The Theory of *Citrasūtras* in Indian Painting

A critical re-evaluation of their uses and interpretations

Isabella Nardi

THE THEORY OF *CITRASŪTRAS*
IN INDIAN PAINTING

The study of technical treatises in Indian art has increasingly attracted much interest. This work puts forward a critical re-examination of the key Indian concepts of painting described in the Sanskrit treatises, called *citrasūtras*. In an in-depth and systematic analysis of the texts on the theory of Indian painting, it critically examines the different ways in which the texts have been interpreted and used in the study of Indian painting and suggests a new approach to reading and understanding their concepts. Contrary to previous publications on the subject, it is argued that the intended use of such texts as a standard of critique largely failed due to a fundamental misconceptualization of the significance of 'text' for Indian painters. Scholars have hitherto remained blinded by the unquestioned belief that texts are to be considered prescriptive compilations or guides to be literally followed. This work offers an original, fresh approach to research in this field by drawing on the experiences of painters, who are considered as a valid source of knowledge for our understanding of the *citrasūtras*, and provides a new conceptual framework for understanding the interlinkages between textual sources and the practice of Indian painting.

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NOTES ON TRANSCRIPTION

This work contains a number of Sanskrit technical and non-technical terms that have been transcribed according to the standard system of transliteration. Geographical names retain their common form, as in Nathdvara and Jaipur. Hindi words (except Śrī Nāthjī and technical words in the glossary) are either used without diacritics (*phar*) or sanskritized (Govardhana instead of Govardhan). Hindi words in the glossary follow the standard system as in McGregor's *The Oxford Hindi–English Dictionary*. English plural 's' is added as appropriate.

Sanskrit words are transliterated according to the standard system as follows:
Vowel lengths are transcribed as ā, ī, ū.
Vocalic r is transcribed as ṛ and is pronounced 'ri'.
Retroflex consonants are transcribed ṭ and ḍ.
Sibilants are transcribed as ṣ and ś and both correspond to the English 'sh'.
Nasals and *anusvāra* are transcribed as follows: ṅ, ñ, ṇ, ṃ.
Visarga (ḥ) and aspirated consonants (ch, ṭh, ḍh, etc.) are pronounced with an aspiration.

ABBREVIATIONS AND EDITIONS
OF MAJOR TEXTS

AbhCint	Abhilaṣitārthacintāmaṇi: Sastry, S. (ed.) (1926) *Abhilasitarthacintamani of Somesvara Deva*, part I, Mysore
ApaPr	Aparājitapṛcchā: Mankad, P.A. (1950) *Aparajitaprccha of Bhuvanadeva*, Baroda: Oriental Institute; Dubey, L.M. (1987) *Aparajitaprccha: A Critical Study*, Allahabad: Laksmi Publications; Appendix in Shukla, D.N. (1957) *Hindu Canons of Painting or Citra-Laksanam*, Lucknow
BrSam	Bṛhat Saṃhitā: Bhat, R. (ed.) (1981) *Varahamihira's Brhat Samhita*, part I & II, Delhi: Motilal Banarsidass
CKS	Citrakarmaśāstra: Marasinghe, E.W. (1991) *The Citrakarmasastra Ascribed to Manjusri*, Delhi: Sri Satguru Publications
DMP	Devatāmūrtiprakaraṇa: Vinaysagar, S. (ed.) (1999) *Mandan Sutradhar's Devata-Murti-Prakaranam* (*with Hindi–English Translations*), Jaipur: Prakrit Bharati Academy
Man	Mānasollasā: Shrigondekar, G.K. (ed.) (1939) *Manasollasa of King Somesvara*, vol. II, Baroda: Oriental Institute
Mānasāra	Acharya, P.K. (ed.) (1980) *Architecture of Manasara*, 1st edn 1934, vols III–V, New Delhi: Oriental Books Reprint
Mayamata	Dagens, B. (ed.) (1994) *Mayamatam: Treatise of Housing, Architecture and Iconography*, 2 vols, Delhi: IGNCA and Motilal Banarsidass
NagCitLak	Citralakṣaṇa of Nagnajit: Goswamy, B.N. and Dahmen-Dallapiccola, A.L. (1976) *An Early Document of Indian Art*, New Delhi: Manohar
NS	Nāṭya Śāstra: *The Natya Sastra of Bharatamuni* (2000) English trans., 1st edn 1986, Delhi: Sri Satguru Publications
PML	Pratimāmānalakṣaṇa: Appendix B in Banerjea, J.N. (1941) *The Development of Hindu Iconography*, Calcutta;

	Bose, P.N. (1929) *Pratima-mana-lakshana*, Lahore: Motilal Banarsidass
SamSut	Samarāṅgaṇa Sūtradhāra: Sastri, G. (ed.) (1925) *Samaranganasutradhara of King Bhojadeva*, vol. II, Baroda: Gaekwad's Oriental Series no. XXV
Śukranīti	Sarkar, B.K. (1975) *The Sukraniti*, 1st edn 1914, New Delhi: Oriental Reprint
SR	Śilparatna: Bhattacharya, A.K. (1974) *Citralaksana: A Treatise on Indian Painting*, Calcutta: Sarasvat Library; Sastri, G. (ed.) (1992) *The Silparatna by Sri Kumara*, part I, Trivandrum: Sanskrit Series no. LXXV
Vāstusūtra Upaniṣad	Boner, A., Sharma, S.R. and Baumer, B. (eds) (1982) *Vastusutra Upanisad: The Essence of Form in Sacred Art*, Delhi: Motilal Banarsidass
ViDha	Viṣṇudharmottara Purāṇa: for the *citrasūtra* section Dave Mukherji, P. (2001) *The Citrasutra of the Visnudharmottara Purana*, Delhi: IGNCA and Motilal Banarsidass; for the *pratimālakṣaṇa* section Bhattacharyya, D.C. (1991) *Pratimalaksana of the Visnudharmottara*, New Delhi: Harman Publishing House

INTRODUCTION

This study critically analyses the main concepts embodying the theory of Indian painting as described in the Sanskrit texts, the *citrasūtras*. Being a Sanskrit word meaning 'treatise on painting', *citrasūtra* is a compound of two words: *citra* meaning picture, sketch, delineation, and *sūtra* meaning aphoristic rule. The *citrasūtras* are considered to be an important part of Sanskrit scientific literature that analyse painting within the framework of Indian philosophical thought. The word *citrasūtra* is employed in this study as a general term denoting all the texts and sections of a text dealing with *citra*.

This book explores the content of the *citrasūtras*, examines the different ways in which they have been interpreted and used in the study of Indian painting and suggests a new approach to reading and understanding them. Today much of this research is possible, thanks to a number of scholars translating, commenting on and interpreting the texts. Their works represent a great contribution to the study of this field, but their views presents some limits and their preconceptions about the possible uses of a text do not permit us to wholly understand the real messages and spirit of the *citrasūtras*. In this study the analysis and way of understanding the *citrasūtras* will be presented in a different way. One of the aims of the thesis is in fact to draw together the various concepts expounded in a diverse range of texts. This methodology was first explored by Shukla (1957), but his analysis was somewhat superficial and involved a mere listing of concepts. This study tries to draw together, examine and compare the concepts of the *citrasūtras*, and it will also include concepts formerly excluded from other works such as those of *tālamāna* and iconography. This is to overcome one of the main limits of current research, namely its assumption that theories from sculpture and other related arts are separated from the theory of Indian painting. This study not only demonstrates that it is difficult to strictly separate certain theories of painting from those of sculpture but also demonstrates that these two art forms are sometimes treated side by side without distinction in the texts. It is on the basis of this observation that the study argues for a reconceptualization of our understanding of the term *citra*. While it is generally translated as 'painting', it is proposed that the texts posit *citra* in a more abstract sense as a 'mental image' that can be differently interpreted and effectuated in practice in both painting and sculpture. The

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ongoing tendency of scholars to separate the theory of painting as enunciated in the *citrasūtras* from the theory of sculpture is thus considered here unhelpful and misleading. Indeed, the characteristically holistic outlook of Indian knowledge generally implies that the drawing of such strict boundaries between the sciences, whether art or non-art, is 'unnatural' if not a wholly foreign-imported idea. As this work does not seek to draw such boundaries, in some instances both sculpture and texts on sculpture will be examined in discussing the theory of painting, while parallels with, and examples from, other allied subjects such as poetics, drama and physiognomy will be discussed wherever appropriate.

This study also questions the tendency of scholars, such as Coomaraswamy and Bhattacharya, to find a clear and direct relationship between texts and painting. Many of the scholars considered the *citrasūtras* as prescriptive texts. As a result, they found themselves seemingly confused or lost in their attempt to 'unlock' the secrets of Indian painting. Many precepts are indeed not clearly stated in the *citrasūtras* but are described in the absence of drawings. It is argued here that this indicates that a painter or reader was invited to imagine in his mind the figures described. This imagining should not necessarily be taken to mean that the painter or reader of a *citrasūtra* was practicing *yoga*, as Sivaramamurti (1978) has suggested, but it is important to recognize that such activity depends on many factors such as time, space and personal experience. In other cases the precepts are simply mentioned without descriptions of their aesthetic features. This tendency does not denote the presence of secrets, as commonly believed, but it clearly indicates that concepts are taken for granted because they are well known in the culture that produced them.

This study proposes that the *citrasūtras* present such a wide range of different views on Indian painting that the drawing of direct links between theory and practice can become somewhat arbitrary. These views are presented more as *suggestions* rather than rules to be strictly followed, as indicated by the optative inflection of the verb employed in the texts, the tone of which does not sound like an order but as 'one should do'. These suggestions are formulated by numerous artists or writers whose identity is not known, nor ultimately knowable; they were written at varying times and places and thus contain some differences and contradictions, although they do share the same philosophical outlook on visual representation. What does appear clear, however, is that these writers are philosophers, describing highly hypothetical views that are difficult to put into practice and open to personal interpretation, as evidenced by the significant lack of any practical assistance to painters. Furthermore, it is difficult to analyse and understand the content of the *citrasūtras* from only one perspective, as they deal with different topics, each possessing its own peculiar characteristic. Some of the sections seem to be practical lessons that instruct us how to make plaster or prepare colours and brushes. Other sections are more theoretical, describing for example the perfect body shape of a man, while other sections explore or codify a range of possibilities, such as different stances in which a figure could be represented, different shapes for the depiction of eyes, etc. The reason for this

wide range of topics and characteristics lies in the organic evolution of the *citra-sūtras*, which present a significant development in the theory of traditional Indian painting. These new developments do not cancel the old views but rather have been integrated into the 'science' of Indian painting.

The fallacy of regarding and interpreting the *citrasūtras* as prescriptive texts is suggested by the many contradictions that appear in the study of the *citrasūtras* and in particular by the discrepancies between textual images and extant painting. This study argues, however, that such discrepancies are not necessarily confusing but should be accepted as a natural consequence of *citra* referring to mental images whose realization in the practice of painting depend upon the painter's personal interpretation and understanding.

A key empirical source of data from which the critical analysis and commentary of this study draws is the application of views and experiences of living traditional painters. These will be used to strengthen one of the main points of this thesis that texts are not to be considered as guides for painters. These arguments stem from the observation that the role of painters is often underestimated in current scholarship. Traditional scholarship has tended to consider speculation as the only way to deal with texts, overlooking the vital linking role fulfilled by painters in relating art itself to the texts. Practitioners are undeniably part of the system of painting, interlinked with texts and painting itself. This argument implies that any study of Indian painting should consider these three factors, that is, painting, painters and texts, in order to claim valid understanding of all the aspects of painting. Any study that examines only one of these critical elements of the system of Indian painting represents a fragmentary and partial knowledge of them. Even if many traditional painters today do not know about the existence of the *citrasūtras*, and many others argue that following a text would produce only a repetition of features and a fossilized art production, it is nevertheless necessary to take into consideration these three elements, as there are significant links between their conceptions of painting and those enunciated in the texts. For example, their methods of dividing the human body resemble those depicted in the texts on painting and sculpture. Other practical examples will be presented in the concluding sections of Chapters 3–7. It therefore seems that there was, and still is, a link between texts and practice but not a direct one, since a text did not inform a painting directly, nor vice versa. This study suggests, therefore, that the *citrasūtras* should be interpreted more as a literature that *accompanies* rather than guides the art of painting, and that traditional painters constitute the vital living link to further our knowledge about the relationship between painting and texts.

It is hoped that the comparison and analysis of textual concepts will provide new insights into our understanding of the practice of painting and our interpretation of the *citrasūtras*, and that an appropriate reading of the texts will eventually enable us to look at and even judge Indian painting from an *Indian* perspective.

With the focus and key arguments of the study explained, the structure of this study can be outlined. Chapters 1 and 2 are introductory, and they seek to clarify the meaning and importance of the *citrasūtras* as well as further articulate the

original contributions to knowledge made by this study. Chapter 1 introduces the reader to the *citrasūtras*, their translations and interpretations. The key texts and translations of the *citrasūtras* are first described and explained. This is then followed by a discussion of the different ways in which the secondary literature has interpreted these texts, highlighting the limitations these pose to our understanding of them and establishing the critical basis on which the key arguments of the study are elaborated. Chapter 2 examines the notion of painting as described in the various *citrasūtras*. This chapter includes an analysis of the myths of the origin of painting, the various meanings of the word *citra* and the classification of painting and the figure of the painter as described in the texts. All these aspects will be analysed along with their various interpretations in the secondary literature.

Chapters 3–8 constitute the empirical core of the research, involving a critical comparative analysis of the various concepts of Indian painting, their interpretations and their application by practitioners. They develop and substantiate the arguments underpinning the critique of current research articulated in Chapter 1. Chapters 3–5 describe the systems of measurement, proportion and posture with all their related topics. Many of the concepts discussed in these chapters, such as *mudrās* and *tālamāna*, are considered for the first time as part of the theory of painting and are analysed in this study, whereas the secondary literature continues to regard them as confined to sculpture. Similarly, iconography, discussed in Chapter 6, is generally included in studies focusing on the theory of sculpture but is considered here as a crucial element of the theory of painting. A key argument of these empirical chapters is that at the theoretical level the boundaries between sculpture and indeed other allied arts such as dance are non-existent. Chapter 7 describes the process of making plaster, colours and brushes according to the recipes of the texts. It also considers some scientific studies of Indian painting and their use in secondary literature, which clearly shows that scholars seek to prove or disprove the validity of the texts on the basis of their content. Chapter 8 analyses the *rasa* theory according to relevant texts, including the *citrasūtras*. It also underlines the difficulties of considering the theory of *dhvani* as a concept relevant to painting. Finally, the conclusions draw together the arguments and empirical findings of the study, considering their implications for current and future research.

1

THE TEXTS, THEIR TRANSLATIONS
AND INTERPRETATION

In this chapter, the *citrasūtras* will be briefly presented together with the scholars who have interpreted and translated them. The first section will introduce the earliest *citrasūtras* which are the *Citralakṣaṇa*, attributed to Nagnajit, and the *Viṣṇudharmottara Purāṇa*, and then it will examine later texts. Finally, the interpretations and ideas about them in the secondary literature to date will be discussed, highlighting problems and limitations of this research.

The early texts

The *Citralakṣaṇa* of Nagnajit survives only in Tibetan, though it is originally a Sanskrit text.[1] Although this research deals with Sanskrit sources, this Tibetan text is fundamental to the study of Indian *citrasūtras*, because at some point in its history the *Citralakṣaṇa* was translated from Sanskrit into Tibetan and it can therefore be treated as a text belonging to the Indian tradition. Today it is considered to be one of the earliest texts on the subject, together with the *Viṣṇudharmottara Purāṇa*. As it is now, the *Citralakṣaṇa* contains three chapters, though it may have been longer. This is because reference to other topics is found in Chapter 3, in particular there is mention of thirty-six types of countenances whose descriptions find no place in the text (Goswamy and Dallapiccola 1976, pp. 26–27).

The *Citralakṣaṇa* is ascribed to Nagnajit, whose identity is a matter of debate.[2] Furthermore, the date of the *Citralakṣaṇa* composition is unknown. Goswamy and Dallapiccola explain that:

> Unfortunately, because of the Sanskrit original having been lost, it is not possible to draw any conclusions regarding dating on the evidence of language and style. All things considered, however, we feel that the work may roughly be assigned to the early Gupta period. The mythology to which references are made in the invocation and [in] the text is developed, and [is] essentially Pauranic in its framework, and this may keep us from dating it quite as early as Laufer would have us

do… Bhattacharya, on the strength to the reference to Nagnajit in the *Bṛhat Saṃhitā* regards the work as having been completed by 6th century, a century that he regards as significant for the history of Vāstuvidyā.

(1976, p. xiii)

If we consider the content of the text, which will be examined in the next chapters, we can see that there are similarities between the *Citralakṣaṇa* of Nagnajit, the *Viṣṇudharmottara Purāṇa* and the *Bṛhat Saṃhitā* (AD *c.*550)[3] so that we can accept the date of the text as 'early Gupta period' and assume that Nagnajit was the author mentioned by Varāhamihira in the *Bṛhat Saṃhitā*.

The first Western scholar who dealt with the *Citralakṣaṇa* was Berthold Laufer in 1913, who edited and translated it from Tibetan into German. The German translation was subsequently translated into English by Goswamy and Dallapiccola in 1976, with the title *An Early Document of Indian Art*. In 1987 Asoke Chatterjee Sastri translated the same text from Tibetan into English with the title *The Citralaksana: An Old Text of Indian Art*. In his work he also tried to reconstruct the Sanskrit version of the text.

The *Viṣṇudharmottara Purāṇa* is by far the most translated and interpreted of all the available texts on painting.[4] The date of the *Viṣṇudharmottara Purāṇa* is widely contested,[5] but considering the affinity of content between the *Citralakṣaṇa* of Nagnajit and the *Bṛhat Saṃhitā*, the *Viṣṇudharmottara Purāṇa* may also belong to the Gupta period (AD 450–650).

The *Viṣṇudharmottara Purāṇa* was known up to the Akbar period. Dave (1991, pp. 52, 58) argues that the oldest of the manuscripts used in her work is on birch bark whose use came to an end from Akbar's time. The manuscript used by her can be dated to approximately the late sixteenth century and we can say that the *Viṣṇudharmottara Purāṇa* was transmitted in written form up to this date. This fundamental point exemplifies that a text cannot be seen as belonging to a defined period of time or to a particular school of painting but rather as being continuously handed down to posterity because it is considered as a valid source of traditional knowledge.

The entire text of the *Viṣṇudharmottara Purāṇa* contains various topics and it is divided into three parts, the section called *citrasūtra* includes chapters 35–43 in the third part of the text. Its first edition was published by the Venkatesvara Press in 1912 in Sanskrit. It is on the basis of the Venkatesvara edition that Stella Kramrisch published in 1924 the first English version of the text entitled *The Visnudharmottaram (Part III): A Treatise on Indian Painting*. After this translation there is Priyabala Shah's edition of the text in 1958 entitled *Visnudharmottarapurana Third Khanda* in which she adds more manuscripts to the Venkatesvara edition. This edition was followed in 1978 by Sivaramamurti's *Citrasutra of the Visnudharmottara*, in which he translates the text improved by Shah offering a new interpretation of it. The best study carried on so far is Parul Dave Mukherji's *The Citrasutra of the Visnudharmottara Purana* (2001) in

which in addition to the manuscripts used by Shah in her critical edition two more manuscripts from Nepal and Bangladesh are used to eliminate some problems affecting the understanding of the older editions.

Later texts

Other important texts that contain a *citrasūtra* section, and provide a wide range of interesting views on art and painting, are the *Samarāṅgaṇa Sūtradhāra* of King Bhoja of Dhārā dated to *c.*1000–1050, the *Aparājitapṛcchā* ascribed to Bhuvanadeva dated to twelfth century, the *Abhilaṣitārthacintāmaṇi* and *Mānasollasā* of King Someśvaradeva also dated to *c.* twelfth century and the *Śilparatna* by Śrī Kumāra of Kerala dated to the middle of the sixteenth century. All these texts are characteristically encyclopaedic, dealing with a wide range of topics from astrology to architecture, medicine, geography and gemology.

The *Samarāṅgaṇa Sūtradhāra* is believed to have been written by (or at least for) King Bhoja of Dhārā who was a patron of the arts and a great writer. This king was also the writer of other kinds of treatises like the *Śṛṅgāraprakāśa* on poetics. He was a great theorist and his views on *rāsa* expounded in the *Samarāṅgaṇa Sūtradhāra* are revolutionary with respect to the traditional views on the subject.

The first Sanskrit edition of the *Samarāṅgaṇa Sūtradhāra* was published in 1925 by Ganapati Sastri. The original manuscripts of the *Samarāṅgaṇa Sūtradhāra* are in a poor condition which does not easily permit making a good collated edition and translation of the work. This is especially true for the parts relating to painting and iconography in chapters 71–83. According to Bhattacharya (1976, pp. 11–13), the edition of 1925 was prepared on the basis of three manuscripts, of which only one, belonging to the Central Library of Baroda, contains the chapters relating to painting and iconography.

The *Aparājitapṛcchā* ascribed to Bhuvanadeva is a *śilpa* text traditionally associated with the *nāgara* school of architecture and may be dated to around the twelfth century. The text incorporates all the arts including architecture, sculpture, painting and music. The first edition of the text was published in 1950 by Popatbhai Ambasankar Mankad. This edition was followed in 1987 by Dubey's *Aparajitaprccha – A Critical Study*, which involves a commentary and translation of portions of the text, but the section dedicated to painting is not comprehensive, nor does it show much evidence of scholarly critical research. Dubey (1987, pp. 3–4) states that the *Aparājitapṛcchā* is more than a century later than the *Samarāṅgaṇa Sūtradhāra*. There are a number of similarities and parallels in the texts, but the key point is that the subjects acquired from the *Samarāṅgaṇa Sūtradhāra* have been elaborated and amplified by the *Aparājitapṛcchā* rather than examined anew. The *Aparājitapṛcchā*, which literally means 'the questions of Aparājita', is primarily an exposition of principles of the science of *vāstu* by Viśvakarman, who solved a series of questions put to him by Aparājita, one of his mind-begotten sons (Dubey 1987, p. 7).

The *Abhilaṣitārthacintāmaṇi* and *Mānasollasā* have been attributed to King Someśvaradeva of the Western Cālukya dynasty, who ruled around AD 1127–1138. The *Abhilaṣitārthacintāmaṇi* was published in Sanskrit, with an English introduction in 1926 by Shama Sastry. In 1939 G.K. Shrigondekar published the *Mānasollasā*. These two texts contain five sections, each of which is divided into twenty chapters dealing with all the branches of knowledge. The sections explaining painting are the third *prakaraṇa* of the *Abhilaṣitārthacintāmaṇi* and the third *viṃśati* of the *Mānasollasā*. Although they have two different titles, the parts dedicated to painting of each text are believed to be identical and included in the *upabhoga- viṃśati* or 'the section on enjoyments'.

The *Śilparatna* is a text written by Śrī Kumāra, under the patronage of King Devanārāyaṇa, who ruled in Travancore in the later part of the sixteenth century. Śrī Kumāra was a *brahman*, son of Śrī Rāma born in the lineage of Bhārgava. The *Śilparatna* is divided into two parts, the first of which has 46 chapters and the second with 35 chapters. The section that we call *Citralakṣaṇa* is chapter 46 of the first part. The first part of the text was edited in 1922 by Ganapati Sastri. A few years later (1926–1928) Coomaraswamy attempted the first translation of the *Citralakṣaṇa* of the *Śilparatna* which was not very successful for our understanding of the text. In 1974 Asok K. Bhattacharya published a translation of the same chapter, with a commentary that claims to prove that Kerala artists used the text as a guide.

The aforementioned texts are considered, in secondary literature, the main *citrasūtras*. They are discussed in the main works on the subject such as Shukla (1957), Bhattacharya (1976) and Chakrabarti (1980). Together with those texts, there is another group of *śilpa śāstras* associated with the theory of painting. These texts deal with topics related to painting or mention painting itself and will be used in this study to strengthen our views. Among them are: *Nārada Śilpa Śāstra* (especially chapters 66 and 71), *Śivatattva Ratnākara*, *Mānasāra*, *Mayamata*, *Matsya Purāṇa*, Varāhamihira's *Bṛhat Saṃhitā*, *Nāṭya Śāstra* of Bharata, *Devatāmūrtiprakaraṇa* of Maṇḍana Sūtradhāra, *Vāstusūtra Upaniṣad* ascribed to sage Pippalāda, *Citrakarmaśāstra* ascribed to Mañjuśrī, *Pratimāmānalakṣaṇa*, *Śukranīti* and the *Sudhālepavidhāna*.[6] These texts are equally important to our understanding of the theory of painting, but their significance has been underestimated by many scholars. In this study, all these sources will be used to clarify some important concepts.

Interpreting the texts

The academic study of Indian treatises on painting started in the twentieth century, sometime later than the study of Indian traditional treatises on architecture, which originates in the early nineteenth century. Dave explains:

> Ram Raz initiated this move with the publication of the *Essay on the Architecture of the Hindus* in 1834, which was a seminal breakthrough

in the study of art history through the texts . . . However, these texts tell
us more about architecture, than sculpture and painting.

(1991, p. 4)

Indeed, it was not until 1912 that the first publication of a text on painting
appeared, the Venkatesvara edition of the *Viṣṇudharmottara Purāṇa*. This edition
presented a great obstacle for many scholars, however; as it was in Sanskrit it was
accessible only to a select group of people who had a combination of Sanskrit and
art knowledge. The first publication in English on this subject was an article,
'Painting in Ancient India', by Gopinatha Rao in 1918. In this pioneering study,
Rao criticizes the lack of research in this field and invited Indians to rediscover
this ancient knowledge to counter the preconceptions of V.A. Smith who asserted
that there were no Indian art treatises. As Rao explains:

> It is the culpable disregard of the modern so called educated Indian,
> whose culture is one-sided and whose sense of patriotism has been
> killed by foreign ideals taught to him, that is responsible for the lack
> of appreciation of the ancient Indian treatises on art and other subjects;
> the absence of translations of these valuable works is construed
> by Europeans, as for instance Mr. V.A. Smith, as indicative of utter
> absence of written works on several subjects of human interest and
> necessity.

(1918, pp. 558–559)

Since 1918, other studies, including editions and translations of *citrasūtras*,
have been carried out, but in spite of this advancement, the use of these important
sources is still very limited. In 1989, Maxwell[7] declares that texts are still not
used in the field of Indian art, which privileges stylistic analysis as its main
criteria of study. He offers his own explanation for this:

> Perhaps because they deal with smilingly abstract and elusive notion of
> meaning, these theories are not admitted to a central position in the
> discipline, which continues to see itself as fundamentally archaeological
> in character . . . The clear perception of the complementarity of meaning
> and style, or of text and sculpture, and their forging together into a single
> instrument for the understanding of historical Indian art, has thus not yet
> been achieved.

(1989, p. 7)

Among the problems affecting our use of the texts is that of the complicated
technical language used. In reading the commentaries on the *citrasūtras*, scholars
constantly refer to the difficulty of translating them due to the poor condition of

the manuscripts or the complexity of specialized, technical vocabulary. Bhattacharya explains the extent of this obstacle:

> The magnitude of the problems involved in the study of *Śilpa* texts is well known. Reading of the texts, so far handed down to us, is fraught with difficulties. Copyists' errors stand in the way of getting many of the technical works in their original forms. Besides, damages and mutilation of the texts of the manuscripts, sometimes in important sections, constitute a serious handicap to the study of our subject. Another difficulty lies in the proper interpretation of the *paribhāṣā* or *lingua technica* of the artists, not infrequently met within the texts.
>
> (1976, pp. 4–5)

While one should not underestimate the difficulties faced by translators or writers of collated editions of Sanskrit manuscripts, the 'mutilations of the texts' per se do not constitute a handicap to our understanding. The widely shared attitude of Bhattacharya reflects the normative preference to work with word-by-word translations in which every single line must make clear sense. However, this demand for clarity can ultimately never be met since many precepts were written in particular contexts and are thus not fully understandable to modern interpretation. It is necessary, therefore, to shift our focus away from the unattainable ambition to explain every single line of a text to appreciate its arguments. More emphasis should be placed on seeking to understand the essence or importance of the texts, even if we do not actually understand the whole of it. However, many writers remain anxious to find clear answers, while their long speculations fail to reach any critically informative conclusions.

In spite of these problems of translation, our understanding of the texts is not necessarily fragmentary. A collective reading of the *citrasūtras* enables one to gain a good grasp of the philosophical outlook and science of Indian painting. The problems identified here result mostly from the attitude of scholars towards the *citrasūtras* as 'texts' to be translated, who often focus too heavily on small unclear portions or words, without trying to develop a more holistic, lucid understanding of the system of the theory of painting. In other words, it was the way in which they treated the texts that did not permit them to further their understanding of the real messages and spirit of the *citrasūtras*.

The root of such limitation in these studies lies in the conceptions the writers and commentators have of the *citrasūtras*. Their reading of the texts has been shaped and developed by a romantic-transcendental view of Indian art in which there has been a prevalent though unacknowledged expectation of some kind of revelation from the texts. This conception of Indian painting has been further coloured by the widespread construction of Indian knowledge as having been developed by various ancient Indian canon-makers, who not only wrote the texts on theory but whose systems of rules were also strictly followed by painters.

Such constructed conceptions of Indian painting are evident right from the first interpretations of the *citrasūtras* by Western scholars, which established the

structural logic for later studies. Laufer, who was more concerned with Tibetan and Chinese art, clearly exemplifies this in the preface written for his German translation of the *Citralakṣaṇa* of Nagnajit (Goswamy and Dallapiccola 1976, p. 4):

> For me, personally, the rich collection of Tibetan paintings and ancient Chinese Buddhist sculptures and bronzes that await study emphasized the necessity of searching for the underlying spiritual basis on which this art of East Asia is founded; and for this we must of course turn towards India ... [the Citralakṣaṇa] will doubtless become a text of fundamental importance in helping us understand a series of phenomena, both in Tibetan and Chinese painting, that up till now we could not comprehend.
>
> (Laufer 1913)

This quotation clearly demonstrates that Laufer conceptualized the *Citralakṣaṇa* as belonging to the place where it was found, that is Tibet and China, and that, consequently, it revealed the 'phenomena' of art from that region. Afterwards, however, with great disappointment, he realized that the awaited revelation did not come from his translation of the *Citralakṣaṇa*, admitting that: 'I am fully conscious that many matters still stand in need of further explanation' (Goswamy and Dallapiccola 1976, p. 5). These expectations of Laufer are shaped by his conceptualization of the *Citralakṣaṇa* as a prescriptive text or, as he calls it, a 'collection of practical rules' for the painter to be followed (p. 30). He suggested that only those elements indicated by the text were to be followed in a prescriptive manner, and that the painter was free to experiment with regard to those elements not mentioned by the texts. He believes (pp. 28–30), for examples, that the measurements of the *cakravartin*[8] are strict rules for painters, while as for the depiction of other kinds of men and women, there was assumed to be complete freedom for the painter. The fact that the text limits itself to the description of the *cakravartin* led him to conclude that this text does not embody a proper theory of painting.

Later writers such as Coomaraswamy (1999 [1918]) rebutted Laufer's position somewhat by denying any freedom of the artist and arguing that the texts give complete instructions and answers to the artist's problems. He states:

> The artist does not choose his own problems: he finds in the canon instruction to make such and such images in such and such a fashion – for example, an image of Nataraja with four arms, of Brahma with four heads, of Mahisha-mardini with ten arms, or Ganesa with an elephant's head.
>
> (Coomaraswamy 1999 [1918, p. 98])

Bhattacharya (1974), in following this position, believed in a strict relationship between text and painting, and he was convinced that the *Citralakṣaṇa* of

Śrī Kumāra was a manual for Keralan painters and that even the most general rules were followed by them (p. 28): The general instruction of the text, 'the picture should be painted in various beautiful colours along with proper form and sentiments (rasas), moods (bhāvas) and actions', seem to have been the guideline of the Kerala painters.

Bhattacharya argued that a text belongs to a particular time and that the rules of the *Citralakṣaṇa* are applicable to the sixteenth-century painting of Kerala. However, we have seen for example with the *Viṣṇudharmottara Purāṇa* that a text is continuously transmitted to later generations and thus cannot be seen as necessarily 'belonging' to a particular period. There is also the possibility that the *Śilparatna*, like many other texts, existed in oral form before it was written in manuscripts. Furthermore, Bhattacharya argued that a text of a particular place, such as the *Śilparatna*, influenced the art of painting in the place where it was written. This idea is somewhat too narrow and mis-leading, as it again does not take into consideration intertextual influences and the fact that such texts were being transmitted all over India and beyond. A text did not belong to a particular place or school of painting – the Indian *Citralakṣaṇa* of Nagnajit, for example, was adopted by the Tibetans. His posi-tion is very difficult to prove because of the theoretical nature of the texts. Nevertheless scholars such as Bhattacharya strongly assert a fixed temporality and spatiality of texts, which appears to originate from a desire to express his Keralan nationalistic feeling. In reference to the *Citralakṣaṇa* of Śrī Kumāra he posits that:

> For ascertaining the importance of a treatise on art, it is necessary to determine its value in the contemporary creations. Hence, it would be worthwhile to examine how far the instructions laid down in a canonical text had their bearing on contemporary as well as immediately following practices . . . [N]o other Indian text on painting can be so assuredly con-nected with a particular school or art trend, as we can connect it with the late medieval Kerala murals. It would not be out of place, therefore, to take into account the achievements of the Kerala painters for a proper appraisal of the Citralakṣaṇa.
>
> (1974, p. 17)

The view of a fixed temporality and spatiality of texts is not shared by Anand Krishna (1977), who believes in a direct relationship between medieval Rajasthani, Pahari and Mughal painting and the *citrasūtra* of the *Viṣṇudharmottara Purāṇa*. He says:

> the text [*Viṣṇudharmottara Purāṇa*] does not fail to include another popular view that the common man was more inclined to richness of colour (*varṇāḍhyaṃ*). This comment corresponds to the strong palette of Rajasthani-Basohli styles rather than to 'Classical' painting at Ajanta

or Bagh. Another iconographic feature, 'waves, smoke and streamers' should be shown according to the Citrasūtra 'fluttering in the air according to the movement of the wind'...Stylized treatments from this class appear both in early Rajasthani and Mughal schools.

<div align="right">(pp. 270–271)</div>

Taking a more instrumentalist approach, Jayanta Chakrabarti (1980 and 1985), on the other hand, considered the *citrasūtras* as a tool that could be used to decode the peculiar vocabulary of Indian painting, without which many of the figures and iconography employed in painting could not be understood with their full implications. Moreover, he also falls into the tempting trap of conceptualizing a hidden truth of Indian painting that only texts could explain:

> no proper or critical study of Indian painting is possible without studying the Sanskrit texts and literature which provide the basic material and information – technical as well as aesthetic – throwing light on and giving indication of what could not be guessed and understood.

<div align="right">(1985, p. 124)</div>

Chakrabarti (1980, pp. 3,11), in examining Indian murals belonging to ancient, medieval and late medieval periods, also tries to prove the validity of viewing the *citrasūtras* as prescriptive texts. He goes further however to state that texts and painting compensate each other in the sense that what we find in texts we do not understand in painting, and vice versa. Again, this view is permeated by a strong belief in some sort of revelation contained in the texts which would 'unlock' the soul of Indian painting:

> Taken separately, the murals and the *śilpa* texts remain as torsos, incomplete and fragmentary, providing only partial glimpses, but failing to reveal the whole. Yet taken together, they go a long way for making good the respective gaps, filling the bare regions in the maps of each, making concrete what seemed vague and giving indication of what could not be guessed. The extant murals and the available *śilpa* texts are complementary to each other...A study in which early Indian mural paintings are made to throw light on the *śilpa* texts and the *śilpa* texts themselves to throw light on the murals and the techniques in them is long overdue...Once this is done, we can say that we have in our possession the key to unlock the very soul of Indian painting.

<div align="right">(p. 3)</div>

In a more recent study by Priyabala Shah, which involves a comparison of the information of the *Viṣṇudharmottara Purāṇa* with the paintings of Ajanta and Bagh, she claims to find evidence that the particulars described in the text have

been 'followed' in their illustrations. She highlights the injunctions of *adhyāya* 35 of the *Viṣṇudharmottara Purāṇa* as being followed by painters:

> Characteristics of *cakravartins* like webbed fingers of hands and feet, a tuft of hair between the two eye-brows can also be illustrated in painting and sculptures of the Gupta period. Similarly a study of the paintings would show that instructions of our text regarding postures, *mudrās* or hand-poses, *rasadṛṣṭis*-sentiments and moods expressed by eyes and many such artistic observations are almost universally followed.
>
> <div align="right">(Shah 1990, p. xxx)</div>

The above overview has demonstrated that the way in which the *citrasūtras* have been treated and interpreted by scholars in the secondary literature to date has been shaped by the speculations and conjectures of the writers. Such conjectures have been based on two key preconceptions about the *citrasūtras*. First, scholars have been preoccupied with the conceptualization of the texts as prescriptive 'manuals' to be followed by painters. Second, they have assumed, or rather hoped, that the texts contained the secrets of Indian art whose revelation can be attained from 'unlocking' their complex verses. These conceptualizations of the *citrasūtras* are dominant, if not popular, in the secondary literature, although the research has provided little substantive evidence to support their validity. Furthermore, the prescriptive conceptualizations of the texts ignore the reality of the relationship between texts and the practice of art. Indeed, scholars' views are premised on a logically flawed understanding of texts and painting as static worlds, whereas they are dynamic and interrelated, developing through an organic inter-exchange of concepts.

Yet this logical point has surprisingly not been taken into account by scholars, who remain steadfastly committed to conceptualizing the *citrasūtras* as prescriptive, revelatory texts. Indeed this is more surprising when one considers the fact that this point was raised early in the beginning of research on the *citrasūtras* by Shama Sastry, who expressed extreme pessimism about their use:

> It cannot be believed that the Dravidian Sudra artist had in his mind the rules laid down in this work for his guidance. This art seems to have been hereditary and handed down from generation to generation from remote past and pedantically systematised here for nobody's good . . . It cannot at all be believed that the Sudra or Dravidian artists and artisans had these and other rules in their mind when they used their pen, brush or chisel in drawing, painting or sculpture.
>
> <div align="right">(1926, pp. xii, xxiii)</div>

While Sastry's views may be somewhat exaggerated, they clearly point to the fallacy of believing that texts could ever necessarily be considered as complete guides by painters. However, Sastry's views have not been given due recognition

in the secondary literature; in fact my reading of the research on the *citrasūtras* conducted to date suggests that they have been completely excluded. What we see here, therefore, is the construction of a metanarrative by scholars interpreting the *citrasūtras*, whose hegemony has somewhat precluded critical analysis of the relationship between texts and painting in India.

Towards a new theoretical and methodological framework

It is suggested that instead of considering, from the outset, the *citrasūtras* as manuals or prescriptive canons representing the 'essence' or absolute standard of Indian painting, they should be treated as texts, open to a variety of possible interpretations that may be different, if not wholly contradictory. Although texts remain the central focus of this study, my analysis seeks to clarify our understanding of their content without forgetting that the *citrasūtras* only constitute a theoretical position rather than the reality of Indian painting. This study attempts to reflect upon the wide-ranging diversity of interpretations of the *citrasūtras*, stressing all the while that these are merely *subjective* readings of the texts and that no one's interpretation can be seen as the objective 'truth'. This is not to suggest that the propositions of the *citrasūtras* are not at all reflective of the reality of Indian painting; rather this theoretical approach of recognizing the diversities and uses of the *citrasūtras* seeks to broaden and deepen our understanding of their relevance to the practice of visual representation.

This implies that research needs to move beyond its preoccupation with regarding texts as static, fixed entities and standards of Indian painting, on the one hand, and treating the actual practice of art as a subsidiary phenomenon that has or should follow these standards, on the other. The study takes the theoretical position that texts are dynamic, organic structures that attempt to organize and classify painting according to abstract hypothetical propositions that do not have a fixed temporality or spatiality and are subject to change. This change, however, does not just mean temporal or spatial change. It refers also to the different ways in which the texts are subjectively interpreted by theorists and painters themselves. As regards the actual practice of painting, this study stresses the role of painters as individual practitioners who use a combination of traditional knowledge passed down from their teachers and their own aesthetic imagination. It is argued that this role can critically inform our understanding of the *citrasūtras* through a comparison of textual content with the living reality of Indian painting. My theoretical framework thus involves treating texts and the practice of painting as neither separate nor symbiotic entities, but as dynamic systems that indirectly interact and inform each other.

This theoretical approach has immediate implications for the methodology adopted in this study. The first is that it is necessary for my analysis to draw together the various concepts expounded in the diverse range of texts that have relevance for the art of painting. This is to overcome the limits of current

research, which methodologically only examines the concepts of one particular text and thus cannot be seen as representative of the complete textual content of the *citrasūtras*. Although Shukla (1957) pioneered this methodological approach, he did not pursue it to its fullest extent; his analysis tended to involve a mere partial listing of concepts without engaging in any critical, comparative examination to highlight the degree of their complexity. The concepts were then followed by a list of painting, without any explanation on how texts may have informed painting. Other studies that show a similar intent are Bhattacharya (1976) and Chakrabarti (1980). These two works treat material and method of Indian painting as explained by the *citrasūtras*, without involving in a comparative study of the texts or exemplifying how texts and practice are correlated. They simply treat texts like a blue print to verify their validity with reference to mural painting. They also ignore texts on allied sciences, which are considered here fundamental to our understanding of the theory.

Second, in building on this, the study attempts to examine the diversity of interpretations and practical applications of these concepts by practitioners of painting and sculpture. This constitutes the bulk of my fieldwork, which involves interviewing a range of painters and sculptors from major centres of art activity in India who practice their art in the traditional way. It is hoped that this comparison of textual concepts of the *citrasūtras* and the views and approaches of art practitioners will provide new insights into not only understanding the practice of painting itself but also our interpretation of the *citrasūtras*. In particular, it is envisaged that this theoretical and methodological approach will highlight the partiality of our understanding and will enable us to view Indian painting from an *Indian* perspective.

The following chapters are built on, and develop, the theoretical and methodological framework explained earlier. Chapters 3–8 constitute the core of this research, involving a critical comparative analysis of the concepts of Indian painting with their interpretations and applications by practitioners. First, however, we must turn to Chapter 2, which systematically compiles and examines the concept of painting together with its related topics, such as the myths and classification, from the various *citrasūtras* and their range of interpretations.

2

THE TRADITIONAL INDIAN CONCEPT OF PAINTING

On the basis of the theoretical and methodological framework of this work, the present chapter examines the way in which the *citrasūtras* introduce painting to the readers, the myths of its origin, the meaning of the word *citra*, the figure of the painter and its classification. All the *citrasūtras* explain painting in their own ways but they have many aspects in common. One of these aspects is that of the divine origin of the arts. Painting is introduced in the *Citralakṣaṇa* of Nagnajit and *Viṣṇudharmottara Purāṇa* with the narration of a myth that emphasizes the importance of traditional authorities such as Viśvakarman and Nagnajit. The chapter then analyses the meaning of the word *citra* according to textual sources. It will be emphasized that this word may have a different significance from its common meaning of painting, referring instead to a more theoretical connotation of 'mental image', that is, an image that works in the mind of the reader of a given text. This chapter also highlights the discrepancy between the figure of the painter with his characteristics as seen by the writers of the *citrasūć tras* and the painter described in secondary literature. Finally, the chapter concludes with a critical analysis of the classification of painting and its interpretations. All these aspects of painting are expounded and discussed with reference to a wide range of texts, thereby providing a reasonably comprehensive overview of the theory.

The myths

According to Indian philosophical thought, arts and crafts have a divine origin. The divine origin of painting is explained in the texts through the narration of two main myths which recognize Viśvakarman[1] and Nagnajit as the two main authorities in this field. The authority of Viśvakarman (Figure 2.1) is undisputed even today, with some artists claiming ancestral links to him.[2] The importance of Viśvakarman as the authority is reflected in the myths of the creation of *citra* as narrated in the *Citralakṣaṇa* of Nagnajit and the *Viṣṇudharmottara Purāṇa*. The myth narrated in the *Citralakṣaṇa* is also important for its mention of Nagnajit as the founding father of painting on earth.

Figure 2.1 Print representing the image of Viśvakarman.

The myth narrated in the *Citralakṣaṇa* of Nagnajit is presented as 'the antecedents' or 'the tale of the past' of painting. The myth[3] narrates that there was a wise king, who had the true knowledge of *dharma* and that at his time people lived for a hundred thousand years during which there was neither sickness nor premature deaths. One day, however, a *brahman* came to him crying because his son died at a very young age.

The king called King Yama, the God of the Dead, and asked him to return the son of the *brahman*. Yama answered: 'My independence is limited and I don't have the power to return or free his son. All beings are subject to my powers because of the reward that their own deeds (*karma*) merit.' The argument turned into a fight. The king started to let countless rain showers fall upon Yama. Yama

let fall the fearsome rainstorm of *pretas*[4] who hurled arrows at the king. As Yama saw that the king was winning the battle, he swung his mighty club. As the king saw the club, he picked up the weapon with the sign of the head of Brahmā on it. Brahmā realized that all the creation would suffer and so came down to the earth. When Yama and the king saw Brahmā, began arguing anew. Brahmā kept them from fighting again and told them that because of the good and bad deeds that this boy had committed earlier, he was born in the form of a human being and has died early. Brahmā ordered the king to paint a handsome picture resembling the son of the *brahman*, in his likeness and using colours. The king painted the boy and Brahmā gifted that painting as a living person to the *brahman*.

After this, Brahmā said to the king:

> May you conquer the naked *pretas*.[5] No messengers of Yama will see the light of day anymore. Because all the naked *pretas* came to you, you shall be named 'Conqueror of the Naked' (Nagnajit) and through performing sacrifices you will become the most famous, too. You painted the *brahman*'s son and brought the first picture into the world of the living. Because of the benefit the world will get from this, you have established your claim to reverence. From now, on this picture will gain a place of eminence. May blessings and good fortune radiate from it, and may all sins be avoided.

Later, the king went to the Brahmā's home and asked about the proper way of measuring the body's form. Brahmā said to the king: 'I will reveal the excellent secrets of this to you. First of all, the Vedas and the performance of offerings came into the world. In order to raise a *caitya* (place of worship), one must paint pictures. For this reason painting is counted as knowledge (Veda). I am the first one to have painted pictures of human beings and it is I, therefore, who have taught mankind the skill of painting. Go therefore to Viśvakarman, and he will instruct you briefly in the characteristic attributes, rules and the measurements of the painting.'

The king (Nagnajit) took Brahmā's advice and went to find Viśvakarman. Viśvakarman explained to the king: 'The *Citralakṣaṇa* is honoured by the gods themselves, it describes the measurements, composition and colours, and is taken to be the principal work by all learned men. It comes from the good lotus-born god (Brahmā). Brahmā has painted all the forms of all the bodies to signify the welfare of the believers and imparted this knowledge to me (Viśvakarman) first. What kinds of measurements one should work with, which objects and means are beautiful, I got all of this from Brahmā. It is thanks to him that I have made all works of art. When I teach you about the nature of the measurements and the characteristic attributes, about proportion, form, ornamentation and beauty, then you too will be fully versed in all the skills and will become a universally known and masterly expert in the art of painting.'

The text continues with the dialogue between Viśvakarman and Nagnajit in this chapter, and in Chapter 3 Viśvakarman instructed by Brahmā explains the rules of proportion to Nagnajit. The myth of the origin of painting as narrated in Chapter 1 of the Citralakṣaṇa explains how Nagnajit became the authority of the science of painting and how the first painting came into being in this world. The myth underlies also other points such as the importance given to measurements, proportions, beauty and colours. These aspects are relevant to the Indian perception of painting and they will be reiterated many other times in all the *citrasūtras*.

The myth can be considered the traditional Indian origin of painting and of his founding father Nagnajit. Laufer (1913) however tried to speculate on it to find answers to who Nagnajit was and what kind of painting he painted. He thinks that Nagnajit has this title not only because he overpowered the *pretas* but also because he above all is the first among men who painted a portrait. He states:

> This portrait represents a dead body, a *preta*, who is shown nude, and when Brahma commends the king warmly to continue in the future as a 'conqueror of the nude' (Nagnajit), it signifies nothing else than that he shall henceforth devote himself to painting. The instruction on the measurements imparted by god Viśvakarman relate to the nude human form and this shows that ancient Indian painters, in the first place studied the human form in its nudity and represented gods, kings and heroes as nude.
>
> (Goswamy and Dallapiccola 1976, pp. 12–13)

The myth narrated in the *Citralakṣaṇa* does not mention that the portrait of the young *brahman* was representing him naked; this is a supposition of Laufer's. The young *brahman* is not described as naked, nor as dead. The portrait given to the father was, according to the myth, a human portrait, and more interestingly, it was a substitute for the living body of the boy. The portrait was given to the father to remember the semblance of his son.

Laufer considers the myth as proof that in ancient India there was a fashion of painting nudity and continues stating that:

> The comment of E.B. Havell (*Indian Sculpture and Painting*, p. 217, London, 1908) 'painting nudity for its own sake, or as a test of skill, was never the aim of an Indian artist' refers naturally only to the late medieval phase of Indian painting, if this generalisation has any validity at all. It is unnecessary to point out that the representation of the nude in ancient India, as in the culture of primitive people in general rests on completely different psychological basis than our 'nude paintings' which have only an aesthetic aim.
>
> (Goswamy and Dallapiccola 1976, note 11, p. 13)

Building on these conjectures and taking as example a painting he has read about in a book, he notes that: 'These observations receive striking support from the most ancient fresco-paintings of India, in the Jogimara caves, belonging to the III cent. BC...the brief descriptions by Bloch suggest that nude figures predominate in those' (Goswamy and Dallapiccola 1976, p. 15). From his speculation it is clear that Laufer, by emphasizing nudity and its hypothetical significance in Indian painting, was underestimating the great emphasis given by the text to the Indian paradigms of proportions, measurements and so forth. Moreover, he also seeks to distinguish between 'our' (i.e. Western) nude painting and the nude in ancient India, which is treated as inferior and primitive.

Another myth of painting to be considered is that narrated in the *Viṣṇudharmottara Purāṇa*. The myth is narrated by Mārkaṇḍeya to Vajra and says that the first painting was produced by Nārāyaṇa according to the science of *citra* (ViDha III.35.1–5). The myth says that the rules of *citra* were produced long ago by the sage Nārāyaṇa for the benefit of the world, when he was engaged in penance at his hermitage. While he was practicing penance, the celestial nymphs (*apsaras*) came to disturb his concentration. Roaming amorously and culling flowers they were seen by Nārāyaṇa, who could easily discern their purpose. To mislead the nymphs that approached him, he created Urvaśī by drawing a picture on his thigh using mango juice. By means of the science of *citra* Urvaśī was endowed with beautiful form and became the best of the *apsaras*. Ashamed as they beheld her, all the nymphs went back. Having thus created a picture perfect in all its definition and principles of portrayal, the great sage Nārāyaṇa made the immovable Viśvakarman receive this knowledge.

The narration of myths is not present in the *Bṛhat Saṃhitā*; in fact, Varāhamihira, the writer of this compilation, does not consider necessary the use of myths to ascertain the importance of the arts or their authorities. In the first *adhyāya*, Varāhamihira says: 'Avoiding trivial matters of very little practical importance such as long-drawn queries and answers, interesting legendary stories as well as the origin of planets, I shall here explain the real facts in their essential features along with all their benefits' (BrSam 1.11). This passage is significant particularly as the *Bṛhat Saṃhitā*, being one of the oldest texts containing relevant verses on painting, directly contradicts in this respect the *Citralakṣaṇa* of Nagnajit and the *Viṣṇudharmottara Purāṇa*, which regard the use of myths as a fundamental element to understanding painting. The approach of the *Bṛhat Saṃhitā* is followed by later texts too. They only mention Viśvakarman as their authority and the divine origin of painting and other arts becomes an absolute precept.

The meaning of *citra*

Apart from such myths, the *citrasūtras* explain painting in other ways, too. One key approach is to discuss the manifold meanings that the word *citra* presents.

This word is generally used as synonymous with painting, but in some texts and in some contexts *citra* has a much wider, if not wholly different, meaning, referring to visual representation. Another critical point presented by the texts is that of the correlation between the arts.

Laufer (1913) is the first to express doubt on the meaning of the word *citra*, arguing that it implies a different connotation from simply painting. He thinks that the science of physiognomy (features of human beings) is one of the possible sources from which painting arose and that therefore the word *citra* is connected with this science. This view is based on the fact that the *Citralakṣaṇa* (I. 10–29) also mentions, together with Nagnajit and Viśvakarman, Prahlāda, a famous physiognomist.[6] Laufer is correct in his observation that a bond existed between the *Citralakṣaṇa* of Nagnajit and the texts on physiognomy, a point that becomes particularly evident when we compare portions of Chapter 3 of the *Citralakṣaṇa* and the chapter called *Puruṣalakṣaṇa* of the *Bṛhat Saṃhitā* (68). Laufer explains that:

> I have strong doubt if Sanskrit *citra* and the corresponding Tibetan *ri-mo* can be used in the general sense of our word 'Malerei' (painting), signifying the art of painting … The word *Citralakṣhaṇa* is originally a term of physiognomy and signifies 'the characteristic signs of the bodily lines', specially of the hand and the fingers. The most important characteristics of the Cakravartin are taken from physiognomy and from there inducted into painting … from this we can speculate or surmise that a strong bond existed between the texts on art and physiognomy, or at least that a common fund of technical expressions was shared by them …. Like painting, the science of physiognomy concerns itself with the signs of the bodies of human beings (*lakṣhaṇa* or *vyañjana*).
>
> (Goswamy and Dallapiccola 1976, pp. 30–32)

Dave (1991, pp. 380–381) concurs that the author of the *Citralakṣaṇa* was a *sāmudravit* (physiognomist), as is evidenced by his detailed knowledge of the variety of traits in human anatomy. The science of physiognomy or *sāmudrika śāstra* describes perfect models and appears more concerned with a physiognomic context rather than painting, but it became an important source for the *Citralakṣaṇa*. Even if many traits described for the *cakravartin* are not necessary for a painter and are understood only with reference to the texts on physiognomy, we do not have reason to doubt that the *Citralakṣaṇa* of Nagnajit was a text on painting. The word *lakṣaṇa* or 'characteristic sign' can be used in both sciences, but the word *citra* in this context denotes the theory of painting. One should consider physiognomy as one of the sciences that influenced the development of the discourse of painting in the same way in which music, singing and dance are relevant to the *Viṣṇudharmottara Purāṇa*.

The correlation of all the arts is a concept clearly explained by the *Viṣṇudharmottara Purāṇa* (III.2.1–9). The text introduces a discourse, where Mārkaṇḍeya instructs Vajra that without a knowledge of the science of dancing, the rules of painting can scarcely be understood. This part, containing the dialogue between Mārkaṇḍeya and Vajra, is not a section of the *citrasūtra*, but it is fundamental for understanding how painting was perceived by ancient Indians. This section in fact places painting and the science of painting in a wider perspective together with the other arts. This informative passage of the *Viṣṇudharmottara Purāṇa* explains how all the arts are correlated to each other and stresses the need to know all of them in order to perform painting. The following section is Kramrisch's translation of the passage (see also Shah 1990, pp. 5–7):

VAJRA SAID: (Oh) sinless (one) speak to me about the making of images of Gods, so that (the deity) may remain always close by and may have an appearance in accordance with the śastra.

MĀRKAṆḌEYA SAID: (Oh) Lord of men he who does not know properly the rules of chitra can, by no means, be able to discern the characteristics of images.

VAJRA SAID: (Oh) propagator of the race of Bhṛgu narrate the rules of painting, as he who knows the rules of painting alone knows (its) characteristics in words.

MĀRKAṆḌEYA SAID: Without (a knowledge of) the science of dancing, the rules of painting are very difficult to be understood: hence no work of (this) earth, (oh) king should be done even with the help of these two, (for something more has to be known).

VAJRA SAID: Please speak to me about the science of dancing and the rules of painting you will tell me (afterwards) for, (oh) twice born one, the rules of the science of dancing imply (those of) painting.

MĀRKAṆḌEYA SAID: The practice of (dancing) is difficult to be understood by one who is not acquainted with music. Without music dancing cannot exist at all.

VAJRA SAID: (Oh) you, who are conversant with dharma, tell (first) about music and (then) you will speak about the science of dancing (because) when (the former) is well known, (oh) best of the Bhṛgus, (a man) knows dancing too.

MĀRKAṆḌEYA SAID: Without singing music cannot be understood. He who knows the science of singing is the best of men and knows everything.

VAJRA SAID: (Oh) best of those who support dharma, please speak to me about the science of singing as he who knows the science of singing is the best of men and knows everything.

(1924, pp. 25–26)

Apart from these textual explanations, it should be stressed that sometimes for an appropriate understanding of the *citrasūtras* one should think of *citra* as

an abstract entity. The word *citra*, when it is used in the *citrasūtras*, denotes a mental image; it is a word used abstractedly by the writers to explain the theory of proportion, stances and so on, so that this image becomes the base on which we think about the theory of painting and sculpture. Moreover, in the word *citra* there is not yet a division between painting and sculpture but both are still in a conceptual state. Shah (1990, p. xxx) supports this view, arguing that the word *citra* is used in the *Viṣṇudharmottara Purāṇa* to denote both painting and sculpture. She demonstrates how many verses on painting in the *citrasūtra* are applicable to *pratimālakṣaṇa* (ViDha III.44–85), which is the section immediately following the *citrasūtra*. In fact, the *pratimālakṣaṇa* takes for granted the technique of the *citrasūtra* and explains the characteristics, vehicles and symbols of deities. The section detailing the process of making the image of Brahmā, for example, states that it should be made according to his characteristic marks, and that he should be made in the form of a painting or an idol (ViDha III.44.5–8).

The concept of painting according to the *citrasūtras*

The *citrasūtras* explain painting with descriptions of its main characteristics, especially auspicious and inauspicious marks. These descriptions in particular emphasize the importance of fundamental concepts such as measurement, proportion and colours.

According to the *Viṣṇudharmottara Purāṇa*, painting is the most excellent of all arts and grants *dharma, artha* and *kāma*[7] (ViDha III.43.38). The text also explains that just as Sumeru is the most excellent mountain, Garuḍa is the chief amongst birds, the king is best of all men, painting is the best of all the arts[8] (ViDha III.43.39). Mārkaṇḍeya in his dialogue with Vajra also states that all the rules explained in the *citrasūtra* are only a summary, for it is not possible to relate the rules in detail even in many hundred years. He also explains that what has been left untold should be understood from dance and what has been left untold in dance is to be improvised from painting (ViDha III.43.36–37). Moreover, the rules of painting should be followed also for sculpture and apply to metals such as gold, silver and copper (ViDha III.43.31).

The *Viṣṇudharmottara Purāṇa* (III.41.10–15) explains that the ornaments of a painting are the lines, shading, decoration and colour. The masters (*ācārya*) praise the lines, critics (*vicakṣaṇa*) the shading, women the ornamentation and common people the richness of colours. Keeping this in mind, a painting should be done carefully in such a way that it captivates the minds of everyone. The text also explains that the site of painting should be well-smeared, spacious, free from insects, bright, pleasant and secluded. A painting made with lines that are smooth, clear, of a beautiful colour, and represents a dress appropriate to the particular country, without lacking in proportion, is an extraordinary one.

The *Viṣṇudharmottara Purāṇa* (III.43.19) enumerates the merits (*guṇa*) and demerits (*doṣa*) of painting in a detailed list. The following are said to be the eight merits of a painting: (1) postures, (2) proportions, (3) the use of plumb-lines, (4) charm, (5) details, (6) verisimilitude, (7) the loss and (8) gain (*kṣaya* and *vṛddhī* or foreshortening). It also states (ViDha III.42.84–85) that a painting which is being made carefully according to the instructions and to time and age becomes auspicious, otherwise it becomes its opposite. A painting that is imbued with postures, beauty, playfulness and sentiments, as visualized by a discerning mind, is thus believed to fulfil desires.

As for the demerits in a painting, the *Viṣṇudharmottara Purāṇa* explains that these include weak or thick lines, lack of variety, oversized eyes, lips and cheeks, inconsistency and deviations from the rules of proportion. Other demerits of a painting include lack of details, crooked lines and the undue merging of colours. Moreover, a painting that lacks postures, sentiments, has figures with vacant stare, is dirty and bereft of life is considered to be unpraiseworthy (ViDha III.43.7b–8, 17b–18, 20).

Similar to the *Viṣṇudharmottara Purāṇa*, the *Citralakṣaṇa* of Nagnajit empha-sizes the auspicious and inauspicious elements of a painting. A good painting is described as one in which the principles of measurement, and consequently of proportion, are followed. This approach might be traceable to a religious reason, that is the image to be worshipped must be perfect in all its aspects so as to have an auspicious power. The *Citralakṣaṇa* (II.432–527) states that: 'the art of measurement in painting is based on the worship of all the gods, which leads to the augmentation of their fame and to the banishment of sins and fear'. For this reason a painter is expected to grasp the fundamentals of measurement. The ulti-mate purpose of the act of painting seems to be the worship of an image which is the incarnate of all the auspicious elements and contains proper measurements and proportions. This point can be found in other texts too, as for example the *Pratimāmānalakṣaṇa*, which emphasizes auspiciousness and inauspiciousness of images.

Vātsyāyana (*c.* third century) mentions the art of painting as one of the 64 complementary sciences of the *Kāmasūtra*, together with dance, singing and instrumental music. Yaśodhara (thirteenth century), in his commentary of the *Kāmasūtra* of Vātsyāyana (Shastri 1929, pp. 29–30), explains that painting has six limbs (*ṣaḍaṅga*) or six essential qualities. They are *rūpabheda* (distinction of form), *pramāṇa* (proportion), *bhāva* and *lāvaṇyayojana* (the infusion of emotion and grace), *sādṛśya* (likeness or verisimilitude), *varṇikā bhaṅga* (division of colour).

While attempting to explain the concept of *citra*, the *Aparājitapṛcchā* states that the world is represented in *citra* in the same way as the moon is represented in water. The text mentions that *citra* is the incarnation of *rūpa* or form. Since *rūpa* is fundamental to all arts, the text specifies that *citra* as an art expresses itself through line and colour. The colour or *varṇa* expresses a *bhāva* or feeling in every *citra* (ApaPr 224.11–19; 232.17; 228.18, see

Dubey 1987, p. 408). The *Aparājitapṛcchā* treats *varṇa* (colour), *rasa* (aesthetic experience), *rekhā* (line sketch) and *bhūṣaṇa* (decoration) as the essential elements of painting (ApaPr 232.17–18, see Dubey 1987, p. 409). The text also refers to *citrabhūmi* (background) and *vartanā* (shading) as essential constituents of pictorial art (ApaPr 230.30; 231; 236.23, see Dubey 1987, p. 410).

Some of the constituents of painting described in the twelfth-century *Aparājitapṛcchā* may be traced in the eleventh-century *Samarāṅgaṇa Sūtradhāra* which mentions eight limbs (*aṣṭa aṅgas*) of painting, to which an artist should adhere for achieving success as a painter. These eight limbs constitute the eight technical steps essential for a good wall painting. They are different from the six limbs of Yaśodara which emphasizes aesthetic rather than technical virtues. Although the text referring to the eight limbs of painting in the *Samarāṅgaṇa Sūtradhāra* (71.24–25) is damaged, they may be identified as: (1) *vartikā* (the making of brushes), (2) *bhūmibandhana* (application of plaster), (3) *lepyakarma* (final coating), (4) *rekhākarma* (sketching), (5) *varṇakarma* (colouring), (6) *vartanākrama* (shading), (7) *lekhakaraṇa* (outlining) and (8) *dvikakarma* (second and final lining).

The *Śilparatna* of Śrī Kumāra (I.46.1–7a) explains that *citra* can be divided into three types: *citra* denotes sculpture in the round, *ardhacitra* means relief and *citrābhāsa* indicates painting or more properly a semblance (*ābhāsa*) of *citra*.[9] *Citra* and *ardhacitra* should be done either in clay, stucco, wood, stone, metal or brick. With these materials *citra* and *ardhacitra* should be made as seen and as heard of by the artists; and they should be adorned with various colours.

According to the *Śilparatna* (I.46.7b–13), all palaces and gateways should be decorated with various paintings to enhance their beauty. The text defines *citra* as the representation of objects in accordance with their individual nature, movable and immovable, as found in the three worlds. The *Śilparatna* proceeds explaining that painting (*citrābhāsa*) should be executed on the glossy surface of plastered walls, in all suitable internal and external places, by depicting auspicious stories and images of deities. Scenes of war, even between gods and demons, death, misery, performances of ascetics and depiction of naked figures should not be executed in houses.[10] On wall surfaces, bigger paintings should be drawn depicting the benevolent stories narrated in the Āgamas, Vedas and Purāṇas. These pictures should be painted in a range of beautiful colours, applying them neither too much nor too little, to meet the requirements of forms, sentiments (*rasas*), moods (*bhāvas*) and actions; and these would be variously rewarding for the patron and the painter. Apart from these, the inauspicious painting, which produces bad effects, should neither be painted nor caused to be painted if one desires happiness in both the worlds.

Indian traditional painting is narrative in its character and the stories depicted in painting are found in literature (Āgamas, Vedas, Purāṇas). This tendency was taken for granted by many writers of the *citrasūtras*. With the *Śilparatna*, we find

the only instance in which this important aspect of painting is clearly explained. Bhattacharya takes the opportunity to reiterate that Kerala painters were literally following the rules of the text, forgetting that this feature is shared by all Indian traditional painting. Bhattacharya comments that:

> It has already been noted that the themes depicted by the Kerala painters were usually the stories narrated in the Agamic and Puranic literature; and this fully agrees with the injunction of the *Citralakṣaṇa*, according to which the stories recorded in the Āgamas and Vedas and the Purāṇas should be represented in painting. They also followed the axiom of the text that in painting 'all objects, movable or immovable, found in the three worlds', should be depicted in their respective nature. Besides, the suggestion given at the outset by the composer of the text, that all the palaces, religious as well as secular, and gate-ways (*gopurams*) should be decorated with paintings, appears to have been fully accepted by the builders of the age...Hence, it is clear that principles of painting laid down in the *Citralakṣaṇa* are the reflections of usual practices of the contemporary Kerala artists.
>
> (1974, pp. 27–28)

Chapter 71 of *Nārada Śilpa Śāstra*[11] introduces another explanation of *citra*. According to Nārada, pictures are to be such as to captivate our minds and give joy to our eyes. They must be of several colours and brilliant. Ornaments must be gilded and set with gems.[12] The picture in general should be auspicious and with lovely forms (Raghavan 1935, p. 19). Nārada says that painting is for the pleasure of gods, for the satisfaction of the presiding deity of the building and also for beauty. Painting is divided into three kinds on the basis of where it is done: on the floor, the wall and the ceiling. These various kinds of painting should be made in abundance on various surfaces in accordance with general measurements, in even-lines and in conformity to the rules regarding pose-lines. Depending on the different places, painting should depict various subjects, animals, *devas*, *gandharvas*, *yakṣas*, *kinnaras*, *vidyādharas* and men (71.17–18 in Raghavan 1935, pp. 24–25).

The painter

Another important element of painting introduced by the *citrasūtras* is the figure of the painter himself with his characteristics. His role is described by the texts very briefly, which has permitted some scholars to speculate on this important and active figure. The painter is not described in great detail; there is no one chapter dedicated to him in the *citrasūtras*; however, it is possible to construct an idea of his figure from various verses and sections of the texts.

The *Viṣṇudharmottara Purāṇa* (III.43.27–29) says that an expert painter is one who is able to paint neck, hands, feet and ears unadorned. He should be able to

paint the distinction between the apparent depth and projection and between a person sleeping full of consciousness and a dead person devoid of vitality. An expert should also be able to paint waves, flames, smoke, flags and garments with the speed of the wind.[13]

According to the *Citralakṣaṇa* of Nagnajit (I.375–431), an expert in the art of painting is one who has the knowledge of the nature of measurements and the characteristic attributes, the proportion and forms and ornaments and beauties. An expert is one who can capture the likeness of men and sages, represent cheerful persons and scenes which are difficult and require concentrated attention. A good painter is one who can paint according to the rules the various types of sages, *nāgas*, *yakṣas*, *rākṣasas*, *pretas*, *asuras* and *piśācas*.

The *Śilparatna* (I.46.37b–39), states that a painter should paint gods, men, animals, reptiles, birds, trees, creepers, mountains and seas, ascertaining their forms either by hearing or by seeing or just by imagining them,[14] and that he should draw them in crayon at an auspicious moment, remembering them again and again, seated at ease and possessing a resolute mind.

According to the *Śivatattva Ratnākara*[15] (VI.2.7–9 in Krishnamurthi 1995, p. 172), a painter or *citraka* should paint pictures and portraits on flawless walls. He should be efficient, well-versed in technique, proficient in drawing minute sketches, clever in measuring, skilful in drawing pictures, competent in applying colours and ready to put effort into mixing them.

The *Abhilaṣitārthacintāmaṇi* (II.3.139–140) says that as a painting is the source of various *rasas*, it should be painted by a painter having sentiment and having a taste for the beautiful or poetical. He should be a skilful and knowing man, proficient in drawing fine lines, skilled in glittering compositions, experienced in drawing on leaf and skilled in filling sketches with colours.

The *Mānasāra*,[16] on the other hand, places the painter as part of a hierarchy of craftsmen, deriving from a divine descent. The *text* (2.11–12, 17–20) refers to the origin of the divine architects Viśvakarman, Maya, Tvaṣṭṛ and Manu from the four faces of Brahmā and further elucidates that the sons of these architects were respectively *sthapati*, *sūtragrāhin*, *vardhaki* and *takṣaka*. As regards the area of their activity, proficiency in painting was regarded essential for *vardhaki*, in draughtsmanship for *sūtragrāhin* and in carpentry for *takṣaka*. The same text accords to *sthapati* a rank of 'the director general' and 'consulting architect', and to *sūtragrāhin*, a status of supervisor over *vardhaki* and *takṣaka*. These injunctions to some extent clarify the roles and relationship of different types of artisans in the scheme of art activity in the past. The *Mānasāra* does not mention the word *citrakāra* to indicate a painter, but according to the duty of the painter he is called either *vardhaki* or *sūtragrāhin*. According to Misra (1975, p. 52), the treatises on iconography, as well as other texts, clearly indicate that the title *citrakāra* was synonymous with sculptor. This emphasizes once more the double meaning of *citra* as referring to both painting and sculpture.

It is quite possible to develop a clear idea about the conceptualization of the painter and his role, therefore, from the texts. He is described in a realistic

way that accords to him a certain degree of independence. This point is overlooked by some scholars while attempting to prove that Indian art is transcendental, and in turn add words like meditation, *yoga* and contemplation in their interpretations of the texts. Sivaramamurti (1978), for example, in his introduction to the *Viṣṇudharmottara Purāṇa* describes the painter as someone absorbed in meditation:

> The painter in India is almost like a *yogī* lost in his art. In fact, for painting or preparing sculptural forms of deities, he had to reverently muse and visualize *dhyānaślokas*, sit in a holy attitude of peace facing east and produce the picture with great devotion.
>
> (p. 2)

A similar approach can be found in Dubey's comment on the *Aparājitapṛcchā*. Bhuvanadeva, the writer of the *Aparājitapṛcchā*, observes that the process of painting presupposes the identification of the painter with the visible animate and inanimate world (ApaPr 224.18). Dubey however argues that:

> the act of painter or artist is the act of a seer or a *yogi* who identifies subjects with the object. This art is contemplative or meditative. As G.C. Pande says, in a state of contemplation and absorption the artist spontaneously expresses the idea in its intuitive immediacy or imponderable vividness. The imaginative content is referred not to the real world but to that of ideal essences. The representational character of form in painting is more or less idealized to correspond to some mental idea or impression. The painter does not draw from nature but from within.
>
> (1987, p. 408)

Sivaramamurti and Dubey therefore take advantage of a textual source to prove their ideas that the painter was a *yogi*. However, this position is not supported by the aforementioned textual evidence. The traditional painter in ancient and

Table 2.1 Classification of painting

Texts	Classifications
Viṣṇudharmottara Purāṇa	*satya, vaiṇika/vaiśika/daiśika, nāgara, miśra*
Mānasollasā and Abhilaṣitārthacintāmaṇi	*viddha, aviddha, bhāvacitra, rasacitra, dhūlicitra*
Śilparatna	*rasacitra, dhūlicitra*
Aparājitapṛcchā	*nāgara, drāviḍa, vyāntara, vesara, Kaliṅga, yāmuna*
Nārada Śilpa Śāstra	*bhauma, kuḍyaka, ūrdhvaka*

contemporary India is a craftsman who knows the technique of painting through a master, but who, as the *Śilparatna* suggests, needs to use his own mind (*manas*) to create his works. He is supposed to know and apply in an imaginative, aesthetic and scientific way the rules of measurement and proportion, so as to create auspicious paintings. The texts therefore do permit the painter to apply his own experience and worldview.

Classifications

Some of the *citrasūtras* seek to divide painting into classes according to their characteristics. The classification of painting according to the texts analysed is summarized in Table 2.1.

The *Viṣṇudharmottara Purāṇa* (III.41.1–5) explains that a painting is said to be of four types: *satya*, *vaiṇika* (*vaiśika*[17] or *daiśika*[18]), *nāgara*, and *miśra*. Whichever painting bears a similarity with the world is called *satya*. That which has elongated figures, is large in size, delicate, well-adorned, regular, completely filled, in which the figures are firm and plump and is rich in the use of the perpendiculars for proportion and postures, is called *vaiṇika* (*vaiśika* or *daiśika*). Paintings in which the whole body of the figures is firmly developed, in which shading is employed, and which have few garlands and ornaments, are called *nāgara* paintings. A *miśra* painting is known to be a combination of all the three types.

It is difficult to comprehend fully the styles of painting delineated above and to classify painting according to these types. Difficulties also arise in understanding the writer precisely when *miśra* paintings are mentioned, since these contain a combination of characteristics from the other three types. The root of such difficulties lies in the culture-specific origin and development of this classification. As a result, many scholars tend to suggest their own interpretation of this classificatory system adding freely inappropriate ideas like the frame for painting or the distinction between sacred and profane painting. Another approach is that of Sivaramamurti (1978) who thinks to explain the types by a mere juxtaposition of verses with extant sculptures, as can be seen in Figures 2.2, 2.3 and 2.4, without actually engaging in a clear explanation of how he thinks textual evidence informed practice.

Kramrisch (1924) explains the classification of the *Viṣṇudharmottara Purāṇa* adding the particulars of the frame that are not present in the text. Her improbable translation of *vaiṇika* as 'lyrical' is an idea shared with Coomaraswamy (1929). Kramrisch says:

> The paintings were executed in various types, wall-painting, pictures on board and on canvas were equally frequent...If framed they were of oblong, square and round shape and the Vishṇudharmottaram accordingly distinguishes 4 types of pictures: (1) satyam, ...true, we may say realistic,

in an oblong frame, (2) vaiṇikam, . . . which may mean lyrical, in square frame, and (3) nāgaram, . . . of the citizen, genre-pictures in round frames, while the fourth type simply is miśram, . . . mixed.

(1924, p. 6)

Coomaraswamy also has his own interpretation of the classification, arguing that *satya* means 'pure' or 'spiritual', *vaiṇika* 'lyrical' and *nāgara* 'urban' or 'secular'. These translations with their interpretation, however, must be seen as speculations as they are not based on any substantive evidence from the *Viṣṇudharmottara Purāṇa*. The idea that in *nāgara* painting, 'the ideal of proportion is not required', implies that Coomaraswamy misunderstood the spirit of the *citrasūtras*, as the concept of proportion is central to the Indian theory of painting. His position is justified as follows:

The 'pure' and 'lyrical' kinds are both regulated by the rules of pramāṇa, but in the first case a longer limbed, i.e. superior type is specified. In the pure style the figures are to be nobly posed, whereas in 'lyrical' painting all sort of poses are to be seen. The fact that the subject may pertain to 'any sphere' shows that figures of deities are implied. All these considerations indicate that satya must be understood in the sense of sāttvika, 'pure' or 'sacred' (as distinguished from 'profane') and has nothing to do with truth in the sense of verisimilitude . . . Accordingly, the subject of 'lyrical' and 'urban' painting are of this world only . . . It can hardly be doubted, then, that 'lyrical' is emotional narrative painting, and the term would apply especially to illustrations of the Epics . . . In 'urban' painting, ideal of proportion is not required. It is hard to see exactly the point of 'adorned with very few garlands', perhaps this means *en deshabille*. The ultimate meaning of nāgara is here, indeed 'erotic', having to do with love and pleasure, the term nāgara, literally 'urban', has often the sense of elegant, *de bon ton*, smart, etc.

(1929, pp. 25–26)

Priyabala Shah has given an entirely different interpretation of the terms *nāgara* and *vaiṇika* (Sivaramamurti 1978, p. 68). She argues that, given the analogy of the divisions of styles in architecture as *nāgara*, *drāviḍa* and *vesara*, these have a geographical basis and represent different styles from particular regions. She identifies *nāgara* as a northern variety with special reference to Mathura as the greatest art centre in the north. Similarly, she derives *vaiṇika* from Veṇā after the river Krishnavena in south India. However, the classification of the *Viṣṇudharmottara Purāṇa* is based on the characteristics of figures rather than necessarily any place; it is therefore improbable, on the basis of such evidence, to locate paintings geographically.

Figure 2.2 Representation of *satya* type (Sivaramamurti 1978, fig. 58).

Figure 2.3 Representation of *vaiṇika* type (Sivaramamurti 1978, fig. 59).

Figure 2.4 Representation of *nāgara* type (Sivaramamurti 1978, fig. 60).

According to Dave (1991, pp. 427–429), the *satya* type constitutes a general category which encompasses any painting that bears a resemblance with the world. *Vaiśika* (or *daiśika*) and *nāgara* function more as subtypes and represent a further classification of the *satya* on the basis of the degree of naturalism involved. According to Dave the existence of *miśra* painting as the fourth type which resulted from a combination of the three types points to an absence of a rigid differentiation between the styles.

The classification of the *Viṣṇudharmottara Purāṇa* thus remains difficult to explain and understand. Kramrisch, Coomaraswamy and Shah were of little help in this respect, while only the later editions of Dave (1991 and 2001) seek to clarify this interesting classification. Although in Dave's editions many of the linguistic problems are solved with the discovery of new manuscripts, it remains difficult to apply the above mentioned typologies to paintings. Also Sanskrit etymology does not help much in the reconstruction of a valid meaning of the words. This leads Raghavan to take a dismissive approach to classification:

> My impression on reading the *Viṣṇudharmottara* is that even to its author the exact import of these names was not clear. The text seems to have been written after a cut in the flow of tradition of the artists who were using these words as Paribhāṣās.
>
> (1933, p. 905)

In spite of this we can consider the verses as a way of appreciating different types or styles of painting in ancient India.

In the *Mānasollasā* and *Abhilaṣitārthacintāmaṇi*, the classificatory system is similarly complex and poses problems for our understanding. According to these texts, the exact copy of an object as we find in a reflection is named as *viddha* while mere resemblance is called *aviddha*. A picture that expresses the *rasas* as *śṛṅgāra* is called *bhāvacitra*. The one with bright powdered colours is named *dhūlicitra* and the one made with fluid colours is called *rasacitra* (Man III.1.900–904 and AbhCint III.939a–940b). The term *rasa* here conveys two different meanings. When it is associated with *bhāvacitra* it means sentiment (AbhCint III.941b–942a). When it is used in the compound *rasacitra*, the word *rasa* means fluid solution; this kind of painting is associated with *dhūlicitra*, a painting in which powdered colours are used (AbhCint III.942b–943a). These two types are said to be temporary painting (AbhCint III.944a).

Although the text does not further explain the classification, Misra attempts to clarify the *viddha* and *aviddha* types as follows:

> The viddha type of pictures is the exact copy of an object. It is a realistic portrait like the reflection of an object in a mirror. It appears to be the satya type of painting of Viṣṇnudharmottaram . . . The aviddha type of a picture depends on mere resemblance. It is like a sketch drawn by memory by an artist. It gives only a few lines which are sufficient to

indicate the similarity of an object. Thus the viddha and aviddha types
of pictures mentioned by Someśvara go side by side.

(1982, pp. 112–113)

Expressions like 'a sketch drawn by memory' or the use of 'a few lines' to paint
an object refer to Misra's own speculation and are not substantiated by any
evidence from the texts. These very same ideas are also expressed by Raghavan
(1933, pp. 905–907).

Types that do find proof in actual painting, however, are *dhūlicitra* and *rasacitra*.
Their identification is easier because they are explained on the basis of their tech-
nique and not on vague aesthetic characteristics. Raghavan (1933, pp. 905–907)
says that *dhūlicitra* is the Tamil *kolam* painting[19] which is drawn with white flour
on the floor of houses. Steinmann says that *kolams* are drawn either with white (in
rare cases coloured) stone powder or rice flour, or powder of quartz stone or chalk,
which is slowly trickled from the fingers of women. Also in the classification of
the *Śilparatna* there is the *dhūlicitra* type, and Nārada in the *Nārada Śilpa Śāstra*
calls this type of picture *bhauma* or 'drawn on the floor'.

The other type of painting mentioned by Someśvara with *dhūlicitra* is *rasacitra*
or a picture drawn by coloured solution. The difference between the *dhūlicitra* and
rasacitra lies in their technique. Steinman (in Dallapiccola 1989, p. 481) relates
the existence of this kind of folk art explaining that sometimes the *kolam* is drawn
with liquid paste made of powder and water. This kind of *kolam* is traced with the
help of an old piece of cloth or a sponge which is dipped into a reddish brown
paste made from red top soil.

The description made in the *Śilparatna* says that there are two types of painting,
one is *dhūlicitra* and the other is *rasacitra*. It defines *dhūlicitra* as a temporary
(*kṣaṇika*) painting drawn on the ground after having separately powdered all the
pigments, similarly to the *kolam* previously explained. The text explains that a
rasacitra shows the resemblance of a figure as truly as the reflection in the mirror,
and at the sight of which one would at once experience amorous (*śṛṅgāra*) and
other sentiments (*rasas*). This type of painting, which captures eyes and minds of
all viewers, should be performed along with characteristic qualities on the wall
surfaces of palaces and other establishments (SR 46.145–148b). *Rasacitra* of the
Śilparatna is therefore similar to *bhāvacitra* the *Mānasollasā*. This means that the
two south Indian texts might have drawn on common sources or, as Raghavan
(1933) suggests, Śrī Kumāra has borrowed ideas from Someśvara.

The *Aparājitapṛcchā* refers to six types of painting termed *nāgara*, *drāviḍa*,
vyantara, *vesara*, *kāliṅga* and *yāmuna*. *Nāgara* originated in the east, *drāviḍa*
in Karnāṭa, *vyantara* in the west, *vesara* in the north, *kāliṅga* in Kaliṅga and
yāmuna in all the regions (ApaPr 229.1–2). These types of painting are associated
with colours and castes: *nāgara* has white colour and is associated with
brahman, *drāviḍa* is associated with red and *kṣatriya*, *vyantara* is associated
with yellow and *vaiśya*, *vesara* is associated with green and *vaiśya*, *kāliṅga* is
associated with green and mixed caste, and *yāmuna* with all the colours and all the

castes (ApaPr 229.3–4, see also Dubey 1987, p. 416). The *Aparājitapṛcchā* offers a different classification according to the region of provenance. However it is difficult to label painting according to its typologies. The *yāmuna* type (lit. related to the Yamuna River) for example does not derive from the Yamuna region but from 'all the regions'. There is, however, no painting style that is produced with the same characteristics over all the regions in India. This classification could be purely symbolic, as we see for example in the case of the association of painting with the caste system. There is also the association of different colours with the various types of painting. This does not mean that each type of painting had a predominant colour. Colours have a symbolic value, as seen in the theory of *rasa* where each *rasa* is also associated with a distinctive colour (see Chapter 8).

The *Nārada Śilpa Śāstra* (Raghavan, 1935) offers a different division of painting, and according to the place where it is made there is a different theme. As mentioned previously, painting is divided into three kinds: of the floor (*bhauma*) of the wall (*kuḍyaka*) and of the ceiling (*ūrdhvaka*, lit. raised, lifted up). In the case of *citra* of the floor, divine Nārada says that painting should be made on the doorstep, in front of the house, in the veranda, in the courtyard, in halls of various shapes, in bed-chambers, in the centre of any place or in the dining halls. They should be of square design, or with lines inside of a square, of the forms of various birds, in designs of elephants, horses and serpents facing each other, and with a combination of various objects or of various materials. In the case of *citra* of the walls, the gods wish the following to be drawn: *devas*, *gandharvas*, *yakṣas*, great sages and great kings hunting or engaged in other activities; and, in the courts and storeys, at the neck of pillars, the fillets below them and in the buildings of one or more storeys, the forms of brave warriors in action, showing their strength or engaged in taming wild beasts (71.9–14 in Raghavan 1935, p. 24).

Conclusions

This discussion has raised a number of issues and points that can be summarily integrated by way of conclusion. First, it has demonstrated that while each text expresses different ideas about painting or *citra*, they all share some basic notions, which are constantly reiterated and which appear to suggest a relatively unified theoretical foundation of Indian painting. In particular, the notion of a divine origin of painting is widely shared among these various texts, especially the earlier ones, which narrate this through two main myths. Although later texts do not narrate any such myths, they recognize the undisputed authority of Viśvakarman, the divine architect of the universe, mentioned often along with other sages. While accepting the role of Viśvakarman, texts like the *Citralakṣaṇa* and the *Bṛhat Saṃhitā* (58.4) refer to another authority, namely Nagnajit, who is supposed to have created the first painting on earth and mastered the theory of proper measurements and proportions from Viśvakarman himself. However, the mythological figure of Nagnajit only appears in early texts, whereas the figure of Viśvakarman is not only narrated in the texts but his image is venerated in

temples, and prints of this god can be seen today on the walls of traditional painters' studios, especially in Rajasthan (Figure 2.1).

The second conclusion that can be drawn from this discussion is that of the link between painting and other arts. This is emphasized by one of the passages of the *Viṣṇudharmottara Purāṇa* (III.2.1–9), which points to the correlation of the arts. This section clearly suggests that painting cannot be understood without a wider perspective of appreciating the arts of dancing, music and singing. The essence of this instruction is taken as a model in this study, in which texts of other disciplines, like for example the *Nāṭya Śāstra*, are examined in order to understand some of the concepts of the *citrasūtras*.

Another key point demonstrated in this chapter is that the term *citra* refers to a wide variety of meanings. Apart from its more common connotation of painting, the most relevant of its meanings appears to be that of *citra* as a 'mental image'. The concept of a mental image is used in the texts to explain the theory, as following chapters will reveal in depth.

Closely linked to the divine notion of the arts is that of the auspiciousness attached to painting in the *citrasūtras*. Each text explains the auspicious characteristics of painting in different ways, but they stress common notions such as those of measurement, proportion, beauty and colours, which are examined in depth in the following chapters. It is generally emphasized that the degree to which a painting can be considered auspicious or inauspicious depends upon the capacity of a painter to grasp and use all these notions together.

Another point demonstrated in this chapter is that the painter is considered by the texts as someone capable of using all the notions of the *citrasūtras*. He is someone who can integrate and interweave the textual notions with his own ideas and skill to create a painting. However, according to my fieldwork, this textual and theoretical position remains difficult to demonstrate. Present day practitioners do not support this view, claming that they do not need texts to perform their arts. They also stress that the technique they use has been taught by their fathers and handed down by their ancestors. In spite of this, a comparison between texts and practice will demonstrate in the next chapters that these two realities share common grounds and notions and that texts do not contain strict rules but rather suggestions, possibilities or a way of reasoning. Textual and practical views on the painter do not reflect the ideas shared by scholars like Sivaramamurti and Dube, who attribute to the painter the status of a *yogī*. This view appears quite frequently in secondary literature, but it is supported neither by texts nor by practice.

Finally, the analysis of the various approaches to classifying painting into types further suggests that texts are about ideas more than rules. Every text enumerates different typologies of painting. Sometimes these classificatory notions are recognizable in paintings as *dhūlicitra*, but the majority of times the various types of painting remain subject to interpretation. They are thus difficult to apply as a standard of critique for paintings.

3

SYSTEMS OF MEASUREMENT AND PROPORTION

This chapter presents two fundamental concepts of Indian painting: measurement and proportion. Measurement and proportion or *māna* and *pramāṇa* are the essential principles of form. They are introduced with their peculiar terminology which constitutes the basis for reading and understanding the *citrasūtras*. This chapter analyses the absolute and relative systems of measurement, it describes different types of *aṅgula* measurement and explains the various measurements that can be taken along the body of an image. The system of proportion expounded in this chapter includes physiognomy and the iconometric system. The role of physiognomy is analysed in accordance with the *Viṣṇudharmottara Purāṇa* and *Citralakṣaṇa* of Nagnajit, and relying on two other texts: the *Bṛhat Saṃhitā* (chapters 68–69) and *Sārāvalī*,[1] whose views seem to share a common ground with the *citrasūtras*. Iconometry is expounded according to the views expressed in the *Viṣṇudharmottara Purāṇa* and *Citralakṣaṇa* of Nagnajit, and it is widened with the help of other important texts like the *Bṛhat Saṃhitā*, *Matsya Purāṇa*,[2] *Pratimāmānalakṣaṇa*[3] and *Śilparatnakośa*.[4]

The absolute and relative systems of measurement

In Indian art, measurement and proportion are indispensable for strength and beauty, and measurement is considered the soul of all arts and crafts. An important authority on measurement is Viśvakarman (Figure 2.1) who, in the *Citralakṣaṇa* of Nagnajit (III.528–539), explains that measurements are applicable to kings, human and celestial beings.

According to Haridas Mitra (1951, pp. 19–20) the Indian *vāstu* and *śilpa śāstras* recognize two standards of measurement: the absolute and the relative systems. In the absolute standard, the smallest unit of measurement is the almost microscopic particle of dust observable in the solar rays or atom. This measurement is named in different ways according to the texts, like for example *trasareṇu*, *paramāṇu* or *chāyāṇu*. Other measurements of the absolute system are the particle of dust called *raja* or *reṇu*, the tip of hair called *bālāgra*, *vālāgra* or *keśāgra*, the nit called *likṣa* or *likhya*, the louse or *yūkā*, the barley corn or *yava* and the

highest unit of this system is the digit or *aṅgula* which corresponds to the width of the middle finger. They have a relation of 1 to 8 as follows:[5]

8 *paramāṇus* make 1 *reṇu*[6]
8 *reṇus* make 1 *bālāgra*
8 *bālāgras* make 1 *likṣa*
8 *likṣas* make 1 *yūkā*
8 *yūkās* make 1 *yava*
8 *yavas* make 1 *aṅgula.*

These measurements are found in the texts used in this study. However, Dagens (in Baumer 1992, p. 145) states that this system continues and allows to measure the size of everything with appropriate units, from the infinitesimal *paramāṇu* to the whole universe.

The relative standard, as explained by Haridas Mitra (1951, pp. 19–20), is constituted by the working measurements for making images in sculpture or painting. They include the measurements used in the *citrasūtras* to explain the proportions of images. In this system, the *tāla*[7] measurement, also called *mukha* or face (Figures 3.1 and 3.2), is the most frequently used, together with the *aṅgula*. Other measurements are the *golaka*, also called *gola* or *kalā*, the *muṣṭi*, the *bhāga* and the *hasta* or cubit.[8] In this system, the barley corn or *yava* measurement is also used as a working unit for fractions of an *aṅgula*. The relationship between these measurements is as follows:

8 *yavas* make 1 *aṅgula*
2 *aṅgulas* make 1 *golaka* or *kalā*
2 *golakas* or *kalās* (4 *aṅgulas*) make 1 *bhāga* or 1 *muṣṭi*
3 *bhāgas* (12 *aṅgulas*) make 1 *tāla* or *mukha*
24 *aṅgulas* make 1 *hasta.*

The *Viṣṇudharmottara Purāṇa* mentions *tāla* and *aṅgula* as the two basic units of measurement. But not all the early texts use the word *tāla*; in the *Bṛhat Saṃhitā*
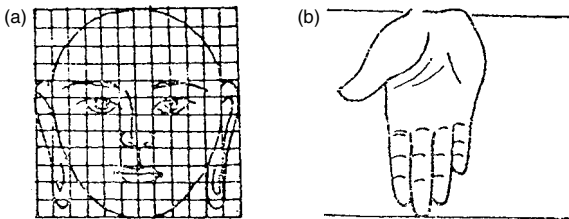
Figure 3.1 Tāla and *mukha* of 12 *aṅgulas* (Banerjea 1941, plate VI): (a) length as well as breadth of the face = 1 tala (12 aṅ.); (b) length of the hand = 1 tala (12 aṅ.), middle digit of the medius = 1aṅ.
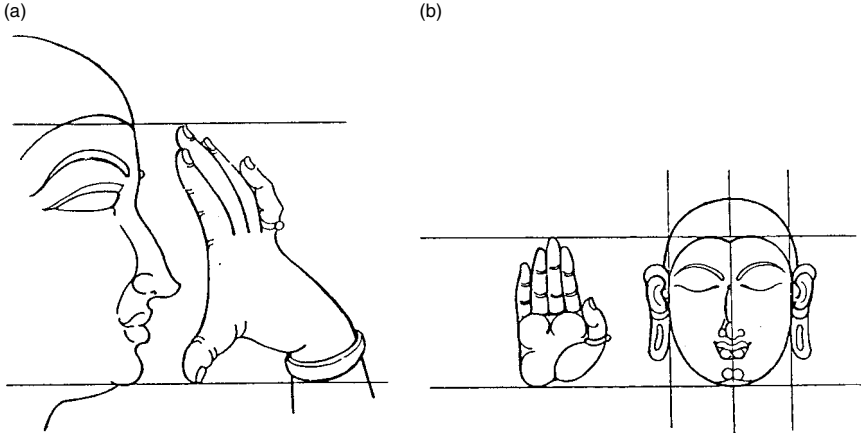
Figure 3.2 Tāla and *mukha* (Sthapati 2002, p. 282): (a) length of face; (b) corresponding length of face and hand.

and *Citralakṣaṇa* of Nagnajit, for example, the term *tāla* was not employed but what is important is that the concept of a palm length as module for computing parts of the body was implicit (Dave 1991, pp. 349, 362).

The digit or *aṅgula* measurement

The *aṅgula* is the basic unit prescribed to calculate the measurements of images. Banerjea (1941, p. 347) explains that the term *aṅgula* served as a unit of measurement in India from very early times. The term is used in the *Ṛg Veda* (X.90), in the *Śatapatha Brāhmaṇa* (X.2.1–2) in which Prajāpati measures the fire altar by *aṅgulas*, and in the *Śulbasūtras* which contain the rules for construction of raised altars (*vedīs* and *agnis*). Dave (1991, p. 349) states that according to the *Kapiñjala Saṃhitā* (10.58–60) an *aṅgula* is classified into three types: (1) *mānāṅgula*, (2) *mātrāṅgula* and (3) *dehāṅgula*.

Mānāṅgula is a unit comprising of 8 barley grains or *yavas*. This measurement corresponds to the breadth (not to the length) of the middle phalanx of one's middle finger. This 'personal' unit multiplied by twelve would correspond to the length of the palm of the hand. It is also suggested that this unit will work very well as a mental measurement while reading the texts on proportion. It is believed that the use of a 'personal' *aṅgula* is the most appropriate way to read the texts, and by keeping it in mind one will also be able to measure for oneself the suggested dimensions.

The *mātrāṅgula* is determined by the length of the middle phalanx of the patron's right hand and is employed for the construction of images or sacrificial altars. According to Marasinghe (1991, p. xxiii) the *mātrāṅgula* is the kind of

linear measure taken to be the length of the middle link of the middle finger of the artisan or of the patron that directs a monastery to be built or an image to be installed. This means that this measurement is a fixed unit determined before the realization of any work and is considered auspicious.

Dehāṅgula[9] is the *aṅgula* of the image itself which means that it is derived from the total height of the image to be fashioned. The *dehāṅgula* is used for the construction of images and is essentially a relative unit, given that it is the height of an image which determines the length of the *dehāṅgula*. The height of an image depends upon the given dimension of the material and the number of *aṅgulas* and *tālas* (see Chapter 4) in which the image is to be fashioned.[10] Utpala (tenth century), who commented on Varāhamihira's works (Bhat 1981, p. 550), explains the *dehāṅgula* as follows: 'divide the total length of the stone or wooden piece, which will cover the entire height of the idol from head to foot, into 108 equal parts. One of the parts would then be its own *aṅgula* or digit.' It is interesting to note that Utpala, did not take into consideration images having a different length from the one prescribed in the *Bṛhat Saṃhitā* of 108 *aṅgulas*. This probably means that he was not acquainted with the Tālamāna system.[11]

The six types of measurement

According to the *Mānasāra* (LV.1–9), there are six types of measurement (*māna*) to be taken along the body of an image. The text enumerates these measurements as follows:

1 *māna* or measurement of the length of the body;
2 *pramāṇa* or measurement of its breadth;
3 *unmāna* or measurement of thickness;
4 *parimāṇa* or measurement of girth;
5 *upamāna* or measurement of inter-spaces;
6 *lambamāna* or measurement taken along the plumb-lines or *sūtras*.

Māna refers to the vertical measurements such as the distance from the hair-limit to the eye-line, from that point to the tip of the nose, the length of the arms and of the legs and so on. *Pramāṇa* is the horizontal measurement or breadth such as the distance between the two shoulders, the width of the body at the chest level, the width of the belly or the width of the arm or of the thigh. *Unmāna* is the measurement of the elevation or thickness, such as the height of the breasts or of the nose. *Parimāṇa* is for instance the girth of the arm or of the thigh. *Upamāna* is the measurement of the inter-spaces, that is the width of the navel, the interval between the two thighs or the two big toes. These measurements, together with *lambamāna* explained in Chapter 4, constitute the six kinds of iconometric measurements as applied to standing, seated and reclining images (see also Marasinghe 1994, p. xiv). However it is difficult to find a text that uses all six of

them. The *Śivatattva Ratnākara*, for example, enumerates only three types: length, breadth and depth (Krishnamurthi 1995, p. 177). The *Śilparatna* explains the *lambamāna*, and in the *Viṣṇudharmottara Purāṇa* and the *Citralakṣaṇa* of Nagnajit all the measurements except the *lambamāna* are employed.

The five types of men or *pañca-puruṣas*

The *Viṣṇudharmottara Purāṇa*, the *Citralakṣaṇa* of Nagnajit and the *Samarāṅgaṇa Sūtradhāra* explain the theory of proportion taking as examples five stereotypes of men or *pañca-puruṣas*. More properly these texts explain very carefully the most important stereotype called *haṃsa* or *cakravartin*, and from him we are invited to derive or calculate the proportions of the other four types. The *Citralakṣaṇa* of Nagnajit (III.1077–1141) clearly states that following the method of measurement of the *cakravartin*, diminution should be introduced for other classes of people. The names of the five types of men are *haṃsa*, *bhadra*, *mālavya*, *rucaka* and *śaśaka* or *śaśa* (ViDha III.36 and SamSut 81). The *Citralakṣaṇa* of Nagnajit gives different names for them: *cakravartin*, *sādhu*, *mālava*, *vyañjana* and *giridhara* (NagCitLak III.1077–1141).

The *Viṣṇudharmottara Purāṇa*, *Citralakṣaṇa* of Nagnajit and *Samarāṅgaṇa Sūtradhāra* list the measurements of length of the five men in *aṅgulas*. The *Viṣṇudharmottara Purāṇa* (III.35.9–11) states that the height of the *haṃsa* type is 108 *aṅgulas* according to the measurement of his own finger, *bhadra* is 106 *aṅgulas*, *mālavya* is 104 *aṅgulas*, *rucaka* is 100 *aṅgulas* and *śaśaka* is 90 *aṅgulas*. The *Citralakṣaṇa* of Nagnajit (III.556–573) differs in the measurement of the *giridhara* or *śaśaka* type which is 98 *aṅgulas* instead of 90, while the *Samarāṅgaṇa Sūtradhāra* (81.3a) is different in the measurement of the *haṃsa* type which is 88 *aṅgulas* instead of 108. Their height measurement is summarized in Table 3.1.

Dave (1991, pp. 339–340) states that the earliest mention of the *pañca-puruṣas* can be traced back to the astrological texts and that the sources specific to the five men found in the *Viṣṇudharmottara Purāṇa* and *Citralakṣaṇa* of Nagnajit are evidently the *Bṛhat Saṃhitā* and the *Sārāvalī* of Kalyāṇavarmam. Both astrological texts have a chapter entitled *pañca-mahā-puruṣa-lakṣaṇa* or 'the characteristics of the five great men' containing a detailed and concise description of the five men.

Table 3.1 Height of the *pañca-puruṣas*

Texts	Haṃsa	Bhadra	Mālavya	Rucaka	Śaśaka
ViDha	108	106	104	100	90
NagCitLak	108	106	104	100	98
SamSut	88	106	104	100	90

The context in which the five men appear in the *Bṛhat Saṃhitā* (68–69) and *Sārāvalī* (37) is vastly different from that of the *Viṣṇudharmottara Purāṇa* and the *Citralakṣaṇa* of Nagnajit. Each of these five personages, according to these astrological texts, were said to be born due to the predominance of a particular planet.[12] In the *Viṣṇudharmottara Purāṇa* and the *Citralakṣaṇa* of Nagnajit, however, the five men play the role of an artistic stereotype for portraying kings, gods, demons and so on. In particular, the division of men into five stereotypes becomes more significant when we read the *Viṣṇudharmottara Purāṇa* (III.38.6; III.42.2–3,9–12,24–25,30–31) in which a list of figures is described together with the proportions to be adopted in their representation. The text explains that gods are to be portrayed in the proportions of a *haṃsa* type; sages, *gandharvas*, *daityas*, *dānavas*, ministers, astrologers, *vidyādharas* and royal priests are to be drawn according to the *bhadra* mode of proportion; *kinnaras*, *nāgas*, *rākṣasas* and household women are to be portrayed in *mālavya* proportion; *yakṣas*, courtesans and *vaiśyas* in *rucaka* proportion; the *śudras* are in *śaśaka* proportions and *piśācas*, dwarfs, hunchbacks and *pramathas* are to be represented regardless of proportions and colours.

Dave (1991, p. 344) explains the relevance of the astrological texts in the study of the *citrasūtras* arguing that the ancient art theorists found in the personification of planets and the traits that astrologers associated with individuals born under the influence of a particular planet, a starting point for constructing the various artistic types. Therefore, it seems reasonable to interpret the relevant sections describing the five types of men in the *Viṣṇudharmottara Purāṇa* against the background provided by the *Bṛhat Saṃhitā* and *Sārāvalī*. Seen against this broader framework, it will become possible to distinguish between the conventions which have a predominantly physiognomic intent and those imbibing a more artistic value. It will appear that many of the prescriptions stated in the *citrasūtras* are more meaningful within a physiognomic context and appear less concerned with the practice of art.

The *Viṣṇudharmottara Purāṇa* (III.36.2) describes the *haṃsa* type as one who has honey-red coloured eyes, is fair like the moon, has arms which resemble the elephant's trunk and is swan-like in gait. He has a beautiful slender waist and is strong and handsome. Similarly, the *Bṛhat Saṃhitā* (69.24) and *Sārāvalī* (37.11–13) describe the *haṃsa* type as one who has a reddish face with fleshy cheeks, raised nose, golden hue and round head. His eyes are like honey in colour and his nails are reddish, his voice is as sweet as that of a swan, he has beautiful feet and clean limbs, he has virile power coming under Jupiter and is fond of sporting in water. Figures 3.3 and 3.4 show an attempt to represent the *haṃsa* type of man. In Figure 3.3 Dave Mukherji (2001) seems more concerned with measurement, while in Figure 3.4 Chatterjee Sastri (1971) seeks to capture the physical features of the *haṃsa* type. Both illustrations show how it is difficult to represent this type according to the injunctions and clearly demonstrate that drawing a figure from a description in a book is a matter of personal interpretation.

Figure 3.3 Haṃsa stereotype (Dave Mukherji 2001, diagram III).

Figure 3.4 Haṃsa stereotype (Chatterjee Sastri 1971).

According to the *Viṣṇudharmottara Purāṇa* (III.36.3), a *bhadra* type is bushy on his cheeks, his gait is like that of an elephant and he is noble minded. He has rounded and heavy arms, and his hands and feet resemble a lotus. Similarly, the *Bṛhat Saṃhitā* (69.13) states that one who belongs to the *bhadra* type, influenced by Mercury, possesses developed, equal, round and long arms, a height equal to the length of his outstretched arms and temples densely covered with tender and fine hair. The *Sārāvalī* (37.14–18) adds that his face is like a tiger and he has broad chest, long strong hands and a square body. He is sensuous, valorous, learned, endowed with prowess and is conversant with *yoga*. His body emanates a smell akin to earth and sandal paste. He knows the *śāstras* and is independent in all his undertakings.

The *Viṣṇudharmottara Purāṇa* (III.36.4) explains that a *mālavya* type is dark like the green pulse, he has slender waist, beautiful body with long arms reaching the knees, broad shoulders, prominent nose like an elephant's trunk and large jaws. The *Bṛhat Saṃhitā* (69.10) states that a person belonging to the *mālavya* type, influenced by Venus, possesses arms that are long like the elephant's trunk, hands that touch the knees, limbs and joints full of flesh, an even body, attractive and slender waist. His face is 13 digits long and his ear holes are 10 digits apart. He has shining eyes, fine cheeks, equal and white teeth and not a very fleshy lower lip. The *Sārāvalī* (37.3–4) adds that the *mālavya* type has an even physique, thin waist, splendour equal to that of the moon, majestic voice, pleasant odour of the body, piercing sight, even and white teeth.

As the *Viṣṇudharmottara Purāṇa* (III.36.5) says, a *rucaka* type is reddish brown like the autumn, he has a conch-like neck and is highly intelligent, courageous, laborious, strong and endowed with great taste. The *Bṛhat Saṃhitā* (69.27) explains that a person belonging to the *rucaka* type, influenced by Mars, has fine brows and hair, dark and red complexion, conch-like neck and an oblong face. He is heroic, cruel, a leader among men, a minister, the leader of a gang of thieves and hard working. The *Sārāvalī* (37.5–7) adds that he has attractive eyebrows, blue hair, thin shanks and he knows the *mantras*.

According to the *Viṣṇudharmottara Purāṇa* (III.36.6), a *śaśaka* type is dark red or reddish brown in complexion, he has slightly protruding teeth, full cheeks, large eyelids and is clever. The *Bṛhat Saṃhitā* (69.20) explains that a person belonging to the *śaśaka* class, influenced by Saturn, has slightly raised and small teeth, thin nails, large pupils, brisk gait and plump cheeks. He is attached to learning pertaining to minerals and metals and is engaged in trade. He is a leader of armies, fond of sexual pleasures, addicted to others' wives, fickle-minded, heroic, devoted to his mother and a lover of forests, mountains, rivers and fortresses. The *Sārāvalī* (37.8–10) adds that a *śaśaka* type has a small face, weak loins, long body and eyes resembling the lotus.

Many of the characteristics mentioned in the chapters on physiognomy of the *Bṛhat Saṃhitā* and *Sārāvalī* like the elephant or swan, gait or details of the voice, seem to have little relevance in the practice of painting or sculpture, but in fact they play an important role in texts like the *Viṣṇudharmottara Purāṇa* and the

Citralakṣaṇa of Nagnajit. These two texts include physiognomic characteristics in their iconometric sections described in the following paragraphs.

The system of proportion

The theory of proportion explained in the *citrasūtra* is characterized by the use of stereotypes. These are the *haṃsa* type for the *Viṣṇudharmottara Purāṇa* and the *cakravartin* for the *Citralakṣaṇa* of Nagnajit who both share the same height of 108 *aṅgulas*. Similarly, the *Bṛhat Saṃhitā* (58) has a chapter on measurements which takes a single generalized idol whose prescribed length is 108 *aṅgulas*. The same goes for the *Matsya Purāṇa* (ch. 258 in Agrawala 1963, p. 356) and *Pratimāmānalakṣaṇa* (Banerjea, 1941). Therefore, the height of 108 *aṅgulas*, corresponding to the *nava tāla* (Figure 3.5), should be considered as a standard measurement and as the starting point to learn the very complex theory of proportion.

The measurements of length of an image of 108 *aṅgulas* can be summarized, according to the *Matsya Purāṇa* (Agrawala 1963, p. 356), as follows:

Mukha (face) is 12 *aṅgulas*
Grīva (neck) is 4 *aṅgulas*
Hṛdaya (heart) from neck to heart is 12 *aṅgulas*

Figure 3.5 Representation of an image of 108 *aṅgulas* in height corresponding to a *nava tāla* measurement (Banerjea 1941, plate VI).

Nābhi (navel) from heart to navel is 12 *aṅgulas*

Meḍhramūla (root of the penis) from navel to genitals is 12 *aṅgulas*

Ūru (thigh) from pubis to knee is 24 *aṅgulas*

Jānunī (kneecap) is 4 *aṅgulas*

Jaṅgha (leg) from knee to ankle is 24 *aṅgulas*

Pāda (foot) is 4 *aṅgulas*.

Total height is 108 *aṅgulas*.

The measurements of length delineated above provide the base to learn the more complex *tālamāna* system. The next paragraphs analyse in detail the measurements of the body as explained in the various texts trying to highlight their differences. The proportions of the body of a man of 108 *aṅgulas* in height, are explained in the *citrasūtras* using different ways of measurement such as the girth, width, height and depth. The measurements that follow are taken from texts like the *Viṣṇudharmottara Purāṇa*, *Citralakṣaṇa* of Nagnajit, *Bṛhat Saṃhitā*, *Pratimāmānalakṣaṇa* and the *Śilparatnakośa*.

Proportions and characteristics of the face

According to the *Citralakṣaṇa* of Nagnajit (III.619–656), the face should be divided into three parts, forehead, nose and chin, each of which should measure 4 digits or *aṅgulas*. The width of the face is 14 digits and its length is 12 digits. The cranial protuberance (*uṣṇīṣa*) amounts to 4 digits in length and 6 digits in width. The *Viṣṇudharmottara Purāṇa* (III.35–36), *Bṛhat Saṃhitā* and *Pratimāmānalakṣaṇa* have the same measurements. The *Bṛhat Saṃhitā* (58.13) adds that the line of hair should be made equal to the brows, that is 10 digits, and $\frac{1}{2}$ a digit thick.

The *Bṛhat Saṃhitā* (58.14–15) explains that the circumference of the head is 32 digits and its width is 14 digits. In painting (*citrakarma*), however, only 12 digits of the head are visible and the remaining 20 are not visible.[13] The face and hair put together should measure 16 digits in length. According to the *Pratimāmānalakṣaṇa* (v. 12) the head should be shaped as an umbrella. The head like an umbrella is one of the signs of a king according to the chapter on physiognomy of the *Bṛhat Saṃhitā* (68.79).

The *Citralakṣaṇa* of Nagnajit (III.693–704) states that the face of gods and kings should be made squarish in form, sharply delineated, full and endowed with brilliant and pleasing marks. It should not be triangular, sloping, angry or round. For common persons the face should be desirous of composure.

The *Pratimāmānalakṣaṇa* (vv. 7–9) explains that, generally, the face is a *tāla* (12 *aṅgulas*) in length, but it may also have different shapes and measures (Figure 3.6). There is the face shaped like the letter 'va'[14] which is less in length by $1\frac{1}{2}$ *aṅgulas*, the face shaped like a mango which is less by 2 *aṅgulas*, the one shaped like the egg of a bird which is less by $2\frac{1}{2}$ *aṅgulas* and the one like the
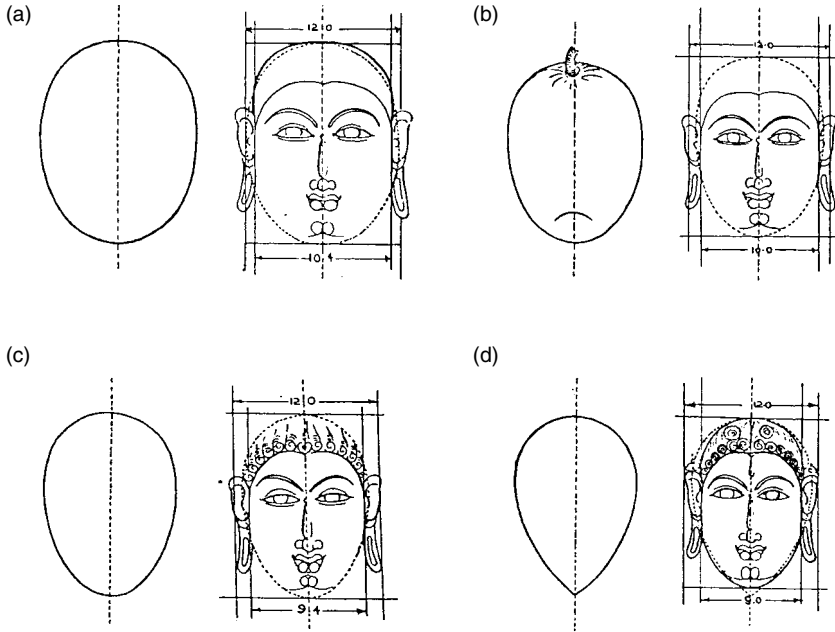
Figure 3.6 Four kinds of faces (Sthapathi 2002, p. 286): (a) face in the shape of the Tamil letter 'Va'; (b) mango-shaped face; (c) egg-shaped face; (d) sesame-shaped face.

sesame seed which is less by 3 *aṅgulas*. The text (v. 10) adds that the face of female figures should be of the sesame seed variety only. According to the *Pratimāmānalakṣaṇa* (vv. 35–36), auspicious types of faces are a little smiling and endowed with all good signs. There is no place for faces which are malicious, passionate, wrathful, sour, bitter or circular.

The *Viṣṇudharmottara Purāṇa* (III.38.4–5) says that the face should be regular, fleshy, benevolent, with auspicious characteristics, neither triangular nor crooked. In the case of gods, oval, round, triangular and deformed faces are strongly ruled out (Figure 3.7).

Also the *pratimālakṣaṇa* section of the *Śilparatnakośa* (vv. 24b–26a in Baumer and Das 1994) has a classification of faces. They are three in number according to their mood. The face like a banyan leaf is peaceful, the face like a *pippala* leaf bestows a meditative mood and the round face is fierce. The text (v. 27) clarifies that in a banyan leaf face the nose should be long, and in a *pippala* leaf face the nose should be sharp.

According to the *Pratimāmānalakṣaṇa* (vv. 27–30), the space between the line of the eyebrow and eye is 1 *golaka* (2 *aṅgulas*). The space between the chin and the root of the ear is 8 *aṅgulas*. Then the chin and the forehead are parallel to the
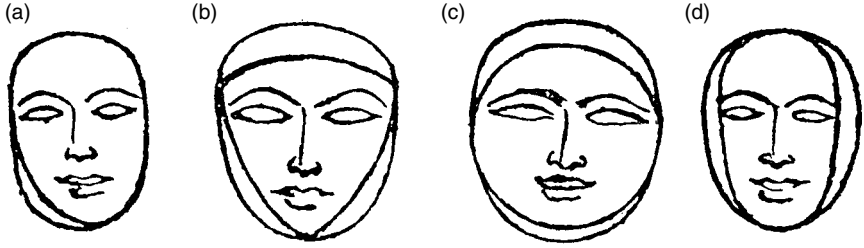
Figure 3.7 Forms of the face to be avoided for the depiction of gods according to the
Viṣṇudharmottara Purāṇa (Sivaramamurti 1978, fig. 64, p. 76) (a) *vakra*;
(b) *trikoṇa*; (c) *maṇḍala*; (d) *dīrgha*.

eyes, and the sides of the mouth should be measured in the same line with the side
of the pupil; the eyebrows and the *karṇasūtra*[15] should also fall in the same line.

The *Viṣṇudharmottara Purāṇa* (III.36.I.3–4) and *Citralakṣaṇa* (III.619–656)
prescribe that the width of the ear is 2 digits and its length is 4 digits. The open-
ing of the ear is $\frac{1}{2}$ a digit in width and 1 digit in length. There are no definite
instructions for the ear lobes.

The *Bṛhat Saṃhitā* (58.7–8) explains that the tip of the ear should be $4\frac{1}{2}$ digits
further off the corner of the eye on a level with the brows. The ear holes and the
raised margin near them (*pippalī*) should lie at the same level as the corner of the
eye and measure 1 digit. The distance between the corner of the eye and the ear
should be 4 digits.

According to the *Bṛhat Saṃhitā* (58.12), the brows measure 10 digits from end to
end, the line of brows is $\frac{1}{2}$ a digit in width, the interval between the brows is 2 digits
and the length of each brow is 4 digits. The *Pratimāmānalakṣaṇa* (vv. 20–23)
gives different measurements saying that a space of $\frac{1}{2}$ an *aṅgula* should be
between the two eyebrows, their length should be 5 *aṅgulas* each and the
unbroken bow shaped line of the eyebrow should measure $\frac{1}{2}$ *yava* in width.

The *Citralakṣaṇa* of Nagnajit (III.574–618) not only gives different measure-
ments, but its version focuses more on the characteristics and shapes of the brows.
This text elucidates that the length of the brows amounts to 4 digits and their
width is 2 barley grains or *yavas*. In the case of benign beings, the brows are like
the crescent moon. The brows of the dancers, the angry-ones and the crying-ones,
are bent like a bow. In the case of terrified and grief-stricken people, the brows
appear as if coming out of the nostrils and cover half of the forehead. The brow
locks (*ūrṇā*) of the *cakravartin*, which are placed between the brows, should be
made of the size of 1 digit. The space from the middle of the brows to the hair
line amounts in width to $2\frac{1}{2}$ digits. From the starting point of the brows to the
expanse of the forehead there are 4 digits.

The *Citralakṣaṇa* of Nagnajit (III.574–618) explains that eye sockets are 2 digits
long and so is the space between the eyes. Their width is 1 digit. The pupils are

one-third of the eye and the eyes should be made in proper relationship to the length of the face. The *Bṛhat Saṃhitā* (58.10–11) states the same measurements of eyes adding that the innermost circle of the pupil is $\frac{2}{5}$ of a digit and that the space between the eyes is 4 digits and not 2. The *Pratimāmānalakṣaṇa* (vv. 20–23) has different measurements for the eyes which should be 2 *aṅgulas* and 2 *yavas* in length. The *Viṣṇudharmottara Purāṇa* (III.36.II.3–4) also prescribes different measurements for the eyes and says that they are an *aṅgula* in width and 3 *aṅgulas* long. The dark pupil is a third part of the eye while the central part of the pupil is one-fifth of the eye.

The *Viṣṇudharmottara Purāṇa* (III.37.9–12) and the *Citralakṣaṇa* of Nagnajit (III.619–656) enjoin that the eyes may have different shapes. They could be bow-shaped (*cāpākāra*) (Figure 3.8), belly-fish like (*matsyodara*) (Figure 3.9), like the petal of the blue lotus (*utpalapatrābha*) (Figure 3.10), like the petal of the lotus (*padmapatranibha*) (Figure 3.11) or like the cowrie shell (*vaṭākṛti*) (Figure 3.12).

Figure 3.8 Eye shaped like a bow (Sivaramamurti, 1978, fig. 46, p. 52).
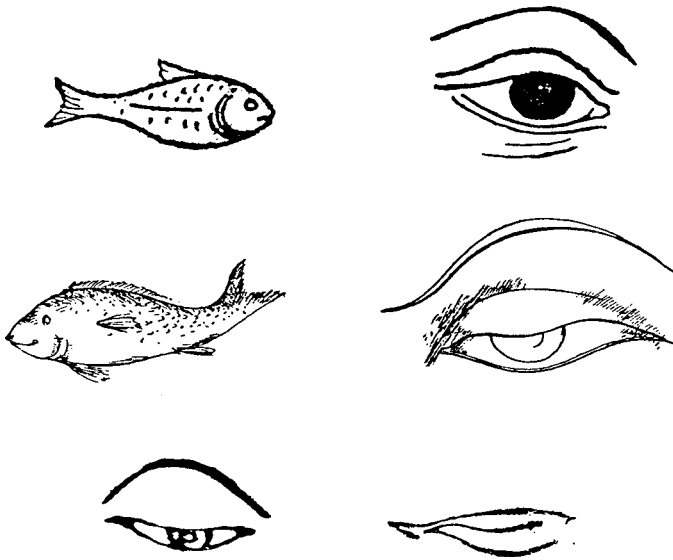
Figure 3.9 Eye shaped like a fish (Dvivedi and Dube 1999, p. 24; Sthapati 2002, p. 287; Sivaramamurti 1978, fig. 46, p. 52).

Figure 3.10 Eye shaped like a petal of the blue lotus *utpala* (Dvivedi and Dube 1999, p. 24 and Sivaramamurti 1978, fig. 46, p. 52).

Figure 3.11 Eye shaped like a petal of the lotus *padma* (Dvivedi and Dube 1999, p. 24; Sthapati 2002, p. 287; Sivaramamurti 1978, fig. 46, p. 52).

Figure 3.12 Eye shaped like a shell (Sivaramamurti 1978, fig. 46, p. 52).

The width of the eyes which resemble a bow is 3 barley grains or *yavas* ($\frac{3}{8}$ of an *aṅgula*). The eyes resembling an *utpala* petal or blue lotus are 6 barley grains. The eyes resembling the belly of a fish measure 8 *yavas* (1 digit). Eyes resembling the petal of a *padma* lotus or white lotus have a measure of 9 *yavas*. Eyes that are similar to a cowrie shell amount to 10 *yavas*. Both texts (ViDha III.37.13–15; III.38.1 and NagCitLak III.619–656) add that in the case of *yogis*, eyes should be made to resemble a bow. In the case of women and lovers, eyes should be made resembling the belly of a fish. In the case of ordinary persons, eyes should be made like the petal of an *utpala* lotus. Eyes resembling an *utpala* petal are red at the corners, the pupils are black and shiny, the lashes have long points and are pleasing with the luster of their colour appearing in soft tones. Eyes resembling the petal of a *padma* lotus should be used to express fright and crying. The eyes of those troubled by anger and grief should be painted resembling a cowrie shell. The *Citralakṣaṇa* (III.619–656) explains that eyes of gods are lustrous and rich like the colour of the cow's milk, having lashes and constantly changing in their play of colours, with black and large pupils.

The *pratimālakṣaṇa* section of the *Śilparatnakośa* (vv. 22–24a in Baumer and Das 1994) has a similar classification of eyes. The types of eyes are four in number according to their expressions. The eye like a lotus is peaceful in character, the eye like a wagtail bird is sharp, the eye like a fish is enchanting and the eye like a bud is full of wonder.

The *Citralakṣaṇa* of Nagnajit (III.657–664) states that the nose is 4 digits long and its tip is 2 digits in height and width. The width of the nostrils is 6 barley grains and their height is 2 barley grains. The space between the nostrils measures 2 barley grains and 6 barley grains in length. The *Bṛhat Saṃhitā* (58.10) and *Viṣṇudharmottara Purāṇa* (III.36.I.5–6) add that the sides of the nose should measure 2 digits and that the front part of the nose should be 2 digits in height and breadth.

The *Citralakṣaṇa* (III.665–674) and *Viṣṇudharmottara Purāṇa* (III.36.II.1) state that the upper lip has the thickness of 1 digit and the lower lip has the thickness of $\frac{1}{2}$ a digit. The length of the upper lip and the lower lip measures 4 digits. The part lying above the upper lip (*gojī*) has an expanse of $\frac{1}{2}$ a digit. The edges of the lips are red as the *bimba* fruit and they resemble in their form the crest of a bow. The corners of the mouth are turned slightly up to create an expression of a lovely smile. The *Bṛhat Saṃhitā* (58.8–9) gives the same measurements adding that the mouth should be 4 digits long and $1\frac{1}{2}$ digits broad, when closed, and 3 digits,

when open. The *Citralakṣaṇa* (III.675–692) and *Viṣṇudharmottara Purāṇa* (III.36.I.3; III.36.II.2) also state that the chin has a height of 2 digits and a width of 3 digits. The cheeks should be made to the measurement of 5 digits, the jaw bones to that of 4 digits and the measurements of the contour of the cheeks amount to 4 digits.

The *Citralakṣaṇa* of Nagnajit (III.933–947) explains that teeth are even-shaped, thickly set, shining, pure, sharp and white. They should be forty in number.[16] The canines are 3 barley grains in length and in breadth they are 2 *yavas*. The gums, the palate and the contour of the tongue should be made red. The *Viṣṇudharmottara Purāṇa* (III.36.II.2–3) states that the height of the teeth is $\frac{1}{2}$ an *aṅgula*, the canine teeth are $1\frac{1}{2}$ *aṅgulas*.

According to the *Citralakṣaṇa* of Nagnajit (III.948–956), the tongue resembles the lotus petal, glimmers like lambent lightning and is similar to the young leaf of the *adha* plant (*Gratiola monnieria*). The sound of the voice is harmonious, resembling that of the mighty elephant. The tone is emitted as if by the king of the horses and is projected like the sound of thunder.[17]

The *Citralakṣaṇa* of Nagnajit (III.957–968) and the *Viṣṇudharmottara Purāṇa* (III.37.7) describe that the hair is fine, resembling a spiral figure, shimmering with its natural rich shine, and falling down to the shoulders in locks and spiraling to the right. The spirals resemble the mane of the lion and the bun on the head (*śikhābandha*) spirals leftwards. The *Viṣṇudharmottara Purāṇa* (III.37.8) adds that there are different varieties of hair: locks (*kuntala*), curling to the right (*dakṣiṇāvarta*), wavy (*taraṅga*), like the lion's mane (*siṃhakeśara*), curly (*barbara*), twisted (*jūṭaka*) and matted (*saṭā*). According to the *Pratimāmānalakṣaṇa* (vv. 33–34), the hair on the head should be matted or curled, or there should be a tiara (*kirīṭa*), a diadem (*triśikha*) or a crown (*mukuṭa*). They should not be longer than 8 *aṅgulas*.

The *Citralakṣaṇa* of Nagnajit (III.675–686) explains that the neck should be 4 digits in length and 21 in girth. In the case of those who are slim, the neck is 8 digits long, and in the case of heavy ones it is one-third of it. The neck can be made beautiful adding three-folds of skin and in that case the neck resemble the form of a conch shell.[18] The neck should be made to look round in its circumference.

Proportions and characteristics of the body

The *Bṛhat Saṃhitā* (58.15) states that the distance between the lower part of the neck and the heart is 12 digits and the same is between the heart and the navel. The distance between the navel and the genitals is also 12 digits. The *Bṛhat Saṃhitā* (58.24) and the *Viṣṇudharmottara Purāṇa* (III.36.III.2) prescribe that the distance between the nipples is 16 *aṅgulas*, and that the distance between the clavicle and the nipple is 6 *aṅgulas*.

The *Pratimāmānalakṣaṇa* (vv. 36–39) explains that from the base of the neck (*hikkā*, lit. hiccup) to either of the nipples is 1 *tāla*. The space between the two

nipples and that from the side of the neck to the top of the arm are all 1 *tāla*. The portion between the navel and either of the two nipples is 14 *aṅgulas*. The base of the neck and the top of the shoulders should be placed in the same line and the space between the two shoulders is 3 *tālas*.

The *Bṛhat Saṃhitā* (58.25–26) states that the upper arms and forearms should measure 12 digits each in length and 6 digits and 4 digits respectively in breadth. The circumference of the arms at the armpit is 16 digits and at the wrist is 12 digits. The *Pratimāmānalakṣaṇa* (vv. 43–45; 59–62) explains that the length of the arm is 4 *tālas* (48 *aṅgulas*). The root, middle and front sections of the arm are 8, 6 and 4 *aṅgulas* in breadth, respectively, while their respective girths should be three times the measurement of their width.[19] The *Viṣṇudharmottara Purāṇa* (III.36.III.2) prescribes that the girth of the arm near the shoulder is 16 *aṅgulas* and at the forearm is 12. According to the *Citralakṣaṇa* of Nagnajit (III.867–894), the measurement of the whole arm is given as 36 digits, out of which 18 *aṅgulas* comprise the upper arm, and the same number, the lower arm. The upper arm has a breadth of 5 digits, the elbow is of 3 digits and the lower arm is of 4 digits. The arms including the hands should, in their whole length, measure 48 digits so that they reach to the knees. They are very long and swollen with muscles, they should be made symmetrical and handsome. Moreover, the arms of the *cakravartin* are symmetrical as the tail of a bull. When he stands erect, both the hands touch the knees and for this reason his hands are defined as 'reaching up to the knee' (*jānudaghna*).[20]

The *Bṛhat Saṃhitā* (58.24) explains that the armpits are to be at a height of 6 digits. The *Pratimāmānalakṣaṇa* (vv. 40–41) states the same measurement adding that the space between the armpit and the nipples should also be 6 *aṅgulas*.

The *Citralakṣaṇa* of Nagnajit (III.705–734) maintains that the breasts should be divided into two surfaces. The nipples measure 1 *yava* in height and 2 digits in circumference. The part between the collar-bones up to the breasts is an even surface but not that from the breasts to the navel cavity. From the navel to the genitals the surface is even. The loins amount to 14 digits in length. The text adds that in the case of those who wear a lower garment and have a girdle tied around it, the part of the belly below the navel should measure 4 *aṅgulas*.

The *Pratimāmānalakṣaṇa* (vv. 40–41) states that the navel is deep and should be characterized by the *dakṣiṇāvarta* sign (curvature from left to right). The *Bṛhat Saṃhitā* (58.23) and *Viṣṇudharmottara Purāṇa* (III.36.III.6) maintain that the navel is 1 digit both in depth and breadth, whereas the *Citralakṣaṇa* (III.705–734) explains that the navel is $\frac{1}{2}$ an *aṅgula* in circumference, is deep and spirals towards the right.

The *Bṛhat Saṃhitā* (58.24) and the *Viṣṇudharmottara Purāṇa* (III.36.III.6) maintain that the hip is 18 digits in breadth and 44 digits in circumference. The circumference of the waist at the centre of the navel is 42 digits.

According to the *Citralakṣaṇa* of Nagnajit (III.705–734), the penis is 2 digits broad and 6 digits long, and the scrotum is 6 digits long. The space between the penis and the edge of the belly should be 6 digits in measurement.

The *Viṣṇudharmottara Purāṇa* (III.36.III.7–8) says that testicles are 4 *aṅgulas* in width and the penis is 6 *aṅgulas* long.

The *Viṣṇudharmottara Purāṇa* (III.36.III.7–8, III.36.IV.1) explains that thighs measure 14 *aṅgulas* in width in the middle and their circumference is twice as much. The knee is 8 *aṅgulas* in breadth and three times that in girth. The lower end of the shanks is 5 *aṅgulas* wide and 14 in girth. The *Bṛhat Saṃhitā* (58.17,21–22) adds that length of the thighs is to be 24 digits, the same is for the shanks. The kneecaps are 4 digits and the feet too are of the same height. The circumference of the shanks at the end is to be 14 digits, and their breadth 5 digits, but in the middle they are 7 digits in width and 21 digits in circumference. The width of the knee in the middle is 8 digits, and its circumference is 24 digits. The *Bṛhat Saṃhitā* agrees with the *Viṣṇudharmottara Purāṇa* that the thighs are 14 digits broad in the middle and their circumference is 28 digits.

The *Citralakṣaṇa* of Nagnajit (III.735–784) gives a different measurement of length for the thighs which should be 25 digits. The knees are 4 digits long and the sides of the ankles are 4 digits. It explains that the lower legs have 2 planes – where they join the sides of the ankles, they are 4 digits in breadth and in the middle are 6 digits in breadth. The planes of the knee should be made 3 digits in breadth. The breadth of both the thighs measured together at the upper side of the knees measures 8 digits. The front portion of the thighs is raised, and both of them should be swollen because of their muscles, and should look tender and devoid of unevenness, like the trunk of an elephant. The ankles and the knees and their veins should not be visible. The calves should be rounded and the foot arches should be made a little raised. The heels should measure 5 digits in height and 3 digits in breadth.

Proportions and characteristics of feet and hands

The *Bṛhat Saṃhitā* (58.18–20) and the *Viṣṇudharmottara Purāṇa* (III.36.I.2–6) explain that the feet are 12 digits long[21] and 6 digits broad. The big toes are 3 digits in length and 5 in circumference and the second toe is 3 digits long. The remaining three toes should be less by an eighth than the preceding one. The elevation of the big toe should be $1\frac{1}{4}$ digits, and that of the other toes should be less by an eighth than the preceding one in succession. The nail of the big toe should be $\frac{3}{4}$ of a digit, and those of the other toes $\frac{1}{2}$ a digit or a little lessened for each succeeding toe. The *Viṣṇudharmottara Purāṇa* adds that the index toe is equal to the big toe in length. The nail of the toe is less than the size of the toe by a quarter of an *aṅgula* and the nail of the index toe is half of the one of the big toes. The remaining toes are less by one eighth of the index toe nail progressively. The heel is 3 *aṅgulas* in breadth and 4 in height.

The *Citralakṣaṇa* of Nagnajit (III.735–784) has different measurements; in fact, both the feet measure 14 digits instead of 12. The big toes are 4 digits in length, resembling the points of the red lotus and shining like the molten of lac. The soles of the feet are stretched out and pressed firmly on the ground and they

appear decorated with the sign of a wheel. The heels and the great toes should firmly touch the earth together. Along with these general injunctions, the *Citralakṣaṇa* of Nagnajit adds different measurements for kings. It explains that the webbed skin of the feet of the *cakravartin* resembles that of the wild goose, the feet are raised like the back of a tortoise and endowed with signs of beauty. In length they are 8 digits and in breadth they measure 5 digits and should look attractive. The big toe is 2 *aṅgulas* in width, 6 in thickness and 4 in length, with the frontal point directed upwards. The *Citralakṣaṇa* of Nagnajit (III.785–810) continues saying that the toes exceeding the big toe are to be reduced in measurement by 1 digit. The length and the thickness of the small toes should be pleasing, the joints attractive without protrusion, well-rounded, without prominent veins, and with neither muscles nor veins visible. The nails should resemble the half moon, should be of red color and lustrous, illuminated like the pupils of the eye. They should be of red colour, spotless and smooth. The toe consists of three parts and the big toe is to be represented sidewards so broad that the space between the great and the fourth toe should measure $\frac{1}{2}$ of a digit in width. The foot, in height, measures 4 digits. The *Pratimāmānalakṣaṇa* (vv. 59–62) adds that the toes are said to be like a green mango in appearance, the top of the feet is like the back of a tortoise. The feet are flat and level to the ground and the nails have the form of oyster-shells.

The *Viṣṇudharmottara Purāṇa* (III.36.III.3–5) says that the palm of the hand is 7 *aṅgulas* in length and 5 in width, whereas the *Bṛhat Saṃhitā* (58.26–28) maintains that its width is 6 *aṅgulas*. The middle finger is 5 *aṅgulas* in length and should be longer than the index by half a phalanx. The ring finger is equal to it. The little finger is less by a phalanx of the ring finger. All the fingers are equally divided into three phalanxes except for the thumb which is 3 *aṅgulas* in length and has two phalanxes. The *Citralakṣaṇa* of Nagnajit (III.811–838) confirms the measurements of the hand, except for the thumb which should be 4 digits in length. According to the *Pratimāmānalakṣaṇa* (vv. 46–52), the width of the thumb is 9 *yavas* and the side measurement of the middle finger is $8\frac{1}{2}$ *yavas*. Both ring finger and the index finger are 8 *yavas* wide and the little finger is 7 *yavas*.

The *Citralakṣaṇa* of Nagnajit (III.811–866) explains that the hands are covered with webbed skin. The nails are red in colour, shining and attractive, they should be wonderful like mother of pearl. They should be half the measurement of a phalanx, the points are thin and resemble the waist of the body. Blameless phalanxes are well-set, attractive, round and long. Both the palms resemble the red lotus: the lines are deep but not crooked. At both ends they are just a little deep and fine, resembling the colour of the blood of a hare. They should be beautified with three lines.[22] The palms are bedecked with signs like those of the *śrīvatsa*, *svastika*, *nandyāvarta* and the wheel. They should have the feel of cotton and be soft as a bundle of silk. The muscles are full and the veins should not be visible. The back of the hand is raised and the palm has a slight depression. The skin webs between the fingers are tender and beautiful. The inner part of the nails is red like the *utpala* flower and is comparable to the hood of the *nāga* king. The sides of the

nails are soft, tender, luminous red in colour, large and shining. When they are raised and luminous, they lend the hand a special beauty.

Characteristics of gods

The texts, while explaining the theory of proportion, enumerate a series of characteristics attributed to gods. The *Viṣṇudharmottara Purāṇa* (III.38.6–7) maintains that gods have hair only on their eyelashes and brows, they are free from hair on their body and should be represented as a youth 16 years old.[23] The *Viṣṇudharmottara Purāṇa* (III.38.8–11) states that gods should always be portrayed with benevolent faces, with a smile in the eyes, adorned with crowns, necklaces, armlets and bracelets. They should wear auspicious flower garlands, elaborate girdles, foot ornaments, sacred threads and ear ornaments. They are to be represented with loin cloths extending down to the left knee whereas the right knee should be exposed and they should also have a beautiful upper garment. The text (ViDha III.38.12–13, 16–17, 20–23, 26) also explains that their halo should fit the head it decorates, in due proportion to it and it should be circular following the requirements of each of the gods. The colour of the halo should be the same as that of the gods themselves. In the case of idols to be worshipped, an upward, downward or oblique gaze should be avoided;[24] they should neither be too small nor too big, neither sad, wrathful nor harsh. The figure should be executed neither with a thin nor a large stomach. The figure should be neither large nor thin in proportion, harsh coloured with the face turning away or bent down. Inauspicious are also unpolished figures. Even when invoked by the best of *brahmans*, gods do not enter an image that is disproportionate and lacking in its significant characteristics. On the other hand, that image will always be infested by demons like *piśācas*, *daityas* and *dānavas*. Gods are always to be depicted endowed with splendour and with the gait of the lion, bull, serpent or swan.

Characteristics of women

Very little is said on the characteristics of women in the *citrasūtras*. The reader is invited to construct the idea of women in the same way in which he is supposed to imagine on the base of the *haṃsa* type the proportions of *bhadra*, *rucaka*, *mālavya* and *śaśaka* types. In fact, just as the *haṃsa* type served as a model for the remaining four types of men, there are also five kinds of female types to be fashioned after the same male model, as suggested by the *Samarāṅgaṇa Sūtradhāra* (81.1) which mentions *daṇḍinī* as the female counterpart of the *haṃsa* type.

The *Viṣṇudharmottara Purāṇa* (III.37.1–4) states that women should be made as tall as the men's shoulder. Their waist is 2 *aṅgulas* less than that of the male. Similarly, their hips should exceed that of the male by 4 *aṅgulas*. Chest and breasts are to be made beautiful.

The *Citralakṣaṇa* of Nagnajit (III.1142–1146) explains that women are to be represented as being of harmonious proportions and should appear chaste.

They should be painted in groups, with their appearance full of youthfulness and erect in their stance.

Conclusions

This chapter, while explaining fundamental concepts of Indian representation like measurement and proportion, has examined some important aspects of the theory of painting. Despite discrepancies between the texts, the theories of painting and of sculpture are strictly interrelated and rely on the same textual sources. As already pointed out, the sections of the *Bṛhat Saṃhitā* (58) and *Pratimāmānalakṣaṇa* used in this chapter are generally understood to concern the theory of sculpture. However, their injunctions in explaining measurement and proportion, embodied in the description of a man or image of 108 *aṅgulas* in length, are similar to those described in the *Viṣṇudharmottara Purāṇa* and *Citralakṣaṇa* of Nagnajit. What does appear clear is that it would be misleading to divide the texts into two disciplinary categories on the basis of whether they concern the theory of painting or the theory of sculpture. This point is developed later by drawing on empirical evidence of the practising sculptors. These examples are not to be taken as a contradiction because, if the theories of painting and sculpture rely on the same texts, the practice of painting and of sculpture relies on the same ideals.

Another point that emerges from this chapter is the significant role of physiognomy in the *citrasūtras*. Physiognomy seems to have relevance only in early texts, with the exception of the *Samarāṅgaṇa Sūtradhāra*, an eleventh-century text which appears to follow the same tradition of dividing men and women into five stereotypes. This division, however, appears to have little relevance with painting, and we can identify a more practical use for it in the *Viṣṇudharmottara Purāṇa* which explains, in its hierarchy of figures, the way in which they should be depicted according to this division.

Many of the physiognomic characteristics mentioned by the texts, such as the arms like an elephant or voice like a swan, do not seem to have an iconographic value, and, even if they do, it is difficult to recognize it in actual painting or sculpture. This difficulty emanates from the culture-specific origin of the characteristics. These injunctions are better understood within the framework of the chapters on physiognomy of the *Bṛhat Saṃhitā* and *Sārāvalī*, which help us to understand some of the characteristics that seem to have more of a symbolic significance than a practical one. An interesting exception is the conch-like neck, whose iconographic feature is clearly explained by the *Citralakṣaṇa*, and can therefore be recognized in actual paintings in which the figures are depicted with three lines on their neck. This ideal is very popular in Indian painting and sculpture and it is shared by Buddhist schools of painting, like for example in Sri Lanka and Tibet. Another exception is the *jānudaghna* or the arms reaching down to the knees. While this characteristic does not appear in the art practice of today, Roth (1990, p. 1024) identifies this feature in ancient Jaina and Buddhist sculptures.

In some other particular instances, it is possible to recognize the physiognomic prescriptions of the *Citralakṣaṇa* of Nagnajit as having a practical and iconographic value and use. For example, a traditional sculptor based in Jaipur (Rajasthan), Ram Prasad Sharma, explains that the body of an image should be represented without hair, with spotless skin and with invisible veins. These characteristics, he explains, would create a 'natural' look. His use of the word 'natural' is a clear indication of his worldview and it seems to embody his own aesthetic values and ideals of perfection, which he also uses in considering the proportion of an image.

Each text analysed in this chapter formulates an ideal of proportion and beauty. Texts appear different in their descriptions as evidenced by their differing measurements suggested for the various limbs or by the importance they attach to physiognomy. In spite of these discrepancies, it is possible to see some similarities between the *citrasūtras*, like the great emphasis they give to proportion and perfection. Similarities and links can be seen also between the views of the texts and the ideals of beauty and proportion expressed by the traditional sculptors and painters of today, as it will be elucidated by the following examples.

As far as the system of measurement is concerned we have suggested that while reading the texts one should work out one's own personal *aṅgula* that has the function to help us in understanding the texts and become aware of the proportions of one's own body. One of the sculptors, Ram Prasad Sharma, in fact explains the theory of proportion using either one of his sculptures or his own body as examples. The use of a personal *aṅgula* and of one's own perception of ideal proportions appear to explain the discrepancies in the described measurements of the parts of the body evidenced by a comparison of the various *citrasūtras*. An example is the length of the eye which should be 2 *aṅgulas* for the *Citralakṣaṇa* and the *Bṛhat Saṃhitā*, 2 *aṅgulas* and 2 *yavas* for the *Pratimāmānalakṣaṇa* and 3 *aṅgulas* for the *Viṣṇudharmottara Purāṇa*. These discrepancies can be understood as a reflection of the different ways of seeing or perceiving the human body. Awareness of this point is the first step in the theory of proportion, and once the system is well-assimilated, it will be possible for a painter or a sculptor to create bigger and smaller figures by increasing or decreasing the unit of measurement, which in this case will take the name of *dehāṅgula* or *aṅgula* of the image. In this sense, the absolute and relative systems of measurement can be compared to two levels of perceiving the different units, one abstract or mental and the other practical.

As far as the terminology and the use of these measurements are concerned, we found that, even if the sculptors and painters interviewed have no idea of the systems delineated by the *citrasūtras*, they know and work with their basic concepts. For example, the concepts of unit or *aṅgula* and that of *tāla* are used in practice to get the right proportion of an image.

Another clear example of relationship between text and practice is that of Harihar Moharana, a sculptor from Bhubaneshvar (Orissa), who claims to know a classification of eyes. His description bears a lot of similarities (though it is not identical) with the classifications of the *Viṣṇudharmottara Purāṇa* and

Citralakṣaṇa. He says that eyes can be like a *mṛga* (deer) when they make quick movements as if they were afraid of something, the eyes like a *mīna* (fish) are small and half closed, the eyes like a *padma* or lotus are the eyes of gods like Kṛṣṇa and Nārāyaṇa, the swollen eyes are the eyes for Buddha and Jina, and the *kanyā* eyes are for the *apsaras* and look like a bird. He also makes practical examples of their representations and he claims that this classificatory system is used in sculpture.

Another fundamental point raised in this chapter is that of the central importance of achieving the right proportions. This is a fundamental step in the creation of an image and making something wrong would affect the entire work. The ideal of perfection and that of 'natural' and beautiful effect are used by Ram Prasad Sharma to calculate the proportions of the body of Lakṣmī (Figure 3.13). This sculptor has a working knowledge of the theory of proportion, and with the help of a compass he explains this image in his own terms. He explains, for example, that the length of the hand of Lakṣmī is equal to the length of the face; the breadth of the hand is equal to the breadth of half the face; the end of the eye stands on the same line with the top of the ear and the mouth stands on the same line of the bottom of the ear. He also illustrates that the length of the nose is equal to the thickness of the wrist, the circumference of the thigh is equal to that of the head and the distance between the navel and the eyebrow is equal to the length of the leg from knee to foot. He also adds that in order to achieve proportion and beauty,

Figure 3.13 A sculptor from the studio of Ram Prasad Sharma explaining the measurement of Lakṣmī.

the distance between the shoulder and the third or fourth hand of the goddess (and of any other image with more than two arms) should not exceed the length of the shoulder itself. This explanation undeniably shows many similarities with the theory expounded in the texts, but it adds practical details not included in the texts that are a direct result of years of experience in the field.

Ram Prasad elucidates his ideals of beauty and perfection (which are synonymous with proportion) by comparing his image of Lakṣmī with Giovanni Bellini's portrait of a young woman (Figure 3.14). In his view, he regards his image of Lakṣmī as perfect and the portrait of the lady as unnatural and disproportionate. Applying his rules and ideals, the sculptor explains that the major defects of this Renaissance figure are that the woman has a huge belly and very big arms. He also explains that each person has different proportions but 'defects' like a huge belly should never be depicted, unless it is really necessary as in the case of Gaṇeśa. We can conclude that the aim of his sculpture is to create highly ideal figures. According to his view, he considers for example that Michelangelo's sculptures, of which he has some illustrations, are natural and proportionate. His experiments to copy them, however, are unsuccessful also at his eyes. This is due to the different vocabulary and aesthetic ideals of the Indian sculptor and Renaissance. In his experiments, in fact the sculptor uses his own ideals, like the absence of veins and muscles, characteristics that are fundamental in the sculpture of Michelangelo.

Figure 3.14 Young Woman with a Mirror (1515) by Giovanni Bellini.

In order to achieve perfection in measurement and proportion of an image, sculptors and painters use a compass (Figure 3.15). Its use has been mentioned in the previous discussion and can also be seen in a Jaina studio in the Murti Mohalla of Jaipur (Figure 3.16).[25] Also the sculptors of this studio consider

Figure 3.15 Use of the compass by a sculptor in the Jaina studio.

Figure 3.16 Jaina studio in the Murti Mohalla, Jaipur.
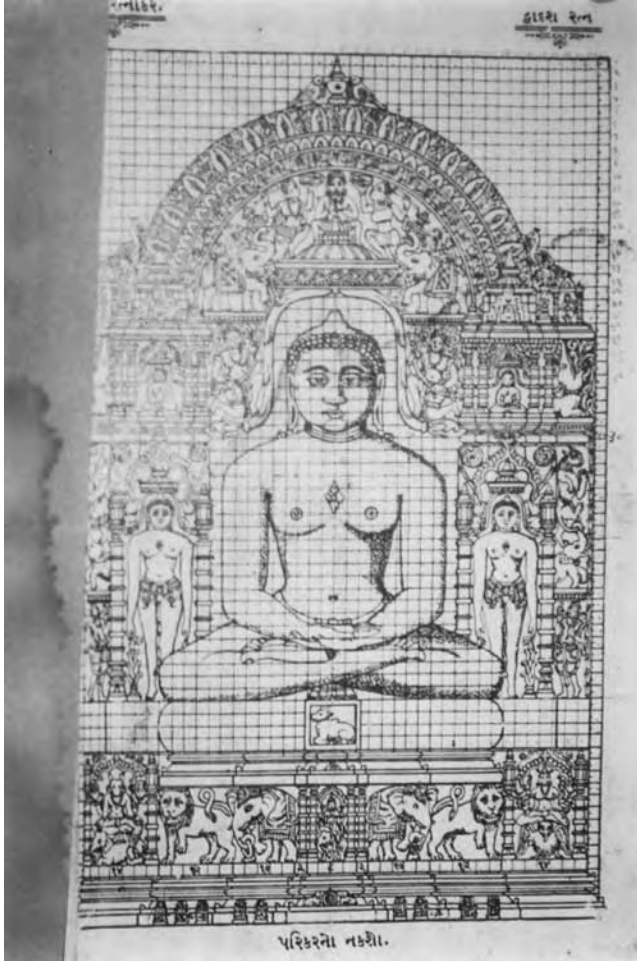
Figure 3.17 Illustration of the twelfth *tīrthaṅkara* Vāsupūjya.

proportion as a fundamental factor but the way in which 'perfection' is achieved is different. This studio is specialized in the representation of *tīrthaṅkaras*. Every detail of their bodies is reproduced by copying from a figure on paper representing the twelfth *tīrthaṅkara* Vāsupūjya (Figure 3.17). When asked, the master sculptor did not describe measurement and features of this image as Ram Prasad did, but simply he showed the figure on paper saying that he is 'copying' from it. This figure is divided into units with the help of a grid, and through this division the sculptors can create images of the *tīrthaṅkaras* in different scales. The role of the compass is fundamental to achieving the right proportions of the figure

(Figure 3.15). The work of this studio is more stereotyped than that of the previous one, however, we can see that once the proportions of an image are fixed, the work is not a mere copy from the figure; there is still freedom to decide, and the artist can change, for example, the hand postures or the decoration of the images.

This concluding section highlights that it is possible to identify a link between text and practice. This link, however, is not and cannot be a direct and literal one. Even if painters disclaim any sort of direct knowledge of the texts, it is undeniable that the examples given in this section resemble, in many points, the textual evidence analysed previously. Texts and artists, therefore, constitute two authoritative views on traditional Indian art; they both share common ideals and technique but are at the same time independent. This point is similarly emphasized in an analysis of *lambamāna* and *tālamāna*, which are considered in Chapter 4.

4

TĀLAMĀNA AND *LAMBAMĀNA* SYSTEMS

This chapter analyses two concepts of proportion according to the *citrasūtras*: *tālamāna* and *lambamāna*. These two systems are very helpful for the creation of a harmonious and proportionate body in both painting and sculpture. The *tālamāna* seems to derive directly from an evolution of the theory of proportion explained in Chapter 3, and on the basis of that knowledge the *tālamāna* system permits the creation of taller and shorter figures than the prototype of 108 *aṅgulas* in length. This system is analysed according to the *Devatāmūrtiprakaraṇa*,[1] *Śukranīti*,[2] *Pratimāmānalakṣaṇa* and *Citrakarmaśāstra*.[3] This chapter will also examine one of the first studies of the *tālamāna* which was carried out by Rao (1920), in order to clarify some of the misunderstandings that accompanied his interpretation of the system.

The *lambamāna* is one of the six ways of measuring an image and seems to suggest a way to create proportion and symmetry. This system is relevant to the study of painting and sculpture, and it is also used in some texts, like the *Śilparatna*, to explain stances. The *lambamāna* is analysed according to the *Mānasollasā*, *Śilparatna* and *Citrakarmaśāstra*.

Tālamāna

The *tālamāna* system has generally been analysed by scholars as a concept pertaining to sculpture. Boner *et al*. (1982, p. 4) in the introduction to the *Vāstusūtra Upaniṣad* claims that even relief is not relevant to its application: 'The Tālamāna system is quite appropriate for . . . figures in the round, but has not much meaning in a relief composition carved on panel or wall.' The division of sculptural and pictorial theory has already been criticized in this work. Moreover, the *Śukranīti* (4.147–151, Sarkar 1975, pp. 167–168), introducing the *tālamāna* system, states that images are made of sands, pastes, paints, enamels, earth, woods, stones and metals. This clarifies that the *tālamāna* is relevant to all kinds of images, including pictorial ones.

Rao (1920) was the first to analyse the *tālamāna* systematically and lists the different proportions of images, taking them from some unspecified Āgamas, in the table reported in Figure 4.1. Rao (1920, p. 35) explains that the term *tāla*

No.	Name of the *tāla* measure.	Division of the *tāla* measure.	Total length of the image.	Length of the face.	Proportion between the length and the *tāla*.
			aṅgulas.		approxly.
1	Daśa-tāla measure	a. Uttama	12¼	13½	9
		b. Madhyama	120	13	9¼
		c. Adhama	116	12½	9½
2	Nava-tāla measure	a. Uttama	112	12	9½
		b. Madhyama	108	11⅝	9½
		c. Adhama	104	11¼	9¼
3	Ashṭa-tāla measure	a. Uttama	100	10¾	9½
		b. Madhyama	96	..	..
		c. Adhama	92	..	..
4	Sapta-tāla measure	a. Uttama	88	..	..
		b. Madhyama	84	..	..
		c. Adhama	80	..	..
5	Shaṭ-tāla-measure	a. Uttama	76	8½	9
		b. Madhyama	72	..	..
		c. Adhama	68	..	..
6	Pañcha-tāla measure	a. Uttama	64	..	..
		b. Madhyama	60	..	..
		c. Adhama	56	..	..
7	Chatus-tāla measure	a. Uttama	52	7	7½
		b. Madhyama	48	8	6
		c. Adhama	44	..	..
8	Tritāla measure	a. Uttama	40	..	..
		b. Madhyama	36	..	..
		c. Adhama	32	..	..
9	Dvitāla measure	a. Uttama	28	..	..
		b. Madhyama	24	..	..
		c. Adhama	20	..	..
10	Ekatāla measure	a. Uttama	16	..	..
		b. Madhyama	12	..	..
		c. Adhama	8	..	..

Figure 4.1 Table of *tālamāna* measurements according to Rao (1920, pp. 36–37).

means the palm of the hand, which is the measure of length equal to that between the tip of the middle finger and the end of the palm near the wrist. This length is taken to be equal to the length of the face from the scalp to the chin. It is therefore usual to measure the total length of an image in terms of the length of the face rather than in terms of the palm of the hand. Rao (1920, p. 35) states that there are no less than thirty different proportions mentioned in the Āgamas. These are grouped into 10 classes of 3 each. Of the three proportions of each class, the first is called *uttama* (superior), the second is *madhyama* (middling) and the third is *adhama* (inferior). Among the texts analysed in this chapter, only the *Citrakarmaśāstra* (Marasinghe 1991) makes the distinction of images in three classes. Each of the texts analysed gives priority to different kinds of *tālas*. The most important are as follows:

ṣoḍaśa tāla or 16 *tāla* measurement
pañcadaśa tāla or 15 *tāla* measurement
caturdaśa tāla or 14 *tāla* measurement
trayodaśa tāla or 13 *tāla* measurement
dvādaśa tāla or 12 *tāla* measurement
ekādaśa tāla or 11 *tāla* measurement
daśa tāla or 10 *tāla* measurement
navārdha tāla or $9\frac{1}{2}$ *tāla* measurement
nava tāla or 9 *tāla* measurement
aṣṭasārdha tāla or $8\frac{1}{2}$ *tāla* measurement
aṣṭa tāla or 8 *tāla* measurement
saptasārdha tāla or $7\frac{1}{2}$ *tāla* measurement
sapta tāla or 7 *tāla* measurement
ṣaṭ tāla or 6 *tāla* measurement
pañca tāla or 5 *tāla* measurement
catus tāla or 4 *tāla* measurement
tri tāla or 3 *tāla* measurement
dvi tāla or 2 *tāla* measurement
eka tāla or 1 *tāla* measurement.

As mentioned in the Chapter 3, the *tāla* measurement, consisting of 12 *aṅgulas*, was the basis of calculation for images. The height of the image described in that chapter was 108 *aṅgulas*, which corresponds in the *tālamāna* system to the *nava tāla* or 9 *tāla* measurement. This means that the image can be divided into 9 parts or *tālas*. In fact, if we divide 108 *aṅgulas* by 12, which is the measurement in *aṅgulas* of the face, the result would be 9. Although the exposition of proportions of the 108 *aṅgulas* image had priority over other images, we can find in early texts a prelude to the *tālamāna* system. A text like the *Bṛhat Saṃhitā* (58.30) mentions that both Śrī Rāma, son of King Daśaratha, and Bali, son of Virocana, should be made 120 digits high. It also explains that the heights of other images, superior, medium and inferior ones, are less by 12 digits in succession (108, 96 and 84 digits

in order). This means that early texts recognized the existence of images having other measurements. However, an accurate description of the system is to be found in later texts, like the *Devatāmūrtiprakaraṇa*.

At this point it is important to remember that measurement is a relative concept in the *citrasūtras*, and that figures, according to the *tāla* system, are not bigger or smaller in terms of scale but in terms of the proportions of the parts the body of each image.

According to the *Devatāmūrtiprakaraṇa* of Maṇḍana Sūtradhāra (Vinayasagar 1999), a *kīrtimukha* (Figure 4.2) should be made of 1 *tāla*,[4] birds of 2 *tālas*, elephants of 3 *tālas* and horses of 4 *tālas* (*veda-tāla*).[5] Vāmana, seated Jinas, seated images of Brahmā, Viṣṇu, Śiva, Śiva's bull Nandin and Varāha should be of 5 *tālas*. Vināyaka (Gaṇeśa), medium scale Varāha and Nandin should be of 6 *tālas*. Human beings, large-scale images of Varāha and Nandin are 7 *tālas*. Goddesses like Pārvatī, Durga, Mahālakṣmī, Sarasvatī and Sāvitrī are 8 *tālas*. Brahmā and Viṣṇu are 9 *tālas*. Rāma, Bali, Virocana, standing *siddhas* and standing *jinendras* (Jaina saints) should be of 10 *tālas*. Skanda, Hanuman, goddess Caṇḍikā and *bhūtas* should be 11 *tālas*. *Vetāla* demons should be 12 *tālas*. *Rākṣasas*, *piśācas* and other evil beings should be of 13 *tālas* without crowns. *Daityas* with crowns are 14 *tālas*. Awe-inspiring gods are 15 *tālas*. Goddesses that are terrible to behold should be 16 *tālas*. Images should not be taller than 16 *tālas* (DMP 2.4–14).[6]

The *Devatāmūrtiprakaraṇa* enumerates sixteen kinds of *tāla* measurements, but when it comes to the detailed description of their proportions, the text

Figure 4.2 Kīrtimukha detail. Sculpture by Harihar Moharana (Bhubaneshvar).

explains 7, $7\frac{1}{2}$, 8, $8\frac{1}{2}$ and 9 *tāla* measurements only. The text, therefore, introduces the $7\frac{1}{2}$ (*saptasārdha*) *tāla* suitable for images of the Navagraha (9 planets) (DMP 2.18–20) and $8\frac{1}{2}$ (*aṣṭasārdha*) *tāla* characteristic of Gīṣpati (DMP 2.24–26), which are not found in the previous list. This discrepancy between the list of *tālas* and their explanation is a common aspect of other texts too. This means that we are invited to calculate the measurements of the other *tālas* on the basis of the ones that are explained. The detailed measurements of length of each figure of the *tālamāna* system described by the *Devatāmūrtiprakaraṇa* are summarized in Table 4.1.

Details of the 7 *tāla* measurement (*sapta tāla*) according to the *Devatāmūrtiprakaraṇa* (2.15–17) reveal that the total length of this kind of image is 84 *aṅgulas* (Table 4.1), corresponding exactly to the *madhyama sapta tāla* of Rao's table (Figure 4.1).

The total length of an image of 8 *tālas* (*aṣṭa tāla*) according to the *Devatāmūrtiprakaraṇa* (2.21–23) is 96 *aṅgulas* (Table 4.1). This measurement corresponds to the *madhyama aṣṭa tāla* of Rao's table (Figure 4.1). Sthapati (2002, p. 398) presents a different interpretation of this *tāla*, in which the face is 11 *aṅgulas* instead of 12.

The total length of a 9 *tāla* (*nava tāla*) image according to the *Devatāmūrtiprakaraṇa* (2.27–29) is 108 *aṅgulas* (Figure 3.5). The *Devatāmūrtiprakaraṇa* explains the 9 *tāla* measurement in great detail. This confirms the importance of this image length, as in the previous Chapter 3. The text (DMP 2.30–34), besides the measurements of length given in Table 4.1, prescribes that the distance between the breasts should be 12 *aṅgulas*, between the breasts and the armpits 4 *aṅgulas* and between the armpits and arms 1 *aṅgula*. The upper arms should be 7 *aṅgulas* in width and 16 *aṅgulas* in length, the forearms should be 18 *aṅgulas* in length and the wrist 3 *aṅgulas* in width. The hands should be

Table 4.1 *Tālamāna* of the *Devatāmūrtiprakaraṇa*

Parts of the body	Sapta tāla (7 tālas)	Saptasārdha tāla ($7\frac{1}{2}$ tālas)	Aṣṭa tāla (8 tālas)	Aṣṭasārdha tāla ($8\frac{1}{2}$ tālas)	Nava tāla (9 talas)
Hair	3	3	3	3	3
Face	12	12	12	12	12
Neck	3	3	3	3	3
Chest	7 and 4 *yavas*	10	9	9	10
Stomach	9	10	12	13	12
Navel to genitals	7 and 4 *yavas*	10	9	12	12
Thigh	18	18	21	22	24
Knee	3	3	3	3	4
Shank	18	18	21	22	24
Foot	3	3	3	3	4
Total length	84 *aṅgulas*	90 *aṅgulas*	96 *aṅgulas*	102 *aṅgulas*	108 *aṅgulas*

12 *aṅgulas* long and 5 *aṅgulas* wide. The region of the navel should be 12 *aṅgulas* in width and the hips are 24. The thigh is 11 *aṅgulas* wide. The part of the shank, near the ankle, should be 4 *aṅgulas*. The foot should be 14 *aṅgulas* long with a height of 4 *aṅgulas*. The shoulders, from the armpit upwards, should be 8 *aṅgulas*. The neck should be 8 *aṅgulas*, and the feet should be 6 *aṅgulas* wide.

The *Pratimāmānalakṣaṇa* (vv. 85–86) presents a different hierarchy of figures, explaining that gods should measure 9 *tālas*, gods like men $8\frac{1}{2}$ *tālas*, ordinary men 8 *tālas* and mothers $7\frac{1}{2}$ *tālas*. The text analyses different *tālas* from the ones mentioned here: in order they are the 8, 6, 10 (Figure 4.3), 7 and 4 *tālas* (Figure 4.4). Table 4.2 summarizes the *tālamāna* measurements according to the *Pratimāmānalakṣaṇa*.

Table 4.2 shows that the length of the 9 *tāla* measurement (Figure 3.5), widely attested by many texts as 108 *aṅgulas*, for the *Pratimāmānalakṣaṇa* is instead 114 *aṅgulas*. This discrepancy can be found in other measurements given by this text, as evidenced by the following paragraph.

According to this text (PML vv. 87–90), the image of a goddess is 8 *tālas* which means that the image should be represented as 8 times the height of its face (96 *aṅgulas*). However, the total length given by the text is 101 *aṅgulas* (Table 4.2), which is 1 *aṅgula* more than the *uttama aṣṭa tāla* measurement of Rao's table (Figure 4.1). This kind of discrepancies in the system and between this text and Rao's table can be found throughout the *tālamāna* delineated by the *Pratimāmānalakṣaṇa*

Table 4.2 *Tālamāna* of the *Pratimāmānalakṣaṇa*

Parts of the body	Catus tāla (4 tālas)[a]	Ṣaṭ tāla (6 tālas)[b]	Sapta tāla (7 tālas)[c]	Aṣṭa tāla (8 tālas)	Nava tāla (9 tālas)	Daśa tāla (10 tālas)[d]
Hair	1	2	3	—	4	4
Face	12	12	12	12	12	12
Neck	1	2	3	—	4	4
Torso	12	20	19	22	24	26
Navel to genitals	1	1 (navel)	2	20	12	10
Thigh	9	14	19	22	24	26
Knee	1	2	3	3	4	5
Shank	9	12	19	20	24	26
Ankle	4 *yavas*	1	1	2	2	3
Foot	1	3	2	—	4	5
Total length	47 *aṅgulas* and 4 *yavas*	69 *aṅgulas*	83 *aṅgulas*	101 *aṅgulas*	114 *aṅgulas*	121 *aṅgulas*

Notes
a *Pratimāmānalakṣaṇa* (vv. 123–128).
b *Pratimāmānalakṣaṇa* (vv. 95–102).
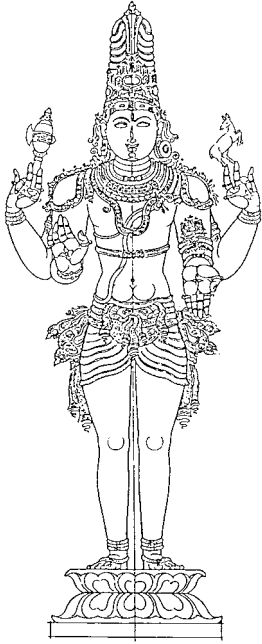c *Pratimāmānalakṣaṇa* (vv. 117–118).
d *Pratimāmānalakṣaṇa* (vv. 110–116).

Figure 4.3 Śiva in *uttama daśa tāla* (Sthapati 2002, p. 309).
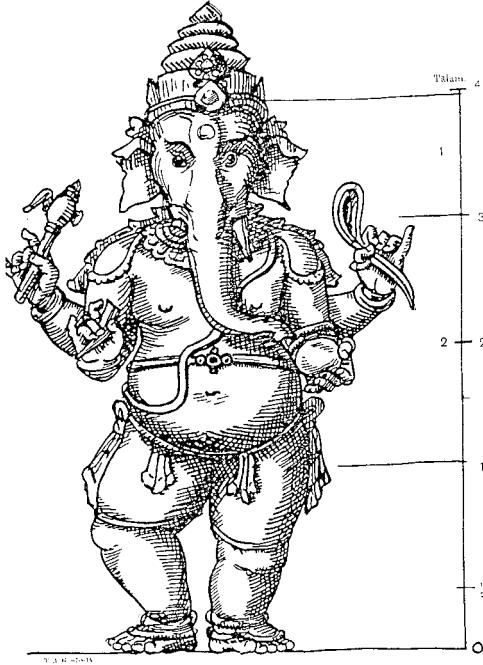
Figure 4.4 Gaṇeśa in *catus-tāla* (Rao 1920, plate XIIa).

The *Śukranīti* (Sarkar 1975) introduces its description of the *tālamāna* stating that images are of 10 *tālas* in the *satyayuga*, of 9 *tālas* in the *tretāyuga*, 8 *tālas* in the *dvāparayuga* and 7 *tālas* in the *kaliyuga*[7] (4.185–185). The text (4.171–183) states that the image of dwarfs is 7 *tālas*, that of men is 8 *tālas*, that of gods is 9 *tālas*, that of *rākṣasas* is 10 *tālas*, and it clarifies that the height of images varies according to the customs of localities, but the images of females and dwarfs are always 7 *tālas*. The *Śukranīti* explains that Nara, Nārāyaṇa, Rāma, Indra, Bhārgava and Arjuna are of 10 *tālas*. Caṇḍī, Bhairava, Vetāla, Narasiṃha, Varāha and others who are of a vehement type are to be twelve *tālas*. The images of *piśācas*, *asuras*, Vṛtra, Hiraṇyakaśipu, Rāvaṇa and others are sixteen *tālas*. The *bālas* (children) are 5 *tālas* and the *kumāras* (boys) are 6 *tālas*. The *tālamāna* measurements according to the *Śukranīti* are summarized in Table 4.3.

The *Śukranīti* (4.392–400 in Sarkar 1975, p. 181–182) further enjoins that in an image of 10 *tālas* the hands are to be of 15 *aṅgulas*, whereas in an image of less height, hands are to be less by 2 *aṅgulas* in each case. As for the feet, in an image of 10 *tālas* they should be 15 *aṅgulas*, whereas in the images of less height, the feet are to be less by 1 *aṅgula*. In the images of greater height the skilled artist should give 1 *aṅgula* more to the face and other limbs per total increase of 1 *tāla*. The measurements of hands and feet are summarized in Table 4.4.

According to the *Citrakarmaśāstra* (Marasinghe 1991), there are twenty-four different measurements for images, beginning from the 10 *tāla* measurement to the 3 *tāla* measurement, each of which is constituted by 3 different types: *uttama*, *madhyama* and *adhama*. This text (CKS 8.1–3) gives great importance to the

Table 4.3 Tālamāna of the *Śukranīti*

Parts of the body	Sapta tāla (7 tālas)[a]	Aṣṭa tāla (8 tālas)[b]	Nava tāla (9 tālas)[c]	Daśa tāla (10 tālas)[d]
Face	12	(12)	12	13
Neck	3	4	4	5
Chest	9	10	12	13
Stomach	9	10	12	10
Navel to genitals	9	10	12	10
Thigh	18	21	24	26
Knee	3	4	4	(5)
Shank	18	21	24	26
Foot	3	4	4	5
Total length	84 *aṅgulas*	96 *aṅgulas*	108 *aṅgulas*	113 *aṅgulas*

Notes
a See *Śukranīti* 4.362–364 in Sarkar 1975, p. 179.
b See *Śukranīti* 4.381–385 in Sarkar 1975, p. 180.
c See *Śukranīti* 4.186–193 in Sarkar 1975, p. 170.
d See *Śukranīti* 4.386–390 in Sarkar 1975, pp. 180–181. Also note that the total length of this image is 113 *aṅgulas*, which is three *aṅgulas* less than the *adhama daśa tāla* of Rao's table (Figure 4.1).

Table 4.4 Measurement of hands and feet of the *Śukranīti*

	10 tāla	9 tāla	8 tāla	7 tāla
Hands	15	13	11	9
Feet	15	14	13	12

Table 4.5 *Tālamāna* of the *Citrakarmaśāstra*

Parts of the body	Adhama daśa tāla	Madhyama daśa tāla[a]	Uttama daśa tāla
Crown or head	4	4 and 4 *yavas*	4 and 3 *yavas*
Face	12 and 4 *yavas*	13	13 and 4 *yavas*
Gala	—	4 *yavas*	4 *yavas*
Neck	4	3	3 and 4 *yavas*
Torso	25	26	27
Navel to genitals	12 and 4 *yavas*	13	13 and 4 *yavas*
Thigh	25	26	27
Knee	4	4	4
Shank	25	26	27
Foot	5	4	4
Total length	117 *aṅgulas*	120 *aṅgulas*	124 *aṅgulas* and *3 yavas*

Note

a See *Citrakarmaśāstra* (14.73–77). The total length of *madhyama daśa tāla* is 120 *aṅgulas* which agrees with Rao's table (Figure 4.1).

10 *tāla* measurement which is the one prescribed for all *bodhisattvas* and divine beings. The text (CKS 8.4–7) enumerates the other *tāla* measurements as follows: *navārdha tāla* ($9\frac{1}{2}$ *tāla*) is recommended for goddesses and females of divine beings, the *uttama nava tāla* is for *gandharvas* and the Lord of Serpents. Garuḍa and *daityas* belong to the *uttama*, *madhyama* and *adhama* varieties of the 8 *tāla*. *Piśācas* are of 7 *tālas* and cripples are of 6 *tālas*. Dwarfs are of 5 *tālas*, *bhūtas* of 5 *tālas*, *kinnaras* are of the *uttama*, *madhyama* and *adhama* types of the 3 *tāla* measurement. After enumerating this hierarchy of figures, the text concentrates on the analysis of the *uttama, madhyama* and *adhama daśa tāla* measurements[8] which are summarized in Table 4.5.

Also this text presents some discrepancies. In the introduction to the *uttama daśa tāla* (Figure 4.5), the *Citrakarmaśāstra* (CKS 14.1–7) states that its length is 124 *aṅgulas* as reported in Rao's table (Figure 4.1); however, the sum of all the parts of the body described brings the total height of the *uttama daśa tāla* to 124 *aṅgulas* and 3 *yavas*. The text (CKS 14.102–106) introduces the *adhama daśa tāla* stating that it should be of 116 *aṅgulas* in height (see also Rao's table), and in this case the total length of this image is different: 117 *aṅgulas*. Marasinghe (1991, p. 96) claims
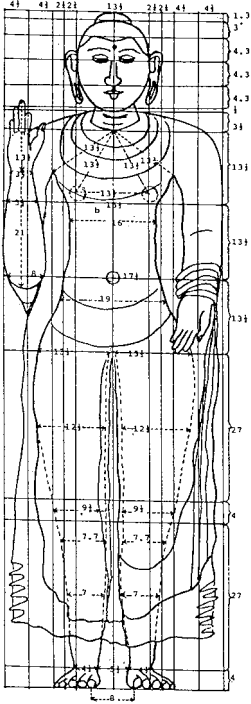
Figure 4.5 Representation of Buddha in *uttama daśa tāla*. Drawing by Marasinghe (1991, fig. 14) following the *Citrakarmaśāstra*.

that this difference is due to a mistake in the measurement of the feet which should be 4 *aṅgulas* instead of 5. It is difficult to confirm the mistake, especially if we consider the discrepancies that the various texts present.

After the descriptions of the *tāla* measurements as explained by the texts, we should analyse Rao's table (Figure 4.1) which appears unreliable in many of its examples. The first problem is given by the third column 'Total length of image'. The measurements he gives are not to be considered as fixed ones, because in the texts analysed there are differences in the measurements of the same *tāla*. This is the case, for example, of the 6 *tāla* measurement in the *Pratimāmānalakṣaṇa* which has a total length of 69 *aṅgulas*, whereas Rao's table states, for the same *tāla*, 68 or 72 *aṅgulas*; or the case of the 10 *tāla* for the *Śukranīti* that has a total length of 114 *aṅgulas* instead of 116 or 120. Moreover, some of the texts show differences in the parts of the body they take into account in the measurement of the *tāla*. For example, the measurement of hair is not always present in the *Śukranīti*, the measurement of ankle is considered by the *Pratimāmānalakṣaṇa* only or the measurement of the *gala* is stated in the *Citrakarmaśāstra* only. It is not always possible to fix the measurements as Rao did because there is not an absolute *tālamāna* system, but it is more

Table 4.6 Comparing *sapta tāla* measurements

Parts of the body	Devatāmūrtiprakaraṇa	Pratimāmānalakṣaṇa	Śukranīti
Hair	3	3	—
Face	12	12	12
Neck	3	3	3
Chest	7 and 4 *yavas*	19 *aṅgulas* for the torso	9
Stomach	9	—	9
Navel to genitals	7 and 4 *yavas*	2	9
Thigh	18	19	18
Knee	3	3	3
Shank	18	19	18
Ankle	—	1	—
Foot	3	2	3
Total length	84 *aṅgulas*	83 *aṅgulas*	84 *aṅgulas*

Table 4.7 Comparing *aṣṭa tāla* measurements

Parts of the body	Devatāmūrtiprakaraṇa	Pratimāmānalakṣaṇa	Śukranīti
Hair	3	—	—
Face	12	12	12
Neck	3	—	4
Chest	9	22 *aṅgulas* for the torso	10
Stomach	12	—	10
Navel to genitals	9	20	10
Thigh	21	22	21
Knee	3	3	4
Shank	21	20	21
Ankle	—	2	—
Foot	3	—	4
Total length	96 *aṅgulas*	101 *aṅgulas*	96 *aṅgulas*

appropriate to consider each text separately, so that one can compare the measurements of a text with the other. It is through this kind of comparative study that one is able to use *tālamāna* as a critical support in the study of Indian art.[9] Tables 4.6–4.9 highlight the discrepancies between the texts.

Rao (1920) maintains that there are mistakes in the whole *tāla* system and he claims that the names given by the texts to the various *tālas* have no etymological significance. Rao (1920, p. 35) comments on the measurements saying that:

> The reader would be inclined to believe that the phrases *daśa-tāla*, *pañcha-tāla* and *ekatāla* mean length equal to ten, five and one *tāla* respectively, but unfortunately this interpretation does not seem to agree with actual measurements, for example, the total length of an image made according to the *Uttama-daśa-tāla* measurement is 124 *aṅgulas*, and the *tāla* of this image measures $13\frac{1}{2}$ *aṅgulas*; dividing the total

Table 4.8 Comparing *nava tāla* measurements

Parts of the body	Devatāmūrtiprakaraṇa	Pratimāmānalakṣaṇa	Śukranīti
Hair	3	4	—
Face	12	12	12
Neck	3	4	4
Chest	10	24 *aṅgulas* for the torso	12
Stomach	12		12
Navel to genitals	12	12	12
Thigh	24	24	24
Knee	4	4	4
Shank	24	24	24
Ankle	—	2	—
Foot	4	4	4
Total length	108 *aṅgulas*	114 *aṅgulas*	108 *aṅgulas*

Table 4.9 Comparing *daśa tāla* measurements

Parts of the body	Adhama daśa tāla (*CKS*)	Madhyama daśa tāla (*CKS*)	Uttama daśa tāla (*CKS*)	Pratimāmāna-lakṣaṇa	Śukranīti
Crown or head	4	4 and 4 *yavas*	4 and 3 *yavas*	4	—
Face	12 and 4 *yavas*	13	13 and 4 *yavas*	12	13
Gala	—	4 *yavas*	4 *yavas*	—	—
Neck	4	3	3 and 4 *yavas*	4	5
Torso	25	26	27	26	23
Navel to genitals	12 and 4 *yavas*	13	13 and 4 *yavas*	10	10
Thigh	25	26	27	26	26
Knee	4	4	4	5	5
Shank	25	26	27	26	26
Ankle	—	—	—	3	—
Foot	5	4	4	5	5
Total length	117 *aṅgulas*	120 *aṅgulas*	124 *aṅgulas* and 3 *yavas*	121 *aṅgulas*	113 *aṅgulas*

length by the length of the *tāla* we find that there are only 9 *tālas* in it, again, the length of a *chatus-tāla* image is 48 *aṅgulas* and its *tāla* is 8 *aṅgulas* and therefore there are six *tālas* in this set of proportions. Thus it is found that there is no etymological significance clearly visible in the names given to the various proportions.

Rao's view can be explained by the inaccuracies presented in the fourth column of his table of measurement 'Length of the face' (Figure 4.1). In all the texts
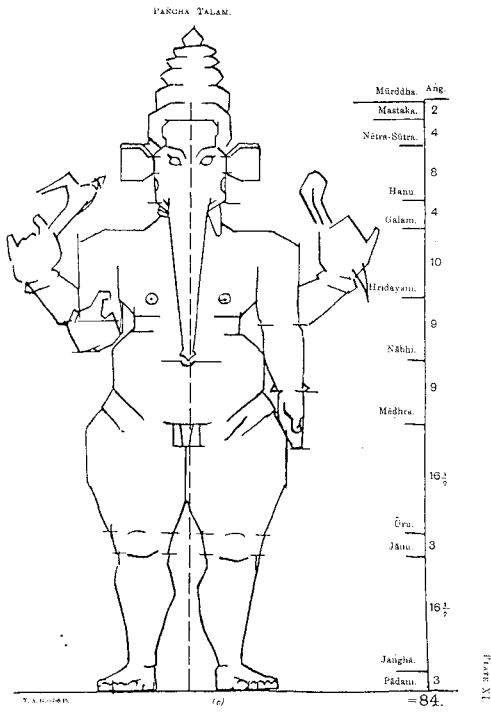
Figure 4.6 Pañca tāla Gaṇeśa according to Rao (1920, plate XI).

Figure 4.7 Kinnara in *madhyama tri tāla* measurement (Rao 1920, plate XIIIb).

considered in this study, the face of each figure described is to be considered as 12 *aṅgulas*, except for some instances of the *daśa tāla*. Banerjea (1941, p. 360) explains that several iconometric texts record the length of the face being 12 *aṅgulas*; however, the length of the face of an image of the *uttama daśa tāla* variety as laid down in various texts is $13\frac{1}{2}$ *aṅgulas*. This means that the measurements of length of the face given in Rao's table are not substantiated by the texts but have been calculated by Rao himself according to his own interpretation of the system. The *catus tāla* image of 48 *aṅgulas* (Figure 4.4) does not correspond to a 6 *tāla* image, as Rao claims, and its face length cannot be considered as being of 7 or 8 *aṅgulas*, but of 12. In fact, if we divide 48 by 12, which is the length of the face of a *catus tāla* image, the result would be 4 *tālas*. If we consider the *daśa tāla*, the *Pratimāmānalakṣaṇa* states that the face of a 10 *tāla* image is of 12 *aṅgulas* and if we divide 121 *aṅgulas* by 12, the result would be a little more than 10 *tālas*. Sometimes the texts give the length of the face as 13 *aṅgulas* or more, like the *Śukranīti* and the *Citrakarmaśāstra*; however, Rao's suggestion that a 10 *tāla* image corresponds to a 9 *tāla* is untenable because each text presents differences in terms of bodily proportions between the two paradigms. Moreover, if an image of 10 *tālas*, as stated by Rao, has its face of $13\frac{1}{2}$ *aṅgulas*, it does not mean that its *tāla* is $13\frac{1}{2}$ but, being a fixed unit of measurement, the *tāla* is always constituted by 12 *aṅgulas*, if we divide 124 *aṅgulas* by 12, the result would be in fact 10 *tālas* and 4 *aṅgulas*.

Rao's study on *tālamāna* is even more confusing if we look at some of his drawings. Figure 4.6, according to Rao, represents a *pañca tāla*. The figure however seems disproportionately high to represent such measurement. Gaṇeśa here is 84 *aṅgulas* in height, which means that if we apply the system as explained by the texts, the figure stands for a *sapta tāla* (84/12 = 7). The same kind of problem is presented by Figure 4.7. As Rao points out, this figure of a *kinnara* represents a *madhyama tri tāla*. Even in this case, if we take the length of the face of the figure as the base for *tāla* measurement, this figure appears much taller (roughly a *pañca tāla*) than a *tri tāla* figure.

The misinterpretation of Rao seems to be due to the fact of considering the *tālamāna* system as a system that involves scale, that is, he reduces or increases the size of an image maintaining the same proportions of its body. In fact, if we consider for example the length of the face he gives for the *uttama* and *madhyama catus tāla* as 7 and 8 *aṅgulas* respectively (Figure 4.1), we understand that he did not consider the fact that in the *tālamāna* system the length of the face is not variable and should not be calculated, but it should be of 12 *aṅgulas* (except for the *daśa tāla*). *Tālamāna* is not about scale, but it is about the proportions and harmony of the different parts of the body of a figure. In fact, Sthapati (2002) calls it 'rhythmic measure'.

Lambamāna or plumb-line measurement

Lambamāna means the measurement taken along the plumb-lines and it is one of the six kinds of measurement of images.[10] Among the texts explaining the *lambamāna*

are the *Mānasollasā* and *Śilparatna*, which analyse the system in relation to painting (*citra*), and the *Citrakarmaśāstra*, which focuses on sculpture.

The *Śilparatna* of Śrī Kumāra (I.46) divides the body of a standing image into parts according to three vertical lines or *sūtras*, the *brahmasūtra* which divides the body into two equal parts, and the two *pakṣasūtras* which are 6 *aṅgulas* apart from the *brahmasūtra* on either side. Furthermore, King Someśvaradeva in his *Mānasollasā* (Misra 1982, pp. 109–110) gives details of the three main lines: the *brahmasūtra* starts from the lock of the hair on the crown, passes through the middle of the eyebrows, the tip of the nose, chin, chest and navel to the middle of the two feet. Thus it marks the centre of the body from head to the ground. The *pakṣasūtras* begin from the top of the ear, pass through the middle of the knees and the second finger of the foot to the ground.

The *Citrakarmaśāstra* differs from the other two texts in the number of vertical lines it mentions. The number of lines of this text is nine; they are a *brahmasūtra* or central line and 4 *pakṣasūtras* on each side of the image. According to the *Citrakarmaśāstra* (15.4–12) a cotton cord should be suspended through the middle of the forehead, through the meeting place of the eyebrows, the tip of the nose, the middle of the navel, the middle of the penis, between the thighs and between the two legs. This is known as the *brahmasūtra*. One should suspend a second line or *pārśvasūtra* (*sūtra* of the flank) along the extremity of the face, the *pippalī* region,[11] the side of the neck, the edge of the breasts, the end of the hips and the loins and the middle of the feet. One should suspend the third line or *karṇasūtra* (*sūtra* of the hear) along the outer edge of the ear, the middle of the breasts, the middle of the thighs and the legs, the outer limit of the leg bone and the edge of the fourth toe. One should suspend the fourth line or *kakṣāsūtra* (*sūtra* of the armpit) through the armpit, outside the hips, outside the root of the thigh, along the side of the knee and of the little toe and along the side of the arm. The fifth line or *bāhusūtra* (*sūtra* of the arm) should be suspended along the middle of the arm and the end of the hand. One should thus lay the nine lines vertically. The text mentions also plumb-lines to be suspended at the back for sculptures. The *Citrakarmaśāstra* explains that the suspension of plumbs is done from a supporting frame hanging from pegs. One should suspend the different *sūtras* dividing the respective parts of the body.

Along with the vertical lines, King Someśvaradeva (Man III.1.205–233 in Shrigondekar 1939, AbhCint III.1.216–244 in Sastry 1926 and Misra 1982, pp. 110–111) explains horizontal lines or *tiryaka-sūtras*, too. They are:

- *mastaka-sūtra* or the *sūtra* of the head;
- *keśānta-sūtra* or *sūtra* of the border of the hair which is 3 *aṅgulas* above the top of the ears;
- *tapanoddeśa-sūtra* which passes one *aṅgula* above the occipital;
- *kacotsaṅga-sūtra* which passes from the side of the eyebrows, the top of the ear and the occipital;
- *kanīnikā-sūtra* or *sūtra* of the pupil of the eye which passes through the outer corner of the eye, the upper end of the *pippalī* and above the occipital;

- *nāsāmadhya-sūtra* or *sūtra* of the middle of the nose which passes through the raised portion of the cheeks to the middle of the ears;
- *nāsāgra-sūtra* or *sūtra* of the tip of the nose which passes through the cheeks, the root of the ear, the region from where the hair starts growing and the back;
- *vaktra-madhya-sūtra* which passes through the joint of the neck;
- *adharoṣṭha-sūtra* or *sūtra* of the lower and upper lip which passes through the joint of the chin to the back of the neck;
- *hanvagra-sūtra* or *sūtra* of the end of the jaw which passes through the neck to the joint of the shoulders;
- *hikkā-sūtra* or *sūtra* of the base of the neck which passes through the lower portion of the shoulders and the tops of the hands;[12]
- *vakṣasthala-sūtra* or *sūtra* of the place of the breast which passes through the nipples and the armpits to the back-bone;
- *vibhramasaṅga-sūtra* which passes below the nipples and through the upper parts of the elbow-joints to the middle of the back;
- *jaṭharamadhya-sūtra* or *sūtra* of the middle of the stomach which passes through the end of the biceps to the back;
- *nābhi-sūtra* or the *sūtra* of the navel which passes through the waist to the top of the buttocks;
- *pakvāśaya-sūtra* which passes through the middle of the hips;
- *kāñcīpada-sūtra* or *sūtra* of the hips which passes through the middle of the buttocks;
- *liṅgaśira-sūtra* which passes through the root of the thighs to the curve of the buttocks;
- *liṅgāgra-sūtra* which passes from below the buttocks to the fold of the buttocks;
- *ūru-sūtra* or the *sūtra* of the thigh which is 8 *aṅgulas* below the *liṅgagra-sūtra*;
- *māna-sūtra* or *urumadhya-sūtra* which is 4 *aṅgulas* below the *uru-sūtra*;
- *jānumūrdha-sūtra* or *sūtra* of the top of the knee which is 4 *aṅgulas* below the *māna-sūtra*;
- *jānvadhaḥ-sūtra* or the *sūtra* below the knee which is 4 *aṅgulas* below the *jānumūrdha-sūtra*;
- *śukrabastī-sūtra* which is 12 *aṅgulas* below the *jānvadha-sūtra*;
- *nalakāntaga-sūtra* which passes through the top of the ankle to the top of the heel;
- *gulphānta-sūtra* or *sūtra* of the end of the ankle which is 2 *aṅgulas* below the *nalakāntaga-sūtra*;
- *bhūmi-sūtra* or *sūtra* of the earth which is 4 *aṅgulas* below the *gulphānta-sūtra*.

These *sūtras* are explained in relation to *citra*; however some of the *tiryaka-sūtras* refers to the front and sometimes they move to the back of the image, like the *vakṣasthala-sūtra*. This means, again, that this system applies to both sculpture and painting. Figure 4.8 shows some of these lines. Their names sometimes vary from the ones used in the *Mānasollasā*.
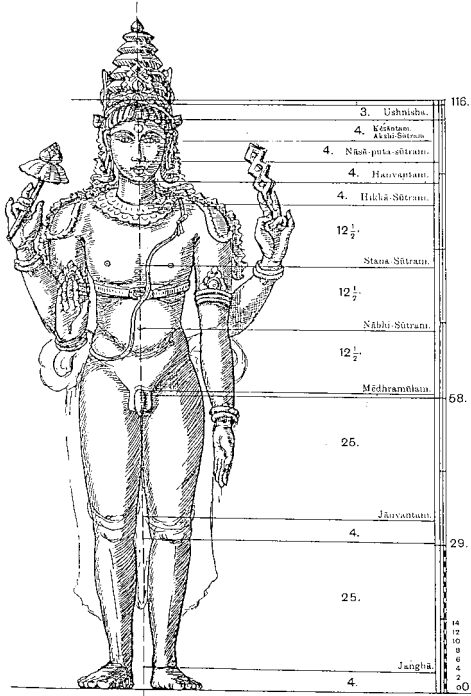
Figure 4.8 Representation of some horizontal lines (Rao 1920, plate Xa).

The role of these vertical and horizontal *sūtras* seems to be that of giving symmetry to the figures to be painted or sculpted. The *lambamāna* as explained by the *Citrakarmaśāstra* presents a practical use of the system by the use of a cotton cord to be applied in the measurement of the limbs and for symmetry. The same cannot be said for the other two texts, the *Śilparatna* and the *Mānasollasā*, which focus more on a description of the lines that should be imagined by the reader. The use of this kind of visual images is a peculiar characteristic of the theoretical knowledge expounded by the *citrasūtras*.

Conclusions

Tālamāna and *lambamāna* are analysed as two separate entities, but they complete the theory of proportion delineated in Chapter 3 and they should be seen in the wider framework of the system of measurement and proportion. They are concerned with both painting and sculpture, hence there is no tenable theoretical boundary between the two arts. Furthermore, they both focus on the image of a man stereotype. In this sense the theory of proportion remains somewhat abstracted from practice. This permits one to modify it according to one's own

discretion and need. The theory explained in this chapter draws from a different range of texts. Each text contains a different interpretation of *tālamāna* and *lambamāna*, and only by comparing the different views can the significance of the two systems be understood.

The absence of references to physiognomy in the exposition of the theories of *tālamāna* and *lambamāna* contrasts with what we discovered Chapter 3. It seems that physiognomy, which was closely interlinked with the theory of proportion of the early texts, loses its importance, and that the texts instead begin to divert their focus to a more technical way of calculation of bodily proportions and symmetry. Furthermore, the texts describe the theories of *tālamāna* and *lambamāna* more concisely compared to much of the theory analysed in the Chapter 3. This 'scientific' approach to theorizing can be seen in Chapter 5 in the section on postures.

Rao (1920) was the first to analyse *tālamāna* systematically but, as we have seen, he misinterpreted some fundamental aspects of the theory, considering for example the length of the face of an image as a variable measurement. *Tālamāna* is rather a system of measuring the length of the body of an image, in which the basic unit of measurement should always be of 12 *aṅgulas*. This basic unit (excluding some exceptions for the 10 *tāla* measurement) corresponds to the length of the face of the image. Even if this is the essential rule to understand *tālamāna*, texts reveal numerous discrepancies between the measurements of the *tālas*, which are highlighted by the comparison in Tables 4.6–4.9. Also in this case, the discrepancies can be interpreted as different ways of perceiving the proportions of a body (see Chapter 3).

Other discrepancies between texts can be seen in the *tāla* hierarchy of figures. For example, the *piśācas* are 7 *tālas* in the *Citrakarmaśāstra* and 13 *tālas* in the *Devatāmūrtiprakaraṇa*. These different hierarchies should not be seen as an order of importance of the figures, as Dagens (in Baumer 1992, p. 154) has pointed out, but simply as an iconographical characteristic of the figures. This is because we cannot consider a *piśāca* of 13 *tālas* to be more important than a god of 10 *tālas*. We can simply deduce that a 13 *tālas piśāca* would be more intimidating than a 7 *tālas* one.

The *tālamāna* system, which has been considered in secondary literature as belonging to the theory of sculpture, is used by the painters of Nathdvara (Rajasthan) as a working system of measurement. In this pilgrimage centre, there is a community of painters whose main activity is producing images of Śrī Nāthjī, a form of Kṛṣṇa as a child (Figure 4.9). Many of these painters agree that the right measurement for Śrī Nāthjī is $5\frac{1}{2}$ *tālas*. This seems to be a measurement fixed by the *haveli* temple and calculated on the basis of the image kept there. This measurement is not mentioned by any of the texts considered in this study, but the use of *tālamāna* is well known by the artists, being part of the practical tradition. One of the painters, Ghanshyam Sharma, clearly shows the division of the image into five and a half parts using a compass (Figure 4.10). Once the basic *tāla* unit is determined, the compass will help him to maintain the same measurement and to achieve the desired proportion of $5\frac{1}{2}$ *tālas*. This rule, however, is not followed by all the artists. Another painter, Sukhlal Jangid, admits that even if there is a fixed

Figure 4.9 Two paintings representing Śrī Nāthjī by Ramesh Chandr Jangid (Nathdvara).

Figure 4.10 The painter Ghanshyam Sharma (Nathdvara) explains with the use of a compass the division in *tālas* of his unfinished painting representing the image of Śrī Nāthjī.

length for the god of $5\frac{1}{2}$ *tālas*, this measurement is not followed by all artists and the images of the god can vary for example from $4\frac{1}{2}$, 5 and also 6 *tālas*.

Another painter, Chiranjeev Lal Sharma, while accepting the measurement of length of $5\frac{1}{2}$ *tālas*, claims to use a different way to achieve the same measurement. He explains that the image of Śrī Nāthjī kept in the *haveli* temple of Nathdvara stands on a rectangular stele that measures 5×3 feet. In his painting, he draws a rectangle with the same kind of proportions, for example a 5×3 inches rectangle (Figure 4.11), then he divides the length of the rectangle into six parts, leaving the final portion for the ground. The image of Śrī Nāthjī should then fit the rectangle as can be seen in his sketch.

Another view on *tālamāna* is that of Harihar Moharana, the sculptor from Bhubaneshavar. He sustains that for human beings, Shiva and some goddesses like Lakṣmī and Pārvatī the right measurement is $7\frac{1}{2}$ *tālas*. These should be distributed as follows: for the face 1 *tāla*, leaving out the hair, $\frac{1}{2}$ a *tāla* for the neck, 2 for the body, 2 up to the knee and 2 up to the feet. He also explains that $4\frac{1}{2}$ *tālas* is the right measurement for babies, and 4 is for Gaṇeśa, in which 1 *tāla* is the head and 3 *tālas* his body.

Other examples of the use of *tālamāna* are given by Ram Prasad Sharma, the sculptor from Jaipur. In his point of view, standing images, like that of Sai Baba of Sirdi, are $7\frac{1}{2}$ *tālas*. This length becomes 5 *tālas* for sitting images. Similarly, Pramod Sharma, another sculptor from Jaipur, says that standing images are $7\frac{1}{2}$, but sitting ones are 4 *tālas*.

The other system analysed in this chapter is *lambamāna*, whose aim is that of creating symmetry of an image. Symmetry is achieved by dividing the body of images with plumb-lines (*lambasūtras*) called *brahmasūtra* and *pakṣasūtras*. The body can also be divided with horizontal lines or *tiryakasūtras*. Symmetry is regarded as one of the fundamental points of the Indian theory of painting and
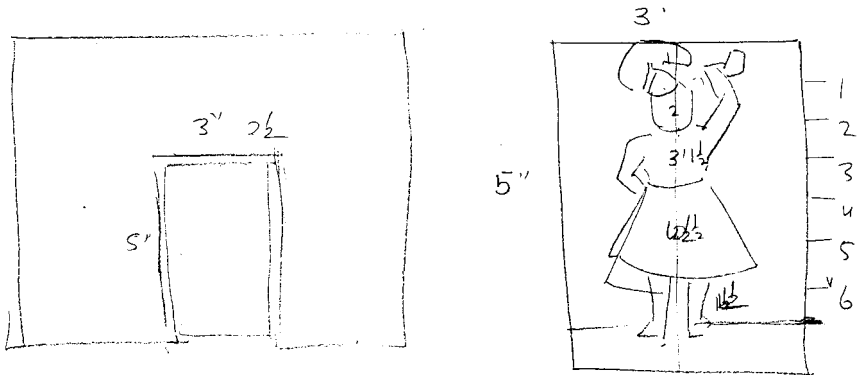
Figure 4.11 Sketch showing the measurement of Śrī Nāthjī and his stele drawn by Chiranjeew Lal (Nathdvara) according to the proportions of the image standing in the *haveli* temple of Nathdvara.

Figure 4.12 Representation of Hanuman by a sculptor working in the studio of Ram Prasad Sharma showing the use of *brahmasūtra*.

sculpture, and practitioners consider this point very seriously. For many of them, the first step in organizing a painting or a sculpture is that of dividing a piece of paper, board or stone into two equal parts (Figure 4.12). Harihar Moharana, for example, elucidates that the use of the central line (*brahmasūtra*) is the most important thing to follow in order to obtain balance. He also adds that there are other important lines to be used and they depend on the postures of the images.

In painting, the *brahmasūtra* is used, dividing a piece of paper into two equal parts. That line will become the central line of the main figure. This is the case of the image of Śrī Nāthjī shown in Figure 4.10. In the image of Śrī Nāthjī there are also horizontal lines to be followed that are important in his iconography. For example, Sukhlal Jangid sustains that Śrī Nāthjī should have an ear-ring on the top of his ear, and this should be on the same level of the elbow of his raised arm. The other arm should be at the same level of the *nābhi* or navel. These two ideal

Figure 4.13 Fresco painting representing Śrī Nāthjī celebrating Annakūṭa festival (Mahuavala Akhara, Nathdvara, nineteenth century).

lines can be *seen* in Figures 4.9 and 4.10. These lines do not follow the tradition of any text but are elaborated and used for the image of Śrī Nāthjī.

A different use of vertical and horizontal lines can be seen in the fresco painting dated to the mid-nineteenth century representing Śrī Nāthjī in the Mahuavala Akhara in Nathdvara[13] (Figure 4.13). In this fresco, vertical and horizontal lines, clearly marked on the wall surface, are used to organize the entire composition and to highlight the centrality of Śrī Nāthjī.

Also Kalamani Venkatesaraja, a traditional painter based in Tanjore, confirms the importance of the *brahmasūtra*, showing an uncompleted work made by his father. This work shows that the use of a main central line that divides the wooden board into two parts becomes the central line for the main deity, and that other deities, on the right and left of the main one, have their own central lines. This work also reveals the use of horizontal lines. This artist however admits that today he doesn't employ any of these lines for his painting, but more simply he utilizes a series of pricked drawings that are reported on a wooden panel with the use of coal (Figure 4.14).

As in Chapter 3, this chapter highlights the possibility of seeing a link between the theory and practice of painting. This is proved by the various examples and ideas of different painters and sculptors, who, while denying any use or knowledge of the texts, employ the same way of reasoning, conceptualizing and dividing

Figure 4.14 Pricked drawing representing Krishna as a child used by Kalamani Venkatesaraja for his Tanjore paintings.

images expressed by the *citrasūtras*. This is the case of the creation of the image of Śrī Nāthjī in $5\frac{1}{2}$ *tālas*. This measurement is not found in any of the texts analysed in this study, but the painters of Nathdvara have adjusted the *tālamāna* system for their particular task. Also the use of *lambamāna* in the figure of Śrī Nāthjī is differently adopted from the theory of the texts. Horizontal lines in the figure of Śrī Nāthjī acquire a particular significance; they are not used in the same way as described in the texts but adapted for the particular iconography of the god. In the case of the fresco representing Śrī Nāthjī in the Mahuavala Akhara (Figure 4.13), *lambamāna* is used to create symmetry and balance not only of the figure of the god but of the entire composition. These similarities with the theory expounded in the *citrasūtras* clearly exemplify that artists and texts share many of the views on painting but at the same time shows that both are independent elements of the creative process.

5

STANCES, HAND AND LEG POSTURES

This chapter examines the different positions of the body, hands and legs of an image as described in various textual sources. The first part of this chapter will focus on stances or *sthānas*. The different positions of the body will be analysed according to two main systems, one delineated by the *Viṣṇudharmottara Purāṇa* and the other by the *Śilparatna*. The second part will consider different *mudrās* or positions of the hands and the meanings conveyed by these positions to the viewer. The main textual sources used in this section are the *Samarāṅgaṇa Sūtradhāra*, the *Nāṭya Śāstra*[1] and the *Vāstusūtra Upaniṣad*.[2] The third part of the chapter will focus on *pāda mudrās*[3] or leg postures of standing images, according to the *Samarāṅgaṇa Sūtradhāra, Nāṭya Śāstra* and *Viṣṇudharmottara Purāṇa*, and the fourth part on *āsanas* or sitting postures, according to the *Vāstusūtra Upaniṣad*.

Studies of the theory of painting discuss the topic of stances in line with the textual evidence provided by the *Viṣṇudharmottara Purāṇa, Śilparatna* and other texts, but they do not generally consider *mudrās, pāda mudrās* and *āsanas* which, due to their different textual sources, are only included in studies on the theory of sculpture. As argued in previous chapters, it is important to examine both the theory of painting and the theory of sculpture together, as both help us to understand the *citrasūtra* and the actual practice of Indian painting. Our analysis here, however, does not seek to comprehensively examine all *mudrās, pāda mudrās* and *āsanas* but seeks to enumerate only some of the most important ones to highlight the difficulties of interpreting their meaning and application. Indeed, the texts examined here only mention *mudrās, pāda mudrās* and *āsanas* and do not provide much explanation about their aesthetic representation in the absence of drawings. Thus, to understand the descriptions of these positions, it is necessary to draw on secondary literature, especially the works of Rao (1914), Banerjea (1941) and Sthapati (2002). By integrating the analysis and interpretations of this secondary literature it is possible to comprehend the aesthetic representations of those postures. However, as our use of the various textual sources and secondary material will demonstrate, there is significant divergence among scholars' interpretations. Rao, Banerjea and Sthapati all claim to make their deductions on the basis of textual sources, yet their assertions are rarely supported by citations of

textual evidence. Indeed, it often appears that their claims are grounded more in observation and interpretative speculation about extant sculptures rather than analysis of textual sources.
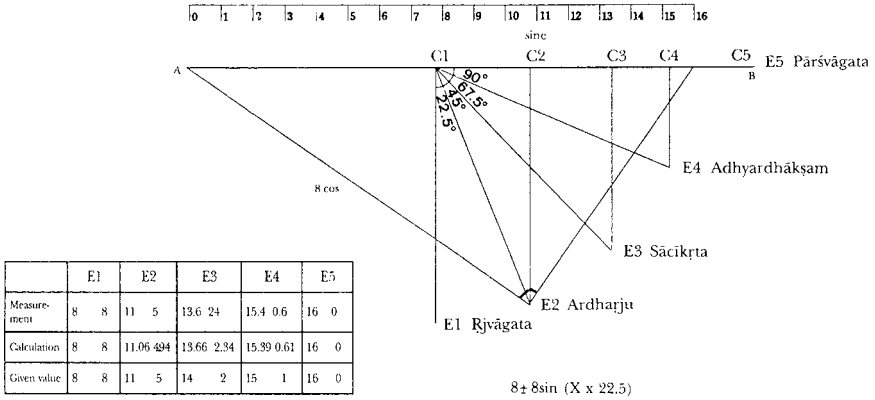
Stances

This section examines the theory of stances according to two main systems: the one of the *Viṣṇudharmottara Purāṇa* and the other of the *Śilparatna*. The *Viṣṇudharmottara Purāṇa* appears to be less systematic and clear than the *Śilparatna* in the analysis of the system of stances, and the information it gives seems to be not enough for the reader to grasp some of the postures. For this reason it becomes necessary to study the two systems together in order to understand the various poses.

The key word that analyses the system of stances expounded in the *Viṣṇudharmottara Purāṇa* is *kṣayavṛddhī*, from *kṣaya* (diminishing) and *vṛddhī* (increasing). This term is generally translated in secondary literature as foreshortening, even if the expression acquires a different meaning from its English equivalent. Jayanta Chakrabarti (1980, p. 103) misinterprets *kṣayavṛddhī*, explaining it as a principle used by the painters to make figures smaller or larger according to their relative importance in the composition. This system however is not supposed to be used for this purpose, but it should be employed to depict figures in different poses. *Kṣayavṛddhī* refers to the rotation of the body of a man about an axis and to what a viewer standing in a fixed point can see of that body. On this rotation the viewer will see some parts of the body disappear (*kṣaya*) or appear (*vṛddhī*). In the same way, the reader should imagine the body divided into two equal parts of which the foreshortened part (*kṣaya*) of a body would disappear while rotating and the other part (*vṛddhī*) would appear (Figure 5.1). The *Viṣṇudharmottara Purāṇa* (III.39.1–4) states that figures have nine postures. They are: *ṛjvāgata, ardharju, sācīkṛta, adhyardhalocana, pārśvāgata, parāvṛtta, pṛṣṭhāgata, purovṛtta* and *samānata*. The text adds that these postures have innumerable variations.

In the description of stances, the *Śilparatna* explains the system in a different way from that of the *Viṣṇudharmottara Purāṇa*, using the *lambamāna* or plumb-line system, dividing the body vertically into parts by means of three perpendiculars (Figure 5.2). Also in this case we should imagine a male body rotating in front of a viewer standing in a fixed position. The texts carefully describe each position where the plumb-lines pass through the body.

According to the *Śilparatna*[4] there are five principal stances, they are: *ṛju, ardharju, sācī, ardhākṣi* or *dvyardhākṣi* and *bhittika*. The text (I.46.63) further explains that in addition to these 5 *sthānas* there are 4 types of *parāvṛtta* or dorsal *sthānas* which bring the total of the stances to 9, like the *Viṣṇudharmottara Purāṇa*.

The section of the *Samarāṅgaṇa Sūtradhāra* dealing with stances is extremely corrupt; however, following the analysis of Shukla (1956, pp. 244–245) we can

	E1	E2	E3	E4	E5
Measurement	8	8	11 5	13.6 24	15.4 0.6	16 0
Calculation	8	8	11.06 494	13.66 2.34	15.39 0.61	16 0
Given value	8	8	11 5	14 2	15 1	16 0

E : Viewing point
AB : Distance between the nipples
C : Centre
AB : Stationary ; E Shifts

Figure 5.1 Representation of the stances of the *Viṣṇudharmottara Purāṇa* and the rules of *kṣayavṛddhī* (Dave Mukherji 2001, diagram I).
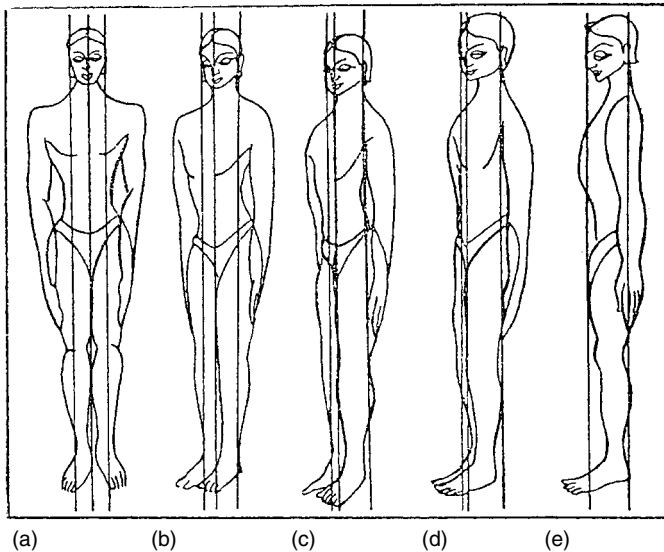

Figure 5.2 Representation of frontal stances as described in the *Śilparatna* (Bhattacharya 1974, p. 49): (a) *ṛju* (6:6); (b) *ardha-ṛju* (4:8); (c) *sācī* (2:10); (d) *dvyardhākṣi* (1:11); (e) *bhittika* (0:6).

assert that the text (SamSut 79) divides *sthānas* into three parts: the first group is the one including postures which show the frontal part of the body, and they are five in total: *ṛjvāgata, ardharjvāgata, sācīkṛta, adhyardhākṣa* and *pārśvāgata*. The second group includes the posture showing the back of the body and they are four in number. The third group includes the postures occupying an intermediate position (*vyantara*) and they are twenty in number. The stances are summarized in Table 5.1.

The texts give more emphasis to the description of the frontal stances represented in Figures 5.1 and 5.2. The first stance to be discussed by the texts is the *ṛjvāgata* or frontal. The *Viṣṇudharmottara Purāṇa* (III.39.5–6) explains that this figure is fully complete with beautiful limbs and is sketched very smoothly and faultlessly. This posture is pure and appealing, because the body is unforeshortened. In the *Śilparatna* (I.46.61–68), the *ṛju sthāna* or frontal stance is when the frontal part of the body is shown. Here the distance between the *brahmasūtra* and the two side lines or *pakṣasūtra* is of 6 *aṅgulas* (Figure 5.2), and the back is not shown.

The *Viṣṇudharmottara Purāṇa* (III.39.7–9) explains that *ardharju* or half-frontal stance has half of the face, chest, belly, waist down to the buttocks and thigh foreshortened. One-fourth of the nose-wing and lips are foreshortened; as for the rest of the body, a third part is foreshortened. A figure in this posture is drawn employing perpendiculars[5] passing through the nipples, and various coordinations of hand and foot movements are possible. The *Śilparatna* (I.46.69–76) states that in the *ardharju* (half-frontal) stance the inter-spaces between the *brahmasūtra* and the 2 *pakṣasūtras* are of 8 *aṅgulas* on one side and 4 *aṅgulas* on the other (Figure 5.2). One of the *pakṣasūtras* would run from the side of the eye, the ear lobe, inside the breast, cutting one-third of the knee and touching the end of the shank, and it should be imagined as meeting the ground at the root of the large toe of the other leg. The other *pakṣasūtra* should run outside the nipple and 5 *aṅgulas* from the knee and should touch the ground between the middle and the fourth toe of the front leg. The *brahmasūtra* passes from the middle of forehead, through the middle of the brows, a little outside the nostril and outside the pit of

Table 5.1 Stances

Texts	Stances
Viṣṇudharmottara Purāṇa	*ṛjvāgata* (frontal), *ardharju* (half-frontal), *sācīkṛta* (averted), *adhyardhalocana* (half-eyed), *pārśvāgata* (profile), *parāvṛtta* (turned away), *pṛṣṭhāgata, purovṛtta, samānata* (completely bent)
Śilparatna	*ṛju* (frontal), *ardharju* (half-frontal), *sācī* (averted), *ardhākṣi* (half-eyed), *bhittika* (profile), four unnamed *parāvṛtta* or dorsal stances
Samarāṅgaṇa Sūtradhāra	*ṛjvāgata* (frontal), *ardharjvāgata* (half-frontal), *sācīkṛta* (averted), *adhyardhākṣa* (half-eyed), *pārśvāgata* (profile), 4 unnamed *parāvṛtta* or dorsal stances and 20 *vyantara* or intermediate stances

the navel; it goes to the middle part of the genitals and meets the ankle of the foot of the back leg. All other limbs should be arranged appropriately.

The *Viṣṇudharmottara Purāṇa* (III.39.10–13b) states that *sācīkṛta* or averted stance has half of the body foreshortened to one-fourth, and one and a half side of the nose and forehead are shown. The foreshortened eye measures 1 *aṅgula* and the same measurement is for the foreshortened eyebrow. The *Śilparatna* (I.46.76b–85a) explains that in the representation of the *sācīkṛta* (averted) stance, the inter-spaces between the *brahmasūtra* and the *pakṣasūtras* are 10 *aṅgulas* on one side and 2 *aṅgulas* on the other (Figure 5.2). One of the *pakṣasūtras* should touch the forehead, the corners of the eye, the cheek, the shoulder-blade and should pass through a distance of 1 *aṅgula* from the breast and $1\frac{1}{2}$ *aṅgulas* away from the navel and clearly outside the joint of the thigh and the *aṇideśa*.[6] The *pakṣasūtra* touches the root of the great toe of the other leg. The *brahmasūtra* should be placed successively through the hair parting, the middle of the brows, the middle of the nostrils and through the middle of the navel, outside the genitals, before the circle of the knee and the tip of the toenail. The other *pakṣasūtra* should pass from the back of the head, near the ear, the neck, the cavity of the joint of the shoulders, the nipple, at a distance of 1 *aṅgula* in front of the waist and running at a distance of 2 *aṅgulas* from the centre of the hip and also that of the wrist, and it goes down to the back of the heel of the front leg.

The *Viṣṇudharmottara Purāṇa* (III.39.13c–16) states that *adhyardhalocana* (one-and-a-half-eyed) is represented with half an eye and eyebrow foreshortened. Its forehead on the foreshortened side is half an *aṅgula* and only half of the nose is visible. It has one side of one cheek measuring half an *aṅgula* and one entire side foreshortened. The region of the throat, on the foreshortened half of the body, measures half an *aṅgula* and that of the chin measures 1 *yava*. The front of the chest is foreshortened by half, and 1 *aṅgula* remains of the foreshortened side of the navel. One and a half of the unforeshortened waist is visible and the other half becomes invisible. According to the *Śilparatna* (I.46.85b–91), in the *ardhākṣi* (half-eyed) stance, the inter-space between the *brahmasūtra* and the *pakṣasūtras* is 1 *aṅgula* on one side and 11 *aṅgulas* on the other (Figure 5.2). One side line should pass along the scalp, the tip of the nose, the armpit, the navel and the middle of the knee and the root of the great toe. The *brahmasūtra* should pass through the middle of the hair parting, the middle of the brows, the *gojī*[7] and the jaws, and it should run at a distance of 1 *aṅgula* from the armpit, the navel, the genitals and reach the base of the last but one division of the great toe. The other *pakṣasūtra* passes along the upper region of the back of the body, the wrist, the index finger and the heel of the front leg.

The *Viṣṇudharmottara Purāṇa* (III.39.17c–20b) explains that *pārśvāgata* or profile is the posture in which only one side can be seen, either left or right side. The entire other side undergoes foreshortening and along with it disappears the symmetry of the body. It has one eye, one eyebrow, half of the nose and forehead, one ear, half the distance between the eyebrows, half the chin and hairline. The *Śilparatna* (I.46.91b–107) states that in the *bhittika* (*pārśvāgata* or profile) stance

there are two *pakṣasūtras* and the *brahmasūtra* would coincide with one of the side lines (Figure 5.2). One of the *pakṣasūtras* passes through the upper region of the backside of the body, the shoulder-blade, the elbow and close to the end of the heel. From the *brahmasūtra*, the distance of the scalp should be 3 *yavas* and the distance of the root of the nose would be 2 *yavas*. The distance between the *gojī* and the central line should be imagined as of 1 *yava*. The distance between the *brahmasūtra* and the chin would be 1 *aṅgula*. The distance of the joint of the neck and that of the throat from the central line should be 1 *aṅgula* and 1 *bhāga* respectively. The *brahmasūtra* would then pass along the nipple and the genitals.

The back postures are described in detail only by the *Viṣṇudharmottara Purāṇa*. The *Śilparatna* (I.46.108–112) only states that there are four postures which have the front part of the body 'within the wall' or *bhittika*. This expression indicates that these postures show the back or *parabhāga* view of the body and the frontal part is invisible because it is turned to the side of the wall, that is embedded in the stone surface (Bhattacharya 1974, p. 54).

The *parāvṛtta* (turned away) posture is the sixth posture mentioned by the *Viṣṇudharmottara Purāṇa* (III.39.20c–23b). In this posture one corner of the eye measures 1 *aṅgula* and the throat region measures the same. The chin, the cheek and the forehead are foreshortened by 1 *aṅgula*. Arm, chest, waist and buttocks right down to the ankle are foreshortened in the appropriate places by 4 *kalās* (8 aṅgulas). The foreshortening should be done in terms of correct proportion so as not to make the body of the figure look too angular.

Pṛṣṭhāgata (ViDha III.39.23c–26b) has the body shown from the back. The corner of the eye is shown slightly but the cheeks and the stomach are not. This posture is very stable, beautiful to look at; its loveliness is not devoid of proportion and is full of qualities such as sweetness.

The *purovṛtta* posture (ViDha III.39.26c–27) has half of the body foreshortened to 3 *aṅgulas*. It is somewhat like *adhyardhalocana* in appearance seen from behind.

The *samānata* posture (completely bent) (ViDha III.39.29c–32b) has the buttocks and the soles of the feet fully visible. The waist is visible from the back and the toes and the front part of the soles are foreshortened. The elbows are also visible on either side. This posture is beautifully accomplished from all sides, with only the upper part of the arm made visible and the face and the shoulders invisible.

The *Śilparatna* (I.46.108–112) explains that there may be numerous stances of mixed poses (*miśra sthānas*), like for example when the face is in *ṛju* stance, the lower part from the neck may be of another stance and the pose of the lower part from the girdle may be of another. The skilled artist decides upon an appropriate stance and delineates mood and action in painting.[8] Also the *Viṣṇudharmottara Purāṇa* (III.39.37) clarifies that postures can have many more variations, and according to the criterion of variety of postures, there could be *uttama* (best), *madhyama* (middling) and *adhama* (inferior) types of postures. Postures are also classifiable into variegated (*citra*), hyper-variegated (*vicitra*) and variety-less (*advaidha*).

Mudrās

The study of *mudrās* is permeated by the idea that hand postures in painting and sculpture derive directly from dance. Sthapati (2002, p. 81), for example, observes that: 'One of the most significant features of the sculptural tradition of this land is the adaptation of the grammar of dance in sculptural representations.' This established viewpoint, however, appears difficult to demonstrate in practice. It seems more appropriate to say that while dance and painting/sculpture share many similarities, they have developed their own peculiar language of visual representation.

Nevertheless, certain connections between painting and dance can be examined in texts such as the *Nāṭya Śāstra*. In fact, theoretically speaking, the *Nāṭya Śāstra* becomes one of the most relevant texts in the study of *mudrās* and *pāda mudrās*. The *Viṣṇudharmottara Purāṇa* (III.2.1–9) establishes this textual connection by specifying that what is not explained in the chapters on *citra* should be understood from the chapters on dance. The theoretical relationship between dance and painting/sculpture may be also proved by the similarities between the *Nāṭya Śāstra* (9) and the *Samarāṅgaṇa Sūtradhāra* (83), a *śilpa* text that contains a chapter on hand postures that seems to derive directly, except for few modifications, from the *Nāṭya Śāstra* itself. For example, in the *Samarāṅgaṇa Sūtradhāra, mudrās* are divided into three types: *asaṃyuta* (non-combined),[9] *saṃyuta* (combined)[10] and *nṛtya* (dance)[11] *mudrās*, according to the system delineated by the *Nāṭya Śāstra*.

The list of *mudrās* of both texts (see Notes 9–11) however seems to bear little significance for the practice of sculpture and painting. Apparently the connection between the *mudrās* explained in the *Samarāṅgaṇa Sūtradhāra* and *Nāṭya Śāstra* and those used practically in the art of painting or sculpture remains on a purely theoretical level, excluding some exceptions like *sūcī* and *añjali mudrās*, which can be clearly recognized in practice. On the practical level it is difficult to see how the list of *mudrās* had any relevance for painting and sculpture. This question is considered seriously by Banerjea (1941, p. 270) who highlights that: 'The fully developed and highly technical *mudrās*, that are described in the Indian works on dramaturgy such as *Nāṭyaśāstra, Abhinayadarpaṇa*, etc. have not much application in our study.' His view, however, differs from our reading of the texts. The *Nāṭya Śāstra* and the *Samarāṅgaṇa Sūtradhāra* enumerate possibilities in which a work of art may unfold, in a manner similar to how other aspects and concepts of the theory are expounded. These concepts, constituting a theoretical view on the subject, are relevant to our study even if they may not be used or recognized in practice.

Along with the *Samarāṅgaṇa Sūtradhāra* and the *Nāṭya Śāstra* there is another text that enumerates hand postures in relation to sculpture, and by implication to painting: the *Vāstusūtra Upaniṣad*. The *Vāstusūtra Upaniṣad* (6.16 and commentary) explains that hand gestures manifest the emotional attitude of the image and that there is a connection between gestures of chanting priests in sacrificial rituals

and gestures used in the representation of divine figures. The same text (6.4) adds that *mudrā* is one of the elements constituting an image and that the other elements are composition, ornamentation, weapons, postures, vehicles, secondary divinities and devotees. The five principal gestures mentioned by the text are *tarjanī, vara* or *varada, abhaya, yoga* and *vyākhyāna*. The same *mudrās* are mentioned in the chapters on iconography included in the various *śilpa* texts, in which the detailed descriptions of gods contain a very limited range of names for hand postures, but they can be recognized in practice. The *Vāstusūtra Upaniṣad* and the other texts do not mention the aesthetic features of the *mudrās*. This is due to the fact that those *mudrās* were well known in the contexts in which they were written. In order to describe and identify them here, we must draw upon secondary literature. In many cases the explanation of *mudrās* are clear, but in some others (e.g. *yoga* and *kaṭaka mudrās*) scholars remain divided over interpreting them.

The *tarjanī* (threatening finger) *mudrā* (Figure 5.3) has the projected forefinger pointing upwards. The *Devatāmūrtiprakaraṇa* (4.43) prescribes that the *dvārapāla* (doorkeeper) Daṇḍī is represented with a raised finger in *tarjanī mudrā*. This *mudrā* denotes retribution and it is considered a variation of *sūcī* which is described extensively in the *Nāṭya Śāstra* (9.64–79). This *mudrā* is used to point out or draw attention to any occurrence (Rao 1914, p. 15; Sthapati 2002, pp. 86–87).

Rao (1914, p. 14) explains that the *varada* or *vara mudrā* (Figure 5.4) shows the pose of the hand while conferring a boon. In this pose the palm of the left hand is spread outwards with the fingers pointing downwards. This position is mentioned by Varāhamihira (BrSam 58.38) while describing the image of Ekānaṃśā who has one of her right hands in the *varada* pose. The *varada mudrā* is the hand pose prescribed in the *Devatāmūrtiprakaraṇa* (4) for gods like Viśvakarman, Indra, Varuṇa and others.

Abhaya (fearless) *mudrā* (Figure 5.5) is the protection-affording hand pose.[12] Here the palm of the hand has the fingers pointing upwards (Rao 1914, pp. 14–15). According to Sthapati (2002, p. 84), this *mudrā* represents the *patāka* (banner) *mudrā* of the *Nāṭya Śāstra* (9.18). Banerjea (1941, p. 273) maintains that *abhaya*

Figure 5.3 Tarjanī mudrā (Sthapati 2002, p. 87).
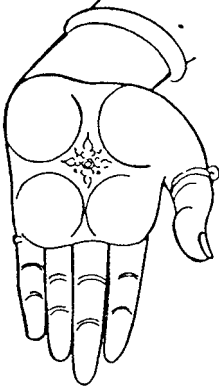
Figure 5.4 Varada mudrā (Sthapati 2002, p.84).
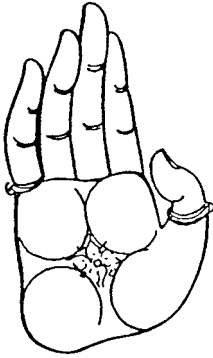
Figure 5.5 Abhaya mudrā (Sthapati 2002, p. 86).

mudrā is also called *śāntida* (giving tranquillity). The latter term has been used in the *Bṛhat Saṃhitā* (58.33–35) by Varāhamihira in his description of Viṣṇu. This hand pose is recommended by the *Devatāmūrtiprakaraṇa* (7) for images like those of the attendants of the *tīrthaṅkaras*.

Some confusion arises in the interpretation of *yoga mudrā*. Rao (1914, p. 17) sustains that in the *yoga mudrā* the palm of the right hand is placed on that of the left hand and both together are laid on the crossed legs of the seated image (Figure 5.6). Sthapati (2002, p. 91) and Marasinghe (1991) call this *mudrā* by the name *dhyāna* (meditation). The *yoga mudrā*, according to Sthapati (2002, pp. 85–86) is represented by a different position of the hands. For this scholar, *yoga mudrā* is a variety of *vyākhyāna mudrā*.

In *vyākhyāna* (explaining) *mudrā*, the tip of the thumb and that of the forefinger touch each other, so as to form a circle and the other fingers are kept open. This is

Figure 5.6 Yoga mudrā (Rao 1914, plate V, fig.17).

the *mudrā* adopted when an explanation or exposition is being given. A variety of this posture is *jñāna* (higher knowledge) *mudrā*. According to Rao (1914, p. 17), in the *jñāna mudrā* the tip of the middle finger and that of the thumb are joined together and held near the heart, with the palm of the hand turned towards the heart. Sthapati (2002, p. 86) explains that this *mudrā* can also be expressed with the palms facing upwards and resting on both knees.

Rao, Banerjea and Sthapati enumerate a number of other *mudrās* to be added to those of the *Vāstusūtra Upaniṣad*, but unfortunately they omit to mention the textual sources used. Among them are for example *añjali mudrā*, which is also mentioned by the *Devatāmūrtiprakaraṇa* and *Nāṭya Śāstra*, and *kaṭaka mudrā*, which presents some significant problems of interpretation.

In the *añjali* (honouring) *mudrā* the palms of the hands are kept close to each other and the folded hands are made to rest on the chest. This hand pose is indicative of worship and prayer (Rao 1914, p. 16) and even today in Indian society making this gesture denotes respect. According to the *Devatāmūrtiprakaraṇa* (5.67) the image of Garuḍa has two hands in the *añjali* position. The *Nāṭya Śāstra* (9.127–128) explains this posture saying that it is composed by two *patāka* (banner) hands put together. It further enjoins that in regard to the deities *añjali* is held on the head, to venerable persons near one's face, and in greeting friends *añjali* is placed on the breast.

The explanation of *kaṭaka* (string) *mudrā* presents some discrepancies between secondary literature and the texts. Rao (1914) and Banerjea (1941) sustain that *kaṭaka* or *siṃhakarṇa* (lion's ear) *mudrā* (Figures 5.7 and 5.8) is the pose of the hand in which the tips of the fingers are loosely applied to the thumb so as to form a ring or to resemble a lion's ear. Rao (1914, p. 15) maintains that the hands of goddesses are generally fashioned in this manner for the purpose of inserting a flower in them. On the other hand, Sthapati (2002, p. 85) explains that the name *kaṭaka* derives from the position of the hand that resembles a crab. It is worth noting that the descriptions of this *mudrā* are different from what is stated in the *Nāṭya Śāstra* and *Samarāṅgaṇa Sūtradhāra*. In particular, if we follow the suggestion of Sthapati that this *mudrā* resembles a crab then we should look at *karkaṭa* (crab or Cancer) *mudrā* of the texts and consider *kaṭaka* as a misspelling
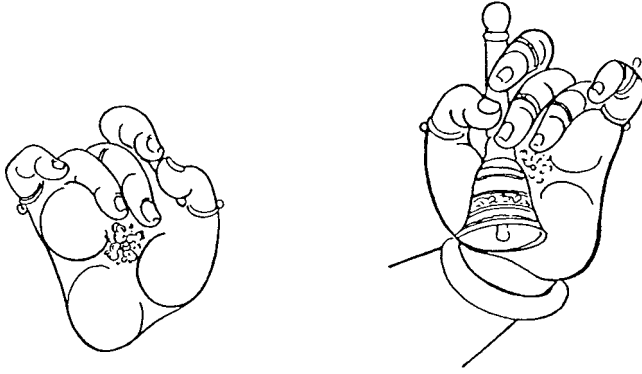
Figure 5.7 Kaṭaka mudrā (Sthapati 2002, p. 85).
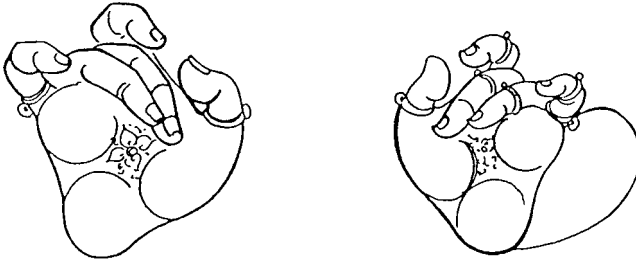
Figure 5.8 Siṃhakarṇa mudrā (Sthapati 2002, p. 85).

for *karkaṭa*. This, however, is not solely a problem of terminology; the position of the hands is also different. According to the descriptions provided by the secondary literature, it appears that only one hand is used, whereas in the *Nāṭya Śāstra* this position is one of the *saṃyuta* or combined *mudrās*. The *Nāṭya Śāstra* (9.132–133) explains that in this gesture the fingers are interlocked resembling a *karkaṭa* (crab). The text adds that this position is used to represent either yawning, supporting the chin or holding a conch-shell in order to blow it. In the *Nāṭya Śāstra* there is also another *mudrā* with a similar name, but also in this case it does not seem to correspond to the *kaṭaka mudrā* identified in the secondary literature. This *mudrā* is named *khaṭakā mukha mudrā*. The *Nāṭya Śāstra* (9.60–63) clarifies that this gesture is a non-combined *mudrā* in which the forefinger is kept curved and pressed down by the thumb, and the ring finger and the little finger are raised and bent. This gesture is used for example in the representation of sacrifice, offering into the fire, holding a mirror, cutting, powdering, arranging a pearl-necklace, drawing of arrows, gathering of flowers and seeing a woman. *Kaṭaka mudrā* of secondary literature and *khaṭakā mukha mudrā* of the *Nāṭya Śāstra* are two non-combined *mudrās*, but also in this case their descriptions

appear to be slightly different. We should also note that the texts analysed here do not mention a *mudrā* called *siṃhakarma*. These examples suggest much imprecision in current studies. While the ideas of scholars like Rao and Banerjea are still used by art historians, their research seems to be based on observation and speculation rather than on an attentive reading of textual sources, despite their claims to the contrary.

Pāda mudrās

This section analyses some of the postures of standing images according to the *Samarāṅgaṇa Sūtradhāra* (80). This text mentions six *pāda mudrās* in which standing images can be portrayed. They are *vaiṣṇava, samapāda, vaiśākha, maṇḍala, pratyālīḍha* and *ālīḍha*. The analysis of the *pāda mudrās* will be implemented by the reading of the *Nāṭya Śāstra* (11) and the *Viṣṇudharmottara Purāṇa* (III.39).

The *Samarāṅgaṇa Sūtradhāra* (80.3–5a) explains that the name *vaiṣṇava pāda mudrā* derives from the god Viṣṇu who is the presiding deity (*adhidevatā*) of this position. In this position the distance between the feet is $2\frac{1}{2}$ *tālas*. Figure 5.9 represents this position according to Sthapati (2002) who does not seem to respect the distance of $2\frac{1}{2}$ *tālas* between the feet. Shukla (1956, pp. 243–244) clarifies that in this posture one foot is in its natural position and the other is obliquely placed and a bit bent, with the toes turned towards the side. Both thighs are a little bit bent. The *Nāṭya Śāstra* (11.53–57) explains that *vaiṣṇava pāda mudrā* is suitable for carrying on natural conversation and should be employed while throwing the discus, holding the bow, during the bold and stately movements of the limbs, in rebuking, love, anguish, suspicion, jealousy, anxiety, intellectual activity, recollection and arrogance, and when the sentiments of *śṛṅgāra, adbhuta, vīra* and *bībhatsa* are introduced.
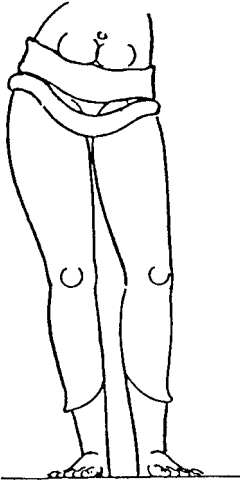

Figure 5.9 Vaiṣṇava pāda mudrā (Sthapati 2002, p. 64).

The *Samarāṅgaṇa Sūtradhāra* (80.5b–6a) states that Brahmā is the tutelary deity of *samapāda* (even feet). In this position the distance between the feet is of 1 *tāla*. The *samapāda* posture is also mentioned in the *Viṣṇudharmottara Purāṇa* (III.39.45) as having straight legs. The *Nāṭya Śāstra* (11.58–60) explains that this position should be employed for the people receiving blessings from *brahmans*, the bridegroom wearing the auspicious thread, persons moving in the sky, persons in a chariot or aerial cars, *śaiva* devotees and persons observing vows.

According to the *Samarāṅgaṇa Sūtradhāra* (80.6b–8a), Viśākha is the presiding deity of *vaiśākha pāda mudrā*. In this posture the distance between the feet is $3\frac{1}{2}$ *tālas*. Sthapati (2002, p. 63), who also bases his study on textual sources, claims that the distance between the feet in this position is of $2\frac{1}{2}$ *tālas*. The *Nāṭya Śāstra* (11.62–64) explains that in this position the thighs remain steady and reclined and the feet are placed obliquely pointing sideways. This position is suitable for the performance of exercises and coming out of any places. *Vaiśākha pāda mudrā* is also mentioned in the *Viṣṇudharmottara Purāṇa* (III.39.43) as a shooting posture.

The *Samarāṅgaṇa Sūtradhāra* (80.8b–9b) states that the tutelary deity of *maṇḍala* (circular) *pāda mudrā* is Indra and that in this position the distance between the legs is 4 *tālas*. The *Nāṭya Śāstra* (11.65–66) adds that the feet are to be placed obliquely with sideward turn. The waist and the knee are to remain in their natural position. It is stated that thunderbolt and bow should be handled remaining in this position. This position is also suitable for riding elephants. The *maṇḍala* posture is mentioned in the *Viṣṇudharmottara Purāṇa* (III.39.45) as having partially straight legs.

The *Samarāṅgaṇa Sūtradhāra* (80.9b–10) states that *ālīḍha pāda mudrā* has Rudra as presiding deity. In this position the right foot is moved forward with respect to the left foot which lies at a distance of 5 *tālas*. According to Sthapati (2002, p. 64), however, in this posture it is the left foot that should be placed in front and the right one stretched behind (Figure 5.10). The *Nāṭya Śāstra* (11.68–69) explains that the acts related to *vīra* and *raudra rasas* such as arguments resulting from anger and wrath, challenging utterances of wrestling champions, the observation and survey of enemies and the discharge of arrows should all be performed in this position.

The *pratyālīḍha pāda mudrā* (SamSut 80.11) is the opposite of *ālīḍha*. In this position the left foot is moved forward and the right foot remains beyond at a distance of 5 *tālas*. The *Nāṭya Śāstra* (11.71) adds that the discharge of diverse kinds of missiles should be performed after assuming this posture. The *Viṣṇudharmottara Purāṇa* (III.39.43) mentions both *ālīḍha* and *pratyālīḍha* as two shooting postures.

The *Viṣṇudharmottara Purāṇa* (III.39.41–42, 47–48) also states some examples of postures deriving from the movement of different parts of the body. They are *nata* (bent), *ullepa* (sporting), *calita* (walking), *uttāna* (reclining) and *valita* (turning around). It also mentions that the bearers of sword and shield have a dynamic and fascinating *gomutrika* or zig-zag stance. Persons holding a lance, a javelin, a stone and an arrow should be walking, staggering, exerting and shooting
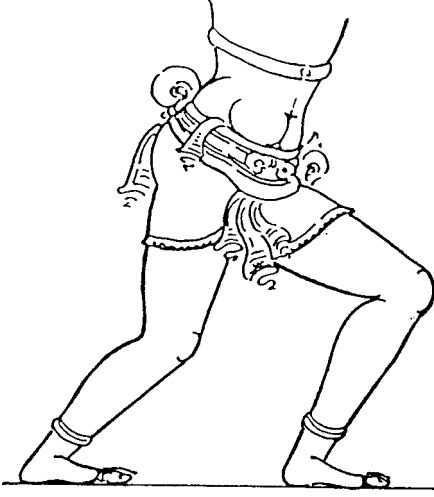
Figure 5.10 Ālīḍha pāda mudrā (Sthapati 2002, p. 65).

respectively. Those carrying a wheel, a spear, a mace and a lance should be leaping. The *Viṣṇudharmottara Purāṇa* (III.39.49–50) also clarifies that a female should be represented with one foot straight and the other languid. The body should be made pliant in some parts and firm in some others. The enormous hips should be depicted swaying in playful abandon and one leg should be stiff while the other is relaxed.

Āsanas

This section analyses some of the *āsanas*[13] or sitting postures of images according to the *Vāstusūtra Upaniṣad* and some of their interpretations in secondary litera-ture. The six principal *āsanas* mentioned by the *Vāstusūtra Upaniṣad* (6.18 and commentary) are *sukhāsana, viṣamāsana, svastikāsana, yogāsana, kukkuṭāsana* and *saumyāsana*. The text explains that *āsanas* reveal the action of the figure and derive from the actions of sacrifice. The position in which the priests are seated on *darbha*-grass[14] in their own hall is named *sukhāsana*. The way in which the priests pull the ropes while killing the fire is named *viṣamāsana* (asymmetrical pose). The way in which the *ācāryas* seat themselves on the altar is the *svastikāsana*. The position in which the *brahmans* are seated with bent hips at the time of putting on the sacred thread in the rite of protection, arranging and tying the thread, is the *yogāsana*. The way in which the *brahmans* are seated while wor-shipping the sun is the *kukkuṭāsana*. The way in which the priest extends the hands towards the east at the time of twilight worship is *saumyāsana*. The text continues explaining that the *āsana* reveals the emotional state embodied in the

action of the image. The *sukhāsana* gives a peaceful attitude to the image. The *viṣamāsana* shows a heroic attitude or hurling. The *svastikāsana* reveals the attitude of wisdom. The *yogāsana* shows the attitude of realization of *brahman* or self-realization. The *kukkuṭāsana* reveals the attitude of longing and the *saumyāsana* conveys a feeling of firmness.

From the above explanation it emerges that the *Vāstusūtra Upaniṣad* seems more concerned about the intrinsic value of the *āsanas* and does not explain their aesthetic representations, which were probably well known. Also in this case, to know how the *āsanas* are represented in sculpture and painting, we need to turn to secondary literature, which, in some cases, shows discrepancies of interpretation.

Sukhāsana (*sukha*: pleasant, comfortable) is described by Sthapati (2002, p. 61) as a position in which an image has one leg folded flat and the other hanging in a very reposeful manner (Figure 5.11). Banerjea (1941, p. 296) explains that *sukhāsana* has one leg, generally the left one, resting on the seat while the right knee is raised upwards on the seat and the right arm rests on the raised knee. The representation of this posture in Boner *et al*. (1982) appears different from the two descriptions, as it is shown in Figure 5.12.

Svastikāsana, according to Sthapati (2002, pp. 62–63), is a variation of *yogāsana*. Both postures are representative of a yogic state. In *yogāsana* the image is seated in *padmāsana* (*padma*: lotus) or cross-legged, with the hands placed close to the body. Also in *svastikāsana* the body is seated cross-legged but the writer does not explain very clearly what are the differences between the two *āsanas*. Sthapati also maintains (2002, p. 64) that *svastikāsana* can be a position of standing images in which one leg is held firmly on the ground and the other is crossed over in front and rested on the toes. This posture can be seen in images of Kṛṣṇa playing the flute.
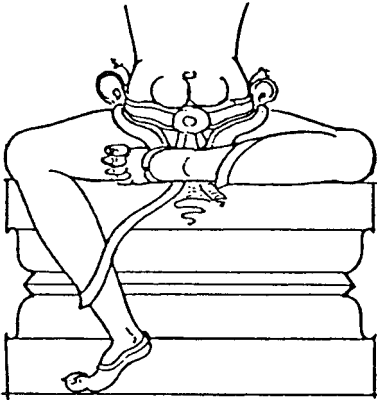
Figure 5.11 Sukhāsana (Sthapati 2002, p. 61).

Figure 5.12 Sukhāsana (Boner *et al*. 1982, p. 108).

Figure 5.13 Viṣamāsana (Boner *et al*. 1982, p. 108).

Banerjea (1941, p. 295) says that *kukkuṭāsana* (*kukkuṭa*: wild cock) is a variety of *padmāsana* (*yogāsana*), where the whole weight of the body rests on two arms placed on the ground on both sides. *Viṣamāsana* (*viṣama*: uneven, irregular) and *saumyāsana* (*saumya*: related to *soma*)[15] are represented in Figures 5.13 and 5.14 according to the interpretation of Boner *et al*. (1982). We should note that in these two *āsanas* there is no explanation of their aesthetic representations and other writers in the secondary literature do not mention them.

Rao and Sthapati refer to other kinds of *āsanas* that occur in pictorial and sculptural representations. They still forget to mention the sources of their study. Only Banerjea (1941, p. 294) explains that the *Ahirbudhnya Saṃhitā* lists as many as eleven principal *āsanas* such as *cakra* (wheel), *padma* (lotus), *kūrma* (turtle), *mayūra* (peacock), *kukkuṭa* (wild cock), *vīra* (hero), *svastika* (mystical mark), *bhadra* (splendid, blessed), *siṃha* (lion), *mukta* (liberated) and *gomukha*
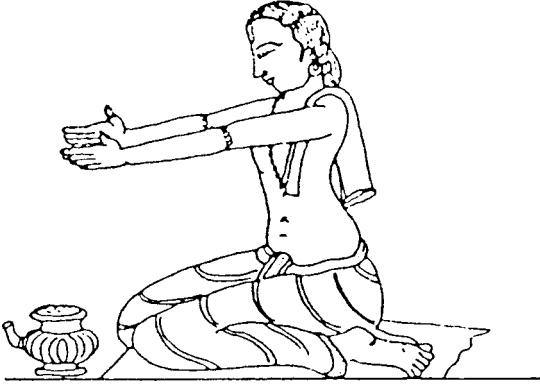
Figure 5.14 Saumyāsana (Boner *et al.* 1982, p. 109).

(cow-faced). Among them, for example, the *vīrāsana* (heroic pose) is interpreted differently by the scholars. Rao (1914) and Banerjea (1941, p. 295) state that in this posture the left foot rests upon the right thigh and the right foot upon left thigh. According to Sthapati (2002, p. 62), the posture described is *yogāsana*, whereas *vīrāsana* is represented with a leg hanging down and placed on the ground and the other leg bent with its foot resting on the knee of the other leg.

Conclusions

In the first part of this chapter we have analysed two main systems of the theory of stances. The description of stances in the *citrasūtras* involves applying the same male prototype of the previous chapters. This denotes a consistent approach to the way of dealing with the theory and emphasizes the abstract nature of the views expressed by the *citrasūtras*. The established view that the *citrasūtras* are prescriptive texts contrasts markedly with the theory expounded, which actually only seeks to develop a method to describe all possible stances in a technical and scientific way. While the system of a man rotating on an axis would work very well in the mind, the painter is given the liberty to create according to his own discretion. Rather than signifying a prescriptive set of rules, the theoretical quality of the descriptions of postures suggests that the system is adaptable and flexible.

On the practical level, there are schools of painting that developed their own language without any apparent link to the texts. This includes the preference to adopt certain postures, such as profile and frontal stances in Orissan painting, the profile for Pahari and Rajasthani painting (Figure 5.15) and three quarter profile and frontal stances in the Jaina painting of western India. The frontal stance is often preferentially used in Indian painting for the depiction of gods. While none of the texts prescribe such a rule, this practice seems to be established in extant paintings (see for example Figures 2.1 and 4.9). Such discrepancies between

Figure 5.15 Fresco painting representing Devnarayan and his court (Sanvar, Udaipur District, nineteenth century).

theory and practice should not be seen as revealing contrasting or conflicting views. While the use of postures in painting depends on external factors and its relative coherence according to a school of painting and its vocabulary, textual models can be actively worked out as visual images in the mind, given their theoretical quality which offers a wide range of possible interpretations and uses. A key characteristic of the texts on Indian painting, therefore, is that they do not impose any rules but rather provide adaptable models that are designed to encourage artistic expression, together with interpretative multiplicity. These characteristics make the texts relevant to the reading of any Indian painting or sculpture.

For *mudrās, pāda mudrās* and *āsanas*, there is no actual system like that of stances. In many cases the theory is reduced to a mere listing of names. The texts concisely describe these positions to the extent that sometimes we do not find explanation of their aesthetic representation at all, such as in the *Vāstusūtra Upaniṣad*. This may be the cause of the prevailing confusion and misinterpretation of the texts in the secondary literature, where the views of scholars like Banerjea, Rao and Sthapati are sometimes in conflict with the texts as well as among themselves. This appears to be the result of a lack of analytical and methodological rigor; the scholars seem to have articulated their own interpretation on the basis of observation of and speculation about extant painting and sculpture. They also sought to impose their own ideas about Indian art and texts

onto extant pictorial and sculptural representations, even where gaps in our understanding exist.

Another point raised in this chapter is that of the relevance of the theory of dance and of the *Nāṭya Śāstra* in the study of *mudrās*. This point was briefly introduced in Chapter 2 where it is argued that the theory of dance is relevant to painting on the basis of what is said by the *Viṣṇudharmottara Purāṇa*. This view seems to be misinterpreted in secondary literature where for example Sthapati (2002) confuses the practice of dance with its theory. While on a practical level, dance and painting developed their own specific language in the representation of *mudrās*, at a theoretical level, they can both rely on a text like the *Nāṭya Śāstra*. Even if it is impossible to apply all the *mudrās* enumerated in the *Nāṭya Śāstra* to painting or sculpture, this does not mean that the theory is irrelevant. This point, however, appears to have confounded Banerjea (1941) who was expecting a word-by-word application of the theory of *mudrās* to extant sculpture and painting. As demonstrated, the *Nāṭya Śāstra* must be viewed as a theoretical position, whereas the application of all its precepts goes beyond the message and the scope of the text and, as in many other concepts of the *citrasūtras*, it would be impossible to try to apply the theory in its entirety. The *Nāṭya Śāstra* is not the only textual source for the study of *mudrās*, but *mudrās* are frequently mentioned along with the descriptions of gods in the *śilpa* texts like the *Devatāmūrtiprakaraṇa* and the *Vāstusūtra Upaniṣad*. In both cases, *mudrās* are mentioned without clear explanation of their aesthetic representations, as if they were already well known. This, however, did not prevent scholars from forcing their own interpretation of the *mudrās* into what was left unsaid by the texts. This approach created, in some instances, great confusion, as we saw in the case of interpreting the meaning and representation of *kaṭaka mudrā*.

Furthermore, our analysis also revealed that the theory of *pāda mudrās* contained in the *Samarāṅgaṇa Sūtradhāra* and the *Nāṭya Śāstra* is misleadingly underestimated by scholars. *Pāda mudrās* are equally important, they are concisely described and can be easily recognized in actual paintings. The only author who considers, to some extent, the importance of *pāda mudrās* is Sthapati, who, however, gives different measurements for the distance of the feet from what seems to be very well-established by the textual sources analysed.

The *āsanas* also present textual and interpretative problems. The only source analysed here is the *Vāstusūtra Upaniṣad*, which, as in the case of *mudrās*, only mentions the names of the *āsanas* without explaining their aesthetic representation. This means that in that context those *āsanas* were very well known. The texts seem, in fact, to have concentrated on the intrinsic value of the *āsanas* more than their visual one. There also seems to be some confusion among scholars in their interpretations, as we saw in the case of *vīrāsana*.

Practicing painters and sculptors of today are aware of *mudrās, pāda mudrās* and *āsanas*. Of course their knowledge is limited to the positions commonly used and which they have learned from practice. Sculptors that I interviewed in Orissa and Rajasthan professed knowledge about *mudrās* like *varada* and *abhaya*, as did

the sculptors of the Jaina studio of Jaipur (Figure 3.16). About this studio, it is important to stress the great deal of freedom that artists have in actually using the *mudrās*. As we saw, the approach to copying from the figure of *tīrthaṅkara* Vāsupūjya (Figure 3.17) can be seen as a way of achieving the right measurements, but in terms of hand postures and details there is considerable freedom for the artists. While the model figure from which sculptors sought to make a copy has the hands in *dhyāna mudrā*, in practice they can change the positions of the hands with different combinations, using for example *abhaya* or *vyākhyāna mudrās*.

The use of certain *mudrās* or *pāda mudrās* depends on choices that are determined by different factors that can influence the practice of painting with important changes in tradition, as it can be seen in the image of Śrī Nāthjī in Nathdvara. The iconography of Śrī Nāthjī, in terms of his postures, *mudrās* and *pāda mudrās*, appears to be stereotypical. He is standing in a frontal position with his feet in *samapāda*, the left hand raised as if lifting Mount Govardhana and the right one on his waist. His *samapāda mudrā* as we see it today is different from the older representations of the god. This position underwent a radical change after 1880 (Ambalal 1987, pp. 83–84). Before that period the god was represented in *samapāda* with the feet pointing sideways (Figure 5.16). After that date, a famous Hindi writer, Bhartendu Harishchandr, visited Nathdvara and commented that his posture was unnatural, the result of which was a turning of his feet from the side to the front (Figure 4.9).

Another interesting example of the changes in traditional approaches to *mudrās* can be seen in analysing one of the hand postures of Śrī Nāthjī. The left hand of Śrī Nāthjī is raised in the act of lifting Mount Govardhana. This posture symbolizes one of the events of the life of Kṛṣṇa,[16] of whom Śrī Nāthjī is a representation. This hand posture is not one of the canonical *mudrās* and it is neither mentioned by the texts analysed here nor by writers in the secondary literature. This is not to say that this hand posture is not traditional, but its use came into existence along with changes in religion and with a consequent necessity to depict this important event of the life of Kṛṣṇa, celebrated for example in the *bhakti* literature. The same position of the hand is adopted in miniature painting of the Pahari and Rajasthani schools and also in mural paintings, as for example in the *Govardhanagiridhārī* painting in the Mattancheri Palace in Kochi.

The emergence of a religious movement such as that of the *bhakti* produced some important transformations in the arts that were required to express new feelings and ideas. These kinds of changes do not only happen at the practical level; texts themselves can also change for the same reasons. A similar kind of addition or adaptation, on the level of the texts, can be seen in the *rasa* theory, analysed in Chapter 8, in which the theorists after Bharata added other *rasas* to his traditional list of eight. The new *rasas* not only denoted a development in thought but were also meant to represents new feelings determined by social or religious changes. Among the new *rasas* is for example *prema rasa* added by King Bhoja, which

Figure 5.16 Śrī Nāthjī celebrating Yamunā Daśamī, Kota Fort Palace (Rajasthan, nineteenth century).

seems to represent not only the love of parents for children but also the love of devotees toward a god like Kṛṣṇa as a child or Śrī Nāthjī.

The texts, while trying to fix the theory, are thus also designed to encourage and give freedom to the artist to innovate. This means that while an artist should have in his mind the system of knowledge constituted by the theory of painting or sculpture, he should also be able to adapt its flexibility to given circumstances like external changes and new ideas.

6

ICONOGRAPHY

The knowledge expounded in the previous chapters would not be complete without a study of Indian traditional iconography. Iconography is generally studied separately from the knowledge of the *citrasūtras*, but in order to gain a holistic view of the texts it is necessary to have a glimpse at the description of gods. The images of gods described in the texts are for worship and for this reason great emphasis is placed on perfection and beauty – concepts already mentioned in the previous chapters.

The sections of texts on iconography are generally titled with the name of *pratimālakṣaṇa* or 'characteristics of image'. As with the word *citra* (see Chapter 2), also in the case of the word *pratimā*, it is suggested that the term does not necessarily mean a 'sculptural image' but can have the more general and theoretical connotation of 'image', that is an image that works in the mind.

The texts used in this study are the *Bṛhat Saṃhitā*,[1] the *Mayamata*,[2] the *Devatāmūrtiprakaraṇa*[3] and the *pratimālakṣaṇa* section of the *Viṣṇudharmottara Purāṇa* (III.44–85).[4] Their chapters on *pratimālakṣaṇa* contain a huge knowledge on the images of gods with their attendants, attributes, marks and weapons,[5] but for the purpose of this study only some of them will be considered: Brahmā, Gaṇeśa, Lakṣmī and the Jinas. Brahmā has been chosen among the gods because of the prominent position he has in all the texts considered in this study. Other gods have been selected to give an idea to the reader of the wide discrepancy between texts and textual images on the one hand and sculptural and pictorial images on the other.

Brahmā

The most concise description of Brahmā (Figure 6.1) is to be found in the *Bṛhat Saṃhitā* (58.41). The text explains that Brahmā must have four faces, a water pot (*kamaṇḍalu*) in his hand and he should be seated on a lotus.

Brahmā is described in chapter 44 of the *Viṣṇudharmottara Purāṇa* as serene and satiable, with four arms and seated in *padmāsana* pose on a chariot drawn by seven swans. He should be shown with matted hair and as wearing the skin of a black antelope as the garment. On his left palm is placed one of the right hands

Figure 6.1 Brahma Riding the Goose (Mankot, *c*.1720) (Filippi 1997, p. 48).

(*dhyāna mudrā*). The god should have the auspicious rosary (*akṣasūtra*) in the remaining right hand, and the water vessel (*kamaṇḍalu*) in the left. In the iconic representation,[6] in painting and sculpture, the god should be shown with the complexion of the tip of the lotus petal and with his eyes closed in meditation (ViDha III.44.5–9). The image of Brahmā is further explained in chapter 46, which states that his frontal face is the Ṛgveda, the face to the right is Yajurveda, the face at the back is the Sāmaveda, and the remaining face is the Atharvaveda. The text adds that the entire world is symbolized by water that Brahmā holds, and for this reason he has the water pot in his hand. The rosary in the hand of Brahmā is indicative of time. The saint performs the sacrifice through an act which is both white and non-white at the same time, thus the garment of Brahmā should be known as the skin of the black antelope (ViDha III.46.7–12).

The *Mayamata* (36.2–7) states that Brahmā has 4 faces and 4 arms; he is like the colour of pure gold; his braided hair is shaped like a diadem from which he

emanates reddish rays like a garland of lightning. He wears ear-pendants, armlets and a necklace; a gazelle skin must cover him up to the base of the neck according to the *upavīta* (sacred thread) mode. His tawny thighs are encircled by *muñja* grass,[7] he wears white clothing and white garlands and is immaculate. He holds the *akṣa* rosary and a bundle of *kuśa* grass[8] in his two right hands and a water pot (*kamaṇḍalu*) and *kuśa* grass in his left ones; or he holds the spoon and the ladle (*sruc* and *sruva*) in his right hand and the pot of clarified butter and the *kuśa* grass in his left one; or else his two lower hands make the gesture of bestowing (*varada mudrā*) and that of absence of fear (*abhaya mudrā*). Sāvitrī is to his right and Bhāratī to his left, the sages make up his retinue. His mount is the goose and his emblem the *kuśa* grass. Whether standing or seated, Brahmā is on a lotus form pedestal.

The *Devatāmūrtiprakaraṇa* presents various forms of Brahmā whose main iconographic difference lies simply in the order in which their weapons are kept in the hands. The Kamalāsana form of Brahmā has 4 heads and 4 arms, symbolic of the 4 *Vedas*, 4 *yugas* and 4 castes. Kamalāsana holds a rosary (*akṣasūtra*) in his lower right hand and a spoon for offering oblations in his upper right, while his lower left hand holds a book and the upper a *kamaṇḍalu*. Seated on a red lotus, Kamalāsana is beneficial for all the castes and for those who make such idols as well as for those who have them made (DMP 4.2–4). The Viriñca form of Brahmā bears a rosary, a book, the spoon for offering oblations and a *kamaṇḍalu* in his four arms. Viriñca bestows happiness to all in the *dvāparayuga* (DMP 4.5). The Pitāmaha form of Brahmā holds a *kamaṇḍalu*, a rosary, the oblation spoon and a book respectively in his four hands. This image gives happiness in the *tretāyuga* (DMP 4.6). Brahmā is holding a book, a rosary, the spoon for oblations and a *kamaṇḍalu* respectively. This image bestows happiness in the *satyayuga* (DMP 4.7).

The iconographical differences between the various texts are summarized in Table 6.1.

Table 6.1 Characteristics of Brahmā

Texts	Attributes	Emblems	Seat
BrSam	4 faces	Water-pot	Lotus
ViDha	4 arms, 4 faces, wearing antelope skin, matted hair	Rosary, water-pot, right hand placed on left hand	Seated in *padmāsana* on a chariot
Mayamata	4 arms, 4 faces, braided hair, wearing gazelle skin	Rosary, *kuśa* grass, water-pot; or spoon and ladle, pot of clarified butter, *kuśa* grass, *varada* and *abhaya mudrās*	Lotus pedestal
DMP	4 arms, 4 faces	Rosary, spoon, book, water-pot	Red lotus

Gaṇeśa

The *Bṛhat Saṃhitā* (58.58) explains that Gaṇeśa (Figure 6.2) is the lord of the *pramathas* (class of demons) and has the face of an elephant, with a single tusk, a bulging belly, an axe in one hand and a radish bulb in the other.

The *Viṣṇudharmottara Purāṇa* (III.71.13–16) describes Gaṇeśa (Vināyaka) as having an elephant face, four arms holding a radish, a rosary, a pot of sweetmeats and an axe. He should not have the left tusk, his foot should be on the pedestal and the other placed on the seat. The pot containing the sweetmeats should be in front of the trunk. He is pot–bellied and stiff–eared. He should wear the tiger–skin and bear the sacred thread of snakes.

The *Mayamata* (36.122–126) states that Gaṇeśa or Gaṇādhipa has an elephant's face and only one tusk; he is upright and holds himself to the right; he is red, has 3 eyes, 4 arms and looks like a dwarf with a huge belly. A snake is his sacrificial thread. His thighs and knees are fat and heavy; he is seated on a lotus throne with the left leg stretched out and the right bent. His trunk bends to the left. In one of his right hands he holds his broken tusk and, in the other, an elephant hook (*aṅkuśa*); the *akṣa* rosary should be in one of his left hands and a sweetmeat on the other. His hair is coiled into a tiara; he is adorned with necklaces and other jewels. He may also be standing on a lotus pedestal. When he is dancing he has 6 or 4 arms. The rat is his mount.

Figure 6.2 Mural painting representing the image of Gaṇeśa (nineteenth century) in the Bṛhadīśvara temple (eleventh century) in Tanjore (Tamil Nadu).

Table 6.2 Characteristics of Gaṇeśa

Texts	Attributes and emblems
BrSam	Axe, radish bulb
ViDha	Radish, rosary, sweetmeats, axe
Mayamata	Broken tusk, *aṅkuśa*, rosary, sweet
DMP	Tusk, axe, lotus, sweet

According to the *Devatāmūrtiprakaraṇa*, Gaṇeśa holds a tusk (*danta*), an axe (*paraśu*), a lotus (*padma*) and a sweet (*modaka*) in his hands, and he has the face of an elephant. His vehicle is a mouse (*mūṣaka*). He bestows the *siddhis* (accomplishments) and grants all desires and wishes (DMP 8.22). He may also appear in different forms like Heramba who has ten arms. The lowermost right hand is in *varada mudrā*, the next holds a goad (*aṅkuśa*), the other hands hold a tusk (*danta*), an axe (*paraśu*), and the fifth is in *abhaya mudrā*. The other five hands hold a skull (*kapāla*), an arrow (*śara*), a rosary (*akṣasūtra*), a noose (*pāśa*) and a mace (*gada*). He has 5 faces, each with 3 eyes (DMP 8.23–24). Another form of Gaṇeśa is Bījagaṇādhipa who is vermilion (*sindūra*) in colour, and he has 3 eyes and possesses a rod (*daṇḍa*), a noose (*pāśa*), a goad (*aṅkuśa*) and a citron (*bījapūra*) in his 4 hands (DMP 8.28).

Table 6.2 highlights the differences between the descriptions of the texts examined.

Lakṣmī

The *Viṣṇudharmottara Purāṇa* (III.82) dedicates a chapter to the image of Lakṣmī (Figure 6.3). She should be portrayed with two arms when she is accompanied by Hari (Viṣṇu). She has a divine form and shows the lotuses in the hands. She is adorned with all ornaments, has a fair complexion and wears white garments. While represented individually, she should be represented as four-armed, and as seated on a beautiful throne. On her throne there should be a lotus with eight petals. In her right hand there should be a lotus with a long stalk which touches the end of the armlet. In her left hand there should be a vase of nectar (*amṛta-ghaṭa*). The other two hands should hold the *bilva* fruit (wood-apple) and the conch. Behind her there should be two elephants pouring the contents of a jar. On her head there should be a lotus which represents fortune and the conch representing prosperity. The *bilva* fruit symbolizes the entire universe and the vase of nectar stands for the quintessence of water. The lotus in her hand is opulence and the two elephants are treasure-hoards. In the case in which Lakṣmī is portrayed as standing, she should hold a conch and a lotus. She should be standing on a lotus, and should bear the complexion of the colour of the inner side of the lotus. She has two arms and is adorned with all ornaments. On her head there should be represented two *vidyādharas* in the act of saluting and looking at the goddess. Their right hand touches their head, while their left hand is shown as holding a sword.

Figure 6.3 Lakṣmī. Tanjore painting by the master craftsman T. Venkatesaraja (Tanjore, Tamil Nadu).

According to the *Mayamata* (36.247b–255), Lakṣmī is seated on a lotus, she has two arms, she is golden and shines with gold and jewels, one of her ear-pendants is in *makara*[9] form whilst the other is in the form of a conch. She is a beautiful, accomplished young woman whose limbs are harmonious and who plays with her arched eyebrows. Her figure is rounded, she has *karṇapūra*[10] and her eyes are like lotuses, her lips are red, her cheeks plump and her breasts covered with a bodice. Lotus, hair parting, conch and discus are her head ornaments. A lotus should be placed in her right hand and the *bilva* in her left. Her breasts and large hips are covered with a fine garment; she wears a waist girdle and a hip girdle. Her hair is arranged in a tiara and she is sitting in the lotus posture (*padmāsana*). Female fan bearers should be represented at her side, along with two elephants which sprinkle her from vases which they hold with their trunks. For domestic worship Lakṣmī is portrayed with 4 arms, her 2 anterior hands make the gestures of bestowing (*varada*) and absence of fear (*abhaya*) and she is illustrious with the brilliance of the red lotuses which she holds in her posterior hands.

Table 6.3 Characteristics of Lakṣmī

Texts	Attributes and Emblems
ViDha	2 arms, lotuses; 4 arms, lotus, *amṛta-ghaṭa*, *bilva* fruit, conch
Mayamata	2 arms, lotus and *bilva*, 2 fan bearers and 2 elephants at her sides 4 arms, *varada* and *abhaya mudrās*, lotuses
DMP	4 arms, lotuses, *bilva* fruit, conch

She is provided with all ornamentation and is brilliant or pure gold in shade; she is seated in *paryaṅkabandha*[11] posture on a lotus.

The *Devatāmūrtiprakaraṇa* (8.105–110) states that Lakṣmī holds celestial lotuses in her hands and is adorned with all manners of jewellery and ornaments. She is the very embodiment of beauty clad in white robes and white in complexion. Her position is the centre of an eight-petal lotus. She has four arms: in her upper right hand is a lotus stalk, in her lower right hand she holds a lotus, in her left hands are a *bilva* fruit and a conch-shell respectively. At her right is Yādavaśreṣṭha (Kṛṣṇa), to the left is the pot of ambrosia (*amṛta-ghaṭa*) and on her head is a lotus.

Table 6.3 highlights the differences between the descriptions of Lakṣmī in the texts examined.

Jinas

The *Bṛhat Saṃhitā* and *Mayamata* contain a description of Jinas, but they are vague compared with the *Devatāmūrtiprakaraṇa*[12] in which there is a clear differentiation between the twenty-four Jinas such as Mahāvīra,[13] Mallinātha and Pārśvanātha.

The *Bṛhat Saṃhitā* explains that a Jina should be represented naked, young, handsome and serene in appearance, with his arms reaching the knees and his breast bearing the *śrīvatsa* mark (BrSam 58.45). From the description we can surmise that the text refers to any Jina. In fact, this view is corroborated by Sthapati (2002, p. 328) who declares that the twenty-four *tīrthaṅkaras* have the same characteristics (Figure 6.4). Each of them has a specific symbol which should be shown on the pedestal permitting their identification.[14] The *śrīvatsa* mark in the middle of the chest and the three-tiered umbrella over the head are common features to all of them. Sthapati also states that the *tīrthaṅkaras* should not have garments and ornaments and that they should be fashioned according to the *uttama daśa tāla*.

Some iconographic confusion arises from the passage of the *Mayamata* (36.284–287a). According to the *Mayamata*, a Jina is blue-black in colour and is installed beneath an *aśoka* tree. The text speaks only of a Jina and we tend to associate this with Mahāvīra, but the *Devatāmūrtiprakaraṇa* (7.4) clearly explains
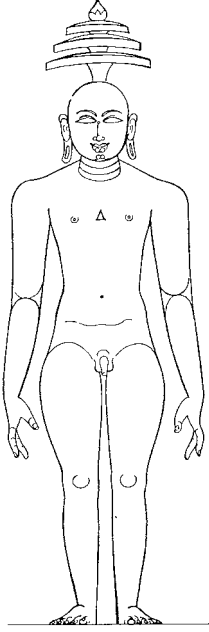
Figure 6.4 Jaina *tīrthaṅkara* (Sthapati 2002, p. 328).

that blue is the peculiar colour of two other *tīrthaṅkaras*: Mallinātha and Pārśvanātha, whereas Mahāvīra is of golden colour. The *Mayamata* adds that a Jina stands on a lotus throne or on a lion throne but again the *Devatāmūrtiprakaraṇa* (7.1–6) clarify that the lotus is the symbol of *tīrthaṅkara* Padmaprabha and the lion is the symbol of Vardhamāna. The text also states that his body must be naked, his two arms lie along his body, his regard is fixed on the points of his nipples, his proportions are those of a god and the height of the fan bearers is 30 digits of the god. He must be worshipped by the gods and other deities and must have a triple parasol.

The *Devatāmūrtiprakaraṇa* contains a whole chapter dedicated to Jaina images but here only the section related to Mahāvīra will be considered. The description of the *Devatāmūrtiprakaraṇa* does not concentrate on the iconographic characteristics of the image of Mahāvīra himself but on his symbols and attendants. The text says that the Jina (Vardhamāna) has a golden colour, his symbol is the lion, his constellation is *uttaraphālgunī*,[15] his zodiacal sign is *kanyā* (Virgo) and his attendants are Mātaṅga and Siddhāyikā. Mātaṅga is dark-hued, has an elephant for his *vāhana* (vehicle). His right hand holds a mongoose and the left one a citron. Siddhāyikā is blue-hued, has four arms and is seated on a lion. On one side she holds a book and has one hand in *abhaya mudrā*, on the other side she holds an arrow (or a *vīṇā*) and a citron (DMP 7.1–16, 66–67).

Discrepancies between texts are summarized in Table 6.4.

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Table 6.4 Characteristics of a Jina

Texts	Characteristics
BrSam	Naked, young, handsome, with *śrīvatsa* mark
Mayamata	Blue-black in colour, naked, two arms, lotus or lion throne, *aśoka* tree, triple parasol
DMP	Mahāvīra: golden colour, lion is his symbol, *uttaraphālgunī* his constellation, *kanyā* his zodiacal sign, Mātaṅga and Siddhāyikā his attendants

Conclusions

This chapter highlights how each god is described differently by each text. The *Bṛhat Saṃhitā* for example is very concise in its descriptions, leaving many features of the gods undescribed. The *Mayamata* concentrates on purely iconographic features whereas the *Viṣṇudharmottara Purāṇa* offers not only aesthetic descriptions but also symbolic ones. For example it explains the significance of the emblems of the gods, like the water pot (*kamaṇḍalu*) which stands for the entire world and the rosary (*akṣasūtra*) that is representative of time. The *Devatāmūrtiprakaraṇa* has the characteristic of presenting different forms of the gods like Brahmā in his forms of Kamalāsana and Viriñca, or Gaṇeśa in his forms of Heramba and Bījagaṇādhipa. In the case of the *tīrthaṅkaras*, however, the *Devatāmūrtiprakaraṇa* does not provide descriptions of them, as if their forms were well known, but focuses solely on their symbols and attendants. We can also derive from this text that each of the twenty-four Jaina *tīrthaṅkaras* should be of the same proportion (10 *tālas*), and that it is only in terms of their symbols that we are able to recognize them.

The overview of some of the iconographic features of gods analysed in this chapter highlights the discrepancies between texts and the fact that the injunctions and descriptions cannot always be translated straightforwardly into a pictorial or sculptural image. Nevertheless, in some aspects, these features are characterized by a degree of consistency. Some of the characteristics of the gods are ubiquitous, such as the four faces of Brahmā (Figure 6.1) or the lotus of Lakṣmī (Figure 6.3). Other characteristics, like the combination of the attributes and emblems of the gods, vary from one text to another. The same tendency can be seen in practice too.

One of the main points of this research is to prove that texts do not contain strict rules to be followed by the letter, but that they constitute the theoretical base of painting and sculpture. Yet, it is argued that there are similarities between the texts and practice. While in practice each studio develops its idiosyncratic vocabulary, they all share some form of correspondence with the texts. The following examples will elucidate this argument.

Harihar Moharana, a sculptor based in Bhubaneshvar (Orissa), states that Lakṣmī can be portrayed in two main ways: as Padma-Lakṣmī (Padmāvatī) and as

Gaja-Lakṣmī. Padma-Lakṣmī holds in her upper hands two lotuses and her lower hands are in *varada* and *abhaya mudrā*. In this description Lakṣmī has the same characteristics of Lakṣmī for domestic worship described in the *Mayamata*. When she is represented as Gaja-Lakṣmī (Figure 6.3), the sculptor explains that she will have two elephants in her upper hands and the lower hands will be in *varada* and *abhaya mudrā*. In this case, there are only some similarities between the description of Gaja-Lakṣmī provided by the sculptor and one of those of the *Mayamata*. This text explains that Lakṣmī may be depicted as having two elephants that sprinkle her from vases held by their trunks. In this form, however, the goddess has 2 arms and not 4 as described by the sculptor.

According to the same sculptor, Brahmā (Figure 6.1) should be portrayed with four heads, to represent the four Vedas. His upper right hand is in *abhaya mudrā* and the left one holds the Vedas; in his lower hands there should be on the right an *akṣasūtra* and on the left a water-pot. In the sculptor's description of Brahmā we can identify some degree of consistency with the texts, such as the presence of the same emblems and *mudrās*. However, the order in which the emblems and *mudrās* are combined is different from that prescribed by the texts.

Ram Prasad Sharma, a sculptor based in Jaipur (Rajasthan), explains that an image of Gaṇeśa should always be represented with four arms. The lower hands are always in *abhaya mudrā* on the right and with the sweets on the left. The two upper hands can change according to wish, for example they can have an axe and a mace (Figure 6.5), or a lotus and an *aṅkuśa*, or an axe and an *aṅkuśa*, or they can both have an *aṅkuśa*. A different view on Gaṇeśa is expressed by Harihar Moharana. He states that, generally, Gaṇeśa is portrayed with two hands, one in *varada* and the other with the sweets, and his trunk should be near the sweets. Where he is portrayed with four arms, he is represented with *varada* on the right and *abhaya* on the left for the lower arms, and the upper arms should hold a rope and an *aṅkuśa*. The sculptor adds that Gaṇeśa may also have 5 heads and 10 arms, in which case he is represented with his two wives. All the explanations of Harihar Moharana, however, appear different from the sole statue of Gaṇeśa kept in his studio (Figure 6.6), in which the god is portrayed standing with an *akṣasūtra* and an axe in the lower hands, and a broken tusk and the sweets in the upper hands. The sources analysed prescribe similar emblems like the *aṅkuśa*, the tusk, the sweet or the axe, but the order in which they are prescribed by texts and by sculptors differs. Moreover, none of the texts analysed mentions the rope, which is one of the emblems of Gaṇeśa, and can also be seen in extant sculptures and paintings (Figure 6.2).

As for the Jinas, some examples of the freedom of the sculptors in the choice of details have been given in the previous chapters.

Thus, this chapter has once again emphasized the point that texts are not to be considered as guides to be followed literally by practicing artists. The iconographical features described in this chapter represent a theoretical view on how gods should be like, and the mental images suggested are meant to work in one's mind. Due to the peculiar theoretical quality of the texts, both in terms of their

Figure 6.5 Gaṇeśa holding axe and mace in the upper hands, and *abhaya* and sweets
in the lower hands. Sculpture by the studio of Ram Prasad Sharma (Jaipur).

significance for practice as well as their lack of any definite temporality, spatial-
ity or style, they remain *recognizable* in existing images and in the practiced art
of today, as seen in the work of Harihar Moharana and Ram Prasad Sharma. Our
analysis of the texts also proves that the widely held view among many traditional
artists that following a text would produce a repetition of features and fossilized
art production is only a symptom of the misunderstanding of the spirit of the
texts. This same prejudice is shared by a famous scholar like Moti Chandra who
claims, referring to a text like the *Śilparatna*, that:

> the medieval Indian painting has lost much of the verve and technical
> perfection of Ajanta, but this was not due so much to the technical

Figure 6.6 Standing Gaṇeśa holding a broken tusk and sweets in his upper arms, and *akṣasūtra* and axe in his lower hands. Sculpture by Harihar Moharana (Bhubaneshvar).

deficiencies of the artists as to the conventional subjects which their patrons asked them to paint and which left little scope for originality, as the figures of the gods and goddesses and the Jinas were hidebound by strict iconographic conventions, any transgression of which meant the greatest sacrilege and calamity.

(1949a, p. 67)

The expressions 'conventional subjects' and 'strict iconographic conventions' used by Moti Chandra refer in fact to the literal translation of the theory into practice. This is a very restricted and inappropriate way of reading a text, which should be considered as a source of knowledge, from which an artist can develop his ideas and skills organically.

COLOURS, PLASTER, BRUSHES
AND THE PROCESS OF PAINTING

This chapter analyses some technical aspects in the making of a painting. The *citrasūtras* give recipes for preparing plaster, binding media, crayons and brushes, primary and mixed colours. Some of them describe very briefly the auspicious times for drawing the first sketch and the pictorial effects of shading. These technical aspects are not only relevant for the making of mural painting but also for painting on panel and cloth.

The texts used in this study are the *Viṣṇudharmottara Purāṇa*, *Śilparatna*, *Mānasollasā*, *Samarāṅgaṇa Sūtradhāra* and *Aparājitapṛcchā*. Other sources like the *Aṃśumadbhedāgama*, *Kāśyapaśilpa* and *Jainacitra-kalpadruma* will be quoted from Bhattacharya (1976) and Moti Chandra (1949a).

Some relevant scientific analyses on mural and miniature painting will also be considered in this chapter. These studies are useful for understanding the role of the *citrasūtras* as well as their interpretation and application in the secondary literature. One of the most interesting elements of these studies is the juxtaposition of scientific analysis with the content of the *citrasūtras* in order to prove or disprove their validity.

This chapter will also highlight that studies on colours and materials for painting, such as those of Shukla (1957), Bhattacharya (1974 and 1976) and Chakrabarti (1980), claim that painters of the past followed the texts to prepare the colours and plaster. This chapter proposes, however, that while the texts describe techniques that may have a practical use, they cannot be considered as prescriptive texts. Many practical details are missing, while the various schools of painting have all developed their own techniques based on experience and on locally available materials.

The preparation and application of plaster on walls

The first stage in the process of mural painting is preparing the plaster. This stage is carefully explained by texts like the *Viṣṇudharmottara Purāṇa*, *Samarāṅgaṇa Sūtradhāra* and *Śilparatna*.

The *Viṣṇudharmottara Purāṇa* (III.40.1–5) states that to prepare plaster, clay should be added to brick dust in the proportion of 1:3. After this, one should add

bdellium[1] (*guggulu*), beeswax, an extract of *Bassia latifolia* (*madhuka*), *kundurū*[2] and molasses in equal parts, all mixed with safflower oil. Into that mixture, one should powder a third part of burnt plaster mixed with 2 parts of coarse grass (*balvaja*) and 1 part of hemp-fibers (*śaṇa*). That mixture, thoroughly soaked in the slimy sugar solution, is to be left in this state for one month. After a month, this pliant plaster should be applied to the dry wall.

The *Viṣṇudharmottara Purāṇa* (III.40.6–10) recommends that one should apply plaster in such a way that it is smooth, stands firm, without ups and downs and is laid neither too thick nor too thin. When the wall, smeared with plaster and levelled, becomes dry, it should be carefully smoothened by clay mixed with oil of *Vatika robusta* (*sarjataila*) and rubbed continuously and carefully with milk so as to achieve smoothness on the plaster. According to the *Viṣṇudharmottara Purāṇa*, the wall that quickly dries will never degenerate even for 100 years. Following this method, grounds of various dimensions should be made.

The *Samarāṅgaṇa Sūtradhāra* (72.24–26) narrates the process of preparation of the ground for wall painting in the chapter called *bhūmibandha*. The first thing to be done in the process is levelling the wall. After that, the juice of any one of the following trees, *snuhi* (*Euphorbia antiquorum*), *vāstuka* (*Chenopodium album*), *kuṣmāṇḍa* (*Beninkasa cerifera*), *kuddālī* (*Bauhinia variegata*), *apāmārga* (*Achyranthes aspera*) or sugar-cane should be mixed with the juice of any one of the trees such as *siṃsapā* (*Dalbergia sissoo*), *nimba* (*Azadirachta indica*), *triphala* (myrobalan) and *kuṭaja* (*Wrightia antidysenterica*) and kept for a week. The mixture along with oceanic salt should be sprinkled on the already levelled wall. In accordance with the season, the juice of the *arjuna* tree (*Terminalia arjuna*), the seeds of the bean plant, the cotton-silk tree or the wood-apple should be added to the plaster. Before the application of the plaster of the thickness of the elephant skin, the wall is to be washed with water. After the application of plaster, the wall should be coated three times with a paste prepared of limestone chips. This whiting is to be prepared from the pure, clear, soft and whitish lime-stone chips thoroughly ground and levigated and added with proportionate boiled rice and gum (Bhattacharya 1976, pp. 33–34).

In order to plaster a wall, the *Śilparatna* (I.46.14b–25)[3] explains that lime (*sudhā*), made of conch-shell burnt in wood-fire and pulverized, should be mixed up with some levigated kidney bean and molasses in the proportion of 4:1. Molasses diluted in water is to be sprinkled on it after adding some sand to this preparation. The proportion of sand should be one-fourth of lime. This mixture is to be added with *kālāgni*[4] and banana pulp, and the proportion of this paste should be one-fourth of lime. This lime preparation is to be put into a tub and thoroughly pounded. After three months, the mixture is to be ground till it becomes as soft as butter. At that point, the wall should be properly cleaned and made even. This would be then kept wet for half a day with the juice of molasses applied on it by the tip of a fine coir-brush. Lime plaster should next be applied with a trowel. The size of the trowel is large in accordance with the requirements, and it is made either of iron or of wood and its backside should be plain. With the

help of the back of the trowel, lime plaster is to be slowly applied by stages leaving no unevenness. Again, pure water should be smeared bit by bit with the help of a coir-brush, and when the water has dried, colour should be applied for the delineation of painting. This kind of lime plaster should not be used on a wooden plaque (*phalaka*) for painting. On wooden plaques, colours are to be applied after smoothening them with the help of an abrader.

The *Śilparatna* (I.46.28–33) explains two ways of preparing white priming. The first is suitable for lime-plastered walls and wooden plaques, and the second can be used on lime-plastered walls and clay. In the first process, priming is prepared with conch-shell, oyster-shell or white clay turned into dust and mixed with the juice of wood-apple and *nimba*. This is then spread on a wall or wooden plaque and subsequently the juice of the bark of *śākhoṭaka* (*Trophis aspera*) or that of the leaves of *ketakī* (*Pandanus odoratissimus*) should be repeatedly applied till the ground becomes very smooth. In the second process of priming, lime dust is to be ground in a mortar, moistened with coconut milk and thoroughly mixed with hot water.

Painting on panel and on cloth

The preparation of wooden plaques and cloth for painting is also mentioned by the texts. The *Samarāṅgaṇa Sūtradhāra* (72.36–41) describes the preparation of the ground for wooden plaques. The text states that the seeds of the *bimba* fruit or fine *āmana* rice should be collected and cooked in a pot. Before its application on the surface of the wooden panel, this paste should be added with an astringent and lime stone powder already turned pliant with water (Bhattacharya 1976, pp. 39–40).

According to the *Aparājitapṛcchā* (231.1–6), the wooden plaque is to be prepared from teakwood. Burnt bricks should be pulverized and sifted through a sieve. Wheat, powdered in a mortar, should be thrown into the buttermilk water and strained through a fine cloth. This mixture will then turn into an adhesive, as good as *vajralepa*, by heating it in a mild fire. This adhesive should then be thoroughly mixed with the already prepared brick powder and applied on the wooden plaque. This solution will stick in a month (Bhattacharya 1976, p. 40).

Bhattacharya (1976, pp. 41–42) maintains that there are two main texts that explain the technique of painting on cloth (*paṭa citra*); they are the *Āryamañjuśrī-mūlakalpa*, a Buddhist text, and the *Pañcadaśī*, a philosophical treatise. In describing a *paṭa* the *Āryamañjuśrī-mūlakalpa* states that a picture is to be painted on a new white cloth, having no fringes. It should be 2 hands long and 1 hand broad. It may be on cotton cloth or on a cloth prepared of the fibers of flax (*atasī*) or the bark of a tree, and it should be clean and devoid of any string. The painting should not be executed on silken cloth. The *Pañcadaśī* says that there are four stages in the course of making a painting on cloth, they are *dhauta* or washing of the cloth, *ghaṭṭita* or rubbing of the cloth after the application of boiled rice, *lāñchita* or marking of the forms to be depicted in ink and *rañjita* or application of colour.

Since paper became an important element in painting, it started to appear in texts. A text of the Mughal period called *Bayāz-i Khwūshbū'ī* (The *Sweet-Smelling Notebook*, *c.*1640) mention paper and paper dyes. This text contains the description of pigments, paper starch and varnish recipes. However, these recipes were not intended so much for professional miniaturists as for the gentlemen scholars who in that period were accomplished in those arts. Most of the pigments listed in this treatise are vegetable dyes made from flowers, fruit and nuts and were used to tint paper for the fancy calligraphy and decorative painting used not only for poetry but also for letters and legal documents (Bailey 1997). It is believed that paper was manufactured in India from the pre-Mughal period, but there is no textual evidence for that. This craft was promoted in the reign of Akbar when the demand for paper had increased (Ohri 2001, p. 45). Among the most important centres producing paper for miniature painting were Sialkot, now in Pakistan, and Sanganer and Gosunda in Rajasthan.

Preparation of crayons

Discussions of crayons are found in the *Samarāṅgaṇa Sūtradhāra*, *Mānasollasā* and *Śilparatna*. The *Śilparatna* (I.35b–37a) explains that dust of old bricks, dried cow-dung and cold water should be pasted together. Crayons (*kiṭṭa-lekhanī*) are to be prepared with this solution in the shape of a wick and their length should be of 2, 3 or 4 *aṅgulas*.

According to the *Mānasollasā* (III.1.144), lampblack (*kajjala*) should be pasted with boiled rice and turned into a lump. Afterwards the lump should be turned into pencil-chalks or crayons (*vartikā*). The *Mānasollasā* (III.1.142) also specifies that the first drawing is to be made either with *vartikā* or with *tinduka* (style). As regards the preparation of *tinduka* the text says that a bamboo stick of the measure of 4 *aṅgulas* should be selected, and at its end should be pegged a pin, whose projecting part should be of 1 *yava* (Bhattacharya 1976, pp. 48–49).

A more elaborate formula for the preparation of a *vartikā* or crayon may be found in the *Samarāṅgaṇa Sūtradhāra* (72.1–9). The text explains that suitable earth, collected from the interior of a thicket, the bank of a stream, the mountain caverns, tanks in a forest or the root of big trees, is to be turned into a paste and added with boiled rice. For the purpose of imparting hardness to crayons, the proportion of the boiled rice would vary according to seasons, one-seventh in the summer, one-fifth in the winter, one-sixth in the autumn and one-fourth in the rainy season (Bhattacharya 1976, p. 48).

First sketch

The *Viṣṇudharmottara Purāṇa* and the *Śilparatna* mention the auspicious moments for painting. In particular, the *Viṣṇudharmottara Purāṇa* (III.40.11–14) explains that when the wall dries up, on an auspicious lunar day, under positive asterism, especially when the moon is in Citra, when with due procedures the

painter has made offerings to *brahmans* and his teacher, the self-composed artist should begin to paint. He should be dressed in white garments, face the east, meditate upon his deity and he may begin to paint. After sketching first in white, then brown and finally in black paint, the painter should mark out the proportions and the postures. Afterwards, he should paint with colours, each according to the right place.

The *Śilparatna* (I.46.37b–40) states that gods, men, animals, reptiles, birds, trees and creepers, mountains and seas are to be drawn in crayon (*kiṭṭa-lekhanī*) in an auspicious moment. When the drawing becomes incorrect, it should be thoroughly erased with a piece of new cloth and carefully redrawn to improve the respective figures.

Brushes

Texts classify brushes according to their size. The *Śilparatna* (I.46.53–60) and the *Mānasollasā* (III.1.146–148) mention three types of brush (*lekhanī*); they are flat, medium and fine. Hairs from the ear of a calf should be collected for a flat brush, from under the belly of a goat for a medium one and from the tail of a muskrat or tips of grasses for a fine one. They should be tied to the peg with the help of a thread or lac (*lākṣā*). The *Śilparatna* also explains that for each colour there should be 3 shades, and the shape of the brush is again of 3 types, hence for each colour there should be 9 brushes. The medium brush is prescribed to draw a line in yellow on the wall just along the outside of the first sketch in crayon and, then, erasing the crayon line that should again be drawn in red ochre (Bhattacharya 1976, pp. 50–51).

The *Samarāṅgaṇa Sūtradhāra* (72.12–22) distinguishes different types of brush. Among them are the *kūrca* type shaped like the sprout of a banyan tree, the *hastakūrca* like the sprout of an *aśvattha* tree (*Ficus religiosa*), the *bhāsakūrca* like the sprout of a *plakṣa* tree (Indian fig) and the *callakūrca* like the sprout of the *udumbara* tree (*Ficus glomerata*) (Bhattacharya 1976, p. 50).

Preparation of binding media

The binding medium plays a very significant role in the process of preparing the ground and in fastening colours on that ground. The *citrasūtras* mention both animal and vegetable sources for the preparation of binding media. A very common word that denotes binding medium is *vajralepa* (adamantine medium), which is an animal glue. The *Bṛhat Saṃhitā* (57) and the *Viṣṇudharmottara Purāṇa* (III.92.1–16) give the recipes of different *vajralepas* which were used in stone and brick buildings, in constructing walls and to fix idols in temples. Among the texts that refer to glues to be used for painting purposes are the *Viṣṇudharmottara Purāṇa* and the *Śilparatna*.

In the chapter on colours, the *Viṣṇudharmottara Purāṇa* mentions the use of both animal and vegetable glues. Among the binding medium referred to in the

Viṣṇudharmottara Purāṇa (III.40.29–30) are the decoction of leather, with the extract of *bakula* tree, and the milk of *sindūra* tree which is recommended for all colours. The text also states that a painting that has been astringed by a hog's tail tied together by a cloth dipped in the juice of *matanga* and *dūrvā* grass is never destroyed even by water and lasts for many years.

The *Śilparatna* (I.46.132b–135a) explains that for the preparation of *vajralepa*, fresh buffalo-hide should be collected and boiled in water till it melts and becomes as soft as butter. This should then be turned into globules and dried under the strong heat of the sun. It should be placed in hot water and, when diluted, mixed up judiciously with different colours. *Vajralepa* can be used instead of gum secretions of the wood-apple (*kapittha*) and the *nimba* tree.[5] The *Śilparatna* (I.46.51–52, 118–122) also refers to the exudation of plants. It mentions gum as an adhesive employed in the preparation of colours, the exudation of *nimba* used for lampblack, red ochre, red lead and realgar and the exudation of wood-apple (*kapittha*) for *Śyāma-dhātu* (see the section 'Dark colours'). The exudation of *kapittha* is also employed to be overspread on wall and panel (Bhattacharya 1976, p. 89).

Introduction to primary colours

The concept of primary colour in the *citrasūtras* is not a fixed one. Each text seems to develop its own notion and a different number of these colours. According to the *Citrakarmaśāstra* of Mañjuśrī (17.1) there are six primary colours; they are white (*śveta*), red (*rakta*), yellow (*pīta*), blue (*śyāma*), dark blue (*kṛṣṇa*) and lampblack (*añjana*). The *Śilparatna* and *Viṣṇudharmottara Purāṇa* distinguish five primary or pure colours (*śuddha varṇa* or *mūla raṅga*); they are white (*sita*), yellow (*pīta*), red (*rakta*), black (*kajjala*) and *śyāma*[6] (SR I.46.26 and ViDha III.40.16–17).

The *Mānasollasā* (III.1.156–157) records the primary colours as four in number;[7] they are white, made of lime; red, which can be of three types (crimson red made of the red lead, blood red made of the juice of lac and red ochre); these are followed by yellow orpiment and black of lampblack (Bhattacharya 1976, pp. 53–54).

According to the *Kāśyapaśilpa* and the *Aṃśumadbhedāgama* (Bhattacharya 1976, p. 68), two south Indian sources, there are 16 colours, 4 varieties each of white, red, yellow and black/blue (see Table 7.1). These colours are called independent colours (*svatantra*) and they will be explained in the next sections.

From this discussion it is evident that the concept of primary and secondary colour of the *citrasūtras* is very different from the Western one, in which yellow, red and blue are the only primary colours, and secondary colours are derived from mixing the primary. Chakrabarti (1980, p. 43) maintains that the Indian conception was not very clear, because they considered to be primary colours obtained as pure or unmixed and not the three basic colours from which all other shades can be produced. He also states that '[t]he authors themselves were sometimes

confused on this particular point'. However, the Indian list of primary colours is very practical and seems to be based on the availability of minerals and plants in situ. The colours available in nature were called primary, or pure (*śuddha*), and root (*mūla*) colours. From these, it was possible to obtain secondary colours called mixed or *miśra* colours. This would explain why white and black are included in the Indian list of primary colours. Black from lampblack and white from conch-shell were easily available and were mixed with other minerals to create secondary colours. In the *Śilparatna*, green derived from terre verte, which would be a secondary colour from the Western point of view, is instead a primary colour for the Indian perspective. However, the green colour becomes secondary in some other texts in which this is derived from mixing blue and yellow.

Primary colours are summarized in Table 7.1.

White

White colour is introduced in the *citrasūtras* with a description of its shades and sources. The *Kāśyapaśilpa* (Bhattacharya 1976, p. 58) explains that there are four distinctive shades of white: *śveta* is the colour of the pearl, *śukla* is the colour of conch-shell, *dhavala* is the colour of silver or milk and *avadāta* is the colour of a star.

The *Mānasollasā* (III.1.137–139) and the *Śilparatna* (I.46.28) contain information on the process of obtaining white colour. Both texts say that white clay or kaolin and lime (*sudhā*), prepared from burnt conch-shell, oyster-shell or other shells, are the main sources of white pigments (Bhattacharya 1976, p. 57).

An interesting account on white and other colours is found in the *Jainacitra-kalpadruma* (Moti Chandra 1949a, pp. 85–88). This text lists a number of traditional colours together with some new materials such as zinc-white, employed in the illustration of western Indian manuscripts, Rajasthani and Mughal painting.

Table 7.1 Primary colours

Texts	Primary colours
Citrakarmaśāstra of Mañjuśrī	White, red, yellow, *śyāma, kṛṣṇa* and black
Śilparatna and *Viṣṇudharmottara Purāṇa*	White, yellow, red, black, *śyāma*
Mānasollasā	White, yellow, red, black
Kāśyapaśilpa	White of four types: *śveta, śukla, dhavala, avadāta* yellow of four types: *svarṇa, piśāṅga, pīta, harita* (green) red of four types: *aruṇa, rakta, śoṇa, pāṭala* black/blue of four types: *śyāma, nīla, kāla, kṛṣṇa*

Red

The *citrasūtras* distinguish different kinds of shades and sources for red colour. The *Kāśyapaśilpa* and *Aṃśumadbhedāgama* mention that there are four shades of red; they are *aruṇa*, *rakta*, *śoṇa* and *pāṭala*. *Aruṇa* is the colour of the blood of the hare, *rakta* is the colour of the China rose, *śoṇa* is the colour of the *kiṃśuka* flower (*Butea frondosa*), or the colour of a parrot's beak, and *pāṭala* is like the colour of lac juice or *lākṣārasa* (Bhattacharya 1976, pp. 62–63). According to the *Śilparatna* (I.46.118b-119), the materials for the preparation of red are red lead (*sindūra*) for soft red (*mṛdu-rakta*), red ochre (*gairika*) for middle red (*madhya-rakta*) and the juice of lac (*laksha-rasa*) for a deep red (*ati-rakta*).

Red ochre (*gairika* or *geru*) seems to be the most popular among the red sources for its easy availability. The presence of red ochre in the palette of the Indian painter may be noted as an invariable feature in the case of both murals and miniatures (Bhattacharya 1976, p. 59). Chakrabarti (1980, p. 48) explains that it is obtained from the natural earth which contains silica and owes its colour to iron oxide. The *Śilparatna* (I.46.120b–124a) states that red ochre should be thoroughly ground for a whole day in a grinding stone with a hammer or a similar implement. The colour may be obtained by washing the powder in pure water.

According to the *Śilparatna* (I.46.120b–124a), red lead (*darada* or *sindūra*)[8] should be ground for twelve hours along with water and after five days, again for a full day. After that it should be kept in a suitable receptacle. The *nimba* gum should be added to it as a medium (Bhattacharya 1976, pp. 59–60). Chakrabarti (1980, p. 49) explains that this kind of colour was not used in Indian murals because the substance from which it is derived is poisonous and causes the alteration of the tone of the colour.

Vermilion or crude cinnabar (*hiṅgula*) is mentioned in the *Viṣṇudharmottara Purāṇa* (III.40.26) as a source of red. Chakrabarti (1980, pp. 49–50) explains that this is a red mercuric sulphide. This colour is poisonous and liable to alteration. It is obtained from nature as the mineral cinnabar, which is the principal ore of mercury. It is however only the *Jainacitra-kalpadruma* (Bhattacharya 1976, p. 60) that preserves the recipe for its preparation. The crude cinnabar is thoroughly levigated in a mortar with sugared water or lime juice. Then the cinnabar is allowed to settle and the yellowish water is carefully drained off. The process is repeated fifteen times, or even more, to obtain purest cinnabar. It is again levigated with sugared water or lime juice and gum and after being thoroughly mixed, it is formed into tablets and dried.

Red lac (*lākṣārasa*) is mentioned by *Viṣṇudharmottara Purāṇa* (III.40.26), *Mānasollāsā* (III.1.156) and *Śilparatna* (I.46.119). It is prepared from a dark resinous incrustation produced on certain trees by a certain type of insect. This material is also mixed with other colours to produce various shades. The *Jainacitra-kalpadruma* (Bhattacharya 1976, p. 61) gives the following method for preparing it. Red lac resin is to be mixed in boiling water stirring all the time to prevent the solidification of the resin. After this the temperature of the water

should be raised and the powder of the lode and borax should be thrown in. The concoction is then taken down from the fire, and after the water has dried up the residue is used as colour.

Realgar (arsenic disulfide) or red arsenic (*manaḥśilā*) is similar to orpiment and has an orange-yellow hue. The *Śilparatna* (I.46.120b–124a) states that the realgar is reduced to fine powder and *nimba* is the medium for it. Realgar should be pulverized in a grinding stone and kept in water for five days, and then it should again be pasted for a day and collected in a vessel. Proportionate *nimba* gum should be added and mixed to the pigment for the purpose of painting.

Yellow

The *Kāśyapaśilpa* introduces yellow by saying that there are four distinctive shades of this colour: *svarṇa* (golden), *piśāṅga* (tawny), *pīta* (yellow) and *harita* (green) (Bhattacharya 1976, p. 64).

For the preparation of yellow, *haritāla* or orpiment (arsenic trisulfide) has been recommended as a source material by the *Mānasollasā* (III.1.157), the *Viṣṇudharmottara Purāṇa* (III.40.26) and the *Śilparatna*. The *Śilparatna* (I.46.41–46) gives a detailed description of its preparation. A yellow ingredient, named *pīta-varṇa-dhātu*, found in mountains, riverbeds and other places, is to be collected, washed in pure water and pulverized. It should be gently ground on stone and then be agitated in a jar full of pure water. Leaving the sediments suspended below, the water containing pigment is to be shifted to another jar and the process should again be followed. This process is to be repeated as long as necessary for removing impurity and, thereafter, the pigment is to be dried under the summer sun.

Another source of yellow, found in the *Jainacitra-kalpadruma* and mentioned by Moti Chandra (1949a), is *peori*. *Peori*, also called Indian yellow, was made from a concentrated extract of urine of cows fed entirely on mango leaves. The urine was dried and formed into lumps which were reground before use. The resultant material is the magnesium or calcium salt of euxanthic acid (Johnson 1972, p. 141). This process of making *peori* was not healthy for the cows and in the nineteenth century, this colour was replaced by chrome (Delamare and Guineau 2000, p. 81). However, many painters in Rajasthan today still have stocks of this pigment, which is used in miniature painting.

Dark colours

The expression 'dark colour' is used here following the spirit of the texts, like the *Kāśyapaśilpa* which mentions four dark shades of colour; they are *nīla*, *śyāma*, *kāla* and *kṛṣṇa*. *Nīla* represents the shade of the cloud, *śyāma* that of a forest crow, *kāla* that of a peacock and *kṛṣṇa* the colour of the wing of a black bee (Bhattacharya 1976, p. 65).

The *Mānasollasā* (III.1.157) enjoins *kajjala* or lampblack for *kṛṣṇa* or black colour[9] (Bhattacharya 1976, p. 64). The *Śilparatna* (I.46.47–51) explains that for

its preparation a lamp with oil and a lengthened wick should be lit. An earthen pot should then be brought and, after having besmeared its inside with fine cow-dung dust, it should be placed upside down over the flame of the lamp. The lamp-black (*kajjala*) born of the wick of the lamp, and sticking inside the pot, is to be carefully collected and smeared on an earthen vessel. Collecting it again and adding pure water to it, this is to be pasted and fully dried. Lampblack should then be added with the *nimba* gum, levigated and dried up again.

Another colour substance referred to in the *Śilparatna* (I.46.52) is *śyāma-dhātu*. *Śyāma* is a controversial word which stands for a deep shade covering black, brown, deep green and deep blue. This substance is identified by Bhattacharya with terre verte, a very popular colour in Indian painting. *Śyāma-dhātu* should be ground along with pure water, pasted after adding the gum of wood-apple and dried up.

Two sources of blue, organic and inorganic, are mentioned in the *citrasūtras*. The *Viṣṇudharmottara Purāṇa* refers to *nīla* (indigo) and *rājavarta* (lapis lazuli). The *Mānasollasā* (III.1.161–162) mentions *nīla* as having the hue of the blue lotus and *rājavarta* as having the hue of the *atasī* flower (flax). Indigo is not only used as a dye but the colour extracted from this plant is well known in the illustrated palm-leaf manuscripts of Bengal, Nepal and western India (Bhattacharya 1976, p. 66). According to Moti Chandra (1949a, p. 82) it seems that lapis lazuli, or more probably the ultramarine pigments extracted from them, were imported from Persia or from Afghanistan.

Mixed or secondary colours

Secondary colours are introduced according to three main textual sources: the *Viṣṇudharmottara Purāṇa*, the *Śilparatna* and the *Mānasollasā*. The *Viṣṇudharmottara Purāṇa* (III.40.18–22b) states that secondary colours are derived by combining primary colours using one's imagination and discretion. The text explains the colours taking the example of green. Green is said to be the combination of blue and yellow and it could be of the pure or mixed type. The mixed type can be a shade when augmented with black or a tint when mixed with white. The tint is of three types depending on whether white is added to the colour in greater, lesser or equal proportion. Such a method results in beautiful varia-tions of green such as greenish yellow like the *dūrvā* grass and yellowish green like the wood-apple. A shade too is three-fold according to the amount of black added to the colour in more, less or equal proportion.

Also the *Śilparatna* (I.46.135b–144) focuses on the description of the combination of one colour with another. However, it explains that this should not be done on the walls white washed with lime.[10] The *Śilparatna* offers the following comments on secondary colours:

- white mixed with red shows a fair rosy colour (*gauracchavi*);
- white, black (*kṛṣṇa*) and yellow mixed in equal proportion yield a green shade (*śāracchavi*);

- white and black (*kṛṣṇa*) mixed in equal proportion show the colour of an elephant;
- red and yellow mixed in equal proportion yield the colour of *bakula* fruits (*Mimusops elengi*) or the colour of flame;
- red with yellow in the proportion of 2:1 yields bright red (*ati-rakta*);
- the mixture of yellow and white in the proportion of 2:1 is known as *piṅgala* (yellow or golden colour);
- yellow mixed with black in the proportion of 2:1 yields the colour of water;
- the result of the combination of black and yellow in equal proportion produces the colour of the human body;
- yellow orpiment mixed with deep green (*śyāma*) produces the colour of the wing of a parrot;
- lac-dye mixed with vermilion yields a bright red;
- lac-dye with black shows the colour of *jambu* fruit;
- lac-dye, nutmeg and white mixed in equal proportion produce an excellent colour and may also be added with vermilion;
- black mixed with blue (*nīla*) shows the colour of hair.

This list is not only a technical description on how to mix colours, but it involves the imagination of the reader, who is invited to think of a particular colour visualizing fruits, flowers or things of that colour. Also the *Mānasollasā* (III.1.158–163; Bhattacharya 1976, p. 73) contains a list of secondary colours described in the same way:

- cinnabar mixed with conch-shell lime produces a red lotus hue;
- red ochre mixed with conch-shell lime gives the shade of smoke;
- orpiment mixed with conch-shell lime gives the colour of saffron;
- lampblack mixed with conch-shell lime produces the shade of smoke;
- indigo mixed with conch-shell lime produces the pigeon colour;
- indigo mixed with orpiment produces a green colour;
- lampblack mixed with red ochre produces a dark brown shade (*śyāma-varṇa*);
- lampblack mixed with lac-dye produces the shade of *pāṭala* flower;
- lac-dye mixed with indigo produces the deep purple of the *jambu* fruit.

Gilding and metals

The *Viṣṇudharmottara Purāṇa* and the *Śilparatna* introduce the metals to be employed in the process of painting. The *Viṣṇudharmottara Purāṇa* (III.40.25–29) states that the metals to be used in painting are gold (*kanaka*), silver (*rajata*), copper (*tāmra*), mica (*abhraka*) and tin (*trapu*). The metals are either spread out in foils or liquefied. Mica when added to impervious metals acts as a liquefier, thus the metals become fit for painting.

The *Śilparatna* (I.46.124b–132a) mentions two systems for the application of gold on painting: one with gold powder mixed with *vajralepa* and the other with

gold leaves. The first method enjoins that before grinding gold, it should be turned into thin and soft leaves and those leaves should be very minutely fragmented and mixed up with a small quantity of sand and clean water and then ground in a mortar. This well-ground powder is to be put into a pot and after pouring some water into it, the pot should be shaken so that the sand will rise above the gold. After the removal of dirt and sand, the gold will become very bright. This gold is to be carefully pasted with proportionate glue (*vajralepa*) and applied by the expert with a brush suitable for the purpose. When dried up, it should be slowly rubbed with the tip of a boar-tusk till the gold glitters. Alternatively, the second method states that the place meant for gilding is to be smeared with glue and extremely thin gold leaves should be laid very steadfastly on it in accordance with the requirements. Again, the gold should be brightened by rubbing.

Pictorial effect

The *Viṣṇudharmottara Purāṇa* and the *Śilparatna* spend a few lines explaining the pictorial effect of colours such as shading and the use of lines in painting. The *Viṣṇudharmottara Purāṇa* (III.41.5–7b) says that there are three types of line rendering (*vartanā*) (Figure 7.1); they are *patrajā* (leaf-born), *acchaidikā* (unbroken)[11] and *bindujā* (dot-born). The *patrajā* type of line rendering is drawn by lines that
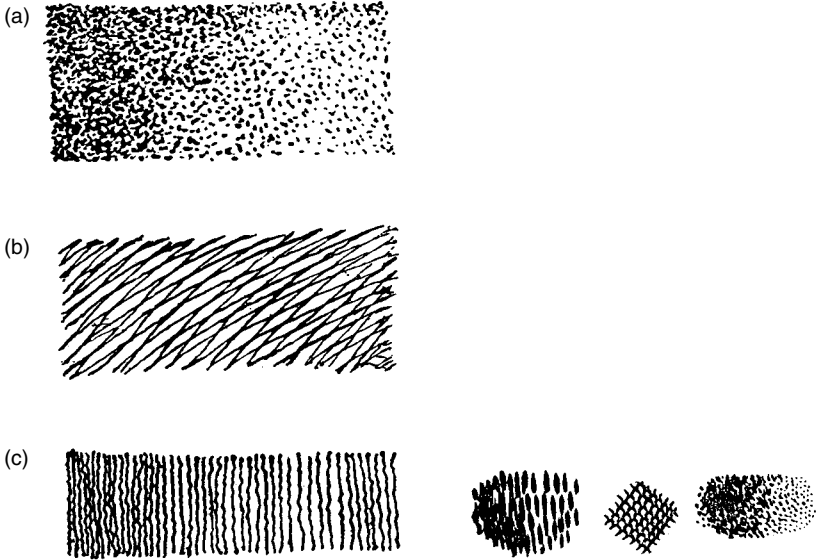

Figure 7.1 Line rendering according to the *Viṣṇudharmottara Purāṇa* (Bhattacharya 1976, fig. 3; Sivaramamurti 1978, p. 5); threefold *vartanā:* (a) *bindujā* stippling, (b) *patrajā* cross-hatching, (c) *acchaidikā* fine lineation.

are partly drawn and partly undrawn; *acchaidikā* type is said to be extremely fine; a *bindujā* type employs dotting.

The *Śilparatna* (I.46.113–117a) explains that an expert painter should fill in colours slowly and spotlessly with a flat brush in order to achieve the special effects of depressions and protrusions. Everything should be made to appear pleasing by the differentiation of darkness and brightness and of hardness and softness. In application of an individual colour, the effect of thickness is dark and that of thinness is bright. This effect is also achieved by using different colours. Where yellow stands for the bright, red would be dark. The borderline should be carefully drawn in lampblack (*kajjala-varṇa*) with a fine brush.[12]

Scientific analysis of painting and its use in secondary literature

Many scientific analyses have been carried out on mural and miniature paintings. Some of these studies will be taken into consideration in this section to see how they can help us to understand the technique of painting used in the past and the role played by the *citrasūtras* in the study of the painting process. In this section we will also see how scientific studies have been used together with textual evidence to prove or disprove the validity of the texts. As discussed in Chapter 1, many scholars considered the technique of mural painting to be directly influenced by texts. This approach is present from the very beginning of the study of the *citrasūtras*. Stella Kramrish (1924), Shukla (1957) and Chakrabarti (1980) tend to associate the *Viṣṇudharmottara Purāṇa* with the murals of Ajanta. Shukla, for example, suggests that:

> Here [in Ajanta] the line (*rekhā*) and modelling of forms, as well as the principles of *kṣaya* and *vṛddhi* are all followed and deeply worked out…The *vartanā*, the delineation of light and shade of the canonical treatises like the VD [*Viṣṇudharmottara*] was the rule of these paintings at Ajanta.
>
> (1957, pp. 107–108)

In the same way, Bhattacharya (1974 and 1976) associates the *Śilparatna* with the murals of Kerala. One of the peculiarities of his study is that he employed scientific analyses of painting to strengthen his position. Bhattacharya in fact used scientific analyses of south Indian murals, carried out by Paramasivan (1939), to prove that Kerala painters literally followed the *Śilparatna*.

The study of Paramasivan examines many examples of south Indian murals including those of Kochi, Padmanabhapuram, Lepakshi, Somapalayam and Tirumalai. Paramasivan studied micro-sections of the ground and concluded that at Kochi and Padmanabhapuram the ground was prepared out of lime plaster with lime and sand as the principal components; at Lepakshi and Somapalayam, the ground was similarly prepared out of lime plaster with lime and sand as the

principal components but silica was also present; at Tirumalai the plaster was prepared out of lime and silica as the principal components. The pigments identified by Paramasivan in these frescos are yellow ochre, red ochre, terre verte, carbon and lime, and only lime had been used to serve as a binding medium. He also observed that the pigments have not infused into the plaster ground or spread beneath the stucco surface denoting that the paintings have been done in lime medium or with the technique of fresco *secco*.[13]

The *citrasūtras* and the practice of painting do not need to be validated by scientific studies because both should be considered as the Indian traditional authorities on the subject; however, this approach of mixing scientific studies with traditional knowledge was adopted by Bhattacharya to prove his thesis that there is a clear correlation between the sixteenth-century *Śilparatna* and the sixteenth-century murals of Kerala. He declares:

> It is . . . in technical aspects, covering material, method and composition, that the correlation between the text and the murals appears to be very much clear. A somewhat detailed discussion of the results obtained by S. Paramasivan in his investigations into the methods of mural painting in Kerala would clarify the extent of dependence of the Kerala painters on the experiences of the earlier masters recorded in the *Citralakṣaṇa*.
>
> (1974, p. 28)

Using as a proof the study of Paramasivam, Bhattacharya also asserts that the recipes of the *Śilparatna* were followed by the painters of Kerala:

> Finally, it may be noted that the colour schemes of Indian paintings belonging to the ancient and medieval ages testify to the authenticity of the canonical texts, which, as it appears from their reliable recipes, were nothing but artist's manual to be followed by the painters through the generations.
>
> (1976, p. 70)

Bhattacharya, however, finds some problems in proving his position especially when yellow ochre, one of the pigments used in Kerala painting according to Paramasivan, finds no place in the *Śilparatna*. To solve the problem, he finds an answer to this question stating that: 'the law-makers on painting covered both yellow ochre and red ochre by the word *gairika*' (1976, p. 70). Bhattacharya thus widens the meaning of the word *gairika* so that it can fit the findings of Paramasivan.

Another misinterpretation and misguided application of the texts is to highlight their alleged 'mistakes', comparing their content to scientific analysis. This seems to be the approach adopted by Purington and Newman (1985).[14] One of their purposes was to check the accuracy of the *citrasūtras* (p. 107). This presumes that the *citrasūtras*, when compared to Western scientific analysis, cannot

per se be seen as an authoritative source. Their study examines examples of painting of different periods and schools in order to detect the sources for pigments and check if the colours mentioned in the texts were used in practice. Among the paintings used in this study are an example of the *Bhāgavata Purāṇa* series from the Delhi-Agra area, dated *c.*1520–1530; Mughal paintings such as an example of *Hamzanama* and one representing the *Darbar of Akbar II*, dated between 1811 and 1815; a painting representing the *Hindola Raga* from Mandi; the *Maharaja of Nathdvara* from Kota, dated *c.*1830, and the *Festive Procession* from Jaipur, dated 1833. Among the colours detected were white lead, carbon blacks, red lead, vermilion and also an organic red pigment. *Peori* and orpiment were used but never together. Verdigris, and not terre verte, was used as a green pigment produced by copper corrosion. This was used for example in the painting of the *Hindola Raga*. Among the blue pigments, very common was indigo, whereas the ultramarine was used in Mughal paintings, in the *Festive Procession* and *Hindola Raga*. Azurite was not used. Many colours were achieved by combining two or more pigments. The flesh tone of one of the attendant figures in the *Hindola Raga* painting was found to include ultramarine, *peori*, white lead, red lead and carbon black. Powdered metals like gold and silver were used and when mixed with other pigments, the metal added a shimmering effect to the colour. The example of the *Bhāgavata Purāṇa* shows a very restricted palette: here white lead, red lead, vermilion, orpiment and indigo were used. The *Hindola Raga* is the painting in which more pigments were used: they are lead white, carbon black, red ochre, red lead, vermilion, organic red, *peori*, verdigris, ultramarine, indigo, gold metal and silver metal. After this analysis the conclusions were obvious: these paintings contained some but not all of the pigments described in the texts, and some of the pigments mentioned by the texts were not used in practice.

In the study by Purington and Newman the texts were used as a blueprint to prove the validity of the texts themselves, which, in the eyes of the authors, appear like defective compilations, when compared to Western scientific analysis. However, this is not the way of using a *citrasūtra*. A text may detail recipes and possibilities of using colours, but it is only the skill of the artist that can discern which colour may be appropriately used and how in any given context. One of the peculiarities of the texts is that of giving numerous recipes without explaining whether the colour may be used in mural or in miniature and cloth painting. What is not stated by the text is the use of colours which was, and is, well known by practitioners. For example, Kripal Singh (Jaipur) explains that lac, mercuric sulphide (cinnabar), malachite and cochineal are not suitable for murals but can be used only in miniature or cloth painting, whereas Indian red (*hirmaji* or iron oxide), red and yellow ochre and terre verte are generally used in fresco. He also explains that lapis lazuli and azurite are not used in fresco *buono* as they can be used only when the plaster is dry. This explanation shows that painters are, and were, acquainted with the use of colours and for example explains why terre verte is never used in miniatures. The text is not a guide but it can be considered as a collection of possibilities in the use of colours that in practice may or may not be seen.

In the study of Purington and Newman we can also argue that the choice of paintings was not appropriate. In particular they did not explain how the *Viṣṇudharmottara Purāṇa* might have been relevant to Mughal painting, which notably for technique and colours owes much to Persian painting and to later developments in the uses of colours. In fact, what can be evinced by their study is that from the *Bhāgavata Purāṇa* series of painting to Mughal painting, there has been a great evolution in the use of colours. This evolution however was not produced by following one text or another but was due to changes in patronage, adoption of new colours and techniques and the adaptation of painters to new needs and fashions. For example, Isacco and Darrah (1993), in their study of Indian miniature painting, maintain that paintings belonging to the same series, school or period have consistently similar features but they are also open to change. When new colours appear, they are generally seen first as exceptions, then the exceptions become more frequent until they are a rule. In this way, many new materials for pigments were introduced in miniature painting together with those traditionally used. For example, the paintings analysed by them shows that for blue colour, in later Mughal and Rajasthani painting, together with the ultra-marine and indigo were introduced azurite, smalt and Prussian blue.

One possible use of a scientific analysis is to understand the base technique of mural or miniature paintings. This for example is the case of the analysis of the mural paintings at Ajanta carried out by Ghosh (1987, pp. 53–55) who leaves aside textual evidence to proceed to develop an understanding of the technique and materials used by the painters. He explains in his analysis that the ground of the painting at Ajanta is composed of mud plaster containing vegetable fibers, paddy husk, grass and other organic materials and rock grit or sand. The pigments detected by Ghosh are yellow and red ochres, lampblack, white derived from kaolin, lime and gypsum, and green from terre verte. He also states that the pigments were used along with mixtures of these in various shades. This kind of analysis permits us to understand that, in terms of technique, Ajanta murals represent a clear example of the adaptation of the artists to the locally available materials and to a skilfull use of all of them. Also the way in which the ground and plaster were prepared does not follow the recipe of the *Viṣṇudharmottara Purāṇa.* Texts offer a multitude of options, but in practice the choice of colours did not depend on following a text but on local availability, skill of painters and ideals of the time.

Conclusions

As we have seen in the Section on 'Scientific analysis of paintings', the widespread idea of considering texts related to a particular period of time or to a particular school is evidenced by the frequent juxtapositions of concepts of a text like the *Viṣṇudharmottara Purāṇa* to the mural painting of Ajanta, both belonging to the Gupta period, or of the *Śilparatna* to the fresco painting of Kerala. This idea is also shared by Sharma (1927), the translator of the *Sudhālepavidhāna*.

He believes that texts were guides for painters, and in his article, he ingenuously states that his translation of the *Sudhālepavidhāna* will be of interest to those who wish to revive the old art of mural painting of Kerala that is about to disappear.

The view of considering texts as prescriptive guides, however, could not be proved satisfactorily even using scientific analysis. In terms of materials employed in mural painting, we have seen that each school or each place presents a different composition of the plaster and none of them correspond literally to a text. This tells us that theory and practice can be considered as two *views* on the preparation of plaster. In my interview with Kripal Singh (Jaipur), an expert in Indian fresco painting, he commented that while the *citrasūtras* are old compilations, their recipes may work in practice. However, he also adds that this requires proper reading of the texts. He explains that the *Samarāṅgaṇa Sūtradhāra* (72) mentions, for the preparation of plaster, a number of plants from all over India, but that it was only the skilled painter who knew exactly which one to use. The use of a plant also depended on regional availability. This suggests that the texts cannot be seen as definitive guides but rather presuppose that painters know how to select and employ the right plants for the preparation of plaster.

One of the big discrepancies between text and practice is that the texts only consider fresco *secco*. However, fresco *buono* is also a widely used technique in India. For example, Kripal Singh says that the figure of a *bodhisattva* at Bagh (*c.* sixth century) is made with this technique. He explains that this figure is painted on a thick layer of plaster and according to its size it took a day to be painted. Now it is completely ruined, but Kripal Singh considers it as a proof of the existence of fresco *buono* in ancient India. If this were true it would prove that fresco *buono* is not a technique imported from abroad, as commonly believed. Fresco *buono* technique is commonly used in Rajasthan, where it is called *ala gila*. Examples of fresco *buono* are to be found in the Shekhavati region (Figure 7.2). Here, according to Cooper (1994, pp. 75–79), two methods of painting were adopted. For the fine work inside buildings, a *tempera* technique, in which gum was used as a medium, was adopted, and on parts of the outer walls and for the dado of rectangular designs within the rooms, a local *fresco* technique on wet plaster was employed. In this latter technique painters started work from the top downwards and they would apply as much plaster as they could paint in a single day. Fresco *buono* can be found also in a small temple in a village near Udaipur (Figure 5.15).

The technique of fresco *buono* is used today by Kripal Singh, an expert in traditional fresco *buono* (Figure 7.3). He clarifies that, for the chemical reaction with lime, only a few colours can be used in this process such as Indian red, red and yellow ochres and terre verte. Other colours like azurite can be used only after the plaster is dry. For white details, he explains that scratches on the wall are employed in the same way in which it was made in the murals of the Mattanchery Palace in Kochi. He states that many are the implements employed in the making of a fresco *buono* (Figure 7.4); there are for example big trowels to smoothen

Figure 7.2 Examples of fresco painting at Anandi Lal Poddar Haveli, Navalgarh *c.*1920 (Shekhavati Region, Rajasthan).

Figure 7.3 Traditional fresco *buono* by Kripal Singh (Rajputana Palace Sheraton, Jaipur 1994).

Figure 7.4 Tools used in traditional mural painting: trowels of different size, pieces of agate stone and other implements.

the plaster and small trowels to beat on the wet plaster to make the colours brighter. Another implement, the rod, is used to cut the plaster because in fresco *buono* only the plaster that can be painted in a day is spread on the wall, the rest will be cut with this implement before it gets dry. He also elucidates that one of the ways to distinguish a fresco *buono* from a fresco *secco* is that of looking for such cuts in the wall. He also adds that another peculiarity of Indian fresco *buono* is that the wall results smoother than in fresco *secco*.

The *citrasūtras* prescribe that brushes can be made of the hairs collected from the ear of a calf, from the belly of a goat, from the tail of a muskrat or from tips of grasses. Kripal Singh confirms that all these statements are true, but again we should not consider the texts as prescriptive; they are rather suggesting possibilities. The use of a brush does not depend on following a text but on experience and availability. Kripal Singh for example says that, depending on the painting, the brushes may have been prepared with hairs collected from squirrel tail, ear of a calf and moustaches of rat or cat. In today's practice artists use factory-made brushes, while hand-made ones are kept just to show to the visitors.

As already pointed out, one of the peculiarities of the texts is that they do not separate the colours to be used for mural, panel or cloth painting. It appears clear that all the colours cannot be used in one single technique but the painters know

Figure 7.5 Detail of a *phar* painting by the studio of Gopal Joshi (Bhilwara).

exactly which is suitable for each technique. In practice these differentiations in the uses of colours are well known among painters. The following examples will elucidate this point.

In today's practice of traditional painting, an example of the use of natural colours is that of *phar* painting[15] (Figure 7.5). A *phar* painter from Bhilvara (Rajasthan), Gopal Joshi, maintains that his family tradition of painting is 700 years old. He makes traditional *phar* paintings on cotton cloth representing the story of a local hero, Pabuji. In the process of painting he first of all prepares the cotton cloth with starch and then polishes it with agate, a stone widely used in the process of painting all over India. This has the function of making the cloth smooth and shiny for painting. After this process Gopal Joshi starts his painting with a yellow outline, a light colour easy to be corrected. After the outline is finished, he starts with filling in the colours he prepares. Natural colours are part and parcel of *phar* painting, and they give the designated effect. The colours employed here are yellow orpiment, green from copper corrosion (*zangar*), brown from a kind of red

clay (iron oxide called *hirmaji*), vermilion from mercuric sulphide, blue from indigo and lampblack. The colours prepared for painting are mixed with gum and water and are kept for fifteen days. Traditionally, *phar* painting were made on very long cloth (*c.*15 feet) and were used by storytellers or *bhopas* to entertain the people of villages chanting the story of Pabuji, Devnarayan or other local heroes. Today, however, many factors are provoking radical changes in this kind of painting. For example, the painters do not make large *phar* paintings as their dimensions are rationalized to suit commercial purposes. Similarly, Gopal Joshi paints, using the same themes of *phar* painting, the borders of saris.

Traditional Orissan painting provides another instructive example of the use of natural colours. They are for example yellow orpiment, red ochre, indigo, lampblack, vermilion and white from [a] conch-shell.[16] Other colours are derived by mixing these pigments. For example, green is derived from mixing indigo, white and yellow. Before their use, these colours are mixed with gum from the tree of the wood-apple. Another characteristic of Orissan painting is the preparation of the ground in which the cotton cloth is applied with 2 or 3 layers of gum of tamarind seeds and chalk. After this coating becomes dry, the cloth is rubbed with a stone. In addition to this very traditional way of preparing ground and colours for painting, the painters of Raghurajpur and of Bhubaneshvar also use artificial colours available in the market. This points once again to the inherent dynamics of Indian painting, which are not constrained by the contents of the *citrasūtras* and whereby new colours and materials can be introduced according to the decisions of painters.

Another example of the room for change within the painting tradition is provided by the painters of Nathdvara. The largest segment of the work done by Nathdvara painters today consists of paintings representing Śrī Nāthjī adorned for the daily *darśanas* (Figure 5.16). Today, this pictorial tradition shows a great experimentation of colours and materials for painting. In the past, for example, the paper used for painting was traditionally from a village called Gosunda, near Chittor, and the painters used to produce their own colours from stones or plants. The influx of chemical colours is now ever present and factory-manufactured paper is purchased in local shops. The use of artificial colours and factory-made paper not only saves the painters a lot of time but also denotes a clear change of patronage. In the past, artists worked under the temple of Śrī Nāthjī, and painting developed according to the directions of the *gosvāmīs* who administered the temple. Today this activity is a business in which painters are free to experiment with new materials and colours in order to attract the attention of costumers in the numerous shops around the temple. For example, they employ spray paint, cardboard and velvet for ornamentation instead of traditional colours and materials (Figure 7.6). The readiness to employ new materials and colours demonstrates that painters are constantly adapting themselves to changing times rather than obediently following an assumed textual authority.

These changes contrast with the traditional miniature painting of Lalit Sharma, a painter from Udaipur. Lalit Sharma learned the miniature painting from his

Figure 7.6 Young painter employing acrylic colours on cardboard (Nathdvara).

family: his forefathers worked for the Mahārāṇās of Udaipur. He is acquainted with the entire process of making colours and implements for painting. He can prepare squirrel-tail brushes and the paper for painting. He keeps a videotape in which his father, Ghanshyam Sharma, shows the traditional process of miniature painting. The ground is prepared with three sheets of Gosunda paper glued one on top of the other with a paste made of wheat flour and water. Cloth is also prepared with wheat flour. He knows how to prepare colours for example, he explains that lampblack may have different tones depending on the kind of oil used, such as mustard oil giving bluish black tinge and kerosene a brownish black effect. For the preparation of colours, he mixes the already ground stones with water and gum Arabic. The quantity of gum Arabic depends on the painting. For a painting on cloth, there is more gum than in a painting on paper. Animal glue (*sares*), made with camel fat, is only used when silver or gold leaf is used. The sketch of the painting is then made without following any text but by simply trying to organize the entire composition in a harmonious way.

To conclude, therefore, texts cannot be seen as prescriptive guides but rather they are an authoritative view on traditional painting. The *citrasūtras* emphasize not only that iconography and the theory of proportion are fundamental concepts in Indian painting but also that the process of making a painting is critical. This view was emphatically expressed by some practicing painters like Lalit Sharma who considers traditional Indian paintings to be only those made on cloth and

with natural colours. On the other hand, other painters may find this view obsolete and try to experiment with new colours and materials. This freedom suggests that the schools of painting have different notions of tradition. As we have seen, painting is open to change, and in different places and times painters adapted their paintings to newly discovered pigments and artificially made colours. The changes in the painting process depend on numerous other factors, notably the degree of patronage. In Nathdvara, for example, the painting of the past shows the choices of the patrons which tended to keep the style and the use of colours more uniform and consistent, whereas today each painter tries to attract new buyers with the use of new techniques and materials. Another example of changes within a tradition is that of *phar* painting. *Phar* painters are trying to find a way to sell their art by decorating sari borders or by making small paintings. This fact stems from the fact that traditional *bhopas* or storytellers do not provide them enough work to survive. The distinction between tradition and innovation is made not only by comparing the past and present developments of a school but also on the basis of the information of the texts. This again is possible because the *citrasūtras* constitute a theoretical position adaptable to our reading of any painting.

8

THE THEORY OF *RASA*

This chapter analyses one of the aesthetic principles of Indian art, the *rasa* theory. In order to understand a painting or sculpture, one should consider the *rasa* theory together with the other principles discussed in the previous chapters rather than conceiving it as a separate entity. *Rasa* is generally labelled as *the* aesthetic principle of Indian art, although every chapter of this work explains an aesthetic principle, each of which should be understood and interwoven with the others in order to create or look at an Indian work of art.

Rasa is an essential feature of all Indian arts including drama, literature, painting and sculpture. The term *rasa* is well-attested in early Indian literature in the allied senses of 'essence' and 'taste'. As Gerow explains (1977, pp. 245–246), citations of the objective reference to *rasa* can be traced to the *Ṛg Veda* where it often designates the 'essence' of the *soma* plant. The subjective reference to 'taste' goes back at least to the *Śatapatha Brāhmaṇa*. The *rasa* was not at first propounded as a universal principle but was introduced as a characteristic of drama. Only in later times did *rasa* become an aesthetic principle of all arts. The first enunciation of the theory as a definable aesthetic principle is in the *Nāṭya Śāstra*, a text that concerns *nāṭya*, the art of the stage. In the later development of the theory, most of the writers on *rasa*, such as Ānandavardhana, shifted their focus to poetry.

Together with the texts on dance and on poetry, there are also some *citrasūtras* that mention *rasa*: these are the *Viṣṇudharmottara Purāṇa* (III.43) and the *Samarāṅgaṇa Sūtradhāra* (82). From these two texts it appears difficult to enunciate a theory on the basis of their prescriptions without relating and comparing them with the other texts on the subject. In fact, we should infer that the *citrasūtras* take for granted the existing theory that developed first in the *Nāṭya Śāstra* of Bharata, from which they then developed their own conceptions.

Many are the works of secondary literature concerning the theory of *rasa* and its application in literature or theatre, whereas only a few examine the relationship between *rasa* and painting or sculpture. One of the most important works on *rasa* and painting is the *Essence of Indian Art* by Goswamy (1986). The texts selected in his work are two classical sources – the *Nāṭya Śāstra* of Bharata and the *Sāhitya Darpaṇa* of Viśvanātha – whereas texts on painting, which are

appropriate for this study, are only briefly mentioned. The main aim of Goswami's book, however, is not so much to explore the theory of *rasa* through such texts, as to apply his understanding of the *rasa* theory to label Indian painting and sculpture according to one or other *rasa*. Such analysis involves some arbitrary judgement, based on the relativities of culture, time and space. The present discussion, however, focuses primarily on examining the formulation of the *rasa* theory as expounded in its textual sources. It first considers the theory as explained by the *Nāṭya Śāstra*. It then turns to analyse two *citrasūtras* that mention *rasa*, namely the *Viṣṇudharmottara Purāṇa* and the *Samarāṅgaṇa Sūtradhāra*, highlighting key differences. Finally, our discussion examines a text on poetics, the *Dhvanyāloka* of Ānandavardhana,[1] which marks an important development of the theory of *rasa* with the definition of *dhvani* and highlights the difficulties of applying this doctrine to painting.

Rasa theory of the *Nāṭya Śāstra*

While the systematic analysis of *rasa* expounded in the *Nāṭya Śāstra* is not a ready-made guide, it is suggested that one should read and understand its characteristics in order to be able to regard and judge a drama or a painting on its own terms. The description presented here seeks to capture the basic aesthetic and theoretical notions of the theory of *rasa* with an explanation of the realization of a *rasa* through its *bhāvas* or emotional states.

According to the *Nāṭya Śāstra* (6.15) there are eight *rasas*. They are *śṛṅgāra* or erotic, *hāsya* or comic, *karuṇa* or tragic, *raudra* or wrathful, *vīra* or heroic, *bhayānaka* or terrible, *bībhatsa* or disgusting and *adbhuta* or marvelous. Each *rasa* is associated with a colour and a presiding deity.[2]

The *rasas* as explained in the *Nāṭya Śāstra* (7) are based on various emotional states called *bhāvas*. The *bhāvas* can be of different types, like for example the *sthāyi bhāvas*, *vyabhicāri bhāvas* and *sāttvika bhāvas*. The *sthāyi bhāvas* or abiding emotions (NS 7.8–27) are based on human emotions; they are eight in number, each of which is associated with a *rasa*. The temporary or transitory states of mind or *vyabhicāri bhāvas* (NS 7.28–92) are listed as thirty-three in total, among them are discouragement, apprehension, jealousy, embarrassment and intoxication. To them are added eight involuntary physical reactions, known as *sāttvika bhāvas* (NS 7.93–106), like perspiration, trembling and fainting. The use of *vyabhicāri* and *sāttvika bhāvas* depends on the *rasa* to be portrayed, for example the *Nāṭya Śāstra* (7.108) explains that the *bhāvas* to be employed in the representation of *hāsya rasa* are weakness, suspicion, jealousy, weariness, fickle mindedness, dreaming, slumber and dissimulation.

The *Nāṭya Śāstra* (6–7) also states that *rasa* originates in a combination of *vibhāvas* (determinants), *anubhāvas* (consequences, signs or indications) and *vyabhicāri bhāvas* (transitory states). Determinants (*vibhāvas*) refer to those factors that make the realization of the emotion and the *rasa* possible. Determinants can be of two types: objective and stimulative. The objective determinants are the

objects towards which the emotions are felt like the lover for the *śṛṅgāra rasa*. The stimulative determinants of this *rasa* would be for example attractive clothing and jewellery, the moon and a secluded grove. The consequences (*anubhāvas*) of the emotions in the representation of the *śṛṅgāra rasa* may be regarded as its symptoms, such as smiles and graceful movements (see also Ingalls 1990, pp. 16–17).

According to the *Nāṭya Śāstra* (prose passage and verses 6.46–48), the *śṛṅgāra rasa* or erotic mood originates from the *sthāyi bhāva* (abiding emotion) of *rati* (love). The text explains that this *rasa* goes along with an elegant bright dress and make-up, and the presence of both male and female generate its outcome. The text divides *śṛṅgāra rasa* into two types: *sambhoga* (love in union) and *vipralambha* (love in separation). The *sambhoga* is manifested through *vibhāvas* (determinants) like the pleasant season, garlands, unguents, ornaments, sensual objects, going to the garden, listening to music and playing. Among its *anubhāvas* (consequences) are clever and significant glances, movement of the eyebrows and movement of the limbs. Among the *vyabhicāri bhāvas* (transitory states) that apply to *śṛṅgāra rasa* are weakness, suspicion, envy, inebriation, exhaustion, anxiety, delusion, recollection, joy, excitement, stupefaction, arrogance, despair, impatient curiosity, sleep, loss of memory, dreaming, indignation, dissimulation, sickness, madness and death. The *vipralambha* or love in separation is represented through *anubhāvas* (consequences) like despondency, weakness, suspicion, envy, exhaustion, anxiety, impatient curiosity, sleep, dream, feigned anger, illness, madness, forgetfulness, sluggishness and death. It is interesting to note that the *Nāṭya Śāstra* makes a distinction between *karuṇa* (tragic) *rasa* and the *vipralambha* or love in separation, clarifying that the former involves a desperate condition as a result of curse, affliction, downfall, separation from the near and dear ones, loss of wealth, imprisonment and slaughter, whereas *vipralambha* involves the condition of sticking to hopeful expectation of reunion out of yearning and anxiety.

The *sthāyi bhāva* (abiding emotion) of *hāsya* or comic *rasa* is *hāsa* (laughter). Its outcome is through *vibhāvas* (determinants) like improper dress, misplaced ornaments, boldness, covetousness, quarrelling, displaying deformed limbs and pointing out the faults of others. Among its *anubhāvas* (consequences) are biting the lips, throbbing of the nose and the cheek, opening the eyes wide, contracting the eyes, perspiration and holding the sides. The *vyabhicāri bhāvas* (transitory states) of this *rasa* are lethargy, dissimulation, drowsiness, sleeplessness, dreaming, waking up and envy. This *rasa* is most common to women characters and mean persons (NS prose passage and verses 6.49–61).

The *sthāyi bhāva* of *karuṇa* or tragic *rasa* is *śoka* (sorrow). Among its *vibhāvas* (determinants) are curse, distress, downfall, calamity, separation, loss of wealth, murder, imprisonment, dangerous accidents and misfortune. Among its *anubhāvas* (consequences) are discharge of tears, lamentation, parched throat and mouth, pallor of face, drooping of the limbs, gasping for breath and loss of memory. Among its *vyabhicāri bhāvas* (transitory states) are dejectedness, indifference, languor, anxiety, yearning, illusion, loss of sense, sadness, ailment, lethargy, sluggishness,

loss of memory, fear, death, paralysis, tremor, pallor of the face and loss of speech (NS prose passage and verses 6.62–63).

The *sthāyi bhāva* of *raudra* or wrathful *rasa* is *krodha* (anger). Its outcome is through *vibhāvas* like anger, abuse, insult, telling lies, animosity and jealousy. Among its *anubhāvas* are making the eyes red, perspiring profusely, knitting of the eyebrows, biting the lips, throbbing of the cheeks and hitting the palm with the fist. Among the *vyabhicāri bhāvas* of this *rasa* are tumultuous battle, energetic enthusiasm, impetuosity, wrath, restlessness, ferocity, profuse perspiration, trembling and rising of the hairs (NS prose passage and verses 6.64–66).

Vīra rasa is the exhibition of energy and enthusiasm with persons of high rank, and *utsāha* (strength) is its *sthāyi bhāva*. Among its *vibhāvas* are composure and absence of infatuation, perseverance, good tactics, humility, valor, power, aggressiveness and mighty influence. Among its *anubhāvas* are firmness, heroism, bravery, readiness to sacrifice and proficiency. Among its *vyabhicāri bhāvas* are fortitude, intellect, pride, impetuousity, ferocity, indignation, recollection and thrill of the hair (NS prose passage and verses 6.67–68).

The *sthāyi bhāva* of *bhayānaka* or terrible *rasa* is *bhaya* (fright). Its outcome is through *vibhāvas* like terrific noise, empty house, entering a forest, death, murder of kinsmen and imprisonment. Among its *anubhāvas* are trembling of hands and feet, movements of the eyes, bristling of the hairs of the body, pallor of the face and change of voice. Its *vyabhicāri bhāvas* are paralysis, perspiration, choked voice, thrill of the hair, trembling, change of the voice, lack of lustre, suspicion, fainting, dejection, agitation, restlessness, fright, loss of memory and death (NS prose passage and verses 6.69–72).

The *bībhatsa* or disgusting *rasa* has *jugupsā* (disgust) as its *sthāyi bhāva*. Its outcome is from *vibhāvas* like seeing what is unwholesome or displeasing, and hearing, seeing and discussing what is undesirable. Its *anubhāvas* are squeezing up all the limbs, rolling about face and eyes, anxiety, spitting and expressing disgust. Its *vyabhicāri bhāvas* are loss of memory, agitation, loss of sense, illness and death (NS prose passage and verses 6.73–74).

The *adbhuta* or marvelous *rasa* has, as its *sthāyi bhāva*, *vismaya* (astonishment). Its outcome is through *vibhāvas* like seeing a divine being, attainment of a cherished desire, seeing magical tricks and creations of things. Among its *anubhāvas* are gaping of the eyes, looking vigilantly, thrill of the hair, tears, perspiration, delight, uttering words of congratulation, making gifts and movements of hands and feet. Among its *vyabhicāri bhāvas* are shedding tears, paralysis, perspiration, choking of the voice, thrill of the hair, excitement and sluggishness (NS prose passage and verses 6.75–76).

Rasa theory in the *citrasūtras*

The *Viṣṇudharmottara Purāṇa* is the earliest text that seeks to elaborate the theory of *rasa* in the context of visual arts such as painting. The text does not

explain notions like *vyabhicāri bhāvas* etc. but, taking them for granted, simply describes how each *rasa* should be represented in painting.

The *Viṣṇudharmottara Purāṇa* (III.43.1–10) states that there are nine kinds of sentiments in painting (*citrarasa*). They are the erotic or *śṛṅgāra*, the comic or *hāsya*, the tragic or *karuṇa*, the heroic or *vīra*, the wrathful or *raudra*, the terrible or *bhayānaka*, the disgusting or *bībhatsa*, the marvelous or *adbhuta* and the tranquil or *śānta*.[3] The text maintains that in the erotic sentiment (*śṛṅgāra*), the figures should be depicted clad in sophisticated dress and ornaments, and their amorous beauty should be expressed by the exquisite beauty of the lines. To bring about laughter in the representation of comic sentiment (*hāsya*), one should portray the hunch-backed, dwarfs, things which look somewhat distorted and gestures such as the unnecessary clenching of the fists.[4] In the case of the tragic sentiment (*karuṇa*), one should paint situations that evoke sympathy such as begging, separation from the beloved,[5] renunciation, ailment and calamity. To express the wrathful sentiment (*raudra*) in a painting, one should depict harshness, agitation, anger, hostility and the destruction of property and food. In a painting expressing the heroic sentiment (*vīra*), there should be a display of nobleness in form of oath taking and pride; the hero should be depicted with a frown and an arrogant expression. In a painting expressing the terrible sentiment (*bhayānaka*), the subject of portrayal should be vile, frightful to look at, fading away in decay and looking contemptible and murderous. The painting that represents the sentiment of disgust (*bībhatsa*) disturbs the mind because of its terrifying subject matter such as the funeral grounds and the acts of reprehensible violence. The marvelous sentiment (*adbhuta*) is conveyed by depicting someone having a wide-eyed look, an expectant face and beads of perspiration. The representation of the tranquil sentiment (*śānta*) consists mainly of ascetics in meditative postures with a band clasping their legs and of any other subject that expresses calmness.

The *puranic* tradition, recognized in the compilation of a text like the *Viṣṇudharmottara Purāṇa*, continues in the works of King Bhoja like the *Samarāṅgaṇa Sūtradhāra*. This king holds an equivocal position among the writers on *rasa*, because he seems uncommitted to any traditionally defined view on the theory, and because he ignores the revolutionary notion of his days, the *dhvani* theory of Ānandavardhana. These may be the reasons for the neglected position of his writings in the study of *rasa* theory. His views, however, seem very interesting and include concepts like *rasadṛṣṭis* in pictorial representations. In the chapter 82 of the *Samarāṅgaṇa Sūtradhāra*, entitled *rasadṛṣṭi-lakṣaṇa*, the author describes 11 *rasas* and 18 *rasadṛṣṭis* relevant in the manifestation of sentiments in pictorial images. His views are also innovative with the addition of new *rasas* like *prema* or *rasa* of love.[6]

In the *Samarāṅgaṇa Sūtradhāra* (82.1–13) the *rasas* are explained in their physical and mental manifestations. *Śṛṅgāra* is manifested with the movement of the eyebrows and lovable look, and the mind is full of the emotion of love. *Hāsya rasa* has a playful mood, the lips are flashing and the eyes are blossoming. *Karuṇa rasa* is represented by cheeks wet with tears, eyes closed and by a mood of worry

and agitation. *Raudra rasa* is expressed by red eyes, the forehead swelled up and the lower lip being bitten by the teeth. *Prema rasa* has a happy mood (*harṣa*)[7] as a result of gain of reaches, progeny and seeing the near and dear ones. *Bhayānaka rasa* is characterized by agitated mind and heart manifested by perplexed and confused eyes, cowed down through fear of the look of the approaching evil. *Vīra* is represented by a mood of endurance and strength. *Adbhuta* is manifested by the pupils of the eyes being both paralyzed and gratified on account of an extraordinary spectacle or scene. *Śānta rasa* is characterized by the absence of change and attachment and by a happy look (see also Shukla 1957, pp. 74–76).

Table 8.1 summarizes the list of *rasas* for each text mentioned in this chapter, highlighting some of their differences.

The *Samarāṅgaṇa Sūtradhāra* explains also the types of glances to be used in the depiction of a *rasa*.[8] Among the eighteen *rasadṛṣṭis* are *lalitā* (amorous) related to *śṛṅgāra rasa*, *vibhramā* (moving to and fro) and *hṛṣṭā* (pleased) related to *prema rasa*, *vikasitā* (expanded) related to *hāsya*, *vikṛtā* (deformed), *kuñcitā* (contracted), *vihvalā* (unsteady), *yoginī* (joined or contemplative), *madhyasthā* (indifferent), *dīnā* (afflicted), *dṛṣṭā* (experienced), *jihmā* (squinted), *bhrukuṭī* (contracting the brows), *ūrdhvagatā* (raised upwards), *saṃkucitā* (contracted, closed) and *sthirā* (firm, fixed) (SamSut 82.14–34). From the text, however, it is not possible to associate each of these glances with its corresponding *rasa*. It is only by knowing the nature of a *rasa* that we can do it, as it is suggested by Shukla (1956, p. 76), who, for example, associates *bhayānaka rasa* with *vikṛtā*, *vihvalā* and *kuñcitā* glances.

Both the *Viṣṇudharmottara Purāṇa* and the *Samarāṅgaṇa Sūtradhāra* seem to recognize the authority of the *Nāṭya Śāstra* from which they derive and modify their own theories. The *Viṣṇudharmottara Purāṇa* uses in its descriptions of *rasas* the appropriate subject matters with their related *vibhāvas* and *anubhāvas*. Among the differences with the *Nāṭya Śāstra* is the introduction of the *śānta rasa*. Another main difference is that of considering the 'separation from the

Table 8.1 Rasas

Nāṭya Śāstra	Viṣṇudharmottara Purāṇa	Samarāṅgaṇa Sūtradhāra	Dhvanyāloka
śṛṅgāra	*śṛṅgāra*	*śṛṅgāra*	*śṛṅgāra*
hāsya	*hāsya*	*hāsya*	*hāsya*
karuṇa	*karuṇa*	*karuṇa*	*karuṇa*
raudra	*raudra*	*raudra*	*raudra*
vīra	*vīra*	*vīra*	*vīra*
bhayānaka	*bhayānaka*	*bhayānaka*	*bhayānaka*
bībhatsa	*bībhatsa*	*bībhatsa*	*bībhatsa*
adbhuta	*adbhuta*	*adbhuta*	*adbhuta*
—	*śānta*	*śānta*	*śānta*
—	—	*prema*	—
—	—	(?)	—

beloved' as a state that produces *karuṇa rasa*, whereas the *Nāṭya Śāstra* clearly states that the *vipralambha* involves the condition of sticking to hopeful expectation of reunion with the beloved, and it is therefore a case of *śṛṅgāra rasa*. The *Samarāṅgaṇa Sūtradhāra* explains the *rasas* through their mental conditions and their related physical reactions, rather than using themes, as in the *Viṣṇudharmottara Purāṇa*. It accepts the main eight *rasas* of Bharata, but King Bhoja distinguishes himself by his additions. He not only adds the *śānta rasa* but also two new *rasas*: the *prema rasa* and another that is unfortunately illegible from the manuscripts of the text. Moreover, this text gives great importance to the *rasadṛṣṭis*, like the *Nāṭya Śāstra*, but also in this case King Bhoja distinguishes himself with a different list of glances. The *Nāṭya Śāstra* has a very systematic list of glances and each *rasa* has its homonymous *rasadṛṣṭi*; it also makes a meticulous distinction between three kinds of glances (see Note 8). On the other hand, the *Samarāṅgaṇa Sūtradhāra* lists completely different names. Some of the *rasas* have their corresponding *rasadṛṣṭis* but, in the majority of the cases, there is not the kind of correspondence between *rasas* and *rasadṛṣṭis* as found in the *Nāṭya Śāstra*.

Citra and *dhvani*

The other text to be considered in this study is the *Dhvanyāloka*, which marks an important stage in the development of the *rasa* theory with the formulation of the *dhvani* doctrine. This text is a study in which poetry is analysed according to the types of meaning it conveys to the attentive reader. In the traditional Indian theory of meaning it was generally agreed that words had two sorts of semantic power: the power of direct denotation (*abhidhā*) and a secondary power of indirect indication through figures of speech (*lakṣaṇa*). In addition to these two powers, according to the *Dhvanyāloka* of Ānandavardhana (ninth century), there is a third verbal function. Ānandavardhana considered this to be the most valuable of all semantic powers for poetic expression, a power which in its most general aspect he calls *vyañjakatva*, the power of suggestion, or more literally, the power of revelation. He calls this power *dhvani* when it is in its purest form, that is, when it predominates over the other semantic powers in the sentence. Ānandavardhana, in the *Dhvanyāloka* builds up a typology of suggestion by the use of examples, taking passages from famous Sanskrit poets to explain the theory. One of the typologies of suggestion enumerated by this writer is, in his words, 'where the denoted sense is unintended' (*avivakṣitavācya*). This typology (*Dhvanyāloka* II.1) is divided into two varieties: the variety in which the denoted sense is 'entirely set aside',[9] and the typology where the denoted sense is not wholly abandoned but it is 'shifted to something else'.[10] This typology however does not yet reveal the ultimate sense of literature, that is *rasa*, which we find in the second typology. The second (*Dhvanyāloka* II.2) is the typology 'where the literal sense is intended but only as leading on to something further' (*vivakṣitānyaparavācya*). This typology is also divided into two varieties, depending on whether or not we are

conscious of the succession from our understanding of the literal meaning to the 'something further'. The variety in which we are conscious of the interval between the explicit and the implicit meanings will be a case of '*dhvani* similar to echo' (*anuraṇanarūpa*).[11] The case in which we are not conscious of any interval between the two senses is the one where the 'something other' is a *rasa* (*rasa-dhvani*),[12] which is, in the critique of Ānandavardhana, the ultimate aim of literature (Mazzarino 1983; Ingalls 1990, pp. 13–15).

The *Dhvanyāloka* (III.45) clearly states that *dhvani* (suggestion) should be used in the composition of good poetry. However, many scholars claim that *dhvani* works in painting too. Among them is Goswamy (1986) who includes a discussion of *dhvani* in his book without actually explaining how it should work in painting. Raghavan is one of the first writers on Indian painting to assume that the theory of *dhvani* is applicable to *citra*. However, the way in which he tries to apply it appears incorrect according to our understanding of the theory. Raghavan tries to apply the theory of *dhvani* to painting taking as his starting point a passage of the *Viṣṇudharmottara Purāṇa* (III.42) (see Appendix III). He states that:

> in an artistic representation, it is the suggestion that forms the very life of that artistic expression. This can be also proved by taking the Canons given by the *Viṣṇudharmottara* for depicting things like evening etc. A perusal of the verses in chapter 24 [*sic*], which show, how mountains, sky, earth etc. must be depicted, will prove the truth of this statement. The subjects, e.g., gamblers should be suggested by depicting them as bereft of their upper cloth . . . The night must be suggested by drawing a thief walking stealthily, by an abhisārikā hurrying to meet her lover in her trysting place and so forth.
>
> (1933, pp. 903–904)

According to our understanding, this passage is describing locations and backgrounds for painting and is not a way to suggest a *rasa* through *dhvani*. Raghavan relates to the theory of *dhvani* the way in which locations and backgrounds should be represented in painting. In fact, the *Viṣṇudharmottara Purāṇa* passage mentions locations or periods of time to be shown using some of their particular attributes or objects associated with them (*abhisārikā* and the night), which means that the text is suggesting a metaphorical way of depiction (*lakṣaṇa*) rather than a literal (*abhidhā*) representation. However, the feeling produced by a location in an Indian painting cannot be considered a predominant feature but subsidiary to the main theme. Locations and backgrounds are only one of the constituents of a painting and these alone could not produce a *rasa*, especially considering the narrative aspect of Indian painting. Using the terms of the *Nāṭya Śāstra* a location would be one of the constituents or a stimulative determinant of a painting, and only when integrated with other constituents can it produce a *rasa*. From this we can conclude that the explanations of Raghavan cannot by any means be considered a case of *dhvani* (suggestion) leading to a *rasa* (*rasa-dhvani*).

It is very difficult to look at an Indian painting through *dhvani*. The theory of *dhvani* and *rasa-dhvani*, as it is formulated in the *Dhvanyāloka*, is applicable to poetry, from which many verses are taken and discussed. The writer explains (III.2–4, 16) that behind the doctrine of *dhvani* there are sounds, words and grammatical components like stem, number, suffix and compounds. This assertion tells us that this theory is worked out for poetry and other arts depending upon verbal operations. Moreover, none of the texts on painting analysed mentions *dhvani* as a principle applicable to painting. However, as in the case of other theories (physiognomy, dance, sculpture) analysed in this work, we surmise that, on the theoretical level, we can work out the meaning of *dhvani* so that it may also be applicable to painting. Since it is a theory that explains the way in which we should perceive the meaning of a work of art, we can infer that some of its aspects may be relevant to painting by implication. Using the theory we can assert that a painting, like poetry, may produce a *rasa* through suggestion (*dhvani*) in the case in which we are not conscious of the interval between the perception of its literal and implicit meanings'. For example, looking at paintings representing the *rasa* of love, one should immediately perceive the feelings of happiness for the union with the beloved in the case of *sambhoga* and that of dejection in the case of *vipralambha*. This kind of subtle reading, however, is culture-bound and can be appreciated by people acquainted with the Indian mythology, as for example the stories of Rādhā and Kṛṣṇa, in which these sentiments are often depicted. Other typologies of *dhvani* can also be analysed in the same way. In fact, the four typologies mentioned previously have many subdivisions and, as Ānandavardhana (III.43) states, there are numerous types of *dhvani*. However, even if Ānandavardhana gives many examples to specify this kind of reading in poetry, it remains very difficult for us to give examples of *dhvani* in painting. For an understanding of all the implications of *dhvani* in painting, we should look at its theory as a whole, which means that we should consider its later developments as well, as for example the commentary of the *Dhvanyāloka* by Abhinavagupta. This kind of study, which would include an analysis of the theory of Indian traditional poetry and literature, goes beyond the purpose of this work and is left here open for future research.

Conclusions

This chapter analysed some fundamental aspects of the *rasa* theory. As stressed in previous chapters with respect to the other theories of painting, the *rasa* theory cannot be treated as a set of fixed rules, and its contents need to be appreciated from a more holistic view in order to fully interpret a painting on its terms. *Rasa*, with all its related notions, is a complicated concept, but an understanding of its meaning in different contexts is fundamental to capturing the spirit of traditional Indian art. As Goswamy states (1986, p. 30), it would be vain to apply the *rasa* theory as it is described in the texts in all its complex details to each work of art. Nor would it be possible to identify, to the letter of the theory, those elements

constituting the determinants, consequences and complementary emotional states of any particular *rasa* of a sculpture or painting. This is to say that the theory expounded is not ready-made for application and that we should understand it as a flexible interpreted notion in order to have a working knowledge of its rules. This would account for the disparity of descriptions of *rasa* in the texts and for the differences between the descriptions of *rasa* in the *Viṣṇudharmottara Purāṇa* and the *Samarāṅgaṇa Sūtradhāra* and what we see in extant painting.

This study also shows that the texts analysed present numerous incongruities but that at the same time there is also a certain element of consistency. Each text accepts a set of fundamental views on the theory and yet at the same time reformulates or adds some new concepts. This is evident from a comparison of the detailed theory expounded in the *Nāṭya Śāstra*, and its classification and technical notions, with the theory illustrated in the *citrasūtras*, which, while accepting and incorporating the rules of the *Nāṭya Śāstra*, seeks to reformulate and adapt the theory to suit painting. While the basic list of *rasas* of the *Nāṭya Śāstra* is widely accepted, the other texts add some contributions, like *śānta* and *prema rasas*. These additions denote a continuous speculation on the meaning of *rasa*, whose theory is extended to include new sentiments. This is the case of *śānta rasa*, included in later texts, which was needed to describe the feelings of new literary forms like the *Mahābhārata*. *Prema rasa*, added by King Bhoja, is less discussed than *śānta*, because of the controversial position of this king, whose views are considered subsidiary, not only in the secondary literature but also in later speculation on *rasa*. However, the addition of *prema rasa* appears very important because it includes in the list of *rasas* that of the love for progeny. This *rasa* may be seen as an important achievement as it may include for example the relationship between the devotee and a god like Krishna as a child, a relationship that stands at the basis of *bhakti* and can be expressed with this *rasa*. From the comparison of *rasas* it emerges that the definition of their determinants may also vary from text to text. This is the case of *karuṇa* or tragic *rasa* which includes in the *Viṣṇudharmottara Purāṇa* the separation from the beloved as one of its determinants, whereas the *Nāṭya Śāstra* includes this situation in one of the two types of *śṛṅgāra rasa*, the *vipralambha* or love in separation.

Ohri (2001, pp. 109–110) suggests that other sources can provide useful insights into understanding the meaning and applications of *rasa* in a painting. He states that Sanskrit texts and verses in Hindi selected from the famous works of poets in north India are very often seen in Pahari painting. These are invariably inscribed on the back or on the margins of the painting and were, most probably, written by *pandits* after the completion of the work. Thus, the collaboration of the *pandit* with the artist in the production of a series of paintings was a critical factor with regard to the content and the *rasa* of the episode to be depicted. Ohri (2001) also explains that sometimes the *pandit* had to render the Sanskrit text into a local language so that the viewers could understand the subject easily. The translation must also have been helpful to the artist for understanding the rendering of the *rasa* in its visual form. This informative passage by Ohri stands in direct contrast

to the theory of *dhvani* in which the arising of a *rasa* is unconscious and immediate. This also suggests that the understanding of the story and of the *rasa* was something that only an intellectual audience could grasp. A wider audience may have precipitated the need to write the verses to explain a painting. This can also be said today. Only intellectuals know about *rasa*, but most present-day practitioners underestimate its importance.

The final part of this chapter highlighted the complications of reading a painting in terms of *dhvani*. Even if it was suggested that the *dhvani* principle may be applicable to our study, further study of its wider application is still needed to fully understand its precise implications for painting. Indeed, its application to poetry itself is controversial, and many writers contemporary to or of the period after Ānandavardhana did not accept this doctrine (see for example Gerow 1977, p. 258).

The *rasa* theory is theoretically not different from the other constituents of painting analysed in previous chapters. As in other concepts, its exposition involves a technical discourse that provides scope to introduce the reader, viewer or practitioner into a profound understanding of the meaning of a painting through its signs and, thereby, to grasp the sentiments expressed in it. *Rasa*, therefore, should not be considered as a separate entity from other technical constituents like measurement and proportion, stances and colours. A good painting should be performed with a working knowledge of all of these factors. Without knowing the theory of *rasa* our understanding of painting would remain fragmentary and superficial.

CONCLUSIONS

This study has critically reassessed our understanding of the main concepts of the theory of painting, offering a new perspective that moves beyond prevailing assumptions about the *citrasūtras* in established research. In particular, we have criticized the dominant approach of conceptualizing these texts as prescriptive guides. This view is widespread in the secondary literature, emerging first in the early translations of the texts such as the *Viṣṇudharmottara Purāṇa* by Kramrisch (1924) and the *Citralakṣaṇa* of Nagnajit by Laufer (1913) and has been pursued in later studies, such as those of Shukla (1957), Bhattacharya (1976) and Chakrabarti (1980). Research to date draws upon Western notions of these texts as prescriptive guides commanding ultimate authority on, and representing 'the essence' of, Indian painting. This study argued, however, that not only do the texts themselves contain lacunae and inconsistencies in articulating basic concepts, which belie claims of their status as prescriptive guidebooks, but that also the normative practice of painting should be accorded equal status and analysis in seeking to understand Indian theories.

It was also suggested that it is only by drawing together the various concepts expounded in the diverse range of texts that we can understand the theory of painting. Texts must be seen as representing views on how one *should* create a painting but not necessarily as principles that must be strictly followed to the letter. Indeed, the reading of a text itself is subjective and open to different interpretations, a factor widely ignored in the secondary literature, which misleadingly assumes that texts can be treated as sources of 'objective truth' on Indian art. The theoretical nature of the texts permits a multi-dimensional reading, whereby the different mental images it creates become translated into varying practices, as seen from a comparison between different rendering of concepts, such as the *haṃsa* type of man (Figures 3.3–3.4), the eye like a fish (Figure 3.9) or the eye like a *padma* (Figure 3.11).

Another point developed in this study is that the word *citra*, commonly translated as 'painting', may have a different connotation. In particular, the way in which the theory is expounded in the various texts is abstract and this suggests that the meaning of *citra* may acquire the connotation of 'mental image' rather

than that of 'painting'. The male prototype used in the exposition of the theory should not be seen as an image to be translated into a pictorial representation but as an image that should work in the mind of the painter as a mental device. In fact, the findings of this study also suggest that the *citrasūtras* should be seen as a specialized literature open to a variety of uses and interpretations. One such use is that of a mnemonic device for artists. The theory, written into verses, 'functions' in the mind of the painter or sculptor. In this way, considering the adaptability of the prescriptions, a practitioner may flexibly apply the text as a device, modifying the concepts according to the specific work to be done. Even if very few artists interviewed confirm this use of the theory, we have no reason to doubt that in the past it was a common procedure, which is reflected today by the links between the theory and the practice of Indian art.

Another major point developed in this study is that a more holistic approach needs to be adopted in understanding the theory of Indian painting. An analysis of the texts should not consider the traditional Indian sciences (painting, sculpture, architecture, dance, physiognomy, etc.) as separate entities. Physiognomy was included in the analysis of the *Citralakṣaṇa* of Nagnajit by Laufer (1913) and later in the studies on the *Viṣṇudharmottara Purāṇa*, like Dave Mukherji (2001). Our study also included an analysis of the role of physiognomy and tried to emphasize the relationship between physiognomy and the theory of painting highlighting similarities and intertextual relationships between the *Citralakṣaṇa* of Nagnajit, the *Viṣṇudharmottara Purāṇa* and the *Bṛhat Saṃhitā*. It was also underlined that while some of the concepts of physiognomy are relevant only on the theoretical level, like the characteristic of the voice or the forty teeth for the *cakravartin*, some other aspects can be recognized in the practice of painting as for example the conch-like neck and the skin with invisible hairs and veins. Dance is included in studies of the theory of painting and sculpture but in this case, too, scholars are confused on its role because the detailed theory expounded in the *Nāṭya Śāstra* seems to bear little relevance on painting. In this study it was emphasized that theory should not be confused with practice and even if not all the *mudrās* of the *Nāṭya Śāstra* are recognizable in the practice of painting or sculpture, its theory can be 'worked' in the mind and related to painting and sculpture.

In some cases established research draws conceptual boundaries between disciplines, with the effect that notions like *tālamāna*, *lambamāna*, *mudrās*, *pāda mudrās* and *āsanas* are not considered to be part of the theory of painting. These concepts are generally analysed in studies on the theory of sculpture like Rao (1914), Banerjea (1941) and Sthapati (2002) and have been ignored in the major studies on the *citrasūtras* like those of Shukla (1957), Bhattacharya (1976) and Chakrabarti (1980). As this study has shown, however, all of these concepts hold relevance for Indian painting, not only on the level of the theory but also in practice. This was demonstrated, for example, by the fact that the painters of Nathdvara use *tālamāna*, *lambamāna* and *pāda mudrās* to create the image of

Śrī Nāthjī (Figures 4.9–4.10). The painters of Nathdvara confirmed that the image of Śrī Nāthjī is $5\frac{1}{2}$ *tālas*, has the feet in *samapāda* and that not only is the *brahmasūtra* fundamental but that horizontal lines are also employed in the realization of his raised arm, whose elbow should be at the same level of the ear-ring at the top of his ear.

The methodology adopted in this study permitted to compare different textual sources to understand the development of the theory and to highlight the living nature of the texts. The way in which the theory is expounded has common features such as the use of a male prototype. From an analysis of the texts it emerges that in spite of this consistent approach, each text does not analyse the same concepts. For example the *Viṣṇudharmottara Purāṇa* does not contain *tālamāna* and the *Devatāmūrtiprakaraṇa* does not contain information on colours and plaster. This means that each text develops different ideas and cannot, therefore, be seen as guides. It has also been demonstrated that certain other aspects of the theory developed over time. The theory of proportion of the early texts was permeated by another section of Indian knowledge, namely physiognomy. Physiognomy was very important in texts like the *Citralakṣaṇa* of Nagnajit and the *Viṣṇudharmottara Purāṇa*, which explain the theory in applying five stereotypes of men (*haṃsa*, *bhadra*, etc.). Later texts were more technical and the five stereotypes were substituted by the *tālamāna* system which permits the creation of images of different heights and proportions.

This study has also highlighted some of the discrepancies between texts. Discrepancies can be seen in the exposition of proportion and *tālamāna* theories in which texts give different measurements for the realization of figures (Tables 4.6–4.9), in the attributes for the depiction of gods (Tables 6.1–6.4) or in the list of *rasas* (Table 8.1). Sachdev and Tillotson clarify that:

> Indeed the discrepancies can be explained historically: they arose because various texts were composed in different places and times, by authors with differing expertise and audiences, with more or less knowledge of preceding texts, or with a view to different local conditions.
>
> (2002, pp. 175–176)

This explanation emphasizes once again that texts are about ideas rather than fixed rules. These ideas are clearly permeated by the same worldview, which confers to the texts the same outlook.

This study not only emphasized the discrepancies between texts but also clarified that in some instances it is difficult to fully understand the texts since some of the concepts are mentioned without any description of iconographic features. This can be seen in the case of classifying painting (Chapter 2). Texts explain the classification of painting with vague aesthetic characteristics so that it becomes very difficult to recognize those characteristics in actual paintings and employ the different classifications as a standard of critique. Another clear example is that of the *Vāstusūtra Upaniṣad* which articulates features

of *mudrās* and *āsanas* without any kind of explanation or reference to their iconographical representations. Some scholars, however, remain determined to find clear answers even if their speculations fail to reach informative conclusions. This is the case of Sivaramamurti (1978) who seeks to explain the classification of the *Viṣṇudharmottara Purāṇa* by a simple juxtaposition of images to the various types of painting (Figures 2.2–2.4). As in many cases the anxious expectations of scholars to find 'the truth' yielded no results, it was promptly concluded that the texts contain secrets. Among the scholars who adopt this position is Moti Chandra (1949a, p. 67) who claims that: 'It is due to the secretative [sic] nature of the informants that the medieval Sanskrit texts on painting are unable to explain all technical points.' It was argued, however, that the culture-specific origin and development of certain concepts do not permit easy understanding, rather than any motivation to preserve secrets. Indeed, in some cases speculation is of little help and can create considerable confusion.

Most critically, however, this study suggests that research on the texts of Indian painting needs to reformulate its understanding of the relationship between theory and practice. While it is difficult to draw direct parallels between texts and extant painting, painters must be considered a living link between theory and practice. Living painters and sculptors are of immense help in seeking to understand the way in which theory is related to practice. As argued in this study, texts do not play the role of prescriptive manuals, rather we should understand the theory as a way of conceiving Indian art, a way of reasoning. Only after appreciating this understanding can we seek to identify what practice and theory hold in common. This point was demonstrated in the empirical chapters on measurement, proportions and colours. Both practitioners and texts stress the importance of measurement, one of the fundamental paradigms of Indian art (but often forgotten in art criticism). Texts describe the perfect measurement of a man, but do not state that each figure should be drawn according to that paradigm, rather they seek to describe an ideal form of measurement for the mind to reflect upon and modify according to the task at hand. This deduction was made only after interviewing traditional artists, whose views could explain some crucial points of the theory. This point was expounded in Chapter 3: a sculptor like Ram Prasad Sharma (Jaipur) knows exactly in his mind how a perfect body should measure and applies this knowledge, gained from experience and through the family, in a different way every time he seeks to create a new sculpture, modifying and adapting this knowledge according to the nature of the work to be done. The sculptor expounded his view and ideals comparing his image of Lakṣmī (Figure 3.13) with a Western representation of a woman (Figure 3.14). In particular, he manifested his appreciation for Lakṣmī as representing the embodiment of the right proportions and beauty, and he criticized the portrait by Bellini as 'unnatural' because of the big belly and arms. As Ram Prasad Sharma explains a huge belly is not an ideal feature for depicting a human body and it is not suitable for the depiction of women, but in the case of the image of Gaṇeśa it is necessary. Also in *tālamāna* such a relationship between theory and practice can be deduced.

The texts describe the system although is not used in practice in the way in which texts suggest. Schools of painting and sculpture use the range of *tāla* suitable for developing their respective styles. This is the case of the image of Śrī Nāthjī of $5\frac{1}{2}$ *tālas*, a measurement that it is not even mentioned by the texts but known and employed by the painters of Nathdvara. The colours are also described in the way in which they should be prepared. This is, however, one of the instances in which spatiality and temporality of text and practice play a fundamental role. Texts like the *Viṣṇudharmottara Purāṇa* and the *Śilparatna* describe a range of natural colours to be used in painting. In this field it appears that there have been huge changes with the advent of the Mughal Empire, which greatly influenced many of the Indian schools of painting in the use of new colours. The range of colours described by the texts can be seen in those schools upon which the Mughal style did not exert much influence, for example the traditional paintings of Orissa and the *phar* paintings of Rajasthan. Both these expressions adopt natural colours which we find in texts. Furthermore, in the case of colours, texts can be considered a means for judging painting. Some of the painters interviewed, notably Lalit Sharma (Udaipur), accorded significance to the use of natural colours in traditional painting, which were seen to define the 'essence' of tradition, as opposed to the modern application of acrylic colours (Figure 7.6).

A trend identified in this study with important implications for the future practice of Indian painting is the ongoing shift of painters away from texts. Many of them are skeptical about the possible *use* of the texts, claming that following their theories would create a repetition of features. Most practitioners interviewed ignore the importance of the *citrasūtras* and sought to acquire new techniques following new trends, like in the use of acrylic colours. Only in one instance was some interest expressed in the texts: a painter in Raghurajpur sought to revive this ancient knowledge from reading the English translation of the *Vāstusūtra Upaniṣad* (Boner *et al*. 1982). The result of his reading was the drawing of different concepts like weapons for the representation of gods (Figure C.1) and of images of gods like Mahiṣāsuramardinī (Figure C.2). This denotes that painters themselves seem confused about the use of the texts and ignore that texts can be used to strengthen their views. As demonstrated, texts are adaptable and do not prescribe any fixed style, so practitioners can read a text in terms of the style learnt by their families and can seek to apply their theories as they wish in developing and organizing their ideas.

The understanding of the texts proposed in this study offers many possibilities for future research to refine our conceptualization of the *citrasūtras*. In particular, a possible use of the texts suggested in this study is that their theoretical expositions serve as a 'critical principle' by which the practice of painting can be judged. Once we understand the essence of the messages of the theory we can use it to look at Indian art in terms of appropriate measurement, *tālamāna*, postures, *mudrās* and so on. This approach goes beyond the usual preoccupations of Indian art criticism which is concerned with stylistic analysis[1] and the symbolism. For example Kramrish, who translated the *Viṣṇudharmottara Purāṇa*, used symbolism and
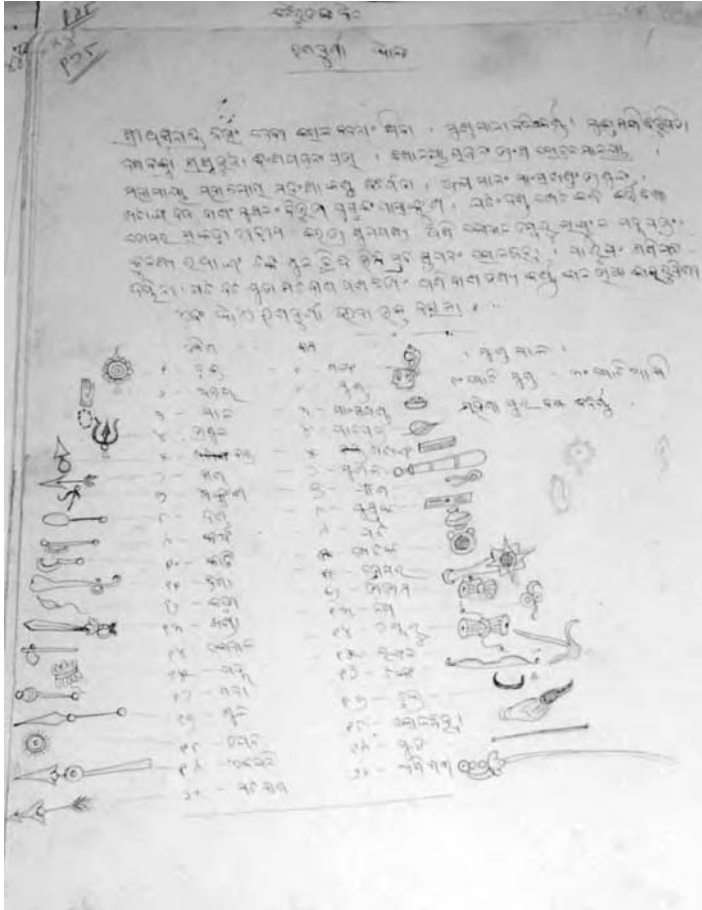
Figure C.1 Representation of weapons from a modern *citrasūtra* (Raghurajpur, Orissa).

mythology as the main criteria to understand sculpture and painting. One example is her description of a relief representing Viṣṇu Trivikrama (Kramrish 1976, pp. 403–404):

> Viṣṇu, with three strides covers the whole universe. Incarnated as a dwarf, Vāmana, he had asked Bali, the King of the Asuras, for a boon; he wanted only as much land as to step on... Then he takes his strides across all space, a cosmic movement in which the image of Viṣṇu is a counter-part in its own right, to that of Śiva Naṭarāja. The thrust of his left leg ends to the 'Face above', to Rāhu.

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Figure C.2 Representation of Mahiṣāsuramardinī from a modern *citrasūtra* (Raghurajpur, Orissa).

While mythology may be one of the keys to read painting and sculpture, there are many other practical and technical aspects that can be seen in Indian art, such as the kind of *tāla*, *mudrās*, weapons, postures and *rasas* employed. Thus, while the *citrasūtras* describe these aspects as fundamental to make good painting or sculpture, they have rarely been applied in analysing Indian art. Most importantly and critically, however, it is hoped that the understanding of the *citrasūtras* proposed in this study will help scholars to further illuminate the complex interrelationship between the theory and practice of Indian painting.

Appendix I

DEPICTION OF ANIMALS

Some of the texts considered in this study not only focus their attention on the measurement and proportion of the human body but also contain information on the measurement of animals. The *Śilparatna* (II.21.1–10) explains the figure of the bull, and the *Mānasollasā*, for example, explains horses and elephants. The figure of the horse or *hayacitra* (Man III.1.836–873) is delineated in all details as we have seen for the human body, with height, breadth and circumference. The same is true for the figure of the elephant or *gajacitra* (Man III.1.874–898). Interesting descriptions of these animals are to be found in the *Śukranīti*. They are delineated with their measurements, but their description seems to have a different purpose from the pictorial one: it seeks to decide about their auspiciousness or inauspiciousness. As for the 5 men (Chapter 3), there are 4 kinds of elephants: *bhadra, mandra, mṛga* and *miśra*. For example, the *bhadra* elephant has tusks coloured like honey, is strong and well formed, is round and fat in body, has a good face and excellent limbs. The *mandra* elephant has a fat belly, lion-like eyes, thick skin, thick throat and thick trunk, medium limbs and a long body. The *mṛga* elephant has a small or short throat, tusk, ears and trunk, big eyes and very short lips and genital organ and is a dwarf. The *miśra* elephant is that which has these characteristics in a mixture. These elephants have different measurements. For the measurement of an elephant 1 *aṅgula* is made by 8 *yavas* and 1 cubit is made by 24 *aṅgulas*. In the *bhadra* class, for example, the *Śukranīti* states that the height is 7 cubits, the length is 8 cubits and the circumference of the belly is 10 cubits. The text also clarifies that the best of all elephants is the one which has long cheeks, eyebrows and forehead, has the swiftest speed and has auspicious marks on the body (*Śukranīti* 4.7.68–84 in Sarkar 1975, pp. 220–221). Even more detailed is the description of horses in which the measurements of length, height, girth and interspaces of all limbs are given. From the measurement follows a long list of auspicious marks, defects, speed, etc. (*Śukranīti* 4.7 in Sarkar 1975, pp. 221–233).

Appendix II

DEPICTION OF DESIGNS

Other sections of the texts considered in this study involve the descriptions of designs. The practice of bordering a painting with flower designs is an important feature of Indian painting. The *Aparājitapṛcchā* is one of the texts that systematically classifies designs. The text (ApaPr 277.32–34) states that designs are to be used in architecture and sculpture. More properly it explains that these designs should be drawn on pillars, doorjambs and all possible places of palaces and temples. However, as already pointed out in this study, we can consider the passages of this text as part of the *citrasūtras* as well, because the theoretical characteristic of the descriptions and the absence of drawings in their explanations make the system of classification of the *Aparājitapṛcchā* relevant to painting, too.

The *Aparājitapṛcchā* (chapters 227–228) refers to different categories of design and to the appropriate moments in which they can be used. Among them are *dina patras* or designs associated with the lunar movements, *ṛtu patras* or designs associated with the seasonal movements, *jala patras* or designs deriving from aquatic forms, *sthala patras* deriving from earthly forms.

The *Aparājitapṛcchā* (227.17–20) records that the *dina patras* are fifteen in number and they follow the discipline of the lunar days. As regards the *ṛtu patras* it is stated in the *Aparājitapṛcchā* (277.24–25) that in the *vasanta* (spring) season the *nāgara* design should be used, in the *grīṣma* (summer) season the *drāviḍa*, in the *varṣa* (rainy) season the *vyantara*, in the *śarad* (autumn) season the *vesara*, in the *hemanta* (winter) season the *kāliṅga* and in the *śiśira* (cool) season the *yāmuna* type of design should be delineated. The *jala patras* (ApaPr 227.28–31) are goose design, crocodile design, fish design, tortoise design and lotus design. *Sthala patras* are subdivided into *nara patra* representing human beings, *gaja patra* representing elephants, *aśva patra* representing horse design, etc. (Bhattacharya 1976, pp. 153–155).

Appendix III

DEPICTION OF BACKGROUNDS

The *Viṣṇudharmottara Purāṇa* (III.42.58–81) is the only text taken into consideration in this study which enumerates backgrounds for painting. Landscape painting is not a traditional genre of Indian painting. This means that we should consider the following descriptions as a classification of backgrounds of a narrative painting.

The text (ViDha III.42.58–68) explains different locations with their peculiar characteristics. The sky is to be shown with its own colour and should be full of birds. The night is to be represented with the sky studded with stars, and the earth is to be depicted arid, watery and mixed. Mountains are to be shown by a multitude of rocks, peaks, minerals, trees, waterfalls and snakes. The forest is to be represented by different types of trees, birds and beasts of prey and by waters with fishes and tortoises and lotuses. A city should be shown with various kinds of temples, palaces, shops, houses and highways. The villages are represented by settlements and gardens. The fortresses should be made as located on appropriate ground and with mounds, watchtowers and hillocks. The market place should be made full of articles of trade. The drinking places should have alcoholic liquors and be crowded with people. The people seated for gambling should be portrayed without their upper garments. The losers are to be depicted overwhelmed with grief and the winners should be joyful. The battlefield should be represented smeared with blood, with limbs of the dead, accompanied with attacking men. The funeral ground should be full of dead bodies and funeral pyres. The caravan road should be shown by camels carrying burdens.

The *Viṣṇudharmottara Purāṇa* (III.42.69–73) also describes the periods of the day. The night should be represented by people sleeping, a thief in the proximity and by the ordinary happenings made visible by the moon, planets and the stars. In the first half of the night, an *abhisārikā* is to be shown. The dawn is represented accompanied by the rising sun, dimmed lamps and cocks shown crying. The day is usually painted by men toiling away at work. The dusk should be depicted reddish with the twice-borns engaged in their rituals. The darkness is made visible by showing people reaching out with their hands. The moonlight is portrayed by blooming of the lotuses and the moon. A gale is to be shown by depicting dust and scattered leaves. The rain is represented by a downpour and people going out with their umbrellas.

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The *Viṣṇudharmottara Purāṇa* (III.42.74–81) explains the characteristics of the seasons whose representation should be done after observing the world and in accordance with flowers and fruits of the trees and also the ruttishness of the animals. Spring is portrayed by overjoyed men and women, swarms of bees, cuckoo birds, flowers and trees which blossom in this season. The summer is represented by fatigued people, deer lying under the shade, the creatures languid and suffering due to the sun and by buffaloes sporting in the mud, dried up ponds, birds clinging to the trees for shade and lions and tigers resorting to caves. The rainy season is shown with water laden clouds, rainbows and flashes of thunderbolt. The autumn season is painted with lakes full of swans and lotuses, with fields full of ripened corns and trees laden with fruits. The winter (*hemanta*) is to be depicted with horizons full of fog, fields in harvest and mist hanging over the water areas. The cool season (*śiśira*) is to be painted with snow obscured horizons, people huddling together afflicted with cold and with delighted elephants and crows.

GLOSSARY

Abhraka mica

Āgama class of literature comprising the sacred writings belonging to the religious sects of the Vaiṣṇava, Śaiva and Śākta

Aṅgula (lit. digit) measurement of length constituted by 8 barley grains, or breadth of the middle phalanx of the middle finger of a body; in an image the aṅgula is a relative unit that depends on the length of the image itself and can be calculated by dividing the face or tāla into twelve parts

Anubhāva (lit. consequence) sign or indication of a rasa; physical or exterior effects of the rasa on the character of a play; anubhāvas vary for each rasa, for example in the representation of the śṛṅgāra they may be regarded as smiles and graceful movements

Ardhacitra (lit. half of a citra) according to the Śilparatna and Mānasāra, it is one of the three kinds of citra and it indicates relief. The other two kinds are citra itself and citrābhāsa

Āsana sitting posture; the word denotes the position of feet and legs of an image in a sitting posture; among them are, for example, sukhāsana, viṣamāsana, svastikāsana, yogāsana, kukkuṭāsana and vīrāsana

Asura demon; enemy of the gods (devas)

Aviddha mere resemblance of an object; kind of painting according to the classification of the Mānasollasā and Abhilaṣitārthacintāmaṇi

Āyudha weapon; emblem of a god

Bhauma (lit. related to the earth) according to the Nārada Śilpa Śāstra, this is a kind of painting executed on the floor

Bhāvacitra according to the classification of the Mānasollasā and Abhilaṣitārthacintāmaṇi, it is a kind of painting that represents a rasa

Brahmasūtra practical or imaginary line that divides the body of an image vertically into two equal parts, passing through the middle of the eyebrows to the middle of the feet

Cakravartin universal monarch or emperor of the world; it is a title used by Hindus for kings. In the Citralakṣaṇa of Nagnajit, the cakravartin is one of the pañca-puruṣas and he represents a stereotype or an ideal model for painting

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Citra   in its general meaning it designates a painting. When the word citra is used in the citrasūtras to explain the theory, it may denote a mental image. In some contexts, like for example in the Śilparatna, citra may also acquire the meaning of sculpture (see also citrābhāsa and ardhacitra)

Citrābhāsa   painting or semblance (ābhāsa) of citra; according to the Śilparatna, this is one of the three kinds of citra (see also ardhacitra and citra)

Citralakṣaṇa   (lit. characteristic sign of painting) the word denotes all the texts and sections of a text dealing with the characteristics of citra (see also citrasūtra)

Citrasūtra   treatise on painting; the word denotes all the texts and sections of a text dealing with citra

Deva   god; deity

Dhūlicitra   according to the classification of the Mānasollasā and Abhilaṣitārthacintāmaṇi, this is a painting made with powdered colours on the floor. It is generally called raṅgolī

Dhvani   (lit. sound) power of suggestion or of revelation; according to the concept of poetics developed by Ānandavardhana in his Dhvanyāloka, dvani is one of the semantic powers of a sentence and can be defined as the essence or the aim of poetry

Drāviḍa   according to the Aparājitapṛcchā, this is a kind of painting originated in Karnataka; it is associated with the red colour and the kṣatriya caste

Gairika   red ochre also called gerū; source of terracotta colour

Gala   (lit. neck) according to the Citrakarmaśāstra, it is the fleshy part below the chin, especially in images representing Buddha

Gandharva   celestial musicians; class of demi-gods dwelling in the sky or atmosphere

Gojī   in iconometry, it designates the small dimple lying above the upper lip of an image

Golaka   measurement of length constituted by 2 aṅgulas

Haṃsa   according to the Viṣṇudharmottara Purāṇa, haṃsa is the best of men whose proportions should be taken as example to derive the other pañca-puruṣas. In the Citralakṣaṇa of Nagnajit he is called cakravartin

Haritāla   orpiment (arsenic trisulfide); source of yellow colour

Hikkā   (lit. hiccup) in iconometry, it corresponds to the base of the neck

Hiṅgula   vermilion; source of red colour

Kalā   measurement of length constituted by 2 aṅgulas

Kāliṅga   (lit. related to the Kaliṅga region) according to the Aparājitapṛcchā, it is a class of painting that originated in Kaliṅga (today's Orissa) and it is associated with mixed caste and green colour

Kanaka   gold

Kinnara   (lit. 'what man?') mythical being with the form of a man and the head of a horse

Kiṭṭa-lekhanī   (kiṭṭa: cow-dung and lekhanī: pen) crayon

Kṛṣṇa   dark colour covering black and dark blue-hues

Kṣayavṛddhī   (kṣaya: diminishing and vṛddhī: increasing) system developed in the Viṣṇudharmottara Purāṇa with the purpose of describing the stances of a body; the word refers to the rotation of the body of a man about an axis and to what a viewer, standing in a fixed position, can see of that body

Kuḍyaka   (from kuḍya: wall) according to the classification of the Nārada Śilpa Sāstra, this is a painting executed on wall

Lākṣā   red lac; source of red

Lakṣaṇa   term common to the sciences of physiognomy, painting and sculpture denoting the characteristic signs of a body

Lambamāna   (lamba: perpendicular and māna: measurement) measurement taken along the plumb-lines; the major plumb-lines are the brahmasūtra and pakṣasūtras

Lekhanī   (also tūlikā) brush; it can be flat, medium and fine

Lepyakarma   priming; plastering

Māna   (lit. measurement, length) this term is used with the meaning of measurement of length of the body of an image

Manaḥśilā   realgar (red arsenic); source of red

Miśra   classification of painting according to the Viṣṇudharmottara Purāṇa that combines the characteristics of satya, vaiṇika/vaiśika/ daiśika and nāgara

Mudrā   position of the hands that conveys meaning to the viewer; among them are varada, abhaya, sūcī, tarjanī, yoga, vyākhyāna, jñāna and añjali

Nāga   (lit. snake) mythical semi-divine being, having a human face and the body of a snake

Nāgara   type of painting; the Viṣṇudharmottara Purāṇa states that in this kind of painting the figures are firmly developed and that few garlands and ornaments are used. According to the Aparājitapṛcchā, nāgara is a kind of painting originated in the east of the subcontinent; it is associated with the white colour and the brahman caste

Nīla   indigo; source of blue

Nimba   also nīm, *Azadirachta indica*; plant used as vegetable gum

Pāda mudrā   (Also sthāna) position of feet and legs of a standing image; Among them are Vaiṣṇava, samapāda (also samapada), vaiśākha, maṇḍala, pratyālīḍha and ālīḍha

Pakṣasūtra   set of vertical lines parallel to the brahmasūtra that pass through the body of an image

Pañca-puruṣa   five stereotypes of men described in the citrasūtras (Viṣṇudharmottara Purāṇa and Citralakṣaṇa of Nagnajit) and in astrological text (Bṛhat Saṃhitā and Sārāvalī); they are haṃsa or cakravartin, bhadra, mālavya, rucaka, śaśaka

Parimāna   (lit. measure of circumference) measurement of the girth of a part of the body of an image

Paṭa citra   painting on cloth

Peori   Indian yellow; English rendering of the hindi word pevṛī; the colour is also called pyāvṛī and gaū golī by the painters of Rajasthan

Phalaka wooden plaque for painting

Pippalī in iconometry, it designates the small cartilage situated at the entrance to the hole of the ear

Piśāca name of a class of demons

Pramāna (lit. measure, scale) measurement of breadth of a body of an image; in this study, the term is also used with the meaning of proportion

Pratimā (lit. statue, figure, image) the word pratimā in its general meaning denotes a statue. When used in the texts, the term does not necessarily mean a sculptural image but can have the more general connotation of mental image (see also citra)

Pratimālaksana (characteristic sign of an image) section of a text that deals with sculpture and iconometry, like the Pratimāmānalaksana, or section of a text dealing with the description of gods and their attributes

Preta (lit. departed, deceased) ghost; evil spirit

Purāṇa (lit. old) class of sacred books of Hinduism containing ancient legends and celebrating the powers and deeds of gods; Matsya Purāṇa and Visnudharmottara Purāṇa used in this study belong to this kind of literature

Rajata silver

Rājavarta lapis lazuli; source of blue

Rākṣasa evil or malignant demon

Rasa (lit. essence, taste) aesthetic theory formulated by Bharata in the Nātya Śāstra and developed by later theorists; the rasas according to Bharata are śṛṅgāra (erotic) divided into vipralambha or love in separation and sambhoga or love in union, hāsya (comic), karuṇa (tragic), raudra (wrathful), vīra (heroic), bhayānaka (terrible), bībhatsa (disgusting), adbhuta (marvelous). In the later developments of the theory śānta (tranquil) and prema (love, affection) rasas are added

Rasacitra according to the classification of painting of the Mānasollasā and Abhilaṣitārthacintāmaṇi, this is a painting made with fluid colours. According to the Śilparatna, rasacitra is a type of painting that represents a rasa

Rasadrṣṭi glance relevant to the depiction of a rasa

Samudrika Śāstra science of physiognomy; this traditional science describes perfect models of men and it predicts their past and future observing their characteristics, like for example height, weight, gait, compactness and voice

Satya according to the classification of the Visnudharmottara Purāṇa, this kind of painting should bear similarity with the world

Siddha (lit. accomplished, fulfilled) class of semi-divine beings

Śilpa Śāstra science of Śilpa (lit. artistic work, handicraft); name of a particular class of technical treatises on architecture, carpentering, jewellery, sculpture and painting

Sindūra red lead; source of red; the term may also denote the name of a plant whose exudation is used as vegetable gum

Śrīvatsa (lit. favourite of Śrī) auspicious mark generally found on the breast of Visnu, Krsna and the tīrthaṅkaras

Sthāna   stance of the body; among them are ṛjvāgata or frontal stance, ardharju or half-frontal stance, sācīkṛta or averted, adhyardhalocana or one-and-a-half-eyed, pārśvāgata or profile stance, parāvṛtta or turned away and samānata or completely bent

Sthāyi bhāva   abiding or permanent emotion; mental states connected with a rasa; each rasa has its peculiar sthāyi bhāva. They are rati or love for śṛṅgāra, hāsa or laughter for hāsya, śoka or sorrow for karuṇa, krodha or anger for raudra, utsāha or enthusiasm for vīra, bhaya or fright for bhayānaka, jugupsā or disgust for bībhatsa, vismaya or astonishment for adbhuta, śama or tranquillity for śānta and harṣa or happiness for prema

Śuddha varṇa   (lit. pure colour, also called mūlaraṅga) primary colours; they vary according to the texts. For the Śilparatna and Viṣṇudharmottara Purāṇa they are five: white (sita), yellow (pīta), red (rakta), black (kajjala) and śyāma

Sudhā   lime or lime plaster

Śyāma   dark colour covering black, brown, deep green, deep blue hues

Tāla   linear measurement constituted by 12 aṅgulas; mukha (lit. face) is one of its synonyms

Tālamāna   (lit. measurement by tālas) system of rhythmic measurement that permits the creation of images in different proportions; according to the number of times that the face (tāla) stands to the length of the entire body, an image may vary from a minimum of 1 tāla (eka tāla) to a maximum of 16 tālas (ṣoḍaśa tāla)

Tāmra   copper

Tīrthaṅkara   Jaina saint; epithet given to the twenty-four masters of Jainism

Tiryakasūtra   set of lines that pass vertically through the body at certain points, such as at the level of the eye, of the navel or of the ankle

Trapu   tin

Unmāna   (lit. measure of quantity) term denoting the measurement of thickness of a body as for example the projection of the nose; this is one of the six ways of measuring the body

Upamāna   (lit. comparison) measurement of interspaces of the body of an image, like the measurement of the distance between the two eyes or the two ears

Ūrdhvaka   (lit. raised, lifted up) according to the classification of the Nārada Śilpa Śāstra, this is a painting executed on the ceiling

Vaiṇika   (also vaiśika and daiśika) classification of painting according to the Viṣṇudharmottara Purāṇa in which the figures are elongated, well-adorned and completely filled

Vajralepa   adamantine medium; animal glue derived from boiling animal hide

Vartanā   line rendering or shading; it can be, according to the Viṣṇudharmottara Purāṇa, of three types: patrajā (leaf-born), acchaidikā (unbroken) and bindujā (dot-born)

Vartikā   crayon

Veda   (lit. knowledge) kind of literature belonging to the śruti or revelation; the Vedas are divided into four collections: Ṛgveda, Sāmaveda, Yajurveda and Atharvaveda

Vesara   according to the classification of the Aparājitapṛcchā, this is a kind of painting originated in the north of the subcontinent; it is associated with the vaiśya caste and the green colour

Vibhāva   determinant; vibhāvas are factors or objects that determine the arising of a rasa. They can be of two types: objective and stimulative. In the representation of śṛṅgāra rasa, the beloved would be an objective determinant and attractive clothing would be a stimulative determinant

Viddha   according to the Mānasollasā and Abhilaṣitārthacintāmaṇi, it is a kind of painting which represents an exact copy of an object

Vidyādhara   (lit. possessor of knowledge) class of supernatural beings

Viśvakarman   (also Viśvakarmā: omnificent) the great architect of the universe and personification of the creative power

Vyabhicāri bhāva   transitory state; secondary mental or physical states that accompany the sthāyi bhāvas in the realization of a rasa; among them are for example discouragement, apprehension, jealousy, embarrassment and intoxication

Vyantara   according to the Aparājitapṛcchā, it is a kind of painting originated in the west of the subcontinent; it is associated with vaiśya caste and yellow colour

Yakṣa   (f. yakṣiṇī) class of semi-divine beings attendants of Kubera, the god of wealth

Yāmuna   (lit. related to the Yamunā River) according to the classification of the Aparājitapṛcchā, it is a kind of painting that belongs to all the regions; it is associated with all the castes and colours

Yava   measurement of length constituted by $\frac{1}{8}$ of an aṅgula or a barley corn

NOTES

1 THE TEXTS, THEIR TRANSLATIONS AND INTERPRETATION

1 Details on other Buddhist sources on the subject can be found in Ruelius (1974).

2 Laufer (1913) gives a lot of suggestions for his identification: Nagnajit could have been a prince of Gandhāra, a Jaina monk, etc. (Goswamy and Dallapiccola 1976, p. 12). Shukla (1957, p. 10) states that Nagnajit was a 'Naga king of hoary antiquity.' Goswamy and Dallapiccola (1976, p. xii) say that there are numerous mentions of persons called Nagnajit in early Indian literature: there was a king of Gandhāra, a master architect referred to in the *Matsya Purāṇa*, and also a Dravidian authority cited by Varāhamihira in the *Bṛhat Saṃhitā*. The *Bṛhat Saṃhitā* (58.4) in fact mentions that according to Nagnajit the face of an idol should be 14 *aṅgulas* long and 12 *aṅgulas* broad (see also Bhat 1981, pp. xxii and 550). Another interesting discussion on Nagnajit is to be found in an article by Roth (1990), who, while accepting Nagnajit as a king of Gandhāra and an authority on *śilpa śāstra*, suggests (p. 989) that he may have been a wrestling champion (from *nagna-jit* meaning 'an athlete beating a naked opponent').

3 Varāhamihira (AD 505), the writer of the *Bṛhat Saṃhitā* (Bhat 1981), was a scientist. His text deals with astronomy and astrology but it also includes a number of related topics such as architecture, iconography and physiognomy. In every chapter Varāhamihira invariably mentions the authorities of the topic to be discussed. In particular, he expresses his indebtedness to ancient sages like Viśvakarman, Nagnajit, Samudra and Garga. Whenever he differs from their views, he gives his own reasons for it.

4 Among the other *Purāṇas* containing a section on iconometry are for example the *Agni Purāṇa* (44), the *Bhaviṣya Purāṇa* (132 of the *Brahmaparvan*) and the *Matsya Purāṇa* (258) (see also Ruelius 1974, p. 18).

5 Kramrisch discusses the date of the *Viṣṇudharmottara Purāṇa* extensively (1924, pp. 2–4) and she concludes that (p. 4): 'The chapters of the Vishnudharmottaram dealing with painting must have been compiled in the 7th century, contemporary with the latest painting of Ajanta'. Shukla (1957, p. 10) places the work between the second and fourth century AD, Shah (1958, p. xxvi) and Bhattacharya (1976, p. 8) believe that the text should be dated to around AD 450–650 and Dave (1991, pp. 60–1) dates the original composition of the text between AD 500 and 900.

6 The list of sources is not comprehensive but it is dictated by the purpose of this work. References to other *śilpa* texts may be found in Mitra (1951), Ruelius (1974) and Sthapati (2002, pp. xiv–xv).

7 See the article 'Śilpa versus Śāstra' in Dallapiccola (ed.) *Shastric Traditions in Indian Arts*, 1989, vol. 1, pp. 5–15.

8 *Cakravartin* is usually a universal monarch or emperor of the world. In the *Citralakṣaṇa* of Nagnajit the *cakravartin* is simply who represents the best of man, and constitutes an ideal model (see Chapter 3).

2 THE TRADITIONAL INDIAN CONCEPT OF PAINTING

1 Viśvakarman (lit. omnificent) is the great architect of the universe and the personification of the creative power. He holds in his hands the Vedas, the cord, the scale and the water pot.

2 During my trip to India, in September 2001, I met a painter in Udaipur, Lalit Sharma, who belongs to a family of traditional painters. He traces his line of descent from Lord Viśvakarman in Ellora. He possesses the record of his genealogy up to the present day. His family from Ellora moved to Kashi, Pali, Nathdvara and finally Udaipur.

3 The myth of the origin of painting is presented summarizing the translation of Goswamy and Dallapiccola (1976, pp. 63–79 of NagCitLak I.30–431).

4 A *preta* (lit. departed, deceased) is the spirit of the dead person especially before obsequial rites are performed.

5 This passage has a double meaning. It also signifies 'may you become the Conqueror of the Naked' or 'Nagnajit'. From here onwards the king is in fact identified with Nagnajit the founding father of painting on earth (see also Goswamy and Dallapiccola 1976, note 55, p. 70).

6 According to Varāhamihira (BrSam 68.1), a physiognomist, or *sāmudravit*, is one who carefully observes the height, weight, gait, compactness, strength (based on the seven basic ingredients), complexion, glossiness, voice, natural character, courage, hereditary elements (those that suggest the particulars of one's previous life), parts of the body and natural luster of a man, and then explains his past and future.

7 *Dharma*, *artha* and *kāma* constitute the so-called *trivarga* or three aims of life of a high-caste Hindu (*dvija*).

8 This passage (ViDha III.43.39) is very significant because of its similarity with a section of the *Citralakṣaṇa* of Nagnajit (I.327–374) which states that: 'Just as the most excellent among mountains is Sumeru, and just as he who soars heavenwards (Garuḍa) is the first among the egg-born; just as the King is the first among human beings, so is painting the first among the skills . . . .' This is a clear example of intertextual relationship. The verses are also a proof of the common ground from which *Citralakṣaṇa* of Nagnajit and *Viṣṇudharmottara Purāṇa* developed.

9 This kind of tripartite division of *citra* can be found in other texts, too, such as the *Mānasāra* (51.13–14).

10 A similar list of auspicious and inauspicious themes is to be found in the *Viṣṇudharmottara Purāṇa* (III.43.13b–17ab). This text explains that scenes such as the preparation of battles, funeral grounds, the tragic, death, pain, people tormented with grief and the villainous, bulls without horns and elephants without trunks are regarded as inauspicious and they are not allowed to be painted in houses. They are only permitted in the royal assembly halls and temples. Those paintings that are regarded as auspicious such as the nine treasures (*nidhi*), the *vidyādharas*, the sages, the *garuḍa* and monkey are to be painted in the houses. The portrait of oneself or self-portrait must never be made in one's own house.

11 The *Nārada Śilpa Śāstra* is a *śilpa* treatise belonging to the south Indian tradition available in manuscript form in the MSS Library of the Theosophical Society of Adyar, Madras. Some of the sections relevant to painting have been published by Raghavan (1935), whose translation is used here.

12 It should be noted that this is a characteristic of traditional Tanjore painting.

13 Dave (1991, p. 336) translates 'with the speed of the wind' referring to the speed with which an expert painter paints, criticizing Sivaramamurti and other scholars as having

seriously mistaken the meaning of *vāyugatyā*, which they translate as 'moved by the wind' referring to the effect the painter is able to give to a painting, that is, his skill in painting waves, flames and banners moved by the wind.

14 Bhattacharya uses in his translation the term 'meditation'. This term, however, in the Indian context could mislead the reader. It is worth saying that what Bhattacharya translates as 'meditation' does not refer to the word *dhyāna* (meditation) but to the word *manas* (mind). The literal translation of this would be 'with the mind'.

15 The *Śivatattva Ratnākara* of Keḷadi Basavarāja (also known as Basavappa Nāyaka I, r. 1694–1714) is a text from the South Indian tradition. It is divided into nine books or *kallolas* and each *kallola* consists of several chapters. *Kallola* VI contains the section on painting (Krishnamurthi 1995).

16 The *Mānasāra* (Acharya 1980) is a text belonging to the south Indian tradition and can be dated to *c.* AD 600. It is one of the greatest treatises on Indian architecture and it includes sections on sculpture and iconography (51–70).

17 Dave (1991, pp. 231–235) is the first writer to call the second type of painting *vaiśika*. All the other authors call this type *vainika*. Dave's amendment follows the reading of a Nepali manuscript of the *Viṣṇudharmottara Purāṇa*. The same manuscript contains both the denominations *vainika* and *vaiśika*. Dave says that this amendment with *vaiśika* is the correct one because the word *vainika* in this context provides no appropriate meaning. She cites many supporting examples, such as the mention in the *Arthaśāstra* (II.27.44) of the art of the courtesans, of which painting is one, and the use of the word *vaiśika* in the *Nāṭya Śāstra* (25.1–2) to describe a lover of a courtesan who is also a connoisseur of all arts. The problem of discerning and clarifying this meaning remains, however, since the word *vaiśika* appears only in one of the manuscripts of the *Viṣṇudharmottara Purāṇa*. Moreover, the word appears together with *vainika*, thus making it difficult to accept all the examples cited by Dave and in turn amend all the verses of the other manuscripts of the *Viṣṇudharmottara Purāṇa*.

18 Dave Mukherji (2001, pp. 164–165) reinterprets her previous findings (Dave 1991) with a new possible reading of this class of painting, using the word *daiśika* to replace the terms *vainika* and *vaiśika*. Her reinterpretation is based on a reconstruction of the word from the Nevārī script, explaining that *daiśika* derives from *deśa* (provincial, local) as opposed to *nāgara* (urban).

19 *Kolam* is one of the folk arts of Tamil Nadu but its practice is well known in many other parts of the country and also has different names, for example, *alpana* and *rangoli*. To know more about *kolam* drawing see Steinmann's article in Dallapiccola (1989, vol. 1, pp. 475–491).

3 SYSTEMS OF MEASUREMENT AND PROPORTION

1 The *Sārāvalī* (Santhanam 1983) is a text on Indian astronomy and astrology written by Kalyāṇavarmam and dated to *c.* the tenth century.

2 The *Matsya Purāṇa* is one of the 18 *Mahā Purāṇas*. According to Agrawala (1963, p. iii) the text can be dated to the fourth century but it was subject to insertions of additional matter from time to time.

3 The *Pratimāmānalakṣaṇa* is a text on iconometry ascribed to Ātreya and available in Sanskrit and Tibetan manuscripts. This text was edited and published for the first time by Phanindra Nath Bose (1929) and subsequently by Banerjea (1941) as an appendix to his book, *The Development of Hindu Iconography*. Bose (1929, p. iii) states that in many cases there are differences between the Sanskrit and Tibetan versions of this text, suggesting various readings. He (1929, pp. vii–viii) explains that this work was translated from Sanskrit into Tibetan between the seventh and eleventh centuries and that the Sanskrit version must have been composed before the seventh century.

4 The *Śilparatnakośa* (Baumer and Das 1994) is an Orissan text dated to 1620 on the construction of temples and iconography.

5 For these measurements see also Agrawala (1963, p. 355), Bhat (1981, p. 549), Marasinghe (1991, p. xxii) and Banerjea (1941, p. 394). Among the texts that explain the absolute system of measurement are the *Matsya Purāṇa* (Agrawala, 1963), the *Bṛhat Saṃhitā* (58.1–2) and the *Citralakṣana* of Nagnajit (III. 540–543).

6 This measurement does not appear in all the texts. The *Matsya Purāṇa* (Agrawala 1963, p. 355) and the *Citralakṣana* of Nagnajit (III.540–543) for example say that 8 atoms or *paramāṇus* make 1 tip of hair or *bālāgra*.

7 The *tāla* measurement delineates the *tālamāna* or *tāla* system which will be explained in the next chapter.

8 For these measurements see also Marasinghe (1991, p. xxiii), Vinaysagar (1999, pp. 52–53) and Banerjea (1941, p. 394).

9 *Dehāṅgula* (lit. *aṅgula* of the body) is one of the various names of this unit, other names are *dehalabdāṅgula*, *verāṅgula*, *bimbāṅgula*, *svenāṅgula* (ViDha III.35.9) and *svāṅgula*.

10 Marasinghe (1991, pp. xxi–xxii) mentions other criteria to be adopted in determining the height of an image. They are for example the measurement proportionate to that of the temple, the height of the base of the temple, the door of the temple or the *garbha gṛha*.

11 For example, an image built according to the *sapta tāla* measurement consists of 84 units or *dehāṅgulas*, and the *aṣṭa tāla* measurement is 96 units. In these cases, one should divide the length of the face into 12 parts or *aṅgulas* to calculate the *dehāṅgula* of the image. While this method would work for images from 1 to 9 *tālas*, 10 *tālas* images are problematic because their face length may range between 12 and $13\frac{1}{2}$ *aṅgulas*. In these cases therefore one should know in advance the number of *aṅgulas* constituting the face to calculate the *aṅgula* of the image.

12 The *Bṛhat Saṃhitā* and *Sārāvalī* state that when the five non-luminaries, Mars, Mercury, Jupiter, Venus and Saturn, occupy their own houses, identical with *kendras* (first, fourth, seventh and tenth houses), five illustrious personages are born. The five exalted men are called *haṃsa*, *bhadra*, *mālavya*, *rucaka* and *śaśaka* (BrSam 69.1–2 and *Sārāvalī* 37.1–2).

13 This passage is very interesting because it shows how the arts of sculpture and painting overlap and that their theories rely on the same texts. Although the verse explains circumference, which would be useful only in sculpture, the writer gives instructions on how the same head would appear in painting.

14 It should be noted that the expression 'shape of a "va" letter' may be read and under-stood differently. Banerjea (1941) considers it as the Devanāgarī 'va' letter, whereas Sthapati (2002, p. 286) considers it to be the Tamil 'va' letter (Figure 3.6).

15 The explanation of the measurement of face in the *Pratimāmānalakṣaṇa* relies on the use of lines or *sūtras* that are crossing the face. In this text *karṇasūtra* (lit. 'line of the ear') is mentioned explicitly, but there are two other lines that are mentioned implic-itly, they are *bhrūsūtra* or line of the eyebrow and *akṣisūtra* or line of the eye (see also Banerjea 1941, p. 339). *Karṇasūtra* in this text appears to be an horizontal line; how-ever, in the *Bimbamāna* (v. 80 in Marasinghe 1994, p. 27) the *karṇasūtra* is a vertical line which passes through the outer edge of the ear and of the breast, the thigh and the shank, the outer edge of the ankle and by the side of the fourth toe.

16 The *Viṣṇudharmottara Purāṇa* (III.36) states the same number of teeth. Dave, however, changes the number bringing it to 32, as Sivaramamurti has done in his translation (1978, p. 169). Dave (1991, p. 96) justifies her change saying that: 'Since the iconome-try in this text is based on human scale and proportion, 40 teeth seem most unlikely. If there were any other superhuman features stated, then perhaps one might entertain the reading.' In spite of this improbable feature, the translation should be kept as it is formulated by the original texts.

17 The sound and tone of the voice can have a meaning only within the physiognomic context. Voice is in fact one of the characteristics from which it is possible to predict the future of a man (see BrSam 68).

18 The neck resembling a conch is one of the characteristics found in the texts on physiognomy. The *Citralakṣaṇa* of Nagnajit reveals the meaning of this expression explaining that the conch like neck is a neck with three lines or three-folds of skin on it.

19 According to the *Pratimāmānalakṣaṇa* (vv. 66–68) the girth of a limb is always three times its width. The same injunction is given in the *Bimbamāna* (v. 71 in Marasinghe 1994, p. 25) which explains that three times the breadth of any particular part of the body should be equal to the measurement of the girth.

20 For a discussion on *jānudaghna* see Roth (1990, p. 1024).

21 This measurement refers to the foot from heel up to the root of the toes.

22 This verse can be also found in the *Viṣṇudharmottara Purāṇa* (III.37.6). Dave (1991, p. 383) explains that palmistry, an allied branch of physiognomy, had a part to play in the canons formulated in this verse. According to palmistry as preserved in the *puruṣalakṣaṇa* of the *Bṛhat Saṃhitā* (68), three lines on the palm rising from the wrist upwards prognosticated kingship.

23 It should be noted that the same view is corroborated by the *Citralakṣaṇa* of Nagnajit (III.969–986).

24 From this assertion we surmise that the eyes of a god can only look straight in front. This characteristic is common in Hindu icons but it is not the rule, as can be seen for the eyes of Śrī Nāthjī (figure 5.16) which look downwards.

25 Murti Mohalla is one of the parts of the old city of Jaipur in which sculptors live and work. The main road of this suburb is Khazanevalon ka Rasta.

4 *TĀLAMĀNA* AND *LAMBAMĀNA* SYSTEMS

1 The *Devatāmūrtiprakaraṇa* (Vinaysagar 1999) is one of the texts attributed to the architect Maṇḍana Sūtradhāra who worked under the patronage of Mahārāṇā Kumbha of Mewar (*r.* 1433–1468). This is a text in eight chapters on various aspects of Hindu and Jaina iconography.

2 The *Śukranīti* is a work on politics and deals with the functions and duties of kings. It is ascribed to Śukra, and according to Winternitz (1985, p. 644) it is a 'work of quite a recent age'. The section on image making of the *Śukranīti* can be considered as a 'guide' for kings to recognize auspicious and inauspicious images and to take care of them in order to be protected by the gods.

3 The *Citrakarmaśāstra* is a Sri Lankan text written in Sanskrit and is devoted to Buddhist monastic architecture and image making, including iconometry, iconography and related topics. Marasinghe (1994, p. vii) states that this text can be dated to few centuries earlier than the other Sri Lankan text on iconography, the *Bimbamāna*, which probably belongs to the eleventh or twelfth century. The *Bimbamāna*, critically edited by Marasinghe (1994), was previously published, in 1974, by Ruelius with the name of *Śāriputra*. Another Sri Lankan text on the subject is the *Ālekhyalakṣaṇa* (see Ruelius 1974).

4 A *kīrtimukha* is a grotesque mask widely used as a decorative element in Indian temple architecture. It is represented in one *tāla* or *eka tāla* which means that this image is constituted by its head only, as shown in Figure 4.2.

5 The *Devatāmūrtiprakaraṇa* uses an interesting way of expressing numbers symbolically. Veda represents symbolically the number 4, from the 4 Vedas. Another example is 12 *aṅgulas* which is expressed using the word *sūrya-aṅgula*, this is because Sūrya represents symbolically the number 12, Sūrya is in fact one of the 12 Ādityas. The number 24 is mentioned symbolically as *jina-aṅgula* to represent the 24 Jaina *tīrthaṅkaras*. The

reason behind the use of these expressions may be that of rendering the reading of the technical aspects of the text less monotonous.

6   The *Aparājitapṛcchā* (Dubey 1987, pp. 278–279) follows the system of sixteen categories of *tālas* delineated in the *Devatāmūrtiprakaraṇa*. The text explains that 1 *tāla* is for *kīrtimukhas* and fish, 2 *tālas* for birds, 3 *tālas* for elephants, 4 *tālas* for horses, 5 *tālas* for *kinnaras*, 6 *tālas* for *gaṇanāyakas* and *yakṣas*, 7 for men, 8 for goddesses, 9 for all the deities, 10 for Rāma, Viṣṇu, Vairocana (Bali), *siddhas* and *jinas*, 11 *tālas* for Rudra and *bhūtas*, 12 *tālas* for *vetāla* demons, 13 for *rākṣasas*, 14 *tālas* for *dānavas*, 15 *tālas* for Cāmuṇḍā and *bhṛgus*, 16 for Jaṭāmukuṭa.

7   These are the four *yugas* or ages of the world according to the traditional Indian system of chronology.

8   This particular emphasis to the *daśa tāla* can be also found in the *Mānasāra* (65–66) which describes in detail the *uttama* and *madhyama daśa tāla* measurements, suitable for gods (124 *aṅgulas*) and goddesses (120 *aṅgulas*) respectively.

9   An interesting attempt to use *tālamāna* in this sense is given by Mosteller (1990, 1991).

10 See the section 'The six types of measurement' in Chapter 3.

11 The *pippalī* is a short cartilage situated at the entrance to the hole of the ear.

12 We have to surmise that the text is referring to an image whose arms are outstretched.

13 Mahuavala Akhara is an historical building of Nathdvara famous for its frescos. It was built under the patronage of Damodarji II (1797–1826). According to Ambalal (1987), it was painted by an artist named Eklingji.

5 STANCES, HAND AND LEG POSTURES

1   The *Nāṭya Śāstra* is a compendium on theatre and dance. It is usually dated not later than the sixth century and roughly contemporaneous with the great flourishing of dramatic and other literatures under the patronage of the Gupta kings (fourth to sixth centuries) (Gerow 1977, p. 245).

2   The *Vāstusūtra Upaniṣad* is a text on image making attributed to the sage Pippalāda. The edition compiled and translated by Boner *et al*. (1982) is based on four copies of the text written on palm-leaf in Oriya and Devanāgarī scripts. This text is divided into six parts and deals with the knowledge of stones (*śaila*), compositional diagram (*khilapañjara*), carving of stones (*śaila-bhedana*), disposition of the limbs (*aṅgaprayoga*), determination of the character (*bhāvanānyāsa*) and final integration of all the forms (*sambandha-prabodhana*).

3   In the texts, the position of the body and that of the feet are both named with the same term *sthāna*. In order to avoid confusion with the postures of the body explained in the first part of this chapter and the posture of the feet, the word *pāda mudrā* will be used to designate the latter, following the example of Shukla (1956).

4   A similar list of the stances is to be found in the *Mānasollasā* (III.1.179–192).

5   The use of the word *lamba* or perpendicular shows that the use of plumb-lines to explain postures, as used in the *Śilparatna* and *Mānasollasā*, was known to the writer of the *Viṣṇudharmottara Purāṇa*.

6   Bhattacharya (1974, p. 62) explains that according to Rao *aṇideśa* indicates the part of the leg just above the knee.

7   *Gojī* is the cavity of the upper lip just below the nose.

8   The *Mānasāra* (67) describes mixed poses. Among them are *ābhaṅga* (little bent), *atibhaṅga* (extremely bent) and *tribhaṅga* (bent in three places).

9   According to the *Samarāṅgaḷa Sūtradhāra* (83), there are twenty-four *asaṃyuta* (non-combined) *mudrās*, in which only one hand is used. These are *patāka, tripatāka, kartarīmukha, ardhacandra, arāla, śukatuṇḍa, muṣṭi, śikhara, kapittha, khaṭakā mukha, sūcī mukha, padmakośa, sarpaśiras, mṛgaśīrṣa, kāṅgūla, alapadma, catura,*

bhramara, haṃsavaktra, haṃsapakṣa, sandaṃśa, mukula, ūrṇanābha and *tāmracūḍa*. An identical list of *asaṃyuta mudrās* is to be found in the *Nāṭya Śāstra* (9).

10 The *Samarāṅgaṇa Sūtradhāra* (83) states that the *saṃyuta* (combined) *mudrās*, in which both hands are used, are twelve in number. They are *añjali, kapota, karkaṭa, svastika, khaṭaka, utsaṅga, dola, puṣpapuṭa, makara, gajadanta, avahittha* and *vardhamāna*. The *Nāṭya Śāstra* (9) mentions thirteen *saṃyuta mudrās*. The posture omitted in the *Samarāṅgaṇa Sūtradhāra* is *niṣadha*.

11 The *nṛtya* (dance) mudrās according to the *Samarāṅgaṇa Sūtradhāra* (83) are *caturaśra, viprakīrṇa, padmakośa, arālakhaṭakāmukha, āviddhavakraka, sūcī mukha, recita, uttānavañcita, ardharecita, pallava, keśabandha, latā, karihasta, pakṣa vañcita, pakṣa pracyotaka, garuḍa pakṣa, pārśva maṇḍali, uromaṇḍali* and *uraḥpārśvārdha maṇḍali*. The *Nāṭya Śāstra* (9) has a longer list of *nṛtya mudrās*. There are, for example, *udvṛtta, talamukha, svastika, nitamba, nalinī padmakośaka, ulbaṇa, lalita* and *valita*.

12 *Abhaya mudrā* is one of the poses associated with Buddhist iconography. Other Buddhist *mudrās* are *dharmacakra* (wheel of dharma) and *bhūmisparśa* (touching the earth). The *dharmacakra mudrā* is the hand posture in which Buddha is portrayed while turning the wheel of *dharma*. In *bhūmisparśa* pose the left hand rests on the lap with palm outward and the right one touches the earth. This *mudrā* is used to represent the Buddha when citing the earth as a witness to his defeat of Mara during the night in which he attained the *bodhi* (enlightenment).

13 Banerjea (1941, p. 296) explains that in some particular contexts the word *āsana* could mean the seat of a particular god or goddess. *Padmāsana*, for example, could be a seat of a god with the form of a lotus or a position of the legs.

14 Type of grass used for sacrificial purposes.

15 *Soma* is the juice of a plant forming the beverage offered in libations to the deities.

16 In this event, Kṛṣṇa lifts the Mount Govardhana to protect the inhabitants of Vṛndāvana (the place where Kṛṣṇa appeared on earth) from the rains sent by the god Indra.

6 ICONOGRAPHY

1 The *Bṛhat Saṃhitā* contains a single chapter on iconography, chapter 58, which concentrates on the description of gods like Nārāyaṇa, goddess Ekānaṃśā, Brahmā, Indra, Śiva, Buddha and Jina.

2 The *Mayamata* (Dagens, 1994) is a south Indian treatise on architecture and iconography ascribed to the architect Maya and datable to the Gupta period (AD 450–650). Chapter 36 of the *Mayamata* contains descriptions of the characteristics of gods like for example Brahmā, Viṣṇu, Varāha, Trivikrama, Narasiṃha, Maheśvara, the sixteen manifestations of Śiva, Gaṇādhipa, Sūrya, Garuḍa, Lakṣmī, Buddha and Jina.

3 The *Devatāmūrtiprakaraṇa* has five chapters on iconography. Chapter 4 describes Brahmā and images related to Brahmā, like Viśvakarman, Kamalāsana, Viriñca, Pitāmaha and the four Vedas. Chapter 5 describes Viṣṇu and images related to him like Garuḍa, Trivikrama, Rāma, Varāha, Viśvarūpa and Ananta. Chapter 6 describes images related to Śiva like Vāmadeva, Aghora, Sadāśiva, Ardhanārīśvara, Umā-Maheśvara and Śiva-liṅgas. Chapter 7 is dedicated to the description of the twenty-four Jaina *tīrthaṅkaras* and their attendant *yakṣas* and *yakṣiṇīs*. Chapter 8 describes goddesses like Umā, Pārvatī, Mahālakṣmī and Sarasvatī together with Gaṇeśa and Kārttikeya.

4 Among the gods described in the *Viṣṇudharmottara Purāṇa* are Brahmā, Viṣṇu, Śiva, Yama, Agni, Vāyu, Bhairava, Sarasvatī, Lakṣmī and Viśvarūpa.

5 A weapon (*āyudha* or *bādhra*) is an emblem which communicates the power of the figure. The *Vāstusūtra Upaniṣad* (6.17 and commentary) enumerates the following weapons: *vajra* (thunderbolt), *dhvaja* (flag), *daṇḍa* (rod), *pāśa* (noose), *śūla* (spear),

pātra (bowl), *sruk* (sacrificial ladle), *padma* (lotus), *mālā* (rosary), *cakra* (discus), *kumbha* (pot) and *aṅkuśa* (elephant-goad).

6 Images can have an iconic (*vyakta*) and an aniconic (*avyakta*) form. The *vyakta* representation of a god has a human form, like for example an image of Viṣṇu. The *avyakta* representation is symbolic, like for example the Śiva-liṅga. To these two forms, Sthapati (2002, p. 3) adds the *vyaktāvyakta* or morpho-amorphic form in which symbolic and bodily features are combined, like for example in the representation of *mukha-liṅga*.

7 Species of rush or sedge-like grass (*Saccharum muñja*).

8 Type of sacred grass (*Desmostachya bipinnata*) used at certain religious ceremonies.

9 Mythological crocodile-like animal representing the sign of Capricorn.

10 Dagens (1994, p. 881) explains that *karṇapūra* consists in having a lotus flower placed above the ear.

11 Dagens (1994, p. 883) explains that *paryaṅkabandha* is probably equal to the *paryaṅkāsana* (*padmāsana*) in which the upper part of the body is stretched stiffly erect and two legs mutually crossed and so folded that each foot is resting on the other thigh.

12 The particular focus on Jaina iconography of the *Devatāmūrtiprakaraṇa* can be explained with the great flourishing of Jaina temples in and around the place of the origin of the text written by Maṇḍana Sūtradhāra at the court of Mahārāṇā Kumbha (r. 1433–1468). This text belongs to western India, a region in which many important Jaina temple complexes, like that of Ranakpur (1439), were built.

13 Jina (Victorious) is an epithet generally related to the twenty-four Jaina *tīrthaṅkaras*. Mahāvīra (Great Hero) is an epithet referred to the twenty-fourth *tīrthaṅkara* Vardhamāna, who is also known as the Jina.

14 Among the symbols are for example the water-pot for Mallinātha, the snake for Pārśvanātha and the lion for Mahāvīra (Sthapati 2002, pp. 328–329).

15 Name of the twelfth lunar mansion consisting of two stars (Apte, 2000).

7 COLOURS, PLASTER, BRUSHES AND THE PROCESS OF PAINTING

1 Bdellium is a variety of gum resin yielded by various trees of India and Africa.

2 Name of a plant (*Boswellis thurifera*) or of the resin of that plant.

3 A very similar process of plastering walls to that of the *Śilparatna* is to be found in the *Sudhālepavidhāna*. This text contains other topics explained by the *Śilparatna* like the making of *kiṭṭa-lekhanī* and the preparation of colours. According to Bhattacharya (1976, p. 35), the *Sudhālepavidhāna* is a late recension of certain sections of chapter 46 of the *Citralakṣaṇa* of the *Śilparatna*. This Sanskrit manuscript was first published by V.V. Sharma (1927). The text contains 46 verses and a Malayalam commentary is appended to it.

4 According to Bhattacharya (1974, p. 60), *kālāgni* is a kind of *rudrākṣa*, that is, *Elaeocarpus ganitrus* or its berry used for rosary. He explains that one of the manuscripts of the *Śilparatna* used in his study replaces the word *kālāgni* with *kṛṣṇānupakka*. In that case the verse should be translated as 'This should be added with the pulp of half matured black banana.'

5 The *Mānasollasā* (III.1.132–136) contains a similar recipe.

6 *Śyāma varṇa* is differently treated by scholars. Bhattacharya (1974) identifies it with terre verte or green earth, whereas Dave Mukherji (2001) translates it as blue.

7 Four are the primary colours also for the *Nāṭya Śāstra* (23.69); they are white, blue, yellow and red.

8 *Sindūra* appears to be a controversial word. According to Bhattacharya (1976) it means red lead whereas for Chakrabarti (1980, p. 49) this is vermilion also called as *hiṅgula*. The right word for red lead according to Chakrabarti would be *darada* or *lohita*.

9 *Kṛṣṇa* is here considered as meaning black, but it should be remembered that this word is controversial. According to Monier-Williams (1994) it could mean 'black, dark, dark blue.'

10 This affirmation of the *Śilparatna* reveals that there was a great understanding of colours and the way to use them in mural painting. Only mineral colours are lime resistant and suitable for mural painting. Moreover, as Chakrabarti (1980, pp. 38–39) points out, some mineral colours when mixed with certain colours react and make them dull or darkened. The selection of proper colours for mural painting is therefore important because only proper natural colours are to be used in wall painting, particularly when lime is used either in plaster or in priming.

11 This work accepts the reading of *acchaidikā* of Dave Mukherji (2001). This term is very controversial and it has been differently interpreted by scholars. For a discussion on the various interpretations of this word see Dave Mukherji (2001, pp. 175–178).

12 It may be noted that the use of a black border for the figures is a characteristic of many traditional Indian paintings (see for example Figures 5.15–5.16). *Acchaidikā* (unbroken) type of line rendering of the *Viṣṇudharmottara Purāṇa* may refer to this kind of black border.

13 Fresco *secco* is a technique in which a painting is executed on a dry plastered wall. This is different from fresco *buono* in which the painting is executed on a wet plastered surface. Both techniques imply the use of a purpose-made plastered wall as carrier for painting. These two processes should be distinguished from mural painting, a general term which simply implies a painting on any wall (interview with Kripal Singh in Jaipur, October–November 2002).

14 Among the other scientific studies on miniature painting are for example Johnson (1972) and Isacco and Darrah (1993).

15 *Phar* (also *phad* and *par*) is a traditional Rajasthani painting on cloth depicting the story of local heroes like Pabuji and Devnarayan. These narrative scrolls are considered sacred and treated as mobile shrines.

16 According to Kripal Singh shell white is used also in south India and Sri Lanka to whitewash walls for painting. He also explains that before the colour becomes ready for use it should be kept for ten years.

8 THE THEORY OF *RASA*

1 The *Dhvanyāloka* (Ingalls 1990) is a text ascribed to Ānandavardhana, a Kashmiri author of the ninth century. This text, together with its commentary, the *Locana* of Abhinavagupta, is considered among the most influential Indian works on the theory and practice of literary criticism.

2 *Śṛṅgāra* is associated with *śyāma* (dark colour) and with Viṣṇu; *hāsya* is associated with *sita* (white) and with Pramatha; *karuṇa* is associated with *kapota* (dove colour) and with Yama; *raudra rasa* is associated with *rakta* (red) and with Rudra; *vīra rasa* is associated with *gaura* (wheatish brown) and with Mahendra; *bhayānaka rasa* is associated with *kṛṣṇa* (black colour) and Kāla; *bībhatsa rasa* is associated with *nīla* (blue) and with Mahākāla and *adbhuta rasa* is associated with *pīta* (yellow) and Brahmā (NS 6.42–45).

3 The same list of nine *rasas* can be seen in many other later texts including the *Dhvanyāloka*, which will be discussed later. *Śānta rasa*, added to the traditional eight *rasas* of the *Nāṭya Śāstra*, has a controversial position. Some authors do not accept it because they wonder in what sense 'inaction' can be 'dramatic'. According to Gerow (1977, pp. 246–247), *śānta rasa* is needed precisely because the *rasa* theory in time encloses other literary forms. In fact, Ānandavardhana in the *Dhvanyāloka* (IV.5) clearly explains that the Mahābhārata has the *śānta rasa* as its main *rasa*, because the fundamental object of the poetical enunciation in the Mahābhārata is that of *mokṣa* or liberation form worldly existence.

4 This verse is explained by Dave Mukherji (2001, p. 256) as a condensed phrase taken from a common stock of what was considered to be a comic situation in ancient India. She elucidates the verse with the help of Mammaṭa's *Kāvyaprakāśa* (IV.37) in which the author describes the *hāsya rasa* narrating the story of a *brahman* who after ablutions is hit by the unclean fists of a prostitute.

5 Note that the *Nāṭya Śāstra* makes a clear distinction between love in separation or *vipralambha* and the *karuṇa rasa*. Goswamy in his book *Essence of Indian Art* (1986) seems to accept the reading of the *Viṣṇudharmottara Purāṇa*, disposing figures representing *vipralambha*, in the section on *karuṇa rasa*.

6 *Prema* (love, affection) *rasa* of the *Samarāṅgaṇa Sūtradhāra* seems to be an original contribution of King Bhoja. The eleventh *rasa* of his theory appears illegible from the *Samarāṅgaṇa Sūtradhāra* text edited by Ganapati Sastri (1925).

7 Note that *harṣa* or delight in the *Nāṭya Śāstra* (7.61–62) is a *vyabhicāri bhāva*, whereas in the *Samarāṅgaṇa Sūtradhāra* it becomes the *sthāyi bhāva* of *prema rasa*.

8 Glances are also explained in a more detailed list in the *Nāṭya Śāstra* (8.38–94) which mentions thirty-six glances with their characteristics. They are divided into three kinds: *rasadṛṣṭis* or glances expressing a *rasa*, *sthāyi bhāva dṛṣṭis* or glances related to the *sthāyi bhāva* (abiding emotion), and *sañcāri bhāva dṛṣṭis* or glances regarding transitory states.

9 One of the examples used by Ānandavardhana (III.1b and commentary in Ingalls 1990, p. 376) to explain this typology is a stanza taken from the *Bhagavadgītā* (2.69):

> In what is night to all creatures
> the true ascetic wakes;
> where others wake, the sage who sees
> sees that it is night.

The primary sense of this sentence is obstructed, suggesting that the ascetic, because of his extraordinary nature, is attentive to the perception of truth and averse to false perception. Ānandavardhana clarifies that in this sentence the meanings 'night' and 'waking' are not intended. What is communicated is rather the attention of the saint to a knowledge of truth and his aversion to what is not truth. This is therefore an example of the subtype of sentences where the denoted sense is 'entirely set aside'.

10 Ānandavardhana (III.1c and commentary in Ingalls 1990, p. 378) explains this typology using the following verses:

> The passing of time is poison to some,
> nectar to others;
> part poison part nectar to some
> neither poison nor nectar to others.

The author clarifies that we are able to make sense of these verses only if we shift the literal sense of the words 'poison' and 'nectar' to the sense of 'pain' and 'pleasure'. This is a case in which the denoted sense is 'shifted to something else'.

11 One of the examples given by Ānandavardhana to explains this typology is (II.31b and commentary in Ingalls 1990, p. 362):

> O farmer's bride,
> gather the flowers on the ground
> and don't shake the *śephālikā* tree.
> Your bangles will end on an ugly note
> if your husband's father hears them.

In this case, explains the author, we have a wife, who is engaged in sex with her paramour, being warned by a friend because of the noise, heard afar, of her jingling bangles. This context is necessary in order to understand the direct meaning. But after

the expressed meaning has been understood, inasmuch as it has been expressed only in order to furnish the final meaning, which is the hiding of the woman's adultery, it becomes subordinate to the suggestion.

12 Among the verses quoted by Ānandavardhana to exemplify this typology is (IV.2a and commentary in Ingalls 1990, pp. 682–684):

> The bride has lowered her lips to her beloved's face,
> but afraid of waking him, for he pretends to sleep,
> she checks the relish of her kiss and hesitates
> with watchful turning; he too continues motionless,
> fearing that in shame she may wholly turn aside.
> In such a moment these two hearts, caught in the state
> of their anticipation, have reached the peak of love.

This stanza clearly depicts the *śṛṅgāra rasa*. The feelings of the two lovers are not directly expressed, but are described in a subtle way. The arising and manifestation of this *rasa* are due to obstacles, such as embarrassment and shame. Abhinavagupta in the commentary to this stanza explains that the bride is forcibly checked by her desire to kiss her beloved because this could wake him up. She is therefore examining again and again whether he is asleep. While he makes no motion to kiss her, fearing that if he were to kiss her, she would be covered with shame and would turn away. The stanza shows clearly that their hearts are in a state of anticipation or yearning, that is, agitated by love-longing rather than satisfied by the accomplishment of their desire. In this stanza, therefore, the passion of the two lovers is strengthened to a greater degree.

CONCLUSIONS

1 For a discussion on the relevance of stylistic analysis in the study of Indian art see T.S. Maxwell, 'Śilpa versus Śāstra', in Dallapiccola (ed.) *Shastric Traditions in Indian Arts*.

BIBLIOGRAPHY

Acharya, P.K. (1980) *Architecture of Manasara*, 1st edn 1934, III–V, New Delhi: Oriental Books Reprint

Agarawala, R.A. (1996) *Bundi the City of Painted Walls*, Delhi: Agam Kala Prakashan

Agrawal, O.P. (1984) *Conservation of Manuscripts and Paintings of South-east Asia*, London: Butterworths

Agrawala, V. (1963) *Matsya Purana – A Study*, Varanasi: All India Kashiraj Trust

Ambalal, A. (1987) *Krishna as Shrinathji: Rajasthani Paintings from Nathdvara*, Ahmedabad: Mapin

Anand, U. (ed.) (1982) *Gods of the Byways*, Oxford: Museum of Modern Art

Apte, V.S. (2000) *The Student's Sanskrit English Dictionary*, 1st edn 1890, Delhi: Motilal Banarsidass

Bailey, G.A. (1997) 'A palette for princes: an unpublished source on Indian pigments', *South Asian Studies*, 13: 45–54

Banerjea, J.N. (1941) *The Development of Hindu Iconography*, Calcutta: University of Calcutta

Baumer, B. (ed.) (1992) *Kalatattvakosa: A Lexicon of fundamental Concepts of the Indian Arts. Concepts of Space and Time*, vol. II, New Delhi: IGNCA

Baumer, B. and Das, R.P. (eds) (1994) *Silparatnakosa: A Glossary of Orissan Temple Architecture by Sthapaka Niranjana Mahapatra*, New Delhi: IGNCA and Motilal Banarsidass

Bhat, R. (ed.) (1981) *Varahamihira's Brhat Samhita*, part I and II, Delhi: Motilal Banarsidass

Bhattacharya, A.K. (1974) *Citralaksana: A Treatise on Indian Painting*, Calcutta: Sarasvat Library

—— (1976) *Technique of Indian Painting: A Study Chiefly Made on the Basis of the Silpa Texts*, Calcutta: Sarasvat Library

Bhattacharyya, D.C. (1991) *Pratimalaksana of the Visnudharmottara*, New Delhi: Harman Publishing House

Bhattacharyya, T. (1929) *Pratima-mana-lakshana*, Lahore: Moti Lal Banarsi Dass

—— (1986) *The Canons of Indian Art*, Calcutta: Firma KLM Private Ltd

Boner, A. (1990) *Principles of Composition in Hindu Sculpture: Cave Temple Period*, 1st edn 1962, New Delhi: Motilal Banarsidass and IGNCA

Boner, A. and Sharma, S.R. (eds) (1966) *Silpa Prakasa: Medieval Orissan Sanskrit Text on Temple Architecture by Ramacandra Kaulacara*, Leiden: E.J. Brill

Boner, A., Sharma, S.R. and Baumer, B. (eds) (1982) *Vastusutra Upanisad: The Essence of Form in Sacred Art*, Delhi: Motilal Banarsidass

Bose, P.N. (1926) *Principles of Indian Silpasastra*, Lahore: Punjab Sanskrit Book Depot

Bundgaard, H. (1999) *Indian Art Worlds in Contention*, London: Curzon

Chakrabarti, J. (1980) *Techniques in Indian Mural Painting*, Calcutta: K.P. Bagchi

—— (1985) 'Relevance of Sanskrit in the study of technique and treatment of Indian painting', *Journal of the Asiatic Society*, XXVII, 3: 119–125

Chakrabarti [Sachdev], V. (1998) *Indian Architectural Theory*, London: Curzon

Chatterjee Sastri, A. (1971) *Visnudharmottarapuranam (Citrasutram)*, Varanasi: Varanaseya Sanskrit Vishvavidyalaya

—— (1987) *The Citralaksana: An Old Text of Indian Art*, Calcutta: The Asiatic Society

Coomaraswamy, A.K. (1926–1928) 'Citra Laksana', in Mukherji, A.S.S. (ed.), *Sir Asutosh Memorial Volume*, Patna: J.N. Samaddar, pp. 49–61

—— (1929) 'Nagara painting', *Rupam*, 37: 24–29 and 40: 127–129

—— (1932) 'Visnudharmottara, Ch. XLI', *Journal of American Oriental Society*, LII: 13–21

—— (1935) 'The intellectual operation in Indian art', *Journal of the Indian Society of Oriental Art*, 3, 1: 1–12

—— (1950) 'The technique and theory of Indian painting', *Journal of the UP Historical Society*, XXIII: 5–34

—— (1972) *The Transformation of Nature in Art*, Delhi: Munshiram Manoharlal

—— (1999) *The Dance of Shiva*, 1st edn 1918, Delhi: Munshiram Manoharlal

Cooper, I. (1994) *The Painted Towns of Shekhawati*, Ahmedabad: Mapin

Csoma de Koros, A. (1980 and 1982) *Sanskrit Tibetan – English Vocabulary: Being an Edition and Translation of the Mahavyutpatti*, 2 vols, New Delhi: Sri Satguru Publications

Dagens, B. (ed.) (1994) *Mayamatam – Treatise of Housing, Architecture and Iconography*, 2 vols, Delhi: IGNCA and Motilal Banarsidass

Dallapiccola, A.L. (ed.) (1989) *Shastric Traditions in Indian Arts*, 2 vols, Stuttgart: Steiner

Das, M. (1961) *A Study in Hand Gestures: The Ninth Chapter of Bharata's Natyasastra Translated and Explained*, Marburg: Philipps-Universitat

Dasgupta, S.N. (1954) *Fundamentals of Indian Art*, Bombay: Bharatiya Vidya Bhavan

Dave, P. (1991) *The Citrasutra of the Visnudharmottarapurana: Introduction, Critical Edition and Commentary*, DPhil thesis, University of Oxford

Dave Mukherji, P. (2001) *The Citrasutra of the Visnudharmottara Purana*, Delhi: IGNCA and Motilal Banarsidass

Dehejia, V. (1997) *Indian Art*, London: Phaidon

Delamare, F. and Guineau, B. (2000) *Colour: Making and Using Dyes and Pigments*, London: Thames and Hudson

Denwood, P. (1990) 'Uses of Indian technical literature in Tibetan architecture', *South Asian Studies*, 6: 95–104

Dhaky, M.A. (1961) 'The influence of the Samaranganasutradhara on Aparajitaprccha', *Journal of the Oriental Institute*, X, Baroda: 226–234

Dowson, J. (1992) *A Classical Dictionary of Hindu Mythology and Religion, Geography, History and Literature*, New Delhi: Heritage Publishers

Dubey, L.M. (1987) *Aparajitaprccha: A Critical Study*, Allahabad: Laksmi Publications

Dvivedi, P. and Dube, B. (1999) *Citrsutram Vishnudharmottar Puran main Citrkala*, Varanasi: Kala Prakashan

Feru, Thakkura (1987) *Vastusara Prakaranam: A Prakrit Treatise on Vastusastra*, Kulkarni, R.P. (ed. and trans.), Pune: Sanskriti Samshodika

Filippi, G.G. (ed.) (1997) *Indian Miniatures and Paintings from the 16th to the 19th Century: The Collection of Howard Hodgkin*, Milan: Electa

Gangadharan, N. (1984) *The Agni Purana*, part I and II, Delhi: Motilal Banarsidass

—— (1985) *The Agni Purana*, part II, Delhi: Motilal Banarsidass

Gangoly, O.C. (1948) *Ragas and Raginis, a Pictorial and Iconographic Study of Indian Musical Modes, Based on Original Sources*, Bombay: Nalanda Publications

Gerow, E. (1977) *Indian Poetics*, Wiesbaden: Otto Harrassowitz

Ghosh, A. (ed.) (1987) *Ajanta Murals*, 1st edn 1969, New Delhi: Archaeological Survey of India

Goswamy, B.N. (1986) *Essence of Indian Art*, San Francisco, CA: Asian Art Museum of San Francisco

Goswamy, B.N. and Dahmen-Dallapiccola, A.L. (1976) *An Early Document of Indian Art*, New Delhi: Manohar

Gunasinghe, S. (1957) *La Technique de la Peinture Indienne d'apres les Textes du Silpa*, Paris: Presses Universitaires de France

Guy, J. and Swallow, D. (eds) (1999) *Arts of India: 1550–1900*, London: V&A Publications

Havell, E.B. (1928) *Indian Sculpture and Painting*, 1st edn 1908, London: John Murray

Hingorani, R.P. (1978) *Jaina Iconography in Rupamandana of Sutradhara Sri Mandana Son of Ksetra of Medapata*, Varanasi: Kishor Vidya Niketan

Hooja, R. (2001) 'Of buildings and books: the theory and practice of the architect Mandan', *Marg*, 52, 4: 12–27

Ingalls, D.H.H. (ed.) (1990) *The Dhvanyaloka of Anandavardhana with the Locana of Abhinavagupta*, Cambridge, Mass: Harvard University Press

Irwin, J. and Hall, M. (1970) *Indian Painted and Printed Fabrics*, Ahmedabad: Calico Museum of Textiles

Isacco, E. and Darrah, J. (1993) 'The ultraviolet–infrared method of analysis: a scientific approach to the study of Indian minature', *Artibus Asiae*, LIII, 1–2, Zurich: 470–491

Jain, B. (1974) *Jain Pratima Vigyan (Pratimalakshan sahit)*, Jaipur: Madanmahal

Jain, J. (ed.) (1998) *Picture Showmen: Insights into Narrative Tradition in Indian Art*, Mumbai: Marg Publications

Jayaswal, K.P. (1923) 'A Hindu text on painting', *Journal of Bihar Orissa Research Society*, IX: 30–39

Johnson, B.B. (1972) 'A prelminary study of the technique of Indian miniature paintings', *Aspects of Indian Art*, Pal Pratapaditya ed., Brill, Leiden, pp. 139–146

Joshi, O.P. (1976) *Painted Folklore and Folklore Painters of India (A Study with Reference to Rajasthan)*, Delhi: Concept Publishing Company

King, C. (ed.) (1999) *Views of Difference: Different Views of Art*, New Haven, CT: The Open University

Kossak, S. (1997) *Indian Court Painting: 16th–19th Century*, New York: The Metropolitan Museum of Art

Kramrisch, S. (1924) *The Visnudharmottaram (Part III): A Treatise on Indian Painting*, Calcutta: University Press

—— (1976) *The Hindu Temple*, 1st edn 1946, 2 vols, Delhi: Motilal Banarsidass

—— (1989) *Painted Delight*, Philadelphia, PA: University of Pennsylvania Press

Kramrisch, S., Cousins, J.H. and Poduval, R.V. (1970) *The Arts and Crafts of Kerala*, Cochin: Paico Publishing House

Krishna, Anand (1977) 'Certain Citrasutra traditions and their application in Rajasthani and Mughal painting', *Beitrage zur Indienforschung*, Berlin: Museum fur Indische Kunst

Krishnamurthi, R. (1995) *Sivatattva Ratnakara of Keladi Basavaraja: A Cultural Study*, Keladi: Keladi Museum and Historical Research Bureau

Lalou, M. (1930) *Iconographie des Etoffes Pentes (Pata) dans le Manjusrimulakalpa*, Paris: P. Geuthner

Laufer, B. (1913) *Das Citralaksana: Nach dem tibetischen Tanjur Herausgegeben und Ubersetzt*, Leipzig: O. Harroassowitz

Lo Bue, E. (1990) 'Iconographic sources and iconometric literature in Tibetan and Himalayan art', in Skorupski, T. (ed.), *Indo-Tibetan Studies*, Tring: The Institute of Buddhist Studies, pp. 171–197

Losch, H. (1950) 'Sources of Sri Kumara's Silparatna', *Annals of the Bhandarkar Oriental Research Institute*, 31: 152–164

Manavalli, R.K. (ed.) (1926) *The Natyasastra with the Commentary of Abhinavagupta*, 1, Baroda: Gaekwad's Oriental Series

Mankad, P.A. (1950) *Aparajitaprccha of Bhuvanadeva*, Baroda: Oriental Institute

Marasinghe, E.W. (1991) *The Citrakarmasastra Ascribed to Manjusri*, Delhi: Sri Satguru Publications

—— (1994) *The Bimbamana of Gautamiyasastra as Heard by Sariputra*, Delhi: Sri Satguru Publications

Masson and Patwardhan (1970) *Aesthetic Rapture: The Rasadhyaya of the Natyasastra*, 1, Poona: Deccan College

Mazzarino, V. (ed.) (1983) *Dhvanyaloka: I Principi dello Dhvani*, Torino: Einaudi

Misra, R.N. (1975) *Ancient Artists and Art Activity*, Simla: Indian Institute of Advanced Study

Misra, S.S. (1982) *Fine Arts & Technical Sciences in Ancient India with Special Reference to Somesvara's Manasollasa*, Varanasi: Krisnadas Academy

Mitra, H. (1951) *Contribution to a Bibliography of Indian Art and Aesthetics*, Santiniketan: Visva-Bharati

Mohanty, B. (1984) *Pata-Paintings of Orissa*, New Delhi: Ministry of Information and Broadcasting

Monier-Williams, M. (1994) *Sanskrit English Dictionary*, 1st edn 1899, Delhi: Munshiram Manoharlal

Mosteller, F.J. (1990) 'The problem of proportion and style in Indian art history: or why all Buddhas in fact do not look alike', *The Art Journal*, 4: 388–394

—— (1991) *The Measure of Form: A New Approach for the Study of Indian Sculpture*, New Delhi: Abhinav Publications

Moti Chandra (1949a) *Jain Miniature Paintings from Western India*, Ahmedabad: S.M. Nawab

—— (1949b) *The Technique of Mughal Painting*, Lucknow: U.P. Historical Society

Mulk Raj Anand (1957) *The Hindu view of Art*, 1st edn London 1933, Bombay: Asia Publishing House

Nardi, I. (2004) 'Naksa yad dast pratima ke praman ka: an unpublished Hindi source on the theory of proportion of images', *South Asian Studies*, 20: 99–109

The Natya Sastra of Bharatamuni (2000) English trans., 1st edn 1986, Delhi: Sri Satguru Publications

Ohri, V.C. (2001) *The Technique of Pahari Painting*, Shimla: Indian Institute of Advanced Study

Pande, A. (1991) *A Historical and Cultural study of the Natyasastra of Bharata*, Jodhpur: Kusumanjali Prakashan

Paramasivan, S. (1939) 'An investigation into the methods of the mural painting', *Journal of the Indian Society of Oriental Art*, VII: 18–38

Peterson, K.W. (1980) 'Sources of variation in Tibetan canons of iconometry', in Aris, M. and Aung San Suu Kyi (eds), *Tibetan Studies in Honour of Hugh Richardson*, Warminster: Aris & Phillips, pp. 239–248

Pillai, G.K. (1948) *The Way of the Silpis or Hindu Approach to Art and Science*, Allahabad: Indian Press

Pingree, D. (1981) *Jyotihsastra, Astral and Mathematical Literature*, Wiesbaden: Otto Harrassowitz

Pugh, J.F. (1983) 'Into the almanac: time, meaning and action in North Indian society', *Contributions to Indian Sociology*, 17, 1: 27–49

Purington, N. and Newman, R. (1985) 'A technical analysis of Indian painting materials', in Smart and Walker (eds), *Pride of the Princes: Indian Painting of the Mughal Era in the Cincinnati Art Museum*, Cincinnati Museum, pp. 107–113

Raghavan, V. (1933) 'Some Sanskrit texts on painting', *The Indian Historical Quarterly*, IX: 898–911

—— (1935) 'Two chapters on painting in the Narada Silpa Sastra', *Journal of the Indian Society of Oriental Art*, III, 1: 15–25

Rangacharya, A. (1996) *The Natyasastra*, 1st edn 1986, New Delhi: Munshiram Manoharlal

Rao, G. (1914) *Elements of Hindu Iconography*, I, part I, Madras: Law Printing House

—— (1918) 'Painting in ancient India', *Modern Review*, XIV: 557–567.

—— (1920) *Talamana or the Measurement of Hindu Images: A General Introduction to Talamana*, Archaeological Survey of India, Memoir no. 3

Ray, K. (1950) (2007 Vikram era) *Bharat ki Citrkala*, Prayag: Bharati Bhandar

Roth, G. (1990) 'Notes on the Citralaksana and other ancient works on iconometry', in Taddei and Callieri (eds), *South Asian Archaeology 1987*, part 2, Rome: ISMEO, pp. 979–1027

Ruelius, H. (1974) *Sariputra und Alekhyalaksana: Zwei Texte zur Proportionslehre in der indischen und ceylonesischen Kunst*, PhD Dissertation, Göttingen

Sachdev, V. (2001) 'Mandala by design: the courtyard of a haveli temple in Jaipur', *Marg*, 52, 4: 28–41

Sachdev, V. and Tillotson, G. (2002) *Building Jaipur: The Making of an Indian City*, London: Reaktion Books

Sangpo, Phuntsok (1996) *The Clear Mirror Depicting the Pearl Rosaries of Thangka Painting of the Tsang-Pa Tradition of Tibet*, Darjeeling: Tibetan Refugee Self Help Centre

Santhanam, R. (ed.) (1983) *Saravali of Kalyana Varma*, 2 vols, New Delhi: Ranjan Publications

Sarabhai, M. (1965) *Understanding Bharata Natyam*, Baroda: Maharaja Sayajirao University of Baroda

Sarkar, B.K. (1975) *The Sukraniti*, 1st edn 1914, New Delhi: Oriental Reprint

Sastri, G. (ed.) (1922) *The Silparatna by Sri Kumara*, part I, Trivandrum Sanskrit Series no. LXXV

—— (1925) *Samaranganasutradhara of King Bhojadeva*, Gaekwad's Oriental Series no. XXV, II, Baroda

Sastri, K.S. (1929) *The Silparatna of Sri Kumara*, part II, Trivandrum Sanskrit Series no. XCVIII

Sastri, K.V. and Gadre, B.N. (eds) (1958) *Visvakarma Vastusastram*, Tanjore Sarasvati Mahal Series no. 85, Tanjore

Sastry, S. (ed.) (1926) *Abhilasitarthacintamani of Somesvara Deva*, part I, Mysore: Government Branch Press

Saxena, J. (1998) *Early Indian Paintings in Sanskrit Literature*, Delhi: Bharatiya Kala Prakashan

Shah, P. (ed.) (1958) *Visnudharmottarapurana Third Khanda*, 1, Baroda: Oriental Institute

—— (1990) *Shri Vishnudharmottara (A Text on Ancient Indian Arts)*, Ahmedabad: P. Shah

—— (1993) *Pauranic Ritualism of the Fifth Century*, Calcutta: Punthi Pustak

Sharma, V.V. (1927) 'Method of plastering walls for painting (Sudhalepavidhanam)', *The Indian Historical Quarterly*, III: 53–59

Shastri, G.D. (ed.) (1929) *The Kamasutra by Sri Vatsyayana Muni with the Commentary Jayamangala of Yashodhar*, Benares: Jai Krishnadas-Haridas Gupta

Shrigondekar, G.K. (ed.) (1939) *Manasollasa of King Somesvara*, II, Baroda: Oriental Institute

Shukla, D.N. (1956) *Pratima Vigyan*, Lakhnau: Vastu Vangamaya Prakashan Sala

—— (1957) *Hindu Canons of Painting or Citra-Laksanam*, Lucknow: Vastu Vangamaya Prakashan Sala

Singh Kang, K. (1985) *Wall Paintings of Punjab and Haryana*, Delhi: Atma Ram and Sons

Sivaramamurti, C. (1934) 'Artist's jotting from the Nalacampu of Trivikrama', *Journal of Oriental Research*, VIII: 217–234

—— (1978) *Chitrasutra of the Vishnudharmottara*, New Delhi: Kanak Publications

—— (1979) *Sources of History Illuminated by Literature*, New Delhi: Kanak Publications

—— (1994) *South Indian Paintings*, 1st edn 1968, New Delhi: Ministry of Information and Broadcasting

Smith, J.D. (1991) *The Epic of Pabuji*, Cambridge: CUP

Smith, V.A. (1930) *A History of Fine Art in India and Ceylon*, 2nd edn, Oxford: Clarendon Press

Sompura, P.P.O. (1976) *Pratima Kalanidhi: Album of Hindu Iconography*, Ahmedabad: Sva. Shri Balavantaray Prabhashankar Sompura

Sternbach, L. (1974) *Subhasita, Gnomic and Didactic Literature*, Wiesbaden: Otto Harrassowitz

Sthapati, V.G. (2002) *Indian Sculpture and Iconography: Forms and Measurements*, Pondicherry: Sri Aurobindo Society and Mapin

Tagore, A. (1968) *Some Notes on Indian Artistic Anatomy and Sadanga or the Six Limbs of Painting*, Calcutta: Indian Society of Oriental Art

Talwar, K. and Krishna, K. (1979) *Indian Pigment Paintings on Cloth*, Ahmedabad: Calico Museum of Textiles

Tripathi, R. (1983) *Shri Mammatacaryakrtah Kavya Prakashah*, Delhi: Motilal Banarsidas

Varma, G.K. (1940) 'Vajralepa and wood-preservation', *The Journal of Oriental Research Madras*, XIV: 10–16

Vatsyayan, K. (1983) *The Square and the Circle of Indian Arts*, New Jersey: Humanities Press

Vaudeville, C. (1996) *Myths, Saints and Legends in Medieval India*, Delhi and Oxford: OUP

Vinaysagar, S. (ed.) (1999) *Mandan Sutradhar's Devata-Murti-Prakaranam (with Hindi–English Translations)*, Jaipur: Prakrit Bharati Academy

Welch, S.C. (1997) *India: Art and Culture 1300–1900*, New York: Mapin

Williams, J. (1988) 'Criticizing and evaluating the visual arts in India: a preliminary example', *The Journal of Asian Studies*, 47, 1: 3–28

Winternitz, M. (1985) *History of Indian Literature*, 3 vols, Delhi: Motilal Banarsidass

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