, many arthaśāstras of previous (not necessarily 'ancient') teachers were brought together or condensed, to make a single Arthaśāstra. This could be understood in two ways: either the contents, the 'teachings' of these arthaśāstras were digested and a new arthaśāstra composed; in this case we could not deny the composer the style of 'author'. Or, these arthaśāstras, understood as monographs, have been brought together (or perhaps condensed) between two covers to form a single comprehensive work. We assert that the second best fits the meaning of the words, without the aid of emendation.

This theory of the composition of the Arthaśāstra then, ascribes to the organizing hand we have inferred this task of selecting and assembling previous works into a larger Arthaśāstra; and since the verses were added (though not in every case composed) by him, it further involves that this organiser--or rather, composer--called himself Kauṭilya (1.1.19, 2.10.63, 15.1.73) whether rightly or wrongly.

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1. See the preceding footnote. Kāmandaka calls his a samkṣip-tagrantha (1.7).

It may be objected that the various observable features of style, the 'polemics', the cross-references, the peculiar expressions and terms, which pervade the work and give it its appearance of unity, could not have been found in independent works; and it must be conceded that a certain amount of reworking and even original writing to provide linkages between the independent works is probable in this theory. But the various stylistic features which have so far been mentioned are not evenly spread throughout the work. There are no citations of earlier authorities in Books 4, 6, 11, 13 and 14, for example, and only one in Book 5 and two in Book 2,<sup>1</sup> while Book 8 is overloaded with them. It is difficult to see how the theory thus outlined could be verified by appeal to traditional methods of stylistic analysis. But another method exists--the statistical.

#### The Statistical Method in Authorship Problems

Some thirty years ago G. Udney Yule inaugurated the statistical study of authorship problems with a paper entitled: "On Sentence-length as a Statistical Characteristic of Style in Prose: With Application to two Cases of Disputed Authorship."<sup>2</sup> This paper was Yule's first attempt to resolve by statistical means the problem of the authorship of De Imitatio Christi as

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1. Kangle, Part 3, p. 53.

2. Biometrika 20, 1939, p. 363 ff.

between Thomas à Kempis and the Sorbonne theologian Félix Gerson. The method consisted in comparing the sentence-length distributions within the work with those in the known writings of Thomas and Gerson and to assign authorship where the agreement was close; the second attempt consisted of a comparison of the size of noun vocabularies in the three, and resulted in a book entitled The Statistical Study of Literary Vocabulary.<sup>1</sup> In this book Yule proposed a characteristic of vocabulary size,  $K$ , which is independent of the size of the text under investigation.

Since Yule's work appeared, a number of authorship studies employing statistical methods have been made. William C. Wake has been the most active in devising means of using sentence-length distributions as discriminators of authorship, and has done further work in comparing noun vocabularies.<sup>2</sup> Wake's work on the Hippocratic Corpus enabled him to define a group of works in the Corpus emanating from one hand which on other grounds can reasonably be identified with Hippocrates. Of particular interest to historians of India is Alvar Ellegard's study of the Junius letters, which Ellegarde was able to show were written by Sir Philip Francis, member of the Council for Bengal and instrumental

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1. Cambridge, 1944.

2. Greek Medicine in the 5th and 6th Centuries B.C., MSc. Dissertation, London, 1946; The Corpus Hippocraticum, Ph.D. Thesis, London, 1951.

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in securing the impeachment of Warren Hastings.<sup>1</sup> Ellegarde rejected the sentence-length test and the K-test as having insufficient discriminating power to distinguish the author of the Junius letters from all possible candidates. Instead he confined his attention to those preferences of word and expression which we usually think of as constituting an author's peculiar vocabulary or style. The Junian material was read through and a tentative list of distinctively Junian words and expressions ('plus-words') was drawn up, and a million word sample (109 text items by 98 different authors, including all Junian candidates, all contemporary) was read through and a list of words and expressions distinctive of them but not of Junius was drawn up. Preliminary testing showed Sir Philip Francis was linguistically the best candidate, so a 231,300 word text mass of his was also read. Four hundred eighty-five items of the original list were then registered on charts, according to where they occurred in Junius, Francis, and the million-word sample. The items were grouped according to their distinctiveness-ratio, i.e. the percentage of occurrences in Junius divided by the percentage of occurrences in the million word sample, giving Junius plus-words (distinctiveness ratio 1+) and minus-words (between 1 and 0). Alternatives (burden/burthen, has/hath, farther/further) were separately treated. Francis fell within the 'Junian range' in each 'distinctiveness group'; he was the only writer to do so,

1. Who was Junius?, Stockholm, 1962, and A Statistical Method for Determining Authorship: The Junius Letters, 1769-1772, Göteborg, 1962. The first is more historical, the second, statistical.

though some others fell within it in some of the groups. The probability of more than one author having all the Junian characteristics thus defined was calculated at one in 462,000. If it is accepted that Francis belonged to that .01% of the population of Britain who wrote like Junius, then the bag containing Junius and Francis must be reduced to 300 for the identification to be made at the 99% level of confidence. "Francis, as well as Junius was among the public audience who heard Lord Chatham's speeches in the House of Lords on the Middlesex election, as well as on the Faulkland Islands, in 1770. That fact in itself is enough to place them both in the same group of at most a few hundred persons."<sup>1</sup>

Ellegard's method, while most admirable in its workings, is unlikely to have many imitators, because it requires large masses of text, because it is extremely laborious, and because easier approaches have been found. Ellegard says, "The words most frequently used in the language--articles, prepositions, conjunctions, and pronouns, as well as the commonest verbs, nouns, adjectives and adverbs, are necessarily about equally frequent in all texts, whoever the author. And this means in effect that the large majority of the positively or negatively distinctive words will belong to the frequency ranges below 0.0001, or one per ten thousand."<sup>2</sup> By and large, therefore, the most frequent

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1. A Statistical Method for Determining Authorship, p. 63.
  2. Ibid., pp. 15-16.

words--making up perhaps 80% of any normal text--will be of little use for identification purposes."<sup>1</sup>

Subsequent studies have shown, however, that there can be great differences in the frequency of common words between different authors, that indeed it is the "utterly mundane high-frequency function words" which prove the best discriminators.<sup>2</sup> And besides the obvious advantage that high-frequency words have in yielding a sufficient number of occurrences for statistical use from smaller samples, such words are the least affected by the subject-matter under discussion, being distributed more or less evenly from one work to another within the corpus of a single author regardless of context.

A study of this sort which deserves to become a classic was made by Frederick Mosteller and David L. Wallace in which the authorship of the disputed Federalist papers was decided between Madison and Hamilton.<sup>3</sup> Discriminators were chosen from a 'screening set' of texts, half of them written by Madison and

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1. Ibid., p. 18.

2. Mosteller and Wallace, (below, n. 3), p. 304.

3. "Inference in an Authorship Problem" in J. of the American Statistical Association 58, 1963, p. 275 ff. Methods of Inference Applied to the Federalist, Reading, Mass., forthcoming.

half by Hamilton, words such as an, of, upon, which had markedly different rates of occurrence in the two authors. These words were weighted according to their discriminating power, and grouped; their performance was then observed in a 'calibrating set' of texts from both authors, to observe and correct the effects of selection and weighting. Finally the disputed papers were examined and scores assigned according to the occurrence of the discriminators in them. The main part of Mosteller and Wallace's study was based on Bayes' Theorem, and is at once more powerful and unfortunately less comprehensible to the scholars most interested in the Federalist Papers as documents.

Of more direct relevance to our own work, because it deals with authors for which no outside works exist, is the study of the Pauline Epistles, by the Rev. A.Q. Morton.<sup>1</sup> Morton's problem was to separate the Pauline Epistles from the non-Pauline. His chief method was to compare the distributions of kai, en, autos, einai and de (occurrences per sentence) in the various Epistles by the chi-square test, together with sentence-length statistics. He found that Romans, 1st and 2nd Corinthians and Galatians can be regarded as homogeneous and, on other grounds, as Pauline, but no other Epistle with the possible exception of Philemon, which is too short to reach a decision.

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1. "The Authorship of Greek Prose", J. of the Royal Statistical Society, Series A 128, 1965, p. 169ff.

The only studies of this sort which have so far been made in Sanskrit texts are those of Prof. R. Morton Smith on the stories of Ambā, Nala and Śakuntalā in the Mahābhārata.<sup>1</sup> Smith explored a number of possible tests by which to separate the various hands in these stories: the vipulā pattern and vipulā: pathyā ratio; the ratio of vocatives which refer to characters within the story to those which refer to the listener; the frequency of the different forms in the past tense; the frequency of suppressed asti, gerunds, absolutes and participles; the kinds of nominal compounds; and the frequencies of particles such as atha, api, eva. Smith's studies, useful as they are, suffer from a lack of verification of the supposed tests in material of known authorship, and from a lack of significance testing to help decide which differences are merely due to sampling variation and which are due to differences of authorship.

#### A Pilot Study of the Arthasāstra

When we were first attracted to the problem of the authorship of the Arthasāstra, the studies of Morton and of Smith came to our attention. We decided to make a simple pilot study to find

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1. "The Story of Ambā in the Mahābhārata", Adyar Library Bulletin 19, 1955; "The Story of Nala in the Mahābhārata", J. of the Oriental Institute, Baroda 9, 1960, p. 357 ff.; "The Story of Śakuntalā in the Mahābhārata", J. of the Bihar Research Society 46, 1960, p. 163 ff.

whether the statistical method could here be applied.

We drew up a list of particles. First ca ('and') on the analogy of kai, which had proved so useful in Morton's work on the Epistles; then a list derived from Smith's Nala article; atha, api, eva, evam, tatas, tathā, tadā, tu, hi; finally vā ('or'), which in going through the text we quickly found to be of high frequency.

Two samples of 300 sentences each were taken from the second book of the Arthasāstra, starting from the first sūtra, the second sample beginning where the first left off (Samples 2-I and 2-II). The third sample, of the same size, was taken from Book 7, which seemed to us very different in character from Book 2. A fourth came from Book 9, Book 7 being not quite long enough to yield two samples. Only the prose portions were included in the samples; verses were passed over, even where they occurred within the prose body of the text.

In Table 3.1 we give total occurrences for the 11 particles in the four samples.

Table 3.1

Total occurrences of particles in four samples from the Arthasāstra.

<u>Sample</u>	<u>atha</u>	<u>api</u>	<u>eva</u>	<u>evam</u>	<u>ca</u>	<u>tatas</u>	<u>tathā</u>	<u>tadā</u>	<u>tu</u>	<u>vā</u>	<u>hi</u>	<u>total</u>
2-I	0	3	5	1	102	5	0	0	1	54	6	177
2-II	0	1	9	3	111	4	2	0	0	73	1	204
7	0	16	11	12	65	1	0	8	16	182	32	343
9	2	6	9	6	71	11	1	3	7	135	21	272

Most of the particles have a fairly low frequency, with the brilliant exceptions of ca and vā; atha, tathā and tadā are so rare as to be of little use in samples of this size. Amongst the remainder, there is a fair measure of agreement between the figures for samples 2-I and 2-II on the one hand and between 7 and 9 on the other, and something of a difference between the two pairs, except for eva where the two pairs overlap, and tatas where 7 and 9 differ by 10 occurrences, the samples from Book 2 falling in between. Samples 7 and 9 use considerably more of the particles listed than 2-I and 2-II. A striking difference between the two pairs of samples is the fact that 2-I and II use more ca's than vā's while the reverse holds for samples 7 and 9.

Table 3.2

Ca : vā ratio in four samples from the Arthasāstra.

<u>Sample</u>	<u>ca</u> : <u>vā</u>
2-I	1.9 : 1
2-II	1.5 : 1
7	.36: 1
9	.53: 1

A more detailed picture of the treatment of the two particles with the highest frequency, ca and vā, can be got by considering the number of occurrences per sentence. In Table 3.3 we give the figures for ca, in Table 3.4, those for vā.

Table 3.3

Occurrences of ca per sentence in four samples from the Arthaśāstra. In sample 2-I there are 209 sentences containing no ca's, 81 sentences containing 1 ca, etc.

Occurrences	Sample			
	2-I	2-II	7	9
0	209	200	253	246
1	81	90	32	41
2	9	9	12	9
3	1	1	3	4

It will be seen that samples 2-I and 2-II conform to each other very closely, that 7 and 9 are much alike and that the two pairs differ markedly from each other, 7 and 9 dropping more abruptly between no occurrences and one, and presenting a slightly thicker tail.

Table 3.4

Occurrences of vā in four samples from the Arthasāstra.

Occurrences	Sample 2-I	2-II	7	9
0	258	237	192	214
1	36	54	74	61
2	2	8	19	15
3	2	1	7	4
4	2	-	3	2
5	-	-	2	1
6	-	-	1	2
7	-	-	-	1
8	-	-	-	-
9	-	-	1	-
10	-	-	-	-
11	-	-	-	-
12	-	-	1	-

Considering the distribution for vā, again the agreement between 2-I and 2-II is good (though not so close as was the case with ca); that between 7 and 9 is good; and the divergence between the two pairs is striking. In particular 7 and 9 (especially 7 with its sentence containing no less than 12 vā's) have much longer tails.

The question arises whether the differences between the two pairs of samples is significant of anything other than sampling variation, whether they are not merely due to chance, as we like to say. Everyone will concur that, given a bowl containing those marbles so beloved of statisticians, of which 10% are blue and the rest white, one would not in every case draw precisely one blue marble in every handful of 10 taken when blindfolded. At the same time, the probability of drawing 8, 9 or 10 blues is rather small, and the probability of drawing, say 10 blues in three successive tries is so remote as to make us regard it as a highly significant departure from our expectations, such that we would be well advised to see whether the marbles are well mixed between tries, and whether the blindfold is securely tied. Significance testing is just this measuring of the probability of the departure from the expected of observed values.

These probabilities tell us the likelihood of so large a divergence or larger occurring through sampling variations and form a continuum from 100% (in the case of perfect agreement between observations and expectation) to 0% (in the case of perfect disagreement). We cannot say dogmatically at what level of probability a divergence must be regarded as 'significant' in this sense, of course; but for practical reasons we must fix such a level, and it is usual to regard the 5% level (that is, a divergence between observed and expected values such that it could occur through sampling variation in one out of 20 or more cases) as 'probably significant', the 1% level (one out of a hundred cases)

as 'significant', and the .1% level (one out of a thousand or more cases) as 'highly significant'.

A significance test of great versatility is the chi-square ( $\chi^2$ ) test. Let us suppose that our four samples are drawn from a single statistical population and that the divergence between the observed distributions of ca is due simply to sampling variation. The expected values will then lie between the four samples, and since the samples are of equal size, the expectation can be calculated by taking simple averages of the rows, as in Table 3.5.<sup>1</sup>

Table 3.5

Observed and expected values for ca in the Arthasāstra.

Occurrences	Sample				Expectation
	2-I	2-II	7	9	
0	209	200	253	246	227
1	81	90	32	41	61
2+	10	10	15	13	12

The chi-square test tends to exaggerate the divergence where the expectation is very small, say below 5 for any cell of the

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1. Where samples are of different sizes the expectation is calculated by finding row and column totals, and the grand total; the expectation for each cell of the table is found by multiplying its proper row and column total, and dividing by the grand total.

table, and so we have had to pool the figures for 2 and 3 occurrences per sentence, thus making the comparison somewhat less detailed.

Chi-square is given as

$$X^2 = \sum \frac{(O - E)^2}{E} ,$$

or the sum of all quantities obtained by squaring the differences between the observation and the expectation, and dividing by the expectation. For example, sample 2-I has 209 sentences containing no ca's, which is the observed value, or 'observation'. The expectation is 227 sentences containing no ca's. Substituting in the above equation we get:

$$\frac{(O - E)^2}{E} = \frac{(209 - 227)^2}{227} = \frac{324}{227} = 1.4 \text{ approximately.}$$

Computing in this way for each of the values in Table 3.5 and summing the results we find that chi-square has a value of 51.4. The next step is to determine the number of 'degrees of freedom' (d.f.). We find that the 12 values of Table 3.5 are arranged in three rows and four columns. We then multiply one less than the number of columns (4 columns - 1 = 3) by one less than the number of rows (3 rows - 1 = 2) to find the number of degrees of freedom (2 x 3 = 6 d.f.). It is then necessary to consult tables of chi-square to evaluate the result.<sup>1</sup> There we find that at six degrees

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1. E.g. those in Biometrika Tables for Statisticians, vol. 1, ed. E.S. Pearson and H.O. Hartley.

of freedom, chi-square is 22.5 at the .1% level. With the calculated value of chi-square at 51.4 greatly exceeding the .1% level, we can say that the probability that the differences between the samples is merely sampling variation is extremely small, such as would occur less than one out of a thousand cases, or, in other words, that the differences are highly significant. We conclude that the samples do not come from the same population.

Now let us look at the two samples from Book 2. Assuming that they came from the same population, observation and expectation are as in the following table:

Table 3.6

Observed and expected values for ca in the Arthasāstra.

Occurrences	Sample		Expectation
	2-I	2-II	
0	209	200	204.5
1	81	90	85.5
2+	10	10	10

$$X^2 = .67; \text{ d.f.} = 2$$

Entering the results in tables of chi-square we find that it falls somewhere between the 50% and 75% levels, i.e. random variations of this magnitude could be expected to occur in over fifty out of a hundred cases. The result is therefore non-significant. It is important to note that a non-significant result does

not prove the hypothesis that the two samples come from a single population; it merely means it is not disproven, or in other words, that we have no reason to doubt the hypothesis on the basis of the available data.

The samples from Books 7 and 9 are also very close to each other.

Table 3.7

Observed and expected values for ca in the Arthasāstra.

<u>Occurrences</u>	<u>Sample</u>		<u>Expectation</u>
	<u>7</u>	<u>9</u>	
0	253	246	249.5
1	32	41	36.5
2+	15	13	14

$$X^2 = 1.35 ; \text{ d.f. } = 2$$

This result is almost precisely at the 50% level ( $X^2 = 1.386$ ).<sup>1</sup> Our hypothesis that the two samples come from a single population has not been disproved.

The chi-square test yields similar results when applied to the figures for vā. Observation and expectation for samples 2-I

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1. It may help the reader to evaluate  $X^2$  by inspection if he remembers that  $X^2$  and d.f. are roughly equal at the 50% level, and that the probability diminishes as  $X^2$  exceeds d.f.

and 2-II are these:

Table 3.8

Observed and expected values for  $\bar{v}_a$  in the Arthashastra.

<u>Occurrences</u>	<u>Sample</u>		<u>Expectation</u>
	<u>2-I</u>	<u>2-II</u>	
0	258	237	247.5
1	36	54	45
2+	6	9	7.5

$$\chi^2 = 5.09 ; \text{d.f.} = 2$$

The result falls between the 10% ( $\chi^2 = 4.6$ ) and 5% ( $\chi^2 = 6.0$ ) levels; hence the differences between the values for 2-I and 2-II are such as could occur in one out of 10 to 20 cases, were they from the same statistical population. We may take it that there is no reason to doubt the hypothesis.

For the samples from Books 7 and 9 the figures are given in Table 3.9.

Table 3.9

Observed and expected values for  $\underline{v\bar{e}}$  in the Arthasāstra.

Occurrences	Sample		Expectation
	7	9	
0	192	214	203
1	74	61	67.5
2	19	15	17
3	7	4	5.5
4+	8	6	7

$$\chi^2 = 4.02 ; \text{ d.f. } = 4$$

This result, lying between the 50% level ( $\chi^2 = 3.6$ ) and the 25% level ( $\chi^2 = 5.4$ ), is non-significant. The longer tails of the distributions for  $\underline{v\bar{a}}$  in these two samples permit us a more detailed comparison, and hence a more exacting test.

Taking all four samples together the figures are as follows:

Table 3.10

Observed and expected values for vā in the Arthasāstra.

<u>Occurrences</u>	<u>Sample</u>				<u>Expectation</u>
	<u>2-I</u>	<u>2-II</u>	<u>7</u>	<u>9</u>	
0	258	237	192	214	225.25
1	36	54	72	61	56.25
2	2	8	19	15	11
3+	4	1	15	10	7.5

$$\chi^2 = 55.3 ; \quad \text{d.f.} = 9$$

Differences of this magnitude in a single population are practically beyond the pale of possibility. For at nine degrees of freedom, in one out of a thousand or more cases a value of 27.9 for chi-square would result; how much rarer a result of 55.3 would occur may be imagined. And the results for ca and vā taken together must surely be proof enough that a great disparity exists between Books 2 on the one hand and Books 7 and 9 on the other, that the Arthasāstra is not a homogeneous work.

### Strategy

In performing this pilot study we had assumed that the source of divergence was difference in authorship. And this is a reasonable assumption to make. If the statistical method will work in Latin, Greek, and English, we may presume it will work in Sanskrit; and ca and vā are just the "utterly mundane, high-

frequency function words" which have shown themselves so useful in other, similar studies. Nevertheless, this assumption cannot pass untested, for there are other possible sources of significant divergence, of which the most serious is context. Books 2 and 7 of the Arthasāstra are very different in content, after all, and though it may seem probable that an author uses ca, let us say, at a given rate regardless of the context, the matter must be verified in texts of known authorship, covering a variety of subjects.

Though the assumption that a given word is a good discriminator of authorship can be tested, it cannot be proved, but only disproved. No matter how much control material we use, a non-significant result always has the character of a verdict of 'not-guilty', not a proof of innocence. The conclusion we finally reach on the structure and composition of the Arthasāstra, then, are always subject to further verification and, perhaps, disproof.

It should further be borne in mind that even where we have a competent discriminator, a non-significant result for two works by no means proves common authorship; for it will often turn out that two authors will have similar rates for some words just as a great number of people, probably the greater part of the world's population, will answer to the description, 'brown eyes and black hair'. If two works show non-significant differences for a number of characteristics, the presumption of common authorship is strengthened. But again, it can only be disproved, never proven.

Our strategy will be to draw up a sizeable list of potential discriminators; to test them for homogeneity within works of known authorship, and for differences between authors; and to see whether we are justified in seeing more than one hand at work in the prose sections of the Kautiliya Arthasāstra. We want also to determine whether sentence-length is a useful discriminator in Sanskrit, as it has proved on occasion in English and Greek. Finally, since Sanskrit makes frequent recourse to lengthy compounds, we want to see whether compound-length is a characteristic which can distinguish one author's work from another's. With this variety of approaches, our theory of the composition of the Arthasāstra can be put to the test.

## CHAPTER 4: WORDS AS DISCRIMINATORS

In the classical form of an authorship problem the choosing of words which are good discriminators of authorship is greatly simplified. In that form, a text is ascribed variously to two or more writers for which we have other works, more or less extensive, whose ascription is not in question. Undoubted works of the candidates form the control material from which to select words which are (1) of high frequency and (2) of even distribution within authors but (3) of different rates of distribution between authors.

In the Arthaśāstra problem, however, things are much different. All its authors, if there are more than one, must be assumed to have left no other surviving works, and thus we must look elsewhere for control material. Let us see how that affects the search for good discriminators, according to the three criteria we have named. The requirement that the word be of high frequency is of increasing importance the smaller are the texts under study. Since we will wish to treat the authorship of each book of the Arthaśāstra separately, evidently we want words of the highest frequency. Without examining word frequencies in the Arthaśāstra itself, and thus jeopardizing the independence of our selection of words, we can easily find high-frequency words in a complete word-index to a representative Sanskrit work. But the requirement of high frequency needs qualification: we are looking for words which occur at high frequencies in one author, but low in another,

and to restrict ourselves to high-frequency words from an outside work may deny us the use of some words which are rare in that outside work but abundant in the text we wish to study. This difficulty does not arise in the classical form of the problem, since the control material includes writings from the authors of the disputed text. As for us, we can never be sure that words occurring at high rates in the Arthashastra are not eliminated on account of their rarity in the control material. This difficulty cannot be overcome; it must be lived with.

The second criterion of a good discriminator is that it be evenly distributed within an author's work. Here the form of our problem offers us no disadvantages over the classical form; at the same time, we can never prove the proposition that a given word is always evenly distributed within authors, regardless of context, and other possibly disturbing factors. We can, from a preliminary word list, eliminate those which are unevenly distributed in any one of as many authors as we include in our control material, and have confidence in the residue corresponding to the size of that control material, but there must always remain a doubt, however small, that in some author or some text these words may not be evenly distributed. This, however, is the status of any scientific proposition: it has not been disproved in experiment, but the critic can always seek to do so.

Finally, a good discriminator must occur at different rates in different authors. Clearly, to establish a small difference in rates, the disputed text must be large, and this is not the case

with the books of the Arthasāstra; hence we will want words with very different rates in different authors. The non-occurrence of such a word in one work may be of great importance, if it occurs at a high rate in another (we give an example below). But here the student of an authorship problem in its classical form has the great advantage that he can determine the rates for a given word for the two or so candidates from the control material, and assess words for their discriminating ability, so that suitable words may be selected and weighted according to their usefulness in the problem at hand. In our form of the problem the best we can hope from our control material is some idea of the relative value of different discriminators; we cannot assign weights, and we select what appear to be good discriminators, and hope that they prove effective in the problem at hand.

This catalogue of difficulties suggests that a fair measure of luck, as well as a great deal of careful work, is essential to the successful outcome of an authorship problem of our sort. For what is a good discriminator on some occasions is poor on another. Colour of eyes is a poor discriminator of men: a great number share the same colour, just as a fair number must share rates identical or indistinguishable from each other for the use of a certain word. (We may hope to improve the position by using several discriminators in combination.) It also suggests a plan of procedure: the drawing up of a preliminary word-list; the elimination from that list of words which prove to be unevenly distributed in control material; and a rough assessment of discrim-

inating ability between the various words of the control material.  
Let us cross our fingers and proceed.

### The Preliminary List

Although no studies of this sort had previously been made on Sanskrit works, we were not entirely at sea in drawing up a preliminary list of words. Studies by Mosteller and Wallace in English prose suggested that it is the "utterly mundane high-frequency function words" which prove the best discriminators,<sup>1</sup> studies in Greek offered in kai an analogy to Sanskrit ca; and our own preliminary skirmish with the Arthasāstra added vā. We had, besides, in Pathak and Chitrao's word-index to Patañjali's great grammatical work, Mahābhāṣya, what must be a rarity for any work in any language, an absolutely complete word-index.<sup>2</sup> Every

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1. Loc. cit.

2. Pt. Shridharashastri Pathak and Pt. Siddheshvarashastri Chitrao: Word Index to Patañjali's Vyākaraṇa Mahābhāṣya. A sentence from the Forward (p. 2) by V.G. Paranjpe seemed to have been written for us: "The Index, even in those portions which appear to be useless, would furnish very useful data to the student...who wants to study the frequency of the common words of the language like api, evam, or ca or of the different verbs, or of the prepositions which accompany them." Shamasastri's Index Verborum to the Published Texts of the Kauṭīliya Arthasāstra omits the very words which interest us.

word, however commonplace, is given a page-line reference to Kielhorn's edition. Where the word occurs more than once on the same line, the reference is repeated as many times. A spot-check failed to reveal any errors in the index; indeed where there at first appeared to be discrepancies the fault was in every case ours.

Another consideration in drawing up the preliminary list was the need to limit it to a manageable length, in search of that accuracy which Pathak and Chitrao have so admirably achieved. How long a list is manageable? We found that about thirty words are a safe limit, for that allows columns running the width of foolscap mark-sheets of sufficient breadth to avoid the danger of entering words in the wrong column when tabulating 'by hand', and is about as many words as one can keep watch for simultaneously when entering the mark-sheets or preparing texts for the electronic computer to make the collection of data. No doubt a good number more would have been eminently desirable, but bitter experience has repeatedly impressed us with the difficulty of achieving accurate counts of even so few words, and we thought it better to strive to build solidly than grandly.

What sort of words? Indeclinables, for their high frequency and probable independence of context, certainly; nouns, for the opposite reasons, certainly not. Verbs offer the possibility of examining the use of compound verbs, suppressed asti and the like, but they seemed to hold out much less hope than indeclinables, and promised only to complicate the process of collecting the data, with attendant dangers to accuracy. Pronouns were given up only

with much regret, for a variety of reasons, of which the decisive one was the desire to keep the scheme as simple as possible.<sup>1</sup> We restricted our list, then, to indeclinable particles.

No single clear criterion by which to choose the words presented itself. Some were chosen by leafing through the word-index to spot the high-frequency words by the number of entries; many, by hunch, a frail but necessary guide in the absence of any other; and some, the correlatives (yatas...yāvat), for completeness' sake (they proved worthless later on).

We give in Table 4.1 a list of some words in Patañjali arranged in order of frequency, including all the 32 words of our preliminary list preceded by their number in Sanskrit alphabetical order, as well as four pronouns and one noun (śabda) for the sake of comparison. We estimate the word-index, and hence the Mahābhāṣya, contains 278,000 words, based on the average number of words in a spread sample of forty columns multiplied by the number of columns in the word-index. It will be seen that iti, the commonest word of the Mahābhāṣya, occurs five or six times a hundred words, and few have rates higher than 1%.

No doubt the preliminary list thus arrived at is imperfect. The word tarhi is of high frequency in Patañjali, but it was excluded on the belief that this was idiosyncratic, a decision

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1. A subsidiary one was a doubt that pronouns are less free from context than particles. Surely their rates must differ according to genre, e.g., as between narrative and expository writing.

Table 4.1

Some word frequencies in Patañjali. Words included in the preliminary list are preceded by a code number.

	Word	occurrences	frequency
5.	iti	15778	.0568
19.	na	9466	.0341
11.	ca	6993	.0252
	tat (all forms)	5851	.0210
	idam (all forms)	4360	.0157
4.	api	4316	.0155
	etat (all forms)	4106	.0148
8.	eva	3086	.0111
9.	evam	2331	.00838
7.	iha	2105	.00757
29.	vā (with athavā)	2073	.00746
2.	atra	1960	.00705
25.	yathā	1688	.00607
32.	hi	1625	.00585
14.	tātra	1506	.00542
3.	atha (with athavā)	1411	.00508
22.	punar	1306	.00470
27.	yadi	1139	.00410
20.	nanu	617	.00222
	śabda	607	.00218
18.	tu	543	.00195
17.	tāvat	524	.00188
12.	cet	517	.00186
13.	tatas	475	.00171
	adas (all forms)	427	.00154
1.	atas	315	.00113
24.	yatra	313	.00113
10.	khālu	297	.00107
21.	nāma	286	.00103
15.	tathā	256	.000921
26.	yadā	237	.000853
16.	tadā	209	.000752
30.	vai	134	.000482
28.	yāvat	119	.000428
6.	iva	104	.000374
23.	yatas	45	.000162
31.	ha	16	.0000576

we have never come to regret. On the other hand, katham, of moderate frequency (five out of a thousand in Patañjali) was excluded by oversight. The correlatives could have been profitably replaced by some of the commoner pronouns. But for better or ill a decision had to be taken.

Now the Mahābhāṣya is, of course, a commentary, and it is the purpose of commentaries to explain the text to which they are attached, in this case Pāṇini's Aṣṭādhyāyī. Because they are not 'pure', that is, because the text of the original conditions and 'contaminates' the commentary, we did not expect to find the words of our list to be evenly distributed throughout the Mahābhāṣya. But because we had recorded for each word the number of occurrences in the commentary on the Pratyāhāra Sūtras and each of the eight chapters of Pāṇini, it was a simple matter to determine the discrepancy between observed and expected values by the chi-square test. Taking Kielhorn's edition, the number of lines of commentary in each chapter were counted and then divided by the total number of lines to arrive at the proportions of the whole work represented by each chapter. These proportions multiplied by the total occurrences of a word gave the expected number of occurrences for each word.

The result abundantly confirmed our doubts. Of the 32 words of our list, only seven showed non-significant<sup>1</sup> deviations from

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1. 'Non-significant' here and throughout means a probability greater than 5%.

the expected values, none of them words of very high frequency: atas, tatas, tathā, nanu, yatra, yadi, yāvat; while 18 were significant at .1%. The only satisfaction gained from the exercise was the fact that the noun śabda ('sound', 'word') had the highest value of chi-square of all the words, an astronomical 920.3, as compared with 144.2 for ca, the runner-up, both at 8 degrees of freedom. Of the pronouns only etat was non-significant, the other three being significant at .1%. The performance of three words is shown in Table 4.2.<sup>1</sup>

Table 4.2

Distribution of three words in Patanjali's Mahābhāṣya.  
P = Pratyāhāra Sūtras; there are 8 degrees of freedom in each case.

proportion of total work	chapter								
	P	1	2	3	4	5	6	7	8
	.0339	.2551	.1057	.1309	.0929	.0684	.1627	.0828	.0672
<u>yadi</u>									
observed	44	296	110	147	116	75	176	94	81
expected	39	291	120	149	106	78	185	94	77
							$x^2 = 3.60$		
<u>ca</u>									
observed	289	2080	729	1000	626	484	952	458	375
expected	237	1784	739	915	650	478	1138	579	470
							$x^2 = 144.2***$		
<u>śabda</u>									
observed	147	219	69	57	14	31	39	18	13
expected	21	155	64	80	56	42	99	50	41
							$x^2 = 920.3***$		

1. It is of little interest to reproduce the full table; figures may easily be recovered from Pathak and Chitrao.

Such then is our preliminary list of words. We must now test them for homogeneity in original works.

Control Material: Metrical Works

In analyzing prose texts we are faced with the dilemma whether to gather our data in the form of occurrences of words per sentence, and so have two variables (occurrence of words and sentence length) which may show some correlation, or, on the contrary, to divide the text up into blocks of even length and record the occurrences of each word in each block. On the face of it the second is preferable, but the greater difficulty in collecting data in that form--it can scarcely be done without recourse to the computer--has to be weighed against it.

This decision was deferred by resorting in the first instance to metrical works. These texts were all in šlokas, that is, were already divided into blocks, or sentences if you like, of equal length. A second factor leading to this course was the large number of texts in šlokas: we believed a contribution to authorship studies in metrical texts could thereby be made. Finally it is much simpler to collect data from metrical works, since this can be done directly onto mark-sheets, while for prose texts it was necessary to prepare a skeleton text for the computer, which then did the collection. Inaccuracies can be made in mark-sheets, but this can equally occur in preparing and punching a text for the computer, which moreover takes a good deal of time. In the

end, the use of metrical texts had an unexpected bearing on the choice of prose texts.

We wanted, then, texts which were entirely in ślokas; which were not commentaries; the single authorship of which we were reasonably assured; of a fair length, to allow us an adequate test of homogeneity within works; and for which satisfactory editions existed. It is very difficult to adhere rigorously to all of these conditions, especially the last, and we shall have more to say on the problem of dealing with badly edited texts.

Three metrical texts were selected. Kalhaṇa's Rājatarāṅgiṇī<sup>1</sup> was chosen for its all-round excellence, especially its length, and the opportunity it afforded of contrasting its distribution of particles with that of its continuator, Jonarāja.<sup>2</sup> For something more akin to the Arthaśāstra in range and subject-matter, we chose the Mānasollāsa ascribed to Someśvara III Cālukya, though perhaps written by one of his paṇḍits.<sup>3</sup> Samples were in every case of 300

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1. Kalhaṇa's Rājatarāṅgiṇī or Chronicle of the Kings of Kashmir, ed. M.A. Stein, vol. 1, Sanskrit Text with Critical Notes, Bombay, 1892. Stein's translation (2 vols., Westminster, 1900) was helpful.
  2. The Rājatarāṅgiṇī of Kalhaṇa, ed. Durgāprasāda, son of Vrajaśāla, vol. 3, containing the supplements to the work of Jonarāja, Śrīvara and Prājyabhaṭṭa, ed. P. Peterson (Bombay S.S. no. LII) Bombay, 1896.
  3. Mānasollāsa of King Someśvara, ed. G.K. Shrigondekar; 3 vols., (Gaekwad's O.S. nos. 28, 84, 139), Baroda, 1925, 1939, 1961.

ślokas; where ornate metres intruded, they were passed over. Except for the second, each book (tarāṅga) of Kalhaṇa provided a sample, starting with the first śloka of each book. The text of Jonarāja has no divisions, containing about 1500 ślokas numbered from beginning to end without interruption. Three samples were taken, beginning with the verses numbered 2, 500, and 1000. The five books (viṃśatis, 'scores') of the Mānasollāsa yielded four samples, Book 1 being too short.

Mark sheets were prepared by drawing a grid of 32 columns running the breadth of a foolscap sheet and 15 rows the length. The columns were rubricated with the words of our preliminary list. A stencil was cut to this pattern and some 300 mark-sheets thus reproduced. Each śloka of each sample was assigned a row, and the figures for the occurrences of words were entered in the appropriate cells of the grid. We found it reasonable to do an hour and a half of such marking a day, first thing in the morning. Two hours were difficult, and in three, words were overlooked, columns began to change places, and the work had to be done over. Thus for getting on two months these mark sheets were our daily portion. In spite of all precautions, such is the nature of tedious work, that errors have probably crept in unnoticed; but we believe that they are not so great or so unevenly distributed as to significantly affect the result.

We present in Appendix Tables 1 and 2 the distribution of the words of our preliminary list in the 4200 ślokas or perhaps 70,000 words of text examined in this way. We reserve comment on

them for the present, except to say that serious difficulties appeared in Kalhaṇa due to the presence of large amounts of dialogue in some books, which had important consequences in our choice of prose material. Kalhaṇa will be fully discussed at the end of this chapter.

Control Material: Prose Works

Our original plan had been to use the works of Bāṇa for control material. The stability of rates for words could then be examined not only within and between the Harṣacarita and the Kādambarī, but tested for their ability to distinguish Bāṇa's prose from that of his son Bhūṣaṇa Bhaṭṭa or Bhaṭṭa Pulina, who, in writing the concluding portion of the unfinished Kādambarī, strove no doubt to imitate his father's style. Daṇḍin would furnish a similar opportunity as between the genuine portions of the Daśakumāracarita and one or other of its later supplements. But the evidence from Kalhaṇa, alluded to in the foregoing and fully discussed in the final section, to the effect that dialogue has an upsetting effect on the rates of words, made us abandon this otherwise excellent plan. While ways of overcoming this difficulty may be devised, or other statistical tests unaffected by the presence of dialogue may be found, it seemed the course of wisdom to confine oneself to expository prose.

The works chosen were Somadeva Sūri's Nītivākyāmṛta,<sup>1</sup>

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1. 2 vols. with anon. commentary, ed. Śrīmat Paṇḍita Pannālāla Sonī (Māṇikacandra Digambara Jaina Granthamāla nos. 22 and 34), Bombay, Saṃvat 1979, 1989. Vol. 2 contains important corrections to the first.

an arthaśāstra heavily indebted to the Kauṭīliya, and Gaṅgeśa's important treatise on logic, Tattvacintāmaṇi.<sup>1</sup> Samples of 300 sentences each were taken. The Nitivākyaṃṛta was found to contain 1519 sentences in the edition used, so that the last 19 were discarded, giving five samples; three samples were taken from Gaṅgeśa's work, from the beginning of Books (khaṇḍas) 1, 2 and 4, Book 3 being too short. In all, this amounted to about 20,000 words of text (10,042 for Somadeva, 10,222 for Gaṅgeśa, reflecting the much longer sentences of the latter).

Our original intention had been to prepare the texts in full for the computer, so that they might be of use to anyone wishing to prepare word-indexes of these works and of the Arthaśāstra. But the complications this plan involved, leading to an enormous amount of additional labour which would only bear fruit in a hypothetical future, persuaded us that the plan would delay the work in hand so much and impose on our almost unaided efforts so great a burden as to be impractical. Therefore, with considerable regret, we took counsel in the maxim, varam adyaḥ kapotaḥ śvo mayūrāt, 'better a pigeon today than a peacock tomorrow', and prepared a skeleton text of the samples.

Since we were interested in the words outside our list of 32 only as counters in drawing up tables of sentence-length and the like, and not at all in their identity or semantic content, such words were replaced by an 'X'. Nominal compounds were represented as a string of contiguous X's corresponding to the number of members in a compound, to enable us to study the usefulness of

1. Ed. Pt. Kāmākhyānātha Tarkavāgiśa (Bibl. Ind. N.S. nos. 512, etc.), Calcutta, 1888-1901.

compound-length as a test of authorship. (Proper names were not counted as compounds.) The words of the preliminary list were represented as upper case without diacriticals. Thus a sentence of the skeleton text might look like this:

XX X API NA X X X.

This represents Nitivākyāmrta 24.14:

dhana-hīne Kāmadeve 'pi na pritiṃ badhnanti veśyāḥ.

"Courtezans have no affection for a pauper, be he the God of Love himself."

The skeleton allows us to find that the sentence contains seven words, one of which is a two-member compound, and two of which are words of our list. When patterns of holes corresponding to the characters of the skeleton text are punched in paper tape, the text is in a form which enables the computer to collect the data and arrange it in tables.

Use of the computer allowed us to gather data on our preliminary list in two ways and thus base our choice of method on a comparison of the two: occurrences per sentence and, what would in itself be impracticable unaided by computer, occurrences per block of 20 words. In the second method the computer itself divided up the text into lengths of 20 words, artificial 'sentences' of equal length. Any remainder after the text was so divided was ignored, involving a wastage of nine words on average at the end of each sample, and accounting for occasional discrepancies between

the total number of particles in a given sample as counted by sentences on the one hand, and by 20-word blocks on the other.

The 20-word block method proved the more suitable in two ways. In the first place there is a small but undoubted positive correlation between occurrence of particle and length of sentence. Contingency tables for the occurrence of ca in the five samples of Somadeva and the three of Gaṅgeśa may be found in Table 4.3.

Table 4.3

Sentence-length and occurrence of ca in Somadeva and Gaṅgeśa.

(a) Somadeva

Sentence-length (words)	<u>ca</u> (occurrences)			
	0	1	2	3
1-	584	36	-	-
6-	602	122	4	1
11-	71	46	2	-
16-	8	8	3	1
21-	4	2	1	-
26-	2	-	1	-
31-	1	-	-	-
36-	-	-	-	-
41-	-	-	-	-
46-	-	-	-	-
51-	-	-	-	-
56 - 61.	-	-	1	-

Table 4.3Sentence length and occurrence of ca in Somadeva and Gaṅgeśa.

## (b) Gaṅgeśa

Sentence-length (words)	<u>Ca</u> (occurrences)					
	0	1	2	3	4	5
1-	215	33	-	-	-	-
6-	149	104	4	-	-	-
11-	98	80	20	2	-	-
16-	27	27	14	3	-	-
21-	21	20	7	2	1	-
26-	9	8	11	3	1	-
31-	1	3	5	6	1	-
36-	3	2	2	1	2	-
41-	-	-	5	2	-	1
46-	-	1	1	-	-	-
51-	-	2	-	-	1	-
56-	-	-	-	-	-	-
61-66.	-	-	2	-	-	-

The correlation coefficient for Somadeva is .341 and .552 for Gaṅgeśa, where a value between 0 and 1 indicates positive correlation. Both these proved extremely significant by Student's t-test ( $t = 14.0$ , d.f. = 1498 for Somadeva;  $t = 19.9$ , d.f. = 898 for Gaṅgeśa), extremely significant, that is, of a weak correlation, for only a small amount of the variability of the values on

the tables must be ascribed to correlation. The results of an analysis of variance are given in Table 4.4.

Table 4.4

Correlation of ca and sentence-length.

	mean	total variance	regression variance	residual variance
Somadeva				
<u>ca</u>	.163	.160	.019	.141
sentence-length	6.695	13.1	1.5	11.6
Gaṅgeśa				
<u>ca</u>	.564	.633	.193	.440
sentence-length	11.359	85.4	26.1	59.3

This result is no more than one would expect. But sentence-length itself proved extremely variable in Gaṅgeśa, from one sample to the next.

In Table 4.5 we give the sentence-length distribution for the various samples of Somadeva and Gaṅgeśa; it will immediately be apparent that an enormous difference exists between Gaṅgeśa, Book 1, and the two other books. To explain this we need look no farther than to the editor of the text. It is clear to anyone who glances at the text that the wider spacing of the daṇḍas in Books 2 and 3 signifies no change in the natural periods of the

Table 4.5

Sentence-length in Somadeva and Gaṅgeśa, samples of 300 sentences each.

(a) Somadeva

Sentence-length (words)	Sample				
	1	2	3	4	5
1-	139	154	107	121	99
6-	137	124	161	147	160
11-	22	16	24	27	30
16-	-	5	5	3	7
21-	1	-	3	1	2
26-	-	1	-	1	1
31-	1	-	-	-	-
36-	-	-	-	-	-
41-	-	-	-	-	-
46-	-	-	-	-	-
51-	-	-	-	-	-
56 - 61.	-	-	-	-	1

(b) Gaṅgeśa

Sentence-length (words)			
	1	2	4
1-	108	65	75
6-	103	70	84
11-	59	74	67
16-	17	33	21
21-	9	22	20
26-	1	15	16
31-	3	8	5
36-	-	5	5
41-	-	3	5
46-	-	1	1
51-	-	2	1
56-	-	-	-
61 - 66.	-	2	-

author. The facts presented in Table 4.5 are more revealing of the history of punctuation in printed Sanskrit texts and the failure of editors than of the sentence-length distribution of ancient authors in Sanskrit. (We deal with this matter fully elsewhere.)

The results of this can be disastrous on our study of word-distributions, if we base our calculations on occurrences per sentence. We illustrate this in Table 4.6, where the distribution of ca in sentences as given in the text contrasted with its distribution in 20-word blocks. The discrepancies of the first distribution prove extremely significant by the chi-square test. Those of the second distribution, however, are non-significant. What the first actually measures is the discrepancies in sentence-length.

Table 4.6

Distribution of ca in three samples of Gaṅgeśa's Tattvacintāmaṇi, (a) by sentences, (b) by 20-word blocks. Thus in Book 1, there are 194 sentences with no ca's, 93 with one ca, etc.; and 44 blocks of 20 words with no ca's, 50 with one ca, etc. Note that in (b) the samples are of unequal length.

(a) sentences				(b) 20-word blocks			
	Book 1	2	4	Book 1	2	4	
0	194	153	176	44	64	62	
1	93	102	85	50	85	77	
2	11	31	29	25	38	33	
3	2	9	8	7	13	8	
4	-	4	2	-	3	2	
5+	-	1	-	-	-	-	
	<u>300</u>	<u>300</u>	<u>300</u>	<u>126</u>	<u>203</u>	<u>182</u>	

$\chi^2 = 25.3***$   
d.f. = 6

$\chi^2 = 1.63$   
d.f. = 6

For these reasons we ignore the distribution of words in sentences in favour of 20-word blocks. One important effect of this is that the samples are no longer of equal length, so that it becomes difficult to interpret them by inspection. But this in no way affects our calculations. The data for Somadeva and Gaṅgeśa may be found in Appendix Table 3.

### Testing the Preliminary List

We are now in a position to examine whether the words of our list are evenly distributed within the authors comprising our control material, and to do this we use the chi-square test. This test is of great versatility and simplicity. One of its greatest advantages is that it can be applied without first determining the form of the distribution being tested, whether normal, binomial, Poisson or negative binomial, if there is a simple way of calculating the expected values which correspond to the hypothesis one wishes to test. At the same time it has its limitations, and the one which raises practical issues for us is that it tends to exaggerate the significance of variability in small numbers. We therefore follow the usual practice of considering a cell of a contingency table as below the testable level where its expectation is less than five. We then resort to pooling, adding together the cells of our table from the bottom upwards, until an expectation greater than five is achieved. Where pooling is not possible, we regard the data as being below testable level. Pooling is resorted to only to the extent that it is necessary, for the less

pooling, the more detailed the distribution, and the test is thereby more exacting; the number of degrees of freedom is a guide to this. Finally, Yates' correction is applied to 2 x 2 contingency tables, to reduce the error due to the fact that the distribution is discrete. Significance at the 5% level is indicated with an asterisk; at the 1% level with two asterisks; and at the .1% level with three.

Table 4.7 gives the result of these calculations for four authors of the control material (Kalhaṇa is separately dealt with). Seven words failed to occur at testable level in any of these authors (iha, tāvat, yatas, yadā, yāvat, vai, ha); a further ten occurred at testable level in only one author (atas, atra, khalu, cet, tadā, nanu, nāma, punar, yathā, yadi). Clearly these are not suitable for inclusion on the final list; even where, in the second group, non-significant results are achieved, they cannot be regarded as having been given an adequate test. The correlatives yatas...yāvat as a class are unsuitable for this reason, and, in the case of yatra, there is a highly significant result. Choosing the words which appear at the testable level in at least three of the authors, and have no significant results, our list of 32 is reduced to five: eva, evam, ca, tatra and vā.

Since each of the chi-square results for authors in Table 4.7 is independent of the others for the same word, we may add the results to get an over-all measure of reliability. Indeed it is highly important to do so, for a series of high but non-significant results might, when added, prove significant. This is done in the last column of Table 4.7. The five words eva,

Table 4.7

Chi-square results for the distribution of words within authors.

	Jon.	Mān.	Som.	Gaṅg.	Total
1. <u>atas</u>					
$\chi^2$	-	-	-	.37	.32
d.f.	-	-	-	2	2
2. <u>atra</u>					
$\chi^2$	-	-	-	6.68*	6.68*
d.f.	-	-	-	2	2
3. <u>atha</u>					
$\chi^2$	5.25	-	-	1.85	7.10
d.f.	2	-	-	2	4
4. <u>api</u>					
$\chi^2$	6.61*	3.22	4.62	3.47	17.92
d.f.	2	3	8	4	17
5. <u>iti</u>					
$\chi^2$	7.21*	2.30	7.26	21.54****	28.31*
d.f.	2	3	4	6	15
6. <u>iva</u>					
$\chi^2$	2.49	24.15****	13.98**	3.13	43.75****
d.f.	4	3	4	2	13
7. <u>iha</u>					
$\chi^2$	-	-	-	-	-
d.f.	-	-	-	-	-
8. <u>eva</u>					
$\chi^2$	2.96	2.59	1.37	6.19	13.11
d.f.	2	3	4	4	13
9. <u>evam</u>					
$\chi^2$	0.89	2.27	-	3.43	6.59
d.f.	2	3	-	2	7
10. <u>khalu</u>					
$\chi^2$	-	-	20.92****	-	20.92****
d.f.	-	-	4	-	4

		Jon.	Mān.	Som.	Gaṅg.	total
11.	<u>ca</u>					
	$\chi^2$	2.91	10.73	7.31	1.63	22.58
	d.f.	2	9	8	6	25
12.	<u>cat</u>					
	$\chi^2$	-	-	-	3.81	3.81
	d.f.	-	-	-	2	2
13.	<u>tatas</u>					
	$\chi^2$	0.43	20.20***	-	-	20.63***
	d.f.	2	3	-	-	5
14.	<u>tatra</u>					
	$\chi^2$	2.69	4.08	-	2.33	9.10
	d.f.	2	3	-	2	7
15.	<u>tathā</u>					
	$\chi^2$	2.28	5.24	-	8.26*	15.78*
	d.f.	2	3	-	2	7
16.	<u>tadā</u>					
	$\chi^2$	0.06	-	-	-	0.06
	d.f.	2	-	-	-	2
17.	<u>tāvat</u>					
	$\chi^2$	-	-	-	-	-
	d.f.	-	-	-	-	-
18.	<u>tu</u>					
	$\chi^2$	2.93	13.58***	-	.33	16.84*
	d.f.	2	3	-	2	7
19.	<u>na</u>					
	$\chi^2$	8.30	1.70	30.39**	12.44	52.83***
	d.f.	4	3	12	6	25
20.	<u>nanu</u>					
	$\chi^2$	-	-	-	5.41	5.41
	d.f.	-	-	-	2	2
21.	<u>nāma</u>					
	$\chi^2$	-	-	2.00	-	2.00
	d.f.	-	-	4	-	4
22.	<u>punar</u>					
	$\chi^2$	-	-	.38	-	.38
	d.f.	-	-	4	-	4

	Jon.	Mān.	Som.	Gaṅg.	total
23. <u>yatas</u>					
$X^2$	-	-	-	-	-
d.f.	-	-	-	-	-
24. <u>yatra</u>					
$X^2$	-	-	19.45***	.17	19.62**
d.f.	-	-	4	2	6
25. <u>yathā</u>					
$X^2$	-	-	-	6.56*	6.56*
d.f.	-	-	-	2	2
26. <u>yadā</u>					
$X^2$	-	-	-	-	-
d.f.	-	-	-	-	-
27. <u>yadi</u>					
$X^2$	-	-	-	.64	.64
d.f.	-	-	-	2	2
28. <u>yāvāt</u>					
$X^2$	-	-	-	-	-
d.f.	-	-	-	-	-
29. <u>vā</u>					
$X^2$	2.28	1.95	5.75	.18	10.16
d.f.	2	3	4	2	11
30. <u>vai</u>					
$X^2$	-	-	-	-	-
d.f.	-	-	-	-	-
31. <u>ha</u>					
$X^2$	-	-	-	-	-
d.f.	-	-	-	-	-
32. <u>hi</u>					
$X^2$	2.06	-	7.26	24.63***	33.95***
d.f.	2	-	4	2	8

evam, ca, tatra, and vā all give non-significant totals. Api although giving a result significant at 5% in Jonarāja, has a non-significant total for chi-square; yet it would be wrong to ignore that warning and include it in the short list on the basis of the total. Better to prune the doubtful words.

Generally speaking, the greater number of degrees of freedom, the more exacting the test, and the more useful the discriminator is likely to be, since it must occur at high frequencies to achieve a high number of degrees of freedom. The words of our short list have a minimum of seven degrees of freedom, and we would expect evam and tatra to prove the least effective discriminators, and ca the best.

Let us see how these words performed in Kalhaṇa.

#### Particles in Kalhaṇa

Doubts about the usefulness of Kalhaṇa for our study arose in the course of entering the mark-sheets for the Rājatarāṅgiṇī; we gained the distinct impression that the passages of dialogue contained rather more particles than the narrative portions. If it were true that these words were distributed at one rate in narrative and at another in dialogue, we could only hope to find homogeneity if each of our samples contained equal amounts of dialogue, which was not the case. Inspection of the distributions (Appendix Table 1) show that Book 3 usually has the highest number of observations and longer tails to the distributions than the others, and to a lesser extent this was true of Book 4 also. As

a rough guide we counted the number of ślokas containing dialogue and compared them with the total number of particles of all kinds in both narrative and dialogue, as shown in Table 4.8.

Table 4.8

Dialogue and particles in Kalhaṇa's Rājatarāṅgiṇī.

	Bk. 1	3	4	5	6	7	8
<u>ślokas</u> containing dialogue	39	135	90	36	38	11	27
total no. of particles in 300 <u>ślokas</u>	322	435	384	267	319	276	373

Books 3 and 4 do indeed have the highest proportion of dialogue and the largest number of particles, while Books 5 and 7 have the lowest, although 7 ought to show less particles than 5.

When chi-square was computed for Kalhaṇa, the results showed a disappointingly high proportion of significant results, eight out of sixteen, and we decided to remove the dialogue portions and recalculate for the remainder. 'Dialogue' is rather widely defined, to be on the safe side. All direct speech is included under that term, whether spoken to another or not, and thoughts in the form of direct speech (such as are, or could be concluded with iti) were also included. Quotations from previous writers, however, are allowed as narrative, unless in direct speech and are anyway so few as to have little effect. If the śloka

contained any dialogue in that sense, however little, it was excised.

In computing chi-square we were faced with the problem that some of the particles fall below testable level when dialogue is removed from the samples. The calculations were made in spite of this, but it must be remembered that such results are rather unreliable and tend to exaggerate the significance of divergence from the expectation. The results may be found in Table 4.9, together with the totals for the other four authors, and for the five together.

We do not expect an improvement in every word of our list by the removal of dialogue, since our previous results show some of the words to be unstable, and others are insufficiently tested. Comparison of columns (a) and (b) of Table 4.9 show the improvements are more or less evenly matched by disimprovements. Taking the five words which previous testing suggested should have regular distributions, two show a marginal increase in the value for chi-square when dialogue is removed (eva, evam), one shows a small decrease (ca), and the remaining two show a substantial decrease (tatra, vā). Tatra and vā, which had significant results became non-significant when dialogue is removed.

Table 4.9

$X^2$  results for Kalhaṇa, (a) with and (b) without dialogue, with totals for Jonarāja, Mānasollāsa, Somadeva and Gaṅgeśa. (c). Totals of columns (b) and (c) are found in (d). Only words occurring at testable level in (a) are given. Figures in column (b) enclosed in brackets indicate occurrences fell below the proper testable level.

	(a)	(b)	(c)	(d)
3. <u>atha</u>				
$X^2$	42.58***	62.47***	7.10	69.57***
d.f.	6	6	4	10
4. <u>api</u>				
$X^2$	32.63***	26.39***	17.92	44.31**
d.f.	12	6	.7	23
5. <u>iti</u>				
$X^2$	31.64***	26.99***	28.32*	55.31***
d.f.	6	6	15	21
6. <u>iva</u>				
$X^2$	16.52*	20.19**	43.75***	63.94***
d.f.	6	6	13	19
8. <u>eva</u>				
$X^2$	10.12	10.89	13.11	24.00
d.f.	6	6	13	19
9. <u>evam</u>				
$X^2$	1.62	(1.81)	6.59	8.40
d.f.	6	6	7	13
11. <u>ca</u>				
$X^2$	7.36	5.80	22.59	28.39
d.f.	6	6	25	31
13. <u>tatas</u>				
$X^2$	6.82	9.87	20.62***	30.49**
d.f.	6	6	5	11

	(a)	(b)	(c)	(d)
14. <u>tatra</u>				
$\chi^2$	16.42*	7.82	9.10	16.92
d.f.	6	6	7	13
15. <u>tathā</u>				
$\chi^2$	10.58	(11.82)	15.78*	27.60*
d.f.	6	6	7	13
16. <u>tadā</u>				
$\chi^2$	13.62*	(12.57*)	.061	12.63
d.f.	6	6	2	8
18. <u>tu</u>				
$\chi^2$	5.66	7.11	16.84*	23.95*
d.f.	6	6	7	13
19. <u>na</u>				
$\chi^2$	35.25***	30.43***	52.84***	83.27***
d.f.	6	6	25	31
22. <u>punar</u>				
$\chi^2$	9.97	(10.73)	.380	11.11
d.f.	6	6	4	10
25. <u>yathā</u>				
$\chi^2$	4.07	(4.47)	6.56*	11.03
d.f.	6	6	2	8
29. <u>vā</u>				
$\chi^2$	17.49**	(8.18)	10.16	18.24
d.f.	6	6	11	17

Excursus: A Test of Authorship for Narrative Verse

This discovery of the upsetting effect of dialogue in Kalhaṇa is a disappointing one. Simple excision of dialogue leaves a mutilated text, and it is doubtful whether it would be proper to adopt this as a standard procedure. Moreover in works with large amounts of dialogue the tests would become unworkable, as the discriminators would occur at only very low levels. This would scarcely be of importance if only a handful of narrative works in ślokas existed. But we need only cite the Epics and Purāṇas to show that such works are many and important in Sanskrit literature. The purpose of this excursus is to show that other methods of examining narrative works in ślokas, little affected by the presence of dialogue, exist.

It is well known that different contemporary authors, and authors of different ages, often differ considerably in their choice of metre in the second pāda of the śloka. The preferred choice is everywhere the pathyā form (° - - ¨), and the four vipulās are the variants mainly resorted to (° ° ° ¨; - ° ° ¨; -, - - ¨; - ° - ¨). The fourth vipulā almost entirely disappears in the classical authors while it is well-represented in the older strata of the Mahābhārata. There is a tendency too for the proportion of vipulās to pathyās to diminish in the course of time, but there are exceptions to this. There are more exceptions to the preference for the third over the second vipulā attributed to classical authors. The chi-square test is a means of judging the

significance of divergence between distributions of pathyās and vipulās tabulated for different texts, and by taking account of the over-all shape of the distribution it allows us to avoid separate calculations for the vipulā ratios (all vipulās : pathyās) and vipulā preferences (e.g. second to third vipulā) with which the literature on the subject is laced.

Of the five classical poets, Kālidāsa, Bhāravi, Kumāradāsa, Māgha, and Bilhaṇa, suppose their works had come to us anonymously. Would we find significant divergences between the two works of Kālidāsa, Raghuvamśa and Kumārasambhava? And, if not, would we be able to distinguish the five authors from each other? Table 4.10 shows the answer is yes--almost.

The result for the two Kālidāsa works admittedly borders the 5% level of significance, perhaps attributable to changes in style with the passage of time. Between the five authors the śloka proves itself an efficient discriminator, except that it fails to distinguish Kālidāsa and Bhāravi from Bilhaṇa.

These failures are instructive. In the absence of significance testing one would be tempted to say that Kālidāsa prefers the third vipulā to the second, and Bilhaṇa the reverse; or that Bilhaṇa prefers the first to the third while Kālidāsa treats them alike. Neither conclusion is warranted by the available data: we can only say that they do not differ significantly from each other. Bhāravi and Bilhaṇa have so few vipulās, we had to pool them, forming a 2 x 2 table, in effect, testing the vipulā-ratio, with one degree of freedom, a procedure which was adequate to distinguish two other

Table 4.10

The śloka as discriminator. The fourth vipulā, occurring once only, was dropped in testing. Where one of the vipulās had occurrences below the testable level, all three vipulās were pooled and contrasted with the pathyā verses.

	Kālidāsa			Bhāravi	Kumāradāsa	Māgha	Bilhaṇa
	Raghuv.	Kumāras.	total				
pathyā	1019	276	1295	225	414	339	391
vipulā I	32	14	46	15	8	47	20
II	18	9	27	8	1	44	10
III	27	14	41	2	1	34	7
IV	0	1	1	0	0	0	0

	$\chi^2$	d.f.
Kālidāsa: <u>Raghuvamśa</u> & <u>Kumārasambhava</u>	7.72	3
Kālidāsa & Bhāravi	9.71*	3
Kālidāsa & Kumāradāsa	17.5***	3
Kālidāsa & Māgha	117.1***	3
Kālidāsa & Bilhaṇa	4.15	3
Bhāravi & Kumāradāsa	17.1***	1
Bhāravi & Māgha	31.6***	3
Bhāravi & Bilhaṇa	.205	1
Kumāradāsa & Māgha	105.7***	3
Kumāradāsa & Bilhaṇa	15.0***	1
Māgha & Bilhaṇa	52.4***	3

Source: A. Berriedale Keith: A History of Sanskrit Literature, Oxford, 1928, p. 108 (Kālidāsa); pp. 115-6 (Bhāravi's Kirātārjunīya); p. 123 (Kumāradāsa's Jānakīkaraṇa); p. 131 (Māgha's Śisupālavadhā); p. 157 (Bilhaṇa's Vikramāṅkadevacarita).

pairs of authors, but not this.

The distribution of pathyā and vipulā is clearly useful in authorship discrimination, provided account is taken of upsetting factors,<sup>1</sup> and the distributions are subject to significance testing.

#### Discriminating Powers of Particles

To examine the ability of our five particles to distinguish different authors, we first total the distributions within each author, so that within-author variability is eliminated from our test for between-author variability. These totals may be found in Appendix Table 4.

Taking the three metrical works, the result of comparing them in pairs is set out in Table 4.11.

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1. E. Washburn Hopkins has a discussion of these factors in The Great Epic of India, pp. 220-39.

Table 4.11

Discriminating power of particles in three metrical works.

	Kal. & Jon.	Kal. & Mān.	Jon. & Mān.
<u>eva</u>			
$\chi^2$	1.98	1.03	3.11
d.f.	1	2	1
<u>evam</u>			
$\chi^2$	.01	7.81***	5.95*
d.f.	1	1	1
<u>ca</u>			
$\chi^2$	2.90	121.95***	103.29***
d.f.	2	3	3
<u>tat̥t̥a</u>			
$\chi^2$	.10	6.15*	3.14
d.f.	1	1	1
<u>vā</u>			
$\chi^2$	1.43	31.47**	10.60**
d.f.	1	2	2

Our tests easily distinguish the Mānasollāsa from Kalhaṇa and Jonarāja. It is, of course, a very different work from the other two, and the tests fail to distinguish the author of the Rājatarāṅgiṇī from its continuator. Evidently Jonarāja has succeeded in emulating his predecessor's style in this respect, though it must be remembered that dialogue has been removed from Kalhaṇa before computing chi-square. Still, it is preferable that our tests should sometimes fail to distinguish different authors than that they should mislead us into finding differences in authorship where they do not really exist, and such is the case with the words

of our short list.

Turning to the two prose works, all except vā indicate a highly significant difference in distribution.

Table 4.12

Somadeva and Gaṅgeśa

	$\chi^2$	d.f.
<u>eva</u>	115.42***	3
<u>evam</u>	47.25***	1
<u>ca</u>	95.63***	3
<u>tatra</u>	57.65***	2
<u>vā</u>	1.35	2

The case of evam is instructive, for it does not occur at all in Somadeva, so that we may reject the ascription to Somadeva of any work containing a high proportion of that word. Gaṅgeśa has altogether 55 occurrences in the material used.

Taking metrical and prose works together, ca appears to be the best discriminator, followed by evam, tatra, vā, and eva. This may not hold in other cases, however, since we cannot predict in what respect two unknown authors will show the greatest differences.

Testing the Arthasāstra

In testing the homogeneity of the Arthasāstra by means of the five discriminators derived from our examination of the control material we will wish to treat the books (adhikaraṇas) as if they were independent treatises in the first instance. Thus, each sample shall consist of not more than one book. Next, the verses with which each chapter ends and which occasionally intrude into the body of the prose must be removed, since distributions of the discriminators are undoubtedly different as between prose and verse, and memorial verses are anyway apt to be derivative. Thirdly, the first chapter of Book 1 must be removed from the remainder, and considered together with Book 15. The correctness of this procedure will be obvious when we remember that Arthasāstra 1.1 contains a 'table of contents' and a reckoning of the number of books, chapters, topics and 'slokas' contained in the entire work, and this must have been the last addition to the Arthasāstra, if additions there were, while there is no reason to presuppose that it is integral to the remainder of Book 1. It is best, therefore, to treat Book 1.2ff. as if it were composed independently from its first chapter. As for Book 15, since in illustrating the various types of argument employed it refers to and therefore presupposes the existence of the entire work, it, too, must be part of the final layer, assuming there are strata of different age. Finally, since in the table of contents in 1.1, Book 15 is referred to, and itself refers to 1.1 in two of its illustrations (15.1.5, 7), it is reasonable to suppose that 1.1 and Book 15 were composed by one person. Unfortunately

these two are too short for statistical analysis, and even if they were not, it may be doubted whether it would be appropriate to study distributions of words in texts of such a special character. It is important, however, to disengage 1.1 from the remainder of Book 1, before testing the latter.

These considerations give us 14 samples, each comprising one of the 14 books. But three of the books, the second, third and seventh, are long enough to permit them to be divided up into two or more samples, and to test for homogeneity within books before comparing one book with another. It is convenient to divide each of these books into samples containing an equal number of sentences, which make them of somewhat different length when measured in terms of 20-word blocks, with the wastage of about 9 words at the end of samples which is unavoidable in following this method. Book 2 is thus divided into four samples, and Books 3 and 7 into two each, samples in every case amounting to 295 sentences or more.

The distributions for the five words may be found in Appendix Tables 5 (dealing with the three long books) and 6 (all books).

### Books 2, 3 and 7

The results of testing within Books 2, 3 and 7 are set out in Table 4.13.

Table 4.13

Chi-square results within three books of the Arthaśāstra.

	Book 2	Book 3	Book 7
<u>eva</u>			
$X^2$	3.98	.00	.12
d.f.	3	1	1
<u>evam</u>			
$X^2$	-	-	.00
d.f.	-	-	1
<u>ca</u>			
$X^2$	8.67	3.49	3.26
d.f.	9	3	2
<u>tatra</u>			
$X^2$	-	-	-
d.f.	-	-	-
<u>vā</u>			
$X^2$	8.91	.33	15.57**
d.f.	6	3	4

Evam and tatra are of little use because of their low rate of occurrence. Books 2 and 3 give us no reason to suppose that they are not homogeneous within themselves. The only significant result is that for vā between the two halves of Books 7, which shows a divergence which would arise through sampling of a randomly distributed characteristic in somewhat less than one case in two hundred. This is rather puzzling since the other discriminators are non-significant, and if the variability of vā reflects a change in authorship, we should expect some of the discriminators

to show significant divergences, too; nor does the content of Book 7 arouse suspicions of contamination. The actual distributions are as under.

Table 4.14

Distribution of vā in 20-word blocks in Arthasāstra, Book 7.

<u>vā</u> (occurrences)	Bk. 7a	Bk. 7b
0	36	52
1	44	35
2	28	18
3	22	6
4	4	9
5	1	-

In computing chi-square the cells for no occurrences per 20-word block contribute about 5, and those for three occurrences about 7 toward the total of 15.57, reflecting the fewer blocks with no occurrences and the greater number with three in the first half of the book. Vā occurs at the very high rate of 7% in the first sample, but drops to some 5% in the second; yet it remains the commonest word in the book, exceeding its rates in Books 2 and 3 (3 and 4%). Typical of the style of Book 7 is the construction 'Yadi vā paśyet...vā...vā...' ('Or if he were to find that this is the situation, or that, or that...') or cognate expressions in which a series of different circumstances are described, followed

by a recommended course of action in the optative, which leads to clusters of vā's in a single sūtra. An extreme case is 7.1.32, in which 12 vā's occur in a single sentence. That the use of this construction tends to fall off, or becomes less extravagant of vā's as the book progresses, may have nothing to do with authorship. We incline to regard this as one of those 'outrageous events' which the statistician is bound to meet from time to time, and to place more confidence in the unity of the book itself and the homogeneous distributions of the other discriminators. "A crow lights under a plam tree; a palm fruit falls." Not all contingencies are casually related, nor all unusual events significant.

Turning now to between-book variability, we lump the figures within books to eliminate within-book variability and test for significance between pairs. There are no grounds on which we can decide whether the 'true' distribution of vā for the author of Book 7 is better approximated by the first or the second half, but once it is agreed that we have here to do with only a single author, the true distribution ought to fall between the two extremes and lumping should give us an improved estimate of the population distribution. (Consult Appendix Table 2 for the figures.)

Chi-square results are given in the following table.

Table 4.15

Chi-square results between three books of the Arthasāstra, by pairs.

	Bks. 2 & 3	2 & 7	3 & 7
<u>eva</u>			
$\chi^2$	10.43**	1.53	2.73
d.f.	1	1	1
<u>evam</u>			
$\chi^2$	-	2.60	4.85*
d.f.	-	1	1
<u>ca</u>			
$\chi^2$	28.65***	74.17***	9.60*
d.f.	4	4	3
<u>tatra</u>			
$\chi^2$	.59	.00	.25
d.f.	1	1	1
<u>vā</u>			
$\chi^2$	13.26**	46.93**	12.41*
d.f.	3	4	4

The variability between books is of altogether a different order from within-book variability. In spite of the poor discriminating ability of three of the words (eva, evam, tatra), the overall picture is one of great divergence between the three books. Even that between Books 3 and 7, which may, at first, appear modest, is very considerable when one considers how unlikely it is that several events, themselves unlikely, should coincide. If it were permissible to add the chi-square results for the different words (as it is not, since the words are not quite independent of each other), the probability would be of the order of one

out of a thousand cases. This may be a higher probability than that expressed in the mahārṇava-yuga-cchidra-kūrma-grīvārpaṇa-nyāya, the chance that a tortoise (which is said to surface once in a hundred years) would put his head through a yoke floating about on the ocean, but it nevertheless represents a degree of certainty enormously greater than that with which the historian of ancient India usually contents himself.

We conclude from this that three hands are discernible in the Arthasāstra: one of them responsible for Book 2, dealing with the internal administration of the kingdom, one responsible for Book 3, a kind of dharma-smṛti dealing with law, and the third responsible for Book 7, concerning the struggle for power between states. That the divergences noted are not due to subject-matter we believe we have already demonstrated.

### The Remaining Books

What of the remaining books? We give in Table 4.16 the chi-square results when each of Books 2, 3 and 7 are compared with each of the others. One of the problems besetting the interpretation of these results is that of sample size, for it is likely that while words may be evenly distributed in large samples, this is not true in detail, so that the author's characteristic pattern cannot emerge when the sample is small. A sample of 2000 words, or 100 20-word blocks, should surely be sufficient; less than 1000 may be too few. Apart from the three long books, only Books 1, 4 and 9 contain more than 2000 words, with Book 5 just under this

figure at 1860 words. Books 6 and 10 with 420 and 440 words are on the other hand probably too short for us to reach any firm conclusion about their affiliation with other books, and Book 14, with just over a thousand , is perhaps a borderline case.

Looking first at Book 2, the chi-square results offer grave objections to linking it with any other book except for Book 8 (where the results for vā borders on significance at 5%) and Book 1, where the divergences are non-significant except for evam, with a probability of perhaps three cases in a hundred. Both Books 1 and 8 yield highly significant results when compared with Books 3 and 7, and, on the principle that it is preferable not to multiply sources beyond need, we could initially consider Books 1, 2 and 8 as forming the work of a single author.

Turning now to the affiliations of Book 3, it appears that Book 4 belongs to it, since both Books 2 and 7 reject it. Book 5 shows a slightly significant divergence in respect of vā when compared with Book 3, and the same for eva and ca, when compared with Book 7, though it clearly cannot be grouped with Book 2. Books 6 and 11 are too short to reach any conclusion, also perhaps Book 14. Of the rest, objections to grouping Book 3 with any other appear in every case but Book 10.

As for Book 7, it stands apart from Books 1, 2, 3, 4 and perhaps 5. The result for the short Book 6 must be indecisive. Book 8, strangely, is rejected. Book 9 probably belongs to it, and Book 10 may do so, in spite of a slightly significant result for vā.

Table 4.16

Chi-square results comparing each of Arthaśāstra Books 2, 3 and 7 with the remaining Books.

## (a) Book 2:

	Bk. 1	4	5	6	8	9
<u>eva</u>						
X <sup>2</sup>	.00	5.05*	16.02***	-	-	.13
d.f.	1	1	1	-	-	1
<u>evam</u>						
X <sup>2</sup>	4.37*	-	-	-	-	-
d.f.	1	-	-	-	-	-
<u>ca</u>						
X <sup>2</sup>	4.80	24.02***	15.41**	9.70**	2.20	37.12***
d.f.	4	3	3	3	3	3
<u>tatra</u>						
X <sup>2</sup>	.00	7.90	-	-	.87	.46
d.f.	1	1	-	-	1	1
<u>vā</u>						
X <sup>2</sup>	6.07	24.42***	37.65***	.00	5.63	27.86***
d.f.	3	3	3	1	2	3

	Bk. 10	11	12	13	14
<u>eva</u>					
X <sup>2</sup>	-	-	-	1.34	-
d.f.	-	-	-	1	-
<u>evam</u>					
X <sup>2</sup>	-	-	-	-	-
d.f.	-	-	-	-	-
<u>ca</u>					
X <sup>2</sup>	14.68**	12.67**	19.75***	24.77***	32.16***
d.f.	3	4	3	3	3
<u>tatra</u>					
X <sup>2</sup>	-	-	-	-	-
d.f.	-	-	-	-	-
<u>vā</u>					
X <sup>2</sup>	1.80	13.43**	66.18***	43.24***	2.41
d.f.	2	2	3	3	2

Table 4.16

(b) Book 3

	Bk. 1	4	5	6	8	9
<u>eva</u>						
$X^2$	5.74*	.13	1.17	-	2.93	3.02
d.f.	1	1	1	-	1	1
<u>evam</u>						
$X^2$	6.78**	-	-	-	-	-
d.f.	1	-	-	-	-	-
<u>ca</u>						
$X^2$	11.32**	2.83	4.19	1.62	5.11	5.43
d.f.	3	3	3	2	3	3
<u>tatra</u>						
$X^2$	.41	-	-	-	-	1.87
d.f.	1	-	-	-	-	1
<u>vā</u>						
$X^2$	24.97***	5.26	11.13*	1.33	16.57***	10.90*
d.f.	3	3	3	1	2	3
<hr/>						
	Bk. 10	11.	12	13	14	
<u>eva</u>						
$X^2$	1.03	-	3.40	.53	1.34	
d.f.	1	-	1	1	1	
<u>evam</u>						
$X^2$	-	-	-	-	-	
d.f.	-	-	-	-	-	
<u>ca</u>						
$X^2$	.44	1.63	1.30	13.21**	7.99*	
d.f.	2	2	2	3	2	
<u>tatra</u>						
$X^2$	-	-	-	-	-	
d.f.	-	-	-	-	-	
<u>vā</u>						
$X^2$	1.56	7.82*	32.75***	18.77***	.29	
d.f.	2	2	3	3	2	

Table 4.16

(c) Book 7:

	Bk. 1	4	5	6	8	9
<u>eva</u>						
X <sup>2</sup>	.85	.82	5.87*	-	.35	.11
d.f.	1	1	1	-	1	1
<u>evam</u>						
X <sup>2</sup>	.16	1.99	1.32	-	-	.60
d.f.	1	1	1	-	-	1
<u>ca</u>						
X <sup>2</sup>	32.82***	12.68**	6.07*	.01	16.04***	5.86
d.f.	3	2	2	1	2	3
<u>tatra</u>						
X <sup>2</sup>	.00	-	-	-	-	.58
d.f.	1	-	-	-	-	1
<u>vā</u>						
X <sup>2</sup>	45.15***	1.25	1.23	5.19*	32.33***	4.37
d.f.		4	3	2	3	4
<hr/>						
	Bk. 10	11	12	13	14	
<u>eva</u>						
X <sup>2</sup>	.00	-	.63	.02	-	
d.f.	1	-	1	1	-	
<u>evam</u>						
X <sup>2</sup>	-	-	-	-	-	
d.f.	-	-	-	-	-	
<u>ca</u>						
X <sup>2</sup>	3.36	.00	.21	14.68**	4.91	
d.f.	2	1	2	3	2	
<u>tatra</u>						
X <sup>2</sup>	-	-	-	-	-	
d.f.	-	-	-	-	-	
<u>vā</u>						
X <sup>2</sup>	8.63*	4.24	14.90**	6.62	5.25	
d.f.	3	2	4	3	3	

Books 12 and 13 are rejected by each of Books 2, 3 and 7, and may well form a group of their own, representing a fourth hand in the Arthasāstra.

To summarize the results: The separate authorship of Books 2, 3 and 7 is well established. When it comes to grouping the remaining books around those three, the interpretation of the results becomes less obvious. It is conceivable that Books 1 and

2 belong together, both from the statistical results as well as from the fact of their contiguity and the similarity of subject matter. To add Book 8 to that group, however, would make less sense since it is neither contiguous nor is it obvious that its subject (vices or calamities) fits in well with the first two (ministers and overseers). It is stylistically unique in the extent to which it employs the polemical technique, which is rare in Book 1 and almost absent from Book 2. Books 3 and 4 (law and crime) clearly form the core of a second group, to which Book 5 ('secret conduct') might logically be added. Book 6 would perhaps be put in a third group with Book 7, to which it serves as a preface, but could also for the same reason be a later composition added by the compiler. The third group, then, whose general subject is interstate relations, would consist of Books 7, 9 and 10. Books 12 and 13 form a fourth group of miscellaneous subjects under the heading of interstate relations, to which one would be inclined to add Books 11 and 14.

## CHAPTER 5: SENTENCE-LENGTH AND COMPOUND-LENGTH

Sentence-length

One feels that length of sentence characterizes the style of a writer. This author prefers the immediacy of short, staccato sentences; that author, the polished and languid style of long periods with frequent appositions, subordinate clauses, and parenthetical phrases. Sentence-length is, moreover, easily measured (or so it seems, at first glance), and the studies of Yule, Wake and Morton<sup>1</sup> provided reason to believe that it could be a useful test of authorship in Sanskrit. We decided to investigate the matter.

Sentence-length distributions characteristically form a unimodal curve, positively skew, often with a long, thin tail. Their shape can be summarized (following Yule) by calculating the first quartile ( $Q_1$ ), a measure of short sentences; the median, a measure of the central tendency; the third quartile ( $Q_3$ ), measure of the longer sentences; and the ninth decile ( $D_9$ ), a measure of the longest sentences. (Yule also gives the interquartile distance,  $Q_3 - Q_1$ , as a measure of the central spread.) We give these quantiles for sentence-length distributions in Somadeva in Table 5.1.

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1. Cited above, ch. 3.

Table 5.1

Quantiles of the sentence-length distributions in Somadeva in words.

	Sample 1	2	3	4	5
$Q_1$	3.20	2.93	4.00	3.60	4.28
Median	5.91	5.37	6.93	6.82	7.09
$Q_3$	8.64	8.36	8.66	9.03	9.44
$D_9$	10.48	10.17	10.91	10.87	12.33

Since the methods for calculating these quantiles is only approximate, and that of calculating their standard errors is even more so, they do not form a very satisfactory basis for significance testing. Yet they serve to illustrate the considerable divergence which exists between Sample 2 at one extreme and Sample 5 at the other, in every part of the distributions.

Grouped sentence-length distributions for Somadeva (as well as Gaṅgeśa) have been given in Table 4.5, above. Calculating for chi-square from this table yields a highly significant result, well beyond the .1% level ( $\chi^2 = 35.09$  at 12 d.f.).

This result is confirmed by comparison of means and variances. (These have been calculated from the ungrouped data.)

Table 5.2

Means and variances for sentence-length distributions in Somadeva.  
n = number of sentences.

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
n	300	300	300	300	300
mean	6.17	6.14	7.10	6.74	7.29
variance	11.22	9.93	10.59	10.04	19.24

Standard error of the difference in means ( $\sigma_w$ ) is given by:

$$\sigma_w = \sqrt{\frac{S_i^2}{i} + \frac{S_j^2}{j}}$$

where  $S^2$  is the variance, n the size of sample, and the subscripts i, j denote the two different samples. Calculating for the two extremes, Samples 2 and 5, we find the standard error of the difference is .312, with a difference in means of 1.15, or 3.69 standard errors. Referring this to tables of the areas of the normal curve, we find a probability of slightly more than .0001 or one case in 10,000 of so great a difference arising through sampling variation. Computing the variance ratio, F, where

$$F = \frac{\text{greater variance estimate}}{\text{lesser variance estimate}}$$

we achieve a highly significant value at 1.95 (d.f. = 299, 299).

By all the tests we conclude that sentence-length distributions

in Somadeva can by no means be regarded as homogeneous.

Turning to Gaṅgeśa, the quantiles are given in the following table:

Table 5.3

Quantiles of the sentence-length distributions in Gaṅgeśa.

	Book 1	2	4
Q <sub>1</sub>	3.97	6.21	5.50
Median	7.54	11.53	9.96
Q <sub>3</sub>	11.69	17.92	15.43
D <sub>9</sub>	15.50	27.50	26.44

As we have previously remarked, there is a large difference between the distribution for Book 1, and those for Books 2 and 4. Chi-square for all three books is highly significant at 58.23 with 12 degrees of freedom.

Means and variances are given in Table 5.4.

Table 5.4

Means and variances for sentence-length distributions in Gaṅgeśa.

	Book 1	2	4
n	300	300	300
mean	8.52	13.67	12.42
variance	33.64	110.04	93.70

For Books 1 and 2 the means lie 3.09 standard errors apart, a highly significant divergence; and the F-test shows a highly significant divergence in the variances of the two books ( $F = 3.27$ , d.f. = 299, 299).

Agreement between Books 2 and 4, on the other hand, is fairly good. The chi-square result for the grouped sentence-length distributions of Table 4.5 is 5.89 at 8 degrees of freedom. The means for the two books are 1.5 standard errors distant which, at about the 7% level is not too bad. The variance ratio is also non-significant ( $F = 1.17$ ).

This should serve as a warning against too facile an acceptance of sentence-length as a test of authorship in ancient texts. For it would be absurd to conclude that Samples 2 and 5 of Somadeva, for instance, have different authors, or that the author of Gaṅgeśa Book 1, is different from the author of Books 2 and 4.

To determine the lengths of sentences we have simply counted the number of words between danḍas. Now the use of the danḍa in verse was regularized before its use in prose, if indeed it can ever be said to have regularized in prose. The Girnar rescension of the Aśokan edicts employ danḍas very haphazardly, to separate phrases, but not throughout; in the Gupta inscriptions danḍas are fully established in verse and common but not obligatory in prose.<sup>1</sup>

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1. See Georg Bühler, Indische Palaeographie, trans. Fleet, in IA 33, Appendix.

A glance through Sircar's Select Inscriptions shows that a modern editor's view of where the danḍas belong often conflict with the person--whether the praśastikāra or the engraver--responsible for the danḍas in epigraphs. The judgement of two different editors may diverge to a considerable extent: Kangle's text of the Arthaśāstra, for example, contains about 22% fewer danḍas than does the Jolly-Schmidt edition.<sup>1</sup> Even the work of one editor may show inconsistencies from one end of a text to the other, and it is to this, coupled with the inconsistencies introduced by copyists and allowed to stand, that the divergences in sentence-length distributions noted in Somadeva and Gaṅgeśa are most probably to be attributed. If one consults the printed text of Gaṅgeśa, for instance, one will find that in Book 1 where a hypothetical construction beginning with cet is rebutted with na, that na is more often than not regarded as a one-word sentence with danḍas either side; whereas in Book 2 and the later books it is often treated as a phrase and enclosed in commas. Thus the danḍas in Gaṅgeśa do not accurately reflect the natural periods of the prose; rather, they mask it.

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1. Kangle, Part 3, p. 21: about 5370 'sūtras' in his text, 6880 in Jolly-Schmidt, including verses, where the position of the danḍas is fixed by usage, so that the difference in the prose is even greater than calculated.

The danḍa was the only mark of punctuation available to ancient Indian writers and so was called to serve a variety of purposes besides ending sentences. In the printed texts which have appeared in the last two centuries, a few of the roman punctuation marks have been admitted with the wholly noble intent of making them easier to read. The unfortunate result for our type of study is that practices have not become standard, either with regard to the number of permitted marks, or their permitted functions. If the danḍa were confined to the functions of the full-stop and were intelligently inserted by editors, the sentence-length test would be much easier to apply.

This does not wholly eliminate the problem, however, for even in classical texts which have been the subject of critical editorial attention for many generations, the practices of different editors may still show considerable divergence. In modern texts where we can be confident that the punctuation is the work of the author and not of copyists or editors, we have personal idiosyncrasy to cope with; only the foolhardy or the mad would attempt a study of sentence-length distributions in Tristram Shandy, for example. In all studies of sentence-length, in any language, then, what constitutes a sentence must be given careful thought; and in many, editorial decisions will have to be made while making the counts or preparing the text for computer. This is unfortunate since it requires greater attention and time, and subjects the outcome of a sentence-length study to the skill and honesty of the scholar doing the counting, but it cannot be avoided.

We do not pursue sentence-length further, but turn now to compound-length.

### Compound-length

It is a matter of common knowledge among indologists that Sanskrit authors differ in the extent to which they use nominal compounds, and especially in the lengths of their compounds. Some authors (and some genres of literature) will favour the crispness and directness of a style which uses only a few, short compounds, and will employ the common compound which scarcely seems a compound, but will rarely coin a nonce-compound; others, preferring the ornate and convoluted, will build great compounds as easily as a hot summer's day will pile up cumulous clouds. Sanskrit permits the writer enormous scope for compounding, perhaps more than any other language. And it is only reasonable to presume that if compounding can be measured, it may form a basis on which personal styles may be statistically distinguished.

In compiling tables of compound-length distributions, we have counted the number of separate words or 'members' in each nominal compound; thus each compound has two or more members. We have not distinguished nityasamāsas such as artha-sāstra from those made up for the occasion and never used again; arthasāstra is entered as a two-member compound along with the rest, though proper names are everywhere treated as simple words. We have analysed each compound into as many component members as it can be made to yield regarding, for example, itihāsa as a three-member

compound consisting of the words iti + ha + āsa after the usual etymology, excepting only a-privative and the prefixes of verbal derivatives, and resolving compounds within compounds to their component parts. Compounds were not further classified by type, such as bahuvrīhi, etc. If this procedure seems to ride roughshod over many nice grammatical distinctions, it seemed to us the only practical course, at least for a first attempt such as this. To follow any other would be to risk having the counting process get stuck in a morass of indecision.

Compound-length distributions for the five samples from Somadeva and the three from Gaṅgeśa are given in Table 5.5.

Table 5.5

Compound-length distributions in Somadeva and Gaṅgeśa.

(a) Somadeva

Members	Sample 1	2	3	4	5	
2	307	326	355	313	435	
3	100	76	102	84	97	
4	28	30	32	18	26	
5	12	12	7	9	13	
6	4	4	3	2	7	
7	3	4	5	3	8	
8	2	3	1	1	-	
9	1	1	1	-	-	
10	1	2	1	-	1	
11	-	-	1	-	1	
.....						
14	1	-	-	-	-	
.....						
42	-	1	-	-	-	
	total	459	459	508	430	588

Table 5.5

## (b) Gañgeśa

Members	Bk. 1	2	4
2	431	644	602
3	185	323	271
4	70	111	104
5	15	48	46
6	11	29	18
7	6	14	15
8	-	5	4
9	1	6	2
10	-	3	3
11	-	2	1
12	-	1	-
....			
16	-	-	1
	total 719	1186	1067

Agreement among the five samples of Somadeva as measured by chi-square is very good ( $X^2 = 18.00$ , d.f. = 16); that within Gañgeśa is not so good, just reaching the 5% significance level ( $X^2 = 18.75$ , d.f. = 10). The improvement over the sentence-length distributions, in any case, is enormous, and we have reason to be encouraged.

Comparison of means and variances, on the other hand, is distinctly discouraging.

Table 5.6

Means and variances for compound-length distributions in Somadeva and Gañgeśa.

(a) Somadeva		<u>n</u>	<u>mean</u>	<u>variance</u>
Sample 1		459	2.57	1.391
	2	459	2.63	4.730
	3	508	2.50	1.120
	4	430	2.41	.716
	5	588	2.46	1.102
(b) Gañgeśa				
Book	1	719	2.63	.963
	2	1086	2.74	1.798
	4	1067	2.80	1.686

In Somadeva the extremes for both means and variances are represented by Samples 2 and 4. The means of these two samples lie 2.02 standard errors apart with a probability of about 4.5% (for two tails). The variance ratio is highly significant at 6.61 (458, 429 d.f.). For Gañgeśa the means of the samples from Books 1 and 4 are 3.12 standard errors distant, with a probability of about two cases in a thousand. The variance

ratio for the two extremes, Books 1 and 2, is again significant, though not so large as that for Somadeva ( $F = 1.87$ , d.f. = 1085, 718).

The reason for the differing verdicts of the chi-square test and comparison of means and variances is not far to seek. The compound-length distributions from time to time show outliers at a considerable distance from the body of the distribution, or, in other words, the occasional very long compound makes an appearance. They are in almost every case dvandvas, and one way of eliminating this effect would be simply to exclude all compounds of this type. These outliers increase the means slightly and the variances a great deal. In the second sample from Somadeva, for instance, a single compound of 42 members contributes about 3.4 to the total variance of 4.7. The necessity for pooling where the expectation falls below 5 in chi-square testing damps down and indeed even eliminates the distorting effect of these outliers. In computing chi-square for Somadeva, compounds of six members or more were lumped together, in Gaṅgeśa compounds of seven members or more. It is usually judged that the need to pool and thus foreshorten the tails of distributions, making chi-square a less sensitive test, is a disadvantage; in this case, it is probably an improvement over other tests.

Clearly compound-length cannot be regarded as a safe discriminator without further investigation into its nature and without more testing in control material. We go on to consider compound-length in the Arthasāstra with the understanding that it is not

to be taken as sure or settled, and must be evaluated in conjunction with the results of other kinds of tests.

The distributions may be found in Appendix Table 7.

Taking the three long books first and computing chi-square within and between books we arrive at the results shown in the following table:

Table 5.7

Chi-square results for compound-length distributions within and between Books 2, 3 and 7 of the Arthasāstra.

	$\chi^2$	d.f.
Book 2	33.41*	21
3	3.06	5
7	8.63	4
2 & 3	24.87**	8
2 & 7	32.81***	6
3 & 7	9.14	6

This agrees quite well with the results for word distributions,<sup>1</sup> except that the four samples of Book 2 give a result just at the 5% level, occasioned chiefly by a thick tail in 2a, and comparison of Books 3 and 7 yields a non-significant result. Book 2 in any case is very different from Books 3 and 7, supporting our conclu-

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1. See above, Tables 4.13 and 4.14.

sion of difference in authorship.

The results comparing the long books singly with the remaining ones are given in Table 5.8.

How do these results affect our conclusions as to groups of books within the Arthaśāstra, arrived at on the basis of word distributions?<sup>1</sup> In the first place the possible association of Books 1 and 2 looks less likely in view of a significant result for compound-length, though we may note that again the tail of the distribution is the seat of the trouble, if we may be pardoned the expression. The same cannot be said for the significant difference in compound-length between Books 3 and 4, on other grounds the most hopeful of combinations, though 3 and 5 may be considered homogeneous. There is no change in the conclusions regarding Book 7, and in particular its association with Book 9 is the most thoroughly tested in the Arthaśāstra.

Compound-length may prove to be a useful test of authorship in Sanskrit, but as we say it needs more study.

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1. See above, Table 4.16.

Table 5.8

Chi-square results for compound-length distributions, comparing each of Arthasāstra Books 2, 3 and 7 with the remaining books.

(a) Book 2:

	Bk. 1	4	5	6	8	9
X <sup>2</sup>	20.02**	22.90**	6.92	2.81	16.09*	25.14***
d.f.	7	7	6	3	6	6

	Bk. 10	11	12	13	14
X <sup>2</sup>	20.16**	2.11	9.60*	15.23**	32.94***
d.f.	5	3	4	5	5

(b) Book 3:

	Bk. 1	4	5	6	8	9
X <sup>2</sup>	13.67*	19.50**	6.87	6.09	8.71	10.81
d.f.	6	6	5	3	5	5

	Bk. 10	11	12	13	14
X <sup>2</sup>	19.82**	.24	1.00	19.67**	61.84***
d.f.	5	2	3	5	5

(c) Book 7:

	Bk. 1	4	5	6	8	9
X <sup>2</sup>	18.20**	19.64**	10.03*	6.86	7.04	2.69
d.f.	6	6	4	3	4	4

	Bk. 10	11	12	13	14
X <sup>2</sup>	20.62***	.37	1.90	20.97***	78.36***
d.f.	4	2	4	4	4

CHAPTER 6: THE ARTHAŚĀSTRA, BHARUCI AND MEDHĀTITHI

In 1965 Dr. Dieter Schlingloff published an important study of the parallel passages in the Arthaśāstra and one of the earliest extant commentators on Manu, Medhātithi.<sup>1</sup> Schlingloff found altogether 19 passages common to the two texts, which he published in his article in parallel columns with a wealth of annotation giving variant readings and parallels in other works, such as the Kāmandakīya Nītisāra and Somadeva's Nitivākyāmṛta, thus completing the works begun by J. Jolly.<sup>2</sup>

The importance of Schlingloff's study lies not so much in his conclusions regarding the relative purity of the textual tradition by which the Arthaśāstra has been handed down to us, the corruptions to which the text of Medhātithi has been subject, and the improved readings for Medhātithi which a comparison with the Arthaśāstra affords, important as these are: it consists rather in the startling

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1. "Arthaśāstra-Studien" in Wiener Zeitschrift für die Kunde Süd- und Ostasiens 9, 1965, p. 1 ff.

2. "Kollektaneen zum Kauṭīliya Arthaśāstra" (ZDMG 68, 1914, p. 345 ff; 69, 1915, p. 369 ff.) gives extensive parallels in various works; the relation with Medhātithi is noted in "Textkritische Bemerkungen zum Kauṭīliya Arthaśāstra", ZDMG 70, 1916, pp. 547-54; 71, 1917, pp. 227-39; 414-28; 72, 1918, pp. 209-23.

conclusion he reaches concerning the relation of the two texts, namely, that Medhātithi has not drawn on the Arthasāstra itself, but from an earlier arthasāstra source on which the author of the Kauṭīliya Arthasāstra also drew. This proceeds from the assumption that citations tend to be word for word, or at least, when the author quotes from memory, he does not alter the sense of his original, much less contradict it.<sup>1</sup> 'Reworkings' (Bearbeitungen) such as those of Kāmandaka and Somadeva are explicitly excluded from the jurisdiction of this assumption. Since, then, in the passages common to the Arthasāstra and Medhātithi there are to be found differences of word order, juxtapositions of ideas, differences of content and even contradictions, Medhātithi cannot have drawn from the Arthasāstra itself, but rather from the tradition on which the latter depends. The similarities in the passages, however, show that the Arthasāstra was constructed of the same materials.<sup>2</sup> Although he does not say so, we must infer that Schlingloff views Medhātithi as preserving passages from this 'Arthasāstra-Quelle' more or less in their original form and the author of the Kauṭīliya as having changed or reworked them, standing in a relation to it similar to Kāmandaka or Somadeva's relation to

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1. Schlingloff, p. 25: "Zitate jedoch pflegen wörtlich zu sein, oder doch zumindest -- wenn der Autor aus dem Gedächtnis zitiert -- ihrem Sinne nach nicht von dem zitierten Text abzuweichen oder diesem gar zu widersprechen."

2. Schlingloff, p. 31.

the Arthasāstra itself.

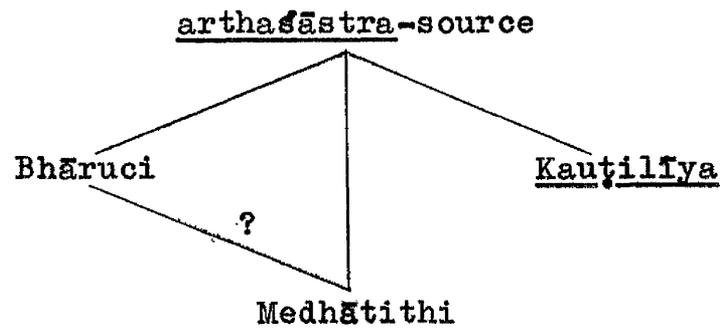
Not long before Schlingloff's article appeared Professor J.D.M. Derrett published parallel passages from the Arthasāstra, Medhātithi and an earlier commentary on Manu, the Manusāstravivarāṇa of Bhāruci, a manuscript of which had recently been discovered in the University of Travancore, for the text of which Professor Derrett is preparing an edition and translation.<sup>1</sup> Of the five passages common to the three texts presented in this paper, four corresponded to four passages of the 19 published by Schlingloff, the other one having been overlooked by the latter since it has inadvertently been omitted from Jha's text of Medhātithi. It appeared, then, that the picture was somewhat changed, for it is certain that the Vivarāṇa is earlier than Medhātithi's Manubhāṣya, and that the text of the Vivarāṇa which we have, fragmentary though it is (it begins with the concluding parts of Manu, Book 6), is the same work which Medhātithi had before him and which he often drew from and sometimes named.<sup>2</sup> But the picture was not greatly altered: if Medhātithi got some of his arthasāstra material from Bhāruci, the bulk of it came from elsewhere, or so it seemed when Schling-

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1. "A Newly-discovered Contact between Arthasāstra and Dharmaśāstra: the Role of Bhārucin" in ZDMG 115, 1965, p. 134 ff.

2. Derrett, p. 141, fn. 20: Professor Derrett has collected other such references which will be included in the notes to the text and translation, to be published by the Centre du sud-est asiatique, University of Brussels.

loff appended a note to his article, taking into account the recently-published information of Derrett in the following stemma:<sup>1</sup>



It seemed to us strange that Medhātithi should draw some of his arthasāstra material from Bhāruci, but not all. Accordingly, and thanks to the kind loan of a Roman transcript of Bhāruci on Manu, Book 7, by Professor Derrett, we searched for other Arthasāstra-Bhāruci-Medhātithi parallels.

The search was simple with the extensive work of Schlingloff before us; we quickly found that all but six of Schlingloff's Arthasāstra-Medhātithi correspondences are also represented in Bhāruci, and two more which Schlingloff had not found besides. The picture changes again.

We present below the twenty-one extracts, in order of their appearance in Bhāruci and Medhātithi. For the Arthasāstra we use Kangle's text and his notes thereon in which D represents the recently discovered Devanāgarī manuscript, G<sub>1</sub> that on which Shamasastri based his edition, G<sub>2</sub> the transcript of a manuscript used

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1. Schlingloff, p. 38.

for the Jolly-Schmidt edition ( $G = G_1, G_2$ ),  $M_1$  the manuscript chiefly used by Ganapati Sastri for his text according to Kangle ( $M = M_1, M_2, M_3$ ) and T a manuscript in Telegu characters. D is a northern manuscript, the other southern; the various commentaries are given as Cb, Cj, Cn, Cnn, Cp, and Cs, the last being Ganapati Sastri's Śrīmūla; the Jolly-Schmidt edition is referred to as 'p'. For Bhārucci the text is Derrett's Roman transcript of a Devanāgarī copy of the original in Malayālam script. For Medhātithi the text is that of Ganganatha Jha<sup>1</sup> with variants supplied from the editions of V.N. Mandalik (Mand.)<sup>2</sup> and Jagannath R. Gharpure<sup>3</sup> (Ghar.) and Jha's notes on Gharpure's text which preceded his own edition of the text (Jha (Notes)).<sup>4</sup> We have not thought it necessary to improve the readings, sandhi and punctuations of the text, the latter showing how the editor, who appears to have made no serious use of the Arthaśāstra, has occasionally misconstrued his text.

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1. Manu-Smṛti with the 'Manubhāṣya' of Medhātithi (Bibl. Ind. no. 256), vol. 2, Calcutta, 1939. Jha's translation appeared earlier than the text (vol. 3, pt. 2, Calcutta, 1924).
  2. Mānava-Dharma-Śāstra with the Commentaries of Medhātithi, Sarvajñanārāyaṇa, Kullūka, Rāghavānanda, Nandana and Rāmachandra, Bombay, 1886.
  3. Collection of Hindu Law Texts, no. 9, 1920.
  4. Manu-Smṛti: Notes. Part 1: Textual, Calcutta, 1924.

Only those variants in the Arthaśāstra and Medhātithi which throw some light on the relations of the texts are cited. We occasionally cite parallels from the Kāmandakiya Nītisāra (KN) and its commentator Śaṅkarārya from the edition of T. Ganapati Sastri<sup>1</sup> and Somadeva's Nitivākyāmr̥ta<sup>(NV)</sup> from that of Pt. Pannālāla Soni<sup>2</sup> with variants, where pertinent, from Jolly's "Kollektaneen".<sup>3</sup>

We must say at once that in annotating these passages we have made full use of Schlingloff's excellent notes, and have adopted his method of arrangement. At the same time, bringing Bhāruci into the comparison has meant that some variants which had been of no interest in comparing the two texts became relevant when considering the inter-relations of the three, and so the whole ground had to be gone over. A few new passages from Kāmandaka and Somadeva have also been supplied.

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1. TSS, no. 14, Trivandrum 1912.

2. Māṅikacandra-Digambara-Jaina-Granthamālā, no. 22, Bombay, Saṃvat 1979 (A.D. 1923). Improved readings are contained in a second volume (no. 34 of the series, Saṃvat 1989, A.D. 1933). References are to the first volume unless otherwise stated.

3. Cited above.

1. The Four Vices Born of Lust (Schlingloff 19; Derrett I)Drink (negative)<sup>1</sup>(Kauṭilya: Drink worse (Manu: Drink worse than gambling)  
than women)Arth. 8.3

Bhār. 7.52

Medh. 7.52

(pānadyūtayoḥ pānaṃ  
gariyaḥ /)(pānadyūtayoḥ pānaṃ  
gariyaḥ /)1.a. pānasampat--samjñānāśo  
'nunmattasyonmattatvam  
apretasya pretatvaṃ  
kaupīnadarsanaṃ śruta-  
prajñāprāṇavittamitra-  
hāniḥ sadbhir viyogo  
'narthasaṃyogas tantri-  
gītanaipuṇyeṣu cārtha-  
ghneṣu prasaṅga ititatra hi samjñāprāṇā-  
śaḥ/ anumattasyonmat-  
tatva (lacuna)sya pret-  
atvaṃ śrutaprajñāpra-  
hāṇaṃ mitrahāniḥ sadbh-  
ir viyogaḥ asadbhis  
ca prayogaḥ/ gītādiṣu  
cārthasvapneṣu prasaṅ-  
gaḥ/ rahasyamantrapra-  
kāśaṃ madavegeneti  
pānadoṣaḥ/tatra hi samjñāpranāśaḥ  
anunmattasyonmattatvam  
apretasya pretatvaṃ  
kaupīnaprakāśanaṃ, śru-  
taprajñāprahāṇaṃ,  
mitrahāniḥ, sadbhir  
viiyogaḥ, asadbhis ca  
samprayogaḥ, gītādiṣv  
ārthaghneṣu prasaṅgaḥ,  
ratamantraprakāśanaṃ  
ca, mānino 'py upahās-  
yatā, gambhīraprakṛter  
api yatkiñcanavāditā

/61/

madavegeneti, pānadoṣaḥ,

1. Cf. KN 15.60-2: vamaṇaṃ vihvalatvaṃ ca samjñānāśo vivastratā/  
bahvabaddhaprēlāpītvam akasmād vyasanaṃ muhuḥ// prāṇaglāniḥ suhṛnnāśaḥ  
prajñāśrutamatibrahmaḥ/ sadbhir viyogo 'sadbhis ca saṃyogo 'narthasā-  
gamaḥ// skhalanaṃ vepathus tandri nitāntaṃ strīniveṣanaṃ/ ity ādi  
pānavyasanam atyantaṃ sadvigarhitam//

## Gambling (positive)

(Piṣuna: Hunting is worse than gambling.)

- b. dyūte tu jitam evākṣa- dyūte jitam evākṣavidu- dyūte tu jitam evāk-  
viduṣā yathā Jayatsena- ṣā anakṣajñasyāpi ṣaviduṣā, anakṣaj-  
Duryodhanābhyām iti / pākṣikaḥ parājayaḥ / ñasyāpi pākṣikaḥ  
/41/ parājayaḥ/

Gambling (negative)<sup>2</sup>

(Kauṭilya: Gambling worse than hunting)

- c. (dyūtastrīvyasanayoś (strīdyūtavvyasanayor  
ca dyūtaṃ garīyaḥ/ dyūtavvyasanaṃ  
garīyaḥ/  
tad eva vijitadravyam yena tadaiva jita-drav- yena tad eva jitaṃ  
āmiṣaṃ vairānubandhaś yaḥ tasyāpi bhavati dravyaṃ tasyāpi viṣa-  
ca<sup>3</sup>/ 44/

1. Cf. KN 15.46, 49: arthanāśakriyāvāsyāṃ nityaṃ vairānubandhitā/  
saty apy arthe nirāśatvam asaty api ca sāśatā// gūhanaṃ mūtraśakṛto  
kṣutpīpāsopapīḍanam/ ity ādīṃs tantrakuśalā dyūtadoṣān pracakṣate//  
NV (2) 16.10-13: dyūtāsaktasya kim apy akṛtyaṃ nāsti/ mātary api hi  
mṛtāyāṃ dīvyaty eva kitavaḥ/ piṣunaḥ sarveṣāṃ aviśvāsaṃ janayati/  
divāsvāpaḥ guptavyādhivyālānām utthāpanadaṇḍaḥ sakalakāryāntarāyaś ca/  
3. Kangle: "GMT vairabandhaś ca, (Cn)." Bhār., Medh. agree with  
Kangle's text.

sato 'rthasya viprati-	tathā tannimitto	bhavati/ <sup>4</sup>
pattir asastaś cārjanam	vairānubandhaḥ/ jayaḥ	tathā ca tannimitto
apratibhuktanāśo mūtra-	sādhāraṇaḥ kevalaḥ	vairānubandhaḥ jayaḥ
puriṣadhāraṇabubhukṣā-	parājayaḥ anubhakta-	sādhāraṇaḥ kevalaḥ
dibhiś ca vyādhilābha	nāśaḥ/	parājayaḥ, bhuktanā-
iti dyūtadoṣāḥ <sup>5</sup> / 45/	mūtrapuriṣavegadhāraṇāc	śaḥ/ mūtrapuriṣave-
(Kaunapadanta: Gambling	ca sarīratantraśaithil-	gadhāraṇāc ca sarīre-
worse than women)	yaṃ vyādhinidānam āseva-	śaithilyaṃ vyādhini-
sātatyena hi nisi	na kṣudrādibhiś ca	dānam eva/ tena
pradīpe mātari ca	pīḍātīśayena/ mātary	kṣudrādibhiḥ svapī-
mṛtāyāṃ divyaty eva	api ca mṛtāyāṃ divyaty	ḍātīśayāt/ mātary
kitavaḥ/ 48/ kṛcchre	eva/ kitavaḥ kṛcchre-	api ca mṛtāyāṃ
ca pratiprṣṭaḥ kupyati/	ṣu ca pṛcchyaṃānaḥ	divyaty eva/ kṛtakṛ-
/49/	suhṛdbhir api kupyatīti	yeṣu ca na suhṛdbhir
	dyūtadoṣāḥ/	api kṛṣyate/ taptā-
		yasapiṇḍavat paradra-
		ṅṇi pariharato na
		pratyayate ca/
		kṣudhite durgate
		'nnādyupapattyupekṣā
		viṣayatā sarvagūṇas-
		aṃpannasyāpi tṛṇavadī
		ava jñāyate/ iti
		dyūtadoṣāḥ/

4. Ghar. v.l., Jha (Notes): viṣī bhavati, "as in N(andana)."

5. Kangle: "G<sub>1</sub>T dyūtadoṣaḥ." Bhār., Medh. agree with Kangle's text.

## Women (positive)

(Kaṇṇapadanta: Gambling  
worse than women)

d. strīvyasane tu <sup>6</sup> snāna-	strīvyasane tv apatyo-	strīvyasane tv apaty-
pratikarmabhōjanabhūmiṣu	tpattiḥ pratikarmabho-	otpattiḥ pratikarma-
bhavaty eva dharmārtha-	janabhūyīṣṭham anusava-	bhojanabhūyīṣṭhānu-
paripraśnaḥ/ 50/ śakyā	naṃ dharmārthaparigra-	bhavanaṃ dharmārtha-
ca strī rājahite niyok-	haḥ/ śaktā ca strī	partigrahaḥ/ śakyā
tum, upāṃśudaṇḍena	rājahite niyoktum	ca strī rājahite
vyādhinā vā vyāvartay-	apavāhayituṃ vā/	niyoktum apavāhayi-
itum avasrāvayituṃ vā		tuṃ vā/
iti/ 51/		

(Kaṇṇilya: Drink  
worse than women)

strīvyasane bhavaty  
apatyotpattir ātmarak-  
ṣaṇaṃ cāntardāreṣu,  
viparyayo vā bāhyeṣu  
agamyeṣu sarvocchit-  
tiḥ/ 59/

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6. Kangle: "GT strīvyasaneṣu tu." Bhār., Medh. agree with Kangle's text.

Women (negative)<sup>7</sup>

(Kauṭilya: Women worse  
than gambling)

	(strīmr̥gavyasanayoḥ strīvyasanam̐ garīyaḥ/)	(strīmr̥gayāvyasana- yoḥ strīvyasanam̐ garīyaḥ/)
adarsanam̐ kāryānirve- daḥ <sup>8</sup> kālātīpātānād <sup>9</sup> anartho dharmalopaś <sup>10</sup> ca tantradaurbalyam̐ pānānubandhaś <sup>11</sup> ceti/ /54/	adarsanam̐ kāryāṇām̐ strīvyasanāsaṅgeṣu rājakāryeṣu nirvedaḥ/ kālātīpātānam̐/ dharmā- lopaḥ/ pānadoṣānuban- dhaḥ/ arthaghneṣu ca nr̥ttādiṣu prasaṅga iti/	adarsanam̐ kāryāṇām̐ , strīvyasanasaṅgena rājakāryeṣu ca nirvedaḥ, kālātīpā- tānam̐, dharmalopaḥ, pānadoṣānubandhaḥ, arthaghneṣu ca nr̥ttā- diṣu prasaṅga iti/

7. Cf. KN 15.56: kālātīpātaḥ kāryāṇām̐ dharmārthaparipīḍanam/  
nityābhyantaravartitvāt sādhuṣṭhikopanam//

8. Kangle: "G<sub>2</sub>T om. kāryānivedaḥ." Bhār., Medh. support Kangle's  
text.

9. Kangle: "T kāryātīpāta-." Bhār. and Medh. agree with Kangle's  
text.

10. Kangle: "GMT -danarthadharmalopaś ca (em.)."

11. Kangle: "T vāsānubandhaḥ." Bhār. and Medh. agree with Kangle's  
text.

Hunting (positive)<sup>12</sup>

(Kauṭilya: Dice  
worse than hunting)

f. mṛgayāyāṃ tu vyāyāmaḥ śleṣmapttamedahsveda- nāśaś cale sthite <sup>13</sup> ca kāye lakṣaparicayaḥ kopabhayasthāneṣu ca mṛgāṇāṃ cittajñānam anityayānam ceti/ 46/	mṛgayāyāṃ tu vyāyāma- pittasśleṣmavadhaḥ svedādināśaḥ/ cale sthi- re ca kāye lakṣaparica- yaḥ/ praharaṇavaiśāra- dyopajananaena āsanapari- cayaś ceti/	mṛgayāyāṃ tu vyāyā- maḥ pittasśleṣmaban- dhaḥ, medādināśaḥ, cale sthire vā kāye <sup>14</sup> lakṣyaparicayaḥ, <sup>15</sup> praharaṇe <sup>16</sup> vaiśārad- yopajananaṃ grāmya- janaṃ rijayaś ceti/
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12. Cf. KN 15.26: jitasramatvaṃ vyāyāma āmamedahkephakṣayaḥ/  
calasthireṣu lakṣeṣu bāṇasiddhir anuttamā// (See Schlingloff for  
copious references.)

13. Kangle: "T sthire." Bhār., Medh. KN agree with T  
against Kangle's text.

14. So Jha (Notes), "as in S(arvajñanārāyaṇa)." Mand., Ghar. kāle.

15. Mand. lakṣaparicayaḥ, Ghar. lakṣaḥ paricayaḥ.

16. Mand. praharaṇaṃ.

2. The Ideal Minister<sup>17</sup> (Schlingloff 9)

Arth. 1.9

Bhār. 7.54

Medh. 7.54

jānapado 'bhijātaḥ

tad yathā prājñāḥ

tad yathā prājñāḥ

svavagrahaḥ kṛtasilpaś

suvigrahaḥ dhārayiṣṇur

ḍṛḍhakārī dhārayiṣ-

cakṣuṣmān prājñō dhārayi- dakṣo vāgmī pragalbhaḥ ṇur dakṣaḥ vāgmī

ṣṇur dakṣo vāgmī pragal- pratipattimān utsāhapra- prabalaḥ pratipatti-

ghaḥ pratipattimān utsā- bhāvaguṇayuktaḥ kleśasa- mān utsāhaprabhāva-

haprabhāvayuktaḥ kleśa- haḥ śucir maitraḥ śīla- yuktaḥ kleśasahaḥ

sahaḥ śucir maitro

balārogyayuktastambhacā- śucir dānaśīlaḥ

ḍṛḍhabhaktiḥ śīlabalāro- palahīno vairē (lacuna) yogyasattvayuktaḥ<sup>18</sup>

gyasattvayuktaḥ<sup>19</sup> stam-

stambhacāpalahīnaḥ

bhacāpalahīnaḥ<sup>20</sup> saṃpri-

priyo vairiṇām

yo vairāṇām akartety

akarteti.

amātyasaṃpat/ 1/

17. Cf. KN 4.27-30: svavagraho jānapadaḥ kulaśīlabalānvitaḥ/ vāgmī pragalbhaś cakṣuṣmān utsāhī pratipattimān// stambhacāpalahīnaś ca maitraḥ kleśasahaḥ śuciḥ/ satyasattvadhṛtisthairyaḥ prabhāvārogya- saṃyutaḥ// kṛtasilpaś ca dakṣaś ca prajñāvān dhāraṇānvitaḥ/ ḍṛḍhabhaktir akarttā ca vairānām sacivo bhavet// smṛtis tatparatār- theṣu vitarko jñānaniścayaḥ/ ḍṛḍhatā mantraguptiś ca mantrisāṃpat prakīrtitā//

18. Mand. -yuktastambha-.

19. Kangle: "GM -sattvasaṃyuktaḥ". Medh. and, partly, Bhār. agree with Kangle's text.

20. Kangle: "GM -cāpalyavaijitaḥ". Bhār., Medh., KN agree with Kangle



āṣṭavikam aupapādikam bhavatas tu katham iti/  
vā pratipādayāmaḥ, pratyākhyāte dharmopadhā-  
sarveṣām etad rocate śuddhaḥ/  
katham vā tava' iti/ 3/  
pratyākhyāne śuciḥ/  
iti dharmopadhā/ 4/

- (2) senāpatir asatpragra- senāpatir asatpratigra- senāpatiḥ kenacid  
heṅāvakṣiptaḥ sattri- heṅāvakṣipto rājñā apadeśena<sup>26</sup> pūrvavadi  
bhir ekaikam amātyam sarvapratyakṣam bahunā adhikṣiptaḥ<sup>27</sup> bhahunā  
upajāpayet lobhanī- 'rthasampradānenāpta- ca sampradānenāpta-  
yenārthena rājavinā- puruṣair ekaikam amāty- puruṣair ekaikam  
śāya,<sup>28</sup> 'sarveṣām etad am upajaped rājavinā- amātyam<sup>29</sup> upajapet  
rocate, katham vā tava' śāya/ etac ca sarvaman- rājavināśāya-<sup>29</sup> etac  
iti/ 5/ pratyākhyāne tribhyo rocate 'tha ca sarvamantribhyo  
śuciḥ/ ity arthopadhā katham bhavata iti/ rocate, atha katham  
/6/ pratyākhyāte 'rthopadhā- bhavate,<sup>30</sup> iti  
śuddhaḥ/ śuddhaḥ/ pratyākhyāne<sup>31</sup> artho-  
padhāśuddhaḥ<sup>32</sup>

26. Ghar. upadeśena.

27. Ghar. avakṣiptaḥ.

28. Kangle: "G<sub>1</sub> -vināśanāya." Bhār., Medh. agree with Kangle's text.

29. Ghar. ekaikamātyam.

30. Ghar. bhavata.

31. Ghar. ity ākhyāne.

32. Jha (text) gives this passage twice, the first time as dharmopadhā  
it is missing in Mand ., who gives the preceeding as arthopadhā.

(3)	parivrājikā labdhaviś-	parivrājikāntaḥpure	parivrājikā antaḥ-
	vāsāntaḥpure kṛtasatkā-	labdhaviśvāsā ekaikam	pure <sup>33</sup> labdhaviśvāsā
	rā mahāmātram ekaikam	amātyam upajaped rāja-	ekaikam amātyam
	upajapet--'rājamahiṣī	mahiṣī bhavataṃ kāmaya-	upajapet--'sā rāja-
	tvāṃ kāmayate kṛtasamā-	te tatkr̥tasamāgamopāy-	mahiṣī bhavantaṃ
	gamopāyā, mahān arthaś	āco	kāmayate kṛtasamā-
	ca te bhaviṣyati' iti/7/		gamopāyete' pratyā-
	pratyākhyāne śuciḥ/		khyāne 'kāmopadhā-
	iti <sup>34</sup> kāmopadhā/ 8/		śuddhaḥ'/

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33. Mand., Ghar. parivrajikāntaḥpure.

34. Kangle: "-yā mahānarthas ca ... sucir iti missing in D."

Medh. agrees with D against Kangle's text.

(4)	prahavaṇanimittam eko	ptapurusaḥ kaścid amāty-	rājaprayuktā eva
	'mātyaḥ sarvān amātyān	yeṣu mantram avasrā-	kecit puruṣāḥ pravā-
	āvāhayet/ 9/ tenodvege-	vayed imaṃ pravādam	dam <sup>35</sup> āviṣkuryuḥ,
	na rājā tān avarundhyāt/	upaśrutya bhavatām	'kṛtasamayair amātya
	10/ kāpaṭikāś cātra	nigraho rājñā dhṛta iti/	rājā hanyata' iti/
	pūrvāvarudhas teṣām	teṣām eva cānyatamaḥ	upalabdhapravādaḥ <sup>36</sup>
	arthamānāvakṣiptam ekai-	kṛtasaṃvitkaḥ pratyekaṃ	purohitasyāptaḥ
	kam amātyam upajapet--	tān rājāpatyeṣūtsāhayet/	kaścid amātyeṣu
	'asatpravṛtto 'yaṃ rājā,	tatra ye pratyācakṣate	mantram śrāvayet--
	sādhu enaṃ hatvānyaṃ	te bhayopadhāśuddhāḥ/	'imaṃ pravādam upaś-
	pratipādayāmaḥ, sarveṣām		rutya bhavatām nigra-
	etaḍ rocate, kathaṃ vā		rājñā kriyata' iti/
	tava' iti/ 11/ pratyākhyāne		teṣām eva cānyatamaḥ
	śuciḥ/ iti bhayopadhā		pūrvam eva kṛtasaṃ-
	/12/		vitkaḥ pratyekaṃ
			rājāmātyeṣūtsāhayet/
			tatra ye pratyācakṣa
			te te 'bhayopadhāśud
			dhāḥ' /

35. Mand., Ghar. pramādam.

36. Mand., Ghar. -pramādaḥ.

4. The Ideal Kingdom<sup>37</sup> (Schlingloff 10)Arth. 6.1

Bhār. 7.56

Medh. 7.56

(svāmyamātyajanapada-  
durgakośadaṇḍamitrāni  
prakṛtayaḥ) /1/

(...sthānaṃ .../ tat  
punaś caturvidhaṃ/  
daṇḍakośapurarāṣṭrāṇi/)

(...sthānam/ tac  
caturvidham, daṇḍa-  
kośapurarāṣṭrāṇi/)

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37. Cf. KN 4.49-54: sasyākaravati paṇyakhanidravyasamanvitā/  
gohitā bhūrisalilā puṇyair janapadair vṛtā// ranyā sakufjaravanā  
vāristhalapathānvitā/ adevamātrkā ceti śasyate bhūr vibhūtaye//  
saśarkoroṣapāṣāṇā sāṭavi nityataskarā/ rūkṣā sakaṇṭhakavanā savyālā  
ceti bhūr abhūḥ// svājīvo bhūguṇair yuktaḥ sānūpaḥ parvatāśrayaḥ/  
sūdrakāruvanikprāyo mahārambhakṛṣṭivalaḥ// sānurāgo ripudveṣi  
pīḍākarasahaḥ pṛthuh/ nānādeśyaiḥ samākīrṇo dhārmikaḥ paśumān  
dhanī// Idṛg janapadaḥ śasto mūrkhavyasanināyakaḥ/ taṃ varddhayet  
prayatnena tasmāt sarvaṃ pravarttate//.

(tatra daṇḍo hastyaśva- (tatra daṇḍo hastyaś  
rathapadātayaḥ/ teṣāṃ varathapadātayaḥ/  
pratikarmapoṣaṇarakṣaṇā- teṣāṃ pratikarma  
di cintyaṃ/ tathā kośa- poṣaṇarakṣaṇādi  
sya hemarūpyabāhulyam cintyaṃ<sup>38</sup>/ na hy  
āyavyayarakṣaṇāni ca asamādhānaṃ pradhā-  
cintyāni/) nam/ tathā<sup>39</sup> kośasya  
hemarūpyabāhulyaṃ  
pracurarūpyatā ayavy  
ayalakṣaṇaṃ ca/ kośa  
ya yani nyāyasthānān  
tāni na vyayitavyāni  
na vilambanīyāni  
bhr̥tyānām/)

madhye cānte ca sthāna- tathā rāṣṭrasya deśapa- tathā rāṣṭrasya deśa  
vān ātmadhāraṇaḥ para- ryāyasya svājīvyā paryāyasya svājīva  
dhāraṇas cāpadi svāra- ātmasādhāraṇaḥ parasyā- ātmasaṃdhāraṇaṃ  
ṣaḥ svājīvaḥ śatrudveṣī dhāraṇo na ca durāra- parasaṃdhāraṇena  
śakyasāmantaḥ pañkapā- ṣyaḥ/ paśalyaḥ śatruṣ nadivṛkṣāḥ paśavaḥ  
ṣāṇoṣaraviṣamakaṇṭakaś- (lacuna) akṣī sitāprayo śatrudveṣākrāntaprā-  
reṇīvyālamṛgāṭavīhinaḥ guptagocaraḥ/ paśumān yaḥ guptigocaraḥ  
kāntaḥ sitākhanidravya- adevamātr̥kaḥ/ āpadi paśumān adevamātr̥kaḥ  
hastivanavān gavyaḥ daṇḍakarasaḥ ity evam āpadi ca daṇḍakara-  
pauruṣeyo guptagocaraḥ ādi cintyaṃ/ graha ity evam ādi.  
paśumān adevamātr̥ko

38. Mand., Ghar. cintyapratikarma (?).

39. Mand., Ghar. ca yathā.

vāriṣṭhalapathābhyām  
 upetaḥ sārācitrabahupaṇyo  
 daṇḍakarasaḥaḥ karmaśīla-  
 karṣako 'bāliśasvāmy  
 avaravarṇaprāyo<sup>40</sup> bhak-  
 taśucimanuṣya iti janapada-  
 saṃpat/ 8/

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40. Kangle: "daṇḍakara-...-varṇaprāyo missing in T." Bhār.,  
 Medh. attest daṇḍakara-.

5. Pacification of Recently Conquered Lands (Schlingloff 17)Arth. 13.5

Bhār. 7.56

Medh. 7.56

(labdhaprasāmanam)

labdhaprasāmanāni

labdhaprasāmanam ca

a. sarvadevatāśramapujanam<sup>41</sup>

devāśramadyāvātām dhār-

devatāśramavidyāva-

ca vidyāvākyadharmasūra-

mikāṇām ca sūrāṇām ca

tām<sup>42</sup> dhārmikāṇām

puruṣāṇām ca bhūmidravya-

dānamānābhyā yogaḥ

ca mānadānatyāgā-

dānaparihārān kārayet,

ucitānām cābhyanuḥjñā-

yogaḥ uditānām<sup>43</sup>

sarvabandhanamokṣaṇam

nam sarvabandhanamokṣaḥ/

cābhyanuḥjñānam sarva

anugrahaṃ dīnānāthavyā-

anugraho dīnānāthavyād-

bandhanamokṣaḥ/

dhitānām ca/ 11/

itān

anugraho dīnavyādhi-

tānām/

b. cātumāsyēṣv ardhamāsi-

utsāhānāñ cāpūrvāṇām

utsavānām cāpūrvā-

kam aghātam, paurṇamā-

pra(lacuna)

ṇām pravarttanam/

sīṣu ca cātūrātrikam,

pravṛttānām anuvṛtti-

rājadeśanakṣatreṣv

aikarātrikam/ 12/ yoni-

bālavadham puṣtvopaghā-

tam ca pratiṣedhayet/13/

41. Kangle: "G<sub>1</sub> sarvatāśrama-, T sarvatrāśrama." Bhār., Medh. support Kangle's text.

42. Mand. samvidyāvātām; Ghar. devatāsamam vidyāvātām.

43. So Jha (Notes) after N(anda); Mand., Ghar. avitānām.

c. yac ca kośadaṇḍopaghāta-	(lacuna) daṇḍoghātakar-	yac ca kośadaṇḍopā-
kam <sup>44</sup> adharmiṣṭhaṃ vā	mādhārmikaṃ vā cāritraṃ	dhikam adhārmika-
caritraṃ <sup>45</sup> manyeta tad	tad apanīya dharmā-	caritraṃ tad apanīya
apanīya dharmavyava-	vyavahārārthaṃ sthā-	dharmavyavahārān
hāraṃ <sup>46</sup> sthāpayet /14/	payet /	sthāpayet /
d. caritraṃ akṛtaṃ	ēha ca: adharmacāritram	adharmacāritram
dharmyaṃ	akṛta(lacuna)	akṛtam anyasya
kṛtaṃ cānyaiḥ	kṛtaṃ cānyaiḥ	kṛtaṃ vānyaiḥ
pravartayet/	(lacuna)	pravarttayet /
pravartayen na		na
cādharmyaṃ		vādharma
kṛtaṃ cānyair		kṛtaṃ cānyair
nivartayet //24//		nivartayed iti /

44. Kangle: "GMT -ghātikam, (em.)".

45. Kangle: "M cāritraṃ". Bhār. agrees with M, Medh. with Kangle's text.

46. Kangle: "GMT dharmavyava-, (Cs)". Bhār., Medh. agree with the MSS. against Kangle's text and Ganapati Sastrī's commentary.

6. The Construction of the Fort (Schlingloff 5)

Arth. 2.3

vaprasyo pari prākāraṃ  
 viṣkambhadvigūṇotse-  
 dham aiṣṭakaṃ dvādaśa-  
 hastād ūrdhvam ojaṃ  
 yugmaṃ vā ā catur-  
 viṃśatihastād iti  
 kārayet, rathacaryā-  
 saṃcāraṃ tālamūlaṃ  
 murajakaiḥ kapiśīrṣa-  
 kaiś cācitāgram /7/  
 pṛthusiḥāsamhataṃ vā  
 śailaṃ kārayet, na tv  
 eva kāṣṭhamayam /8/

Bhār. 7.70

prākāreṇa veṣṭitaṃ  
 viṣkambhadvigūṇotse-  
 dhenaiṣṭikena śailena  
 vā dvādaśahastocchri-  
 tena tālamūlena kapi-  
 śīrṣatācitāgreṇa dṛḍha-  
 vapreṇa pariṣkṛtaṃ  
 mahādurgaṃ...

Medh. 7.70

uktaparakāreṇa dvi-  
 guṇotsedhenaiṣṭakena  
 śailena dvādaśa-  
 hastād ūrdhvam uddha-  
 tena tālamūlena kapi-  
 śīrṣacitāgreṇa  
 dṛḍhapraṇālyā  
 parikṛtaṃ dhanur-  
 durgam/

7. The Four Groups of Seducible Parties<sup>47</sup> (Schlingloff 11)

Arth. 1.14	Bhār. 7.104	Medh. 7.104
(1)saṃśrutyārthān vipra- labdhāḥ, tulyakāriṇoḥ <sup>48</sup> śilpe vopakāre vā <sup>49</sup> vimānitāḥ, vallabhāva- ruddhāḥ, <sup>50</sup> samāhūya parājitāḥ, pravāsopa- taptāḥ, kṛtvā vyayam alabdhakāryaḥ, svadhar- mād dāyādyād voparuddhāḥ, mānādhikārābhyāṃ bhraṣṭāḥ,	tatra vipralabdhās tulyakāriṇaḥ śilpe copacāre ca vimānitā vallabhovaruddhāḥ pravāsitabandhuḥ ma (lacuna)	tatra yena kṛtaṃ śilpaṃ kiṃcid upa- kāro vā darśitaḥ, tau vipralabhyete prasādane niyojyete avamanyete vā/ tad artho 'pi tat- samānaḥ śilpopakārī krudhyati, nāsyās- maḍīyaṃ śilpaṃ

47. Cf. Pañcatantra (F. Edgerton, The Pañcatantra Reconstructed, Vol. 1, p. 40): uktaṃ ca: saṃmānitavimānitāḥ, pratyākhyātāḥ, kruddhāḥ, lubdhāḥ, parikṣiṇāḥ svayam upagatās (chadmanā pravārayitum śakyāḥ). atyantāsvakārābhinyastāḥ, samāhūya parājitāḥ, tulyakāriṇaḥ, śilpopakāre vimānitāḥ, pravāsopataptāḥ, tulyair antarhitāḥ pratyāhṛtamānāḥ tathā 'tyāhṛtavavyavahārāḥ tatkulīnaśaṅsavaḥ samavāye ca svadharmān na calanti, samantāc copadhākṛtyās ta iti.

48. Kangle: "D tattulyakāriṇaḥ, G<sub>2</sub> tulyādhikāriṇoḥ".

49. Kangle: "D śilpe copakāre ca". Bhār. supports D against Kangle's text.

50. Kangle: "D vallabhāparuddhāḥ". Bhār. supports Kangle's text.

kulyair antarhitah,  
 prasabhābhimṛṣṭa-  
 strīkah, kārābhinyas-  
 tah, paroktadaṇḍitah,  
 mithyācāravāritah,  
 sarvasvam āhāritah, <sup>52</sup>  
 bandhanaparikliṣṭah,  
 pravāsītabandhuḥ--  
 iti kruddhavargah /2/

tah sakulyair antarhi-  
 tah sarvasvahārita ity  
 evam ādi kruddha-  
 vargah /

upakāro vopayujyate/  
 tādrṣā upajāpasahā  
 bhavanti / tathā  
 vāllabhyenopagrhitah  
 paścān mānādhikārā-  
 bhyāṃ bhraṣṭah, pra-  
 vāsītabandhutadval-  
 labhah<sup>51</sup> prasabham  
 abhipūjya svīkṛtah,  
 sakulyair antarhitah  
 sarvasvam āhāritas  
 tatsamānakarmavidyo  
 'nyah pūjyate so  
 'vadhīryate ity evam  
 ādiḥ kruddhah /

51. Mand. pravāsītabandhus tad-.

52. Shama Sastri sarvasam āhārito. Bhār. supports, Medh. agrees  
 with, Kangle's text.

(2) svayam upahataḥ pāpakarmā tulyadoṣaḥ kenacit kṛtaṃ pai-  
viprakṛtaḥ, pāpakarmā- daṇḍodvignaḥ anantara- sunyaṃ tatsamāna-  
bhikhyātaḥ, tulyadoṣa- bhūmidanḍopanatasarvā- doṣebhyo daṇḍitaṃ  
daṇḍenodvignaḥ, paryā- dhikaraṇasthaḥ sahaso- aṃtarbhramadaṇḍa-  
ttabhūmiḥ, daṇḍeno- pacitārtha ity evam pātāḥ sarvādhikāra-  
panataḥ, sarvādhikara- ādi bhītavargaḥ / sthāḥ sahasopacit-  
ṇasthaḥ sahasopacitār- ārthā<sup>53</sup> ity ādi  
thaḥ,<sup>55</sup> tatkulīnopā- lubdhavargaḥ /<sup>54</sup>  
saṃsuḥ, pradviṣṭo rājñā,  
rājadveṣī ca-- iti  
bhītavargaḥ /3/

(3) parikṣiṇaḥ, anyātta- taṭaryo vyasaṭ ity parikṣiṇaḥ kadaryo  
svaḥ, kadaryaḥ, vyasa- evam ādi lubdha- vyasanī bahu ṛṇa  
nī,<sup>56</sup> atyāhitavyavahāras vargaḥ / ity ādir bhīta-  
ca-- iti lubdhavargaḥ vargaḥ /<sup>57</sup>  
/4/

53. Mand. daṇḍinaḥ taṃ sarvādhikāraṣṭhāḥ sahasopapātītārtha.

54. Jha (Notes): "for lubdhavargaḥ read bhītavargaḥ as in N(andana)".

55. Kangle: "G<sub>2</sub>M sāhasopacitārthaḥ". Bhār., Medh. agree with Kangle's text.

56. Kangle: "D kadaryo mūlaharasthādātṅviko vyasani". Medh., and apparently Bhār., agree with Kangle's text.

57. Jha (Notes): "for bhītavargaḥ read lubdhavargaḥ as in N(andana)".

(4) ātmasaṃbhāvitaḥ,	ātmasaṃbhāvitaḥ	ātmasaṃbhāvitaḥ
mānakāmaḥ, śatrupūjā-	śatrupūjāmarṣito nīcair	śatrupūjām arthitaḥ
marṣitaḥ, nīcair	upahatas tīkṣṇaḥ sāha-	nīcair upahataḥ
upahataḥ, tīkṣṇaḥ,	siko bhogenāsan-	tīkṣṇaḥ sāhasiko
sāhasikaḥ, bhogenā-	tuṣṭa ity evam ādir	bhogenāsaṃtuṣṭa <sup>58</sup>
saṃtuṣṭaḥ-- iti	mānivargaḥ /	ity evam ādir
mānivargaḥ /5/		avamānitavargaḥ /

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58. Mand. śatrupūjārcanarathaḥ tīkṣṇasāhasiko bhogenāsaṃtuṣṭa ity.

8. Five-fold Counsel<sup>59</sup> (Derrett IV)

	Arth. 1.15	Bhār. 7.147	Medh. 7.146
a.		pañcāṅgaṃ mantrayeta/	mantrapañcāṅgaṃ darsāyisyate/
		tad yathā	imāny aṅgāni
(1)	karmaṇām ārambhopāyaḥ	karmārambhopāyaḥ	karmaṇām ārambhopāya
(2)	puruṣadravyasampad <sup>60</sup>	puruṣadravyasampad	puruṣadravyasampat
(3)	deśakālavibhāgo <sup>61</sup>	deśakālavibhāgaḥ	deśakālavibhāgaḥ
(4)	vinipātapratikāraḥ	vinipātapratikāraḥ	vinipātapratikāraḥ
(5)	kāryasiddhir	kāryasiddhir iti/	kāryasiddhir iti/
	iti pañcāṅgo mantraḥ		
	/42/ <sup>62</sup>		

59. The Medh. passage is found in Mand. 7.147 (om. mantrapañcāṅgam darsāyisyate) and Ghar. 7.148 (mantrapañcāṅgam darsāyisyate in 7.147), om. in Jha's text but present in his trans. at 7.146. Cf. Pañcatantra (Edgerton, op. cit.) 1.467: śāstre cā 'bhihitaḥ pañcāṅgo mantraḥ, tad yathā: karmaṇām ārambhopāyaḥ, puruṣadravyasampat, deśakālavibhāgaḥ, vinipātapratikāraḥ, kāryasiddhiś ce 'ti; and NV 10.25: karmaṇām ārambhopāyaḥ puruṣadravyasampad deśakālavibhāgo vinipātapratikāraḥ kāryasiddhiś ceti pañcāṅgo mantraḥ/.

60. Kangle: "G<sub>2</sub> -dravyasaṃbandhadeśa-." Bhār., Medh. agree with Kangle's text.

61. Kangle: "D -vibhāgau."

62. Quoted by Śaṅkarārya on KN 12.36.

b. tān ekaikaśaḥ pṛcchet tān ekaikaśaḥ pṛcchet athavā prārthanākāle  
 samastāṃś ca/ 43/ samastāṃś ca/ hetubhiḥ nātipātayet tatra  
 hetubhiś caṣṣām mati- sarveṣām matipravivekaṃ dīrgho mantraḥ syāt,  
 pravivekān vidyāt<sup>63</sup>/44/ vidyād/ avāptārthaḥ/ na teṣām brūyāt,  
 avāptārthaḥ kālaṃ kālaṃ nātipātayen na ca guptamantraś ca syāt  
 nātikrāmayet<sup>64</sup>/ 45/ dīrghamantraḥ syāt/ na  
 na<sup>65</sup> dīrghakālaṃ mantra- ca teṣām pratyakṣaman-  
 yeta, na teṣām pakṣiyair<sup>66</sup> traṃ mantrayet yeṣām  
 yeṣām apakuryāt/ 46/ apakuryāt/ guptamantraś  
 tasmād rakṣen mantram/ 12/ ca syāt/

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63. Kangle: "p hetubhiś caikaikaṃ mataṃ praviseḍ vidvān." Bhār. supports Kangle's text against Jolly-Schmidt.

64. Kangle: "D krāmet."

65. Kangle: "GM ca teṣām (M<sub>2</sub> na ca)." Bhār. agrees with M<sub>2</sub>.

66. Kangle: "G<sub>1</sub>M<sub>3</sub> pakṣair, G<sub>2</sub> ca rakṣed, M<sub>1</sub> panakṣyer, M<sub>2</sub> parakṣyair  
 M<sub>2</sub>v1. pakṣyair, p ca rakṣed."

9. Betrayal of Counsel by Animals<sup>67</sup> (Schlingloff 3)

Arth. 1.15

taduḍdeśaḥ saṃvṛtaḥ kathā-  
nām anihṣrāvī pakṣibhir  
apy anālokyāḥ syāt/ 3/  
śrūyate hi śukasārikābhir  
mantro bhinnāḥ, śvabhir apy  
anyais ca tiryagyonibhir  
iti/ 4/

Medh. 7.149

yat kiṃcit prāñijā-  
taṃ tan mantrayamāṇa-  
viśodhayet/ tataḥ  
pradeśād apaśodhayet  
mantrabhedāśaṅkayā/  
tiryagyonīṣu ca  
śukasārikādayo 'pi  
mantraṃ bhindanti/

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67. Cf. NV 10.32-3: anāyukto maṅtrakāle na tiṣṭhet/ tathā ca  
śrūyate (Jolly: śrūyate hi) śukasārikābhyām anyais ca tiryagbhir  
maṅtrabhedah/

10. The Training of Princes<sup>68</sup> (Schlingloff 7)Arth. 1.17

Bhār. 7.152

Medh. 7.152

<p>a. mahādoṣam abuddhabodha- nam iti Kauṭilyaḥ/ 30/ navaṃ hi dravyaṃ yena yenārthajātenopadihyate tat tad ācūṣati/ 31/ evam ayaṃ navabuddhir yad yad ucyate tat tac chāstropadeśam ivābhi- jānāti/ 32/ tasmād dharmyam arthyaṃ<sup>70</sup> cās- yopadiśen nādharmyam anarthyaṃ ca/ 33/ sattriṇas tv enaṃ 'tava smaḥ' iti vadan- taḥ pālayeyuḥ/ 34/</p>	<p>...tava vayam ity evaṃ vādibhiḥ satribhir dharman arthañ ca grāhayitavyaṃ/ navaṃ hi dravyaṃ yena yenār- thajātenopadiśyate tat tad evācūṣati/ evam ayaṃ na buddhir yad yad ucyate tat tat prati- padyate.</p>	<p>tava vayam ity evam ādibhir dharmam arthaṃ ca te grāha- yitavyāḥ/ navaṃ hi dravyaṃ yenārthajā- tenopadiśyate tat tadā dūṣayati/ evaṃ asaṃskṛtabuddhayo yad yad ucyate<sup>69</sup> ta- tat prathamam gr̥hna- ti/ yadi asadbhiḥ saṃsṛjyante tadā ta- svabhāvas teṣāṃ prāpnoti/ te ca du- saṃskāropadigdhāḥ na śakyante vyasanebho- nivartayitum.</p>
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68. Cf. NV 5.70-1: gurujanaśīlam anusaranti prāyeṇa śiṣyāḥ/ naveṣu  
mṛdbhājeṣu lagnaḥ saṃskāro brahmaṇāpy anyathā kartuṃ na śakyate/

69. Mand., Ghar. ucyante.

70. Kangle: "D dharmyam arthaṃ, GM dharmam artham, (em.).--GM nādhar-  
mam anarthaṃ." Bhār., Medh. agree with the MSS. against Kangle's emen-  
dation.

uktaṃ ca--'nīlīrakt  
vāsasi kuṅkumāṅgarā.  
go durādheyah' /

b. virāgaṃ vedayeyuḥ/ 40/ vyaśanebhyas̄ cainam  
priyam ekaputraṃ badhni- upāyato nivartayeyur  
yāt/ 41/ bahuputraḥ iti nityānuṣāsanāc ca  
pratyantam anyaviṣayaṃ kālena guṇasampannaṃ  
vā presayed yatra gar- yauvarājye sthāpayet/  
bhaḥ paṇyaṃ ḍimbho vā nirguṇān anyān praty-  
na bhavet/ 42/ ātmasaṃ- anteṣu nikṣipet/  
pannaṃ saināpatye yauva-  
rājye vā sthāpayet/ 43/

tasmāt te nityam  
anusāsanīyāḥ/ tatrā  
pi ye guṇavantas tē  
vardhayet/ itarānī.  
ṣat saṃvibhajat/  
jeṣṭhaṃ maḥāguṇam  
amatsaraṃ yauvarājye  
'bhiṣiṃcet/

11. The Assassination of Kings<sup>71</sup> (Schlingloff 15; Derrett V)

Arth. 1.20

Bhār. 7.153

Medh. 7.153

<p>a. kakṣyāntareṣv<sup>72</sup> antar- vaṃśikasainyaṃ tiṣṭhet /13/ antargṛhagataḥ sthavirastrīparisuddhāṃ devīṃ paśyet<sup>73</sup>/ 14/ nāparisuddhāṃ</p>	<p>kakṣyāntareṣv antarvaṃ- śikasaiyādhiṣṭhito 'ntaḥpuraṃ pravīset/ tatra sthavirastrīpari- suddhāṃ devīṃ paśyen nāparisuddhāṃ</p>	<p>kakṣāntareṣv antar- vaṃśikasainyādhiṣṭi- 'ntaḥpuraṃ pravīset/ tatra sthavirastrī- atisuddhāṃ devīṃ paripaśyen nāparisu- dhāṃ</p>
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71. Cf. KN 7.49-54: snātānūliptaḥ surabhiḥ sragvī rucirabhūṣaṇaḥ/  
snātāṃ viśuddhavasanaṃ paśyed devīṃ subhūṣaṇāṃ// na ca devīgṛhaṃ  
gacched ātmīyāt sanniveśanāt/ atyantam vallabho 'smīti viśrambhaṃ  
strīṣu na vrajet// devīgṛhaṃ gato bhrātā Bhadrāsenam amārayat/  
mātuḥ śāyāntarālīnaḥ Kārūṣaṃ caurasāḥ sutaḥ// lāhān viṣeṇā  
saṃyojya madhuneti vilomya tam/ devī tu Kāśirājendraṃ nijaghāna  
rahogatam// viśadigdhenā Sauvīraṃ mekhalāmaṇinā nṛpam/ nūpureṇa  
ca Vairūpyaṃ Jārūṣyaṃ darpaneṇa ca// Veṇyāṃ Śastram samādhāya tathā  
cāpi Viḍūratham/ iti vṛttam pariharec chatrau cāpi prayojayet//  
Different examples in NV. See Schlingloff, p. 29, fn. 104, for  
numerous parallels.

72. Kangle: "D kakṣā-." Bhār., Medh. agree with Kangle's text.

73. Kangle: "GM paśyet, na kāṃcid abhigacchet."

- b.(1) devīgr̥he līno hi<sup>74</sup>      devyā gr̥hanilīno hi      devīm/ gr̥halīno<sup>75</sup>  
 bhrātā Bhādrasenaṃ      bhrātā Candrasenaṃ      hi bhrātā Bhādraseno  
 jaghāna,      jaghāna
- (2) mātuḥ sayyāntargataḥ      mātuḥ sayanāntargataṃ      mātuḥ sayanāntargataḥ  
 ca putraḥ Kārūṣam/15/      ca putra-Kārūṣam      rājānaṃ jaghāna<sup>76/</sup>  
 kupuruṣa-
- (3) lājān madhuneti viṣeṣa  
 paryasya devī Kāśirājam
- (4) viṣadighena nūpurena      viṣadigdhena nūpureṇa      śaṅkhaviṣadigdhena  
 Vairantyaṃ,      Vairantaṃ jaghāna/      nūpureṇāvantyaṃ<sup>77</sup>  
 devī jaghāna
- (5) mekhalāmaṇinā Sauvīraṃ, mekhalāmaṇinā Sauvīraṃ      mekhalāyā<sup>78/</sup> Sauvīraṃ
- (6) Jālūtham ādarsena,

74. Kangle: "D nilīno (for līno hi)". Medh. supports Kangle's text, Bhār. is in between.

75. Mand., Ghar. grahalīno.

76. Mand., Ghar. om. rājānaṃ jaghānaṃ.

77. Schlingloff: "Es scheint sich hier um keinen Schreibfehler, sondern um eine echte Variante zu handeln; im Harṣacarita, ed. Calcutta 1876, p. 168 findet sich die Namensform Vairājyam Avantidevam (ed. Bombay 1892, p. 224, 5: Vairantyaṃ Rantidevaṃ); im Kommentar zu Kām. Nītis.: Avantirājam Vairūpyaṃ."

78. Mand., Ghar. mekhalāyāḥ.



12. The King's Agents (Schlingloff 16; Derrett VI)Arth. 1.11-12

Bhār. 7.154

Medh. 7.154

- a. upadhābhiḥ suddhāmātya- (lacuna)ñcavargah/ pañcavargah kāpaṭika-  
 vargo gūḍhapuruṣān utpā- kāpaṭikodāsthitagṛhapa- dāsthitagṛhapativai-  
 dayet kāpaṭikodāsthita- tikavaidehakatāpasavya- dehikatāpasavyañja-  
 gṛhapatikavaidehakatāpa- ñcanāḥ/ nāḥ<sup>81</sup>/  
 pasavyañjanān<sup>80</sup> sattritī-  
 kṣṇarasadabhikṣukīś ca/1/

- (1) paramarmajñāḥ pragalbhaś paramarmajñāḥ pragalbhaś paramadharmajñāḥ  
 chātraḥ<sup>82</sup> kāpaṭikaḥ/ 2/ chātraḥ kāpaṭikaḥ/ tad pragalbhaśchātraḥ  
 tam arthamānābhyām arthamānābhyām upasaṃ- 'kāpatikāḥ'/ tān  
 protsāhya<sup>83</sup> mantri gṛhya mantri brūyād arthamānābhyām upasa-  
 brūyāt--'rājānaṃ māṃ rājānaṃ māṃ ca pramāṇī- ṃgṛhya mantri brūyāt-  
 ca pramāṇaṃ kṛtvā yasya kṛtya yatra yad akusālaṃ --'rājānaṃ māṃ ca

80. Cf. NV 14.8: kāpaṭikodāsthitagṛhapativaidehikatāpasa-.

81. Mand., Ghar. -gṛhapatikavaidehika-.

82. Kangle: "G<sub>1</sub>M<sub>3</sub> pragalbhaśchātraḥ". Bhār. and NV 14.9 (Bombay ed.) (paramarmajñāḥ pragalbhaś chātraḥ kāpaṭika) agree with Kangle's text, Medh. and NV (Jolly) with G<sub>1</sub>M<sub>3</sub>.

83. Kangle: "GM -mānābhyām utsāhya."

yad akusālaṃ paśyasi paśy(lacuna)ṃ tvayeti/ pramānaṃ kṛtvā yatr  
 tat tadānīm eva pratyā- yad akusālaṃ tat  
 diśa' iti/ 3/ tadānīm evāśrāvyaṃ<sup>8</sup>  
 tvayeti'/

- (2) pravrajyāpratyavasitaḥ<sup>85</sup> pravrajyāyāḥ pratyava- pravrajyāyāḥ pratyava-  
 prajñāśaucayukta udās- sita udāsthitaḥ sa ca vasita 'udāsthitaḥ'  
 thitaḥ/ 4/<sup>86</sup> sa vārttā- prajñāśaucayuktaḥ/ sa ca prajñāśaucayu-  
 karmaṇāpradiṣṭāyāṃ bhūmau sarvānnapradānasamarth- taḥ sarvānnapradāna-  
 prabhūtahiraṇyāntevāsi āyājā prabhūtahiraṇy- samarthāyāṃ bhūmau  
 karma kārayet/ 5/ āntevāsiṇaḥ karma kāra- prabhūtahiraṇyāyāṃ  
 karmaphalāc ca sarvaprā- yet/ kṛṣika(lacuna) dāsakarma kārayet/  
 vrajitānāṃ grāsācchā- vasathān pratividadh- kṛṣikarmaphalaṃ tac  
 danāvasathān pratividadh- yāt/ teṣāṃ ye vṛttikāmās ca sarvapravrajitā-  
 hyāt/ 6/ vṛttikāmāṃś tān upajapet evam etenaiva- nāṃ grāsācchādānā-  
 copajapet--'etenaiva va vṛttena rājārthaś vasathān pratividadh

84. Mand., Ghar. evācchātavyaṃ.

85. Kangle: "D pravrajyāyāḥ pratyavasitaḥ, M<sub>2</sub>v1. pravrajyāpratyava-  
 pasṛtaḥ." Bhār., Medh. agree with D against Kangle's text.

86. Cf. NV 14.10: yaṃ kaṃcana samayam āsthāya pratipannācāryā-  
 bhiṣekaḥ prabhūtāntevāsi prajñātiśayayukto rājaparikalpita vṛttir  
 udāsthitaḥ/.

veṣeṇa<sup>87</sup> rājārthaś caritavyo bhaktavetana- hyāt/ teṣāṃ ye  
 caritavyo bhaktavetanakāle kāle copasthātavyam vṛttikāmās tān  
 copasthātavyam' iti/7/ iti/ sarvapravra (lacu=)upajaped evam  
 sarvapravrajitāś ca svaṃ na)rgaṃ upajapeyuḥ. etenaiva vṛttena  
 svaṃ vargam evam<sup>88</sup> rājārthaś caritavya  
 upajapeyuḥ/ 8/ / bhaktavetanakāle  
 copasthātavyam iti/  
 sarvapravrajitāḥ  
 svaṃ svaṃ karmopaja  
 peyuḥ/

(3) karṣako vṛttikṣīṇaḥ karṣako vṛttikṣīṇaḥ karṣako vṛttikṣīṇaḥ  
 prajñāśaucayukto prajñāśaucayukto grha- prajñāśaucayukto  
 grhapatikavyañjanaḥ/9/ pativyañjanaḥ sa kṛṣi- 'grhapativyañjanaḥ'  
 sa kṛṣikarmapradiṣṭāyāṃ karma kuryāt/ yathok- sa kṛṣikarma kuryād  
 bhūmau--iti samānaṃ tāyāṃ bhūmāv iti/ yathoktāyāṃ bhūmāv  
 pūrveṇa/ 10/ iti/

87. Kangle: "G<sub>1</sub> doṣeṇa." Cf. Meyer, Gesetzbuch und Purāna  
 (Indische Forschungen 7), p. 18, n. 2: "So verlockend auch die  
 Leseart veṣeṇa für doṣeṇa sein mag, so scheint doch auch eva auf  
 die Richtigkeit des viel schwierigeren doṣeṇa hinzuweisen."

88. Kangle: "GM om. evam". Bhār. and Medh. agree with GM.

- (4) vāṇijako vṛttikṣīṇaḥ vāṇijiko vṛttikṣīṇaḥ vāṇijiko vṛttikṣīṇaḥ  
 prajñāśaucayukto vaide- prajñāśaucayukto vaideha- prajñāśaucayukto  
 hakavyaṅjanaḥ/11/ sa kavyaṅjanaḥ sa vaṇikkarma 'vaidehikavyaṅjana  
 vaṇikkarma pradiṣṭāyāṃ kuryāt vaṇikpradiṣṭāyāṃ / sa vaṇikkarma kur-  
 bhūmau--iti samānaṃ bhūmāv iti samānaṃ pūr- āt pradiṣṭāyāṃ bhū-  
 pūrvena/12/ veṇa/ māv iti samānam/
- (5) muṇḍo jaṭilo vā vṛtti- muṇḍo jaṭilo vā vṛttik- muṇḍo jaṭilo vā  
 kāmas tāpasavyaṅjanaḥ; āmas tāpasavyaṅjano vṛttikāmaḥ 'tāpasa-  
 /13/ sa nagarābhyāśe nagarabhyāśe prabhūta- vyaṅjanaḥ'/ sa  
 prabhūtamūḍajaṭilān- jaṭilamūḍāntevāsī nagarābhyāśe<sup>89</sup>  
 tevāsī<sup>90</sup> śākaṃ yavamuş- śākaṃ yavasamuṣṭiṃ vā prabhūtajaṭilamūḍā  
 ṭiṃ<sup>91</sup> vā māsadvimāsān- māsadvimāsāntaritaḥ ntevasī śākaṃ yava-  
 taraṃ prakāśam aśnīyāt prakāśam aśnīyāt/ dhar- muṣṭiṃ vā māsāntari  
 gūḍham iṣṭam āhāram/14/ mavyaṅjanagūḍham ca taṃ prakāśam aśnīyā  
 vaidehakāntevāsinaś yatheṣṭam āhāram/ tā- dharmavyājena gūḍ-  
 cainaṃ samiddhayogair pasavyaṅjanāntevāsinaś haṃ yatheṣṭham  
 arcayeyuḥ/15/ śiṣyāś cainaṃ siddhayogair āhāram/ tāpasavyaṅ  
 cāsyāvedayeyuḥ--'asau arcayeyuḥ śiṣyāś cāsyo- janāntevāsinaś cai-  
 siddhaḥ sāmedhikaḥ' padiseyuyḥ/ lābhaṃ naṃ prasiddhayogair

89. Mand., Ghar. sannagarā-.

90. Kangle: "DM<sub>2</sub> vl. prabhūtajaṭilā-."

91. Kangle: "GM yavasamuṣṭiṃ." Bhār. agrees with GM, Medh. with Kangle's text.

iti/16/ samedhāsāstib- nidānaṃ corabhayaṃ arthalābham agre  
his cābhigatānām aṅga- duṣṭavadhabandhanaṃ śiṣyāś cādiśeyuḥ/  
vidyayā śiṣyasamjñā<sup>91</sup> bhis videsapravṛttim idam dāhaṃ caurabhayaṃ  
ca karmāṇy abhijane adya śvo vā bhaviṣya- duṣṭavadhaṃ ca  
'vasitāny ādiśet--alpa- tīdaṃ vā rājā kariṣya- videsapravṛttam, 'idam  
lābham agnidāhaṃ cora- tīti/ tad asya sattri- adya śvo vā bhaviṣ-  
bhayaṃ dūṣyavadhaṃ tuṣ- ṇas tatprayuktāḥ sampā- yatīdaṃ vā rājā kariṣ-  
ṭidānaṃ videsapravṛtti- dayeyur/ yati' iti/ tasya  
jñānam, 'idam adya śvo gūḍhamantriṇas tat  
vā bhaviṣyati, idaṃ prayuktāḥ sampādayeyuḥ  
vā<sup>92</sup> rājā kariṣyati'  
iti<sup>93</sup>/17/ tasya gūḍ-  
hāḥ sattriṇas ca<sup>94</sup> sam-  
pādayeyuḥ<sup>95</sup>/18/

b. ye cāpy asaṃbandhino<sup>96</sup> ye cāsyā rājño 'vaśyaṃ ye cāsyā rājño  
'vaśyabhartavyās<sup>97</sup> te bhartavyās te lakṣaṇa- vaṃśalakṣaṇavidyāṃ  
lakṣaṇam aṅgavidyāṃ vidyāṃ aṅgavidyāṃ jam- saṃgavidyāṃ jambha-  
jambhakavidyāṃ māyaga- bhakavidyāṃ māyāgatam kavidyāṃ māyāgatam

92. Kangle: "G<sub>2</sub>M om. vā". Bhār., Medh. agree with Kangle's text.

93. Kangle: "D om. iti". Bhār., Medh. agree with Kangle's text.

94. Kangle: "om. ca". Bhār., Medh. agree with Kangle's text.

95. Kangle: "G<sub>1</sub> saṃvādayeyuḥ". Bhār., Medh. agree with Kangle's text.

96. Kangle: "CbCj cāsyā saṃbandhi-".

97. Kangle: "D -vaśyakartavyās". Bhār. agrees with Kangle's text.

tam āśramadharmam  
nimittam<sup>98</sup> antaracak-  
ram ity adhiyānāḥ  
sattriṇaḥ, saṃsarga-vid-  
yaṃ vā/1/

āśramadharmam nimittaj-  
ñānam cādhiyamānāḥ sat-  
triṇaḥ syuḥ/

āśramadharmam  
nimittajñānam  
cādhiyānā mantriṇas

c. tām rājā svaviṣaye  
mantripurohitasenāpa-  
tiyuvarājadauvārikān-  
tarvaṃśikaprasāstṛsa-  
māhartṛsaṃnidhātṛpra-  
deṣṭṛnāyaka paura vyāva-  
hārikakārmāntikamanṭi-  
pariṣadadhyakṣadaṇḍa-  
durgāntapālāṭavikeṣu<sup>99</sup>  
śraddheyadeśaveṣaśil-  
pabhāṣābhi janāpadeśān  
bhaktitaḥ sāmartyayo-  
gāc cāprasarpayet/6/

tantrājaitāḥ pañcasaṃ-  
sthā etair mantribhiḥ  
saha svaviṣaye paraviṣa-  
ye cāvasthāpayet/ man-  
tripurohitasenāpatiyu-  
vā-  
rājadauvārikāntarvaṃśi-  
kādiṣu śraddheyadeśaveṣa-  
śilpabhāṣāvīdo janapado-  
padeśena sattriṇaḥ sañ-  
cārayet/

tatra rājā etat  
pañca saṃsthāyatair  
mantribhiḥ svaviṣ-  
aye 'vasthāpayet/  
mantripurohitasenā-  
patiyuvarājadauvā-  
rikāntarveśikādiṣu  
śilpabhāṣāvīdo jana-  
padāpadeśena mantri-  
ṇaḥ saṃdhārayet/

98. Kangle: "DG<sub>1</sub> -dharmanimittam." Bhār., Medh. agree with Kangle's text.

99. Kangle: "D -senādhipati-." Bhār., Medh. agree with Kangle's text.

- d. sūdārālikasnāpakasaṃ- tathā kubjavāmanakirā- tathā kubjavāmanaki  
vāhakāstarakakalpaka- tamūkajaḍabadhiraṅdha- ātamūkajaḍabadi-  
prasādhakodakapariḥā- chadmano naṣanartakagā- rāṅdhananaṣanarttaka-  
rikā rasadāḥ kubjavā- yanādayas ca striyas gāyanādayaḥ striyas  
manakirātāmūkabadhira- cābhyantaracāraṃ vidyuh/ cābhyantaracāriṇyo  
jaḍāṅdhacchadmāno<sup>100</sup> 'ṭavyāṃ  
naṣanartakagāyanavā-  
dakavāgjjivanakuṣṭha-  
vāḥ striyas cābhyantar-  
aṃ cāraṃ vidyuh/9/<sup>101</sup>
- e. vane vanacarāḥ<sup>102</sup> vane vanacarāḥ kāryāḥ vane carāḥ kāryāḥ  
kāryāḥ śramaṇāṣṭavikā- śramiṇāṣṭavikādayaḥ grāme grāmiṇakādaya  
dayaḥ<sup>103</sup>/ parapravṛt- parapravṛtṭijñānārthāḥ / puruṣavyāpārār-  
tījñānārthāḥ śighrās śighrās cāraparaṃparāḥ/ thāḥ svavyāpārāpa-  
cāraparaṃparāḥ// 23// raṃparāḥ//

100. Kangle: "D -badhirāṅdhajaḍa-."

101. Cf. KN 13.44: jaḍamūkāṅdhabadhiraḥchadmānāḥ paṇḍakās tathā/  
kirātavāmanāḥ kubjās tadvidhā ye ca kāravaḥ// and NV 14.8:  
-jaḍamūkabadhiraṅdhacchadmānas, etc.

102. Kangle: "D vane carāḥ."

103. Kangle: "D śravaṇā-."

parasya caite <sup>104</sup> boddha-	parasya caite	parasparaṃ caite
vyās	boddhavyās	boddhavyās.
tādṛśair eva tādṛśāḥ/ cārasaṃcāriṇaḥ saṃsthā	tādṛśair eva tādṛśāḥ cārasaṃcāriṇaḥ saṃsthā-	tādṛśair eva tādṛ- śāḥ/ vārisaṃcāriṇasthā
gūḍhās cāgūḍhasaṃjñi- tāḥ <sup>105</sup> //24//	gūḍhās cāgūḍhasaṃjñitāḥ/	gūḍhās ca <sup>106</sup> gūḍ- hasaṃjñitāḥ

104. Kangle: "G<sub>1</sub> caike." Bhār., Medh. agree with Kangle's text.

105. Kangle: "D cāgūḍhasaṃjñākāḥ." Bhār., Medh. agree with Kangle's text.

106. Mand. om. gūḍhās ca.

13. The Four Elements of the Circle of States

Arth. 6.2	Bhār. 7.155	Medh. 7.155
a. rājā ātmadravyapra- kṛtisampanno nayasyā- dhiṣṭhānaṃ vijigī- ṣuḥ /13/ <sup>109</sup>	tatraiteṣām eva yo rājā prakṛtisampan- no 'ham evemām pṛthiviṃ jeṣya ity abhyukṣitā sa viji- gīṣur utsāhasakti- yogāt /	tatra ca yo <sup>107</sup> rājā prakṛtisampan- no 'ham evaṃvidhām pṛthiviṃ vijyeṣye <sup>108</sup> 'bhyutthitaḥ sa vijigīṣuḥ utsāha- śaktiyogāt /
b(1) bhūmyanantaraḥ prakṛtyamitraḥ,	(2) sahajaḥ	(2) sahajaḥ prākṛtaḥ
(2) tulyābhijanaḥ sahajaḥ,	(3) kṛtrimo	(3) kṛtrimaḥ /
(3) viruddho viro- dhayitā vā kṛtrimaḥ /19/ <sup>110</sup>	(1) bhūmyanantara iti /	(1) svabhūmyanantara iti

107. Mand. tatra eṣa ca; Ghar. tatra eṣa tayo.

108. Mand., Ghar. vijyeṣye.

109. Cf. KN 8.6: sampannas tu prakṛtibhir mahotsāhaḥ kṛtaśramaḥ /  
jetum eṣaṇaśilas ca vijigīṣur iti smṛtaḥ // NV 29.23: rājātma-  
daivadravyaparakṛtisampanno nayavikramayor adhiṣṭhānaṃ vijigīṣuḥ /

110. Cf. NV 29.33-4: samābhijanaḥ sahajaśatruḥ / virādho virādha-  
yitā vā kṛtrimaḥ śatruḥ /

c. arivijigīṣvor bhūmyanantaraḥ saṃ- hatāsaṃhatayor anu- grahasamartho ni- grahe cāsaṃhatayor madhyamaḥ /21/111	madhyamo 'naylor arivijigīṣvor asaṃ- gatayor nigraha- samarthaḥ /	madhyamaḥ / anayor arivijigīṣvor asaṃ- hatayor nigrahasam- arthaḥ na saṃhatayor
d. arivijigīṣumadyā- nām bahiḥ prakṛti- bhyo balavattaraḥ saṃhatāsaṃhatānām arivijigīṣumadya- mānām anugrahasam- artho nigrahe cāsaṃ- hatānām udāsīnaḥ /22/112	udāsīno 'rivijigī- ṣumadyamānām asaṃhatānām /	udāsīnaḥ, arivijigī- ṣumadyamānām asaṃ- hatānām nigraha- samarthaḥ, na tu saṃhatānām /

111. Cf. KN 8.18: ares ca vijigīṣoś ca madhyamo bhūmyanantaraḥ /  
anugrahe saṃhatayor vyastayor nigrahe prabhuḥ // and NV 29.22.

112. Cf. KN 8.19: maṇḍalād bahir eteṣām udāsīno balādhikaḥ /  
anugrahe saṃhatānām vyastānām ca vadhe prabhuḥ // and NV 29.21:  
agrataḥ pṛṣṭhataḥ koṇe vā sannikṛṣṭaṃ vā maṇḍale sthito madhyamā-  
dīnām vighrahītānām nigrahe saṃhitānām anugrahe samartho 'pi kena  
cit kāraṇenānyasmin bhūpau vijigīṣumāṇe ya udāste sa udāsīnaḥ /

14. The Sixfold Policy (Schlingloff 18)

Arth. 7.1	Bhār. 7.160	Medh. 7.160
a(1) tatra paṇabandhaḥ saṁdhiḥ /6/	(1) atra hiraṇyādini- bandhana ubhayānu- grahārthaḥ sandhiḥ/	(1) tatra hiraṇyādidāno- bhayānugrahārthaḥ sandhis
(2) apakāro vighrahaḥ /7/	(2) tadviparīto vighrahaḥ /	(2) tadviparīto vighrahaḥ /
(3) upekṣaṇam āsanam /8/	(4) ekatarābhyuccayo yānam /	(4) ekāntatāgamaṇam <sup>113</sup> yānam
(4) abhyuccayo yānam /9/	(3) upekṣaṇam āsanam /	(3) upekṣāyām āsanam /
(5) parārpaṇa saṁśrayaḥ /10/ <sup>114</sup>	(6) sandhivighrahe (lacuna)	(6) sandhivighrahopādānaṁ dvaidhībhāvaḥ /
(6) saṁdhivighrahopā- dānaṁ dvaidhī- bhāvaḥ /11/ iti śaḍguṇāḥ /12/	(5) rpaṇam saṁśrayaḥ etān śaṅguṇāṁś cintayet sadā /	(5) parasyātmārpaṇam saṁśrayaḥ / ete śaḍguṇāḥ /

113. Mand., Ghar. ekāntata 'py ucyaṭe.

114. Cf. NV 29.43-8: paṇabandhaḥ sandhiḥ / aparādho (Jolly: apakāro) vighrahaḥ / abhyudayo (Jolly: abhyuccayo) yānam / upekṣaṇam āsanam / parasyātmārpaṇam saṁśrayaḥ / ekena saha sandhāyānyena saha vighraha-karaṇam ekenaiva śatrau sandhānapūrvaṁ vighraho dvaidhībhāvaḥ /

Also Utpala on Varāhamihira, Yogayātrā 13.4 (P.V. Kane, ABI 28, 1947, p. 137 n.2): Cāṇikya āha / parārpaṇam saṁśrayaḥ /

b. teṣāṃ yasmin vā guṇe	eteṣāṃ ṣaṇṇāṃ yasmin	eteṣāṃ yasmin guṇe
sthitaḥ paśyet 'iha-	guṇe vyavasthito	'vasthito manyetāhaṃ
sthaḥ śakṣyāmi durga-	manyetāhaṃ śakṣyāmi	śakṣyāmi durgam
setukarmavaṇikpatha-	durgam kārayitum	kārayitum, hasti-
sūnyaniveśakhanidraṇvya-	hastino bandhayitum	nir bandhayitum ,
hastivanakarmāṇy	khanim khānayitum	khanim khanayitum,
ātmanaḥ pravartayitum,	vaṇik (lacuna)	vaṇikpatham prayo-
parasya caitāni	rayitum kaṣin pra-	jayitum, jatuvanam
karmāṇy upahantum'	yojayitum dāruvanam	chedayitum, adeva-
iti tam ātiṣṭhet /20/	chedayitum adeyamā-	mātrkādeśe kṣetrāṇi
	trāṇi ca kṣetrāṇi	bandhayitum ity evam
	bandhayitum ity evam	ādini, parasya vittāni
	ādini / parasya ca	vyāhartum, buddhi-
	vyāhartum vṛddhivighā-	vighātārtham guṇam
	tārtham tadguṇam	upeyāt/
	upeyāt /	

15. Waiting or Marching after Making War or Peace (Schlingloff 13)

Arth. 7.4	Bhār. 7.161	Medh. 7.164
a. atisaṃdhānakāmāyor <sup>115</sup>	param atisandhātu-	
arivijigīṣvor <sup>116</sup> upa-	kāmāyor arivijigīṣvor	
hantum aśaktayor	upagantum aśaktayoḥ	
vigṛhyāsanaṃ saṃdhāya	sandhāyāsanaṃ vgr̥hya	
vā /4/	vā	
b(1) yadā vā paśyēt 'sva-	tatra yadā paśyēt	svayaṃ vighrahasya
daṇḍair mitrāṭavī-	svabalenotsahe paraṃ	kālah yad āvaśyaṃ
daṇḍair vā samaṃ jyā-	karṣayitum	svabalenotsahate
yāṃsaṃ vā karṣayitum		paraṃ karṣayitum
utsahe' iti tadā kṛta-		
bāhyābhyantarakṛtyo		
vigṛhyāsita /5/		

115. Kangle (on Arth. 7.4.3-4): "GMT upekṣaṇam iti saṃdhāna-,  
[em. Meyer\_7]." Bhār. supports Meyer's emendation against the  
MSS.

116. Kangle: "G<sub>1</sub>T -kāmāyor api viji-". Bhār. agrees with Kangle's  
text.

(2) yadā vā paśyēt 'utsāhayuktā me prakṛtayaḥ saṃhatā vivṛddhāḥ svakarmāṇy <sup>117</sup> avyāhatāś carīṣyanti parasya vā karmāṇy upahaniṣyanti' iti tadā vigṛhyāsīta /6/	utsāhaya uktāś ca me prakṛtayaḥ saṃhatā vivṛddhāś ca svakarmany avyāhatāś carīṣyanti /	utsāhayuktaḥ, prakṛtayaḥ saṃhatā vivṛddhāś ca svakarmany kṛṣyādiphalaśaṃpannāḥ parasyaitāny apahaniṣyanti karmāṇi,
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(3) yadā vā paśyēt 'parasyāpacaritāḥ kṣīṇā lubdhāḥ svacakrastenāṭavivvyathitā vā prakṛtayaḥ svayam upajāpena vā mām eṣyanti;...' iti paravṛddhipratighātārthaṃ pratāpārthaṃ ca vigṛhyāsīta /7/	parasya vā prakṛtayo lubdhāḥ kṣīṇāś ca / yata upajāpena śakyāś tā amī kartum ity evam ādi / tadā vigṛhyāsīta /	kṣīṇalabdhaprakṛtiḥ paraḥ, śakyāś tatprakṛtaya upajāpenātmīyāḥ karttuṃ, sa svayaṃ vigrahasya kālaḥ/
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117. Kangle: "G<sub>2</sub><sup>MT</sup> svakarmanī (for svakarmāṇi)". Bhār. agrees with G<sub>2</sub><sup>MT</sup> against Kangle's text.

- c. vigṛhyāsanahetu-                      vigṛhyāsanahetvābhāve  
 prātilomye<sup>118</sup> sandhā-                      sandhāyāsita /  
 yāsita /13/
- d(1) vigṛhyāsanahetubhir                      parasmād abhyutthitaḥ  
 abhuccitaḥ sarvasaṃ-                      sarvasandehavarjaṃ  
 dohavarjaṃ vigṛhya                      svarāṣṭre kṛtaprati-  
 yāyāt /14/                      vidhāno vigṛhya yāyāt/
- (2) yadā vā paśyet 'vyasani                      vyasane vā parasya  
 paraḥ; prakṛtivyasanaṃ                      pratikṣaye prakṛtikope  
 vā 'sya śeṣaprakṛtibhir                      vā /  
 apratikāryam; svacakra-  
 pīḍitā viraktā vā 'sya  
 prakṛtayaḥ karṣitā nirut-  
 sāhāḥ parasparād vā  
 bhinnāḥ śūkyā lobhayitum;  
 agnyudakavyādhimaraka-  
 durbhikṣanimittam kṣīṇa-  
 yugyapuruṣanicayarakṣā-  
 vidhānaḥ paraḥ' iti tadā  
 vigṛhya yāyāt /15/

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118. Kangle: "G<sub>1</sub> -sanahetuprāti-, T -sane tu prāti-". Bhār. agrees with Kangle's text.

(3)yadā vā paśyēt 'mitram ākrandāsārabalād vā /

ākrandas ca me sūra-  
vṛddhānuraktaprakṛtiḥ,  
viparītaprakṛtiḥ paraḥ  
pārṣṇigrāhas cāsāras ca,  
śakṣyāmi mitreṇāsāram  
ākrandena pārṣṇigrāhaṃ  
vā vigṛhya yātum' iti  
tadā vigṛhya yāyāt /16/

e. viparyaye sandhāya  
yāyāt /18/

vigṛhyayānahetvābhāve  
tu pārṣṇigrāhaṃ sandhāya  
yāyāt /

f. yadā vā paśyēt 'na  
śakyam ekena yātum  
avaśyaṃ ca yātavyam'  
iti tadā samahīnajyā-  
yobhīḥ sāmavāyikaiḥ  
sambhūya yāyāt, ekatra  
nirdiṣṭenāṃśena, aneka-  
trānirdiṣṭenāṃśena /19/

sambhūya vā yātrāphalāṃś-  
akṛtasamvitka ity evam  
ādi samartho vā tv ariṃ  
pārṣṇigrāhaṃ ca yugapad  
vigṛhya yāyāt /

16. The Four Types of Deserting and Returning Vassals (Schlingloff 12)

Arth. 7.6

tasyāṃ gatāgataḥ catur-  
vidhaḥ--

- a(1) kāraṇād gatāgato,  
(2) viparītaḥ,  
(3) kāraṇād gato 'karaṇād  
āgato  
(4) viparītaḥ ceti /23/

Medh. 7.186

sa caturvidhaḥ

kāraṇād gataḥ tato  
viparīta  
'kāraṇād āgato

- b(1) svāmīno doṣeṇa gato guṇen-  
āgataḥ parasya guṇena  
gato doṣeṇāgata iti  
kāraṇād gatāgataḥ saṃ-  
dheyah /24/

yathā doṣeṇa gataḥ  
punar āgato

- (2) svadoṣeṇa gatāgato guṇam  
ubhayoḥ parityajya akāra-  
ṇād gatāgataḥ calabuddhir  
asaṃdheyah /25/

guṇam ubhayoḥ paritya-  
jya / 'kāraṇeṇāgata  
iti yah sa tyājyo  
laghubuddhitvād yat-  
kiṃcitkārīti / punar  
asya pratyayas tu na  
kāryah /

(3) svāmino doṣeṇa gataḥ  
 parasmāt svadoṣeṇāgata  
 iti kāraṇād gato 'kāraṇād  
 āgataḥ tarkayitavyaḥ 'para-  
 prayuktaḥ svena vā doṣeṇ-  
 āpakartukāmaḥ, parasyo-  
 cchettāram amitraṃ me  
 jñātvā pratighātabhayād  
 āgataḥ, paraṃ vā mām ucchet-  
 tukāmaṃ parityajyānṛṣaṃ-  
 syād āgataḥ' iti /26/  
 jñātvā kalyāṇabuddhiṃ  
 pājayed, anyathābuddhim  
 apakṛṣṭaṃ vāsayet /27/

kāraṇād gataḥ 'kāraṇād  
 āgataḥ<sup>119</sup> yathā svāmi-  
 doṣeṇa gataḥ paras-  
 māt<sup>120</sup> svadoṣeṇa gata  
 iti satkarttavyo yadi  
 saṅgitvād āgatas tato  
 grāhyaḥ / atha para-  
 prayuktas tena vā  
 doṣeṇāpakarttukāma  
 iti tato neti /

---

119. Mand. om. na kāryaḥ; Ghar. pratyayas tu kāraṇād gataḥ kāraṇā-  
 gataḥ (v.l. kāraṇa āgataḥ).

120. Mand. parastāt.

(4) svadoṣeṇa gataḥ paradoṣeṇ-  
 āgata ity akāraṇād gataḥ  
 kāraṇād āgataḥ tarkayitavyaḥ  
 'chidraṃ me pūrayiṣyati  
 uchito 'yam asya vāsaḥ,  
 paratrāsyā jano na ramate,  
 mitrair me saṃhitaḥ, śatru-  
 bhir viḡḥitaḥ, lubdhakrūrād  
 āvignaḥ śatrusaṃhitād vā  
 parasmāt' iti /28/ jñātvā  
 yathābuddhy avasthāpayitavyaḥ  
 /29/

17. Marching Order<sup>121</sup> (Schlingloff 6)

Arth. 10.2	Bhār. 7.187	Medh. 7.187
purastān nāyakaḥ,	purastān nāyakaḥ	purastād balādhyakṣo
madhye kalatram svāmī	paścāt senāpatiḥ	madhye rājā paścāt
ca, pārśvayor aśvā	svāmī ca madhye	senāpatiḥ, pārśvayor
bāhūtsāraḥ, cakrānte-	pārśvayor hastinaḥ	hastinas teṣāṃ samipe
ṣu hastinaḥ prasāra-	tato 'śvā ity eṣa	'śvās tataḥ padātaya
vṛddhir vā, paścāt	sāṃgrāmiko yāna-	ity eṣa sarvataḥ sama-
senāpatir yāyāt <sup>122</sup>	vidhiḥ /	vāyo daṇḍavyūho 'tiryaḡ
niviśeta /4/		bhavati /

121. Cf. KN 19.45-7: nāyakaḥ purato yāyāt pravīrapuruṣāvṛtaḥ / madhye kālatraṃ svāmī ca koṣaḥ phalgu ca yad balam // pārśvayor ubhayor aśvā aśvānām pārśvayo rathāḥ / rathānām pārśvayor nāgā nāgānām cāṭavibalam // paścāt senāpatiḥ sarvaṃ puraskṛtya kṛtī svayam / yāyāt sannaddhasainyaughāḥ khinnān āśvāsayaṃ chanaḥ // Also Caṇḍeśvara, perhaps based on Medhātithi (Rājanīti-Ratnākara, ed. K.P. Jayaswal, Calcutta 1924, p. 39): vyūhamadhye padmavyūhastho rāj agre balādhyakṣaḥ vyūhapāścās senānīti tatpārśvayor hastinaḥ tatsamīpe vyūhamadhye 'śvāḥ / tatsamīpe vyūhamadhye padātayaḥ /

122. Kangle: "GMT read paścāt senāpatir yāyāt niveśeta after saṃbhāvya vā gatiḥ (s. 12), (Cs)".

18. Safety of the King in Battle<sup>123</sup> (Schlingloff 2)

Arth. 10.5

dve śate dhanuṣāṃ

gatvā

rājā tiṣṭhet prati-

grahaḥ /<sup>124</sup>

bhinnasaṃghātanam

tasmān<sup>125</sup>

na yudhyetāprati-

grahaḥ //58//

Medh. 7.191

samānatantrenoktam /

dve śate dhanuṣāṃ

gatvā

rājā tiṣṭhet prati-

grahaḥ /

bhinnasaṃghātanārtham

tu

na yudhyetāprati-

grahaḥ //

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123. For parallels see J.J. Meyer, op. cit. p. 87.

124. Kangle: "GMT tiṣṭhet pratigrahaḥ, (Cn)". GMT and Medh. agree with Śāṅkarārya on KN 20.15, -grahaḥ.

125. Śāṅkarārya loc. cit.: bhinnasaṃdhāraṇas tasmān.

19. Human Effort and Fate<sup>126</sup> (Schlingloff 8)

Arth. 6.2

mānuṣaṃ nayāpanayau,  
daivam ayānayau /6/  
daivamānuṣaṃ hi karma  
lokaṃ yāpayati<sup>127</sup> /7/

Medh. 7.205

samānatantre 'pi  
'daivaṃ nayānayayor  
mānuṣaṃ karma lokaṃ  
pālayati' iti /

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126. Cf. NV 29.3-5: daivaṃ dharmādharmau / mānuṣaṃ nayānayau /  
daivaṃ mānuṣaṃ ca karma lokam yāpayati /

127. Kangle: "G<sub>1</sub> yāvati, T avati". Shama Sastri pāvati. Jolly,  
ZDMG 71 p. 414: "Vielleicht ist \*pālayati zu lesen, nach dem Zitat  
dieser Stelle Me(dhātithis) zu VII, 205."

20. The Effects of Poison on Birds<sup>128</sup> (Schlingloff 4)

Arth. 1.20

śukaḥ sārīkā bhṛṅgarājo  
 vā sarpaviṣaśaṅkāyāṃ  
 krośati /7/ krauñico  
 viṣābhyāse mādyati, glā-  
 yati jīvaṃjīvakāḥ, mriyate  
 mattakokilaḥ, cakorasyā-  
 kṣiṇī virajyete /8/

Medh. 7.217

darsanena mriyate yatra  
 kokilaḥ, glāyati  
 jīvaṃjīvakāḥ, cakorasyā-  
 kṣiṇī vinasyato viṣaṃ  
 pradarsyāpi, bhavati  
 muṣkasyāvagrahaḥ  
 sveda ity ādi /

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128. Cf. KN 7.11-13: bhṛṅgarājaḥ śukaś caiva sārīkā ceti pakṣiṇaḥ /  
 krośanti bhṛṅgaṃ udvignā viṣapannagadarsanāt // cakorasya virajyete  
 nayane viṣadarsanāt / suvyaktaṃ mādyati krauñico mriyate mattakokilaḥ//  
 jīvaṃjīvasya ca glānir jāyate viṣadarsanāt / teṣāṃ anyatamenāpi  
 samaśniyāt parīkṣitam // and Suśruta, Kalpasthāna 1.30-2: bhinnārcis  
 tīkṣṇadhūmaś ca na cirāc copasāmyati / cakorasyākṣivairāgyaṃ  
 jāyate kṣipram eva tu // drṣṭvānnaṃ viṣasaṃsrṣṭaṃ mriyante jīva-  
 jīvakāḥ / kokilaḥ svaravaikṛtyaṃ krauñicas tu madam ṛcchati //  
 hrṣyen mayūra udvignaḥ krośataḥ śukasārīke / haṃsaḥ kṣvedāti  
 cātyarthaṃ bhṛṅgarājas tu kūjati //

21. Audiences (Schlingloff 1)

Arth. 1.19

sarvam ātyayikaṃ kāryaṃ  
 śṛṇuyān nātipātayet /

kṛcchrasādhyam ati-  
 krāntam

asādhyam vāpi jāyate<sup>129</sup> //30//

Medh. 7.223

yathā cotpāditaṃ kāryaṃ  
 saṃpaśyen no bhitā-  
 payet /

kṛcchrasādhyam ati-  
 krāntam

asādhyam vāpi jāyate //

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129. Kangle: "G<sub>1</sub> vā vijāyate, G<sub>2</sub> vābhijāyate, M vā nijāyate".

Schlingloff's observation that Medhātithi in the majority of cases supports Kangle's text against the variants survives the introduction of Bhāruci into the comparison. In some cases both commentators support one or other of the variants against Kangle's text,<sup>1</sup> in some cases Bhāruci alone supports the variants,<sup>2</sup> and in five cases the texts of Bhāruci and Medhātithi conflict, one agreeing with Kangle's readings while the other supporting a variant reading, most of these to be explained as textual corruptions in one or other of the commentators.<sup>3</sup> Schlingloff is also right in saying that while Medhātithi attests the reliability of the textual tradition of the Arthasāstra, the opposite is the case for Medhātithi himself. Ganganatha Jha has said of his text, "As regards the readings of the Bhāṣya, it would be a sheer waste of time to even note the 'readings'. The MSS. are so hopelessly corrupt that those 'readings' would, in ninety cases out of a hundred, be a mere jumble of meaningless syllables."<sup>4</sup> Similar circumstances prevailed it seems, in the 14th century when a northern Indian king had a jīrṇoddhāra text<sup>made</sup> because the available manuscripts were faulty.<sup>5</sup>

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1. Above, notes 13, 70, 85.

2. Above, notes 24, 49, 65, 116.

3. Above, notes 45, 74, 79, 82, 91.

4. Jha (Notes), p. 1.

5. According to Jha, text vol. 3, pp. i-ii; G. Bühler: The Laws of Manu, Introd., pp. cxxiv-cxxv.

Schlingloff gives a list of readings which he considers certain to be scribal errors, but observes, "In many cases one can be in doubt whether one has before one a true variant or whether a scribal error has been subsequently improved to the degree that in its present form it has the appearance of a true variant."<sup>1</sup> It must remain to an editor of Medhātithi who takes the trouble to record the variants of many manuscripts, unrewarding as it may seem, to decide the readings at issue in the foregoing parallels.

The single Bhāruci manuscript is clearly riddled with scribal errors, not to mention lacunae, but where there are parallels in the Arthaśāstra and Medhātithi, there need be no doubt as to the original wording. We list the readings which to us seem required or at least preferable; for the most part they are guaranteed by the agreement of the Arthaśāstra and Medhātithi against Bhāruci; in a few cases they are based upon partial agreement between Bhāruci and one or the other of the two and the requirements of grammar or sense.

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1. Schlingloff, p. 23, fn. 89. But in example 10 above (Sch. 7) -opadiśyate is found both in Bhāruci and Medhātithi and must therefore remain against Arthaśāstra -opadihyate (obviously altered under the influence of chāstrapadiśen and cāsyopadiśen). In 7(2) and (3) above, lubdha- and bhītavargaḥ should change places and in 13.b(1) prākṛtaḥ should be omitted from Medhātithi.

Preferred Readings in Bhārucci

1. 7.52
- a. lacuna: -m apreta- (Derr.)  
 pretatvaṃ: pretatvaṃ kaupinadarśanam (Derr.)  
 cārthasvapneṣu: cārthagheṣu (Derr.)
- b. dyūte: dyūte tu
- c. tadaiva jitadravyaḥ: tad eva jitadravyaṃ  
 tasyāpi: tasyāpi āmiṣaṃ (Derr.)
- d. śaktā: śakyā
- e. strīṃṛga-: strīṃṛgayā-
- f. vyāyāma-: vyāyāmaḥ (Derr.)  
 -vadhaḥ: -medaḥ- (Derr.)  
 -jananena āsanaparicayaś: -jananaṃ (?) grāmyajanapar-  
 icayaś
2. 7.54
- suvigrahaḥ: (?) svavagrahaḥ (personal beauty a  
 quality of the ideal king, but not minister)
- prabhāvagunayuktaḥ: prabhāvayuktaḥ  
 -ārogyayukta-: -ārogyasattvayuktaḥ  
 cāpalahīno: cāpalahīno saṃpriyo  
 lacuna: -ṇāṃ akartety amātyasaṃpat /
- 3.a. lacuna: dharmārthakāmabhayopadhābhiḥ / seyaṃ  
 b(1) asāmantam: sāmāntam (Derr.)  
 (1)-(2) pratyākhyāte: pratyākhyāne (Derr.)

(3)-(4) tatkr̥tasamāgamopāyācoptapuruṣaḥ (haplography):

tatkr̥tasamāgamopāyeti pratyākhyāne kāmopadhā-  
śuddhaḥ / rājaprayuktā eva kecit puruṣāḥ  
pravādam āviṣkuryuḥ, kr̥tasamayair amātyai rājā  
hanyata it / upalabdha pravādaḥ purohitasyāp-  
tapuruṣaḥ

(4) rājāpatyeṣṭsāhayet: rājāmātyeṣṭsāhayet

4. 7.56

svājīvyā: svājīva

paśalyaḥ śatruṣ (lacuna) akṣi: paśavyaḥ śatrudveṣi

5.a devāśramadyāvātām: devatāśramavidyāvātām

b-c. lacuna: pravartanam / pravṛttānām anuvṛtṭiḥ / yac ca  
koṣa-

-daṇḍoghāta-: daṇḍopaghāta-

d. the last three feet can be supplied from Arth. 13.5.24,  
but it is difficult to rectify metre and sense  
of the first. Medh. plainly corrupt.

6. 7.70

-tācitā: -citā

dvādaśahastocchritena: dvādaśahastād ūrdhvam ucchritena

7. 7.104

(1) copacāre: copakāre

ma (lacuna) taḥ: (?) prasabhābhimṛṣṭastrīkaḥ (Arth.)

or (?) prasabham abhipūjya svīkr̥taḥ (Medh.)

which, however, appears corrupt.

sarvasvahārīta: sarvasvam āhārītaḥ

- (2) -bhūmi-: -bhūmir  
-opanata-: -opanataḥ
- (3) taṭaryo vyasaṭ (corrupt): parikṣiṇaḥ kadaryo vyasanī  
bahvr̥ṇa
8. 7.147
- a(1) karmāram-: karmaṇām āram-
10. 7.152  
grāhayitavyam: (?) grāhayitavyāḥ
11. 7.153
- b(1) Candrasenam: Bhadrasenam ((Derr.))
- (2) śayanāntargataḥ: śayanāntargataś (Derr.)  
putra- Kārūṣam: putraḥ Kārūṣam (Derr. Kārūṣam)
- (4) Vairantaḥ: Vairantyaḥ
12. 7.154
- a. lacuna: pa-  
-vyañcanāḥ: -vyañjanāḥ
- (1) tad: tam  
pramāṇīkr̥tya: pramāṇam kṛtvā  
paśy (lacuna) aḥ: paśyasi tat tadānīm evāśrayam (Derr.)
- (2) -samarthāyāja: samarthāyām bhūmau  
kṛṣika (lacuna) vastān: kṛṣikarmaphalāc ca sarvapravrajitānām grāsācchādanāvasthān (Derr.)  
-pravra (lacuna) rgaḥ: -pravrajitāś ca svaḥ svaḥ vargaḥ  
(Derr.)
- (4) vaṇik: om.  
nagarābhyāśe: sa nagarābhyāśe

- nidānaṃ: (?) agnidāhaṃ (Derr.)
- e. śramaṇā-: śramaṇā
13. 7.115
- c. asaṅyatayor: asaṃhatayor
14. 7.160
- a(5)-(6) -vighrahe (lacuna) rpaṇaṃ: -vighrahopādānaṃ dvaidhībhā-  
vaḥ / parārpaṇaṃ
- b. vaṇik (lacuna) rayitum kaṣṭin: vaṇikpathaṃ  
adeyamātrāṇi: adevamātrkāṇi
15. 7.161
- a. upagantum: upahantum
- b.(2) utsāhaya uktāś: utsāhayuktāś
- (3) tā amī (corrupt): tatprakṛtayaḥ ātmīyāḥ
- c. -hetvābhāve: hetvabhāve
- d.(1) abhyutthitaḥ: abhyuccitaḥ  
sarvasandeha: sarvasandoha
- e.(2) pratikṣaye: (?) prakṛtikṣaye  
-hetvābhāve: -hetvabhāve

Commentary

We now consider the examples singly to recall Schlingloff's argument in greater detail and examine the bearing of Bhāruci upon it. --In example (1) the introduction of Bhāruci does not much change matters, and his text often stands in need of improvement from the other two. The passage deals with the four vices born of lust, which the Arthaśāstra gives, in order of increasing gravity, as hunting, gambling, women and drink, Manu differing in that he regards gambling as a more serious vice than indulgence in women. (These categories and exposition of them through discussion of their relative gravity are quite common in Sankrit literature; see Schlingloff for a wealth of illustrations.) In their commentaries on Manu's text, Bhāruci and Medhātithi take these vices in pairs, giving arguments against the graver of the first two and for the less grave, proceeding then to the second and third vices with negative and positive arguments, and so through the list. The Arthaśāstra also takes the vices in pairs, but the scheme is much more complex. The false argument is put into the mouth of one of Kauṭilya's opponents (Piśuna, Kauṇapadanta, Vātavyādhi) thus: 'of A and B, A is worse', followed by a negative argument for A and a positive argument for B; this Kauṭilya rejects, giving a negative argument for B; a positive for A, and so to the next pair. That we here have to deal with "a free, poetic reworking", scarcely "based on a set stock of arguments"<sup>1</sup> may be freely granted. That

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1. Schlingloff, p. 33.

the author of the Arthaśāstra composed this passage by expanding the materials as preserved in Bhāruci and Medhātithi, rather than the opposite, Schlingloff deduces from the fact that Medhātithi (and Bhāruci) cite the arguments of Kauṭilya's opponents, and "a commentary could scarcely base its exposition on arguments which the authority it quoted had rejected as false opinions".<sup>1</sup> This seems to us a mistaken view of the matter: for Kauṭilya does not contradict, he is simply not responsible for, the positive and negative arguments concerning these vices by his opponents; what he contradicts is their views as to the relative gravity of them. Thus Somadeva can with good conscience reproduce the argument of Kauṇapadanta against gambling (above, note 2). We return to consider the more general argument, that commentators stick to their sources, at another point.

2, 4, In regard to the passages concerning the ideal minister (2),  
7 the ideal kingdom (4) and the four groups of seducible parties (7), Schlingloff says they "could be abbreviated citations from the Kauṭilya, if Medhātithi had not used an order of ideas which is not found in the Kauṭilya."<sup>2</sup> In the first of these three, Bhāruci's readings are closer to the Arthaśāstra than Medhātithi, with only one word (suvigrahaḥ, if indeed it corresponds to svavagrahaḥ) out of order. In the second Bhāruci is only

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1. Schlingloff, p. 34.

2. Schlingloff, p. 26.

slightly closer and does indeed alter the ordering, but the supposed difference from the order of ideas in the Arthasāstra almost entirely disappears in the third of these passages. The juxtaposition of bhīta- and lubdhavarga in Medhātithi (7(2) and (3)) is clearly a scribal error (or editorial) as Jha's note and Bhāruci's text show. If in 7(1) it had appeared that Medhātithi was departing from the order of ideas in the Kauṭīliya, it can now be seen that he is expanding and altering his source, Bhāruci.

--In considering the four tests of a minister's integrity Medhātithi seems to have supplied the description of the 'test of piety' (3.b(1)) partly from that of the 'test of wealth' (3.b(2)), perhaps because his text of Bhāruci, who follows the Arthasāstra quite closely here, was defective. Schlingloff comments that Medhātithi agrees with the contents of the first three tests, but that in the 'test of fear' there is no similarity between the two, and since Bhāruci and Medhātithi here agree (so far as the former's damaged text permits us to decide), no new light is thrown on the problem. But the difference between the Arthasāstra and Medhātithi has been exaggerated. The sense of the former is that the king feigns suspicion of conspiracy against them when his ministers gather at a party, and imprisons them. An agent previously 'imprisoned' approaches them singly, inviting them to join a plot to kill the king, insinuating that all the others are agreed. If the minister rejects the idea, he is loyal. This is a perfectly good plan, but not well-suited to its title: Bhāruci and Medhātithi

give us a much more appropriately named 'test of fear', according to which the king has the rumour spread that a combination of ministers is plotting his death, and agents warn the ministers that the king will punish them when he hears the rumour; another agent urges them to take action, and those who refuse are proved 'pure' by the test of fear'. In both of these a 'plot' against the king is the leading idea, and in both the object of the 'plot' is to kill the king. That Kauṭilya, in the verses which follow, states that the ācāryas approve the four tests, but gives it as his own view that the "king must not make himself or the queen the target in determining the purity of ministers"<sup>1</sup> and thus proscribes the 'test of fear' set out, and that Medhātithi (and Bhāruci) expresses a similar sentiment and thus contradicts himself,<sup>2</sup> is hardly proof that Medhātithi (or Bhāruci) drew from a work of one of these teachers, not the Kauṭilya, as Schlingloff

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1. Arth. 1.10.17: na tv eva kuryād ātmānaṃ devīṃ vā lakṣyam  
īśvaraḥ / śaucāhetor amātyānām etat Kauṭilya-darśanam // and  
generally vss. 16-20.

2. Medh. 7.54: samuditaparīkṣā ca yoktā rājaviṣayā rājāmātyeṣūtsā-  
hanam iti, sā na yukteti manyante. eṣa eva hi śuddhibhaved amāty-  
ānām. tasmād anyā kācit strī sādhiḥ prayoḥyā anyas ca vināśaviṣaya  
udāhāryaḥ. Cf. Bhār., loc. cit.: iyaṃ parīkṣā rājaviṣayād anyatra.  
na tu pūrvavat. itarathā hy etad eva buddhibhede hetuḥ syāt.

reasons. On the contrary, the fact that the contradiction is found in all three points in the other direction.<sup>1</sup>

- Schlingloff regards the passage on the pacification of recently conquered lands (5) as a short chapter with closing verse which the author of the Kauṭīliya has expanded. Labdhaprasāmana is indeed the title of a prakaraṇa in the Arthaśāstra, but its appearance in Medhātithi is due to the word labdhaprasāmaṇāni in Manu 8.56, in which form it occurs in Bhāruci and on which the Bhāruci and Medhātithi passages are glosses. As glosses it is hardly reasonable to expect an extended quotation from the Arthaśāstra.
6. --Schlingloff believes that Medhātithi's description of the construction of the fort goes back to a technical work which has not come down to us: "Medhātithi quotes a passage lacking in the Kauṭīliya about a ditch around the fort (dr̥dhapraṇālyā parikṛtam dhanur durgam)."<sup>2</sup> In fact the 'ditch' is an error for Bhāruci's 'rampart' (dr̥dhavapreṇa pariṣkṛtam), corresponding to the vaprasya of the

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1. Śaṅkarārya on KN 4.26 reproduces the passage, but not the disclaimer; but it would be absurd to deduce that he was not drawing from the Arthaśāstra.

2. Schlingloff, p. 25.

8. Arthasāstra.<sup>1</sup> --The passage on the 'five-fold counsel' (8) is missing in Jha's text and was overlooked by Schlingloff. It shows an excellent agreement between the Arthasāstra and Bhāruci,
9. Medhātithi abbreviating his source. --The betrayal of counsel by animals (9) is, as Schlingloff says, a well-known folklore motif, and Medhātithi (failing Bhāruci here) could have got it
10. most anywhere. --Bhāruci's text is considerably better than his colleague's in the extract on the training of princes (10), and it becomes clear that Medhātithi has both inserted new material into a text from Bhāruci (a) and reworded another (b); the order of ideas in the first part is of course still the opposite
11. of that in the Arthasāstra. --With regard to the assassination of kings (11), after laying it down that a queen should be inspected by an old woman before the king makes love to her, and giving examples from legend of kings killed in the harem by their queens

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1. Schlingloff rightly observes that dhanurdurga in Medh. represents not 'bow fort' but dhānvanadurga, 'desert fort', or rather, dhanva-, the word which is found in Bhāruci's text of Manu 7.70. Bhāruci, however, did not gloss dhanvadurgam, and the corresponding word has been wrongly inserted into Medh. (...dhanurdurgam mahīdurgam aghādeṇāśrayaṇīyena codakena pariveṣṭitam durgam /) as comparison with Bhār. shows (...mahīdurgam / agādhenānāśrāvaṇīyena codakena pariveṣṭitam abdurgam /). Naturally it is the water-fort, not the earth fort,<sup>that is</sup> surrounded by water.

or through their agency (the passage in abbreviated and corrupt form in Bhārucci and Medhātithi), the Arthasāstra instructs the king to prohibit contact with various undesirable females including slave girls from outside the harem. Schlingloff observes, "In the Kauṭīliya this prohibition is laid on the queen herself, while in Medhātithi (and Bhārucci) we find this addition, that it applies to the concubines of the harem (das weibliche Personal des Frauenhauses)".<sup>1</sup> The Arthasāstra passage however makes no mention of the "queen herself", and an Indian king is likely to have several queens, devī, from whom the queen might be differentiated with the term mahādevī.<sup>2</sup> But the objection surely must be that in supplying the prohibition of the Arthasāstra's cryptic text with an object Bhārucci alters the presumed intention of his original only slightly by naming the concubines, with whom the king might be in the same danger.

12. The Bhārucci and Medhātithi texts on the king's spies (12), which are practically identical, correspond to parts of two chapters in the Arthasāstra, including two of the concluding verses of the second of these. Manu's verse (7.154) requires the king to reflect on the 'eight-fold business', the 'group of five', on good will and enmity, and the conduct of the maṇḍala. Bhārucci

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1. Schlingloff, p. 29.

2. Kangle's translation presumes that several queens were intended.

(and, quoting him, Medhātithi) has come up with three different explanations of the aṣṭavidhaṃ karma and the various commentators offer two for the pañcavargam. Here we have Bhāruci's version: the 'group of five' consists of five types of agents, which according to the Arthaśāstra are those with fixed dwellings, dealt with in chapter 11, (a). Our Manu-commentators then go on, however, to describe roving spies, sattrins (b) and other material with correspondences in Arthaśāstra 1.12, (c-e). Schlingloff asks why the passage about the sattrins and so forth has been cited (b-e), rather than, with Kullūka and Govindarāja, the definition of the five agents with permanent dwellings alone (a), as called for by the pañcavarga of Manu's text. "The most natural explanation for this is that Medhātithi has quoted in full, including the closing verse, the chapter dealing with agents in his Arthaśāstra-source and that the author of the Kauṭīliya has incorporated just this arthaśāstra-source into his work and has expanded the portion in question."<sup>1</sup> But this in no way solves the problem, which is, why did Bhāruci go beyond this 'group of five' in his comment?--he was not bound to quote his source in full.

13. In commenting on the following verse in Manu, in which the four elements of the circle of states are named (conqueror, enemy, middle and neutral kings), Bhāruci and, following him, Medhātithi

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1. Schlingloff, p. 30.

have passages corresponding in condensed form to the definition in the Arthaśāstra of the twelve elements of the circle (13). (Schlingloff does not cite these passages.) --In the next

14. example, the six-fold policy (14), Bhāruci takes us slightly closer to the wording of the Arthaśāstra, though the order of the six is altered (as it is in Somadeva). Schlingloff sees striking differences in wording and content in part (b), and believes that a bit of text has been interpolated between the first and second passages in the Kauṭīliya, rather than supposing that Bhāruci here condenses his source.<sup>1</sup> --Medhātithi is capable

15. of condensing and altering his source, Bhāruci, as we see in the extract on waiting or marching after making war or peace (15). The example is instructive. What Schlingloff says is this: "We find (here) differences in content next to verbal correspondences; above all, the discussion in the Kauṭīliya on waiting after making war (vigṛhyāsita) is particular, while in Medhātithi it refers in general to the three times for making war (vigrahasya kālah)."<sup>2</sup> This is true, but Bhāruci changes the picture enormously. His comment is on Manu 7.161 which, like its immediate predecessor, names the six policies; Bhāruci explains waiting after

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1. Schlingloff points out that the list of undertakings goes back to Medhātithi's (and Bhāruci's) gloss, one of three, on the aṣṭavidhaṃ karma of Manu 7.154, a similar list being found in KN 5.77.

2. Schlingloff, p. 28.

making war, waiting after making peace, marching after making war, marching after making peace and confederacy in a manner which we can recognize as an abridgement of the Arthasāstra discussion, with a verbal correspondence which is respectably close and which at one point offers the only textual support to an emendation, due to Meyer, in the Arthasāstra (a: see note 115). Medhātithi gives a briefer comment on Manu 7.161, but draws upon Bhāruci's comment elsewhere, namely in dealing with Manu 7.164 on war in season (kāle). The example amply illustrates the effect of a change of context, and the willingness of Medhātithi to condense and alter the sense of his source here demonstrated must throw doubt on the assumption on which Schlingloff's entire argument rests.

16. The next example (16) is puzzling; the Medhātithi passage, as Schlingloff remarks, is very corrupt and defective, and it is the only longish correspondence between the Arthasāstra and Medhātithi which is not found in our text of Bhāruci. It deals with the four types of deserting and returning vassals: those who desert and return for good reason (1), those who do so without good reason (2), those who desert for good reason and return without good reason (3), and those who desert without good reason and return for good reason (4). The Arthasāstra after naming these four classes then describes these in greater detail: In the first case the vassal is to be taken back, in the second, rejected, in the third and fourth cases the decision must depend upon the ground of his defection and return. Schlingloff notes

that in the third case, of the three grounds considered, the second (which Schlingloff regards as not very logical, and which Meyer proposed to change<sup>1</sup>) is missing from Medhātithi. "Also, the differences in wording are here so characteristic that Medhātithi cannot himself have simplified the text, but must have used another source."<sup>2</sup> We do not see how so definite a conclusion can be reached about a text so obviously a victim of the jīrṇoddhāra, a text which announces four classes and then only names three, and describes in detail only three--or perhaps two.<sup>3</sup> But even granting that Medhātithi's original wording in b(3) was roughly as we have it, the differences noted rest on the questionable assumption that a commentator takes few liberties with the authority he uses.

17. In dealing with marching order (17) we see Medhātithi (if his text is here correct) altering the wording and order of ideas of his original. Schlingloff remarks that in the Arthaśāstra the cavalry are on the sides, the elephants on the ends of the army, while in Medhātithi (and Bhāruci) the elephants are on the sides and the cavalry next to them. It is by no means certain, however,

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1. See Kangle, trans., on Arthaśāstra 7.6.26.

2. Schlingloff, p. 27. We abbreviate his discussion considerably.

3. We give the text as arranged and punctuated in Schlingloff, but it may be asked whether in b(1) Medhātithi's yathā doṣeṇa gataḥ punar āgato does not correspond to the Arthaśāstra's svadoṣeṇa gatāgato of b(2).

what the Arthasāstra means here, or what the correct reading is,<sup>1</sup>  
 and the Kāmandakīya puts all four 'arms' of the army on the sides,  
 albeit in different order. --Of the passages concerning the king's  
 18, safety in battle (18) and audiences (21), neither of them found  
 21 in Bhāruci, Schlingloff rightly remarks, "Self-contained didactic  
 verses need not have been drafted by the author of the Kauṭīliya  
 19, nor have been taken from it by Medhātithi."<sup>2</sup> --The remaining  
 20 examples, concerning human effort and fate (19) and the effects  
 of poison on birds (20), are also absent from Bhāruci, and are  
 of a sort such that Medhātithi could have found them practically  
 anywhere.

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1. See Kangle's long note, trans., Arthasāstra 10.2.4.

Cakrānteṣu is taken as "rear ends of the army" on the authority  
 of two commentaries, one of them Ganapati Sastri's; prasāravṛddhi  
 is carried out by horses (10.4.13); sarvataḥ, coming after  
prasāravṛddhir vā is hived off and put in the following sūtra  
 because it does not accord with the sense adopted for cakrānteṣu;  
paścāt...niveśeta is inserted from 10.2.12. In 10.2.5 (sarvataḥ  
vanājjīvaḥ prasāra), the first word may correspond to the tato of  
 Bhāruci, the second to the aṭavibalam of KN 19.46 (cf. Meyer's  
 trans.). But the passage defies translation.

2. Schlingloff, p. 25.

## Conclusions

It is plain that by and large Schlingloff's conclusions concerning Medhātithi apply rather to Bhāruci, for it is unreasonable to suppose that Medhātithi and his predecessor got substantially identical material independently of each other. We have given in our commentary on the parallel passages reasons to doubt the assumption that commentators usually follow the wording and sense of the authorities they quote; we will not belabour the issue, but merely observe that the principal is not a universally recognized one.<sup>1</sup> It might be argued that as Medhātithi does not greatly alter Bhāruci (apart from one striking example), the same must hold for Bhāruci and his source. But Medhātithi was taking

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1. Cf. Derrett's conclusions (based, it is true, on less material): "Bhār. obviously used a version of Kauṭ. anterior to those known to some extent from records of surviving manuscript material of Kauṭilya himself. His numerous deviations from Kauṭ. suit his purpose as a commentator on Manu; but one striking instance of a real distortion of Kauṭ. to suit the obviously different scheme of Manu (the rāja-vyasanās) shows that he was master of his material...In numerous cases he merely alludes to Kauṭ. or borrows his vocabulary without copying the passage verbatim, and this too helps us to recognise where he is deliberately incorporating Kauṭ. as distinct from merely utilising him and his science." (p. 140)

over material tailor-made for his purposes while Bhāruci drew upon a different work, outside his śāstra, which he therefore had to adapt to his peculiar needs.

We do not wish to give the impression that we regard Schlingloff's well-argued thesis disproved. It may be the case that Bhāruci drew upon a text which was a predecessor of the Arthaśāstra or related to it in some other way, rather than the Arthaśāstra itself. When heavenly bodies follow trajectories which do not accord with existing theories, it may be necessary to posit the existence of an unseen planet or star; but it would be unwise to do so without a clear necessity. We entirely agree with Schlingloff's words when he says, "We must stand firm against the temptation to see in the Arthaśāstra the conception of a single great statesman."<sup>1</sup> But we must also be careful not to 'discover' the existence of imaginary lost texts. It is much simpler to regard the Arthaśāstra as Bhāruci's source, though not his only source in Book 7, for he also quotes some ślokas, reproduced by Medhātithi, of the 'Auśanasas'.<sup>2</sup>

Of those Arthaśāstra-Medhātithi correspondences which Bhāruci lacks, only one, that concerning deserting and returning vassals, is of some length and importance. It is possible that a corresponding passage has dropped out of Bhāruci; the discovery of more

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1. Schlingloff, p. 37.

2. 7.154 in both commentators.

manuscripts of Bhārucci could help us decide. On the whole, in any case, the evidence that Medhātithi knew the Kauṭīliya is slight, while there is other evidence that in addition to Bhārucci he had another arthaśāstra source. His references--not found in Bhārucci--to 'those conversant with the books of Cāṇakya and others',<sup>1</sup> to 'the science of polity, composed by the Auśanasas and others',<sup>2</sup> to a work, Bārhaspatya, dealing with economics<sup>3</sup> do not take us very far, nor does the teasing ascription of two non-Bhārucci passages to a 'similar work' (samānatātra).<sup>4</sup> All the greater, then, is the importance of the two passages Medhātithi quotes from an Adhyakṣapracāra, whose title is identical with that of Arthaśāstra, Book 2.<sup>5</sup> Here, we believe, we are entitled to look for a predecessor to the Arthaśāstra, a work on which the composer of the Arthaśāstra may have drawn.<sup>6</sup> In this far we are prepared to concede Schlingloff his point.

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1. 7.43: Cāṇakyādividbhyaḥ

2. 7.2: arthaśāstram Auśanasādipraṇītaṃ

3. 7.42: Bārhaspatyena--vārtā (sic: vārtā); 9.326: Bārhaspatye vārtā (sic) samupadiṣṭā.

4. Above, examples 18, 19.

5. Medh. 7.61 and 7.81, cited in ch. 7.

6. Schlingloff remarks that the very titles of chapters in the Arthaśāstra appear to be traditional, with examples, p. 31, fn. 109.

CHAPTER 7: THE AGES OF THE ARTHAŚĀSTRAWhat Does It Mean?

A statistical study of a parallel work, Vātsyāyana's Kāmasūtra, will shed light on the nature of the result for the Arthaśāstra, since Vātsyāyana is much more candid about his sources than is the Arthaśāstra.

Taking the seven books of the Kāmasūtra, omitting verses and removing from Book 1 the first chapter with its table of contents, we find for our five key words the distributions set out in Appendix Table 8. Books 4 and 7, with 920 and 860 words, are rather short for testing; but it is not they, but the longest books (Books 2 and 6) which contribute most to the great variability between the seven books which is shown below, Table 7.1.

Table 7.1

Chi-square results for seven books of Vātsyāyana's Kāmasūtra.

	$\chi^2$	d.f.
<u>eva</u>	18.09**	6
<u>evam</u>	-	-
<u>ca</u>	54.51***	18
<u>tatra</u>	23.21***	6
<u>vā</u>	18.64**	6

We will not burden the reader with the results of a comparison of each of the 21 different pairs of books: suffice it to state that a pattern emerged which showed that Books 2 and 6, and perhaps Book 7 (though this last was rather short for testing), proved not only distinct from the remaining books but from each other. This leaves us with a homogeneous core consisting of Books 1, 3, 4 and 5.

Table 7.2

Chi-square results in Vātsyāyana's Kāmasūtra. Core = Bks. 1, 3, 4, 5.

	Core	Core & 2	Core & 6	Core & 7	2 & 6	2 & 7	6 & 7
<u>eva</u>							
$\chi^2$	5.22	8.29	9.85*	7.61	9.56**	.04	6.92**
d.f.	3	4	4	4	1	1	1
<u>evam</u>							
$\chi^2$	-	-	-	-	-	-	-
d.f.	-	-	-	-	-	-	-
<u>ca</u>							
$\chi^2$	9.74	36.00***	23.78*	28.63**	1.95	2.27	5.70
d.f.	9	12	12	12	3	2	2
<u>tatra</u>							
$\chi^2$	4.21	15.82**	4.35	6.96	7.38**	7.96**	-
d.f.	3	4	4	4	1	1	-
<u>vā</u>							
$\chi^2$	4.21	5.71	15.49**	5.71	14.51***	.00	7.04*
d.f.	3	4	4	4	2	1	2

These results are corroborated by the compound-length test.

Compound-length distributions for the prose portions of the seven books of the Kāmasūtra are given in Appendix Table 9; in Table 7.3 the chi-square results may be found.

Table 7.3

Chi-square results for compound-length distributions in Vātsyāyana's Kāmasūtra.

	$\chi^2$	d.f.
All books	67.35***	18
Core (Bks. 1, 3, 4, 5)	20.74*	9
Core & 2	29.61**	12
Core & 6	36.03***	12
Core & 7	37.62***	12
2 & 6	3.69	3
2 & 7	23.82***	3
6 & 7	32.45***	3

The chi-square result for the homogeneous core (Books 1, 3, 4, 5) which we proposed above is rather high, bordering on the 1% level of significance with a chi-square of 20.74 at nine degrees of freedom. But this is very unevenly distributed over the contingency table, from which the calculation was made, over half (11.80) of the value for chi-square coming from one cell (Book 4, compounds of five or more members). Books 2 and 6 prove homogeneous in respect

of compound-length, but a difference in authorship is sufficiently well-established by word distributions.

Our conclusion must be, then, that Books 1, 3, 4 and 5 of the Kāmasūtra are by a single author, presumably Vātsyāyana, whose name the work bears. This author was not responsible for Books 2 and 6, and probably not for Book 7, which, however, is too short to reach a firm decision; and these three books, or at least Books 2 and 7, have different authors.

The Kāmasūtra opens with an invocation to Dharma, Artha, and Kāma, "for they are the subjects under discussion in this treatise; and to the Ācāryas who have explained them, for (this treatise) is connected therewith,"<sup>1</sup> which the commentary elucidates as meaning that the Kāmasūtra is an abridgement of the treatises of the Ācāryas.<sup>2</sup> There follows a genealogy of the śāstra: after the creation of beings Prajāpati recited in 100,000 chapters the essence of the 'group of three'; Svāyambhuva Manu separated from this the part dealing with dharma, Bṛhaspati the part dealing with artha, while Nandin, attendant of Mahādeva, recited the Kāmasūtra separately in 1000 chapters. This Auddālaki Śvetaketu abridged (saṃcikṣepa) in 500 chapters, and Bābhavya Pāñcāla in turn abridged Śvetaketu's work to 150 chapters of seven books with titles corres-

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1. Kām. 1.1.1-19. The translation of K. Rangaswami Iyengar in English and the German-Latin translation of Richard Schmidt have been consulted.

2. tat-praṇīta-śāstra-saṃkṣepa hi śāstrasya praṇayanāt.

ponding to those of Vātsyāyana's work. "At the request of the courtezans of Pāṭaliputra, Dattaka separated its sixth book, Vaiśika." In this manner seven separate treatises arose from different teachers:

- (1) Cārāyaṇa on Sādhāraṇa
- (2) Suvarṇanābha on Sāṃprayogika
- (3) Ghoṭakamukha on Kanyāsaṃprayuktaka
- (4) Gonardīya on Bhāryādikārika
- (5) Goṇikāputra on Pāradārika
- (6) Dattaka on Vaiśika
- (7) Kucumāra on Aupanīṣadika.

"The śāstra, thus composed in parts by many ācāryas, almost became lost. Because the partial śāstras composed by Dattaka, etc. were fragmented, and because of the difficulty of studying that of Bābhravya on account of its bulk, having abridged (them), this Kāmasūtra has been composed (containing) all the topics in a small book."

Thus Vātsyāyana had Bābhravya's treatise and seven monographs before him when he composed his Kāmasūtra. We have in Jain sources independent testimony to the separate existence of two of these monographs: in a sort of index of disapproved works appear the titles Ghoḍa(ya)muham, probably the work of Ghoṭakamukha on Pāradārika (the Arthaśāstra quotes the views of a Ghoṭamukha who may be the same person) and Vesiya, probably the Vaiśika of Dattaka.<sup>1</sup> Vātsyāyana's

1. The list, which includes Koḍillayam (Kauṭīliyam) but not the Kāmasūtra of Vātsyāyana is found in the Nandīsūtra and Anuyogadvāra. From the Introduction, The Uttarādhyāyanasūtra, ed. Jarl Charpentier, p. 29, after Weber.

method was to abridge; characteristically of ancient Indian authors of scientific treatises, he asks no credit for originality, but on the contrary, ascribes his knowledge to previous teachers, and ultimately to the Creator himself.

The statistical analysis of the Kāmasūtra shows that in the homogeneous core, Books 1, 3, 4 and 5, Vātsyāyana has succeeded in imposing his own style on the material he has reworked, while for Books 2 and 6, and perhaps the shorter Book 7, he has incorporated the existing monographs of different authors without substantial reworking, at least as concerns style. It is significant that the original of one of these, Book 6, entitled Vaiśika, is singled out for special mention by Vātsyāyana in the passage given above, and was sufficiently well-known to have come to the attention of Jain monks.

The Arthaśāstra devotes only a single passage to describing its relation to its predecessors, namely the opening passage of the work which we have discussed above (Chapter 3): "This single Arthaśāstra has been made for the most part by drawing together (or condensing) as many arthaśāstras as have been composed by previous teachers for the acquisition and protection of the earth." (1.1.1) This statement clearly means that not merely the quoted views of predecessors in the Arthaśāstra, but the bulk of the entire work is to be referred to previous treatises; that the Arthaśāstra (much like the Kāmasūtra) is a compendium of earlier treatises, whether in abridgement or in full.

There are a few scraps of evidence which tend to support the

view that the original of Book 2, the Adhyakṣapracāra, once had a separate existence which extended some time after the composition (or shall we say, compilation) of the Arthaśāstra. In the first place, Vātsyāyana, who certainly knew the Arthaśāstra more or less in its present form, defines artha as the acquisition and increase of learning, land, gold, cattle, corn, household utensils, friends, etc., and advises one to learn it from the Adhyakṣapracāra, those conversant with commercial matters and merchants. The commentator explains, "The Adhyakṣapracāra is a treatise concerning the duties discharged by overseers."<sup>1</sup> The author of this commentary which is called Jayamaṅgalā, himself was no stranger to the Arthaśāstra, since it is probably he who wrote commentaries of the same name not only on the Arthaśāstra but on Kāmandaka's Nitisāra as well.<sup>2</sup> It may not be justified to insist that a separate treatise is here meant, but, in the second place, Medhātithi, who, as we have seen in the previous chapter, also drew from the Arthaśāstra in much its present form in whole or in major part through a predecessor, Bhāruci, quotes two passages from an Adhyakṣapracāra which have no counterparts in the Arthaśāstra or in Bhāruci. The first deals with the qualities of a

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1. Kām. 1.2.10: '...adhyakṣāḥ pracaranty anenety Adhyakṣapracāraḥ śāstrem.' Differently Schmidt: "Wie die Aufseher auftreten, das bildet das "Auftreten der Aufseher"", whether because he had different readings before him or because in 1907 he had not seen the Arthaśāstra.

2. G. Harihara Sastri, Arthaśāstra-vyākhyā Jayamaṅgalā, introduction.

good minister (on Manu 7.61):

uktaṃ cādhyakṣapracāre:

buddhimān, anuraktaś ca yukto, dharmārtha-kovidah/

śucir, dakṣah, kulinaś ca mantri yasya sa rājyabhāk//

tasmin nikṣipyā kāryāni bhogasamgī na naśyati/

rāja-vaśya-vidhis tena dānānugrahanair iti//

The second (on Manu 7.81) mentions the overseers of elephants, horses and cattle:

yathoktaṃ Adhyakṣapracāre:

te adhyakṣāḥ sarvāni kāryāni avekṣerann anyeṣāṃ nr̥ṇāṃ

tat sthānopayogināṃ kāryāni kurvatāṃ hastyadhyakṣeṇa

hastipakāḥ aśvādhyakṣeṇa turaṅgamādyāḥ gavādhyakṣeṇa

karṣaṇādayaḥ.

The first quotation is particularly interesting in that it deals with mantrins, which are outside the scope of the Adhyakṣapracāra as we now have it: mantrins and amātyas are discussed in Book 1. It is conceivable that the forbear of Book 2 was a work entitled Adhyakṣapracāra dealing with ministers as well as overseers, and that parts of it have contributed to Arthaśāstra Book 1, and parts were lost through abridgement.

We believe, then, that the various hands we have detected in the Arthaśāstra belong to the pūrvācāryas, the previous teachers whose works, in condensed form perhaps, were bound into a single work by a compiler who divided the work into chapters, added the terminal verses, composed the first and last chapters (and possibly one of the three long books), and who may have added other original

material but did not rework his sources to the extent that their stylistic features were obscured.

### The Ages of the Arthasāstra

It being shown that the Arthasāstra has not one author but several, it follows that it is to be referred to not one date but to as many dates as it has authors. Each separate hand in the work, each of Books 2, 3, and 7, has its proper age, and each (unless the compiler authored one of the three long books) precedes the age of the compilation of the Arthasāstra.

Our study cannot name any of the hands in the Arthasāstra, for presumably these authors left no other works to us which could form the basis for an identification. We can say with confidence that Kauṭilya cannot have been the author of the Arthasāstra as a whole; but whether he wrote a part, and if so, which part, we cannot decide without appeal to evidence outside the statistical study we have conducted. Yet, although the conclusions we have reached contain no implications for the dating of the Arthasāstra more specific than the one that there are several dates, and that the long books need not have been composed simultaneously, we would close with some consideration of the ages of the Arthasāstra in the light of our findings on the way it was composed.

The date of the compilation of the work must be bounded on one side by the dates of the books which betray a knowledge of the finished Arthasāstra, and on the other by the date of the latest monograph to

be incorporated into it. The earliest works to refer to the Artha-sāstra are the Pañcatantra, the Kāmasūtra, the Mudrārākṣasa, and Aryaśūra's Jātakamālā. Hertel originally put the Pañcatantra in c. 200 B.C., on the basis of the ascription to Kauṭilya of the work it quotes, but the presence of the word dīnāra (denarius) ensures that it is at least post-Christian, when the Roman trade became important; its upper limit is fixed by the Pahlavi translation in the sixth century A.D.<sup>1</sup> There is little by which the Kāmasūtra may be dated, except its reference to king Sātavāhana, who accidentally killed his queen Malayavatī in amorous sport with a pair of scissors, thought to be Kuntala Sātakarṇi Sātavāhana, c. first century B.C. Sir R.G. Bhandarkar places Vātsyāyana in the first century A.D.,<sup>2</sup> Jolly in the fourth.<sup>3</sup> The earliest date to which the Mudrārākṣasa may be assigned is the reign of Skanda Gupta (beginning of the 5th century A.D.) or conceivably that of Candrar Gupta II (last quarter of the 4th).<sup>4</sup>

For Aryaśūra we have more precise information since work by someone of that name was translated into Chinese in A.D. 434, and this is probably the same as the author of the Jātakamālā, which

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1. Discussion in F. Edgerton, The Pañcatantra Reconstructed, vol. 2, p. 182.
  2. Proc. and Trans. of the First Oriental Conference, Poona, vol. 1, p. 25.
  3. Introduction to Jolly-Schmidt, p. 29.
  4. See Chapter 2.

makes oblique but certain reference to the Kauṭīliya Arthaśāstra.<sup>1</sup> E.H. Johnston argues that Aryaśūra should be referred to the 4th century, and the later limit for the compilation of the Arthaśāstra to c. A.D. 250; and if the Pali Jātakas can be presumed to refer to the Kauṭīliya (the evidence is not clear), the reference must have existed in the original Jātakas from which the later works drew, and the limit for the Arthaśāstra set back by perhaps a century. But Aśvaghoṣa, who belongs to the second century A.D., betrays a knowledge of arthaśāstra but not of the Kauṭīliya, so that the work cannot be put much earlier.

Let us provisionally accept the date of c. A.D. 250 for the compilation of the Arthaśāstra. What then is the earlier limit? The only data within the work yielding fairly firm and precise dates are the place-names of Book 2.<sup>2</sup> We believe that a date in the second century or possibly somewhat earlier would be consonant with all the features of Book 2, including the use of Sanskrit in royal edicts, the use of punch-mark coins (so long as it was not composed in the Northwest, where the Indo-Greek portrait coins had rendered them obsolete), and the rest, given that it incorporates some material of a greater antiquity. In particular the geographical data would place no obstacles to such a date (Cīna and the silk-trade with China, Tāmraparṇī as a river and Pārasamudra as Ceylon, the red

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1. See the excellent article of E.H. Johnston, "Two Studies in the Arthaśāstra of Kauṭīliya" in JRAS, 1929, p. 77 ff.

2. See above, Chapter 3.

coral of Alakanda/Alexandria), save the supposed reference to the Hūnas (Hārahūraka, 2.25.25) which could scarcely predate the latter part of the fourth century. We do not see how mention of the Hūnas could be reconciled with the evidence of Aryasūra; but it may be observed that to a degree the reference to Alexandria and to the Hūnas conflict; for as the Hunnish tide rose the Roman trade with India died and the Byzantine diminished. The other reference to the Hūnas occurs in Book 3 (3.18.8) where the manuscripts read Prājjūṇaka and one of the commentators gives the reading Prāgghūṇaka, 'Eastern Huns'. Since this people is mentioned with those of Gandhāra in the Northwest, it is reasonable to suppose that the Hūnas are indeed meant, though again this ill accords with the testimony of Aryasūra.

In any case there is no necessity for so late a date for the legal books (3 and 4), and good reason to suppose that they antedate the Yājñavalkya Smṛti, and perhaps the evolution of the Dharma Smṛtis as a whole.

Book 7 and its affiliates offer no chronological data at all; the only reason to hesitate from assigning it a very early date is the degree to which its doctrines have been elaborated. Yet the maṇḍala doctrine, at least, seems to have been carried further in other arthasāstras, to judge from the references to them in the Kāmandakiya;<sup>1</sup> and some of the typical arthasāstra categories (the

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1. Chapter 8. See above, Chapter 3.

four-fold army, the concept of bheda or 'sowing dissension') may be found in the Pali canon.

If the Kauṭilya Arthaśāstra in its present form is not so old as it pretends, the śāstra itself is certainly old, predating the dharma smṛtis.<sup>1</sup> Manu, the earliest of the smṛtis, draws freely on material proper to the older dharma sūtras (except in his first and last chapters, which contain the 'frame', philosophical matters, and the phalastuti). This material is the source for 42 to 55% of chapters 2 to 6 and 10 to 11 (or 50 to 61%, if the Mahābhārata be regarded as a source of Manu); but in chapters 7 through 9 these figures drop to 14 to 22% (or 22 to 29%, including the Mahābhārata). For the figures see Table 7.4.

Chapters 7, 8 and 9 of Manu (to 9.325) form a treatise on rājadharmā, of which chapter 7 is chiefly devoted to kingly affairs proper and chapter 8 and the greater part of 9 deal with the eighteen titles of the law which make their appearance first in Manu among the metrical smṛtis. While some of the material in these chapters must of course be original to the composer of the smṛti, it is certain that for some he draws on arthaśāstra. In 7.154, for example, Manu advises the king to reflect on the eight-fold business (aṣṭavi-dhaṃ karma) and the 'group of five' (pañcavarga) which would be incomprehensible without reference to arthaśāstra; and we have seen

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1. For the argument which follows we are indebted to an idea in Prof. Dwivedi's "The Age of Kauṭilya", p. 15 ff.

Table 7.4

Verses in Manu with correspondences in the dharma sūtras (Gautama, Baudhāyana, Āpastamba and Vasiṣṭha) or in the dharma sūtras and the Mahābhārata (chiefly parvans 1, 3, 12 and 13).<sup>1</sup> Drawn from the concordance appended to Bühler's translation of Manu (SBE vol. 25).

	<u>Dharma sūtras</u>	<u>Dharma sūtras &amp; Mahābhārata</u>
Manu 1	1.7%	24.4%
Manu 2	53.4%	58.7%
Manu 3	46.9%	52.8%
Manu 4	48.5%	57.3%
Manu 5	47.3%	49.6%
Manu 6	55.7%	60.8%
Manu 7	13.7%	22.1%
Manu 8	21.9%	22.6%
Manu 9	22.3%	29.2%
Manu 10	42.0%	58.0%
Manu 11	45.9%	53.8%
Manu 12	5.6%	8.7%

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1. The gṛhya sūtras could well have been included, but they do not affect the figures much, and the conclusion drawn not at all.

that Bhārucci goes to great lengths to elucidate from arthaśāstra sources. Bühler himself was sensible to this indebtedness much before the publication of the Kauṭīliya; for in 7.155-6 where the four elements of the circle of states are named (middle-most, conqueror, neutral, foe), he translated: "These (four) constituents (prakṛiti. form), briefly (speaking), the foundation of the circle (of neighbours); besides, eight others are enumerated (in The Institutes of Polity)<sup>1</sup> and (thus) the (total) is declared to be twelve." As Manu does not trouble to specify the "eight others" we are obliged to look for them in arthaśāstra. Even more striking is the case of the eighteen titles of the law; for here is the very core of the smṛtis, and yet it is scarcely represented in the older dharma sūtras. It represents, then, not an evolution from the sūtra rules with their orientation to brahmanical ritual and custom, but either the creation of the author of the Manu Smṛti or the adaptation of material from a different source. And it is at least possible that the law of transactions (vyavāhara) organized into 18 titles developed at the court among the king's legal advisors, where, too, the theory of administration and foreign affairs, in short, the arthaśāstra, developed.

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1. Our italics.

The Authority of the Arthasāstra

We have argued that the Kauṭīliya Arthasāstra while composed by a single person, has no one creator. And in this it is no different from any number of ancient Indian scientific treatises, whether the Kāmasūtra, or the Manu Smṛti, or the Caraka Saṃhitā. In the absense of the works of their predecessors it is difficult to assess the achievement of any individual author of antiquity. We believe it true to say that the 'author' of the Arthasāstra is his predecessors, and that his personality as inferred from the work is a composite picture to which three or four different individuals have contributed, one a nose, another the hair, another the eyes.

To judge the Arthasāstra the less for being the work of many, however, would be to weigh it in the scales of our own notions of creativity and genius, themselves the creation of Romanticism. What the Arthasāstra loses by way of individuality it gains by being seen as representative of the best of generations of thinkers. In its impersonal and abstract way it sums up the ancient Indian beliefs about the state with an authority which no individual creation could possess.

## APPENDIX: STATISTICAL TABLES

Appendix Table 1

Distribution of particles in Kalhana, in all verses and omting dialogue.

(a) All Verses

## 1. atas

	<u>Bk.1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	298	299	299	300	299	300	298
1	2	1	1	-	1	-	2

## 2. atra

	<u>Bk.1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	295	298	295	300	298	300	300
1	5	2	5	-	2	-	-

## 3. atha

	<u>Bk.1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	278	256	287	285	276	290	286
1	22	44	13	15	24	10	14

Appendix Table 1 .....

## 4. api

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	248	254	253	267	264	245	233
1	50	43	38	28	32	53	57
2	1	3	9	5	4	1	9
3	1	-	-	-	-	1	1

## 5. iti

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	280	256	275	277	268	292	276
1	19	41	24	20	31	8	23
2	1	3	1	3	1	-	1

## 6. iva

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	278	270	258	274	279	282	267
1	21	29	41	23	19	18	32
2	1	1	1	3	2	-	1

## 7. iha

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	299	300	300	300	300	298	300
1	1	-	-	-	-	2	-

Appendix Table 1

## 8. eva

	Bk. 1	3	4	5	6	7	8
0	285	274	273	273	273	286	273
1	14	25	27	27	23	13	25
2	1	1	-	-	4	1	2

## 9. evam

	Bk. 1	3	4	5	6	7	8
0	293	291	292	293	295	294	294
1	7	9	8	7	5	6	6

## 10. khalu

	Bk. 1	3	4	5	6	7	8
0	300	299	300	300	300	300	300
1	-	1	-	-	-	-	-

## 11. ca

	Bk. 1	3	4	5	6	7	8
0	272	253	267	270	267	266	265
1	24	40	25	29	31	26	34
2	4	4	7	1	2	5	1
3	-	3	1	-	-	2	-
4	-	-	-	-	-	1	-

Appendix Table 1 ....

## 12. cet

	Bk. 1	3	4	5	6	7	8
0	300	298	298	300	299	300	298
1	-	2	2	-	1	-	2

## 13. tatas

	Bk. 1	3	4	5	6	7	8
0	280	278	274	286	281	273	283
1	20	22	26	14	19	27	16
2	-	-	-	-	-	-	1

## 14. tatra

	Bk. 1	3	4	5	6	7	8
0	291	289	278	291	293	287	294
1	9	11	21	8	7	13	6
2	-	-	1	1	-	-	-

## 15. tathā

	Bk. 1	3	4	5	6	7	8
0	295	297	291	294	288	297	291
1	5	3	9	6	12	3	9

Appendix Table 1 ....

## 16. tadā

	Bk. 1	3	4	5	6	7	8
0	289	296	298	298	292	297	294
1	11	4	2	2	8	3	6

## 17. tāvat

	Bk. 1	3	4	5	6	7	8
0	299	298	299	297	296	295	299
1	1	2	1	3	4	5	1

## 18. tu

	Bk. 1	3	4	5	6	7	8
0	290	293	291	293	289	293	285
1	10	7	9	7	10	7	15
2	-	-	-	-	1	-	-

## 19. na

	Bk. 1	3	4	5	6	7	8
0	271	242	265	277	273	275	250
1	27	49	27	19	24	25	47
2	2	6	4	3	3	-	1
3	-	1	1	1	-	-	2
4	-	1	2	-	-	-	-
5	-	-	1	-	-	-	-
6	-	-	-	-	-	-	-
7	-	1	-	-	-	-	-

Appendix Table 1 .....

## 20. nanu

	Bk. 1	3	4	5	6	7	8
0	300	300	299	300	300	300	300
1	-	-	1	-	-	-	-

## 21. nāma

	Bk. 1	3	4	5	6	7	8
0	293	297	295	298	299	293	295
1	7	3	5	2	1	7	5

## 22. punar

	Bk. 1	3	4	5	6	7	8
0	292	295	295	297	292	287	295
1	8	5	5	2	8	12	4
2	-	-	-	1	-	1	-

## 23. yatas

	Bk. 1	3	4	5	6	7	8
0	300	299	299	299	299	300	300
1	-	1	1	1	1	-	-

Appendix Table 1 .....

## 24. yatra

	Bk. 1	3	4	5	6	7	8
0	289	300	294	297	297	299	299
1	11	-	6	2	3	1	1
2	-	-	-	1	-	-	-

## 25. yathā

	Bk. 1	3	4	5	6	7	8
0	294	294	297	294	293	298	295
1	6	6	3	6	7	2	5

## 26. yadā

	Bk. 1	3	4	5	6	7	8
0	295	298	299	300	298	300	297
1	5	2	1	-	2	-	3

## 27. yadi

	Bk. 1	3	4	5	6	7	8
0	296	297	298	300	299	300	299
1	4	3	2	-	1	-	1

Appendix Table 1 .....

## 28. yāvat

	Bk. 1	3	4	5	6	7	8
0	299	297	299	298	297	297	299
1	1	3	1	2	3	3	1

## 29. vā

	Bk. 1	3	4	5	6	7	8
0	297	288	292	297	297	299	295
1	3	11	6	3	3	1	5
2	-	1	2	-	-	-	-

## 30. vai

	Bk. 1	3	4	5	6	7	8
0	300	300	300	299	300	300	300
1	-	-	-	1	-	-	-

## 31. ha

	Bk. 1	3	4	5	6	7	8
0	298	299	300	300	300	300	300
1	2	1	-	-	-	-	-

Appendix Table 1 ....

32. hi

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	294	297	294	298	297	298	289
1	6	3	6	2	3	2	11

## Appendix Table 1....

## (b) Without Dialogue

## 3. atha

	Bk. 1	3	4	5	6	7	8
0	239	129	199	250	242	279	259
1	22	36	11	14	20	10	14

## 4. api

	Bk. 1	3	4	5	6	7	8
0	217	140	184	239	232	236	210
1	42	24	21	22	26	51	54
2	1	1	5	3	4	1	8
3	1	-	-	-	-	1	1

## 5. iti

	Bk. 1	3	4	5	6	7	8
0	248	144	191	246	237	284	256
1	13	21	18	18	25	5	17
2	-	-	1	-	-	-	-

## 6. iva

	Bk. 1	3	4	5	6	7	8
0	241	145	175	240	241	271	240
1	19	19	34	21	19	18	32
2	1	1	1	3	2	-	1

Appendix Table 1 .....

## 8. sva

	Bk. 1	3	4	5	6	7	8
0	250	153	196	244	238	277	248
1	10	12	14	20	21	11	23
2	1	-	-	-	3	1	2

## 9. evam

	Bk. 1	3	4	5	6	7	8
0	256	161	205	258	259	283	269
1	5	4	5	6	3	6	4

## 11. ca

	Bk. 1	3	4	5	6	7	8
0	237	139	182	238	231	255	243
1	20	22	21	25	30	26	30
2	4	2	6	1	1	5	-
3	-	2	1	-	-	2	-
4	-	-	-	-	-	1	-

## 13. tatas

	Bk. 1	3	4	5	6	7	8
0	242	149	191	251	248	262	259
1	19	16	19	13	14	27	14

Appendix Table 1 . . . .

## 14. tatra

	Bk. 1	3	4	5	6	7	8
0	252	157	197	255	256	277	267
1	9	8	13	8	6	12	6
2	-	-	-	1	-	-	-

## 15. tathā

	Bk. 1	3	4	5	6	7	8
0	258	164	203	259	251	286	267
1	3	1	7	5	11	3	6

## 16. tadā

	Bk. 1	3	4	5	6	7	8
0	251	163	209	262	255	286	268
1	10	2	1	2	7	3	5

## 18. tu

	Bk. 1	3	4	5	6	7	8
0	252	163	205	259	256	284	261
1	9	2	5	5	5	5	12
2	-	-	-	-	1	-	-

Appendix Table 1 ....

19. na

	Bk. 1	3	4	5	6	7	8
0	239	142	195	250	238	267	226
1	22	18	12	12	22	22	44
2	-	3	2	2	2	-	1
3	-	1	-	-	-	-	2
4	-	1	-	-	-	-	-
5	-	-	1	-	-	-	-

22. punar

	Bk. 1	3	4	5	6	7	8
0	255	161	208	261	256	276	269
1	6	4	2	2	6	12	3
2	-	-	-	1	-	1	1

25. yathā

	Bk. 1	3	4	5	6	7	8
0	256	164	208	260	256	287	270
1	5	1	2	4	6	2	3

Appendix Table 1 ....29.  $v\bar{a}$ 

	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
0	259	160	207	262	259	288	268
1	2	4	2	2	3	1	5
2	-	1	1	-	-	-	-

Appendix Table 2Distribution of particles in Jonarāja and the Mānasollāsa.

Jonarāja			<u>Mānasollāsa</u>				
1. atas							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	298	295	300	300	300	298	300
1	2	5	-	-	-	2	-
2. atra							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	300	295	294	300	299	300
1	3	-	4	6	-	1	-
2	-	-	1	-	-	-	-
3. atha							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 1</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	259	270	276	297	296	295	297
1	41	30	22	3	4	5	3
2	-	-	2	-	-	-	-

Appendix Table 2 .....

## 4. api

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	271	256	250	278	287	280	285
1	24	39	48	19	13	20	13
2	5	5	2	2	-	-	2
3	-	-	-	1	-	-	-

## 5. iti

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	287	273	286	288	292	292	294
1	13	27	13	10	8	8	6
2	-	-	1	2	-	-	-

## 6. iva

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	251	240	246	298	299	295	284
1	44	52	50	2	1	5	14
2	5	6	3	-	-	-	2
3	-	1	1	-	-	-	-
4	-	1	-	-	-	-	-

## 7. iha

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	300	300	300	300	300	300
1	-	-	-	-	-	-	-

Appendix Table 2 . . . .

## 8. eva

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	277	268	279	286	277	279	282
1	23	31	20	12	21	19	17
2	-	1	1	2	2	2	1

## 9. evam

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	295	296	293	291	285	289	291
1	5	4	7	9	14	11	9
2	-	-	-	-	1	-	-

## 10. khalu

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	300	300	300	300	300	300
1	-	-	-	-	-	-	-

## 11. ca

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	273	265	277	214	222	230	214
1	22	32	22	60	57	58	67
2	4	3	-	20	15	7	10
3	1	-	-	5	6	5	9
4	-	-	-	-	-	-	-
5	-	-	1	1	-	-	-

Appendix Table 2 .....

## 12. cet

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	299	297	298	298	291	300
1	-	1	3	2	2	8	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	1	-

## 13. tatas

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	280	278	282	288	266	289	272
1	19	22	17	11	31	11	28
2	1	-	-	1	3	-	-
3	-	-	1	-	-	-	-

## 14. tatra

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	293	291	286	292	294	298	292
1	7	9	14	8	6	2	8

## 15. tathā

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	292	294	280	272	264	274
1	3	8	6	20	25	34	25
2	-	-	-	-	3	2	1

Appendix Table 2 .....

	Jonarāja			<u>Mānasollāsa</u>			
16. tadā							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	289	289	288	297	300	299	297
1	10	11	12	3	-	1	3
2	1	-	-	-	-	-	-
17. tāvat							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	295	296	299	298	297	300	300
1	5	4	1	2	3	-	-
18. tu							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	291	283	289	275	267	271	290
1	8	14	11	23	32	26	9
2	1	3	-	2	1	3	1
19. na							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	267	254	266	293	292	295	296
1	25	43	29	7	7	5	3
2	7	3	4	-	-	-	1
3	1	-	-	-	1	-	-
4	-	-	1	-	-	-	-

## Jonarāja

Mānasollāsa

## 20. nanu

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	300	298	300	300	300	300
1	-	-	2	-	-	-	-

## 21. nāma

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	300	300	299	298	289	299
1	3	-	-	1	2	11	1

## 22. punar

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	297	294	298	297	295	299
1	2	2	6	1	3	3	1
2	1	1	-	1	-	2	-

## 23. yatas

	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	297	300	300	300	297	300
1	-	3	-	-	-	3	-

Appendix Table 2 ....

Jonarāja				<u>Mānasollāsa</u>			
24. yatra							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	299	294	298	299	289	300
1	3	1	6	2	1	10	-
2	-	-	-	-	-	1	-
25. yathā							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	299	295	292	298	295	298	297
1	1	5	8	2	5	2	3
26. yadā							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	299	300	299	300	299	299	298
1	1	-	1	-	1	1	2
27. yadi							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	295	300	298	299	298	300
1	-	5	-	2	1	2	-

Appendix Table 2 ....

	Jonarāja			<u>Mānasollāsa</u>			
28. yāvat							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	299	300	299	299	289	299	298
1	1	-	1	1	11	1	2
29. vā							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	297	292	294	290	287	287	283
1	3	7	4	6	9	12	12
2	-	1	2	3	3	1	3
3	-	-	-	-	1	-	-
4	-	-	-	-	-	-	2
5	-	-	-	-	-	-	-
6	-	-	-	1	-	-	-
30. vai							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	300	300	300	300	300	300
1	-	-	-	-	-	-	-
31. ha							
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
0	300	300	300	300	300	300	300
1	-	-	-	-	-	-	-

Appendix Table 2 . . . .

	Jonarāja			<u>Mānasollāsa</u>			
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>Bk. 2</u>	<u>3</u>	<u>4</u>	<u>5</u>
32. hi							
0	294	288	291	294	294	297	300
1	6	11	9	6	6	3	-
2	-	1	-	-	-	-	-

Appendix Table 2

Distribution of particles in 20-word blocks in Somadeva and Gaṅgeśa.

	Somadeva					Gaṅgeśa		
1. atas								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	91	104	101	109	109	180	160
1	-	1	2	-	-	17	23	22
total	92	92	106	101	109	126	203	182
2. atra								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	92	106	101	108	120	183	157
1	-	-	-	-	1	6	17	19
2	-	-	-	-	-	-	2	6
3	-	-	-	-	-	-	1	-
3. atha								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	91	92	105	101	109	120	187	166
1	1	-	1	-	-	6	16	16

Appendix Table 3 ....

	Somadeva					Gaṅgeśa		
4. api								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	53	53	58	61	69	53	105	92
1	29	32	33	31	32	53	68	65
2	9	5	13	8	6	15	26	17
3	1	2	2	1	2	5	4	7
4	-	-	-	-	-	-	-	1
5. iti								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	81	82	83	89	89	38	73	38
1	8	10	18	11	17	62	92	83
2	3	-	3	1	2	23	32	44
3	-	-	2	-	1	3	6	15
4	-	-	-	-	-	-	-	2
6. iva								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	70	66	87	92	82	121	198	171
1	18	20	16	9	21	5	5	11
2	4	2	1	-	6	-	-	-
3	-	-	2	-	-	-	-	-
4	-	3	-	-	-	-	-	-
5	-	1	-	-	-	-	-	-



Appendix Table 3 .....

	Somadeva					Gaṅgeśa		
10. khalu								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	74	82	100	96	105	125	203	182
1	18	10	4	4	3	1	-	-
2	-	-	2	1	1	-	-	-
11. ca								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	60	57	59	62	67	44	64	62
1	21	30	36	30	36	50	85	77
2	9	5	10	8	6	25	38	33
3	2	-	1	1	-	7	13	8
4	-	-	-	-	-	-	3	2
12. cet								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	91	106	101	108	101	171	139
1	-	1	-	-	-	25	32	40
2	-	-	-	-	-	1	-	3



Appendix Table 3 . . . .

	Somadeva					Gaṅgeśa		
16. tadā								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	91	105	101	109	120	197	176
1	-	1	1	-	-	6	5	6
2	-	-	-	-	-	-	1	-
17. tāvat								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	91	104	101	104	124	199	176
1	-	1	2	-	5	2	4	4
2	-	-	-	-	-	-	-	1
3	-	-	-	-	-	-	-	1
18. tu								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	88	91	101	93	106	93	147	129
1	4	1	5	8	3	30	50	48
2	-	-	-	-	-	3	6	5

Appendix Table 3 .....

	Somadeva					Gaṅgeśa		
19. na								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	46	31	50	21	46	32	48	40
1	26	42	30	44	34	46	66	77
2	17	14	20	24	22	28	63	54
3	3	5	4	8	7	19	25	8
4	-	-	2	2	-	1	1	3
5	-	-	-	2	-	-	-	-
20. nanu								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	92	106	101	109	113	195	171
1	-	-	-	-	-	13	8	11
21. nāma								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	83	86	96	92	103	126	202	182
1	8	4	9	9	6	-	1	-
2	1	2	1	-	-	-	-	-
22. punar								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	85	85	97	94	102	126	203	182
1	7	7	9	7	7	-	-	-

Appendix Table 3 ....

	Somadeva					Gaṅgeśa		
23. yatas								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	86	91	103	101	109	125	203	181
1	6	1	3	-	-	1	-	1
24. yatra								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	79	91	101	87	104	121	193	174
1	13	-	5	9	4	3	8	8
2	-	1	-	3	1	2	2	-
3	-	-	-	2	-	-	-	-
25. yathā								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	91	87	102	99	107	116	185	177
1	1	5	4	2	2	9	15	5
2	-	-	-	-	-	1	3	-
26. yadā								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	92	105	101	109	125	202	182
1	-	-	1	-	-	1	1	-

Appendix Table 3 ....

	Somadeva					Gaṅgeśa		
27. yadi								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	91	87	105	98	101	191	195	175
1	1	4	1	3	6	6	8	7
2	-	1	-	-	2	1	-	-
28. yāvat								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	92	91	105	101	104	124	200	181
1	-	1	1	-	4	2	3	1
2	-	-	-	-	1	-	-	-
29. vā								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	72	63	87	76	86	102	161	144
1	19	23	18	16	20	18	33	33
2	-	5	1	8	3	4	8	4
3	-	1	-	1	-	2	1	1
4	1	-	-	-	-	-	-	-
30. vai								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	91	91	106	101	109	126	203	182
1	1	1	-	-	-	-	-	-

Appendix Table 3 .....

	Somadeva					Gaṅgeśa		
31. ha								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	70	78	92	90	89	126	203	182
1	21	12	13	10	20	-	-	-
2	1	2	1	1	-	-	-	-
32. hi								
	<u>Sample 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Bk. 1</u>	<u>2</u>	<u>4</u>
0	70	78	92	90	89	119	159	168
1	21	12	13	10	20	7	42	13
2	1	2	1	1	-	-	2	1

Appendix Table 4

Distribution of five particles in five authors. Figures for Kalhaṇa are without dialogue.

eva

	<u>Kalhaṇa</u>	<u>Jonarāja</u>	<u>Mānasollāsa</u>	<u>Somadeva</u>	<u>Gaṅgeśa</u>
0	1606	824	1124	414	235
1	111	74	69	75	162
2	7	2	7	9	49
3	-	-	-	2	11
4	-	-	-	-	2

evam

	<u>Kalhaṇa</u>	<u>Jonarāja</u>	<u>Mānasollāsa</u>	<u>Somadeva</u>	<u>Gaṅgeśa</u>
0	1691	884	1156	500	463
1	33	16	43	-	42
2	-	-	1	-	5
3	-	-	-	-	1

Appendix Table 4 ....ca

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1535	815	880	305	170
1	174	76	242	153	212
2	19	7	52	38	96
3	5	1	25	4	28
4	1	-	-	-	5
5	-	1	1	-	-

tatra

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1661	870	1176	489	430
1	62	30	24	11	70
2	1	-	-	-	11

vā

	Kalhaṇa	Jonarāja	Mānasollāsa	Somadeva	Gaṅgeśa
0	1703	883	1147	384	407
1	19	14	39	96	84
2	2	3	10	17	16
3	-	-	1	2	4
4	-	-	2	1	-
5	-	-	-	-	-
6	-	-	1	-	-

Appendix Table 5

Distribution of particles in 20-word blocks in three books of the Arthasāstra.

1. eva

	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
0		96	81	77	98	86	105	121	110
1		7	8	5	3	15	18	14	10
2		-	1	-	-	-	-	-	-
total		103	90	82	101	101	123	135	120

2. evam

	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
0		102	89	81	94	99	122	128	113
1		1	1	1	7	2	1	7	7

3. ca

	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
0		34	27	23	22	54	51	86	69
1		41	31	25	37	30	43	34	28
2		18	20	19	22	13	21	13	17
3		10	10	8	12	4	5	1	5
4		-	2	7	7	-	3	1	1
5		-	-	-	1	-	-	-	-

Appendix Table 5 .....4. tatra

	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
0		91	88	82	99	99	119	131	114
1		9	2	-	2	2	4	4	6
2		3	-	-	-	-	-	-	-

5. vā

	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
0		63	46	45	57	43	50	36	52
1		28	23	24	34	38	46	44	35
2		9	13	9	9	13	16	28	18
3		2	6	4	1	5	9	22	6
4		1	1	-	-	2	1	4	9
5		-	1	-	-	-	1	1	-

Appendix Table 6Distribution of particles in 20-word blocks in the Arthasāstra.1. eva

	Bk. 1	2	3	4	5	6	7
0	148	352	191	129	74	19	231
1	10	23	33	17	18	2	24
2	-	1	-	2	1	-	-
total	158	376	224	148	93	21	255

2. evam

	Bk. 1	2	3	4	5	6	7
0	147	366	221	145	84	18	241
1	9	10	3	3	7	3	14
2	-	-	-	-	2	-	-
3	2	-	-	-	-	-	-

3. ca

	Bk. 1	2	3	4	5	6	7
0	57	106	104	64	46	12	115
1	51	134	73	58	23	7	62
2	27	79	34	22	14	2	30
3	19	40	9	4	8	-	6
4	4	16	3	-	2	-	2
5	-	1	-	-	-	-	-

Appendix Table 6 ....1. eva

	Bk. 8	9	10	11	12	13	14
0	73	118	61	22	68	75	49
1	4	10	5	-	3	8	4
2	1	-	1	-	1	1	-
total	78	128	67	22	72	84	53

2. evam

	Bk. 8	9	10	11	12	13	14
0	78	124	60	19	68	83	52
1	-	4	7	2	3	1	1
2	-	-	-	1	1	-	-

3. ca

	Bk. 8	9	10	11	12	13	14
0	28	70	33	14	39	46	34
1	27	42	19	5	19	18	16
2	14	9	8	2	10	7	2
3	8	6	4	1	3	10	1
4	1	1	2	-	1	2	-
5	-	-	1	-	-	1	-

Appendix Table 6 . . . .4. tatra

	Bk. 1	2	3	4	5	6	7
0	151	360	218	146	89	20	245
1	7	13	6	2	4	1	10
2	-	3	-	-	-	-	-

5. vā

	Bk. 1	2	3	4	5	6	7
0	105	211	93	56	27	12	88
1	31	109	84	46	32	6	79
2	17	40	29	26	16	1	46
3	2	13	14	15	15	1	28
4	2	2	3	4	1	1	13
5	1	1	1	1	2	-	1

Appendix Table 6 ....4. tatra

	Bk. 8	9	10	11	12	13	14
0	77	120	65	22	69	84	51
1	1	8	2	-	3	-	2

5. vā

	Bk. 8	9	10	11	12	13	14
0	51	50	33	3	19	22	24
1	23	32	20	10	13	24	18
2	2	29	11	7	21	26	8
3	2	14	3	1	8	9	3
4	-	3	-	-	7	3	-
5	-	-	-	1	4	-	-

Appendix Table 7Compound-length distributions in the Arthasāstra.

(a) Books 2, 3, 7

Members	Bk.	2a	2b	2c	2d	3a	3b	7a	7b
2		475	451	409	582	424	460	464	439
3		130	109	127	131	96	123	97	121
4		57	31	22	52	32	45	32	38
5		20	15	18	23	7	9	9	18
6		13	7	10	14	6	11	3	4
7		8	4	9	12	3	5	2	6
8		7	6	6	5	5	1	2	1
9		2	2	6	5	-	4	-	2
10		3	1	2	6	1	1	-	-
11		1	-	2	-	-	1	-	-
12		2	2	2	1	1	-	1	1
13		2	-	1	-	-	-	-	-
14		-	1	2	-	-	-	-	-
15		1	1	4	2	-	-	-	-
16		-	-	1	-	-	-	-	-
17		-	1	-	1	-	-	-	-
18		-	-	-	-	-	-	-	1
19		-	-	-	1	-	-	-	-
20		-	-	-	1	-	-	-	-
21		-	-	-	1	-	-	-	-
22		-	-	-	-	-	-	-	-
23		1	-	1	-	-	-	-	-
24		-	-	-	-	-	-	-	-
25		-	-	2	-	-	-	-	-
26		-	-	-	-	-	-	-	-
27		1	-	-	-	-	-	-	-

Appendix Table 7 .....

## (b) All Books

Members	Bk. 1	2	3	4	5	6	7
2	535	1917	884	593	330	108	903
3	184	497	219	206	101	33	218
4	47	162	77	54	33	5	70
5	21	76	16	27	9	4	27
6	14	44	17	11	4	1	7
7	7	33	8	12	4	3	8
8	5	24	6	7	2	2	3
9	-	15	4	2	3	1	2
10	3	12	2	-	1	1	-
11	-	3	1	1	1	-	-
12	-	7	1	-	-	-	2
13	-	3	-	-	4	-	-
14	-	3	-	-	-	-	-
15	-	8	-	-	-	-	-
16	-	1	-	-	-	-	-
17	-	2	-	-	-	-	-
18	-	-	-	-	-	-	1
19	-	1	-	-	-	-	-
20	-	1	-	-	-	-	-
21	-	1	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	2	-	-	-	-	-
24	-	-	-	-	-	-	-
25	-	2	-	-	-	-	-
26	-	-	-	-	-	-	-
27	1	1	-	-	-	-	-
28	-	-	-	1	-	-	-

## Appendix Table 7 .....

## (b) All Books .....

Members	Bk. 8	9	10	11	12	13	14
2	344	433	263	75	234	272	219
3	114	123	99	21	52	98	89
4	32	29	38	6	17	36	35
5	13	12	14	3	4	16	18
6	6	1	6	1	6	7	14
7	4	5	3	-	2	2	5
8	1	-	2	1	-	3	9
9	2	1	1	-	-	1	6
10	-	1	1	-	-	2	2
11	-	-	-	-	-	2	2
12	-	-	1	-	-	-	-
13	-	-	-	-	-	-	-
14	-	1	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	1

Appendix Table 8

Distribution of particles in 20-word blocks in Vātsyāyana's Kāmasūtra.

1. eva

	<u>Bk. 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
0	51	99	70	40	82	100	28
1	13	37	16	4	29	17	15
2	5	9	2	2	3	-	-
3	-	-	-	-	1	-	-
total	69	145	88	46	115	117	43

2. evam

	<u>Bk. 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
0	66	141	83	46	110	115	42
1	3	4	5	-	5	2	1

3. ca

	<u>Bk. 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
0	17	52	17	8	25	41	16
1	21	54	20	14	35	36	20
2	15	25	26	9	36	26	5
3	12	12	17	7	17	9	2
4	4	1	8	7	2	4	-
5	-	1	-	1	-	1	-

Appendix Table 8 .....4. tatra

	<u>Bk. 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
0	62	107	77	43	95	103	41
1	6	33	7	3	18	13	1
2	1	4	4	-	2	1	1
3	-	1	-	-	-	-	-

5. vā

	<u>Bk. 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
0	46	113	71	34	92	71	34
1	15	26	13	11	18	26	8
2	7	5	3	1	5	14	1
3	1	1	1	-	-	5	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	1	-

Appendix Table 9Compound-length distributions in the Kāmasūtra.

Members	Bk. 1	2	3	4	5	6	7
2	272	535	254	145	414	421	144
3	62	111	68	35	108	72	38
4	10	25	12	9	21	11	19
5	13	7	2	8	9	3	7
6	1	4	1	4	1	-	4
7	-	1	1	1	2	1	1
8	1	-	1	3	-	-	-
9	2	1	3	-	1	1	1
10	-	-	-	-	-	2	2
11	-	1	-	-	-	3	-
12	-	2	-	1	-	-	-
13	-	-	-	-	-	1	-
14	-	-	-	-	-	-	-
15	1	-	-	-	-	-	1
...							
20	-	-	-	-	-	1	-
21	-	-	-	-	1	-	-
22	-	-	-	1	-	-	-

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