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THE ARCHITECTURAL THEORY OF THE *MĀNASĀRA*

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in partial fulfillment of the requirements of the degree of
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ABSTRACT

The extant *Mānasāra* is one of the authoritative treatises of *vāstuśāstra*, traditional Indian architectural theory. The dissertation addresses the question of the nature of *vāstuśāstra*, traditional architectural theory, as enunciated in the *Mānasāra*, and the relationship of theory to traditional practice. *Vāstuśāstra* claims itself to be a priori with respect to practice. Two aspects of theory, theology and nomology, constitute the ontological and epistemological foundation and structure for this claim. From this śāstraic perspective, practice is understood as mere application of rules. However, a closer hermeneutical reading of the text reveals the dialectical nature of theory itself, in both its theological and nomological aspects. This dialectic obtains in the relationship between theory and practice as a certain reciprocity between them, and in the parallelism between making the temple (the paradigmatic architectural object) and writing the treatise. Thus, a more precise understanding of the nature of traditional theory and its relationship to traditional practice is arrived at through this exercise. Such a calibrated understanding of *vāstuśāstra* is indispensable in addressing the issue of the proper role that it may play in contemporary Indian architectural practice which is constituted in the modern scientific and technological mode.

RESUMÉ

Le *Mānasāra*, qui existe encore de nos jours, est un des traités qui sont autorité sur le *vāstuśāstra*, la théorie architecturale indienne traditionnelle. Ce mémoire aborde la question de la nature du *vāstuśāstra*, la théorie architecturale traditionnelle, telle que présentée dans le *Mānasāra* et de la relation entre la théorie et la pratique traditionnelle. Le *vāstuśāstra* prétend précéder la pratique. Deux aspects de la théorie, la théologie et la nomologie (science des lois), constituent le fondation et le structure ontologique et épistémologique sur lesquelles s'appuie cette prétension. Dans cette perspective śāstraïque, la pratique est perçue comme la simple application de règles. Cependant, une lecture herméneutique plus poussée du texte nous révèle la nature dialectique de la théorie elle-même dans ses deux aspects théologique et nomologique. Cette dialectique se poursuit dans la relation entre la théorie et la pratique par une certaine réciprocité entre elles et dans le parallélisme entre l'édification du temple (l'objet paradigmatique architecturale) et l'écriture du traité. Ainsi, par cet exercice, nous arrivons à une meilleure compréhension de la nature de la théorie traditionnelle et de sa relation avec la pratique traditionnelle. Une telle compréhension précise du *vāstuśāstra* est indispensable pour aborder la question de son rôle véritable dans la pratique de l'architecture indienne contemporaine qui est constituée du mode scientifique moderne et technologique.

TABLE OF CONTENTS

	Page
Abstract	i
Table of Contents	ii
List of Figures.	v
Acknowledgments	vi

<u>INTRODUCTION</u>	1
1. <i>Mānasāre Vāstuśāstre</i>	5
1.1) Authorship, Context and Date of the <i>Mānasāra</i>	
2. The Architectural Theory of the <i>Mānasāra</i>	14
2.1) Philosophical Framework and Methodology of Study	
3. <i>Śāstra</i> and <i>Prayoga</i>	22

Part A) *ŚĀSTRA*, “Theory”

<u>Chapter 1) “THEOLOGY,” OR THE HORIZON OF THE DIVINE</u>	31
a) PRIORITY OF THEORY	31
1. The Foundation of <i>Vāstuśāstra</i> in Theology	33
2. Śaiva Siddhānta	40
3. The Divine Provenance of <i>Vāstuśāstra</i>	48
4. <i>Sthapati</i> and <i>Sthāpaka</i>	52
5. Rituals Accompanying Construction	65
5.1) The Tāntric Rite	
5.2) Rituals Preliminary to “Writing” the Eyes of the Image	
5.3) “Writing” the Eyes of the Image	
5.4) Rituals Subsequent to “Writing” the Eyes of the Image	
b) SEEING	80
6. Meditations during Construction	84
7. <i>Darśana</i> , Auspicious Sight	88
8. Making as <i>Sādhana</i> , Spiritual Practice	92

<u>Chapter 2) “NOMOLOGY,” OR THE HORIZON OF DISCOURSE</u>	99
a) PRIORITY OF THEORY	99
1. The Nomological Principle of <i>Māna</i> , Measure	99
2. <i>Pramāna</i> as Axiomatic Reference Measurement	102
3. <i>Mānopakaraṇa</i> , Instruments of Measurement	110
3.1) Arithmetical	
3.2) Geometrical	
3.3) Typological	
4. Morphology of Rules	135
4.1) <i>Vidhi</i> , Injunction	
4.2) <i>Sūtra</i> , Aphorism	
4.3) <i>Lakṣaṇa</i> , Description	
b) KNOWING	145
5. Phenomenology of Measurement, Instrument and Experiment	148
5.1) “Unity” of Units	
5.2) Verification: Symbolism of the Remainder	
5.3) <i>Vāstupuruṣa</i> : Geometry, Language and Body	
5.4) Taxonomy: <i>Vastu</i> , Earth, and <i>Vāstu</i> , Edifice	
5.5) <i>Parīkṣa</i> : Perception and Observation	
6. Rules: Description and Prescription	172
7. <i>Paryanta</i> : Limits of <i>Śāstra</i>	178
Part B) PRAयोग, “Practice”	
<u>Chapter 3) “TECHNOLOGY,” OR THE HORIZON OF CRAFT</u>	186
a) PRACTICE AS APPLICATION OF THEORY	186
1. Śāstraic Rule and Practical Application	188
2. Science of Material and Application	191
b) MAKING	199
3. Divine Name and Divine Form	202
4. Making as Writing	214
5. Writing as Making	223
6. <i>Rūpaka</i> , Metaphor, and <i>Līlā</i> , Play	232
<u>CONCLUSION</u>	243
1. Summary	243
2. Epilogue	247

Bibliography	250
Appendix I: CHAPTER-WISE SUMMARY OUTLINE OF THE <i>MĀNASĀRA</i>	263
Appendix II: SCHOLARSHIP ON THE <i>MĀNASĀRA</i>	269
1. <i>Mānasāra</i> : Transition from Transcription to Translation	271
1.1) The Contribution of Ram Raz	
2. P. K. Acharya's Work on the <i>Mānasāra</i>	284
3. Scholarship on the <i>Mānasāra</i> after Acharya	297
Appendix III: ON THE DATE OF THE <i>VĀSTUSŪTRA UPANIṢAD</i>	307

LIST OF FIGURES

Plate I: Svastika Mansion, Allahabad (c. 1935 CE)

Fig. 1) Close-Up Front View

Fig. 2) Distant Front View

Plate II: Great Medieval Śaiva Temples of Cōḷa Patronage

Fig. 3) Br̥hadeśvara Temple, Tanjavur (c. 1000 CE): *Vimāna* of Sixteen Stories

Fig. 4) Śiva Temple, Gangaicondolapuram (c. 1025 CE): *Vimāna* of Nine Stories

Plate III: Concentric Series of *Prākāra*, Court-enclosure, and *Gopura*, Gate-house, in a Late-Medieval South Indian Temple Complex

Fig. 5) Viṣṇu Temple, Srirangam: completed c. eighteenth century CE (Axonometric View)

Plate IV: *Tālamāna*, Iconometry

Fig. 6) *Uttama Daśatāla*, Highest Ten-Span (total height divided into 124 *aṃśas*, parts), Compared to Spans from Nine to One

Plate V: *Padavinyāsa*, Plot-Disposition

Fig. 7) *Maṇḍuka* Scheme of Sixty-Four Plots

Fig. 8) *Paramaśayika* Scheme of Eighty-One Plots

Plate V: *Padavinyāsa*, Plot-Disposition

Fig. 9) *Padavinyāsa* as Concentric *Vīthis*, "Paths"

Fig. 10) *Padavinyāsa* as *Vāstupuruṣamaṇḍala*

Plate VI: Schemes of "Iconography" in the Vedic Period (before evolution of temples)

Fig. 11) *Khilapañjara*, Compositional Diagram, for the Atharva Vedic *Skambha*, World-Pillar

Fig. 12) First Course of Bricks: Five-tipped Bird Altar as Agni, the Ṛgvedic Fire Deity

Plate VIII: Modern Deontologized Illustrations of *Vāstu*

Fig. 13) "A *Vimāna* consisting of Seven Stories" (Front Elevation)

Plate IX: Modern Deontologized Illustrations of *Vāstu*

Fig. 14) "The Pagoda of Tiruvalur" (Axonometric View)

Plate X: Modern Deontologized Illustrations of *Vāstu*

Fig. 15) A Single-Story Building Type (Side Elevation)

Plate XI: Svastika Mansion, Drawings

Fig. 16) Ground Floor Plan

Plate XII: Svastika Mansion, Drawings

Fig. 17) Front Elevation

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INTRODUCTION

Eye see I in self same gaze
And all around from up to down
In this jar self same makes
With eye and I to make to see
The I that eye make.¹

In 1935, the construction of a guest-house commenced at a prime location near the confluence of the rivers Ganga, Jamuna and the legendary Sarasvati in the city of Allahabad in India. The project was executed under the initiative of P. K. Acharya, Professor of Sanskrit at the University of Allahabad. The undertaking was a professed “architectural experiment” along empiricist lines to “demonstrate” the applicability of the tenets of building recorded in an extant architectural treatise, the *Mānasāra*, which Acharya had compiled, edited and translated.² Once the rules were “proven” by this experiment to be functional, the treatise would serve as a valid basis to recover in the modern times, the architectural heritage of ancient India. In this program, Acharya was assisted by several technical personnel, and had the blessings of a horde of scholars, eminent social and political figures and administrative officials both Indian and (the then ruling) British.³ However, despite such eminent patronage and its more than modest

¹Excerpt from the unpublished poem “How Eye Seize I: Self” by Dion Wilson, my colleague in the History and Theory Graduate Program in Architecture, McGill University, Montreal, 1996-99.

²Consider Acharya’s statement: “The object [of the trial] has been to demonstrate a residential design from the *Mānasāra*” (Ibid). The statements of several scholars who took interest in this project attest the same intent (P. K. Acharya, *Hindu Architecture in Indian and Abroad*. *Mānasāra* Series No. VI [Rpt., Delhi: Low Price Publications, 1995], “Preface,” pp. xiii-xiv).

On the site of the Svastika Mansion, and especially regarding the river Sarasvati, Acharya states:

This Svastika Mansion is situated in a delta formed into a tableland by the three famous rivers, the Sarasvati, the Ganges, and the Jamuna, which no doubt once met below the Bharadvāj-Āśrama, some two hundred yards to north of the site. The Sarasvati has now altogether disappeared, leaving behind its trace by a big dry drain which forms the southern boundary line of the site, but her roaring eloquence can be heard and her reality felt for an hour or two after a heavy shower of rain (Ibid., p. xv).

³Ibid., pp. xxv-xxviii.

square-footage and cost estimate, the guest-house, named “Svastika Mansion” (Figs. 1 & 2)⁴ the “complementary volume” of the *Mānasāra* as some patronizing pundits deemed it, was never recognized as a landmark in the scenario of Indian architectural history of the twentieth century.⁵

The seemingly insignificant experiment of the Svastika Mansion raises a series of issues for contemporary Indian architectural practice. The intent behind the construction of the Swastika Mansion was to recover the ancient traditions of architectural practice and render them serviceable towards conceiving and realizing a truly “Indian” (in the sense that is almost synonymous to “Hindu”) architecture in modern times. In retrospect, it may be granted that at the time of its execution, the project and its program might have been byproducts of the nationalistic surge of the nineteenth and early twentieth centuries against colonial British rule that eventually won India its independence in 1947. However, their implications today reach beyond the bounds of mere nationalism. They point, instead, towards the momentous encounter between tradition and modernity that is witnessed in all walks of life – religious, intellectual and cultural – in contemporary India. The issue that begs first consideration at this point, then, is whether the experience of this encounter is real or false: are “tradition” and “modernity” (understood

⁴Acharya’s naming of the guest-house as Svastika Mansion is based on his claim that the layout and proportional measurements of the building follow the *swastika* class or type of buildings mentioned in the text. In layout, the *swastika* type is characterized by two blocks intersecting at right angles. The term *swastika* derives from *svasti*, which basically means “well-being.” Thus, in the traditional horizon of understanding, *swastika* is an auspicious, cross-like, sign, an understanding which has been almost irrevocably tainted by the adoption of the sign by the German National Socialists in the 1930s. If Acharya’s intention in choosing specifically the *swastika* building-type from among others for his guest-house was to counter this latter abuse of the sign and re-establish its original signification (given the historical time interval in which the building was conceived and built), he fails to achieve this precisely because his choice rests, ultimately, on ideological rather than ontological grounds.

⁵The building failed to capture the notice of wider architectural circles at that time or thereafter. Already, in 1946, Acharya wrote that “the national importance of the *Mānasāra* and the value of the application of its principles to practical ends, as exemplified in the Swastika Mansion, still remain to be recognized” (Ibid., p. xxiv).

as cultural and epochal polarities of an ontic kind and not binary opposites of a purely epistemic nature) truly different, so as to demand a reconciliation of sorts between them in the context of daily living? In the phenomenal world of dualities, it is perhaps best to begin with the assumption that experientially, there does exist a difference between the two. The architectural experiment of the Svastika Mansion is, in fact, an inadvertent attestation of this assumption.⁶

This issue, the ideational import of which is at once philosophical and theological, obtains in architectural theory and practice as well. The “experience of modernity” in architecture was that of an alienation from traditional modes of its practice.⁷ Attempts to bridge this gulf on the basis of the theory in extant treatises, as in the example given above, raise the fundamental question regarding the nature of such theory and its relationship to practice. This question has to be investigated first within its proper context of traditional practice itself, so that the insights it yields may bear fruitfully upon contemporary concerns.

⁶Indeed, the problem of difference (and identity) lies at the heart of the perceived conflict between tradition and modernity in the context of Indian thought. If this conflict was not perceived in the realm of architectural theory and practice, there would have been no need to conduct this experiment. In this regard, a comment by Acharya adds an interesting spin to the experience of modernity in architecture as a this-worldly turn: “. . . however religious-minded we are reputed to be, the success of the modern architecture must be judged by dwelling houses and such other buildings as are more unavoidably connected with our earthly existence, with our worldly comfort and convenience, and with our town-life with its privileged amenities. . .” (Ibid., p. xxv).

⁷By “experience of modernity,” I mean, fundamentally, a heightened awareness of the self and action in the world based upon it so as to effect ongoing transformations in both world and self. Its origins lie in the Western philosophico-theological tradition. The first penetrations of modernity into the Indian intellectual and cultural milieu occurred following the missionary inspirations of Christianity and hence was of a religious nature; however, its spreading in India through the European colonizers occurred in its vitiated form of the secular “industrial culture” of nineteenth century Europe and its underlying philosophies devoid of metaphysics such as historicism and positivism. The danger of a vitiated modernity is the tendency of the self turning in upon itself. This, to my mind, is the condition of which the stanza cited above sings.

In architecture, this attitude reflected in the shift from a live practice in which “design” and its execution through construction were more or less simultaneous processes, to an abstraction of the process of design that preceded and dictated execution. The traditional *sthapati*, who conducted the former and for whom it was ultimately a

To reformulate the pressing concern of contemporary architectural practice in India: how can architectural practice today meaningfully appropriate “modernity” with its twin facets of science and technology, to traditional modes of theory and practice? The problematic is exacting in its conceptualization and realization if one wishes to be safeguarded from the all-easy “solutions” available.⁸ Several avenues of historical research may be pursued to grasp the intricacies of this problem given the vast amount of resources available in India, both textual and architectural. For the purpose of this dissertation and within its scope, I have chosen to study the *Mānasāra*, the “source” of the intentionality behind the design and construction of the Svastika Mansion, and, according to Acharya, the comprehensive treatise capable of providing the “grammar” for an “Indian” architecture. This follows an intuition that since the paramount issue here is that of architectural intentionality (that is, the nature of theory and its relationship to practice), it is best addressed through the recordings of the treatise itself.⁹

sacred vocation, was replaced by the modern architect educated in design methods, for whom architectural practice was a secular profession.

⁸Here, I am alluding to ideological attitudes and policies of hegemonic imposition on the one hand and a seemingly comfortable syncretism on the other. Post-independence India continues to witness both these tendencies and their respective pitfalls in squarely addressing the issue. On the other hand, the renowned modern Indian philosopher J. N. Mohanty captures the issue well:

The large question to which the Indian philosophers today cannot but respond is, can such a transformation of their own life-world [brought about by science and technology and their correlative ideological suppositions in politics, economics and social science] leave them untouched? Should it not demand a re-examination of the traditional modes of thinking, if not to reject them, surely to reinterpret them, if necessary, from the vantage point of the present situation? Such a reinterpretation may be serious or trivial. It is serious when it is accompanied by competence in traditional learning and guided by genuinely philosophical motivations (Mohanty, “Indian Philosophy: Between Tradition and Modernity,” in Mohanty, *Reason and Tradition in Indian Thought: An Essay in the Nature of Indian Philosophical Thinking* [Oxford: Clarendon Press, 1992], p. 17).

⁹It has to be clarified at the outset that the intent of the thesis is not to impose upon the treatise questions that are alien to its context and beyond its scope, but rather to allow the treatise to reveal conceptions embodied in it that will eventually illuminate the initial concerns, thus completing the hermeneutical circle.

Also, ever since Edward Said’s *Orientalism*, it is impossible not to be aware of the “orientalist” slant of classical (and even contemporary) Indology as I quote from several of its scholars in the course of the thesis. Perhaps, Indology as a classical discipline was, indeed, ripe for a deconstruction, which is conducted with great relish,

1. *Mānasāre Vāstuśāstre*

The *Mānasāra* is a treatise on *vāstuśāstra*, “science or theory of architecture.”¹⁰ *Vāstu*, architecture, according to the text, encompasses the threefold categories of buildings, conveyances and bedsteads (furniture).¹¹ It is a voluminous text (approximately 10,000 verses in seventy chapters), the contents of which include principles of architectural composition and systems of proportional measurement, technical instructions on the building procedure such as selection and examination of site, orientation, collection of materials and so on, as well as prescriptions for rituals associated with construction. It also contains classifications of buildings, iconographic details of images of various deities, and systems of proportional measurement to be employed in their making.

for one, by Ronald Inden (see Inden, *Imagining India* [Cambridge MA.: Blackwell, 1990]). However, as the dust of deconstruction settles, one needs to proceed from a paralyzing skepticism to an enabling faith in the possibility of a reconstruction. This faith, the trust *ab initio* that George Steiner mentions (Steiner, *After Babel: Aspects of Language and Translation* [London: Oxford University Press, 1975], p. 296), aided by a critical awareness makes it possible to “expropriate” the insights of Indologists (without necessarily “appropriating” them) in the process of restitution of meaningful Indological discourses.

The critical awareness against orientalist bias in Indological scholarship, according to Inden, lies in a dialogical (and not merely philological) understanding of texts (all “artifacts,” for that matter) as “living arguments” (and not dead monuments) that transformed and were transformed by a “complex authorship” of multiple agents (which included audiences as well), and as capable of addressing contemporary issues and transforming our own lives (see Ronald Inden, “Introduction: From Philological to Dialogical Texts,” in Inden, Jonathan Walters & Daud Ali, *Querying the Medieval* [Oxford: Oxford University Press, 2000], pp. 3-28; for insights for a responsible Indology today, also see Sheldon Pollock, “Deep Orientalism? Notes on Sanskrit Power Beyond the Raj,” in Carol A. Breckenridge & Peter van der Veer, eds., *Orientalism and the Postcolonial Predicament: Perspectives on South Asia* [Philadelphia: University of Pennsylvania Press, 1993], pp. 76-133). While I fully subscribe to this view and follow it in the dissertation to the extent possible given its scope, I wish to avoid what, to me, are excesses of an overly self-conscious revisionism that replaces terms such as “religion,” “cult,” “myth,” “school” and “ritual,” with “way of life,” “liturgy,” “life-wish,” “disciplinary order,” and “life-transforming practices,” respectively (Inden et al, *Querying the Medieval*, pp. 22-24).

¹⁰The full title of the treatise as appearing in the colophons at the end of each chapter is *Mānasāra Vāstuśāstra* (the above subtitle is its declension in the locative case). Of the two terms, *Mānasāra* is the name of the treatise, and *Vāstuśāstra*, its ascription to the tradition of architectural theory and practice. The word *mānasāra* is a compound of *māna* and *sāra*. Of these, *māna* derives from *√mā*, “to measure” and “to build,” and basically means “measurement.” The word *sāra* means “essence” as well as “summary.” Thus, *mānasāra* may be translated as “the essence of measurement” and as “the summary of measures.” *Vāstuśāstra* compounds from *vāstu* and *śāstra*. Of these, *vāstu* derives from *√vas*, “to dwell,” and means “dwelling” (abode). *Śāstra* derives from *√śās*, “to chastise, correct,” and has a range of meanings: “teaching, rule, science,” and “theory.” *Vāstuśāstra* means, then, “the science or theory of architecture.” These are only preliminary sketches; a more precise and detailed analysis of the two terms will be conducted in Chapter II, “Nomology.”

¹¹*Mānasāra* III, 2. A note about the systems of chapterization and versification of the *Mānasāra* followed in this document: the chapterization is the same as in P. K. Acharya’s critical edition of the text in Sanskrit as well as its English translation. The versification follows, for the sake of simplicity, the system of line-by-line numbering in

Eleven manuscripts of the text survive today. The immense project of collection, compilation and collation of these manuscripts was undertaken in the first half of the twentieth century by P. K. Acharya.¹² His monumental effort yielded a “complete and critical” edition of the text in Sanskrit. Acharya’s edition remains the only and authoritative “modern” edition of the *Mānasāra*.¹³

1.1) Authorship, Date and Context of the *Mānasāra*

The issue of “authorship” of the *Mānasāra* raises a fundamental question regarding the nature of the text: is the extant *Mānasāra* an original composition or a compilation?¹⁴ The text as a composition would demand the agency of a specific “author,” who, while drawing from existing traditions, would be conceiving and creating something radically “new,” with an indelible stamp of his own particular personality (which draws from his historical and geo-political contexts, religious affiliation, as well as psychological traits)

Acharya’s English translation rather than the traditional system of *śloka*, verse-unit (comprising usually two lines), found in the Sanskrit edition.

¹²Acharya gives detailed descriptions of the eleven manuscripts which he names as from A to K. The scripts in which the manuscripts are written are: Devanāgarī (A, C and H), Grantha (F, G, I and J), Telugu (D and E), Tamil (F) and Malayalam (K). Manuscripts A, B, C, H and I are written with ink on modern paper, and the rest are found as palm-leaf folios (see P. K. Acharya, *Mānasāra on Architecture and Sculpture: Sanskrit Text with Critical Notes*. *Mānasāra* Series No. III [Rpt., Delhi: Low Price Publications, 1995], pp. ix-xiv). To the best of my knowledge, there have been no reports of discovery of other manuscripts of the text ever since.

¹³This edition was first published in 1934 by Oxford University Press. It has been reprinted a number of times, the latest of which is the 1995 Delhi edition published by Low Price Publications, a division of D. K. Publishers. For a critical review of Acharya’s work, see Appendix II, “Scholarship on the *Mānasāra*.”

The adjective “modern” is warranted by the notions of “completion” and “critique” present in Acharya’s edition. These notions, signifying autonomy and distance of the text from its topic of discussion and thereby giving it a “frozen” or “fixed” character, can stem only from a predominantly literate culture. Indeed, literacy is the hallmark of modernity in the realm of language and communication. This is in contradistinction to the “fluid” nature of texts in the pre-modern oral and even manuscript traditions in which notions of completion and critique were present, at best, only in a “weak” sense (see Walter Ong, *Orality and Literacy: the Technologizing of the Word*. [London: Methuen, 1982], especially Chapter 5, “Print, Space and Closure.”)

¹⁴The distinction between “composition” and “compilation” is understood as relative and not absolute, because even in a compilation, some degree of composition is inevitable.

upon the work. There is no such reference in the text itself (in any of its extant manuscripts) to a historical personage as its “author” (name, pseudonym or such), despite a few scattered occasions (considering the volume of the text) of verses in which the subject/agent is denoted in the first person.¹⁵ On the other hand, the dominant voice in the language of the text is the passive, which, in effect, passes on the “authority of authorship” to what may be called the “secondary agency” of a past figure. This figure is mentioned in the text in several places as a certain sage named *Mānasāra*.¹⁶ The identity of this sage *Mānasāra* has been speculated as that of Agastya (also called *Māna*).¹⁷ The text also lists Agastya as one of the seven ancient preceptors of architecture and gives iconographic details of his image.¹⁸ All these items of evidence collectively lend a certain credence to the hypothesis that the text of the *Mānasāra* was not an original composition by a historical author. Rather, it was a compilation of floating traditions of architectural knowledge that were claimed to have been the teachings of sage Agastya (*Māna*), preserved and transmitted by certain guilds of

¹⁵The opening verse (*Mānasāra* I, 1-2) – the venerational hymn to the One who creates, preserves and dissolves the universe – is one such, in which the verbal conjugation in the first person is found in the form *namāmi*, “I bow” (from *√nam*, “to bow”).

¹⁶*Mānasāra* I, 3-4. In this verse (which immediately follows the opening verse), the voice already shifts to the passive. The verbal forms *proktam*, “was enunciated,” the past passive participle of *pra vvac*, “to enunciate,” and *lakṣyate sma*, “has been elaborated,” the passive of *√lakṣ*, “to elaborate” (*sma* being an indeclinable preterite particle), are found:

The science of architecture [that] was enunciated by all the gods and sages beginning with the one who carries the Gaṅgā on his head (Śiva), the lotus-born (Brahmā), the lotus-eyed (Viṣṇu), Indra, Gīrvāṇa (literally, “one whose speech is [like an] arrow,” whom Acharya in his translation identifies as the sage Bṛhaspati) and Nārada, has been elaborated by the sage *Mānasāra*, having made the subject even more complete.

¹⁷According to an account in the *Rgveda*, Agastya was born out of a water-pot (*Rgveda* vii, 33. 10. 13. Also see A. A. MacDonnell and A. B. Keith, eds., *The Vedic Index of Names and Subjects* [Rpt., Delhi: Motilal Banarssidas, 1947], Vol. 1, p. 6). Other legendary accounts figure the sage Agastya as having spread the cult of the Aryans in the Dravidian country of the South. Commenting on the appearance and reappearance of the figure of Agastya in legends over epochs, the Tamil historian P. T. Srinivasa Iyengar states that the name Agastya, having mythical origins in the *Rgveda*, must have later transformed from that of a person to that of a family, and born by its sage members. The first composition of Tamil grammar, *Agattiyam*, was attributed to an Agattianār (Agastya), who imposed categories of Sanskrit grammar onto Tamil (see P. T. S. Iyengar, *History of the Tamils: From the Earliest times to 600 A. D.* [New Delhi: Asian Educational Services, 1982], pp. 208-11). On this role played by the mythical-legendary-historical Agastya in the Aryanization of the South, see also G. S. Ghurye, *Indian Acculturation: Agastya and Skanda* (Bombay: Popular Prakashan, 1977), Chapters I-III.

builders and craftsmen through recitation and memorization, writing and copying manuscripts as well as architectural making that adhered to them.¹⁹ As a compilation, it stands at the intersection of oral, literate and craft traditions in the context of architectural practice in pre-modern India. The specific identity of even the compiler(s) is not found anywhere in the text.

The exact date of the text remains obscure. The eleven surviving manuscripts of the text are undoubtedly transcriptions done at much later dates.²⁰ Acharya ascribed to the text a date circa fifth century CE, considered by modern historians as the “golden” or “classical” period of Indian history.²¹ He conducted a comparative study of textual contents between the *Mānasāra* and a range of other texts (on architecture and other disciplines), and found several striking parallels between them. This, together with the fact that the *Mānasāra* was more comprehensive in the treatment of architectural matters than all others, led him to conclude univocally that the *Mānasāra* preceded all other treatises in date and authority. Citing several “internal evidences” in the text, he

¹⁸*Mānasāra* LVII, 2-4, 7, 38.

¹⁹This is the argument that Tarapada Bhattacharya puts forward in his book *Canons of Indian Art*. Bhattacharya points out that the terms such as *mānabodha*, *mānakalpa* and *mānavid* occurring in the text of the *Mānasāra*, which Acharya misreads as names of sages (Acharya, *Indian Architecture*, p. 3), allude, on the other hand to the vast body of recorded (and now lost) insights of the sage Māna (Agastya). The words *bodha*, *kalpa* and *vid* have the epistemic senses of understanding, imagination (also conception) and knowledge respectively (see Bhattacharya, *The Canons of Indian Art or A Study on Vastuvidya* [Calcutta: Firma K. L. Mukhopadhyay, 1963], Chapter XVIII, “Date of the *Mānasāra*,” pp. 190-91).

²⁰According to Acharya’s description of the manuscripts, historical dates are found only in three out of the eleven manuscripts. Manuscript B gives the date of its writing by a certain Rāmānujācārya for the Kumpani Bahadur (the English East India Company) as 1677 Śālivāhana Śāka era (1755 CE). The date of its recording is given in English as 14th April, 1823. In Manuscript C, it is mentioned that “it was written out under the direction of Charles Philip Brown, 1830.” Manuscript D gives the date of Śāka era 1656 (1734 CE) (Acharya, *Mānasāra on Architecture and Sculpture*, pp. x-xi).

²¹During this period, *āryavarta*, the domain of Aryan dwelling and activity (extending east-west from sea to sea and bounded in the north and south by the Himalaya and Vindhya mountain ranges respectively), was ruled by the emperors of the Gupta dynasty, and witnessed portentous artistic, literary and scientific enterprises. For a succinct discussion on this topic, see Romila Thapar, *A History of India*. Vol. I (New Delhi: Penguin Books, 1990), Chapter 7, “The Evolution of the Classical Pattern.”

appealed to the milieu of *āryavarta* of the classical period (coinciding with the Gupta empire) with the geographical extent of its political power, economic prosperity and advances in artistic and scientific enterprise as the “world” embedded in the accounts of the *Mānasāra*.²² Persuasive as this argument might seem, it still displays weaknesses which scholars such as Tarapada Bhattacharya, in contesting his conclusions, have pointed out. They refute his argument mainly on two points. Firstly, the comprehensiveness of the *Mānasāra* and similarity of its textual contents with other texts can also lead to the reverse conclusion, that the *Mānasāra* succeeded them chronologically.²³ Secondly, Acharya’s comparison of texts was conducted without sufficient consideration of historical and archaeological evidences, and hence its results are not corroborated by concrete evidence.²⁴ This is most striking in the case of temples. The devotional movement within Hinduism, of which the temples were products, was in

²²See Acharya, *Indian Architecture*. The comparative study of textual contents is conducted in Chapter II, “*Śilpa-Śāstras*,” and III, “The Position of the *Mānasāra* in Literature.” The lengthy argument that appeals to the classical period of the fifth-seventh century CE, ruled over by the Gupta emperors, as the date of the *Mānasāra* occurs in Chapter V, “Age of the *Mānasāra*.”

²³Bhattacharya first examines Acharya’s comparisons between the *Mānasāra* on the one hand and the texts of the *Purāṇas* and *Bṛhat Samhita* (the authoritative treatise on astrology) on the other, and shows that on several points such as classification of buildings, names, measurements and proportions of building components and details, “[their] points of similarity . . . are outnumbered by the points of their difference” (Bhattacharya, *Canons of Indian Art*, pp. 186-87). The reason for this, he contends, is that the *Mānasāra* is of South Indian origin while the other texts belong to the North Indian tradition. In order to account for the similarities between the *Mānasāra* and these texts, Bhattacharya makes a speculative claim that “both the *Mānasāra* and the *Purāṇas* were based on earlier original texts which followed the universal traditions of the *Vāstu* works of India. . . . Both the *Mānasāra* and the *Purāṇas* confess that they took their materials from earlier works” (Ibid.). Thus, according to Bhattacharya, the extant *Mānasāra* is a “recension of recensions,” so to speak, of an original and now extinct *Mānasāra*, which may have been written during the Gupta period or even earlier. He admits that this hypothesis cannot be proved or disproved (Ibid., p. 191). Bruno Dagens, translator and commentator of the *Mayamata*, the other authoritative extant treatise on South Indian architecture states that even the original *Ur-Mānasāra* that Bhattacharya claims might have existed can, at best, only be more or less contemporaneous with the *Mayamata*, the earliest date then being ninth century CE, since, “. . . notwithstanding their differences, both works seem, generally speaking, to refer to an equivalent phase in the development of the school which they represent” (Bruno Dagens, trans. & ed., *Mayamatam: Treatise of Housing, Architecture and Iconography* [New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidas, 1994], Vol. I, “Introduction,” p. xiv).

²⁴Acharya himself is aware of the objection that his claims are in “apparent conflict” with archaeological evidence. The descriptions of temples in the *Mānasāra* do not fit with the temples of the Gupta period, the architectural characteristics of which had been established by means of archaeological research by the nineteenth century British archaeologist Alexander Cunningham. Acharya dismisses this objection by stating that “the characteristics of the real Gupta buildings notably those which existed under the Guptas and are discussed in the *Śilpa-Śāstras* [are] different from those given by Cunningham,” since “[w]hat is designated as the Gupta style points really to buildings of much earlier periods” (emphasis original; Acharya, *Indian Architecture*, p. 196).

its nascent phase during the Gupta period. Hindu temples of the stature described in the *Mānasāra* did not exist at that time; temple architecture attained complexity and sophistication only midway through what some modern historians have called “the medieval millennium” (c. 750-1750 CE). On the other hand, the descriptions in the *Mānasāra* fit well the South Indian temples of the latter half of this time period.²⁵ Following the above observations, it is, perhaps, safest to assume that the first compilation of the *Mānasāra* must have occurred around the tenth-eleventh centuries CE.

The medieval millennium witnessed illustrious temple building all across India. At the beginning of this time period, the shift in creating sacred spaces from the “subtractive” mode of construction that “carved” space and structure out of a solid mass to the “additive” mode of structural assembly was already well underway, providing great impetus to innovations in temple design and construction.²⁶ The religious background

²⁵Features such as concentric layout of *prākāra*, courtyards, and their multistoreyed *gopura*, gatehouses, described in the *Mānasāra* (Chapters XXXI and XXXIII respectively) are unique to South Indian temple-cities and absent in their North and East Indian counterparts. Responding to this objection, Acharya states that “[t]he southern style might be as elaborately described as the northern or eastern, even when the *Mānasāra* was compiled under the patronage of a northern emperor” (Ibid., p. 197). Just as a prince would call forth a *sthapati* from a distant province to build a new temple, he says, so also “the author of the *Mānasāra* might have been sent for from southern India to compose the standard work on Indian architecture” (Ibid). As is clear, Acharya’s claim, being not based on historical evidence, is purely speculative and therefore untenable.

The iconoclasm of the Islamic invaders of North India from the tenth century CE onwards is sometimes blamed for the nonexistence of any remains of Hindu temples from the Gupta period (see, for example, Sita Ram Goel, *Hindu Temples: What Happened to Them* [New Delhi: Voice of India, 1991], 2 Vols.). However, as Thapar states, it is more accurate to construe that Hindu shrines were in a fledgling state of their development during the Gupta period and hence, small and unimpressive (see Thapar, *History of India*, Vol. I, p. 157).

²⁶The most striking examples of the “subtractive” mode of temple construction are the Kailāsa temple of Ellora in western India (eighth-ninth century CE) and the monolithic *rathas*, chariot-temple structures, of Mamallapuram in the South (seventh century CE). For a detailed discussion of the formal and structural evolution of the Hindu temple in its various regional and stylistic variations, see Percy Brown, *Indian Architecture: Buddhist and Hindu* (Bombay: Taraporewala & Sons, 1965). Also, for a comprehensive morphological survey of temples of the South Indian region, see Michael Meister & M. A. Dhaky, eds., *Encyclopaedia of Indian Temple Architecture* (Philadelphia: American Institute of Indian Studies, 1986), volumes *South India: Upper Drāviḍadeśa, Early Phase & –Late Phase*; and *South India: Lower Drāviḍadeśa, Early Phase & –Late Phase*.

for this bloom of temple architecture was the revival of Hinduism in a theistic direction. The major theistic sects of the Śaivas and the Vaiṣṇavas, who worshipped Śiva and Viṣṇu respectively as the supreme deity, emphasized *bhakti*, devotion, as the path to liberation. Simultaneously, the theology of divine immanence was fully elaborated by these sects, drawing from the divine revelation of Vedic scripture as well as from popular beliefs and ritual practices to account for the exaltation of personal deities and their iconic worship. The most pronounced among the various instances of divine immanence was the image of the deity, “pronounced” precisely because of its having been marked by the intentionality of human making (that is, sculpting the image). This intentionality and the cult of iconic worship to which it is related fostered the development of the institution of the temple. The temple, in turn, became the venue of public worship for entire communities through organized ritual.

In South India, the reign of Cōḷa, Cēra, Pāṇḍya, Pallava and Vijayanagara dynasties spanned the chronological extent of the medieval millennium and the geographical extent of the Dravidian country, the southern half of peninsular India. Among these, the Cōḷas, a dynasty with ancient lineage, ruled the territory around the basin of the river

In light of the architectural and religious issues raised by the restoration of the Buddhist temple at Bodhi Gaya in 1881 by Alexander Cunningham, Director General of the Archaeological Survey of India (see Cunningham, *Mahābodhi, or the Great Buddhist Temple under the Bodhi Tree at Buddha Gaya*. A. K. Narain, gen. ed., *The Complete Works of Alexander Cunningham*, No. 5 [Varanasi: Indological Book House, n.d.]), it is not entirely implausible to contend that the Buddhists (especially the Mahayana school), by virtue of their philosophical and artistic affinity and commerce with the Greeks following Alexander's conquest of north-western India in 324 BCE, led the Hindus in representational (iconoplastic) and symbolic art as well as in architectural innovations, which were later appropriated (albeit in modulated form) by the institution of the Hindu temple. The principal differences, architectural and theological, that obtain between the Buddhist temple at Gaya and medieval Hindu temples also must be noted. The superstructure of the former was constructed out of brick; the temple originally marked the “absence,” so to speak, of the Buddha by housing his *vajrāsana*, diamond-seat, in its sanctum. On the other hand, the medieval Hindu temple is constructed out of stone; it marks the immanent presence of the deity in the image, which is installed in its sanctum.

Kaveri, and were professed Śaivites in their religious affiliation.²⁷ Under the massive building program undertaken by the medieval Cōla kings, temple design attained a maturation and refinement in principles of composition and techniques of construction in South India. This sophistication was manifested in the great Bṛhadeśvara temple in Tanjavur (c. 1000 CE) and the temple in Gangaicondacolapuram (c. 1025 CE), both dedicated to Śiva (Figs. 3 & 4).²⁸ Characteristic of these temples was the *vimāna*, tower above the *adytum*, made up of *bhūmis*, (false) stories. The *vimāna* loomed to a height of sixteen *bhūmis* in the case of the Bṛhadeśvara temple, and nine in the latter. Later development in the spatial organization of the temple complex revealed the pattern of a horizontal expansion of concentric enclosures with gate-houses, forming courtyards that contained hypostyle pavilions. Following this, the verticality shifted to the periphery, with the outermost gate-houses becoming the tallest structures of the complex (Fig. 5). These developments in temple architecture are reflected in the *Mānasāra*. In Chapter XVIII, *Vimānalakṣaṇam*, "Characteristics of the *Vimāna*," the height of this tower is mentioned as from one to twelve stories. Courts, gate-houses and pavilions are discussed in Chapters XXXI, XXXIII and XXXIV respectively. The text mentions gate-houses up to seventeen stories, and also hypostyle halls with one thousand pillars.²⁹ These evidences further point to the plausibility that the original compilation of

²⁷For accounts of the history of the region and specifically of the Cōla dynasty, see K. A. Nilakanta Sastri, *A History of South India: From Prehistoric Times to the Fall of Vijayanagar* (Oxford: Oxford University Press, 1955); and *The Cōlas* (Madras: University of Madras, 1975).

²⁸For a formal (morphological) analysis of these two temples, see Pierre Pichard, ed., *Tanjavur Brihadeśvara: An Architectural Study* (New Delhi: Indira Gandhi National Centre for the Arts & Delhi: D. K. Printworld, 1995). While studies of formal classifications of these and other South Indian temples abound, those that interpret in and through the structure the "story," that is, the architectural program of the temple as revealing symbolic meanings drawn from theological, mythical and legendary accounts, as well as historical events, are still rare. One such is attempted in a short appendix in C. Sivaramamurti, *The Chola Temples: Thanjavur, Gangaicondacolapuram and Darasuram* (New Delhi: Archaeological Survey of India, 1973).

²⁹*Mānasāra* XXXIII, 97, and XXXIV, 240, respectively. Both these feature in the Mīnākṣi temple complex at Madurai, the capital of the Pāṇḍya kingdom, built in the first half of the seventeenth century (see Percy

the *Mānasāra* occurred in the milieu of the medieval Cōḷa kingdom with its later transcriptions circulating widely in South India. The extant manuscripts written in five scripts – Nagari, Grantha, Tamil, Telugu and Malayalam (of which the last four are South Indian) corroborate this assumption.³⁰ These observations also call into question Acharya's assumption that the *Mānasāra* is of Vaiṣṇavite affiliation. On the one hand, the internal evidences in the text that he presents are inadequate to prove this conclusively. On the other hand, he ignores the evidences abounding in the text that favor its affiliation to the Śaiva sect, and within it, specifically to the Śaiva Siddhānta school of theology and religious practice.³¹

Brown, *Indian Architecture, Buddhist and Hindu*, Chapter XX). However, the maximum height of *vimāna* mentioned in the text (twelve stories) falls short of the height of the *vimāna* of the Brhadeśvara temple (eleventh century). These differences demonstrate the dynamic interaction between text and practice. Also, as Dagens and others have observed, transcription of treatises itself was a dynamic process involving "interpolations and additions" that incorporated new developments in practice as well as speculative projections based on what existed (Dagens, "Introduction," *Mayamatam: Treatise of Housing, Architecture and Iconography*, p. xliii).

³⁰Acharya, *Mānasāra on Architecture and Sculpture: Sanskrit Text with Critical Notes*, *Mānasāra Series* No. III (Rpt., Delhi: Low Price Publications, 1995), "Preface," pp. vii-xx. These scripts except Nagari belong to the three major South Indian (Dravidian) languages: Tamil, Telugu and Malayalam. Grantha, the ancient South Indian script dating back to c. 300 BCE, is also the source of Tamil and Malayalam scripts.

³¹A few of these are cited here for the sake of illustration. To begin with, the contents of the *Mānasāra* have the closest similarity not to that of the *Purāṇas* but of the *Āgamas*, the theological texts of the Śaiva sect of South India – a fact which Acharya ignores completely in his argument. Subsequently, the rituals associated with the construction are also of the Śaivite order. The opening veneration hymn (I, 1-2) contains the expression *utpattirakṣaṇalayān jagatām prakurvan*, "the one who creates, preserves and dissolves the universe." Later in the treatise, while discussing the foundation of Śaiva temples, this function of creation, preservation and dissolution of the universe is attributed to the entity who is Viśvakarman, Creator, and Bhuvanādhipati, Lord of the Universe, who in subsequent description is identified as Śiva (*Mānasāra* XII, 112-121). In Chapter II, 2, while commencing the account of the divine genealogy of the guild of builders, the text states thus: *paraḥ śivasakāśāddhi brahmā candro 'pi lokakṛt*, meaning, "Brahmā, the maker of the world, and Indra, [both] emanate from the supreme Śiva." In the next line, the text names Īśvara as the great creator of the universe. Paraḥ Śiva, in the theology of Śaiva Siddhānta, is the first undifferentiated principle. Īśvara, its fourth evolute which, being active (creative), manifests itself in the phenomenal realm as a deity with form (see T. A. Gopinatha Rao, *Elements of Hindu Iconography* [Delhi: Motilal Banarsidass, 1968], Vol. II, Part II, pp. 361-70). In the iconographic section of the text, the semi-iconic *linga*, (literally, phallus), of Śiva, and its installation in the temple are treated the most extensively. Acharya notices this last point, but brushes it aside by saying that the *linga* of Śiva being "... a very famous object of the Hindu sculpture ... it would have been given the prominence all the same even if the artist had belonged to an entirely different sect, because without this his treatise would have been incomplete" (Acharya, *Indian Architecture*, p. 188).

This said, it has to be noted that the text maintains a degree of "non-sectarianism" in its attempt to be "comprehensive." The two brief chapters on Buddhist and Jain iconography (Buddhism and Jainism being heterodoxies from a strict Śaiva theological point of view), especially, point to this fact. The tradition of manuscript writing being one more additive than (critically) editive, these two chapters may also be seen as the extant remains in the text of the once-dominant Jain and Buddhist thought and practice (including iconographic making, and therefore participated in by artisans' guilds) in the Tamil region before the ascendancy of devotional Hinduism.

2. The Architectural Theory of the *Mānasāra*

A review of modern scholarship on the *Mānasāra* (a very limited corpus, detailed in Appendix II, below) evinces that whatever attempts have been made so far to understand the nature of traditional architectural theory, its relationship to traditional practice, and its relevance for modern practice have not yielded the desired fruit.³² A fresh effort at addressing these questions by revisiting the *Mānasāra* itself is due, which I propose to undertake in this dissertation.

2.1) Philosophical Framework and Methodology of Study

One might ask: what prompted the translation of the *Mānasāra* from Sanskrit to English? As Walter Benjamin asks: “Is translation meant for those who do not understand the original?”³³ Leveled at the *Mānasāra* and its translation by Acharya, this poignant question captures the primary concerns of this dissertation. Acharya’s cited intention of testing whether the text is useful to retrieve and reconstruct the ancient tradition of architectural practice while engaging the contingencies of the present is already a project of modernity, addressed not so much to the near-extinct class of traditional *sthapatis*, master-builders, laboring in the seriously endangered traditional mode of practice as to the generation of modern architects who are disjuncted from it. Granting that this is a legitimate concern, the issue, then, shifts to the modes and tropes by which this project is to be undertaken. The inadequacy of the “scientific approach,” with its reductive frame

³²See Appendix II, “Scholarship on the *Mānasāra*.”

of reference, in reading and translating the *Mānasāra* is evident in Acharya's work.³⁴ It calls, then, for an alternative mindset within which to raise the problematic of the dissertation, and strategy of inquiry (that is, mode of reading the text). Thus, the overriding question of the dissertation ("the nature of *vāstuśāstra*, traditional architectural theory") is understood as a phenomenological problem. Phenomenology here encompasses a range of senses: 1) transcendental (constitutive) phenomenology, or the "science" of consciousness, which, in order to arrive at a theory of knowledge, studies phenomena through the filter of eidetic intuition of the transcendental subject and by the method of bracketing and reduction; 2) existential phenomenology, dealing more concretely with human experience (the relationship of the self with the world and with others) and action (thus including architectural making); and 3) hermeneutical phenomenology, which examines the problem of language (or more precisely, the "linguisticity of being").³⁵ This follows the intuition that through the above range of senses, phenomenology is best capable of accounting for the phenomenon of the

³³Walter Benjamin, "The Task of the Translator," in Marcus Bullock and Michael W. Jennings, Eds., *Walter Benjamin: Selected Writings*, Vol. I, 1913-1926 (Cambridge, MA: Belknap Press, 1996), p. 253.

³⁴For a critical appraisal of Acharya's translation of the *Mānasāra*, see the section "P. K. Acharya's work on the *Mānasāra*," in Appendix II, "Scholarship on the *Mānasāra*."

³⁵For the first sense, see Edmund Husserl, *Phenomenology and the Foundations of the Sciences. Third Book: Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. Trans. Ted E. Klein and William E. Pohl (The Hague: Martinus Nijhoff Publishers, 1980). The most significant articulation of the second sense is, perhaps, in the work *The Phenomenology of Perception* by Maurice Merleau-Ponty. The third sense occupies the thought of Martin Heidegger in his later works such as *On the Way to Language* and *Poetry, Language, Thought*.

I understand the project of phenomenology not so much as a "post-metaphysical" enterprise than an unearthing of the latent (and long-ignored) dimension of the perennial philosophy itself, for which immediate metaphysical concerns may have had to temporarily recede to the background. Phenomenology, by means of its doctrine of intentionality that facilitates encounter with "the things themselves" (as things, and not just as appearances), offers a way out of the radical skepticism of modern philosophy after Descartes. It thus preserves the "natural attitude" and the world and objects thereof. Even the "idealistic turn" (as some have characterized it) of the later Husserl does not renounce this fundamental orientation of phenomenology towards objects. For a positive interpretation of the later Husserl, see Richard M. Zaner, "On the Sense of Method in Phenomenology," in Edo Pivcević, *Phenomenology and Philosophical Understanding* (Cambridge: Cambridge University Press, 1975), pp. 125-42. For a comparative study of phenomenology and traditional philosophy, see Edith Stein, *Knowledge and Faith*. Trans., Walter Redmont. L. Gelber & Michael Linsenn, eds., *The Collected Works of Edith Stein*, Vol. VIII (Washington, D. C.: Institute of Carmelite Studies, 2000). Stein treats the subject in the form of a dialogue between Husserl and St. Thomas Aquinas, the respective representatives of the two philosophical traditions.

nascence of architectural theory. Consequently, the “framework” and “method” of phenomenological inquiry is better suited to investigate whether and how the nascent impulses of theory are sustained throughout its subsequent evolution (and therefore, at any given historical particular instance as well). This propriety of framework and method of phenomenological inquiry extends also towards understanding “textuality” (as exists in the acts of compilation and transmission of theoretical treatises such as the *Mānasāra*) as the “specialized” form of the linguisticity that pervades the relationship between architectural theory and practice.

The framework and method of phenomenological inquiry in the realm of language is the hermeneutical process of interpretative translation.³⁶ Thus, the specific mode of investigation into the problem of nature of architectural theory of the *Mānasāra* – that of revisiting the original text and reading it “comprehensively” – follows this hermeneutical process. The “hermeneutic motion” of comprehensive reading-as-translation, according to George Steiner, has a fourfold structure: 1) initiative trust of the reader in the text; 2) incursion and extraction of the reader into and from the text and its world; 3) incorporation, that is, appropriation of meaning by the reader; and 4) restitution to the text.³⁷ To commence this process with the pretense of a neutral scientific objectivity would be a spurious step that can only lead to the same reductive objectivism that is sought to be overcome. On the other hand, it demands that before the departure into the

³⁶George Steiner observes that “comprehension” has in it, the root for “understanding” (Steiner, *After Babel*, Chapter 1, “Understanding as Translation,” p. 15).

³⁷*Ibid.*, Chapter 5, “The Hermeneutic Motion,” pp. 296-302.

world of the text, the presuppositions and prejudices of the reader be bracketed.³⁸ The first two steps of the fourfold hermeneutical motion cover the attempt to grasp the original intention of the text, or, as Benjamin puts it, "what is meant and the way of meaning it."³⁹ The laws governing this exercise are not arbitrary, but, as Benjamin notes, present in the text itself, not only in its syntax and word-meanings but also in that ineffable "feel" recumbent between its lines. The tools of dictionaries, etymologies, grammars and technical glossaries together with a thorough acquaintance of the historical context of the text help the reader to cultivate a well-grounded imagination by which to reconstruct (or better, enter into and inhabit) the world of the text. In the third step, a "fusion of horizons" of the text and the reader occurs.⁴⁰ This is the instance at which objectivity (the "truth" of the text) triumphs in the subject (the reader, translator), so to speak, when the disclosures of the text in the exercise of translation shed new light upon the concerns with which the reader set out. In this manner, by elucidating the "truth" of the text as well as its contemporary "relevance," the demands of both the diachronic and synchronic structures of the process of translation are satisfied. The fourth step, that of restitution to the text, is necessary in order to restore the balance of the hermeneutical process, even if it is rather elusive with respect to its specific contours and structures. This inchoate character of the step of restitution is seen not as a

³⁸In other words, the questions and concerns that are part of the world of the reader, and which the reader brings to the text, need to be made explicit. The "prejudice" of the reader, understood thus, is not something negative that impairs the hermeneutic process. On the other hand, as Hans-Georg Gadamer, the pre-eminent philosopher of hermeneutics of the twentieth century, says: "... prejudices, in the literal sense of the word, constitute the initial directedness of our whole ability to experience [and, one may add, understand]. Prejudices are the bases of our openness to the world [and the text]" (Gadamer, *Philosophical Hermeneutics*. Trans. & ed., David E. Linge [University of California Press, 1977], p. 9).

³⁹Walter Benjamin, *Selected Writings*, p. 254. Steiner affirms: "To read fully is to restore all that one can of the immediacies of value and intent in which the speech actually occurs" (Steiner, *After Babel*, p. 24).

⁴⁰For the elaboration of the idea of "fusion of horizons," see Hans-Georg Gadamer, *Truth and Method*. Trans. and revised by Joel Weinsheimer & Donald G. Marshall (Second Revised Edition, New York: Continuum,

handicap, but rather as holding the potential to be concretely realized in a manifold of ways. In the case of an architectural treatise such as the *Mānasāra*, it could assume the form of concrete action (practice) that is informed by the insights gained in the process of translation and interpretation of the text. More than an accurate transmission of data from the original, thus beyond “communication” in the semiotic sense, such a reading-as-translation is essentially a poetic undertaking, hovering “between poetry and theory.” It grants new life to the original text, and at the same time displays an essential oneness with it.⁴¹

As already noted, the project of revisiting the *Mānasāra* in order to understand the nature of its theory is prompted and framed by the condition of modernity. Therefore it is imperative in the hermeneutical process that the bias of modernity be acknowledged at the beginning itself. That the predominant bias of modernity is historicity is, more or less, a self-evident fact.⁴² This is what enables Husserl, for instance, to assert the

1999), pp. 306-7. To my mind, even the overuse and abuse of this all important principle in contemporary discourse does not exhaust its meaning and relevance in any hermeneutical exercise.

⁴¹Walter Benjamin, *Selected Writings*, pp. 254-57. Again, this is Steiner’s view as well, that every reading of the original is a “new poesis,” and the ontological relationship between the two is two-fold: reproductive and innovative (Steiner, *After Babel*, p. 26).

⁴²“Historicity” stems from possessing a historical consciousness, which is the awareness of a “vector” of linearity that pierces through temporal cycles. Historical consciousness understands this vector as the meta-narrative of history which encompasses not only past events but also “futurity” as a prophetic construction. This historical consciousness in the strong sense was unique at first to the Hebraic stream of Western thought, and later became a central concern of Christian thought. In fact, the first explicit articulation of historicity was carried out as a theology of history by St. Augustine in his work, *The City of God*, in the early fifth century CE. For St. Augustine, the history of the city of God (marked by the absolute beginning of the cosmos and the eschatological events of the Incarnation of Jesus Christ, birth and growth of the Church and Christ’s second coming) and the city of Man (secular events such as the rise and fall of empires) are distinct yet interdependent. The post-Enlightenment notion of history as the unilinear movement of time as outlined by G. W. F. Hegel in his *Philosophy of History*, is, in fact, an immanentist vitiation of St. Augustine’s understanding; it collapses the Augustinian distinction between sacred and secular histories. For a concise account of the reflections on the problem of history by its key thinkers in the Western intellectual tradition, see Karl Löwith, *Meaning in History* (Chicago: The University of Chicago Press, 1949). Any attempt to understand historicity that does not take into account St. Augustine’s thought and work on the matter, but simply stops either at Hellenistic notions of history or at Hegel’s philosophy of history, is necessarily a truncated one (for respective examples, see Sheldon Pollock, “Mīmāṃsā and the Problem of History in Traditional India,” in *Journal of the American Oriental Society* [No. 109.4, 1989], pp. 603-10; and Inden et al, *Querying the Medieval*).

universal a priori of history as the sole facilitating principle of investigations into origins.⁴³ In contrast, the world-view of the Indian religious and intellectual tradition within which the *Mānasāra* is located maintained, at a cosmic level, a cyclical notion of time.⁴⁴ One exception to this (indeed, a significant exception) is the school of Mīmāṃsā, ritualism (literally, “inquiry”), which, incidentally, is also the school of traditional hermeneutics among the six classical *darśanas*, orthodox schools of systematic thought of the Indian intellectual tradition. One of the main concerns of Mīmāṃsā is interpretation of texts, especially the Veda. In the process of reading the Veda and deciphering its meaning, Mīmāṃsā conducts a linear regressive inquiry into its origin and arrives at the notion of its nature as *apūrva*, a priori, eternal, and *apauruṣeya*, transcendent (and by extension, authorless).⁴⁵ The cosmological correlate of this doctrine of uncreated nature of the Veda is the a priori, uncreated (that is, without beginning), and eternal nature of the cosmos.⁴⁶ In the process of its “inquiry,” the

⁴³In his essay, “The Origin of Geometry,” Husserl states that such an investigation – essentially diachronic – in any discipline is to “make explicit the internal historicity” of its meaning-horizons. Indeed, for him, the genuine epistemological problem is the internal historical problem (see Husserl, “The Origin of Geometry,” in Jacques Derrida, *Edmund Husserl’s Origin of Geometry: An Introduction*. Trans. John P. Leavy, Jr. [Boulder, CO.: Nicolas Hays, Ltd., 1978], pp. 179-80).

⁴⁴Historian Romila Thapar detects linear conceptions of time in the Indian tradition, in Purāṇic texts (in these instances, co-existing with a cyclical notion of time) and the writing of biographies and inscriptions (see Thapar, “The Tradition of Historical Writing in Early India,” in Thapar, *Ancient Indian Social History: Some Interpretations* [Delhi: Orient Longman, 1979], pp. 268-93). She takes this as evidence for the presence of a historical consciousness in the Indian tradition as well as to question the distinction between cyclical and linear notions of time (Thapar, *Time as a Metaphor of History: Early India* [Delhi: Oxford University Press, 1996], pp. 31, 37). While these arguments are valid, they are only incompletely so. The historical consciousness witnessed in these cases are “weak” at best (a fact that can be highlighted only by comparison with the Western tradition; see Note 42 above), which Thapar herself inadvertently admits when she says that “fragmentary arcs within the cycle . . . take on the role of linear time . . .” (Ibid., p. 31; emphasis mine).

⁴⁵See Pollock, “Mīmāṃsā and the Problem of History in Traditional India.”

⁴⁶In other words, Mīmāṃsā denies the circle and its ontological significance. Instead, through the notion of the line as extending endlessly backwards, it postulates a deontologized and dehistoricized epistemology that is preoccupied with approximating the present to an indefinitely extended past (see Peri Sarveswara Sharma, “Kumārila Bhaṭṭa’s Denial of Creation and Dissolution of the World,” in R. C. Dwivedi, ed., *Studies in Mīmāṃsā: Dr. Madan Mishra Felicitation Volume* [Delhi: Motilal Banarsidass, 1994], pp. 53-77). A certain formal “symmetry” obtains between the cosmological theory posited by Mīmāṃsā and the “steady state” model of the cosmos advanced in mid-twentieth century by the British cosmologist Fred Hoyle (see Hoyle, *The Nature of the Universe* [Oxford: Basil Blackwell, 1950]). In the latter, which also denies the absolute beginning of the cosmos, matter is continually produced to match the cosmic expansion, thus resulting in a “steady state.” The difference between the two is that while the former is aprioristic, the latter is futuristic.

school of Mīmāṃsā developed a highly refined set of hermeneutical principles and method which strove to arrive at the true meaning of a text more through falsification than verification. The principles put forward by Mīmāṃsā inevitably constitute a framework that facilitates the reading of the *Mānasāra* “in its own terms” (that is, in the first two steps of Steiner’s hermeneutical motion), once the bias of modernity has been bracketed and suspended.

Mīmāṃsā proposes a five-fold structure of “hermeneutic motion”: 1) *viśaya*, text or subject to be understood, which can have two or more meanings; 2) *saṃśaya*, doubt regarding the correct meaning; 3) *pūrva-pakṣa*, postulation of one of the meanings as probable; 4) *uttaram*, refutation of the probable meaning; and 5) *nirṇaya*, establishment of the true meaning. Some Mīmāṃsakas add to this, 6) *prayojana*, application; and 7) *saṅgati*, relevance.⁴⁷ This entire structure is engaged in the interpretation of the *Mānasāra*, which is the *viśaya* here. The fundamental question of the nature of theory is the *saṃśaya*. Acharya’s translation and interpretation of the text is the *pūrvapakṣa*; my own response to Acharya and refutation of his interpretation, where applies, the *uttaram*. The demonstrative steps of reason and evidence by which I establish my position regarding the question comprises the *nirṇaya*. The relevance of this position to the issue of contemporary Indian architectural practice is its *saṅgati*. Its *prayojana*, “application,” is the manifold ways in which it can obtain in concrete instances of

⁴⁷See Krishna Roy, *Hermeneutics: East and West*. Jadavpur Studies in Philosophy, Second Series (Calcutta: Allied Publishers Limited, 1993), Chapter 2, “‘Hermeneutics’ in the Indian Tradition,” pp. 81-97.

practice.⁴⁸ The hermeneutical motion that Mīmāṃsā forwards, since it presumes the linguistic apriorism of the Sanskrit language, is inherently limited in addressing the problems associated with inter-lingual translation.⁴⁹ On the other hand, these problems are of central concern in contemporary hermeneutical reflections such as those of Benjamin, Steiner and Gadamer. Thus, in this dissertation, in which interpreting the *Mānasāra* involves also its translation, traditional and contemporary hermeneutics play complementary roles.

At this point, a specific problem crops up: the “primary text” that I have adopted for the dissertation is Acharya’s Critical Edition of the *Mānasāra*, and not the manuscripts themselves. As is already clear, the former is a “product” of modernity, existing as an autonomous entity outside the original context (the world of traditional architectural theory and practice) of the text. I am aware of the extreme difficulty that the task of re-entering this original context of the text primarily through its modern critical edition poses. On the other hand, considering the fact that climatic conditions in India necessitated frequent copying of manuscripts for the preservation of texts, it is hard to

⁴⁸In the dissertation itself, I do not attempt to define or regulate the ways in which my position regarding the issue of the nature of theory obtain in concrete instances of practice, which would involve deriving and positing prescriptive rules for contemporary practice. Rather, I limit myself to positing the *saṅgati*, relevance, of my position for modern practice.

⁴⁹The primary concern of Mīmāṃsā was the interpretation of texts within the tradition itself, conducted in Sanskrit. Thus, Mīmāṃsā does not directly address the problems of translation. Sheldon Pollock observes: “It is . . . unsurprising that . . . there exists no Sanskrit or other Indian discourse on translation; in fact there exist no common word for translation in any premodern Indic language” (Pollock, “Philology, Literature, Translation,” in Enrica Garzilli, ed., *Translating, Translations, Translators: From India to the West. Harvard Oriental Series, Opera Minora*, Vol. I [Cambridge, MA.: Department of Sanskrit and Indian Studies, Harvard University, & Columbia, MO.: South Asia Books, 1996], p. 114). The linguistic apriorism of Sanskrit (anglicized from *samskr̥ta*, “that which is refined”), generally, did not admit the notion of “translation” as “transference” (of some text or idea) from another language into Sanskrit, which was considered as the superior language. On the other hand, the process of “translation” (of a text or idea) from Sanskrit to the vernacular languages (sometimes termed collectively as Prakrit, anglicized from *prākṛta*, “that which is barbarous, vulgar”) was considered as its vulgarization (ibid., pp. 117-18). Some modern Indic languages that derive from Sanskrit (Hindi, for instance), use the terms *parivartana* and *vivartana* for “translation.”

assume that any among the extant manuscripts date back to the period of the first written compilation of the text. This renders the artifactual value of the manuscripts as “primary sources” as, to begin with, relative. My consulting the manuscripts themselves as primary sources was made impossible owing also to practical reasons: 1) my own lacking in the knowledge of Tamil and Telugu scripts as well as specialized skills in manuscript-deciphering; and 2) the present custody of the manuscripts in widely scattered locations in India and England⁵⁰ that disallows their simultaneous reading, and makes even their serial reading a long, drawn-out, process. The extensive Critical Notes which Acharya generated in the course of his own collation of the manuscripts and which he has appended to the Critical Edition, therefore, assume crucial importance in providing the tenuous links to the manuscripts.⁵¹

3. *Śāstra and Prayoga*

As a *vāstuśāstraic* treatise, the *Mānasāra* purports to contain comprehensive architectural knowledge. This body of architectural knowledge encompasses procedures for selection, examination and orientation of site, principles of composition of architectural and iconographic objects (cities, buildings, furniture, images to be installed

The root verb in both cases is *√ṛt*, “to turn around,” and also, “to transform.” Translation, then, is understood as a “transformation,” which places the “new” language on an equal footing with the original language.

⁵⁰Four of the eleven extant manuscripts are owned by the Library of India Office, London; two each by the Tanjavur Palace Estate and the Government Oriental Library, Madras, and the rest by Deccan College, Poona, the Oriental Library of the Asiatic Society of Bengal, Calcutta, and the Palace Library of Trivandrum (Acharya, *Mānasāra on Architecture and Sculpture*, “Preface,” pp. ix-xvi).

⁵¹For all his critique of orientalism in modern Indological scholarship and proposal of an alternate mode of scholarship based on notions of “complex authorship” “intertextuality” and “scale of texts,” Inden, in his own study of the text *Viṣṇudharmottarapurāṇa*, is uniformly silent regarding his primary source: whether it is a modern, critical edition or one or several of the manuscripts of the text (see Inden, “Imperial *Purāṇas*: Kashmir as Vaiṣṇava Center of the World,” in Inden, Walters & Ali, *Querying the Medieval*, pp. 29-98). Adopting a hermeneutics of suspicion as the

in the temple), systems of proportional measurement employed in their making, technical instructions on the building procedure, prescriptions for rituals associated with construction, as well as classificatory accounts of architectural and iconographic objects. The overall composition of the text is as a series of prescriptive injunctions in the form of metric verses.⁵² Presumably intended as a mnemonic and didactic tool, this form and tone stem from the claim and self-understanding that *vāstuśāstra*, as a body of rules and precepts (thus constituting the “science”), is a priori in relation to its object, architectural and iconographic making. As shown in the literature review (Appendix II, “Scholarship on the *Mānasāra*”), all previous scholarship on the *Mānasāra* not only unwittingly accepted this claim without qualification, but also proceeded from it to render *vāstuśāstra* as compatible with and therefore easily applicable to modern architectural practice. I contest the latter conclusion, and in this study, purport to justify my dissent by subjecting the former claim of *vāstuśāstra* itself to scrutiny and presenting the resultant insights as substantiating evidence. First and foremost, the worded definitions and conditions thereof set forth in the text by which such a claim and self-understanding are expressed and supported are analyzed on their own terms. However, to limit the scrutiny to just this exercise would be to fall prey to a kind of nominalism. In order to avoid this, I conduct the analysis against the backdrop of “movements” or changes within the tradition of *vāstuśāstra* itself,⁵³ and around it, in associated fields, particularly religion.

framework for his study of the text incapacitates Inden from using the critical edition without contradicting the principles that constitute his framework.

⁵²The meter, followed more or less consistently throughout the text, is the classical *aruṣṭubh* which contains 8 syllabic units in each *pada*, quarter, of a verse.

⁵³These are traced through evidences in the text, as well as by comparison with other pertinent texts, especially the “sister treatise,” *Mayamata*.

The claim and self-understanding of *vāstuśāstra* as a priori falls within and is consistent with the larger picture of the Indian intellectual tradition in which *śāstra* in general, as a body of “grammatical” rules and precepts, is held to be prior to practical activity. About the conception of *śāstra*, Sheldon Pollock states thus:

Under the influence perhaps of the paradigm deriving from the strict regulation of ritual action in Vedic ceremonies, the procedures for which are set forth in those rule-books par excellence, the *Brāhmaṇas*, secular life as a whole was subject to a kind of ritualization, whereby all its performative gestures and signifying practices came to be encoded in texts.⁵⁴

He notes that the classical grammatical tradition (grammar being the most exalted among the exegetical sciences) was aware of such a signification of *śāstra*.⁵⁵ However, it was only in the medieval period that a “comprehensive definition” for *śāstra* was offered – by Mīmāṃsā, the school of Vedic ritual practice and textual exegesis. Kumārila Bhaṭṭa, the great Mīmāṃsaka of the eighth century CE, crystallizes the precedent intuitions and speculations regarding the nature of *śāstra* in the following definition:

[*Śāstra* is] that which teaches people what they should and should not do. It does this by means of eternal [words] or those made [by men]. Descriptions of the nature [of things/states] can be embraced by the term *śāstra* insofar as they are elements subordinate [to injunctions to action].⁵⁶

⁵⁴Sheldon Pollock, “The Theory of Practice and the Practice of Theory in Indian Intellectual History,” in *Journal of the American Oriental Society*, No. 3, 105 (1985), p. 500.

⁵⁵For instance, the statement of Paṭāñjali, who wrote the commentary *Mahābhāṣya* to the grammatical treatise *Aṣṭādhyāyī* of Pāṇini: “*Śāstra* is that from which there derives regulation [definite constraints on usage]” (*Mahābhāṣya* 6.1.84; quoted in *Ibid.*, p. 501).

⁵⁶*Śloka Vārtika, Śabdapariśeṣa*, vv. 4-5, quoted in *Ibid.*, p. 501. Pollock’s own definition of *śāstra* paraphrases this quite well: “a verbal codification of rules, whether of divine or human provenance, for the positive and negative regulation of some given human practices” (*Ibid.*).

A linguistic analysis of the term *śāstra* itself reveals just as much. The term derives from *śāś*, meaning “to teach, instruct, chastise, punish, correct,” and also “to order, command, rule, govern.” Its syntactic derivation, in the Pāṇinian grammatical system, is explained as the addition of the suffix ‘tra’ to the verbal root, indicated by the *kṛtpratyaya*, “primary affix” (or “formative element”), ‘śtran.’ The primary meaning of this suffix is instrumentality, that is, “the means by which an action is performed or carried to completion” (Richard Hayes, *Continuing Sanskrit: Samskṛtabhāṣāpravartanam* [Montreal: McGill University, 1998-99], Chapter 4, “*Kṛt-pratyaya-nirukṭiḥ*: Deriving

In the definition quoted above, it is seen that Kumārila does admit a distinction between the descriptive and prescriptive dimensions of *śāstra*, but almost immediately subverts it so as to nullify any sense of a dialectic between them. What is evident here is a certain penchant within the Mīmāṃsā tradition to understand *śāstra* as univocally prescriptive. By extension, the dialectic between *śāstra* and its object that is “practice” is also denied. Indeed, from this view point, “practice” can only be understood as “application” of normative rules and precepts in the sense of following or adhering to them. The *śāstraic* term for practice in this sense is *prayoga*, which derives from *pravṛj*, “to employ, use,” and also “to harness, yoke.”⁵⁷ It is significant to note that *prayojana*, the term for “application,” also derives from the same verb root. From a *śāstraic* perspective, *prayoga*, practice, is identified with *prayojana*, application.

nouns and adjectives from verbal roots,” p. 63). The lexicographer V. S. Apte gives the semantic derivation of the neuter noun *śāstram*, from the verbal root *śās* as *śiṣyate 'nena*, which means “[that which is] taught without blemish” (Apte, *A Practical Sanskrit-English Dictionary* [First Compact Edition, Delhi: Motilal Banarsidass, 1998], p. 1549).

⁵⁷Francis X. Clooney states that in the early Mīmāṃsā of Jaimini, *prayoga* signified the concrete, particular, event of the sacrifice:

[The term *prayoga* focuses] our attention on the status of the sacrifice as an event actualizing many abstract relational patterns. . . . *Prayoga* is an event: a particular happening in a particular time and place, done by a particular person. It is where all the many ritual connections are realized and actualized. There is no abstract *prayoga*, because *prayoga* is by definition an occurrence in time and space. . . . The word *prayoga* . . . extends in various directions at once. A *prayoga* suggests the overall pattern of a sacrifice, the relationships of various parts and aspects in right order. . . . As a particular event, in a specific time and place, [*prayoga* as sacrifice] becomes a kind of ‘world,’ valuable in itself, into which things and people and actions enter for specific purposes (Clooney, *Thinking Ritually: Rediscovering the Pūrva Mīmāṃsā of Jaimini*. Gerhard Oberhammer, ed., Publications of the de Nobili Research Library, Vol. XVII [Vienna: Institute for Indology, University of Vienna, 1990], pp. 116-119).

Notably absent in this understanding in early Mīmāṃsā of *prayoga* as a particular event was any concern over the notion of *apūrvā*, a priori. In other words, according to such an understanding, *prayoga* was almost “a-theoretical” in nature. However, in the subsequent development of Mīmāṃsā, as it more or less culminated in the thought of Kumārila (notwithstanding the “neoscholasticism” of the late medieval period), the notion of the a priori of *śāstra* completely overshadows the early understanding of *prayoga*: practice is subsumed into theory. In the end, the inherent duality between theory and practice persists unreconciled throughout the evolution of the tradition. There is no claim or understanding of any historical event as eschatological in nature, and therefore, no instance of a real “hypostatic union” (that ultimate “yoking”) of polarities in the course of this evolution, that would have occasioned the overcoming of this duality by the reconciliation and synthesis of theory and practice without erasing their ontological distinction. In this light, the ascription of “realism” to Mīmāṃsā, as some modern commentators do, is unjustifiable.

Even though within the frame of śāstraic discourse *prayoga* is not granted a “real” categorical status,⁵⁸ it is nevertheless a term admitted (in a nominalistic vein) as being necessary to complete the structure and dynamics of discourse itself. While challenging its inherent nominalism,⁵⁹ I also make use of this traditional distinction to name the two major sections of the dissertation that have corresponding emphases in their respective lines of inquiry as “Śāstra” and “Prayoga.” In the section titled “Śāstra,” I examine primarily the nature of the *vāstuśāstra* enunciated in the *Mānasāra*. The particular modes by which the generic outlines of *śāstra* defined by Mīmāṃsā are reflected and sustained in *vāstuśāstra* are laid out. However, not content with simply showing that *vāstuśāstra* is more or less subsumed under the Mīmāṃsā view of *śāstra*, I also explore the text for clues in which the limitations of the *vāstuśāstra*ic enterprise of textualization may actually lie hidden: in other words, evidences for a discrete admission that the dialectic between prescription and description was still alive within *vāstuśāstra*. This is conducted in two chapters titled “Theology” and “Nomology” respectively, which are identified as the two fundamental aspects that pervade the *vāstuśāstra* of the *Mānasāra*. In the section titled “Prayoga,” I pursue the same question into the realm of the relationship between *vāstuśāstra* and its object, architectural and iconographic making. The process of making itself – its dynamics and significations – is examined in the chapter titled “Technology.” In each of these three chapters, the first principal division examines the contours and structures of the claim of the priority of theory, and the idea

On the other hand, depending on the perspective of either theory or practice from which it is viewed, it displays the characteristics (with qualifications) of “nominalism” and “pragmatism” respectively.

⁵⁸This is evident in the fact that while compounds which have *śāstra* attached to the end to denote particular fields of discourse (for instance *vāstuśāstra*, “science of architecture”; *nāṭyaśāstra*, “science of drama”) abound, their correlative compounds which have *prayoga* at the end are not found, even though there is no grammatical obstacle against forming them.

⁵⁹See Note 57 above.

of practice as the application of theory. In the second division in each chapter, titled "Seeing," "Knowing," and "Making," respectively, evidences that would establish the dialectical nature and structure of theory itself and its relationship to practice are arrayed and perused.

A few cautionary notes are in order before proceeding. Although I use the Sanskrit terms *śāstra* and *prayoga* to name the two basic sections of the dissertation, I have consciously adopted the English terms, "theology," "nomology," and "technology," as titles of chapters within these sections. The specific meanings of these latter three terms are more proper to the context of Western intellectual discourse, and therefore are used here in a qualified sense.⁶⁰ This said, however, I must add that this strategy of juxtaposition of Sanskrit and English terms is consistent with the overarching concern of the dissertation against which the question of the nature of *vāstuśāstra* itself is posed: the encounter between tradition and modernity in contemporary Indian architectural practice.

The common translation of *śāstra* as "theory" by lexicographers and scholars,⁶¹ which I also have made use of previously and will continue to use in the rest of the dissertation, also demands a qualification. "Theory" derives from the Greek *theoria*, "seeing," which, over the course of history, acquired the meanings from the earlier "spectacle"

⁶⁰ The qualifications of the terms theology, nomology and technology are stated in the respective titles as "the horizon of the divine," "the horizon of discourse," and "the horizon of craft," respectively.

⁶¹ See for instance, the entry under *śāstra* in Monier-Williams, *A Sanskrit-English Dictionary* (Rpt., Delhi: Motilal Banarsidass, 1995), p. 1069; and in V. S. Apte, *A Practical Sanskrit-English Dictionary*, p. 1549. Sheldon Pollock, in his article *The Theory of Practice and the Practice of Theory*, also translates *śāstra* as "theory."

and “contemplated sight” to the later “scheme of ideas” and “explanatory scheme.”⁶² From the semantic history of “theory,” it obtains that there occurred a real transformation in its meaning (and by extension, in the implied relationship between theory and practice) from description to prescription, which, in turn, is symptomatic of the historical course charted by Western epistemology.⁶³ Among the meanings of theory just mentioned, the earlier ones that derive from “seeing” are totally absent in the semantic horizon of *śāstra*. Thus, the respective etymologies of the two terms demonstrate that their original meanings were radically different, offering no points of convergence. A movement towards convergence of the semantic horizons of the two terms begins to occur only with the transformation of the meaning of “theory” in its own later history. Translation of *śāstra* as “theory” is made plausible by this movement. However, the plausibility of such a translation does not imply a one-to-one fit between the terms: it is not reasonable to consider “theory” solely in its later semantic affinity to *śāstra* by completely ignoring its original meaning and early derivations. Therefore, the translation of *śāstra* as “theory” can fit only rather uneasily. This “problem” of translation is not to be understood in a negative sense, but precisely as the source of that creative tension which safeguards the unique identity and relative autonomy of each of the two concepts and its respective epistemological tradition. Such an understanding prevents the amorphous and syncretistic blending of the two concepts and their respective traditions; on the other hand, it opens up the possibility of their mutual fecundation and even harmonious synthesis.

⁶²See Raymond Williams, *Keywords* (Oxford: Oxford University Press, 1976), “Theory,” pp. 316-18. For the derivation of *theoria* and its earliest uses in pre-Socratic Greek language and thought, see Indra Kagi McEwen, *Socrates’ Ancestors: An Essay on Architectural Beginnings* (Cambridge, MA: The MIT Press, 1993), pp. 20-21.

A note regarding my translations of the excerpts of the *Mānasāra*, cited in the dissertation, is also in order here. I do not provide “smooth” translations of the verses cited, but leave exposed the (dis)joints that surface in the translation process by means of devices such as square brackets and spaced periods [. . .]. It may be tempting to call them “literal” or “technical” translations, which they are not. From a hermeneutical perspective, the labels “literal” and “technical” are, in fact, misnomers. On the other hand, they are better understood as “rough” translations. The exposed interstices that characterize their roughness evince, above all, the methodical rigor that the exercise of translation itself entails. The poetic possibilities of interpretation reside and emerge precisely within and out of these interstices.

The convention of transliteration of Indic language words to Roman letters that is adopted here is as follows: All Sanskrit terms are italicized with the diacritical marks proper to their transliteration. These include verses quoted from the *Mānasāra* and other texts. In the case of verses quoted from the *Mānasāra*, Acharya’s emendations are also included, in round brackets (). Diacritical marks are omitted in cases of proper names whose anglicized forms are in current use. These include names of nineteenth and twentieth century Indians, of places, geographical features such as mountains and rivers, and languages (thus, Acharya and not Ācārya, Srirangam and not Śrīrangam, Kaveri and not Kāverī, Malayalam and not Malayāḷam). However, on occasions, I do

⁶³See Nikolaus Lobkowitz, *Theory and Practice: History of a Concept from Aristotle to Marx* (Lanham, MD.: University Press of America, 1967).

stumble at the *paryanta*, limits, of this convention. For instance, where contemporary Indians have kept the non-anglicized forms of their names, I have also followed suit (as in the case of Sadāśiva Rath Śarmā, one of the translators of the architectural treatises *Vāstusūtra Upaniṣad* and *Śilpaprakāśa*).



Fig. 1: Close-up Front View

From: P. K. Acharya, *Hindu Architecture in India and Abroad*. *Mānasāra* Series No. VI (Rpt. Delhi: Low Price Publications, 1995)

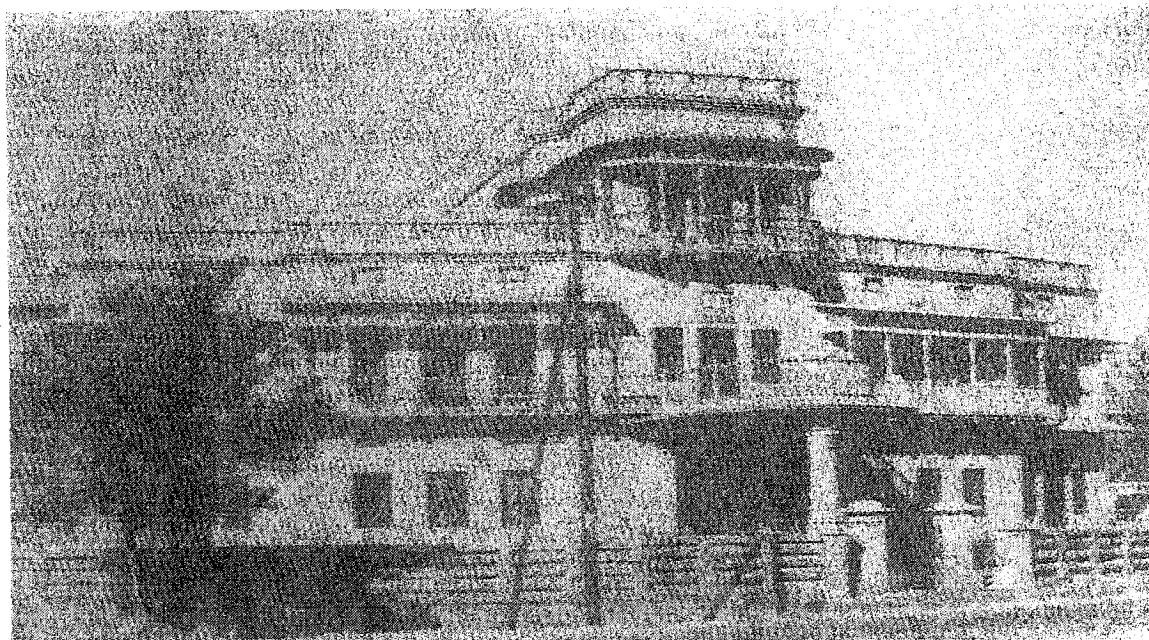


Fig. 2: Distant Front View.

From: P. K. Acharya, *Hindu Architecture in India and Abroad*.

Plate I: Swastika Mansion, Allahabad (c. 1935 CE)

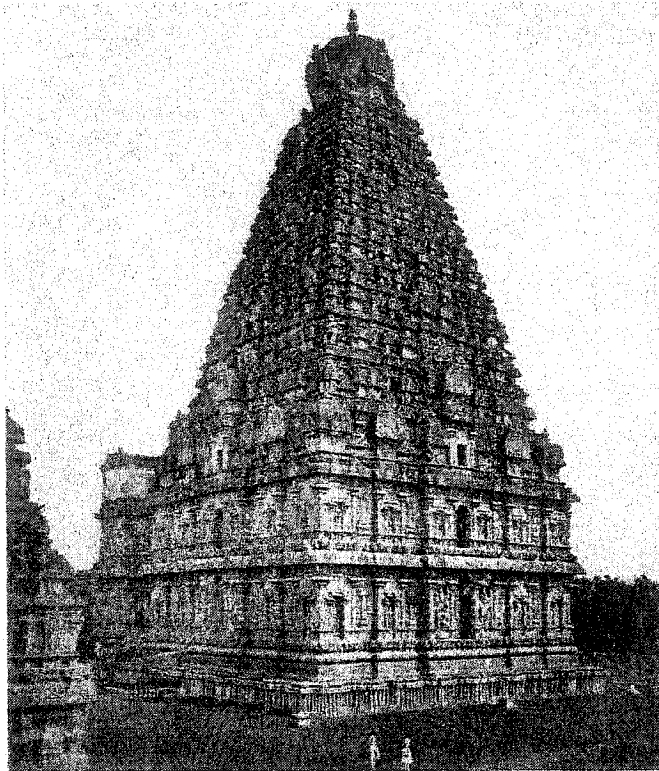


Fig. 3: Brhadeśvara Temple, Tanjavur
(c. 1000 CE): *Vimāna* of 16 Stories.

From: Percy Brown, *Indian Architecture:
Buddhist and Hindu* (Bombay: D. B.
Taraporevala Sons & Co. Pvt. Ltd., 1965).

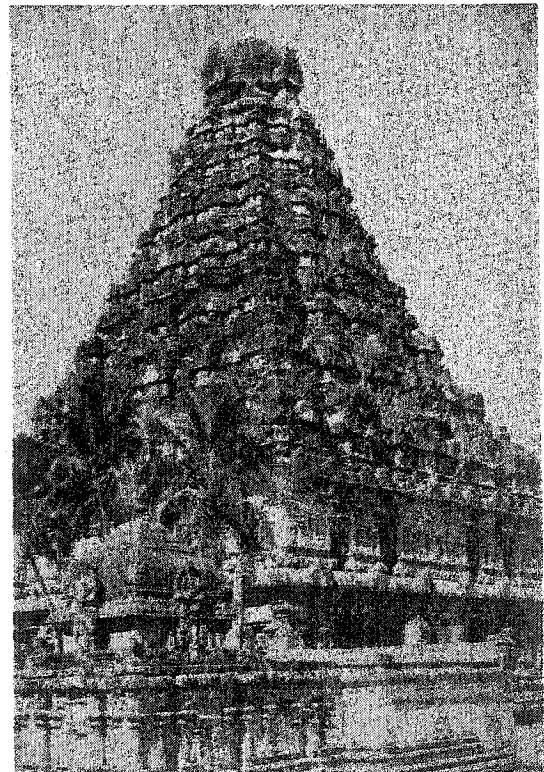


Fig. 4: Śiva Temple, Gangaicondolapuram
(c. 1025 CE): *Vimāna* of 9 Stories.

From: Percy Brown, *Indian Architecture:
Buddhist and Hindu*.

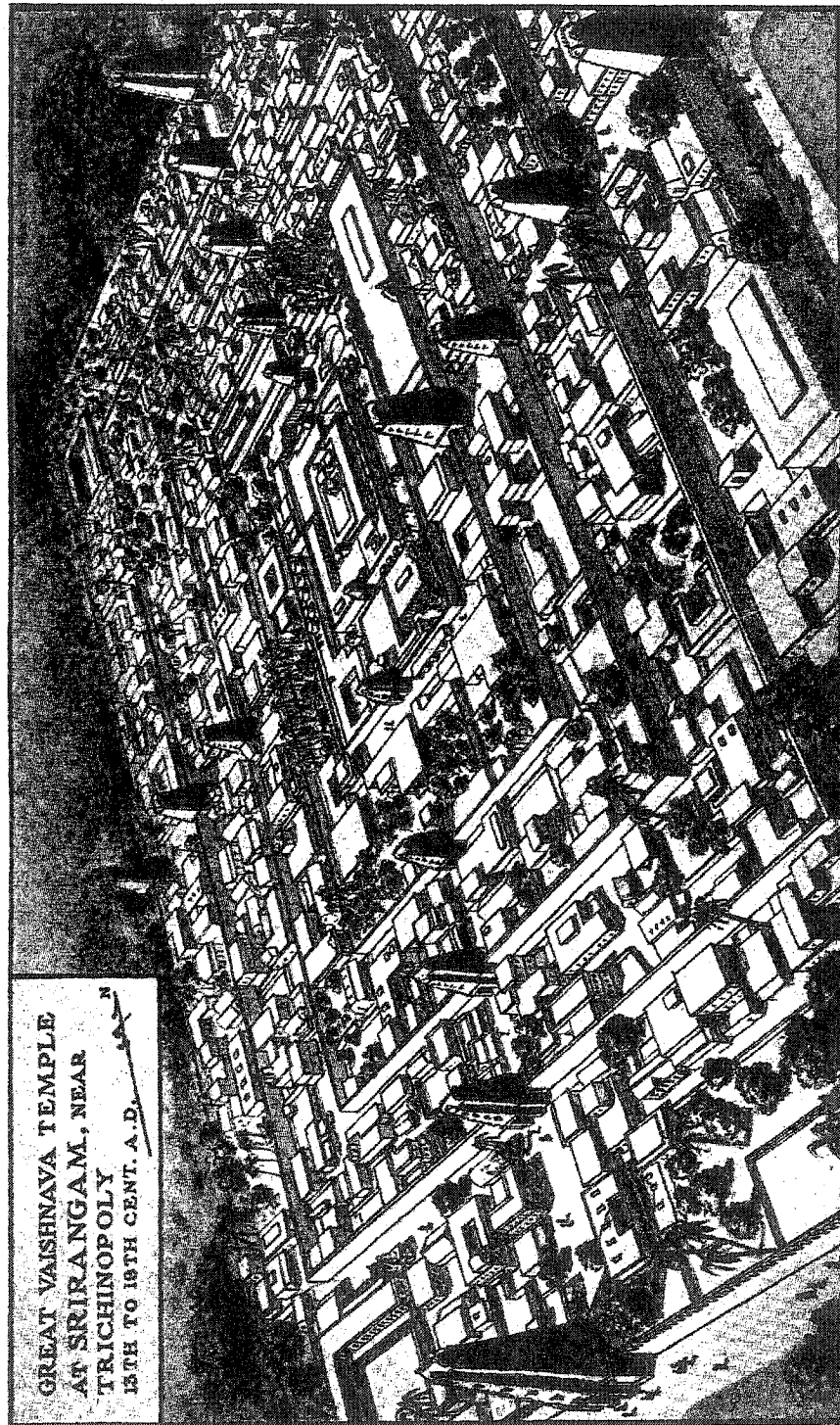


Fig. 5: Viṣṇu Temple, Srirangam: completed c. eighteenth century CE (Axonometric View)

From Percy Brown, *Indian Architecture: Buddhist and Hindu*.

Plate III: Concentric Series of *Prākāra*, Court-Enclosure, and *Gopura*, Gate-House, in a Late-Medieval South Indian Temple Complex

Part A)

SĀSTRA, "Theory"

Chapter 1: "THEOLOGY," OR THE HORIZON OF THE DIVINE

a) PRIORITY OF THEORY

The classic feature that characterizes *śāstra*, "theory," in the Indian intellectual tradition is, as mentioned already, the claim of its priority over *prayoga*, "practice." In Kumārila's definition cited earlier,¹ a bipartite signification of *śāstra* is evident: "eternal" (that is, uncreated) and "made." The former refers, in the classical Pūrva- and Uttara- Mīmāṃsā tradition, specifically to the Veda as revelation.² The foundation of the idea of the priority of *śāstra* lies in the movement to collapse the distinction between the two notions of *śāstra* (as the transcendent Veda, and as rules that are made) by the self-identification of the latter with the former. Sheldon Pollock observes that the term *śāstra* as "... [the] shared signifier for the two domains ('rule' or 'book of rules' on the one hand and 'revelation' on the other) bespeaks an important rapprochement or even convergence between them."³ According to him, the "bivalency" within the signification of *śāstra* may be seen either as the cause or the effect of the widely accepted postulate in Indian intellectual history that the paradigm

¹ See Introduction, p. 24.

² Sheldon Pollock, "The Theory of Practice and the Practice of Theory in Indian Intellectual History," in *Journal of the American Oriental Society*, No. 3, 105 (1985), pp. 501-2. Mīmāṃsā, as mentioned already, is inquiry into the nature of "the Veda" as revelation. Pūrva or "former" Mīmāṃsā focuses on the former part of the Vedic revelation: the *mantrasaṃhitās* or hymnal compositions of the *R̥k*, *Yajur* and *Sāma Vedas*, and the ritual texts of the *Brāhmaṇas*. The primary concern of this school, according to its foundational work *Pūrva Mīmāṃsā Sūtra* of Jaimini (c. 200 BCE), is *dharma*, understood as correct ritual action (the Vedic sacrifice) while in this world, arrived at through a correct interpretation of these texts. Uttara or "latter" Mīmāṃsā, on the other hand, focuses on the *Upaniṣads*, which contain "philosophic" speculations on the nature of *brahman*, the absolute principle. Its foundational work is the *Brahma Sūtra* by Bādarāyaṇa (c. 200 BCE), and its concerns are primarily of an onto-theological and soteriological kind. Since the *Upaniṣads* constitute the latter part of the Vedic revelation, they are called *vedānta* or "end of Veda," and subsequently, the Uttara Mīmāṃsā tradition also came to be known by the same term, *Vedānta*. In the dissertation, the term Mīmāṃsā always refers to Pūrva Mīmāṃsā.

³ Ibid.

for all human activity is the process of cosmic creation in which the Veda as “Word” acts as the “blueprint” or “template.”

The transcendent nature of the Veda is, Pollock notes, an “ancient, tenacious and widespread belief.”⁴ Pollock agrees with Louis Renou who observes that this view of the Veda as “eternal, infinite, self-existent and infallible,” most rigorously defended by the Mīmāṃsā, may primarily be seen as “the thesis of the learned”; nevertheless it “is also that which corresponds to the most general sentiment in India, the one enunciated in the epics and *purāṇas*.”⁵ This “agreement” between the “thesis of the learned” and the “general Indian sentiment” signifies the “exegetical continuity” between the Pūrva- and Uttara- Mīmāṃsā (that is, Mīmāṃsā and Vedānta) traditions.⁶ However, it is not enough just to dwell on the continuity of the two traditions alone in this reflection on the priority of *śāstra*. It is also necessary to take into account the important points of divergence between them that have roots in their respective primary concerns themselves: inquiry on the nature of *dharma* and of *brahman*.

As noticed already, a strict Mīmāṃsā position regards the Veda and, by extension, the world, as eternal and uncreated, thereby nullifying the need for a divine agent or instrument for creation.⁷ On the other hand, the cosmogonic speculations in the Indian tradition at large, more often than not, involve a divine being either as generator in a

⁴ Ibid.

⁵ Ibid.

⁶ See Francis X. Clooney, *Thinking Ritually: Rediscovering the Pūrva Mīmāṃsā of Jaimini*. Gerhard Oberhammer, ed., Publications of the de Nobili Research Library, Vol. XVII (Vienna: Institute for Indology, University of Vienna, 1990), “Epilogue: Toward an Intellectual History of the Two Mīmāṃsās,” pp. 255-58.

⁷ The notion of *apūrva*, a priori, itself was a later development within Mīmāṃsā. The early Mīmāṃsā of Jaimini was preoccupied, above all, with the actual event of the sacrifice (see Ibid., pp. 160, 223).

relatively passive role or as creator (maker) in an active role (as efficient cause). In these cases, a tension along the lines of agency and instrumentality between the Veda, “Word” and the deity sets in, already signaling a theistic slant. At the most rarefied philosophico-theological level, this tension obtains as that between pure Language and pure Being or Consciousness. Within specifically theistic traditions, it then demands a calibration of the understanding of *śāstra* as issuing from (or issued by) the deity.⁸ In other words, the foundation of the claim of the priority of *śāstra*, from a theistic viewpoint, is, so to speak, “theological.” This is an important qualification to make, having its own set of ramifications which are at variance with a strict Mīmāṃsā point of view that advocates an impersonal and non-incarnate Word, as shall be seen.

The *vāstuśāstra* of the *Mānasāra*, in compliance with the general trait of *śāstra*, is theologically founded. The following section examines the particular structure of this foundation in the text, the salient features of the theology, and the way in which these unfold in the various aspects of architectural and iconographic making as recorded by the text.

1. The foundation of *vāstuśāstra* in theology

*utpattirakṣalayān jagatām prakurvan bhūvarivahnimaruto gaganam ca sūte |
nānāsureśvarakirīṭavilolamālābhṛṅgāvalīḍhacarapāṃ buruham namāmi ||*

(*Mānasāra* I, 1-2).

⁸ Consider this example that Pollock quotes from *Taittirīya Brāhmaṇa* (2.6.2.3): “By means of the *veda* Prajāpati separated out name and form, being and non-being.” Here, there is an obvious tension between Prajāpati as agent and the Veda as instrument in the act of creation (which is depicted as a separation). This example is from the Vedic religiosity that existed prior to the development of theistic systems such as the Śaiva and Vaiṣṇava theologies. However, to the extent that the idea of the deity as creator or progenitor is somewhat shared by the former and latter, the example holds good to illustrate the point.

[The divinity], while doing the creation, preservation and dissolution of the worlds, begets the earth, water, fire, wind and sky. I bow to [its] lotus-feet, [kissed by] the crowns of lords of numerous gods, garlands waving like a throng of bees.

Quoted above is the opening verse of the *Mānasāra*. It has a bipartite content that follows the structure of the versification. The first line is a brief statement of key principles of cosmogony. In the second, the (unidentified) writer follows a common śāstraic practice of paying homage to the divinity at the beginning of a treatise.

The first line is a complex grammatical sentence, consisting of a main clause and a subordinate one. These two clauses mention respectively the generation of the five elements and the processes of creation, preservation and dissolution of the worlds.⁹ The verbal forms used to signify these processes are: 1) *prakurvan* (the present participle, of the root *prav√kr*, “to do, make”), and 2) *sūte* (present tense of the root *√sū*, “to beget”). Among these two verbs, *√sū*, “to beget,” being *ātmanepada*, literally, “word for self,” has a “reflexive” sense. On the other hand, the conjugation of *prav√kr*, is in *parasmaipada*, literally, “word for another” or “active.”¹⁰ In fact, the semantic role of attaching the prefix *pra*, “forward, toward” to the generic verb *√kr*, “to do, make” to form *prav√kr*, also “to do, make,” lies in accentuating this active sense. Also, the sentence itself is in the active voice, by which the emphasis is cast on the agent of the verb (as opposed to the passive voice in which the patient is emphasized). Both the verbs are conjugated in the third person singular and have the same agent, which is

⁹ The plural, “worlds,” found here is a matter of intrigue.

¹⁰ The classification of verbs in Sanskrit into *parasmaipada* and *ātmanepada* occurs in accordance with the distinction of voice, called by Western grammarians as “active” and “middle” voices respectively (Robert Goldman & Sally J. S. Goldman, *Devavāṇīpraveśikā: An Introduction to the Sanskrit Language* [Berkeley: Center for South Asia Studies, 1999], p. 52).

indicated by the subordinate and main clause structure of the sentence. This agent, however, is not mentioned by name. Without the name, it is impossible to specify the gender as well: it could be assumed as either neuter, masculine or feminine.¹¹ Thus, it seems that the first clause implies a “duality” between the processes of creation, preservation and dissolution on the one hand, and their agent who “causes” them to happen, on the other. In the second clause, even though the duality between the elements and the one who generates them (the same agent as in the previous clause) is present, it is radically undermined by the reflexive nature of the act of generation. Also, it is interesting to notice in the verse that emphasis is given to the latter process of generating the elements (by mentioning it in the main clause of the sentence), which is presented as an “effect” proper of the processes of cosmic creation, preservation and dissolution.

What is attempted in this line of the verse is a terse presentation of the dominant cosmogonic theory that is handed down by the tradition. This mention of cosmogony at the very beginning of the treatise points to the traditional belief in its foundational role with respect to architectural making – that cosmic creation offers the paradigm for architectural making. However, as a foundational principle of architecture, cosmogony cannot stand independently: any discussion of cosmogony necessarily engages related questions that are of a theological nature. These would involve specifying the “agent” of the cosmogonic acts mentioned in the first line.

¹¹It is possible to imagine that even though in the mind of the “scribe” (that is, the one who is writing the manuscript) the identity of the agent is already clear, at this initial stage in the exegesis (the verse being the opening one in the text), the use of the “neutral” terms “divinity” and the genitive “its’ in square brackets in the above translation are, from a theological perspective, provisional at best.

In the second line of the verse, there is a shift towards anthropomorphism in the mention of the divinity, found in the term *kamalāmburuha*, “lotus-feet.” The colorful imagery of rows of crowns of the lords kissing these two feet and forming a waving garland like the dalliance of a throng of bees is painted to convey the message that there exists someone of a higher order than even the gods. In the grammatical construction of the line, there is no explicit genitive connection between these lotus-feet and the agent of the verbs in the previous line; that connection is to be made by inference alone. Thus, apart from eliminating the possibility of neuter as the gender of the agent, this anthropomorphic hint, as such, does little to specify the agent of the verbs. In short, the identity of the divinity still remains unclear at the end of the first verse.

The cosmogonic and theological points found in the above verses are taken up and developed further at the beginning of Chapter II. Here, the text gives a genealogy of the builders’ guild, the “prologue” to which reads thus (II, 2-4):

*paraḥ śivaskāśād hi brahmā i(ce)ndro ’pi lokakṛt ||
 sa mahāviśvakarmeti I(tvī)śvareṇaiva kīrtitaḥ |
 sa evāyam viśvakarmā brahmāṇḍam sṛjate muhuḥ ||*

From Paraḥ Śiva alone [are] Brahmā and Indra, and even Lokakṛt. As regards the great Viśvakarman, he is also known by [the name] Īśvara. It is indeed this Viśvakarman who self-creates the cosmic egg again.

In these verses, it is seen that the sequence of presentation of ideas of cosmogony and theology is the reverse of what is found in the opening verses of the first chapter. Here,

theology takes a precedence; cosmogony is stated from a reasonably developed theological framework and is subordinated to it. In this move is found the first “systematic” attempt in the text to lay down the theological foundation of cosmogony, and by extension, of the whole architectural and iconographic enterprise.

The first line is a dogmatic statement of Śaivism that asserts the supremacy of Śiva. The “nature” of Śiva is specified here as *para*. The basic meaning of this adjectival term is “other,” while also including the senses of highest, greatest, distant and remote, all of which, in this context, point towards “transcendence.” The dogmatism of the statement regarding the supremacy of Śiva vis à vis other deities is further evident in the way the two emphatic particles, *hi* and *api*, are employed in this line: Śiva alone (*hi*) is the progenitor of all deities, even (*api*) of the maker of the world. There may also be an implicit polemic in this assertion against prominent rival sects in medieval Hinduism, especially Vaiṣṇavism.¹²

The two following lines are dedicated to expounding the identity and role/function of the third member in the list of subordinate deities, Lokakṛt. The proper name of the deity is Viśvakarman (which means “forger of the universe”), of which *lokakṛt*, meaning “world-maker,” is a synonym. There is great respect reserved in the text for this deity, evident from the adjective *mahat*, “great,” that is prefixed to this name. References to the deity Viśvakarman are found from the *Rgveda* onwards, usually in

¹² It is significant to notice that Viṣṇu is not mentioned in the list of subordinate deities. On the other hand, Brahmā and Indra are mentioned in the list. Indra, a prominent deity in the Vedic period, had fallen to secondary importance in the classical and medieval Hindu pantheon. Brahmā, even though the first member of the triad according to mythological accounts of the classical and medieval periods, had failed to develop a substantial devotional cult or theological doctrine around him in medieval Hinduism.

connection with cosmogony.¹³ The historical evolution of his identity and role in and through the numerous mythological accounts has been complex and often inconsistent. What is extant concerning him in the later periods (even up to the present time) is that he was the “patron” of manual labor and the mechanical arts and, therefore, worshipped with great reverence by guilds of artisans.¹⁴ Next, the text mentions that Viśvakarman is also known as Īśvara, “Lord.” The notion of “lordship” of the deity belongs to a devotional religiosity that implies a personal relationship between deity and devotee.¹⁵ Thus, Viśvakarman is not only maker of the world, but also personal lord of devotees. This aspect of personhood, in turn, allows anthropomorphism in imagining the form of the deity. The gender ascribed to the deity is obviously masculine; it is also possible to imagine that he possesses “lotus-feet.”

The cosmogonic information in the third line, consistent with that found in the opening verse of the first chapter, is also valuable. The *brahmāṇḍa*, literally, “egg of Brahmā,” here to mean cosmos, is “self-created,” in other words, “begotten,” by Viśvakarman. The *kriyāpada*, verb, in the line used to denote this action is *srjate*, which is the conjugation in the *ātmanepada* form of *√srj*, “to create, produce, make.” It is this employment of the *ātmanepada* conjugation of the verb that tilts the scale of emphasis more towards “begetting” (or self-generating) than “making,” even though the distinction between the two is never absolute in Indian cosmogonic speculations. Underlying the process of begetting lies the principle of emanation, which is also found

¹³ For instance, *Rgveda*, X, 81 & 82.

¹⁴ This fact is well attested in the ethnographical study of South Indian artisans by Jan Brouwer (see Brouwer, *The Makers of the World: Caste, Craft and Mind of South Indian Artisans* [Delhi: Oxford University Press, 1995]).

¹⁵ For a treatment of the idea of the “lordship” of the deity, see Jan Gonda, “The Īśvara Idea,” in Gonda, *Change and Continuity in Indian Religion* (The Hague: Mouton & Co., 1965), pp. 131-165.

to be present in the genesis of Viśvakarman himself (and other deities). This emanationism is signified by the term *sakāśād*, in the first line. Declined in the ablative case, it is an adverbial term that means “from.” Thus, the cosmos emanates from Viśvakarman, who in turn emanates from Śiva.¹⁶

In the third line, the text employs yet another emphatic particle, *eva*, referring to Viśvakarman, seemingly to bind the twin aspects of his being the maker of the world and its lord even more closely. In doing so, the text also seems to refer back to the opening verse of the first chapter in order to specify beyond doubt what was left unspecified there: that Viśvakarman, the evolute of Śiva, is the maker of the world, whose lotus-feet are worshipped by the whole pantheon of deities. Also noteworthy is the presence of the indeclinable adverbial particle *muhuh* that refers to the verb *√sr*. This particle means “often, constantly” (from which derives the usage *muhurmuhuh*, “again and again”). It signifies yet another important aspect of cosmogony: its repetitive nature and the cyclicity of time it entails.

These specifically theological and cosmogonic principles are presented at the beginning of the treatise itself because they are considered as foundational to architectural and iconographic making, and therefore to its theoretical discussion as well. They are presented more or less “systematically,” in the sense that they are quite free of mythological content or poetic imagery. In fact, the purpose of theology here seems to subsume the mythological beliefs current among the builders within its

¹⁶ This emanationism makes ambivalent the notion of agenthood as efficient cause within the cosmogonic scheme.

categories: the great Viśvakarman who is the patron of builders according to mythological accounts, is identified as Īśvara, Lord, an emanation of Paraḥ Śiva, both of which are more properly “theological” notions.¹⁷ These terms, Paraḥ Śiva and Īśvara, are found within the scheme of philosophico-theological and cosmological speculations and constitutions of the devotional Śaiva sect of South India. The two terms present critical evidence that points to the affiliation of the *Mānasāra* to the “school” of theology and religious practice of Śaiva Siddhānta. Architectural and iconographic making, as enunciated in the *Mānasāra*, engages the spectrum of theology, cosmogony and cosmology. Therefore, it is necessary at this point to adumbrate the basic tenets of Śaiva Siddhānta in order to fully decipher the symbolic meaning of temple-building and image-making.

2. Śaiva Siddhānta

Antecedents of the Śaiva cult (worship of Śiva) in India have often been traced back to prehistoric times. Archaeologist-historians who conducted excavations and studies at sites of the Harappa Culture in the Indus valley (c. 2550-1900 BCE), the oldest civilization in India, discovered seals depicting a male deity seated in a yogic posture, which they interpreted as a forerunner of Śiva.¹⁸ In the Vedic pantheon of gods, Śiva is

¹⁷ This said, however, it must be noted that there is no real effort in the *Mānasāra* to make an absolute distinction between mythology and theology: the two sensibilities intermingle. For instance, the account of genealogy of the builders' guild in the same chapter has more a mythological than theological flavor.

¹⁸ See for instance, Stuart Piggot, *Prehistoric India* (Harmondsworth: Penguin Books, 1961), p. 202. The continuities between Harappa Culture on the one hand and early and classical South Indian Dravidian language, culture and religiosity on the other has been proposed by Asko Parpola after his extensive studies of archaeological and linguistic sources (see Parpola, *Deciphering the Indus Script* [Cambridge: Cambridge University Press, 1994], Part I, “Introduction,” and Part III, “The Linguistic Context”). Prototypes of deities such as Śiva and Murukan are central to this link. Since the Indus script has not yet been fully deciphered, reconstruction of the full historical picture of the Harappa Culture is still in process. A measure of caution is therefore warranted in proposing the links, especially with respect to the deities, a tone that is reflected in the following statement by Gavin Flood:

prefigured in the deity Rudra, "the terrible (or ruddy) one," who was invoked in the *Rgveda* and the *Atharva Veda* as *paśupa*, "protector of cattle," and *paśupati*, "lord of the animals."¹⁹ In the *Yajur Veda*, the hymn *Śatarudrīya*, "the hundred names of Rudra," is found, in which occurs the five-syllabled *mantra*, *namaḥ śivāya*.²⁰ In the Upaniṣadic body of texts, even though the dominant tenor was non-dualist, there still existed certain theistic currents (in some of the chronologically later Upaniṣads) whereby the possibility of a supreme personal deity could be admitted. Thus, in the *Śvetaśvara Upaniṣad* Rudra-Śiva occurs as a personal deity who has the attributes of auspiciousness and inspires devotion.²¹ Out of this inspiration grew the early pastoralist

Perhaps suggestive of the later religions are the images on the remarkable steatite seals, particularly the 'Paśupati' seal, of a seated, perhaps ithyphallic, figure surrounded by animals, either horned or wearing a headdress. Sir John Marshall and others have claimed that this figure is a prototype of the Hindu god Śiva, the *yogin* and Lord of the animals (*paśupati*), sometimes represented with three faces, and the posture with the knees out and feet joined has been interpreted as evidence of *yoga* in pre-Aryan culture. However, it is not clear from the seals that the 'proto-Śiva' figure has three faces, as it is claimed, nor is it clear that he is seated in a yogic posture. Asko Parpola has convincingly suggested that the proto-Śiva is in fact a 'seated' bull . . . While the claim that in the seals we have representations of a proto-Śiva is speculative, it is nevertheless possible that iconographic features are echoed in the iconography of Śiva; the half-moon in Śiva's hair resembling the horns of the bull-god. 'Phallic' -shaped stones have also been found, suggestive of the later aniconic representation of Śiva, the *linga*. However, while these connections may be speculative, Parpola has tried to demonstrate that there are a number of linguistic and iconographic continuities between the Indus valley civilization and south Indian Dravidian forms of Hinduism (Gavin Flood, *An Introduction to Hinduism* [Cambridge: Cambridge University Press, 1996], pp. 28-30).

¹⁹ See the section titled "Aryan Rudra-Śiva" in M. Dhavamony, *Love of God According to Śaiva Siddhānta* (Oxford: Clarendon Press, 1971), Part II, Chapter VIII, "The Origins of Śaivism." After studying the instances of mention of Rudra in the Vedas, he comments thus:

The Rgvedic Rudra prefigures Śiva in as much as he is described as terrible and formidable . . . but easily invoked, . . . auspicious . . . and bountiful. . . . Of still greater importance from the point of view of Tamil Śaivism is the fact that Rudra already in the *Rgveda* is implored to protect cattle from destruction (Ibid., p. 104).

The aspect of *paśupati* links Rudra-Śiva back in time also, to the Harappan deity (see Ibid., pp. 107-08). A historical account of the Śaiva cult in the pre-historic, Vedic and epic periods (the latter two through textual evidence) in Indian history is also found in Ishwar Chandra Tyagi, *Shaivism in Ancient India: from earliest times to c. A. D. 300* (New Delhi: Meenakshi Prakashan, 1982). Also see Mahadev Chakravarti, *The Concept of Rudra-Śiva through the Ages* (Delhi: Motilal Banarsidass, 1986), Chapters I, II & III.

²⁰ See Indira Peterson, *Poems to Śiva: The Hymns of the Tamil Saints* (Princeton: Princeton University Press, 1989), pp. 26-27. This *mantra* was to assume principal status in classical and medieval Śaivism. For a discussion of the various aspects of both the deity Rudra and the litany *Śatarudrīya*, see Bruce Long, "Rudra as an Embodiment of Divine Ambivalence in the *Śatarudrīya Stotram*," in Fred W. Clothey & J. Bruce Long, eds., *Experiencing Śiva: Encounters with a Hindu Deity* (Columbia, MO.: South Asia Books, 1983), pp. 103-28; and Stella Kramrisch, *The Presence of Śiva* (Princeton: Princeton University Press, 1981), Chapters I-VI.

²¹ Dhavamony, *Love of God*, Chapter II, "Upaniṣadic Theism and *Bhakti*," especially pp. 59-67.

Saiva Pāśupata sects in North India.²² With the spread of the Aryan culture to the South, these ideas also reached the Dravida region of South India.²³ The mention of Śiva himself in classical Tamil texts (from first to fifth century CE) is scarce²⁴; however, the references therein are sufficient to indicate the existence of a religiosity of “devotion” to deities such as Murukaṇ and Piḷḷaiyār (the later Gaṇeśa) and cults of image-worship.²⁵ The emergence of Tamil Śaivism as a distinctive sect is dated as from circa sixth century CE onwards²⁶; its primary religious impulse was *bhakti*, devotional love, towards Śiva, the supreme deity.

The word *bhakti* derives from *√bhaj*, “to divide,” and also “to engage in, participate, partake of.” This sense of separation or division that the word contains points to a duality that defines “otherness.” In a general context of theistic religion, it is this duality that persists between deity and devotee. *Bhakti* as devotional love is the intense emotional engagement of and participation in the otherness of the other, by means of which the duality is sought to be overcome.²⁷ In Tamil Śaivism, *bhakti* found its most poignant expression in the hymns sung by the *nāyanārs*, holy men and women,

²² See R. G. Bhandarkar, *Vaiṣṇavism, Śaivism and Minor Religious Systems* (Strasbourg: Karl J. Trübner, 1913), pp. 115-119.

²³ See K. A. Nilakanta Sastri, *Development of Religion in South India* (Madras: Orient Longmans 1963), Chapter II, “Integration of Cults and the Beginnings of Hinduism.”

²⁴ The classical text (an anthology of poems) *Puṇānūru*, for instance, mentions Śiva and his myths (Peterson, *Poems to Śiva*, p. 12, Note 19).

²⁵ Dhavamony, *Love of God*, pp. 108-15. To the above list of Tamil classical deities could be added Māyōṇ who later became Gopāla (Kṛṣṇa) to the Vaiṣṇavas. In classical Tamil religiosity, “devotion,” especially to the six-faced Murukaṇ, was one based on actual possession by the deity (see Fred Clothey, *The Many Faces of Murukan: The History and Meaning of a South Indian God* [The Hague: Mouton, 1978], Chapters I & II).

²⁶ Nilakanta Sastri, *Development of Religion in South India*, Chapter III, “*Bhakti* Movements in the South”; and also C. V. Narayana Ayyar, *Origin and Early History of Śaivism in South India* (Madras: University of Madras, Rpt., 1974).

²⁷ Dhavamony conducts an exhaustive study on the etymology and semantics of the term *bhakti*, and the various contexts, both religious and non-religious, in which it was used in the Sanskrit textual tradition (see Dhavamony, *Love of God*, Part I, “Etymology and Semantics of *Bhakti*,” Chapters I, III and IV). Also see Jan Gonda, *A History of Indian Literature*, Vol. II: *Medieval Religious Literature in Sanskrit* (Wiesbaden: Otto Harrassowitz, 1977), Chapter III, “*Bhakti*.” Even though the Śaiva notion of *bhakti* still retains the connotations of possession, here the possession by the deity is less immediate and actual when compared to that by Murukaṇ in classical Tamil religiosity.

about their immediate and ecstatic experience of Śiva at the various shrines dedicated to him in the Tamil region. The tradition counts sixty-three *nāyanārs*, principal among whom were the foursome, Appar, Sambandar, Sundarar and Māṇikkavācakar. Within the Śaiva sect, their hymnal compositions gradually acquired the elevated status of revealed sacred texts and the appellation of *tirumuṭai*, sacred speech.²⁸

Revelation and sacred scripture in Tamil Śaivism was not, however, limited to the hymns of saints. The *Āgamas*, texts in Sanskrit that were concerned primarily with *sādhana*, ritual and spiritual practice, were also considered part of the body of revealed scripture. The contents of the *Āgamas* generally had a four-fold *pada*, division or structure: 1) *jñāna*, knowledge; 2) *yoga*, techniques of meditation; 3) *kriyā*, architectural and iconographic making, and associated rituals; and 4) *carya*, performance of daily worship, as well as code of religious conduct.²⁹ Śaiva Siddhānta was the philosophico-theological systematization of Śaiva revelation received through these two streams, and was indelibly linked to the public institution of the temple.³⁰

²⁸ The hymns of the first three saints are collectively called *Tēvāram*, and of the fourth, *Tiruvācakam*. The *Tēvāram* became part of *Tirumuṭai*, revealed sacred scripture in the Tamil language (see Peterson, *Poems to Śiva*, Chapters I and II).

²⁹ Gonda, *Medieval Religious Literature in Sanskrit*, Chapter I, "General Introduction: The *Āgamas*," pp. 2-3; he notes that the distinction between *kriyā*- and *caryapada* are sometimes not clear enough. A detailed outline of contents of Śaiva *Āgamas* are given in Ibid., Chapter XI, "Śaivite *Āgama* Literature," and XII, "The Individual *Āgamas*."

³⁰ The systematization began simultaneously with the culmination of devotional hymnal literature in the *Tiruvācakam* of Māṇikkavācakar (second half of ninth century CE). The later major figure in the process of systematization is Meykaṇṭatēvar who wrote the treatise *Śivajñānabodham* in Tamil in 1223 CE (Ibid., pp. 158-61). For an overview of the history of the systematization as well as general outlines of the system itself, see K. Sivaraman, *Śaivism in Philosophical Perspective* (Delhi: Motilal Banarsidass, 1971), Chapter I, "Introduction to the Philosophy of Śaiva Siddhānta"; and Richard Davis, *Ritual in an Oscillating Universe: Worshipping Śiva in Medieval India* (Princeton: Princeton University Press, 1990), "Introduction: Locating the Tradition," pp. 3-21. For an analysis of several Tamil Śaiva Siddhānta treatises, see Dhavamony, *Love of God*, Part IV, "Analysis of Tamil Śaivite Theological Texts."

The *Āgamas* also propounded *bhakti*; it was the basic attitude with which to approach *sādhana*. However, since the role of *sādhana* as ritual practice was mediation between deity and devotee, the *bhakti* that moderated it was, so to speak, more “restrained.” One might even say that it was an “intellectualized” and “aestheticized” form of *bhakti*; the former deriving from the component of *jñāna*, sacred knowledge, in the *Āgamic* scheme, and the latter from the sacred artistic practice of architecture and especially iconography. These “gnostic” and “aesthetic-mystical” elements featured more dominantly in various philosophico-theological systematizations of Śaiva revelation, mostly in North India.³¹ Thus, in order to bring to relief more fully the interplay between devotional, gnostic and aesthetic-mystical streams³² (which is important from the point of view of architectural and iconographic making as well as ritual worship) within the basic categories of Tamil Śaiva Siddhānta, their North Indian elaborations must also be considered. This strategy is adopted in the following exposition of the categories of Śaiva Siddhānta.³³

³¹ The former marks the systems of Bhoja and Śrīkumāra in the Malwa region and Aghora Śiva in the Tamil region itself, while the latter those of Somānanda, Kṣemarāja and Abhinavagupta in Kashmir. For excerpts and outlines of these, see Jose Pereira, *Hindu Theology: A Reader* (New York: Image Books, 1976), pp. 166-82, 357-88, 468-69, 496-97.

³² This interplay, at a cultural and linguistic level, is that between brahmanical and non-brahmanical, Aryan and Dravidian, and Sanskritic and Tamilian sensibilities.

³³ This strategy may be considered as “eclectic” and is not favored from a strict point of view of tutelary lineage (see Richard Davis, *Ritual in an Oscillating Universe*, p. 20). However, since the main objective here is exposition and not construction of or instruction in the system, the eclectic approach (that proceeds, albeit, with a measure of caution) suits better to expose the horizon of the system in its full richness. There is a historical reason for this eclectic approach, which, according to Davis, rests on the fact that Śaiva Siddhānta, emerging in the mid-ninth century, was not limited to the Tamil region but was a pan-Indian school (Davis, *Ritual in an Oscillating Universe*, pp. 14-20; also Davis, “Aghoraśiva’s Background,” in *Journal of Oriental Research*, No. 56-62 [1986-92], pp. 367-78, quoted in Daud Ali, “Royal Eulogy as World History,” in Ronald Inden, Jonathan Walters & Daud Ali, *Querying the Medieval: Texts and the History of Practices in South Asia* [Oxford: Oxford University Press, 2000], p. 213, Note 143). Davis, therefore, consults extra-South Indian sources for his study of Śaiva Siddhānta and temple rituals. This approach is also an issue of hermeneutics, and is stated explicitly at the outset by Wilhelm Halbfass in his work on classical Vaiśeṣika (see Halbfass, *On Being and What There Is: Classical Vaiśeṣika and the History of Indian Ontology* [Albany: SUNY Press, 1992], p. 15).

Among the *Śaivāgamas*, theological texts belonging to the Śaiva sect, only the *Kārikāgama* was available to me in its Sanskrit version for perusal. I wish to thank Devesh Soneji for lending me his copy of the *Kārikāgama*. Owing to the unavailability of the bulk of the *Āgamas* in their original or translated version, the following interpretation of the theological tenets has been based on information culled from several secondary sources. It must

Saiva Siddhānta propounds three fundamental categories that correspond to divinity, humanity and the world, namely 1) *pati*, Deity, i.e., Śiva (literally, “master”); 2) *paśu*, Self (literally, “beast”); and 3) *pāśa*, Bond (literally, “rope”) – the world of matter, of “flesh,” that enslaves *paśu*. This basic triad is further developed along emanationist lines into principles, thirty-six in number, that follow a hierarchical pattern from subtle to gross. These principles elucidate the nature of Śiva in his modes of being and becoming, and explain the evolution of the self and of the world from Śiva and their involution into Śiva at the end of the eon. The same principles also encompass the entire scope of existential and experiential aspects of the self while being in the world.

Parama Śiva is the inert and formless state of absolute transcendence beyond all categories in which śiva, divine agency,³⁴ śakti, its instrumentality (energy or power),³⁵ and bindu, its potency (pure materiality in a nuclear state), are in perfect union. This undifferentiated state of śiva, śakti and bindu in and as parama śiva is disturbed when “being discerns itself,” so to speak, effecting a tension in the equilibrium of bindu. As a result, divine agency and instrumentality are differentiated. The former is śiva-tattva,

also be said that comprehensive studies on the Āgamas in the classical discipline of Indology are still in a nascent state (for a comment on this, see Gonda, *Medieval Religious Literature in Sanskrit*, pp. 5-6, 178-79).

³⁴ The efficient agency of the divinity to create the world is conceived as *adhvan*, way (path), or realm. *Adhvan* is hexadic: 1) *kalā*, aspect; 2) *tattva*, the thirty-six principles of cosmic evolution; 3) *bhuvana*, planes of experience totaling 224; 4) *varṇa*, the fifty-one letters of the alphabet; 5) *pada*, the eighty-one magical words; and 6) *mantra*, the eleven syllabic formulae. *Kalā*, the primary *adhvan*, has five modes that constitute the entire framework of evolution from the transcendental to the phenomenal. They are: 1) *śāntyāñita*, transcendent pacific; 2) *śānti*, pacific; 3) *vidyā*, knowing; 4) *pratiṣṭhā*, establishing; and 5) *nivṛtti*, obscuring. In meditational and ritual worship, *adhvan* is conceived as the mode of being of Śiva. The five-fold modality of *kalā* from transcendental to phenomenal pervades each of the other *adhvans* as well (see S. K. Ramachandra Rao, ed., *Āgama Kosha: Āgama Encyclopaedia* [Bangalore: Kalpatharu Research Institute, 1989], Vol. II, Chapter III, “Śaiva Siddhānta”).

³⁵ Corresponding to the five *kalādhvans* of śiva, divine agency, are five modes of śakti, divine instrumentality: 1) *parāśakti*, transcendent; 2) *ādiśakti*, originant; 3) *icchāśakti*, intentional; 4) *jñānaśakti*, knowing (discerning); and 5) *kriyāśakti*, active. Of these, the latter three are modes of causality in cosmic evolution (see T. A. Gopinatha Rao, *Elements of Hindu Iconography* [Delhi: Motilal Banarsidass, 1968], Vol. II, Part II, pp. 361-70).

the first of the thirty-six *tattvas*, principles or categories (literally, “that-ness”), and the latter, *śakti-tattva*, the second principle. These principles exhibit a mutual relationship of co-ordination (rather than subordination) as male and female respectively. Consequently, the intentional and active modes of *śakti* exert themselves on *bindu*, which undergoes successive mutations leading to cosmic evolution. Thus, the third principle, *sadāśiva-tattva*, is “the incipient experience of phenomenal being.”³⁶ The possibility of conceiving a concrete form of Śiva and iconographizing it begins with this evolute.³⁷ The fourth principle is *maheśvara-tattva*, which is “the crystallization of the experience of phenomenal being.”³⁸ In this evolute, Śiva, the great lord, manifests himself as *mūrti*, deity in anthropomorphic form, of twenty-five “characters” such as teacher, dancer, mendicant, and so on.³⁹ The fifth principle is *śuddhavidyā*, pure knowledge, the knowledge characteristic of the transcendental realm.

³⁶ Jose Pereira, *Hindu Theology: A Reader*, p. 496.

³⁷ This principle of *sadāśiva*, ever-benign, is pentadic as well, comprising five modes or *sadākhya*s. In the order from the transcendent to phenomenal, they are: 1) *śivasadākhya*, transcendent; 2) *amūrtasadākhya*, formless; 3) *mūrtisadākhya*, one with form; 4) *kartṛsadākhya*, agent; and 5) *karmasadākhya*, maker. Of these, the first four, being in the “form” of effulgence of different intensities, and column of immense dimensions, cannot be iconographized but only be meditated upon. The fifth, *karmasadākhya*, is iconographized as the “semi-iconic” *līṅga*, and installed in the adytum of the Śaiva temple. *Sadāśiva* in the *karmasadākhya* mode is said to be endowed with five visages – *Īśāna*, *Tatpuruṣa*, *Aghora*, *Sadyojāta* and *Vāmadeva* – which are sometimes sculpted on the *līṅga* as turned upwards, towards east, south, west and north respectively (see S. P. Sabarithanam, “Āgamic Treatment of *Mahābhūtas* in Relation to *Maṇḍalas* and Arts” in Bettina Bäumer, ed., *The Āgamic Tradition and the Arts*. Kapila Vatsyayan, gen. ed., *Prakṛti: The Integral Vision* [New Delhi: Indira Gandhi National Centre for the Arts & D. K. Printworld, 1995], Vol. III, p. 55). Each of these faces of Śiva has three eyes, the third located vertically in the center of the forehead.

The *līṅga* is understood as the “semi-iconic image of Śiva,” because of its form and nature as falling somewhat between the iconic and the aniconic. *Līṅga* literally means “phallus,” and has undeniable phallic connotations even in its abstract iconographic form as a cylindrical shaft; as noted above, sometimes the five faces of *Sadāśiva* are also carved on the shaft. For a full exposition of the concept of *līṅga* as expounded in mythological and theological accounts, see Kramrisch, *The Presence of Śiva*, Chapter VII, “*Līṅga*,” pp. 153-96.

³⁸ Jose Pereira, *Hindu Theology: A Reader*, p. 496.

³⁹ These “characters” of Śiva, enriched by mythological and legendary accounts, provided the plethora of images that the iconographers concretized in their works. For a complete list of these characters, see Gopinatha Rao, *Elements of Hindu Iconography*, Vol. II, Part II, pp. 369-70. The treatise *Mayamata* (Ch. XXXVI, vv. 35-107) offers iconographic features of sixteen of them. These iconic forms of Śiva occasionally replaced the semi-iconic *līṅga* as the principal installation in many Śaiva temples.

Following these are the subjective principles of the self: 6) *māya*, self-obscuration; 7-11) the *pañcakavaca*, five “sheaths” of the self: *kalā*, aptitude; *vidyā*, knowledge; *rāga*, desire (affection); *kāla*, time; and *niyati*, fate (necessity). The next *tattva* is *puruṣa*, spirit or consciousness, also a subjective category of the self. As evolution progresses, the objective principles of the self emerge. They are: 13) *prakṛti*, matter (corporeality); 14) *buddhi*, intellect; 15) *manas*, mind; 16) *ahaṃkāra*, ego (self-hood); 17-21) the five perceptual faculties of *śrota*, ear; *tvak*, skin; *cakṣus*, eye; *jihva*, tongue; *nāsi*, nose; and 22-26) the five motor faculties of *vāk*, voice (speech); *pāṇī*, hands; *pāda*, feet; *pāyu*, anus; and *upastha*, genitals. The evolution is complete with the principles that comprise the world – 27-31) the five subtle elements: *śabda*, sound; *sparsa*, touch; *rūpa*, sight; *rasa*, flavor (taste); and *gandha*, smell; and 32-36) the five gross elements: *ākāśa*, space (ether), *vāyu*, air; *agni*, fire; *jala*, water; and *pṛthivī*, earth.⁴⁰

In this pentadic structure of the cosmos defined by the above principles, correspondences, both exoteric and esoteric, are found between the elements that comprise the world, the faculties of the self for perception, cognition and action, and aspects of the deity.⁴¹ Highlighting these correspondences by hypostasizing them is the objective of sacred architecture and iconography (as well as sacred worship, both public and private). Architectural and iconographic making is conducted with the accompaniment of rituals at each important stage. These rituals during construction

⁴⁰ This topic is treated in more detail in K. Sivaraman, *Saivism in Philosophical Perspective*, Chapter IX, “Doctrine of Thirty-Six *Tattvas*.”

The philosophic system of Sāṃkhya, Enumerationism, undergirds the theology of Śaiva Siddhānta: among the thirty-six categories, twenty-five, beginning with *puruṣa*, are derived from Sāṃkhya, to which eleven that are particular to Śaiva revelation are added to complete the system.

⁴¹ The fact that the structure underlying the cosmos, self and deity is pentadic has an added significance in that the *mūlamantra*, principal syllabic formula, that pertains to Śiva – *namah śivāya* – has five syllables.

enable the temple and the image to be conceived as a hylic punctuation, a spatio-temporal “event,” so to speak, that occurs at the locus of meeting of the transcendental and phenomenal realms, at the intersection between the spheres of the self, the world and the divine.

3. The divine provenance of *vāstuśāstra*

The claim of the priority of *vāstuśāstra* with respect to practice rests upon its theological foundation and plays out in the claim of its divine provenance. In the *Mānasāra*, the “origin” of *vāstuśāstra* is treated in the following verse (I, 3-4):

*gaṅgāśīraḥ kamalabhūkamalekṣaṇendragīrvāṇanāradamukhairakhilamunīndraiḥ |
proktam samastataravastvapi vāstuśāstram tanmānasāra-ṛṣiṇāpi hi lakṣyate sma ||*

The science of architecture was uttered by the mouths (taught) of the one who carries Gaṅgā on his head (Śiva), the lotus-born (Brahmā), the lotus-eyed (Viṣṇu), Indra, the one whose speech is like arrow (Bṛhaspati), [and] of all the great sages; and is indeed also elaborated by the sage Mānasāra [on] all kinds of objects (topics).⁴²

Consistent with the affiliation of the *Mānasāra* to the school of Śaiva Siddhānta, the name of Śiva is mentioned first in the list of “characters” comprising of deities and sages. The imagery of the characters in this list draws from mythology and thus defies strict mythological-theological distinction. From such a quasi-theological point of view, the verse may be read as saying that *vāstuśāstra* proceeds from the mouth of Śiva, the supreme deity, and is passed on by other deities and sages until it reaches the realm of

⁴² A note on the translation of the verse is in order here. The first term, *gaṅgāśīraḥ* stands independently in the nominative singular. This would indicate that it is the agent of a verb in the active voice, which is absent in the verse. The rest of the names in the list form an *itaretara dvandva samāsa*, cluster-compound, read as one word, which in turn forms a *tatpuruṣa samāsa*, “syntactic compound,” of the sixth (genitive) case with the word *mukha*, mouth. The error in the grammar (which Acharya seems to have missed) may be rectified by adding the first term also to the compound in its nominal stem form by dropping the aspirant *h*, thus giving, *gaṅgāśīrakamalahū* . . .

human existence and action. However, a closer reading of the verse with respect to its grammatical constitution yields a sense that is more consistent with the argument of the Mīmāṃsā school of exegetics: the pre-eminence and pre-existence of the “word” or “text” with respect to all the sages and deities including even Śiva. This sense is brought home by the use of the passive voice which “promotes” the patient of the verb that denotes the act of uttering, which in this instance is *vāstuśāstra*, as the subject of the sentence. Such a conclusion of the pre-eminence of the word over the deity is almost unavoidable when the exegetical tools of Mīmāṃsā are applied rigorously to the analysis of the text, indeed any śāstraic text, even if it was not explicitly intended by the text itself. In either case, the priority of *śāstra* over *prayoga* is only confirmed and never challenged.

The claim that *vāstuśāstra* precedes its practice by virtue of its divine origin is attested by the simultaneous claim that the guild of builders also have a divine origin. The text elaborates the divine genealogy of the guild in detail. This genealogical account gives voice to the beliefs of the builders’ community, and is expressed in a mode that is more mythological and narrative rather than theological and propositional. Again, the characters in the genealogical line are drawn from various mythological sources. Viśvakarman is said to be born with four faces. Each face has a name that signifies a particular role which seems to be an attempt to further delineate the different aspects of the grand process of cosmic generation. Thus, the eastern face is called *viśvabhū*, literally, “the world-born one,” here to mean the one who grants the world its existence; the southern face, *viśvavid*, “the world-knowing one”; the northern face, *viśvastha*, “the

world-establishing one"; and the western face, *viśvasraṣṭā*, "the one who is maker of the world." From the eastern face of Viśvakarman was born (also) Viśvakarman; from the southern face, Maya; from the northern face, Tvaṣṭṛ; and from the western face, Manu. The four members of the builder's guild, namely *sthapati*, master-builder, *sūtragrahin*, cord-bearer, *vardhaki*, stone-cutter, and *takṣaka*, carpenter, are said to be sons of Viśvakarman, Maya, Tvaṣṭṛ and Manu respectively.⁴³

The theme of the priority of *vāstuśāstra* over *prayoga* further plays out in the text in the hierarchical organization of the guild.⁴⁴ The *sthapati*, master-builder, who possesses the highest "theoretical" knowledge (which encompasses knowledge of the sciences as well as metaphysics and theology), is the head of the guild.⁴⁵ He is capable of overseeing and directing all construction, possessing an "intuitive foresight so as to be able to calculate and decide everything quickly."⁴⁶ He is, thus, the *guru*, teacher, of the other three members. Under his direction, the *sūtragrahin* and others carry out the building work in accordance with the precepts of *śāstra*. The text bestows upon him the titles of *sthāpanādhipati*, "master of installation," and *ācārya*, "instructor of highest repute." Throughout the text, in the course of his operations, the *sthapati* is frequently exalted as *buddha*, wise or enlightened, *sudhi*, thoughtful, and *prajña*, knowledgeable.

⁴³ *Mānasāra* II, 5-20. The four semi-divine characters mentioned here are associated in traditional mythological accounts with building and associated crafts. The Manu mentioned here is not to be confused with Manu the law-giver and "author" of the moral-legal treatise *Mānava-dharmaśāstra*.

⁴⁴ *Mānasāra* II, 17-39.

⁴⁵ The text calls him *sarvaśāstrajñāh*, "knowledgeable in all sciences," *śāstrapāragah* "one who has crossed [the ocean of] the sciences," and *vedavid*, "one who knows the Veda." As Acharya notes, "the expression 'versed in all śāstras' need not be taken in too literal a sense." It means working knowledge in the śāstras that are pertinent to architectural making: mathematics, astrology, geomancy, alchemy and so on (Acharya, *A Dictionary of Hindu Architecture*, *Mānasāra* Series No. 1 [Delhi: Low Price Publications, 1996], pp. 726-27). Also to be noted in this statement is the bipartition between *śāstra* and Veda. The term *veda* could be interpreted generally as sacred knowledge and specifically as the text of the Vedas.

⁴⁶ *Ibid.*

Thus it is clear that he is no mere craftsman, but a “theoretician” and teacher in his own right.

The *sūtragrāhin*, the next member of the guild knows the Veda and the *śāstras*. The word *sūtra* derives from *√siv*, “to sew,” and means “thread, line, cord.” It also has the meaning of “a short aphoristic rule.”⁴⁷ *Grāhin* derives from *√grah*, “to hold, grasp,” and means, “the one who grasps,” both in the physical and mental sense. Thus, *sūtragrāhin* is “one who grasps the measuring cord,” at the same time “one who comprehends *sūtra* in its metaphysical import and in its architectural formulation as the rules of geometry and proportion.”⁴⁸ The *Mānasāra* states that the *sūtragrāhin* has a specialized knowledge of *rekhā*, literally, “line,” here to mean the geometry of delineation. His role is to assist the *sthapati* by holding the measuring cord and drawing the circles and lines in the process of orientation and delineation of the site, as well as at other instances of measuring that occur during construction. As marker of circles, the *sūtragrāhin* is called *bindutattvajña*, “one who is knowledgeable in the principle of *bindu*.”⁴⁹ The term *bindu* means doubly the geometrical “point” or “center” and the

⁴⁷ See Fritz Staal, “Sūtra,” in Bettina Bäumer, ed., *Kalātattvakośa: A Lexicon of the Fundamental Concepts of the Indian Arts*. Vol. II: *Concepts of Space and Time*. Kapila Vatsyayan, gen. ed. (New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass Publishers, 1992), pp. 303-14.

⁴⁸ The metaphysical import of the “thread” is stated in the following passages from *śruti* texts which are part of the Vedic revelation:

Atharva Veda X, 8.38 (trans. W. D. Whitney):

I know the stretched-out string in which these offspring are woven in;
the string of the string I know; likewise the great *brahmaṇa*.

Bṛhadāraṇyaka Upaniṣad II, 7.1 (trans. Hume):

Do you know, O Kāpya, that thread by which this world and the other world and all things are tied together? . . . that Inner Controller who from within controls this world and the other world and all things? . . . Verily Kāpya, he who knows that thread and the so-called Inner Controller knows Brahma, he knows the world, he knows the gods, he knows the Vedas, he knows created things, he knows the soul, he knows everything.

⁴⁹ *Mānasāra* VI, 23-24.

metaphysical principle of “nucleus” (divine potentiality) associated with the origination of the cosmos in Śaiva theology.⁵⁰

The third member of the guild, *vardhaki*, knows the Veda, and being the “increaser,” knows to assess the assembly of the superstructure, measuredly cut the building blocks and assemble them.⁵¹ He is stated to be an expert in the work of *citra*, painting, as well. In addition to these, elsewhere in the text, he is mentioned as the sculptor (iconographer).⁵² Finally, the *takṣaka*, carpenter, also is stated to know the Veda, and be skilled in his craft of wood-joinery.⁵³

4. *Sthapati* and *Sthāpaka*

The above four members of the builders’ guild alone do not complete the array of “actors” in the building scene. On several occasions, the text mentions the presence of a fifth character, the *sthāpaka*, especially during the conduct of rituals associated with building. A clear definition of the roles of the *sthapati* and the *sthāpaka* in relation to each other and to the process of image-making (which, by extension, includes temple-

⁵⁰ See H. N. Chakaravarty, “Bindu,” in Bäumler, ed., *Kalātattvakośa*. Vol. II: *Concepts of Space and Time*, pp. 1-24.

⁵¹ Patrick A. George, in his recent study on North Indian temple construction, notes that some Sanskritists render *vardhaki* to derive from *vardh*, “to cut, divide, shear,” and consequently call him carpenter (for instance Monier-Williams, *A Sanskrit-English Dictionary*, p. 926). He points out that “this is a circular etymology since the root is from the tenth or denominative conjugation class [of Sanskrit verbs], and so the verb is derived from the noun.” Instead, *vardhaki* derives from the causative of *vardh*, “to increase.” He works under the direction of the *sūtragrahin* and “makes an increase” or assembles the superstructure (George, *Construing Constructs: A study of temple design and construction in North India* [Philadelphia: University of Pennsylvania, Ph. D. Dissertation, 1994], p. 139). Grammars of etymology aside, the former interpretation also makes sense and in fact complements the latter if “carpenter” is substituted by “stone-cutter.”

⁵² *Mānasāra* LXVII, 132-133; LXVIII, 23-25.

⁵³ *Mānasāra* XVII, 77. Knowledge of the Veda, especially in the case of the members lower in the hierarchy of the guild, need not be understood literally. What it suggests is, perhaps, some awareness of a purpose to their craft in the divine scheme of things.

building as well) is given in the iconographic section of the *Mānasāra*, at the beginning of the final chapter. The text states thus (LXX, 3-4):

*sthapatiḥ prakṛtiḥ proktaḥ sthāpako jīvamiṣyate |
tasmātkriyārambhataḥ saha kuryattu saṃsadā ||*

The *sthapati* is said to be the source (“maker”) [of the image]; the *sthāpaka* is regarded as its life-principle. Therefore, from the beginning of the operation, one should work in company of [the other], indeed, at all times.⁵⁴

The *Mānasāra* defines the role of the *sthapati* as *prakṛti*, “maker” (literally, “source” or “material cause”) of the image, and that of the *sthāpaka* as its *jīva*, “life-principle,” that is, one who animates the image. The *sthāpaka* is always seen to be working “in the company of” the *sthapati*: in rituals that are conducted at key moments in the construction process, from the measurement of the site and laying of foundation to the inauguration of the temple.⁵⁵ The nature of his exact role in the operations, and in turn, his relationship to the *sthapati*, have been a matter of some ambiguity, leading to dispute among scholars. The exact roles of *sthapati* and *sthāpaka* in conducting the building operations and associated rituals also reflect the facets of knowledge they respectively embody, and hence beg careful elaboration.

⁵⁴ Acharya translates the verse thus:

The chief architect (*sthapati*) is said to be the creator (*prakṛti*) and the sculptor (*sthāpaka*) the life (of the images); therefore they should work together in consultation with (lit. in company of) each other from the very beginning of the operation (Acharya, *Architecture of Mānasāra*, p. 641).

⁵⁵ For instance, *Mānasāra* VI, 114-115: the *sthāpaka* and *sthapati* together drive the peg into the ground in the course of delineating the measured site; XII, 212: they lay the first bricks in the excavated foundation pit; XV, 255-256: they go to the forest together to collect wood for columns; XV, 435-436, they ceremonially erect the column; XXXVII, they are present at the inaugural ceremony of a residence; XLIX, 169-219: together they conduct the ceremony of coronation of a king; LII, 181-187: they collect wood for iconographic purposes; LXVII, 132-133: they install the *linga* upon its pedestal; LXVIII, 20-22: together they oversee the casting of an image in wax; and, finally, LXX, together they conduct the ceremony of opening the eye of the image and its installation in the temple.

Both the words *sthapati* and *sthāpaka* derive from $\sqrt{sthā}$, meaning, “to stand.” *Sthā*, in its causative form, as in *sthāpayati*, “[he] causes to stand,” assumes meanings that are emphatically architectural: “to place, locate, erect, build, establish.” The sense of *sthapati* as master of building operations (master-builder) derives from this causative of $\sqrt{sthā}$, the term *pati* meaning “lord, master.”⁵⁶ Again, from the causative of $\sqrt{sthā}$ derives the noun *sthāpana*, “causing to stand, erecting, establishing.”⁵⁷ Similarly, the noun *sthāpaka* is also derived from the causative of $\sqrt{sthā}$ and specifies the agent of the action.⁵⁸ The word *sthāpaka*, when used in compounds, can assume three senses according as the compounds are glossed: 1) the adjectival sense of “causing to stand, establishing”; 2) the sense of the verbal noun: “erecting, establishing”; and 3) the sense of the agent noun: “the one who erects, establishes.” For instance, the compound *sthāpakavidyā* can be glossed in three ways in which the above three senses of *sthāpaka* are found to be operative. These are: 1) *sthāpakā vidyā*, “erecting-knowledge” or to paraphrase it, “knowledge of erecting” (here the compound is a *karmadhāraya*, and the sense of *sthāpaka* as “erecting” is adjectival, one that qualifies “knowledge”); 2) *sthāpakasya vidyā*, “knowledge of erecting” (here, the compound is a *śaṣṭī tatpuruṣa*, and *sthāpaka* assumes the sense of verbal noun); and 3) *sthāpakasya vidyā*, “knowledge of the *sthāpaka*” (also a *śaṣṭī tatpuruṣa* compound, but with the

⁵⁶ There exists among Sanskritists another reading of the etymological derivation of *sthapati*. Apte gives this derivation as *sthā-ka tasya pati* (V. S. Apte, *The Practical Sanskrit-English Dictionary* [Delhi: Motilal Banarsidass Publishers, 1998], p. 1718): to $\sqrt{sthā}$ in the sense of “to dwell” is added the *pratyaya* ‘ka’ to yield the stem *sthā*, “place,” which is then compounded to *pati*, “lord.” According to this derivation, *sthapati* means “place-lord,” implying kingship and governance, and is not related to architectural operations whatsoever. Also see George, *Construing Constructs*, p. 139.

⁵⁷ Apte gives the derivation as $\sqrt{sthā}$ -*nic*-*lyuṭ* (Apte, *A Practical Sanskrit-English Dictionary*, p. 1721). The *pratyaya* ‘nic’ has the effect of yielding the causative stem from the root, and the *pratyaya* ‘lyuṭ’ has the effect of adding the ending ‘ana’ to this stem, thus yielding the noun *sthāpana*. The possible meanings of this derivation include the name of the action, instrument of the action and its location (see Richard Hayes, *Samśkṛtābhāṣāpravartanam: Continuing Sanskrit* [Montreal: McGill University, 1998-99], p. 59).

⁵⁸ The *pratyaya* used here is ‘nvul,’ which has the effect of adding the ending ‘aka’ to the (causative) stem to yield the noun *sthāpaka*.

difference that the sense of *sthāpaka* is that of agent noun). This last sense of *sthāpaka* as agent noun obtains in a compound such as *mūrtisthāpaka*, “one who erects the image.” Also, in itself, *sthāpaka* is usually meant in the sense of agent noun, as “one who establishes.”

When limited to etymological renderings alone, the apparent identity in the root functions of *sthapati* and *sthāpaka* (of “causing to stand”) leads to confusion in their respective roles in building and associated rituals, and in turn, their knowledge of architecture and iconography. In light of the definition of roles given by the *Mānasāra* in the quote above, Acharya’s unqualified ascription to *sthāpaka* as “sculptor”⁵⁹ in the translation of the above verse is inadequate on two points. Firstly, it already contradicts the statement that the *sthapati* (and not the *sthāpaka*) is the “maker” of the image. Secondly and more importantly, it ignores the religious dimension of consecrating and thereby “establishing” an image after it is made. In the Āgamic tradition, after the image is made, a series of rituals are conducted, by which it is animated with divine presence and its eyes are opened, before finally installing it in the adytum of the temple. Establishing the image, thus, is an operation that is at once religious and architectural (more specifically, iconographic), an instance of special convergence of the two that solicits the presence of their respective “agents,” the priest and the master-builder. In this light, the role of the *sthāpaka* as “life-giver” of the image hints at the priestly.

⁵⁹ In fact, Acharya’s renderings of *sthāpaka* throughout the text are quite eclectic, which include “assistant architect,” “actual builder,” “principal/chief assistant,” “assistant worker,” etc.

Aware of this, Stella Kramrisch calls the *sthāpaka*, “architect-priest,” also bestowing upon him titles of highest learning and tutelage, *guru* and *ācārya*. Based on an interpretation of the medieval text *Śilparatna*, “The Jewel of Craftsmanship,”⁶⁰ she interprets the *sthāpaka* to be the one “who conceives the building to be and directs the designing architect, the *sthapati* or *kartṛ*, the actual ‘maker’ of the building.”⁶¹ For her, *sthapati* is the disciple of *sthāpaka*.⁶² Kramrisch deposits architectural knowledge in its “theoretical” (which also encompasses the religious dimension) and “practical” aspects in the *sthāpaka* and the *sthapati* respectively. Implicit in this rather simplistic rendition is the danger of an unwarranted relegation of the *sthapati* as a mere craftsman, against which evidences abound, as already seen. Among the twin roles of architect-priest that Kramrisch ascribes to *sthāpaka*, the one of “architect” calls for an amendment based upon a historical inquiry. The discipleship of *sthapati* to the *sthāpaka*, as Kramrisch understands from the text *Śilparatna*, is more accurate when further qualified based on the evidences already mentioned from the *Mayamata* and the *Mānasāra*. These are the instances of ceremonies associated with key moments of construction when the *sthāpaka* is seen to collaborate with the *sthapati* and instruct him on the proper conduct of the rituals.

⁶⁰ This is a text roughly contemporaneous with the *Mānasāra* (see Tarapada Bhattacharya, *Canons of Indian Art or A Study on Vāstuvidyā* (Calcutta: Firma K. L. Mukhopadhyay, 1963), p. 179.

⁶¹ Kramrisch, “Traditions of the Indian Craftsmen” (1956), rpt., in Barbara Stoler Miller, ed., *Exploring India’s Sacred Art: Selected Writings of Stella Kramrisch* (Philadelphia: University of Philadelphia Press, 1983), p. 64; quoted in George, *Construing Constructs*, p. 143.

⁶² Kramrisch, *The Hindu Temple* (Rpt., Delhi: Motilal Banarsidass, 1976), p. 9, note 18. She offers a critique to Acharya’s view which ignores this relationship of master-disciple between the two, and cites from the *Mayamata* the term *anuśiṣya* – which she reads as disciple – to indicate this relationship. The instance in the *Mayamata* (XII, 35) where the term occurs – at the placing of *aṣṭamaṅgala*, eight auspicious things, during the foundation deposit ceremony – states thus: *sthāpakasyānuśiṣyasthāna sthapati krameśa* | It is translated by Dagens as “the wise architect arranges [the eight auspicious things] in order according to the direction of the *sthāpaka*” (Dagens, trans. *Mayamatam: Treatise on Housing, Architecture and Iconography* [New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass, 1994], p. 129.

In a recent study on North Indian temple design and construction, Patrick A. George challenges Kramrisch's order of *sthāpaka* as "conceiver," and *sthapati*, "maker," of temple architecture. He first examines the text *Matsya Purāṇa* of an earlier date (between 200 and 400 CE)⁶³ in which the *sthāpaka* is mentioned in connection with temple images:

Henceforth, I will explain the characteristics of image-keepers; hear fully, twice-born, the characteristic of the *sthāpaka*: [he should be] fully endowed with all limbs, proficient in *devamantras*, learned in *purāṇas*, knowledgeable in *tattvas*, and free from deceit and greed.⁶⁴

George infers from this that the specific role of the *sthāpaka* is that of sculptor of temple images (distinct from that of the *sthapati* who builds the temple), stating that "although knowing *śāstra* is a common qualification for those engaged in temple architecture and temple sculpture, it would be misleading to refer to both practitioners with the single term 'craftsman.'"⁶⁵ Here, he seems to be making a distinction between architecture and sculpture as respectively "theoretical" and "craft" practices, itself a rather ambiguous distinction. In his subsequent examination of the text *Śilparatna*, George further extends this argument; he discriminates between the various roles and functions and personifies them, and in the process, introduces two more characters into the scene: the *śilpin*, whom he calls here "architectural student,"⁶⁶ and *guru*, teacher.

⁶³ The *Matsya Purāṇa* is one of the eighteen principal *Purāṇas*, dated variously from the dawn of the Christian Era onwards. *Purāṇa* literally means "ancient account," and were compilations of myths, legends, floating traditions and such, from and by which attempts were made to reconstruct ancient history through royal genealogies. Also, the texts were effective in codifying, authorizing and transmitting existing practices in popular religion and culture that included sacred architecture. This earned the *Purāṇic* texts the title *smṛti*, "that which is remembered" or Tradition, as distinct from the Vedic texts known as *śruti*, "that which was heard" or Revelation (see Ludo Rocher, *The Purāṇas*. Jan Gonda, ed., *A History of Indian Literature* [Weisbaden: Otto Harrassowitz, 1986], vol. II, Fasc. 3).

⁶⁴ *Matsya Purāṇa* 265, 1-2. Translated and quoted in George, *Construing Constructs*, p. 139.

⁶⁵ George, *Construing Constructs*, p. 141.

⁶⁶ *Śilpin* is a generic term for artist or craftsman, one who practices any of the 64 *śilpas*, mechanical and fine arts (among which architecture is listed as one). For the etymology and semantics of the latter, see R. N. Misra, "Śilpa," in Bāṭimer, ed., *Kalātattvakośa*, Vol. I: *Eight Selected Terms*. Kapila Vatsyayan, gen. ed. (New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass, 1988), pp. 145-67.

He states that the *śilpin* is seen to be first attached to a *guru* and “then learns the various aspects of the discipline from two different specialists, the *sthapati*, from whom he learns the *śilpaśāstras*, and the *sthāpaka*, with whom he practices architecture.”⁶⁷ Later, when the text elaborates the four “types” of *śilpin* – *sthapati*, *sūtragrahin*, *vardhaki* and *takṣaka*, – George observes that the *sthāpaka* is not mentioned. In order to match this omission with his earlier conclusion that the *sthāpaka* is a “practitioner” of architecture, George rather forcibly collapses the latter three into the person of *sthāpaka*: “That the *sthāpaka* mentioned in this section of the text implies that this term encompasses the work of these latter three, i.e., all the practical work of building.”⁶⁸ For him, in the context of the text *Śilparatna*, *sthapati* is the “theoretician,” being knowledgeable in the principles of architecture, and *sthāpaka* the “practitioner,” being skilled in its craft, thus reversing the roles given them by Kramrisch.

George’s conclusion may be contested on several points. In the Sanskrit text of the quote from *Matsya Purāṇa*, the *sthāpaka* is mentioned as *mūrtipāna*, “image-keeper” – *mūrti* is “form, image,” and *pāna*, deriving from *√pā*, “to keep, protect,” means “keeper.” It is clear that the *sthāpaka* is the one who “maintains,” that is, attends to, the image (in the temple). Also, what is required of him to know – the *devamantras*, “specific formulae for certain rituals, such as the *abhiṣeka* or consecration of the divine image to which worship is offered,”⁶⁹ purāṇic texts as well as *tattvas*, philosophic principles explaining the nature of the divine – further hint at his priestly function rather

⁶⁷ George, *Construing Constructs*, pp. 141-2.

⁶⁸ Ibid., p. 143.

⁶⁹ Ibid., p. 140.

than craftsmanship. Moreover, there is no mention of the skills or principles of the craft of iconography that he is required to know.⁷⁰

For an accurate historical understanding of the specific role of the *sthāpaka* in sacred architecture, a study of the text of the *Vāstusūtra Upaniṣad*, attributed to the Paippalāda recension of the *Atharva Veda*, is indispensable. This text is specifically about the *sthāpaka* and the role he plays in sacred architecture. Its translators ascribe to it a date of the late Vedic–early classical period, one that somewhat corresponds with the early stages of development of temple-architecture and iconography.⁷¹ This was a time of great ferment in the history of the Vedic religion, in which occurred a confrontation between Aryan, brahmanical, religious tradition on the one hand (characterized by adherence to the *Ṛk*, *Yajur* and *Sāma Vedas* and the ritual of the fire sacrifice), and the “magical” ritual practices prevailing among the non-Aryans. These ritual practices, among which iconic worship was a prominent one,⁷² sought acceptance into brahmanical orthodoxy and orthopraxy via the *Atharva Veda*, the last of the four Vedas. The *Vāstusūtra Upaniṣad* associates itself with the Atharva Vedic tradition, and outlines simultaneously the compositional principles of image-making and its metaphysical basis. The text is attributed to the sage Pippalāda, who, while being a representative of the Atharva Vedic practice of image-making and worship, was claimed to be also knowledgeable in the metaphysics of the fire-sacrifice ritual. The

⁷⁰ In all the chapters in the *Matsya Purāṇa* on architecture (252-70), this information is significantly absent.

⁷¹ For a detailed discussion of the debate regarding the date of this text, see Appendix III, “On the Date of the *Vāstusūtra Upaniṣad*.”

⁷² Boner, “Introduction” in *Ibid.*, pp. 5-6. Boner’s use of the term “Aryan invaders” is perhaps no longer tenable in current Indological vocabulary in the light of the scholarly controversies that have arisen regarding the “Aryan Invasion Theory” (and even its current alternative, the “Aryan Migration Theory”), which remains to be settled with finality.

text presents in the form of *sūtras*, aphorisms, Pippalāda's response to the queries of priests of the fire-sacrifice ritual regarding iconic making and worship. The opening line, a prelude to the whole text, states thus (trans. Boner, Śarma, Bäumer):

*ātharvāṅgirasa - śilpakāśyapo hovāca pippalādamahāmahim |
sodaśatāpinīm adhye vāstusthāpakavidyeyam | ya enām veda | ātharvāṇīye
hotodgatṛbhīḥ śilpaśrotṛbhīḥ*

Ātharvāṅgirasa and Śilpakāśyapa spoke to Pippalāda of great wisdom: Among the sixteen Tāpini (Upaniṣads) this is the *Vāstusthāpakavidyā* (the science of the architect and sculptor). The one who knows it . . . The priests (*hotṛ*), the chanters (*udgatṛ*) and the students of *Śilpa* in the Atharvāṇi tradition.

Before proceeding, the term *vāstusthāpakavidyā* begs scrutiny. It is a compound of *vāstu*, *sthāpaka* and *vidyā*. *Vāstu* is “architecture” in the most generic sense, and *vidyā*, knowledge, science. The word *sthāpaka*, as the middle member of this compound, assumes both senses of verbal and agent noun. Thus, *vāstusthāpakavidyā* means, not only “the science of the architect and sculptor,” as translated by Boner et al,⁷³ but also, “knowledge (science) of the establishing of *vāstu*.” The sense in which the word *vāstu* is used here also calls for qualification. During the early Vedic period, *vāstu* stood for architecture – both religious (that is, fire-altars) and domestic. In this text, even though the same word *vāstu* is used, the discussion centers entirely around image-making. In other words, in this text, the sense of *vāstu* (in the realm of religious architecture) is intentionally limited to a rudimentary “iconography.”⁷⁴ The *Vāstusūtra*

⁷³ Ibid., p. 45.

⁷⁴ Based on an interpretation of the phrase *rūpavāstusāḍāṅgaṃ śilpam* which occurs in the explication of *Sūtra* 8 of the first chapter, Bettina Bäumer makes the following observation regarding the signification of the term *vāstu* in this text:

The term *rūpa-vāstu-sāḍāṅgaṃ śilpam* (I.8) explains the relationship of these terms: the text deals with the six limbs of the art (*śilpa*), their form and layout (*rūpa-vāstu*). Here the meaning of the term *vāstu* is more associated with the ground plan, the dwelling place and abode of the gods in an image-panel, and not with a temple. In fact, the entire text does not contain any common words for ‘temple’ – *prāsāda*, *devālaya*, *mandira*, *devagrha* etc. *Vāstu* then refers in a

Upaniṣad focuses entirely on iconography in its earliest stages of development – the compositional principles of this craft and their metaphysical grounding. This limited sense of *vāstu* is consistent with its context: the validity of divine worship through images had to be first established against the reservations of the relatively “iconoclastic” tradition of the fire-sacrifice ritual. Since Hindu temples (in the strict classical and medieval sense) were built primarily to mark the immanent presence of the deity in the image by “housing” it in the sanctum, the evolution of temple-building could only be coterminous with that of iconography and the development of its theology and rituals.⁷⁵ The (initially reluctant) validation of iconic worship by brahmanical “orthodoxy” marked only the natal impulses of temple-building. Thus, the *sthapati* as the master-builder of temples, was absent from the scene of religious architecture at this particular phase of its history (he is not mentioned at all in the *Vāstusūtra Upaniṣad*); the *sthapaka*, as maker of images, was its sole agent who acted out the roles of both craftsman (more specifically, “iconographer”) and priest.

In the Vedic fire-sacrifice ritual, the fire-altar was built by the *adhvāryava* class of priests, adherents of the *Yajur Veda*, reciting its text while engaged in their work. The *hotṛ* priests conducted the sacrifice, reciting the hymns of the *Ṛgveda*.⁷⁶ Also present were *udgaṭṛ* priests, chanting the hymns of the *Sāma Veda*. The whole ritual was thus arranged and conducted entirely by the priestly classes, each specializing in a

more general sense to the structural principles and to the basic form-language, of which both, architecture and sculpture, are but the expression (Baümer, “Preface to the Third Revised Edition,” in *Ibid.*, p. x).

⁷⁵ For a detailed study of the nature and development of Hindu iconography, see J. N. Banerjea, *Development of Hindu Iconography* (Third Edition, New Delhi: Munshiram Manoharlal Publishers, 1974).

⁷⁶ George, *Construing Constructs*, p. 6. For a comprehensive study of the Vedic ritual of *agnicayana*, fire sacrifice, see Frits Staal, *Agni – The Vedic Ritual of the Fire Altar*. 2 Vols. (Berkeley, CA.: Asian Humanities Press, 1983).

particular aspect of it. The building craftsmen of the time were not allowed involvement even in making the altar. This order was restructured in the cult of iconic worship. On the one hand, Pippalāda exhorts the priests of the fire-sacrifice to be learned also in the compositional principles of iconography and its metaphysics: the opening verse of the *Vastusūtra Upaniṣad* lists both *hotṛ* and *udgaṛ* priests in this regard along with students of iconography of the Atharva tradition. On the other hand, the person of the *sthāpaka*, iconographer, is exalted to the status of a priest. Alice Boner says in her introduction to the text: “[Pippalāda] attributes to the *sthāpaka* the same merit and rank as to the sacrificial priest and calls him *Śilpodgaṛ*, *Śilpahotṛ* or *Vāstuhotṛ*.”⁷⁷ The basic iconic piece that the *sthāpaka* made and installed was the *yūpa*, which, in the fire-sacrifice ritual complex, was the post erected at its site to tie the victim and considered in the Atharva Vedic tradition as *skambha*, world-pillar.⁷⁸ The iconographic operations of the *sthāpaka* were conceived as a sacrificial offering accompanied by appropriate *mantras* by which the deities could be called forth.⁷⁹ Rather than through a textual pre-ordination, the priestly status of the *sthāpaka* arose from knowledge in and practice of his craft of image-making. *Sūtra* 4 of the first chapter states:

⁷⁷ Boner, “Introduction,” in Boner et al, *Vastusūtra Upaniṣad*, p. 6.

⁷⁸ *Atharva Veda* X, 3, 7 & 9 (trans. W. D. Whitney):

In what member of him is situated the earth?

In what member of him is situated the atmosphere?

In what member of him is the sky set?

In what member of him is situated what is beyond the sky?

In what, having established [them], Prajāpati maintained all the worlds, that *skambha* tell [me] which forsooth is he?

By how much did *skambha* enter the existent? How much of him lies along that which will exist?

What one member he made thousand-fold, by how much did *skambha* enter there?

This hymn to the *skambha*, the “static support of the Universe, at the same time a living dynamic principle,” couches the language of divine immanence in the phenomenal realm. The semi-iconic *śivaliṅga*, installed in most Śaiva temples, is a direct descendent of the *skambha*. The evolution of Hindu iconography begins with the anthropomorphization of this *skambha* (see Bettina Bäumer, “Unmanifest and Manifest Forms According to the *Śaivāgamas*,” in Anna Libera Dallapiccola, ed., *Shastric Traditions in Indian Art* [Suttgart, Franz Steiner Verlag, 1989], p. 339).

⁷⁹ Boner, “Introduction,” Boner et al, trans. & eds., *Vastusūtra Upaniṣad*, p. 18.

vṛttajñānam rekhājñānam ca yo jñānāti sa sthāpakah ||

He is a *sthāpaka* who knows the knowledge of the circle and the knowledge of the line.

The aphorism is explained thus (trans. Boner, et al):

*khādiradaṇḍahasto darbharajjukarah, tad rajjuvalayaveṣṭitamidam tasya rūpam
tajjñānāṇca śilpajñānam | tadjñānād divyajñānam bhavati, tadjñānān mokṣah,
sa hi madhuḥ, ya evam veda |*

Holding in hand a measuring rod of *khadira* wood and a cord of *darbha* grass fitted with a ring, that is his outer aspect. This knowledge is the knowledge of Art (*śilpajñāna*). From the knowledge of Art arises divine knowledge, and such knowledge leads to liberation. This (liberation) is verily the essence of Art. He who knows this [attains the essence].

The *sthāpaka* is found again in the *Nāṭyaśāstra*, the treatise on dramaturgy attributed to Bharata, dated latest 200 CE, and considered the first śāstraic treatise on the arts.⁸⁰ He makes an appearance on the stage and pronounces the prologue of the drama to the audience.⁸¹ This appearance of the *sthāpaka* in the context of the drama is rather vague and dubious; the text does not enlist him among the members of the drama troupe. However, the presence of the *sthāpaka* at the scene of a drama makes sense if the context of making the “play-house” (theatre) is also considered. Chapter II of the *Nāṭyaśāstra* is dedicated entirely to outlining the procedures of making theatres. The initial procedures of site-clearance, soil-examination, disposition of plots and laying of foundation are conducted by the *sūtradhāra*, who is the maker of stage-sets (as well as director of plays). However, the text mentions an *ācārya*, preceptor, who installs the

⁸⁰ The latest possible date of this treatise is considered to be 200 CE (see Tarapada Bhattacharya, *Canons of Indian Art*, p. 315). The *Nāṭyaśāstra* also owes more to the Atharva Vedic than to the R̥gvedic tradition with respect to its contents.

⁸¹ *Nāṭyaśāstra*, V, 168-174 (K. Krishnamoorthy, ed. *Nāṭyaśāstra of Bharatamuni with the Commentary by Abhinavabhāratī*, by Abhinavaguptācārya [Vadodara: Oriental Institute, 1992]).

stambhas, pillars, of the theatre after having fasted for three days.⁸² Since the creation of the theatre and stage-set is an architectural operation,⁸³ and the installation of the *stambha* rings a religious note that resonates with the erecting of *yūpa-skambha* in the Atharva Vedic tradition, it may not be far-fetched to assume the *sthāpaka* as the maker and installer of the column of the theatre. Historically, this period of the *Nāṭyaśāstra* coincides roughly with that of the *Matsya Purāṇa*, in which, as already seen, the priestly role of the *sthāpaka* assumes priority over his role as craftsman. In the context of medieval temple-building, in a manner strikingly parallel to the model in the *Nāṭyaśāstra*, the *sthapati* is the master of architectural operations, while the *sthāpaka* preoccupies himself with the associated rituals of installation and consecration of image and temple. While the role of the *sthāpaka* is now clear as priest who presides over building rituals at the site of construction directing the *sthapati* in their proper conduct,⁸⁴ the only issue that remains to be resolved is whether he actively practiced his craft of iconography in the medieval times. Both the *Mānasāra* and the *Mayamata* mention instances of participation of the *sthāpaka* in iconographic operations. His participation extends beyond merely directing the *sthapati* and his guild on making the image, to a ritual initiation of the making itself, but falls short of its full-fledged practice.⁸⁵

⁸² *Nāṭyaśāstra*, II, 46.

⁸³ In fact, *sūtradhāra* (which literally means "one who bears the cord") as master-builder develops as the North Indian equivalent of *sthapati*, with his own hierarchy of subordinate craftsmen (see R. N. Mishra, "Artists of Dahala and Dakshina Kosala: A Study based on Epigraphs," Frederick M. Asher and G. S. Gai, eds., *Indian Epigraphy: Its Bearings on the History of Art* [New Delhi: Oxford and IBH Publishing Co., 1985]; quoted in George, *Construing Constructs*, p. 148). The North Indian architectural treatise *Samarāṅgaṇasūtradhāra* bears witness to this in its title.

⁸⁴ Thus, Bruno Dagens calls him "officiating priest in construction rites" (Dagens, "Index-Glossary," *Mayamatam*, vol. II, p. 976).

⁸⁵ For instance, *Mānasāra* LXVIII, 20-24: The *sthāpaka* assists the *sthapati* in making the pit for casting images in wax if they are to be made of metal; *Mayamata* XXXIII, 30: The *sthāpaka* accompanies the *sthapati* to the stone quarry, selects the stone best suited for the *śivaliṅga* and images, and ritually makes the first cut; XXXIII, 106:

Since making the image and building the temple have the common intent of making manifest the divine, both draw from the common font of knowledge of compositional principles and their metaphysics which the *Vāstusūtra Upaniṣad* so pithily states. Also, the interrelationships between image-making and temple-building with regard to their compositional principles and proportions needed to be worked out in the course of construction. The “collaboration” of the *sthāpaka* and the *sthapati* in the entire construction process ensures these. Cognizant of the compositional principles of iconography (being the descendent of the tradition of the *Vāstusūtra Upaniṣad*), the *sthāpaka* imparted that knowledge to the *sthapati* (who was primarily a builder) and his guild, and oversaw image-making as well. The *raison d’être* of the temple was the image. Hence the *sthāpaka* assumed a certain primacy over the *sthapati*. As the priest officiating building rituals, it was the role of the *sthāpaka* to direct the *sthapati* from conception of the temple to its completion and in making the image to be installed therein, so that the temple and image existed in harmonic relationship as the manifest “body” of the deity.

5. Rituals accompanying Construction

Accounts in the *Mānasāra* of important moments during construction show the *sthapati* performing the technical operations in a prescribed ritualistic manner with help from members of his own guild. At the technical level, these operations usually mark the

the *sthāpaka* draws the first compositional lines of the *śivaliṅga* on stone which in turn the *sthapati* (or more specifically, the *vardhaki*) sculpts out.

commencement or conclusion of an important stage in construction. The text stipulates on several occasions that the *sthapati* should conduct these operations *yathāvidhi*, “according to the injunctions,” and *yathāśāstram*, “according to *śāstra*.” There is an explicit identification (or better, collapse) of the injunctions of ritual with *śāstra* (rules or principles of the science) here, which concurs with the Mīmāṃsā view of *śāstra*. As this view plays out in the realm of religious action, technical operations assume a ritualistic dimension, which is clearly brought out and enacted. The rituals guide or “govern” the entire construction process, and the sense of harmony and auspiciousness of the dwelling or settlement (village or town) is understood as the result of a strict adherence to their format, sequence and proper conduct. These are always conducted on the day (or an interval of time) that is auspicious according to astrological stipulations. At more important junctures of construction, elaborate ceremonies involving a series of strictly ritual actions accompany the particular technical operation. At these instances, it is seen that the *sthāpaka* is also present, in order to direct the *sthapati* in the proper conduct of these actions. According to the theological understanding of Śaiva Siddhānta, these ceremonies that accompany the technical operations effect the descent of the deity from the transcendent realm to enter the realm of human living and activity. They invoke the deity to inhabit the temple and image (and each constituent part of the temple such as the column, pinnacle and so on) that are being made and erected.

5.1) The Tāntric Rite

The rituals elaborated in the *Mānasāra* follow the prescriptions of the Śaiva Āgamic texts. Even though the rituals performed here are exoteric in nature and hence orthodox, there is, nevertheless, also an esoteric and magical component to them that engages and sublimates elements in their occult substantiality. This common esoteric component especially renders the term Āgamic as more or less synonymous to Tāntric and distinguishes them both from Vedic with respect to ritual content.⁸⁶ Hence the rite followed here may rightly be called "Tāntric" as well.⁸⁷

After a site is selected as suitable for construction, the *sthapati* offers a sacrifice, and causes the pronouncement of the formula of benediction, *puṇyāha*, "this is an auspicious day," to the sounding of musical instruments. He repeatedly whispers a *mantra* by which he requests the spirits, demons and gods who inhabit the site to leave and find their abode elsewhere. He then takes a pot, fills it with earth mixed with cow-dung while reciting *mantras*, and sows seeds in it. This insemination of the soil is a

⁸⁶ For a comprehensive account of the Tāntric theory and practice in and of themselves and as a substratum in various religious systems (including Vedic) in India, see N. N. Bhattacharya, *History of Tantric Religion: A Historical, Ritualistic and Philosophical Study* (New Delhi: Manohar Publishers, 1982). Regarding the relationship between Vedic and Tāntric traditions, Bhattacharya notes thus:

It is a fact that the Vedic texts [including the *Rgveda* and its ancillary literature] contain many Tāntric ideas and practices. Even the principles underlying the Vedic sacrificial cult are not basically different from those of the Tantras. But the Vedic texts and the Vedic tradition are two different things. . . . In spite of the wide prevalence of Tāntric elements, the Vedic tradition does not acknowledge them as an integral part of it (Ibid., p. 164).

⁸⁷ On this point, see N. R. Bhatt, "Śaiva Āgamas," in *Āgama and Śilpa: Proceedings of the Seminar held in December 1981* (Bombay: Anandacharya Indological Research Institute, 1984), p. 11; and also Teun Goudriaan and Sanjukta Gupta, *Hindu Tantric and Śākta Literature*, Jan Gonda ed., *A History of Indian Literature*, Vol. II, Fasc. 2 (Wiesbaden: Otto Harrassowitz, 1981), Chapter I, "General Characteristics." In his paper, Bhatt gives a skeletal outline of the rituals associated with building. Goudriaan, in his first chapter, treats also the self-understanding of the Tāntric tradition regarding its relationship to the Vedic, which is sometimes antagonistic and at other times explained in terms of continuity (established through affinity to the magical content in the *Atharva Veda*) and consummation.

preliminary step to *aṅkurārpaṇa*, the ritual offering of seed and sprout.⁸⁸ This ritual repeats in a more “symbolic” manner at the commencement of ceremonies during the later stages of construction. At this point, it has, as well, the practical dimension of ascertaining the quality of soil by watching the growth of the seed. Cows, oxen and calves are brought to the site and allowed to graze. In the process, the site is “besmeared” with dung, urine and foam from the mouth of the cattle, scented with their smell, and stamped thoroughly with their hooves. This is, in a sense, the ritual of washing the site with the products of the cow, which also appears in later ceremonies as *adhivāsana*, preliminary consecration.⁸⁹

The examination of the soil is commenced on a day and at an hour made auspicious by satisfying a series of astrological conditions such as the constellation of stars, conjunction of planets and the right division (among the prescribed eleven) of the day. While the learned Brahmanas pronounce *punyāha*, a pit is dug at a selected spot in the site and filled with water. The *sthapati* then performs a series of ritual actions. The form of the goddess Āmbikā, as adorned with all jewels, water, perfumes, flowers and unhusked rice, is bowed to and worshipped. Then, in the morning, he offers her *pāyasa*, an oblation of milk, rice and sugar. He then sits facing east on *kuśa* grass spread near the pit, and paying obeisance to the great Earth, prays a *mantra* for her to stay good and dry, and for increase in grain and material goods. After this, he observes a fast. The

⁸⁸ *Mānasāra* V, 3-9.

⁸⁹ *Mānasāra* V, 10-17. The term *adhivāsana* has the meaning of “scenting” as well, which also is seen to be operative here.

following morning he examines the pit again to check the level of water in the pit, in order to ascertain the quality of the soil.⁹⁰

The plowing of the site is conducted next. Two oxen with auspicious physical features are selected; their horns, hooves, forehead and ears are adorned with ornaments, and on an auspicious day and hour, the plowing is conducted.⁹¹ The next operation is the orientation of the site. On the eve of the auspicious day selected for the erection of the gnomon, a spot to erect the gnomon is first determined. Then a square of four cubits is marked there, and it is purified by running water all over. The erection of the gnomon is conducted at sunrise. After running a series of peg and cord operations by which the site is oriented and delineated, the outer limits of the site are marked by the ritual driving of pegs to the ground while the Brāhmaṇas pronounce *puṇyāha*.⁹²

Next in the order of the construction process is *bali*, “sacrifice [upon the site].” This involves first the marking or placing of the diagram of the cluster of deities (commonly known in modern scholarship as *vāstupuruṣamaṇḍala*), either according to the *maṇḍūka* (sixty-four square-) or the *paramaśayika* (eighty-one square-) scheme, upon the purified site. The *sthapati* observes an overnight fast, and in the morning, with body adorned with best clothes and purified mind, collects all the items that are necessary to make the offerings to the various deities. Accompanied by a *kanyā*, virgin, or by placing the collected items on a plate held by a *gaṇikā*, courtesan, who is adorned with ornaments, and himself holding the plate with his left hand, he makes the offering of

⁹⁰ *Mānasāra* V, 18-30.

⁹¹ *Mānasāra* V, 38-52, 84-87.

⁹² This is the subject matter of Chapter VI, *Sankusthāpanalakṣaṇam*, “Description of Erection of Gnomon.”

items by casting them repeatedly with his right hand while reciting the appropriate *mantra*. After this, he makes a *sakalīkaraṇa*, “offering of all things together,” while causing to pronounce *puṇyāha*, benediction. Then, amidst all auspicious sounds, he makes the offering to each deity beginning with Brahmā while pronouncing its name in the formula constituted by the sacred syllable *aum*, the name, and *namaḥ*, “obeisance,” at the end. Common offerings include curd and boiled rice, and special offerings include unhusked rice, incense and lamp. Each deity is offered a set of items according to its characteristic, nature and role.⁹³

The ceremonies are more elaborate, lasting several days, at the instances of depositing the seed in the foundation and the laying of the first bricks, erection of column and dome-nail (pinnacle), inauguration of a house, and opening of the eye of the image and its installation in the temple.⁹⁴ The sequence of ritual actions that are involved in these ceremonies outlined in the *Mānasāra* is at best skeletal when compared to the detailed prescriptions found in the *Āgamas*.⁹⁵ This is not surprising, considering that the ceremonies are mentioned in the *Mānasāra* in an architectural context. The basic structure of the ceremonies reveals certain elements and procedures that are common to all of them, which are essential components of the Tāntric rite. Conjoined to these general features are specific procedures and operations that are warranted by the occasion of the ceremony (placing of the foundation-deposit, erection of the column, opening of the eye of the image, and so on). Because the opening of the eye of the

⁹³ Chapter VIII, *Balikarmavidhānam*, “Prescriptions for the Conduct of Sacrifice,” contains the details.

⁹⁴ These are found in *Mānasāra* XII, 44-184; XII, 205-209; XV, 368-437; XVIII, 340-416; XXXVII and LXX respectively.

⁹⁵ The *Āgamas* contain not only the sequence of ritual actions but also the technical operations that they accompany in much detail (for an exposition, see Bruno Dagens, *Architecture in the Ajitāgama and Rauravāgama* [New Delhi: Sitaram Bhartiya Institute of Scientific Research, 1984]).

image and its installation in the adytum of the temple completes the whole temple-building process, this ceremony assumes a special importance. In a way, it sums up the theology of temple-building, the purpose of which is to make manifest the divine. It is towards this occasion that the entire temple-building and image-making processes and previous ceremonies are directed. For this reason, and also for the sake of brevity and to avoid redundancy, the following discussion focuses on the ceremony of opening the eyes of the image and its installation. This is the content of Chapter LXX, Nayanonmīlanalakṣaṇam, “Description of the Opening of the Eye [of the Image],” which is final chapter of the text.

5.2) Rituals Preliminary to “Writing” the Eyes of the Image

The ceremony begins with *aṅkurārpaṇa*, “rite of the seeds and their germination.”⁹⁶ It consists of offering seeds of rice, sesame, kidney-bean, pulse, mustard, and such, in a vessel,⁹⁷ to Soma, Moon. Soma is “the totality of all oblations, the Lord of germs, the divinity who presides over formations.”⁹⁸ The *bīja*, seed, contains within it the potency for germination and growth.⁹⁹ In the rite of *aṅkurārpaṇa*, this vitality is invoked to pervade the temple and image as the manifestation of Śiva. When conducted at the

⁹⁶ The *Kāṁikāgama* (LXIII, 2) has the following stipulation:
sarvamaṅgalakāryāḍau kartavyam maṅgalāṅkuram ||

At the beginning of all auspicious matters/actions, the auspicious [offering of] seeds is to be conducted.

The entire Chapter LXIII of the *Kāṁikāgama* is dedicated to *aṅkurārpaṇa*. Stella Kramrisch also observes from Āgamic prescriptions that “without the rite of *aṅkurārpaṇa*, all rites performed are futile” (Kramrisch, *The Hindu Temple*, p. 15; also pp. 126-28).

⁹⁷ The *Kāṁikāgama* (LXIII, 6-10) prescribes three sets of measurement and three metals (gold, silver, copper) from which to choose for the seed-holding vessel.

⁹⁸ Kramrisch, *The Hindu Temple*, p. 15; The *Kāṁikāgama* (LXIII, 4) has the following statement: *bījānāmadhipati somaḥ*, “Soma is the Lord of seeds.” Also see the essay, “Soma, Amṛta and the Moon,” in Gonda, *Change and Continuity in Indian Religion*, pp. 38-70.

⁹⁹ For a brief exposition of the philosophic and ritualistic idea of seed, see H. N. Chakravarti, “Bīja,” in Bettina Bäumer, ed., *Kalātattvakośa*, Vol. I: *Eight Selected Terms*, pp. 117-33.

beginning of construction, the auspicious germination of the seeds symbolize the “growth” of the temple from “the germ of all things that be”¹⁰⁰ that is deposited in the earth. In the ceremony of opening the eye of the image and its installation in the *garbha-grha*, “womb-house” (adytum), of the temple thus effecting its inauguration, this growth reaches its consummation. The ritual of *aṅkurārpaṇa* initiates and frames the rituals to follow within the ordinance of creation as germination and growth that is the manifestation of the deity in the temple and image.

The next step is to build a *yāgamaṇḍapa*, pavilion to conduct the rituals to follow, in front of the temple or to its right or left, and a *prapāṅga*, adjacent shed to store the sacrificial offerings.¹⁰¹ The text stipulates that the pavilion be of square shape, and have either twelve or sixteen pillars. Each side should have a doorway and a *toraṇa*, ceremonial arch, above it, all decorated elaborately.¹⁰² The measurements and details of the structure should follow the precepts.¹⁰³ In the Śaiva doctrine, the *yāgamaṇḍapa* symbolizes the conceptual forms of Śiva in both *adhvan*, transcendent, and *aṣṭamūrti*, eightfold-manifest, modes. Each of the four arches and the entirety of the space covered by the *maṇḍapa* corresponds to each of the five modes of *kalādhvan*. Also, the neuter noun *maṇḍapam* phonically embodies the five gross elements: *ma*, earth; *ṇa*,

¹⁰⁰ *Atharva Veda*, XXV, 2; quoted in Kramrisch, *The Hindu Temple*, p. 15.

¹⁰¹ In the accounts of the ceremonies conducted at the erection of column and of the dome-nail (pinnacle), the text mentions the rite of *adhivāsana*, preliminary consecration, which involves the washing of the object (column, dome-nail) with *pañcagavya*, five products of the cow (milk, curd, clarified butter, urine and dung). As already noted, the term *adhivāsana* has also the sense of “perfuming.” The washing the object with *pañcagavya* effects a “perfuming” of the object with the scent of the cow. This rite is not mentioned in the Opening of the Eye ceremony.

¹⁰² For a detailed treatment of the construction and rituals held in the *yāgamaṇḍapa*, and the theology behind them, see S. P. Sabarathanam, “The Construction and Concept of *Yāgaśāla*,” in S. S. Janaki, ed., *Śiva Temple and Temple Rituals* (Madras: The Kuppuswami Sastri Research Institute, 1988). The decorations over the four *torāṇas*, gateways, of the *maṇḍapa* are given in pp. 82-83.

¹⁰³ These are elaborated in *Mānasāra* XXXIV.

water; *ḍa*, fire; *pa*, air; and *m*, ether. Thus, the sacrificial pavilion embodies the pentadic correspondence between the transcendent deity and the gross elements.¹⁰⁴

The *sthapati* constructs a *vedi*, sacrificial altar, at the center of the pavilion, and a *kuṇḍa*, pit (the receptacle of the sacred fire), smeared with cow-dung in front of it.¹⁰⁵

The *padavinyāsa*, placing (marking) of the plots and assigning deities on the floor of the pavilion and on the altar, is conducted next. He marks either the *sthaṇḍila* of forty-nine squares or the *pīṭha* of nine squares with grain powder on the floor of the pavilion. On the altar, he marks either the *upapīṭha* diagram of twenty-five plots or *pīṭha* of nine plots. He also marks two circles, one on the floor of the pavilion and the other on the altar.¹⁰⁶ The image, the eyes of which is to be opened, is adorned with grass, clothes, flowers and such, brought into the *yāgamaṇḍapa*, and placed upon the diagram marked on its floor. Pitchers (corresponding in number to the number of plots) filled with pure water, covered with strings and adorned with clothes, flowers and bunches of grass are then placed in these plots on the altar, with the main pitcher occupying the central plot. The placing of *aṣṭamaṅgala*, eight auspicious things, on the altar completes this part of the ceremony.¹⁰⁷ The eight auspicious things connote *pūryāṣṭaka*, the subtle

¹⁰⁴ Sabarithanam, "Āgamic Treatment of the *Mahābhūtas*," in Baumer, ed., *The Āgamic Tradition and the Arts*, p. 57. Also see Sabarithanam, "The Construction and Concept of *Yāgaśāla*," in Janaki, ed., *Śiva Temple and Temple Rituals*, p. 85.

¹⁰⁵ The *Mānasāra* does not elaborate the shape of this fire-pit. Chapter VII of *Kāmikāgama* is dedicated entirely to shapes and measurements of the fire-pit. The treatise *Mayamata* also outlines measurements for fire-pits of various shapes: quadrangular, vulva-form, circular, semi-circular, triangular, hexagonal, lotiform, octagonal, heptagonal and pentagonal. It stipulates (XVIII, 178a; XXV, 42) eight fire-pits in eight directions to be prepared for the Opening of the Eye ceremony – of square, vulva, semicircular, triangular, circular, hexagonal, lotus and octagonal shapes. They signify *aṣṭamūrti*, the eight-fold manifestation of Śiva (see Sabarithanam, "Āgamic Treatment of the *Mahābhūtas*," in Baumer, ed., *The Āgamic Tradition and the Arts*, p. 57).

¹⁰⁶ It is not clear from the account in the text whether these circles are inscribed in the respective squares or circumscribe them.

¹⁰⁷ There are several lists of the eight auspicious things mentioned in Āgamic literature. The most common of these is given by the *Mayamata* (XII, 33-35): mirror, vase of plenty, bull, double fly-whisk, *śrīvatsa* (cruciform flower sign seen on Viṣṇu's breast), *svastika*, conch and lamp. They are said to be held by the eight celestial

(incorporeal) body comprising eight (among the thirty-six) principles, namely, intellect, mind, ego, and the five perceptual faculties, which correspond to *aṣṭamūrti*, the eight-fold becoming of Śiva in the sun, moon, sacrificer, and the five gross elements of space, air, fire, water and earth. The ritual of placing the *aṣṭamaṅgala* marks this correspondence.

The *sthapati* prepares himself for the next stage of the ceremony by ritually washing his feet and mouth. Then he conducts a *sakalīkaraṇa*, joint offering of all sacrificial objects, while those present are made to repeat the benedictive formula *puṇyāha*, “this is an auspicious day.” He worships the deities present in the diagram marked on the altar as present in the water pitchers by incanting *nāmamantras*, formulae beginning with the sacred syllable *aum*, ending with *namaḥ* and containing their respective names.¹⁰⁸ He worships Śiva as *bhuvanādhipati*, Lord of the Universe (or in theological terms, Lord of the 224 *bhuvanas*, planes of experience), conceived to be present in the main water pitcher on the altar. Holy incense and lamp are waved before the (yet) unmanifested deity; offerings of sandal-paste, flowers, molasses, corn, milk, curdled milk, clarified butter and rice are made to it.¹⁰⁹ Following this, *mudras*, hand gestures of magical efficacy, are shown before it amidst song and dance.¹¹⁰ Effected in the

dancers (Sabarithanam, “The Construction and Concept of *Yāgaśāla*,” in Janaki, ed., *Śiva Temple and Temple Rituals*, p. 88, note 12).

¹⁰⁸ For example, *aum vāsudevāya namaḥ* for the god Vāsudeva (Viṣṇu).

¹⁰⁹ The five items, molasses, corn, milk, curdled milk and clarified butter seem to indicate *pañcāmṛta*, the five sweet things. The correct list of these items has honey instead of corn. Instead of *madhu*, honey, the term *śasya* is found in the text (LXX, 53), which means corn in general. It also has the meaning, “the produce or fruit of a plant or tree” (Apte, *The Practical Sanskrit-English Dictionary*, p. 1541).

¹¹⁰ The pentadic offering of 1) song and dance, 2) sandal-paste, 3) lamp, 4) incense, and 5) food items corresponds to the five gross and subtle elements, and appeals to the five perceptual faculties (see H. N. Chakravarty, “The Pentadic Universe in the *Saivāgamas*” in Baumer, ed., *The Āgamic Tradition and the Arts*, p. 33).

Among the *mudras*, important is *dhenumudra*, gesture of the cow. It imitates the teats of a cow, signifying the five “cosmic cows” that symbolize purification and nourishment. They arise when direct and reflected

course of these rituals is, as well, a five-fold purification necessary to commence worship before Śiva in the manifested form: that of 1) the worshipper (here, the *sthapati*); 2) the pavilion; 3) the object (column, dome-nail or image); 4) the *mantras*; and 5) the offerings.

The *sthapati* next performs *homa*, sacrifice of the consecrated fire (reminiscent of the ancient Vedic fire-sacrifice), before *bhuvanādhipati* in the *kuṇḍa*, fire-pit. Rice, boiled and fried, clarified butter, and the *samid* plant are offered 108 times as holocaust.¹¹¹ Pure water is offered twenty-five times,¹¹² while incanting the formula of the *hr̥llekhabīja*, “seed-syllable that is furrowed in the heart.”¹¹³ This formula is constituted by the *praṇava* (syllable *aum*) at the beginning, the seed-syllable, and *svāhaḥ* at the end. He concludes the fire-sacrifice by chanting the *gāyatrīmantra*. Chanted at sunrise, this originally Vedic hymn (later adapted by the Śaiva as well as other sects with variations according to their respective doctrine) addresses Savitṛ, Sun the

emanations from the five faces of *sadāśiva* in the mode of *karṭṛsadākhyā* combine with the five gross elements (see Sabarīthanam, “Āgamic Treatment of the *Mahābhūtas*” in *Ibid.*, p. 54).

¹¹¹ The number 108 has astrological significance as a cyclical number in Hindu cosmology, being an exact fraction of 25920, the number of years in the *adhīśamvatsara*, great year of the precession of equinoxes (see Kramrisch, *The Hindu Temple*, pp. 36-37). The cosmic dance of Śiva that enacts the cycles of creation, preservation and dissolution also is said to be in 108 modes. For a complete list of these, see V. N. Naidu, S. Naidu & V. R. Pantulu, *Tāṇḍava Lakṣaṇam or the Fundamentals of Ancient Hindu Dancing* (Rpt., New Delhi: Munshiram Manoharlal, 1971); and also Ann Marie Gaston, *Śiva in Dance, Myth and Iconography* (Delhi: Oxford University Press, 1982).

¹¹² Sometimes, the number of offerings to the fire is given as twenty-five (for instance, at the *garbhanyāsa* ceremony), which seems to signify the twenty-five “characters” of Śiva mentioned earlier. It is also worth noting that the categories of the self, beginning with *puruṣa*, number twenty-five.

¹¹³ The evolution of the material world is complemented by that of the world of language encompassing transcendent, subtle and gross sounds. The transcendent sound-principle is *nāda*, from which evolve articulate speech, letters, syllables, words and sentences. *Nāda* complements *bindu*, the transcendent material-principle. This is the fundamental principle of the science of *mantras*, and hence their relevance in building rites. The potency of the seed syllables owes to the conceived undifferentiated unity of *nāda* and *bindu* in them (see Sir John Woodroffe, *The Garland of Letters: Studies in Mantra-śāstra* [Madras: Ganesh & Co., 1969], especially ch. XXVI, “Bīja-Mantra.” For the theory of *nāda* in Śaiva Siddhānta, see K. Sivaraman, *Śaivism in Philosophical Perspective*, pp. 224-30).

The *bīja* syllables, *la*, *va*, *ra*, *ya*, and *ha* are the “sounds” of the five elements from earth to space respectively, and correspond to the five faces respectively of *sadāśiva* in the *karṭṛsadākhyā* mode. *Mantras* composed of these syllables are *hr̥llekha*, “furrowed in the heart,” and their recital effects the enshrinement of the unmanifested deity in the heart, as well as the sublimation of elements (see Sabarīthanam, “Āgamic Treatment of the *Mahābhūtas*,” in Baumer, ed., *The Āgamic Tradition and the Arts*, p. 50. Also see S. S. Janaki, “*Pañcabhūtas* in Śaiva Ritual: With Special Reference to *Bhūtaśuddhi*,” in *Ibid.*, pp. 38-42).

Vivifier, who by his splendor excites and incites meditation, illuminating the mind with wisdom, knowledge and intelligence.¹¹⁴ In the context of the ceremonies here, especially in the ceremony of the opening of the eye of the image, the manifestation of the transcendent deity is akin to sunrise that vivifies and enlightens the mind with spiritual insight. The image is then sprinkled with water, amidst shouts of *puṇyāha*. Incense and lamp are waved, and the *dhenumudra*, gesture of the cow, is shown before it once again. The sequence of these rituals employing the triad of *mantra*, *mudra* and *maṇḍala*, in combination with the fire-sacrifice and the *gāyatrī* hymn mark the preparations for the “transference” of the transcendent, unmanifested Śiva from the water pitcher to the image. The image is ready for its eyes to be “opened.”

5.3) “Writing” the Eyes of the Image

The ceremony now enters its crucial phase. The *sthapati* wraps the limbs of the image with new clothes, and “writes” its eyes. With undivided mind, and following the rules of *śāstra*, he “touches” all parts of the eyes – the lids, iris and pupil – with his right

¹¹⁴ *Rgveda* III, 62.10 (trans., S. Radhakrishnan):

*aum tat savitūr vareṇyam
bhargo devasya dhīmahi
dhiyo yo naḥ pracodayāt*

We meditate on the adorable
Glory of the radiant Sun.
May he inspire our intelligence.

The medieval Śaiva, Vaiṣṇava and Śākta sects use the *gāyatrīmantra* in forms that are adapted to their particular revelation and theology, while maintaining its basic metric structure of twenty-four syllables (eight in each line) and content of mental illumination. The Śaiva *gāyatrīmantra* is as follows:

*pañcavaktrāya vidmahe
mahādevāya dhīmahi
tanno rudrah pracodayāt*

hand.¹¹⁵ He recites the *saura*, solar, and *śaśi*, lunar, *mantras* respectively while chiseling the right and left eyes. The third eye – a unique feature of Śiva – located vertically in the center of the forehead, is chiseled while reciting the *agnibīja*, the seed syllable of fire.¹¹⁶ The three eyes of Śiva correspond to his cosmic functions of creation, preservation and dissolution.¹¹⁷

The eyes, opened thus, are cleared by anointing with water and clarified butter using a gold brush and covered immediately with cloth and pieces of gold. The eyes are to be uncovered only after Śiva, the unmanifested *bhuvanādhipati*, is “transferred” from the water pitcher into the image, thus “enlivening” it, and propitiatory worship is offered to him as the deity manifest in the image. Just as fire could be both benign and malignant, it was thought that the gaze of the divine could also potentially have malignant effects if encountered before appeasement through worship.¹¹⁸ The subsequent rituals aim at transference of Śiva and his propitiation in the image so that he is placated and his gaze

¹¹⁵ The proportionate measurements of the eye and its parts with respect to the face stipulated by *tālamāna*, the rhythmic system of iconographic measurement, are given in *Mānasāra* LXV, 58-74. The eye and brow are stated to be of the shapes of fish and bow respectively.

The *Mayamata* (XVIII, 188) states that the eye should be marked first with a gold needle, and then with a sharper point. This detail has been inadvertently omitted in the account in the *Mānasāra*.

In the line stating the disposition of the *sthapati* as he performs this operation (LXX, 67-68) is found the compound term, *sarvāṇḍakṣiṇaśāstreṇa*. Acharya notes that in one of the manuscripts, the last member of the compound is *hastena* instead of *śāstreṇa*, the term reading, then, *sarvāṇḍakṣiṇahastena*. *Dakṣiṇa* means both “south” and “right”; *dakṣiṇaśāstreṇa* means, “by (according to) the *śāstra* of the South” (which the *Mānasāra* is), and also “according to the right (correct, exact) rules,” here meaning the stipulated proportional measurements of the eye. *Dakṣiṇahastena* means, “with the right hand.” All these translations are plausible in this context.

¹¹⁶ *Mānasāra* LXX, 72. The three eyes of Śiva as the sun, moon and fire symbolize the discerning, intentional and active triad of divine instrumentality (Woodroffe, *The Garland of Letters*, pp. 198, 258). *Saura* and *śaśi mantras* are male and female, marked by their endings, as in the syllables *phaṭ* and *svāhaḥ* respectively. *Agnibīja mantras* are composed of *ra*, the seed syllable of fire (see Woodroffe, *Introduction to Tantra Sastra* [Madras: Ganesh & Co., 1956], pp. 85-86).

¹¹⁷ The text states thus (LXV, 110):

saṃhāram ca sthitiḥ sṛṣṭirddṛṣṭirevam śivasya ca |

Destruction, preservation and creation are indeed the [three] eyes of Śiva.

¹¹⁸ For references of beliefs in the benign and malignant effects of “casting the eye” by humans as well as gods in Vedic and post-Vedic literature, see Jan Gonda, *The Eye and Gaze in the Veda* (Amsterdam: North Holland Publishing Company, 1969).

turns entirely benevolent at the instance when the eyes are uncovered, thus granting *darśana*, auspicious sight, to the devotee.

5. 4) Rituals Subsequent to “Writing” the Eyes of the Image

A series of rituals that animate, consecrate and install the image in the adytum of the temple takes place after the chiseling of its eyes. The *sthapati*, dressed in new clothes, adorned with ornaments on the five limbs of his body, smeared with sandal ointment and wearing the *uttariya*, upper scarf, and sacred thread made of gold and white flowers across his torso, carries the main water-pitcher. He holds it to the right of his body; his assistants, keeping to his left, carry the other pitchers. Together, they circumambulate the temple as a procession, accompanied by colorful umbrellas and fly-whisks, amidst auspicious sounds made by musical instruments and pronouncements.¹¹⁹ Upon returning to the pavilion, the image is anointed with water from the main pitcher, and its limbs with water from the other pitchers. The pitchers are then thrown away while retaining the strings with which they were tied. This is the ritual of *kumbhābhiṣeka* that completes the transference of Śiva as deity manifest in the image. The image is adorned with clothes, ornaments and flowers, and anointed with sandal paste. Incense and lamp are waved before it amidst music, song and dance. The *sthapati* then “places” the *māṭṛkāṣaras* on his body from head to heart¹²⁰

¹¹⁹ *Pañcavādya*, the band played during temple worship comprises the five causal sounds, related to the five gross elements: 1) *dāruja*, sound born of wooden instruments, related to earth; 2) *śaṅkha*, sound born of conch, to water; 3) *loha*, sound born of metal instruments, to fire; 4) *vamśa*, sound born of flute etc., to air; and 5) *geya*, sound of songs (human voice), related to space (ether). These are sounded to ward off inauspiciousness and to propitiate the deity (*Ajītāgama* XX, 259; quoted in Sabarithanam, “Āgamic Treatment of the *Mahābhūtas*” in Bäumler, ed., *The Āgamic Tradition and the Arts*, p. 60).

¹²⁰ Acharya translates *māṭṛkāṣaram* as “ligatures (conjunct consonants).” This reading is untenable since ligatures are so numerous in Sanskrit that their specific significance in this “placing” on the body remains vague.

and all other letters (the consonants and half-vowels) from feet to the upper limit (heart), and also the thirty-eight *kalās*, here to mean “signs of esoteric significance,” on his limbs.¹²¹ By placing the syllables on his body, the *sthapati* conducts the rite of *bhūtaśuddhi*, purification of elements, that in turn purifies and prepares him for worship. Then, reciting the *mūlamantra*, principal incantation,¹²² he worships the deity with incense and lamp, flowers and sandal-paste, and offerings of food. He then shows all the *mudras* to the image while the Brāhmaṇas sprinkle unhusked rice and pronounce *svasti*, benediction. This *śivārcana*, worship of Śiva, effects the consecration of the image, and marks the completion of the ceremony of opening the eye. The image has now become *śivāsana*, seat of Śiva.¹²³ The image is then taken in procession through the village and brought back to the temple.

The *sthapati* next conducts the ritual of *ratnavinyāsa*, placing of the gems in the pedestal upon which the image is to be erected. Nine chambers are prepared in the center of the pedestal according to the *pīṭhamanḍala* of nine squares. The *navaratna*,

Rather, *mātrkāṣaram* means the set of letters comprising the fourteen vowels, the *anusvāra* and *visarga*, signifying the sixteen divine mothers, and hence of magical potency. That the context here is one of worship rituals of the Tāntric mode further validates this latter reading (see Sabarathanam, “Āgamic Treatment of the *Mahābhūtas*” in *Ibid.*, p. 53). For a scheme of placing *mātrkāṣara* based on the Tāntric text *Yoginīhṛdaya*, see A. N. Jani, “Method of Implementing *Mātrkānyāsa*” in P. S. Filliozat, S. P. Narang and C. P. Bhatta, eds., *Pandit N. R. Bhatt Felicitation Volume* (Delhi: Motilal Banarsidass, 1994).

¹²¹ For the theological significance of the *kalās* as and their imposition on the body of the worshipper in Śaiva Siddhānta, see Richard Davis, *Ritual in an Oscillating Universe*, pp. 58-59, 118. The thirty-eight *kalās* also correspond in number to the thirty-eight *upacāras*, articles used and acts done, in worship of personal deity in the Tāntric rite. In the ongoing account of worship of Śiva, all thirty-eight *upacāras* are seen to be employed. For a complete list, see John Woodroffe, *Principles of Tantra* (Madras: Ganesh & Co., 1952), p. 1156.

¹²² It is *aum namaḥ śivāya*, comprised of the primordial sound *aum* and five syllables.

¹²³ The structure of *śivārcana*, worship of Śiva, involves five steps that correspond to five constituents of *śivāsana*, “seat” of Śiva: 1) during *āvāhana*, invocation, Śiva is meditated upon as seated in *yogāsana*; 2) during *abhiṣeka*, holy bath, in *śimhāsana*; 3) during *arcana*, offering of flowers, in *padmāsana*; 4) during *naivedya*, offering of food, in *vimalāsana*; and 5) while being praised with song and dance, Śiva is meditated upon as seated in *anantāsana* (see H. N. Chakravarty, “The Pentadic Universe in the *Śaivāgamas*” in Bäumler, ed., *The Āgamic Tradition and the Arts*, p. 33).

nine precious stones, are placed therein as stipulated.¹²⁴ Following this, the image is installed upon the pedestal. In the *Mānasāra*, this marks the constructional and ceremonial completion and inauguration of the temple.

b) SEEING

*antarbahiśca rāgaśca a(stu cā)rthanāśam na saṃśayaḥ ||
akṛtvā nayanonmokṣam cakṣū(u)rogo bhaved dhruvam |*

(*Mānasāra* LXX, 10-11).

The internal and external *rāga* as well as wealth will be destroyed, no doubt, having wrongly done the liberation of the eye; [also] certainly will be [contacted] disease of the eye.

The caveat issued through these verses is directed at ensuring the “observance” of rules by the *sthapati* in both ritual and iconographic aspects of opening the eye of the image. The consequences of transgression are serious: loss of health (disease of the eye) and wealth, but more direly, the loss of *rāga*. In the doctrine of Śaiva Siddhānta, *rāga* is one of the thirty-six *tattvas*, and connotes eros, the creative passion of the self that encompasses an entire range of emotions: desire, affection, delight, charm, joy.¹²⁵ For the *sthapati*, *rāga*, together with *kalā*, here to mean “aptitude,” and *vidyā*, “knowledge,” constitute the key principles of creativity. Loss of *rāga* thus implies the very deprivation of passion and imagination for artistic creation.

¹²⁴ The ruby is inserted in the central chamber, diamond in the east, coral in the southeast, sapphire in the south, the cat’s eye in the southwest, topaz in the northwest, pearl in the north and sapphire in the northeast. This ritual is conducted also during the ceremonies of foundation deposit, erections of column and pinnacle.

¹²⁵ The word *rāga* derives from *√ranj*, “to glow,” and also “to be affected, excited.” In art, *rāga* is the color crimson, and in music, particular musical modes that excite particular affections. In the above verse, Acharya, translates *rāga* as “light (i.e. sight).”

The text mentions two kinds of *rāga*: internal and external. Taken in the sense of a passionate vision or “seeing,” it is by engaging both the internal and external aspects of *rāga* that architectural and iconographic making proceeds. For the *sthapati*, building the temple and making the image are, so to speak, the process of “seeing” it into being. “Seeing” in artistic and architectural making encompasses interaction with the material world through perception and observation, and exploration of the inner realm by imagination and conception. Among these, perception-imagination are eidetic-poetic and primary,¹²⁶ whereas observation-conception are empirical-rational and secondary. Architectural and iconographic making are moderated by these dual modes of synthesis and analysis.

In the *Mānasāra*, several words denote the synthetic and analytic seeing of the *sthapati* in the course of making the temple and image. The most commonly occurring are *prekṣaṇa*, *parīkṣaṇa* and *vīkṣaṇa*. They conjoin respectively the prefixes *pra*, “before, in front of,” *pari*, “around,” and *vi*, “apart, asunder” to *√īkṣ*, “to see.”¹²⁷ Chapter III of the *Mānasāra* recounts that the wise sages “identified” locales that were fit for the dwelling of gods and humans. They called these sites *vastu*, the primal architectural “object,” which, by creative intervention of humans, was to be transformed into *vāstu*,

¹²⁶ See Maurice Merleau-Ponty, *The Primacy of Perception and other essays in Phenomenological Psychology, the Philosophy of Art, History and Politics*. James M. Edie, ed. (Evanston, IL.: Northwestern University Press, 1964).

¹²⁷ This verb is connected to *akṣi*, eye, the etymological thread of which runs through the root *√aś*, “to pervade,” its desiderative stem *√akṣ*, also “to pervade, embrace,” to the neuter noun *akṣam*, “perception.” Oblique as this connection might seem, as lexicographer Monier-Williams notes (“*√akṣ* perhaps is a kind of old desiderative of *√aś*,” Monier-Williams, *A Sanskrit-English Dictionary*, p. 2), it is vital in establishing the primacy of perception as a holistic “embrace,” that is, “pervasion,” of the thing perceived, an issue particularly significant for architecture.

“dwelling.” Sacred architecture begins, thus, by perceiving divine presence at a particular location.

All procedures associated with the study of the site (mentioned in Chapters III, IV and V) follow, at large, a perceptual mode. First, the physical features of the site such as shape, slope, smell, sounds, habitant flora and fauna, and so on, are “taken notice of” to ensure its fitness for dwelling.¹²⁸ The word denoting this entire process is *bhūmisamgraha*.¹²⁹ *Bhūmi* (literally meaning “earth”) denotes site, and in *samgraha*, the prefix *sam*, which has a unitive sense, is added to *√grah*, “to grasp,” thus to connote a “knowing” that is perceptual. The site is demarcated by ritual furrowing, and subjected to an examination to attest the quality of its soil. This is conducted by the quasi-empirical method of conducting certain tests and observing their results. Seeds of barley corn are sown in the site and their growth observed to ascertain the quality of soil. Then, they are allowed to be grazed upon by cattle. By observing the dung of cattle, the quality of soil is further ascertained. The permeability of soil is tested by filling a pit dug in the site with water and checking the water-level on the following day. The “observation” in the course of these tests is mentioned in the text as *prekṣana*. The prefix, *pra*, “before” (that is, whole and undissected) points to the synaesthetic nature of the observation, engaging the entire sensorium of sight, sound, smell, taste and touch. The word in the text for these tests is *parīkṣa*, examination. In

¹²⁸ *Mānasāra* III, 15-16. The verb occurring in this verse that denotes perception is *parīkṣya*, the gerund of *parivīkṣ*, “to see.”

¹²⁹ The title of Chapter IV is *Bhūmisamgrahavidhānam*, “Prescriptions for Knowing the Site.” Its content comprises a list of features of the site, both pleasant and unpleasant, that appeal to the five senses, by which its fitness for dwelling is ascertained.

this case, the prefix *pari*, “around,” connotes, again, that the process is more phenomenological than scientific.

Similarly in the procedure of collecting wood for columns from the forest, a potentially dangerous task, perceptual acumen has to be particularly sharp. The text gives an elaborate list of sensate phenomena – sight, sound and occurrence (for instance, a tree falling in a particular direction when felled) – qualified as omens good or bad.¹³⁰ The *sthapati* and his retinue are called to be aware of these, so as to continually seek out and “sight” the good omens and avoid the bad ones.

The *sthapati* ascertains the quality (expressed in terms of gender: male, female or neuter) of the wood pieced and prepared for assembly by *prekṣaṇa*, feeling and examining it while “turning it again and again [in his hands] from left to right” so as to ensure their compatibility of gender in joinery.¹³¹ Similarly when selecting stone for iconography, its gender (again, among male, female and neuter) is ascertained by its form, color, the sound it produces, how it is found lying and so on.¹³² Thus, this quasi-science of materials also follows a perceptual “seeing.”

The orientation of the site by the gnomonic method involves alignment of the site with the traversal of the sun. A “sighting” of the sun (albeit inversely) is conducted, by means of the shadow of the gnomon; and the marking (“situating”) of this shadow at two points on the circle drawn on the site around the gnomon is done. The line

¹³⁰ *Mānasāra* XV, 257-339.

¹³¹ *Mānasāra* XVII, 27-30.

¹³² *Mānasāra* LII, 183-215.

connecting these two points and its perpendicular give the east-west and north-south directions respectively.¹³³ The delineation of the site follows. At this stage, the actual extent of the building, its geometry and physical dimensions, exist only as “conceived” in the mind of the *sthapati*. By measuring it out, he brings this abstract geo-metric construct (of inter-related figures, measurements and proportions) to bear upon the site, thus initiating the process of translating the conceptual into the concrete and tangible.

6. Meditations during Construction

From a theological perspective, the manifestation of the transcendent deity in the temple and the image is effected by the proper conduct of the building rituals. The śāstraic precepts, as the “grammar” of ritual, serve to this end, so that a strict adherence to them ensures the proper conduct of the ritual. In this scheme of adherence to rules, the accent is on the vector of descent – as the transcendent deity manifests itself in the phenomenal realm. However, one detects the simultaneous presence of the opposite vector – of ascent of the devotee (here the *sthapati*) towards the realm of the transcendent – throughout the construction process. The vector of ascent is especially highlighted during the rituals as “seeing,” in the form of various meditations that the *sthapati* undertakes, by which the architectural and theological aspects of the process are linked. This dialectic between the vectors of descent and ascent moderates the rituals; it is already present within the theological realm of *bhakti* itself, and in sacred worship.

¹³³ *Mānasāra* VI, 22-28.

Each aspect of construction has a “theological” (oscillating between mythical and metaphysical) dimension, which the *sthapati* accesses through a spiritual kind of “seeing” while conducting the operation or performing the ritual. This is *dhyāna*, meditation (as well as contemplation).¹³⁴ *Dhyāna* derives from *√dhyā*, “to think, contemplate,” which, etymologically, is “a perfectly normal variant of the root from *√dhī* [‘to see, perceive’].”¹³⁵ The principle behind *dhyāna* in artistic and architectural making is that of identification. The *sthapati* pierces into the metaphysical essence of the form being created and identifies himself as one with it. This is achieved through a dialectic between the “technique” (in the yogic sense) of intense contemplation that the sages employed on the one hand, and the emotional rapture of devotional love ending in ecstatic vision that the saints experienced (the latter implied in the text by the term *rāga*, passion, and its connotations pertinent to artistic creativity) on the other. In each of these modes, the perceptual and cognitive faculties are absorbed into the spiritual experience of union with the divine. The “channel” of imagination of the *sthapati* thus “opened,” the essence flows through it; by his act of making, he facilitates the assuming form of this essence.¹³⁶ Meditation as mental visualization of form is accompanied by vocalization of name. It is usually in the format of dwelling upon a particular deity or a specific aspect of the divine, whichever is pertinent to the object or stage of construction. Thus, while making the tools of measurement, the *sthapati* meditates upon Viṣṇu as the tutelary deity of *kiṣku*, the cubit-scale, as well as *daṇḍa*, the

¹³⁴ Several scholars have sought to extract the spiritual and technical senses in which the concept of *dhyāna* was applied in religious and artistic practices by translating it as “meditation,” “meditative contemplation,” “concentrated meditation through visualization,” “inner absorption,” “penetration of real essences and mysteries,” “undistracted attention,” and so on (see Jan Gonda, *The Vision of the Vedic Poets*, “Dhyānam” [The Hague: Mouton, 1963], pp. 289-90).

¹³⁵ *Ibid.*, p. 289.

¹³⁶ *Ibid.*, pp. 61-62. Also see Ananda Coomaraswamy, *The Transformation of Nature in Art* (Rpt., New York: Dover, 1956), p. 166.

measuring rod, and Vāsuki, the serpent deity upon whom Viṣṇu is said to recline in the Ocean of Milk, as the deity of *rajjū*, the measuring rope. Brahmā, as creator, is meditated upon as the presiding deity of measurement itself.¹³⁷ The site, after its possession, is imagined as Kāmadhenu, the mythical, all-giving cow.¹³⁸ The site is also meditated upon as the goddess Āmbikā (who, in one mythical rendition, is Pārvatī, the wife of Śiva).¹³⁹ While furrowing the site, the *sthapati* meditates upon himself as Brahmā, the plough as Varāha, the incarnation of Viṣṇu as Boar, and the pair of oxen yoked to the plough as sun and moon, the eye and mind respectively of the deity.¹⁴⁰ During *padavinyāsa*, ritual marking of the plots in the delineated site, the *sthapati* visualizes the form of *vāstupuruṣa*, man or “spirit” of the site (who “inhabits” it), as lying face down and stretched out across it, while reciting the *mantra* of obeisance to him.¹⁴¹ He also visualizes the *vāstumāṇḍala*, cluster of forty-five deities, who, in order to subjugate *vāstupuruṣa*, sit upon his limbs and thus occupy plots in the four quarters of the site. He invokes the deity corresponding to each plot and “situates” it thereupon by touching the plot and visualizing its form in all iconic detail and vocalizing its specific venerational *mantra*.¹⁴² While conducting the ritual of *vāstubali*, sacrificial offerings to the deities of the *vāstumāṇḍala*, the *sthapati* meditates upon himself as Śiva.¹⁴³

¹³⁷ *Mānasāra* II, 68, 75. The associations made here are more from mythology than sectarian Śaiva theology. Thus, in a purāṇic account, Viṣṇu, in his fifth incarnation as Vāmana, is said to have measured the three worlds in three strides.

¹³⁸ *Mānasāra* V, 37.

¹³⁹ *Mānasāra* V, 23-25.

¹⁴⁰ *Mānasāra* V, 80-82. According to mythology, Varāha, the third incarnation of Viṣṇu, rescued the earth from the bottom of the sea with his horn.

¹⁴¹ *Mānasāra* VII, 253-269.

¹⁴² *Mānasāra* VII, 155-252. The mythological account of *vāstupuruṣa* is found in *Matsya Purāṇa* CCLII, 5-19, which is reiterated in various forms in astrological and architectural treatises.

¹⁴³ *Mānasāra* VIII, 60. The specific verb used here to denote meditation is *√smṛ*, “to remember,” in its third person singular optative conjugate form, *smaret*. In another occasion of similar ritual conduct (XV, 399), there is mention of worship by the *sthapati* of the deity (Śiva) as *hṛllekha*, furrowed (installed) in the heart, and also present in the main water-pitcher.

Similarly, by meditation and recitation the *sthapati* unites symbolic meaning with the compositional or structural function of each spatio-structural component of the temple, thereby “establishing” it firmly in its proper place and role in the overall program of divine manifestation. The conception of the foundation finds concretion as it is firmly installed in place by meditating on it as being upheld by the eight mountains and guarded by the eight quarter-lords on the firm surface of the earth, which in turn rests upon the primordial waters and upon Ananta, the great serpent deity.¹⁴⁴ While laying the foundation, he meditates upon Śiva in his emanate form of Viśvakarman, creator, and as *bhuvanādhipati*, lord of the universe, who is the ground of its creation, preservation and dissolution.¹⁴⁵ In other words, the laying of foundation is meditated as the enactment of cosmic creation. The *sthapati* visualizes the column first as the Himalaya mountain and then as the great Mount Meru (upon which rests the abode of the gods).¹⁴⁶ He meditates on the last four stones of the assemblage of the superstructure (that together hold the finial in place upon the domical crown of *śikhara*, head, of the tower above the sanctum) as the seats of the lords of the cardinal directions. The finial (dome-nail) itself is meditated upon as the transcendent form of the deity who is to be installed in the temple.¹⁴⁷

The theme of meditation is even more persuasive in iconography. In the chapters on iconography (LI-LXIII), the text gives vivid descriptions of characteristic features of the various deities. These iconic representations, divinely revealed to sages of the

¹⁴⁴ *Mānasāra* XII, 108-109.

¹⁴⁵ *Mānasāra* XII, 112-114.

¹⁴⁶ *Mānasāra* XV, 409, 430-431.

¹⁴⁷ *Mānasāra* XVIII, 371 refers to the meditation of the last four stones as quarter-lords. The worship of the finial as the principal deity is inferred from the whole ritual of *sthūpikīlapraṭiṣṭhā*, “erection of dome-nail” in XVIII, 340-413.

hoary antiquity, are not to be subjected to artistic caprice: hence the text qualifies the “imagination” of the iconographer as *mūrtidhyāna*, “meditation of [the form of] the deity.”¹⁴⁸ The final iconographic operation is chiseling the eyes of the image. The chiseling is also conducted in a pious, meditative mode as opening the eyes of the deity, thus completing its manifestation.

7. *Darśana*, Auspicious Sight

*kim sṛjennayanonmeṣam andhakārānupattaye |
udite tu sahasrāṃśau yathā gacchati samantataḥ ||
tathaivamasthamānādi locanasya janasya ca |*

(*Mānasāra* LXX, 7-9).

What should make the opening of the eye dispel darkness; in what manner the thousand rays [of the sun] upon arising goes all around, thus indeed the setting and such of the eyes of the people.¹⁴⁹

These preambulatory verses of the final chapter are aimed to make explicit the symbolism of chiseling the eye of the image and its significance to the devotees. The simile is rather poorly constructed against the measures of poetics; however, it still captures the dynamic of the whole event. It brings out the reciprocity of the “sight-giving” dimension of the act. The invocatory rituals preceding the marking of the eye

¹⁴⁸ These iconologic details together with the system of proportional measurement that constitute *tālamāna* comprise the *śāstra*, rules or theory, of iconography. However, iconographers often made use of the visions of saints (recorded in their hymnal compositions, which also are part of the body of Śaiva sacred scripture) as *dhyānaśloka*, meditational verses, reciting and interiorizing them while sculpting the image. Vidya Dehejiya mentions an instance of this latter in which the iconographer made use of the Tamil saint Appar’s vision of Śiva as the Enchanting Mendicant with a swaying gait (recorded in his poem, *Tevaram* VI 58. 6-7) as *dhyānamantra* while sculpting that image (see Dehejiya, *Art of the Imperial Cholas* [New York: Columbia University Press, 1990], pp. 115-6).

¹⁴⁹ This is a difficult set of verses to translate. There seem to be several corrigenda in the Sanskrit text: the term *anupattaye* (there exists a verb *anuvṛpat*, “to fly to, chase, follow, fall upon,” but the particular conjugation does not exist); *astamānādi*, which can be broken down as *astamāna* + *ādi* or *astama* + *anādi*. The term for setting (of the sun) is *astamana* and not *astamāna* or *astama*. The specific sense in which *ādi* or *anādi* (meaning respectively “beginning” and “without beginning”) is used here is not clear. Acharya translates these verses thus:

As regards the chiseling, it is meant for giving sight to the eye (lit., removing darkness from the eye). When the sun rises the rays spread all over, so also the case of the eye of an individual as regards its rising and setting (Acharya, *Architecture of Mānasāra*, p. 641).

prepares the image for its “enlivening” with divine presence. The *sthapati* then “writes” its eyes by chiseling them, and covers the eyes with cloth. When the enlivening of the image is complete with the deity “transferred” from the main water-pitcher to the image, the cloth is removed so that he offers *darśana*, auspicious sight, to the devotee. The light of divine manifestation shines forth through the eyes of the image, and is received into the heart of the devotee through his own eyes, dispelling the darkness therein, as when the sun rises and spreads its myriad rays around, dispelling the night. *Darśana*, deriving from *√drś*, “to see,” is not a neutral observation, nor a passive viewing, but an active (motive and emotive) participation in the divine essence by the devotee by which he receives insight. Thus, this moment of union between deity and devotee through their mutual seeing is one of a divine epiphany.

The ceremony of installation of image and inauguration of the temple establishes the dwelling of the deity in the *kṣetra*, ordered site. By this, the perception of divine presence in the location is officially pronounced and made accessible to the wider populace in the mode of *darśana*, the mutual “seeing” of devotee and deity. *Darśana* marks the culmination of devotional worship in Śaivism. The singular intent of the *sthapati* in his making the temple and image is to realize this sacred program: to manifest the divine and thus facilitate *darśana*. In this, his whole approach is one of devotion, and from it proceed the perceptual, conceptual and meditative exercises of seeing. The “bounds” of such making that is passionate (imaginative) at the same time pious (devotional) are drawn by the rules of *vāstuśāstra*, which the *sthapati* knows and follows. Notwithstanding the fact that the *Mānasāra*, being a compendium of

architectural rules, emphasizes compliance to them in the process of making, the admonitory notice cited earlier, nevertheless, also implies that in making, sober “observance” of rules and passionate “seeing” display a paradoxical complementarity. The tension between the two is a fruitful one: *rāga* is fully realized by observing the rules. Making sense of the architectural theory propounded in the *vāstuśāstra* of the *Mānasāra* amounts to, at the primary level, this apprehension of the indefeasible link by way of identification between “seeing” and “knowing”: the ontological (or, to be more accurate, onto-theological) premise of “seeing-as-knowing,” as well as its epistemological converse of “knowing-as-seeing.”

In Śaiva theism, *darśana* is orchestrated in the context of *śivārcana*, ritual worship of Śiva in the temple. Daily worship is conducted at dawn and dusk, the two *saṃdhyās*, “conjunctions” between night and day (dawn and dusk), and also at noon. For the duration of worship, various *upacāras*, specific articles and acts of sacrosanct nature that appeal to all the senses, are employed. The “event” of *darśana* as a thickened spatio-temporal “presence” as well as “present” is announced in the temple by singing, playing of musical instruments, bell chimes, and loud recital of *mantras*. For the devotee, *darśana* is a synaesthetic experience, unitive and holistic: he sees and is seen by the deity, hears its *mantras* being recited and recites them himself, inhales the aroma of the incense, tastes the ambrosia. By such elemental mingling, divine immanence extends into the territory of the devotee’s heart in a pronounced way.¹⁵⁰ In the final chapter, at the end of the accounts of rituals of opening the eyes of the image,

¹⁵⁰ See Diana L. Eck, *Darśan: Seeing the Divine Image in India* (Chambersburg, PA.: Anima Books, 1981).

its installation in the temple and its worship, this is expressed quite beautifully in the following line (LXX, 111):

hrdayakamalamadhye dīpavattatparam syāt |

In the center of the lotus-heart [of the devotee], [the deity] should be the supreme object, [and] like a lamp.

This line occurs after the text instructs *sthapatisthāpakaśobhau*, “the radiant *sthapati* and *sthāpaka*,” to insert the nine gems in the cavity made for them in the pedestal, and then install the image upon the pedestal. It exhorts the *sthapati* and the *sthāpaka* to install the image in the sanctuary of their hearts as well. In fact, the “radiance” of the duo stem from having installed the radiant deity in their hearts. The heart is the “center of being,” so to speak, where the cognitive and affective faculties meet.¹⁵¹ Thus, the act of installing the deity therein perspicuously connects divine seeing and knowing.

The union effected in *darśana* between deity and devotee (or, in more abstract terms, between the divine and the self) is such that the devotee “becomes” the deity, so to speak.¹⁵² The emanationist current in Śaiva theology admits such “divinization” of the devotee. The self is ontologically divine in its inner essence but ignorant of it, being fettered by the world of the flesh. As ritual worship inspired by devotional love

¹⁵¹ On this point, see the essay “Some Notes on the Function of the Heart,” in Jan Gonda, *The Vision of the Vedic Poets*, pp. 276-88. K. D. Tripathi treats this same topic of the “faculty” of the heart, albeit with an emphasis more on aesthetics rather than theology. The “space of the heart” as the space of experience of being is a notion found earliest in Vedic and Upaniṣadic thought itself. Consequently, artistic experience appealed to this inner space of the *sahṛdaya*, literally, “one with heart,” here to mean “aesthete” or “connoisseur” (see K. D. Tripathi, “From Sensuous to Supersensuous: Some Terms of Indian Aesthetics,” in Baumer, ed., *The Āgamic Tradition and the Arts*, p. 72).

¹⁵² This is found in the oft-repeated Āgamic maxim: only a Śiva can worship Śiva (see Gonda, *Medieval Religious Literature in Sanskrit*, pp. 171, 187).

culminates in *darśana*, this ignorance is dispelled by divine seeing and knowing, and the self rediscovers and recovers its divine nature.¹⁵³

8. Making as *Sādhana*, Spiritual Practice

*adhunā vakṣyate sarvabhaktānām lakṣaṇam kramāt |
pādam caturvidham proktam tadvaśānmānam grhyate ||
prathamam sālokyamatha dvitīyam sāmīpyamucyate |
sārūpyam ca tṛtīyam syātsāyūjyam tu caturthakam ||*

(*Mānasāra* LIX, 1-4)

The characteristic features of all devotees are now stated in order. It is said that [their] division is four-fold; the measurement [of each] is ascertained in accordance to that [division]. Now, the first is said to be *sālokyā*, the second, *sāmīpya*, and the third should be *sārūpya*, [and] the fourth, *sāyūjya*; thus the four kinds.

These verses occur at the beginning of the Chapter LIX, Bhaktalakṣaṇam, “Characteristics of Devotees,” in the section on iconography. All devotees are divided among four classes; in making their respective images in order to install them in the temple complex, the measurement system proper to each is to be applied. The names of the four classes evince a hierarchical grade of spiritual ascent or degrees in the state of union with the deity. Thus, *sālokyā*, literally meaning “being in the world,” in this scheme connotes “inhabitation of the divine realm”; similarly, *sāmīpya*, is “being near [the deity],” *sārūpya*, “assuming [divine] form or likeness,” and *sāyūjya*, “consummate union [with the divine].” The text elaborates upon each of these states as follows (LIX, 5-8):

bhaktijñānam ca vairāgyam(ya) yuktam sālokyamīritam |

¹⁵³ See Davis, *Ritual in an Oscillating Universe*, Chapter III, “Becoming a Śiva.”

*jñānam vairāgyasaṃyuktam sāmīpyamiti kathyate ||
kevalam dhyānasamṃyuktam sārūpyamiti niścitam |
śuddhajñāna samāyuktam sāyūjyam paramārthavat ||*

Sālokya is said to be the yoking of *bhakti*, *jñāna*, and *vairāgya*. *Jñāna* and *vairāgya* yoked together is stated as *sāmīpya*. The conjoining of *dhyāna* alone is ascertained as *sārūpya*. Pure *jñāna* yoked together is *sāyūjya*, the possession of the supreme truth.

There are five attitudes or dispositions which, in themselves or by combinations among them, characterize the four states of spiritual life listed above. These dispositions are:

1) *bhakti*, devotion; 2) *jñāna*, knowledge or gnosis; 3) *vairāgya*, dispassion or detachment (*vairāgya* derives from *virāga*, the opposite of *rāga*); 4) *dhyāna*, meditation or visualization; and 5) *śuddhajñāna*, pure gnosis. Among these five, the first four, by nature, imply an objective correlate. Thus, the object of *bhakti* and *jñāna* is the deity (usually in concrete, iconographic, form such as installed in a temple), that of *vairāgya* the world, and of *dhyāna* the “purely mental” image (in other words, image that is beyond the scope of iconographization) of the deity.¹⁵⁴ On the other hand, the fifth, *śuddhajñāna*, is pure knowledge without an object (the adjective *śuddha*, “pure,” both implies and owes to this condition). It is the state of absolute non-duality in which the differentiation between knower and known ceases to exist. Hence the state of *sāyūjya* is also said to be *paramārthavat*, “possession of supreme truth.”

In the first state of *sālokya*, inhabiting the divine realm, the dispositions of *bhakti*, *jñāna* and *vairāgya* are conjoined. In other words, the condition of being in the world of flesh

¹⁵⁴ Of course, the various iconographic forms of the deity can also be objects of *dhyāna*. But in the state of *sārūpya*, it is understood that the empirical realm of concrete forms are, so to speak, already “left behind.” Hence, the object of visualization is the non-iconographic form of the deity. In the case of Śiva, it comprises the *līṅga* of immense dimensions as well as super-luminous effulgence.

and matter is “overcome” by the devotee by devotion to and knowledge of the divine as a personal deity, as well as detachment towards things worldly. In this way, the world itself is perceived by the devotee as the realm of the divine. In the state of *sāmīpya*, *bhakti* is significant by its absence: only *jñāna* and *vairāgya* are present. The attitude of *bhakti* thus eliminated, dispassion or detachment towards the world dominates this state. In other words, the “turning away from the world” is more complete. In the state of *sārūpya*, only *dhyāna* is said to be required. This being a “noumenal” (that is, supra-empirical, or better, supra-phenomenal) state, even *jñāna* and *vairāgya*, so long as they are tainted by the empirical or phenomenal, are absent. However, this state is not merely apophatic: *dhyāna* involves the positive act of mental visualization of the noumenal form of the deity. The term *kevala*, “solely, only,” in the third line suggests that meditation of divine form in this third state of *sārūpya* cannot accompany or be accompanied by (iconographic) making. In the highest state of *sāyūjya*, there is only pure gnosis.¹⁵⁵

It is noticed that in the elaboration of all the four states in the verses quoted above, the term *yukta* occurs, without and with prefixes. It is the past passive participle of the root verb *vyuj*, “to yoke, conjoin.” The word *yoga*, the basic meaning of which is “yoking, uniting,” also derives from the same verb-root. In the religious-spiritual sphere, its meaning obtains in the sense of meditation, concentration of the mind, and techniques pertaining to them. In the first two states of *sālokya* and *sāmīpya*, because there are

¹⁵⁵ These four states are explained in not only abstract, philosophical, but also concrete, relational, terms in the Śaiva Siddhānta tradition. Thus, in *sālokya*, the relationship of devotee to deity is servile (servant-master), in *sāmīpya*, filial (son-father), in *sārūpya*, fraternal (as between friends), and in *sāyūjya*, amorous (as between lovers). The first three prepare the devotee for the fourth (see Sivaraman, *Śaivism in Philosophical Perspective*, pp. 393-94).

present both more than one disposition (among *bhakti*, *jñāna* and *vairāgya*) as well as the duality between subjective disposition and its object, *yoga* as the exercise of purposeful uniting of these is imperative. In the third state of *sārūpya*, even though there is only *dhyāna*, the subject-object duality persists; hence, here too *yoga* is needed.¹⁵⁶ What is most significant, though, is that *yoga* is extended into the realm of *sāyūjya* as well, where there is only non-duality.¹⁵⁷ It is a contradiction in terms from a philosophico-theological point of view; any attempt to make some sense out of it must be in view of the context of this entire discussion and its intended audience: iconography of classes of devotees, and the guild of the *sthapati*.

The four classes of devotees or the states of spiritual life somewhat correspond to the four divisions of the *Āgamas* and the four modes of *sādhana*, spiritual practice, they entail. Thus, *sālokya* corresponds to *carya*, ritual and moral conduct, *sāmīpya* to *kriyā*, architectural and iconographic making, *sārūpya* to *yoga*, meditation, and *sāyūjya* to *jñānapada*, theology and gnosis.¹⁵⁸ Since the distinction between *carya* and *kriyā* in the *Āgamic* scheme is not always clear,¹⁵⁹ architectural and iconographic making, which is primarily *kriyā*, may be seen as encompassing both the modes. Making, at the most fundamental level, is a legitimate mode of *sādhana*, spiritual practice, in the four-fold scheme of spiritual realization. It is the primary and most accessible mode of *sādhana*

¹⁵⁶ It is significant also to notice that while elaborating on the conjoinings in the states of *sāmīpya* and *sārūpya*, the prefix *sam*, "together," is attached to *yukta*. This accentuates the act of uniting and gives a sense of the anticipation of the state of full union.

¹⁵⁷ In the fourth line, a different prefix, *samā*, is attached to *yukta*, probably for reasons of metrics or out of a certain notion that the "yoking" involved in the state of *sāyūjya* is somehow different from those in the previous states. No distinction obtains between the semantics of *samyukta* and *samāyukta* from a strictly lexical perspective. On the other hand, the term *samāyukta* can be broken down also as *samā* + *ayukta*, in which case, its meaning would be "all un-yoked." This latter interpretation implies that the "yoking" involved in the *sāyūjya* state of absolute non-duality is, in fact, an "un-yoking" (that is, dissolution) of all dualities.

¹⁵⁸ Sivaraman, *Saivism in Philosophical Perspective*, p. 393.

¹⁵⁹ Gonda, *Medieval Religious Literature in Sanskrit*, pp. 2-3.

for the *sthapati* and his guild, being makers of temple and image. This does not necessarily mean that the higher modes of *yoga* and *jñāna* are a priori inaccessible to the *sthapati*. In fact, the engagement of yogic meditation and discipline as well as knowledge of the *śāstra* in the process of making are already preparations for the *sthapati* to access the higher modes. Regarding yogic meditation, the exercises conducted by the *sthapati* of visualizing the particular forms, manifestations and attributes of the divine in connection with specific architectural components have already been mentioned. With respect to his yogic discipline and concentration, evidence is found in the text in the several ascriptions of the *sthapati*: as *niyataḥ*, “one who restrains self,” *samahitamaṇaḥ*, “[one who has] undissipated mind,” *vicakṣanaḥ*, “[one who has] discerning sight,” and *ekacittavat*, “possessing single-mindedness,” to mention a few.

Regarding the engagement of *jñāna* in the *sādhana* that is architectural and iconographic making, the following points can be observed. First of all, this *jñāna* is specifically architectural knowledge, which in turn can be distinguished as skills of the craft (the “how”) and its theoretical principles (the “what”).¹⁶⁰ These are learned by the *sthapati* in his young age (that is, before he can be called *sthapati*) through apprenticeship at the workshop and the work-site. At this stage, he is simultaneously a *bhakta*, devotee, and *sādhaka*, aspirant. While undertaking the process of making, he

¹⁶⁰ From a strictly epistemological point of view, knowledge of the “how” is “tacit knowledge”; knowledge of the “what” can be further distinguished as “explicit” and “systematic” (see Michael Polanyi, “The Logic of Tacit Inference” and “Tacit Knowing: Its Bearing on Some Problems of Philosophy,” in Marjorie Grene, ed., *Knowing and Being: Essays by Michael Polanyi* [London: Routledge & Kegan Paul, 1969], pp. 138-180). The term “explicit” need not necessarily imply a propositional or even aphoristic structure; such knowledge could be in the form of mythic narratives as well. On the other hand, knowledge that is “systematic” is “theoretical” in the full contemporary sense of the term. This discussion anticipates the content of the next chapter, “Nomology.”

simultaneously engages *bhakti*, devotion (which in turn incites *rāga*, desire, and *bhāva*, imagination, as its modality), *vairāgya*, dispassion, which is part of yogic discipline, as well as *jñāna*, knowledge of śāstraic precepts. In the course of his “graduation” as *sthapati*, indeed, a gradual process, he is imparted metaphysical knowledge (the “why”) of architecture by the *sthāpaka*.¹⁶¹ Such instruction is not limited strictly to the context of construction, but it is more certain that its primary occasion is the site of construction of the temple itself, and its specific means the building rituals and associated meditations. This also implies an initiation through the philosophico-theological categories of the system. The objective categories – the five gross and five subtle elements – are understood as together constituting the media or material of making. Similarly, the subjective categories – the five faculties of action and the five faculties of perception and the faculties of inner disposition together enable the *sthapati* to engage in making. The principles of experiential and existential contingencies constitute the setting within which the making unfolds. Initiated thus into the realm of metaphysical knowledge which, at this point, still has an object, architecture (that is, the temple and image as the manifestation of the deity), he is sufficiently prepared to leave the phenomenal realm behind. The culmination of this stage is *darśana*, the auspicious seeing of Śiva, at the completion and consecration of temple and image. *Darśana* illuminates his lotus-heart, rids from it the taints of ignorance (thus purifying it), and grants him self-insight. He installs Śiva in the sanctuary of his heart and worships him therein. Now an adept, he ascends to the state of *sārūpya* by exercises in

¹⁶¹ In Śaiva Siddhānta, a *sādhaka*, aspirant, is initiated into the path of spiritual realization when Śiva himself, “under the guise of a Preceptor, imparts knowledge through *upadeśa*, instruction, *śāstra*, book, and *anubhava*, the resulting experience” (Sivaraman, *Saivism in Philosophical Perspective*, p. 396). With regard to the initiation of the *sthapati*, this role of preceptor is filled by the *sthāpaka*.

meditative visualization,¹⁶² and to *sāyūjya* by reaching the realm of *śuddhajñāna*, transcendent knowledge. Further distinctions within the state of *sāyūjya* are made based on the ascent through the five pure principles (that is, those in the realm of pure being), *śuddhajñāna* or *śuddhavidyā* being only the first among them. Those remaining are *śivayoga* and *śivabhoga*, divine knowing and its relishing. The “space” of this consummate experience of divine union (as in the case of *darśana*) is, again, his lotus-heart.

¹⁶² These involve usually non-iconographic images of the deity. One exercise in meditative visualization involves imagining the lotus-heart as constituted in its various members by the thirty-six categories, and Śiva installed therein as dancing in the form of the *pañcākṣara*, five syllables (see Ibid., p. 404).

Chapter 2: "NOMOLOGY," OR THE HORIZON OF DISCOURSE

a) PRIORITY OF THEORY

Kumarīla's definition of *śāstra* as "that which teaches people what they should and should not do" points to its regulatory dimension. A pervasive characteristic of *śāstra*, as already noted, is its constitution as a vast set of grammatical rules. These rules in turn signify a certain "basic legality" (to use Husserl's terms) that lies at the heart of the science. In line with the claim and self-understanding of *śāstra* as a priori with respect to its object, *prayoga*, these rules with their dominant prescriptive tone are understood as such as derivative tools that "dispense" this legality rather than as sapiential principles that "access" it. Within a specifically epistemological context, one can discern in this feature, broadly, the "nomological" aspect of *śāstra*.

1. The nomological principle of *māna*, "measure"

The full title of the treatise is *Mānasāra Vāstuśāstra*. The term *mānasāra* is a compound of the nominal stems *māna* and *sāra* (when used independently in a sentence, the nouns are *mānam* and *sāram*, both neuter in gender). The nominal stem *māna* derives from $\sqrt{mā}$, "to measure" (and in Vedic Sanskrit, "to make, create, build," as well).¹ The neuter noun *mānam* means "the act of measuring," "measurement (an

¹ Fritz Staal observes that the Sanskrit root $\sqrt{mā}$ derived from two Indo-European roots: 1) $\sqrt{mā}$, "to make, create, produce"; and 2) $\sqrt{mē}$, "to measure." According to Staal, the homonymy that existed in early Sanskrit between $\sqrt{mā}$, "to make, create" (thus, *māna* meant building or altar), and $\sqrt{mē}$, "to measure," disappeared in later

actual dimension),” as well as “instrument of measurement (a measuring tool or a unit system).”² It is seen that even though these senses are derivative of the actual process of measuring (the noun deriving from the verb), they are still “concrete” in that they signify an act or a thing. However, an “abstraction” happens in the semantics when *mānam* is compounded with *sāram* (deriving from √sṛ, “to move, flow”) which has the meanings of “essence” and “summary.”³ The common interpretation of the compound *mānasāra* is as a *ṣaṣṭī tatpuruṣa samāsa*, “syntactic compound” of the sixth (genitive) case.⁴ In this instance, it is glossed as *mānasya sāram*, and the translation would read either “the essence of measurement,” or “the essence of the act of measuring.” However, another interpretation of the same compound, against which there is as such no grammatical impediment, is possible – as a *karmadhāraya samāsa*, specifically of the “appositional” or “equational” kind, in which the two nouns are apposed or equated to each other.⁵ In this case, *mānasāra* is glossed as *mānam sāram*, and translated as

language in which the latter sense prevailed (see Fritz Staal, “Māna,” in Bettina Bäumer, ed., *Kalātattvakośa*. Vol. II: *Concepts of Space and Time*. Kapila Vatsyayan, gen. ed. [New Delhi: Indira Gandhi National Center For the Arts & Delhi: Motilal Banarsidass Publishers, 1992], pp. 355-67.

² In the grammatical scheme of Pāṇini, the derivation of a noun from a verbal root is explained by the system of *pratyayas*, formative elements. A *pratyaya* is a cluster of code syllables that indicate the specific affix that must be attached to the verbal root to yield the nominal stem, as well as the modifications to the root itself (if necessary) before the affix is added. The *pratyaya* also indicates the following properties of the noun that is formed from the nominal stem: 1) gender, one or more (among neuter, masculine and feminine); and 2) possible meanings. In the derivation of the nominal stem *māna* from √mā, the governing *pratyaya* is ‘lyuṭ,’ which has the effect of adding the affix ‘ana’ to the root (thus √mā [lyuṭ] => mā + ana = *māna*). The nouns formed under the *pratyaya* ‘lyuṭ’ are usually verbal nouns in the neuter gender; however this *pratyaya* also allows neuter nouns that name instruments of action. Thus, the neuter noun *mānam* means “[the act of] measuring” as well as “measurement” in the instrumental sense, which means both an actual dimension and a tool.

³ Fritz Staal assumes on the contrary – that a sense of abstraction is already present among the layers of meaning of the uncompounded *māna*:

If there must be one, the core meaning of *māna* would seem to be ‘measure,’ but in Vedic this meaning is displayed in a spectrum of more specialized meanings that range from the concrete to the abstract. The most concrete designations are ‘building’ and ‘place,’ the intermediate meanings encompass not only visible sizes but also more strikingly, audible melodies. [Then there is] the more technical sense of measurement . . . (Staal, “Māna,” in Bäumer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, p. 358).

⁴ The understanding of *tatpuruṣa samāsa* as “syntactic compound” is found in Robert Goldman and Sally J. S. Goldman, *Devavāṇīpraveśikā: An Introduction to the Sanskrit Language* (Berkeley: Center for South Asia Studies, University of California, 1999), pp. 214-5. In this kind of compound, there exists an oblique case relationship (that is, any case except the nominative) between its two basic members.

⁵ *Karmadhāraya* is a subset of *tatpuruṣa* compound in which there is *samānādhikaraṇa*, case agreement, between the two basic members. In other words, the case relationship between the two is always nominative. The

“measure-essence,” in other words, “the essence that is measure.” The sense of abstraction is already present in both the translations of the first interpretation of the compound. It is brought home with more force in the second interpretation and translation. The sense of abstraction that is intended in Sanskrit in this second interpretation is captured in the English translation precisely by making the seemingly insignificant but actually crucial choice of the word “measure” (combined with the non-use of either the definite article ‘the’ or the indefinite article ‘a’ before it) over “measurement,” as the equivalent of *māna*. To complete the semantic field of the second reading, the implicit genitive blank, “measure-essence – of what?” must be filled. The answer, “of the science of architecture,” is quite easily provided by the context of the discourse which is specified by the term *vāstuśāstra*.⁶ In short, the title of the treatise, *Mānasāra Vāstuśāstra*, can be glossed thus: *vāstoh śāstrasya sāram mānam asti*, “the essence of the science of architecture is measure.”⁷ In this statement, the principle of *māna*, “measure,” is delineated as the epistemological foundation of *vāstuśāstra*, by which its priority with respect to practice is attested. More specifically, the principle of *māna* is also “nomological,” being the basis for deriving rules of measurement and proportion by which practice (in the sense of composition of architectural and iconographic objects), even in its minute aspects, is sought to be regulated. The text presents an elaborate system of such rules with respect to

more common kind *karmadhāraya* has an adjective in its stem form affixed to a noun or nominal stem. The “appositional” kind of *karmadhāraya* in which two nouns are equated is “less common but still frequently occurring” in the language (Ibid., pp. 212).

⁶ In the colophon found at the end of each chapter, the term *vāstuśāstra* occurs side by side with *mānasāra*, comprising the “full title” of the treatise.

⁷ In this interpretation, *vāstuśāstra* is glossed as a *ṣaṣṭī tatpuruṣa* compound. Like the compound *mānasāra*, it also can be glossed as a *karmadhāraya*: *vāstuh śāstram*, “the science that is architecture.” The translation of the full title would then read, “the essence that is measure of the science that is architecture.”

measurement and proportion of objects as constructed deductively from this nomological principle of *māna*.

2. *Pramāṇa* as Axiomatic Reference Measurement

pramāṇe śāstram pramāṇam nirhrāsavivṛddhayoh |

On the reduction or increase in the measure [of a geometrical figure prescribed in the *Śulvasūtras*], *śāstra* is the authority.

Kātyāyana Śulva Sūtra, I. 24 (trans. S. R. Sarma)⁸

In this aphorism, the play on the word *pramāṇa* is immediately striking. In its first occurrence, it signifies “the measure” of a geometrical figure, and in the second, *śāstraic* “authority.” The *śāstra* referred to here is the science of geometry outlined in the text, and its authority is understood to derive from the Veda. The authority of *śāstra* is invoked in this aphorism specifically in conjunction with the geometrical operation of “increase or decrease of the measure” of a figure. However, the fact that the same word *pramāṇa* signifies both authority and the measure of a figure implies a certain bearing of the former on the latter in and of itself (that is, even before any operation of increase or decrease). *Pramāṇa*, as “the measure” of a geometrical figure, is understood, then, in an a priori, conceptual, sense from which also derives its generative and referential character with respect to actual measurements of the figure. The term “axiomatic” aptly describes this conceptual and referential aspect of *pramāṇa*.

⁸ Quoted by Fritz Staal in his essay “Māna” in Baumer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, p. 360.

The historical context of the *Śulvasūtra* texts, and their role in the shaping of medieval *vāstuśāstra* are discussed further on, in Chapter III.

Chapter VI of the *Mānasāra*, titled Śaṅkusthāpanalakṣaṇam, “Description of Erection of Gnomon,” deals not only with the erection of a gnomon and orientation of the site, but also with the procedure of delineation of the site by which the extent of the actual building is measured out and ascertained. The procedure is outlined in the text in the following verses (VI, 96-100):

sūtrālla(cca la)bhyate vastau pramāṇam hīti niścitam ||
madhyādirācca ta(nnairṭātta)ddikṣu nasyendrādi (syedindra)śikhāntakam |
indrādīśānaparyantam cāntakātpāvākāntam ||
varunādvāyuparyantam saumyādevāyu(yo)rvāntakam |
saumyādīśānaparyantam sūtramevam parivraje(vrājaye)t ||

From the cord is obtained the *pramāṇa* in the architectural object; indeed, this is ascertained. From Indra (east) as center and from south-west, [the *sūtragrāhin*] should place in the directions with east as end (?) The [segment of] perimeter from Indra (east) to Īśāna (north-east) and from Antaka, that is, Yama (south) ending with Pāvaka or Agni (south-east). The [segment of] perimeter from Varuṇa (west) to Vāyu (north-west); from Saumya (north) to Vāyu (north-west); from Saumya (north) to Īśāna (north-east), [the *sūtragrāhin*] should cause to move the perimeter cord around.

It is clear from the above translation (especially the second line) that the text does not quite succeed in its attempt to provide a systematic, step by step account of the geometric procedure of delineation of the site. In the first line, the key technical term *pramāṇa* is introduced in a rather cryptic manner. What follows is a more or less sketchy account of moving a cord around in the site in order to join the eight segments (between the four cardinal and four intermediate directions) of the perimeter and complete the quadrangle that is the actual extent of the building. The entire account above does not throw sufficient light upon the specific meaning and role of *pramāṇa*. The word *pramāṇa* is obtained by prefixing the particle *pra*, which has the senses of

“forward, forth, onward,” to *māna*, measurement. Acharya translates the first line thus:
 “The (more) accurate dimension in a building can indeed be secured (when it is measured) by the cord (rather than by the rod, in the following manner).”⁹ His understanding of *pramāṇa* as “the (more) accurate dimension of a building” fails to be convincing when taken within the context of the whole set of operations of delineation: neither “accuracy” nor choice between the rod and cord for measurement seem to be at issue here.

The term *pramāṇa* is mentioned again, once, in the next four verses (VI, 101-104):

vimāne trigṛhe vā 'pi maṇḍapādīni(ḍauca) vāstuke |
grāmādīnām ca sarveṣām mānayetmānasūtrakam ||
tatpramāṇasya parito hastadvihastamā(ma)dhikam |
tatsūtrāvasāne ca śaṅkumevam pratiṣṭhitam ||

In all architectural objects such as *vimāna* (temples), *trigṛha* (houses with three blocks), pavilions and villages, [the *sthapati*] should cause to measure with the measuring cord. All around that *pramāṇa*, and at the end of that cord, a peg is thus established [at a distance] one or two cubits further.

The *mānasūtra*, measuring cord, mentioned in the second line above refers back to the *sūtra* from which the *pramāṇa* is said to be obtained (mentioned in v. 96 cited earlier). In the third line above, the particle *tat*, “that,” affixed to *pramāṇa* in the phrase *tatpramāṇasya paritas*, “around that *pramāṇa*,” specifies its reference to the *mānasūtra* in the second line. Similarly, the same particle *tat* in *tatsūtrāvasānake*, “at the end of that cord,” in the fourth line refers the *sūtra* back to *pramāṇa* in the third line and *mānasūtra* in the second line. From this line of references regarding *pramāṇa* and *sūtra* beginning with verse 96, the nature of *pramāṇa* and the process of measurement may

⁹ Acharya, *Architecture of Mānasāra*, p. 31.

be construed in the following way. First, the *sthapati* conceives in his mind a particular measurement as the principal generative and referential measurement for the whole architectural object, which is its *pramāṇa*. The measuring cord is then made to this measurement; in other words, its actual length is the *pramāṇa*. Thus, the measuring cord embodies or carries the *pramāṇa*, so to speak, so that when it is stretched in the site to delineate the architectural object, the *pramāṇa* of the object is “obtained from” it. The term *paritas*, “around,” in the third line above may seem to signify *pramāṇa* in the sense of perimeter. However, the term *avasāna*, “end,” in the phrase *tatsūtrāvasānake*, “at the end of that cord,” in the fourth line denotes that *pramāṇa* obtains in the site axially rather than perimetrically.¹⁰ The question that arises at this point is whether the axis that carries the *pramāṇa* is the breadthwise or the lengthwise one. In accounts in the text that deal with proportions of horizontal measurement (breadth and length) of settlements and buildings, it is seen that breadth is treated as primary. Length is a derivative of breadth, calculated by means of a particular formula of proportion.¹¹ From this, one may infer also that the breadthwise axis has primacy over the lengthwise one, and therefore, that the former carries the *pramāṇa*. Also, the fact that a set of specific technical terms, *vistāra*, *viśāla*, *tāra*, etc. (that are synonymous

¹⁰ Acharya emends the phrase *tatsūtrāvasānake*, as *ta[ita]tsūtrāvasānake*, by adding an extra *tat* to it. The meaning of the phrase when thus emended becomes “at the end of each cord,” which implies a reference to more than one cord, and therefore tends to refer to perimeter rather than axis. It is clear from the previous lines that only one cord is in reference. There is no suggestive basis for the emendation itself in any of the manuscripts of the text (Acharya does not mention any in his critical notes). Therefore this emendation is arbitrary and untenable.

¹¹ For instance, *Mānasāra* IX, 10-14 gives first a set of breadths of the *daṇḍaka* kind of village; the set of lengths is calculated from them using the formula, twice breadth plus two ($l = 2b + 2$).

Regarding the primacy of breadth, Bruno Dagens notes thus:

Plans of any construction, from the smallest building to the biggest town, are established according to diagrams (*pada*) similar to those used in rituals (building itself is a ritual!). Alike those, they are basically drawn according to a perfectly regular pattern, square (or circular). This explains why the basic measurement is always the width (hence *māna*, besides *vistāra*, *viśāla*, *tāra* . . .); should the intended construction be oblong, its length (*āyāma*, *dīrgha*...) is deduced by the way of proportions from that width; let us add that as a matter of fact the height (*ucca*, *uttedha*...) also is always deduced from the width (Dagens, “*Māna* in the Arts: Architecture and Image-making,” in Baumer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, p. 369).

to each other), exists for “actual” breadth underscores the “conceptual” nature of *pramāṇa*. Theoretically, it “subsists” in the actual breadth; in the site, it obtains referentially as the breadthwise axis of the quadrangle that is the extent of the building, from which the actual breadth is derived and marked as the side (edge) of the quadrangle.¹²

The mention of *pramāṇa* occurs again in the *Mānasāra* in the context of iconography (LV, 3-8):

mānam cāpi pramāṇam ca parimāṇam lambamānakam |
unmānamupamānam ca mānam padmam samīritam ||
pādaṅguṣṭhisamīmāntam mānam cāpi prakathyate |
pramāṇam viśṛtam proktam paritaḥ parimāṇakam ||
tatsūtrāḷlambamānam syānnimnamunmānamucyate |
antare u(co)pamānam syādbimbodayādi sarvaśaḥ ||

Māna, *pramāṇa*, *parimāṇa*, *lambamāna*, *unmāna* and *upamāna* are known as the lotus measurements. [The measurement from] the big toe to the head is called *māna*; the breadth is called *pramāṇa*; circumference [is called] *parimāṇa*; from the cord (i.e., plumb line) is *lambamāna*; the depression (offset/thickness?) is said to be *unmāna*; the interspace (between limbs, fingers, etc.) is *upamāna*; [in the] creation and so on of the image, collectively [these are the measurements].

It is seen that here, *pramāṇa* is mentioned as one among the six kinds of iconographic measurements, and is defined clearly as breadth. The names of this set of measurements display a particular characteristic: they all have the term *māna* in common, and five among them have a different prefix attached to *māna* that denotes

¹² The information in the text is insufficient to establish beyond doubt whether the “subsistence” of *pramāṇa* in the breadth in all cases is in full (that is, breadth = *pramāṇa*), or in part (for instance, breadth = twice *pramāṇa*). This question arises from a practical consideration. In the case of settlements (that is, villages and towns), the measurements (breadth and length) can be so great that making the measuring cord to comply with the full subsistence of *pramāṇa* in breadth and moving it around in the site can pose practical difficulties. In such cases, it is more likely that *pramāṇa* subsisted in breadth in part: in other words, the breadth of the settlement would be a multiple of *pramāṇa*, the extent of the measuring cord.

their particularity. Also, a certain hierarchy can be discerned among them. Height is given as the most primary measurement, its primacy signified in two ways: 1) it is the first to be mentioned; and 2) the term denoting it is the unprefixes *māna*. This is followed by *pramāṇa*, breadth, and *parimāṇa*, circumference. These three together define the limits of the image; the other measurements are dependent on these.

In iconography, the object of making (the image) is more “manageable” in terms of size and scale so that the three determinate measurements (height, breadth and circumference) can be established at the outset itself. The limits once established, the sculpting process proceeds subtractively. This is unlike the case in architecture and settlement planning in which only the horizontal measurements (length and breadth) can be ascertained or fixed at the outset. The vertical measurement, height, is determined in the course of construction which is an additive process (that is, one of assembly) by employing calculations that involve rules of proportion, and when there are several stories, arithmetic progressions as well.¹³ Height is, thus, a secondary measurement. Even among the horizontal measurements, as already mentioned, the breadth is treated as primary, the length being derived from it by means of rules of proportion. Thus, in architecture, *pramāṇa* is of a conceptual, axiomatic, nature; it plays a generative and referential role, and subsists in the breadth. On the other hand, in iconography, the nature and role of *pramāṇa* as breadth is less conceptual and more actual.

¹³ For an exposition of general principles regarding arithmetic progressions employed in ascertaining the height and overall form of the superstructure of temples, see Patrick A. George, *Construing Constructs: A Study of Temple Design and Construction in North India* (Philadelphia: University of Pennsylvania, Ph. D. Dissertation, 1994), Chapters V-VII. His hypotheses are based on morphological analyses of several extant temples in North India.

In classical epistemological discourse of the six *darśanas*, schools of systematic thought, *pramāṇa* is the foremost category, and is understood as “authority, norm of knowledge.” If one includes also the instrumental definition of *pramāṇa*, as “the essential means of arriving at valid knowledge or *pramā*,”¹⁴ it may then be understood as both means and end. *Prameya* is the object of knowledge, and *pramātā*, knower. In the school of Vaiśeṣika, Atomism or Particularism, two modes of *pramāṇa* are admitted: *pratyakṣa*, perception, and *anumāna*, inference. Nyāya, Logicism, which is its sister school, adds to these *śabda*, verbal testimony (which encompasses revelation and tradition), and *upamāna*, analogy or comparison.¹⁵ The school of Mīmāṃsā expands the scope of *pramāṇa* even further, to include *arthāpatti*, hypothesis or presumption, as well as *anupalabdhi*, non-apprehension.¹⁶

Regarding validity of knowledge, the Nyāya-Vaiśeṣika school asserts first that even though truth or falsity is not a normal feature of knowledge, no knowledge is ultimately neutral. Knowledge becomes either true or false in the course of its arising, due to a set of external circumstances. This happens either at the origin of knowledge (*utpattaṭau prāmāṇya*) or in the course of its ascertainment (*jñāptaṭau prāmāṇya*). In either case, the methodological issue is not how knowledge becomes true or false, but how one becomes aware of its truth or falsity. The Nyāya-Vaiśeṣika school states that the discovery or awareness of the truth or falsity of knowledge emerges from *samvādi*

¹⁴ M. Hiriyanna, *Outlines of Indian Philosophy* (New York: Macmillan, 1932), p. 177. He cites the Sanskrit aphorism *pramā-karaṇam pramāṇam*, without giving its source.

¹⁵ Ibid., pp.245-46, 252-61.

¹⁶ Ibid., pp. 318-22. *Anupalabdhi* is the *pramāṇa* by which negation is known.

praytti, “fruitful activity,” that is, an “appeal to facts.”¹⁷ On the other hand, according to Mīmāṃsā, all knowledge is self-valid and its truth need not be verified. It is error that needs explanation. The two major streams within Mīmāṃsā, the “vericism” of Prabhākara and “contrarism” of Kumārila Bhaṭṭa, explain error differently. The former does not admit error in and of itself; what is commonly understood as “error” is only incomplete knowledge. The latter admits error as such, and explains it as the result of a partial misrepresentation of the object in consideration. In both cases, knowledge prompts activity, and discovery of error arrests it.¹⁸ Regarding this last point, there is a certain convergence of the views of Mīmāṃsā and Nyāya-Vaiśeṣika schools.

These epistemological features are seen to obtain simultaneously in the idea of *pramāṇa* in the vāstuśāstraic accounts of the *Mānasāra*. In line with the Mīmāṃsā view, any *pramāṇa*, as the predetermined reference measurement of an architectural object, is self-valid, and therefore, can be theoretically posited. In the *Mānasāra*, the particular way of giving measurements in connection with settlements and buildings is to first list a set of breadth measurements followed by a set of corresponding length measurements, and then state the rule of proportional relationship between breadth and length. The set of length measurements is sometimes mentioned and sometimes omitted.¹⁹ The text never gives lists of measurements as *pramāṇa* itself. However, to

¹⁷ Ibid., pp. 260-61.

¹⁸ Ibid., pp. 313-17.

¹⁹ For instance, *Mānasāra* IX, 10-13 gives the set of measurements of the village of the *daṇḍaka* kind thus:

pañcaviṃśati daṇḍādyaṇḍ(dau) dvidviddaṇḍavardhanāt ||
ekādhikaśatāntam syānnavatriṃśadviśālakam |
evam tu daṇḍakam proktam tasyāyāmami(ma i)hocyate ||
vistārāddvidviddaṇḍena vardhayeddviguṇāntakam |

The thirty-nine breadths should begin with 25 rods, and from increments of two rods each, end at 101 (that is, the arithmetic progression of thirty-nine members: 25, 27, 29 97, 99, 101). Thus

the extent that *pramāṇa* subsists in breadth, the listing of breadth measurements may be seen as an exercise of listing *pramāṇa* itself. This exercise is primarily theoretical, in which the theoretical dimension of *pramāṇa* as end in itself is emphasized. However, its applicability is never lost sight of: the lists are potential dimensions to be actualized in settlements and buildings.

At the outset of the process of actualization of *pramāṇa*, the specific problem that issues is the “validation” of a *pramāṇa*. It translates in architectural making as ascertaining its applicability or inapplicability to a specific building situation, which owes to a set of external circumstances. Here, the Vaiśeṣika notion of *saṃvādi pravṛtti*, “fruitful activity,” fully obtains in architectural and iconographic making. Even though the primary objective of making is theological, its procedures also engage the empirical appeal to facts by which a *pramāṇa* is validated or invalidated. The operation of this “experimental” dimension in making draws from the instrumentality of *pramāṇa* itself as means to end, and demands the mediation of instruments, both conceptual and physical.

3. *Mānopakarāṇa*, Instruments of Measurement

A major topic of discussion in Chapter II of the *Mānasāra* is *mānopakarāṇa*. The compound *mānopakarāṇa* is comprised of the nouns *māna* and *upakarāṇa*. The latter, *upakarāṇa*, derives from *upavṛkṛ*. The prefix *upa*, having the senses of “nearness” and

indeed is said [the breadth of] *daṇḍaka* [village]. Its length is stated thus: one should add two rods each to twice breadth (that is, $l = 2b + 2$).

Here the corresponding set of thirty-nine length measurements are not mentioned.

“subordination,” modifies the meaning of the generic root $\sqrt{kr}$, “to do, make,” as “to furnish with, bring near, prepare, arrange, serve.” *Upakaraṇa* has the senses of both the act [of furnishing, bringing near], and its instrument. The compound is glossed commonly as a *śaṣṭī tatpuruṣa*, which reads as *mānasya upakaraṇam*, and is translated as “instrument of measurement.” In this interpretation, *mānoparakaraṇa* has a concrete sense,²⁰ and encompasses both conceptual and physical instruments.

In the *Mānasāra*, the primary conceptual instrument of measurement is the basic system of units of measurement. However, a more expanded reading of *mānopakaraṇa* would extend its scope also to systems of iconographic measurement, as well as *āyādi śaḍvarga*, the set of six formulae used to verify the measurements for auspiciousness against astrological contingencies. These are the specifically “arithmetical” instruments. Two other sets of conceptual instruments are also found in the text that are related, albeit indirectly, to measurement. These may be termed “geometrical” and “typological” after their respective characteristics. The first is the instrument of *padavinyāsa*, scheme of plot-disposition, and the second, *vāstuprakaraṇa*, matrix of architectural and iconographic object-types, which is generated by taxonomy. The physical instruments include the *kiṣku*, cubit-scale, *daṇḍa*, measuring rod (yard-stick), and *rajju*, measuring cord (rope). In the following account, the nature and constitutive structure of the conceptual tools are elaborated.

²⁰ If both *māna* and *upakaraṇa* are translated in their more abstract senses as “measure” and “instrumentality” respectively, then the interpretation of the compound assumes a more “essential” sense, as “the instrumentality of measure.” The concrete sense of *mānopakaraṇa* as “[an actual] instrument of measurement” may be understood as deriving from its essential sense.

3.1) Arithmetical

3.1.1) Units and Systems of Measurement

a) Architectural

In Chapter II of the *Mānasāra*, immediately after the discussion of the *sthapati* and his guild with regard to their knowledge and expertise, the text gives an account of the system of measurement as well as physical tools to be employed in building. The system in full is as follows (II, 40-53):

- 8 *paramāṇu* = 1 *rathadhūli*, chariot-dust
- 8 *rathadhūli* = 1 *vālāgra*, hair-end
- 8 *vālāgra* = 1 *likṣā*, nit
- 8 *likṣā* = 1 *yūka*, louse
- 8 *yūka* = 1 *yava*, barley-corn
- 8 *yava* = 1 *aṅgula*, digit (finger-breadth).
- 12 *aṅgula* = 1 *vitasti*, span
- 2 *vitasti* (24 *aṅgulas*) = 1 *kiṣku*, cubit
- 4 *dhanurmuṣṭi* (cubit of 26 *aṅgula*) = 1 *daṇḍa*, rod
- 8 *daṇḍa* = 1 *rajju*, rope

The smallest unit, which is *paramāṇu*, atom, is stated to be perceived (only) by the sages. Among the other units, the digit and cubit are further distinguished. The digit has three distinctions, small, intermediate and large, made up of six, seven and eight *yavas* respectively. The cubit is of four kinds; from the smallest to the greatest, they are as follows: *kiṣku*, *prājāpatya*, *dhanurmuṣṭi* and *dhanurgraha*, comprising respectively 24, 25, 26 and 27 *aṅgulas*. The three-fold division of the digit (small, intermediate, large) bears upon every higher unit comprised of it. Thus, for instance, each of the four kinds of cubits has further subdivisions into small, intermediate and

large. Such a scheme makes available an intricate gradation of actual sizes for the higher units.

By positing the *paramāṇu* as the basis of the system of measurement, the text renders the system with a conceptual, a priori and universal status.²¹ As a constituent in the system, this applies to the unit *aṅgula*, finger-breadth, as well, despite its explicit semantic reference to the human body. For all practical purposes, *aṅgula* is the smallest unit of measurement. For this reason, it is seen to be treated in a special way in the text with regards to its universality that significantly downplays its semantic reference to the body. The following lines demonstrate this quite clearly (II, 46-47):

yavairaṣṭasamāyuttamaṅgulam tatprakīrtitam ||
mānamātram tridhā proktam yavavṛddhiviśāṣataḥ |
ṣadsaptāṣṭayavairetakaniṣṭho(ṣṭha) madhyamottamam ||

By the joining together of eight *yavas* [is obtained] *aṅgula*, it is said. *Mānamātra* is said to be in three ways, particularly [with respect to] the increment of *yava*. With six, seven, eight *yavas* [are respectively] smallest, intermediate and greatest [*mānamātra/aṅgula*].

The first among these lines is the instance when the unit *aṅgula* is reached in the course of outlining the system of measurement. In the next line, the text introduces a compound *mānamātra* to refer to the unit *aṅgula*. The neuter noun *mātram* also derives

²¹ Bruno Dagens classifies the units in the above system as *amūrta*, formless, units and “linear units of common use.” The units upto *yava* belong to the former class and the rest to the latter. About the *amūrta* class of units, he comments thus:

As for [the *amūrta* class], the barley grain is the only unit of common practical use and may have been the original lower natural standard. The other ones (louse, nit, tip of a hair, speck of dust) are no more than the necessary steps to allow regression down to the infinitesimal which may be seen only by the best of the yogins; the epithet *amūrta* applied to such units by [the classical astronomical text] *Sūrya Siddhānta* shows well their purely theoretical or, better, intellectual character” (Dagens, “*Māna* in the Arts: Architecture and Image-Making,” in Bäumer, ed., *Kaṭatattvakośa*, Vol. II: *Concepts of Space and Time*, p. 373).

The regression that Dagens speculates suggests only induction. The “seeing” (perception, intuition, grasping) of the *paramāṇu* by the sages may also be seen as “immediate.” In such a case, the *paramāṇu* becomes object of a priori knowledge. The system of measurements are, then, understood as a deductive construction.

from $\sqrt{mā}$, “to measure.”²² Lexicographers give its meaning as “a measure,” in the concrete and not abstract sense, that is, an actual measurement of any kind (length, breadth, height, depth, distance, size, number and so on). It is usually found at the end of compounds, such as *rekḥāmātra* and *arthamātra*. In such cases, the compounds are interpreted as *tatpuruṣa* compounds; thus *rekḥāmātra* would be glossed as *rekḥāyaḥ mātram*, “the measurement (such as length) of a line,” and *arthamātra* as *arthasya mātram*, “a certain sum of money.” As for *mānamātra*, its interpretation as a *tatpuruṣa* compound poses semantic difficulty (though syntactically plausible), owing to the problem of redundancy with respect to the meaning of the component nouns. The nuances in the meanings of the two component nouns are not significantly different enough to strike a permutation among them that would overcome this difficulty. If it is attempted to be interpreted as a *karmadhāraya* compound, the same problem leads to a self-referential circularity (“measurement-measurement”). Thus the meaning of this compound in either case cannot but be tautological. The only way, then, to interpret the use of this compound to refer to *aṅgula* is as a vital component in the larger scheme that asserts the a priori, conceptual and universal (absolute) nature of the unit and the pretense of a purely deductive process of its derivation.²³ From this point of view, the

²² In the case of the nominal stem *mātra*, the *pratyaya* governing its derivation is ‘*ṣṭran*’ ($\sqrt{mā}$ [*ṣṭran*] => *mā* + *tra* => *mātra*). The primary sense of this *pratyaya* is instrumentality, and the gender of the noun formed is neuter. Thus the neuter noun *mātram* means “[an actual] measurement” (in the instrumental sense).

The feminine noun *mātrā*, deriving from the same nominal stem *mātra* has the meanings of “substance, matter” in addition to “a (particular) measure” (see Staal, “*Māna*,” and Bruno Dagens, “*Māna* in the Arts,” in Baumer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, especially pp. 366-38).

²³ In the treatise *Mayamata*, the treatment of the system of measurement begins with the following preamble (V, 2):

paramāṇukramād vṛddham mānāṅgulamiti smṛtam |

Mānāṅgula is known as [deriving] from the gradual increment of *paramāṇu*.

The term *mānāṅgula* here simply refers to the unit *aṅgula* (more about *mānāṅgula* will be said later on). The text eventually gets to *aṅgula* (while outlining the system) in the same way as in the *Mānasāra*: *yavāṣṭagunito 'ṅgulam*, “eight times *yava* is *aṅgula*.” The following phrase is found immediately after: *aṅgulam tu bhavenmātram*, “as for *aṅgula*, it should be the measure.” This is the literal translation, which suggests the idea of a “standard unit”:

subdivision of *āṅgula* into small, intermediate and large, mentioned in the third line, is also theoretical; by logical extension, the same may be said of the distinctions made of the cubit unit as well.

b) Iconographic

In Chapter LV, after giving a list of the six iconographic measurements (*māna*, *pramāṇa*, *parimāṇa*, *upamāna*, *lambamāna* and *unmāna*), the text gives a detailed outline of the process of procuring/securing the height of the principal image and secondary images.²⁴ Breadth, circumference, and other dimensions are derived from the height using rules of proportion. Nine “options” of ascertaining the height of the image are listed: 1) in reference to the breadth of the temple; 2) in proportion to the height of the womb-house (*adytum*); 3) in proportion to the height of the door; 4) in proportion to the height of the base of the building; 5) according to *hasta*, cubit; 6) according to *tāla*, span; 7) according to *āṅgula*, digit; 8) in proportion to the [body of] the patron; and 9) in proportion to the main image.²⁵ Obviously, the last applies only to secondary images.

āṅgula should be the standard unit of measurement. Dagens translates the phrase thus: “[the digit] is called as well ‘measure.’” The act of naming (“is called”) can only be parenthetically inserted into the meaning of the phrase, in which case *mātra* must be read as a proper name. It is better, then, to leave *mātra* untranslated than translating it simply as “measure,” without placing an article before it. In fact, *mātra* as synonym for *āṅgula* occurs a little further on in the text (V, 10):

pañcaviṃśatimātram tu prājāpatyamiti smṛtam ||

And the unit [that is made up of] twenty-five *mātra* (*āṅgula*) is known as *prājāpatya*.

Dagens notes that *mātra* as a technical term is found in the *Mayamata* as equal in value and synonymous in sense to *āṅgula*, and as signifying both the absolute unit and the relative unit more specific to iconography (Dagens, trans., *Mayamata: Treatise on Housing, Architecture and Iconography*, Vol. I, p. 23, note 3; also “Index-Glossary,” in *Ibid.*, Vol. II, p. 956).

²⁴ As seen already, the primacy of height among the iconographic measurements is signified by the unprefix *māna*. The text also uses the term *ādimāna* and *mahāmāna* to denote height of the image; the prefixes *ādi* and *mahā* mean literally, “first” and “great” respectively.

²⁵ *Mānasāra* LV, 10-16.

There are two other instances in the same iconographic context in which the text gives lists of options for procuring height. In Chapter LII, *Līṅgavidhānam*, “Composition of *Līṅga*,” the options of deriving height of *līṅga*, the semi-iconic image of Śiva (usually the principal *pratiṣṭhā*, consecrated image, in a Śaiva temple) number seven. They are: 1) from the breadth of the adytum of the temple; 2) from the door; 3) from the width of the temple; 4) from the height of the base of the temple; 5) from the height of the main pillar; 6) according to *hasta*, cubit; and 7) from the body of the *yajamāna*, patron or “client.”²⁶ In Chapter LXIV titled *Pratimāvidhānam*, “Composition of Images,” twelve options for obtaining the height of secondary images are given. They are: 1) from height of *līṅga* (in case of Śaiva temples); 2) from height of the main image of Viṣṇu (in Vaiṣṇava temples); 3) from half-breadth of the adytum of the temple; 4) from breadth of the temple; 5) from door; 6) from base of the temple; 7) from main pillar; 8) according to *hasta*, cubit; 9) according to *tāla*, span; 10) from body of the *yajamāna*, patron or “client”; 11) from one division of the height of *līṅga* or image; and 12) according to digit.²⁷ These lists of options display an “instrumental” nature, primarily as a means of procuring the height of the image. In the case of the last list, its instrumentality is made to extend to the moral and soteriological spheres as well. Thus, among the options in the list, the first four, based on measurements of the temple, are stipulated to be suitable for those patrons seeking *bhoga*, enjoyment, *mokṣa*, liberation, and *artha*, wealth. The options of cubit and span measurements also bestow enjoyment

²⁶ *Mānasāra* LII, 11-15.

²⁷ *Mānasāra* LXIV, 1-8.

and liberation; that of digit, liberation; and the options based on the body of the patron and the principal image are stated to bestow all fulfillment or welfare.²⁸

Even though each of these options of measurement are elaborated further by the *Mānasāra*,²⁹ the most elaborate treatment is reserved for the *tāla* option. *Tāla*, the system of iconometry, is based on the “span.” *Tāla* has the meanings of “palm” (of the hand) as well as “span” (that is, the distance between the stretched thumb and middle finger). This measurement is equal to that of the face from hair to chin.³⁰ Among the several iconometric schemes possible with the *tāla*, the text elaborates the *daśatāla*, ten-span, scheme. In the *daśatāla* scheme, the height of the image has ten basic divisions (each division being one *tāla*). Each *tāla* has twelve subdivisions (echoing the division 12 *aṅgula* = 1 *vitasti*); thus basically, the height in the *daśatāla* scheme has 120 (10 x 12) subdivisions. The terms *aṅgula*, *aṃśa* and *mātra* are synonymously used to name one division (that is, 1/120th part) of the height. Further classification of the scheme is effected by retaining the height of 120 subdivisions as *madhyama*, “intermediate”; the addition and subtraction of four divisions yield *uttama*, highest, and *adhama*, smallest, respectively. Thus, in *uttama daśatāla* scheme, the height has 124

²⁸ *Mānasāra* LXIV, 9-11. The term used for the last is *sarvasiddhi*. *Siddhi* has both religious and materialistic senses of “fulfillment, beatitude,” and “prosperity, welfare,” respectively.

²⁹ For the sake of brevity, I shall limit to mentioning a “typical” example. The height of the *liṅga* derived from the width of the adytum is further elaborated as follows (LII, 20-21):

kanyasā garbhatārārtham (rdham) tripādām madhyamam bhavet ||
garbhatārasamam śreṣṭham trividham liṅgatūṅgām |

The youngest is half the breadth of the adytum; the intermediate should be three-fourth; the highest is equal to the breadth of the adytum; [thus] height of *liṅga* are three-fold [within the option of its derivation from breadth of adytum].

³⁰ *Tāla* is a unit that has both spatial and temporal dimensions. Its spatial dimension is employed principally in iconography. For a detailed exposition of *tāla* in iconography, see T. A. Gopinatha Rao, *Tālamāna or Iconometry. Being a concise account of the measurements of Hindu images as given in the Āgamas and other authoritative works* (New Delhi: Indological Book House, 1977). Music stresses the temporal dimension of *tāla*, and in dance, both its spatial and temporal dimensions are engaged simultaneously. See the entry “*Tāla*” by Lewis Rowell in Bäumer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, pp. 333-53.

subdivisions (Fig. 6), and in *adhama*, 116. The width, circumference and other measurements, being derived proportionally from the height, also follow the framework of these subdivisions. As a result, all the measurements and proportions of the image fall within an intricate network that is created by the *tāla* and its subdivisions. The *Mānasāra* dedicates two chapters (LXV and LXVI respectively) for the detailed elaboration of the *uttama* and *madhyama daśatāla* schemes.

3.1.2) Āyādi Ṣaḍvarga

Yet another important conceptual instrument that is employed in the actualization of *pramāṇa* is *āyādi ṣaḍvarga*, the set of six “operating principles” or “significations” that are proper to the “science” of astrology.³¹ These significations, which may be seen as constituting the “horoscope” of an architectural or iconographic object, are: 1) *āya*, “income,” having twelve “fruits” (that is, effects); 2) *vyaya*, “expenditure,” having ten fruits; 3) *ṛkṣa* (also mentioned as *nakṣatra* and *kṣapa*), “planet,” twenty-seven in number; 4) *yoni*, “source,” eight in number; 5) *vāra*, “solar day,” seven in number; and 6) *tithi*, “lunar day,” thirty in number. Sometimes, *aṃśa*, literally, “part, division,” nine in number, is mentioned in place of *tithi* as the sixth principle to be applied. The *Mānasāra* takes for granted that these astrological significations are familiar to its audience and therefore does not treat them comprehensively and systematically in one place.³² The insistence, rather, is on their application in architectural and iconographic

³¹ *Jyotiṣa*, astrology or astronomy, was considered one of the six *vedāṅgas*, ancillary sciences (literally, “limbs of the Veda”), in the study and practice of the Vedic religion. The distinction between astrology and astronomy was quite fluid in ancient India.

³² A comprehensive list of the sets that make up each of these six principles (the twelve *āyas*, ten *vyayas*, and so on) is never presented at once in the text. In XXX, 187-189, it names only the first of each: *siddhyādi dvādaśāyāḥ*, “the twelve *āyās* beginning with *siddhi*,” *śikharādi vyayam daśa*, “the ten *vyayas* beginning with

measurement. Their application is intended to “verify” the measurements of the architectural and iconographic object³³ against the dictates of astrology that lay out the conditions of auspiciousness. Because “auspiciousness” in architectural and iconographic making is understood as that condition of well-being which is the result of striking a certain harmony between the objects (that is, their measurement and proportion) and the spatio-temporal movement of the heavenly bodies, it becomes imperative that these set of significations be applied in the measurement of the objects.³⁴

The particular *āya*, *vyaya*, *ṛkṣa*, *yonī*, *vāra*, and *tithi* or *aṃśa* of all architectural and iconographic objects (settlement, building, image) must be calculated and ascertained.

This process is based on the principle of the remainder. An arithmetical formula to be

śikhara,” and so on. In Chapter LII, the full list of *āya*, *vyaya*, *yonī* and *aṃśa* are given (the others, *nakṣatra*, *vāra* and *tithi*, being more familiar, are not enlisted). Acharya’s enlisting of these principles in his *Dictionary* is also incomplete: “The names of all the different classes of formulas, such as *Āya*, *Vyaya*, *Vāra*, etc., represent well known groups of objects that always follow a certain serial order. *Āya* represents the group of twelve beginning with *Siddhi*. *Vyaya* represents the group of ten beginning with *Śikhara*. . . .” (Acharya, *A Dictionary of Hindu Architecture*, p. 601).

³³ *Mānasāra* IX, 64-65:

nandāyāmasamūhe vā cāyate vā 'tha vistare ||
pariṇāhe pade vā 'pi ā(cā)yādiśuddham(ddhim) ca kārayet |

[The *sthapati*] should cause to do purification with *āyādi* [*śaḍvarga*] in the group of nine lengths and/or in length, now breadth, in circumference, and/or even in *pada* (square of a linear measurement, area).

The specific term that signifies “verification” here is *śuddhi*, which literally means, “purification.” The phrase is *āyādiśuddhim kārayet*, he should cause a “purification” by means of the *āyādi* formulae in the [measurements of] breadth, length, perimeter and even area. Indeed this “verification” is a “theoretical purification,” so to speak, in that by this process the inauspicious measurements are sifted out from the auspicious ones.

³⁴ Acharya has the following explanation regarding the application of the *āyādi śaḍvarga*:

The necessity of these *śaḍvarga* formulas seems due to the fact that in most instances where the measurement of any object is concerned, . . . the *Mānasāra* and other works on architecture quote more dimensions than one. . . . Out of these different and varying measures which is to be selected would be determined by the application of the six formulas. Any of the different measures prescribed is open to be accepted only when it satisfies the tests of the *śaḍvarga*. By a verification of the measurements with the respective formula it would eliminate the risk of dimensions being selected that would be disproportionate among themselves and improper (Acharya, *A Dictionary of Hindu Architecture*, p. 606).

This interpretation, while true to some extent, is, however, too modern and “pragmatic”; it radically undermines the role of astrology as the “external referent” in architectural and iconographic measurement.

used in each case is stipulated, which engages one of the basic dimensions of the object (breadth, length, or perimeter/circumference). The set of formulae are as follows (IX, 63-73):

- 1) *Āya* is the remainder of $8/12$ times the length.³⁵
- 2) *Vyaya* is the remainder of $9/10$ times the breadth.
- 3) *Rkṣa* is the remainder of $8/27$ times the length.
- 4) *Yoni* is the remainder of $3/8$ times the breadth.
- 5) *Vāra* is the remainder of $9/7$ times the perimeter (or circumference).
- 6) *Tithi* is the remainder of $9/30$ times the perimeter.
- 6a) *Aṃśa* is the remainder of $4/9$ times the perimeter.

It is seen that in all of these formulae, the denominator denotes the total number of “items” (whether effects or kinds) in the set that constitutes each principle. However, the logic of the nominator or of the assignment of length, breadth and perimeter to a particular signification does not present itself immediately.³⁶

The complete list of items in the set constituting each principle and the astrological dictates regarding auspiciousness and inauspiciousness as applies to them are as follows:

³⁵ In the case of an iconographic object, length is replaced by height.

³⁶ It would take first a documentation of measurements of an actual object (temple or image), and then their subjection to a formal mathematical analysis in order to decipher the logic behind the nominator in these formulae.

Also, there are differences in the formulae of the *āyādi śaḍvarga* given by different treatises. These differences occur in the nominator, in the basic dimension chosen of the object (length, breadth or perimeter) and its multiple; the denominators are the same. For instance, in the *Mayamata*, the basic dimension chosen is mentioned on one occasion as *vyāsāyasamūha*, which Dagens translates as “sum of length and breadth,” that is, half the perimeter. A few verses later, the dimension is mentioned as *pariṇāha*, perimeter. It is more plausible that it is the perimeter (and not half of it) that is intended throughout. The six formulae according to the *Mayamata* are as follows (IX, 20-23): *Āya* = remainder of $8p/12$; *Vyaya* = remainder of $9p/10$; *Yoni* = remainder of $3p/8$; *Nakṣatra* = remainder of $8p/27$; its quotient gives *vayas*, age, of the object; *Tithi* = remainder of $8p/30$; *Vāra* = remainder of $8p/7$; ‘p’ denoting perimeter.

This difference in the formulae across different treatises evince a certain relativity in the development of this conceptual tool.

Āya signifies “profit”; its twelve “fruits” or effects are: 1) *śastra*, “weapon”; 2) *vrddhi*, “increase”; 3) *bharaṇa*, “reign”; 4) *śubhāvaha*, “invoking auspiciousness”; 5) *cakṣu*, “eye”; 6) *buddhi*, “intelligence”; 7) *rūpa*, “form”; 8) *sumāṅgala*, “bringing good fortune”; 9) *śrīkara*, acquiring wealth; 10) *sukhada*, “granting comfort”; 11) *suvrddhida*, “granting great increase”; and 12) *puṣkala* “abundance.”³⁷ Being the effects of *āya*, profit, all of these may be assumed as auspicious.

Vyaya signifies “loss”; its twelve effects are: 1) *bhukti*, “enjoyment”; 2) *mukti*, “liberation”; 3) *śubhada*, “granting auspiciousness”; 4) *samṛddhida*, “granting prosperity”; 5) *sampat*, “wealth”; 6) *artha*, “material goods”; 7) *dhanavṛddhi*, “increase of riches”; 8) *bhukti*, “enjoyment”; 9) *nāśakalaha*, “destruction of quarrel”³⁸; and 10) *maitraka*, “friendship.” Again, like in the case of the fruits of *āya*, since none of the above are specified as inauspicious, in themselves all must be considered as auspicious. The auspicious-inauspicious aspect as applies to *āya* and *vyaya* (as “income” and “expenditure” respectively) is stated in the general rule that *āya* must be preferably greater than *vyaya*, or at least equal to it.³⁹

Rkṣa and *nakṣatra*, sometimes used interchangeably as synonyms in the text, however, are different in a strict technical sense. *Rkṣa* is the Pleiades or constellation of seven

³⁷ *Mānasāra* LII, 359-362. The meanings given are literal translations. Acharya interprets them as the following: 1) military prosperity; 2) general progress; 3) support; 4) general peace; 5) increase of vigilance; 6) of intelligence; 7) of beauty; 8) of good luck; 9) prosperity; 10) happiness; 11) great increment; and 12) plentifulness (Acharya, *Architecture of Mānasāra*, p. 543).

³⁸ The more precise translation of the term *nāśakalaha* is “destructive quarrel.” Since all the items of *vyaya* listed here are of an auspicious nature, the translation, “destruction of quarrel,” is adopted, for which the Sanskrit term would be *kalahanāśa*.

³⁹ *Mānasāra* IX, 75-77; also LII, 367-370. It states that if the *vyaya*, expenditure is more than *āya*, income, it will be the cause of *mṛtyu*, death, *dāridrya*, poverty and *nāśa*, destruction.

stars (the Great Bear, Seven Sages), while *nakṣatra* literally means a star, asterism (that is, a constellation of heavenly bodies), 27 in number. They are in order as follows: 1) Aśvinī; 2) Bharaṇī; 3) Kārttikā; 4) Rohiṇī or Brāhmī; 5) Mṛgaśīras; 6) Ārdrā; 7) Punarvāsū or Yāmakau; 8) Pushya or Siddhya; 9) Āśleṣā; 10) Māghā; 11) Pūrva-phālgunī; 12) Uttara-phālgunī; 13) Hasta; 14) Citrā; 15) Svāti; 16) Viśākhā; 17) Anurādhā; 18) Jyeṣṭha; 19) Mūla; 20) Pūrvāṣāḍhā; 21) Uttarāṣāḍhā; 22) Abhijit; 23) Śravaṇa; 24) Śraviṣṭā; 25) Śatabhiṣaj; 26) Bhādrapāda; and 27) Revatī.⁴⁰ In the context of village planning and measurement, the text states that among the stars, the ones that are *pūrṇa*, odd (literally, “full, complete”), are auspicious and the ones that are *karṇa*, even (literally, “ear”), inauspicious.⁴¹ In iconographic measurement, however, the rule given is that all except the sixth, eighth and ninth *nakṣatras* are auspicious.⁴² In both cases, the *janmanakṣatra*, birth-star of the patron or of the *sthapati*, as applies, even if in itself an inauspicious star, is always considered as auspicious for the architectural and iconographic object.

Yoni is “womb, receptacle” (or “matrix,” as Dagens translates it), and is eight in number. In order from one to eight, they are: 1) *dhvajā* or *aśvā*, mare⁴³; 2) *dhūmā*, she-buffalo (literally, “smoke”); 3) *siṃhā*, lioness; 4) *śunakā*, bitch; 5) *vṛśabhā*, cow; 6) *gardabhā*, female donkey; 7) *gajā* or *dantī*, elephant; and 8) *kākā*, female crow.

⁴⁰ Monier-Williams, *A Sanskrit-English Dictionary*, p. 524. These are proper nouns, hence I do not attempt to translate them.

⁴¹ *Mānasāra* IX, 78. The word *pūrṇa* in itself does not warrant an interpretation as “odd.” However, *karṇa* seems to (indirectly) denote the number two (and by extension, “even”) in its meanings as “ear” (two ears), and in the context of prosody, “spondee” which has two stressed syllables. In geometry, *karṇa* means “corner” (at which two lines or surfaces meet), hypotenuse of a right triangle, as well as diameter of a circle.

⁴² *Mānasāra* LII, 371.

⁴³ Dagens’ translation of *dhvajā* as “standard” (*Mayamata*, Vol. II, p. 567) is rather confusing.

Among these, the first, third, fifth and seventh *yonis* are considered auspicious and therefore to be preferred, and the rest, inauspicious and to be avoided.⁴⁴

Vāra connotes the seven days of the week. Among these, *guru*, Thursday, *śukra*, Friday; *budha*, Wednesday and *śaśi* or *candra*, Monday, are considered auspicious and therefore, to be preferred.⁴⁵ The text states, however, that the inauspiciousness of the other three days are nullified if there occurs a *śubhayoga*, “auspicious conjunction (of planets)”⁴⁶ on those days. Some confusion is evident in the text with regards to which days are auspicious, when, at one instance, it states that the days except *śani*, Saturday, are *bhukṣakti-rddhida*, “granting enjoyment, strength and prosperity,” in other words, auspicious.⁴⁷

Tithi is the 30th part of the whole cycle of lunation (thirty lunar days, approximately equal to twenty-seven solar days), fifteen of which is “light” (the waxing phase of the moon, including full-moon) and fifteen, dark (its waning phase including new-moon).

In addition to the days of *paurṇamī*, full-moon, and *āmāvāsī*, new-moon, the names of

⁴⁴ This list of *yonis* and of those auspicious and inauspicious among them are given in *Mānasāra* LII, 355-58, and LXIV, 73.

⁴⁵ *Mānasāra* IX, 81; also LXIV, 79. In the account in Chapter IX, the text lays out further conditions.

⁴⁶ This “exception” is found in the account in Chapter IX. There, the text attempts to display further astrological expertise (83-85):

śauravārādivāreṣu vārayuktam caturdine |
gaṇaistu viśākhādisvātikāntam kramāttata ||
gaṇḍam ca mṛtyuyogam siddhiyogamidam(tu) viduḥ |

If on any of the four days beginning with Sunday, there happens to be a conjunction of the day by the constellations [of planets] beginning with Viśākha and ending at Svāti in order, it is known [respectively] as Gaṇḍa-, Face or Temple, Mṛtyu-, Death, and Siddhi-, Success (accomplishment) *yoga*, conjunction.

Acharya comments that “the calculation of these *yogas* do not agree with the rules given in the astrological works” (Acharya, *Architecture of the Mānasāra*, p. 67, note 1). *Yoga* in astronomy is understood both as one of the twenty-seven divisions of a circle on the plane of the ecliptic (Apte, *The Practical Sanskrit-English Dictionary*, p. 645; not to be confused with *nakṣatra*, which are also twenty-seven in number) and also as a time-interval in which a particular “conjunction” or “alignment” of certain planets occur. It is the latter sense, which is signified also by the technical term *lagna*, that is operative here.

⁴⁷ *Mānasāra* XXX, 372.

tithi simply follow the numeric order that the days occur before full- and new-moons, as *prathamā*, first, *dvitīyā*, second, and so on, up to fourteenth (day). The text states that among these, *aṣṭamī*, eighth, and *navamī*, ninth day after the full and new moons, are inauspicious, and must be avoided.⁴⁸

Aṃśa, “part,” sometimes presented as the alternate to *tithi*, is nine in number. The *Mānasāra* does not give a full list of them. According to the *Mayamata*, they are: 1) *taskara*, “thief”; 2) *bhukti*, “enjoyment”; 3) *śakti*, “power”; 4) *dhana*, “wealth”; 5) *rāja*, “king”; 6) *śaṇḍa*, “eunuch”; 7) *abhaya*, “absence of fear” (or “refuge”); 8) *vipat*, “adversity”; and 9) *saṃrddhi*, “success.” The *Mayamata* states that among these, *taskara*, *śaṇḍa* and *vipat* are inauspicious, and therefore to be avoided.⁴⁹

Three other astrological principles are also mentioned in passing in the text, without always giving their full list or the formula to ascertain them: *rāśi*, zodiacal sign, *gaṇa*, literally, “cluster,” and *nayana*, literally, “eye.” The twelve *rāśis* are, of course, familiar: 1) Meṣa, Aries; 2) Vṛṣabha, Taurus; 3) Mithuna, Gemini; 4) Kuṭīra, Cancer; 5) Siṃha, Leo; 6) Kanyā, Virgo; 7) Tulā, Libra; 8) Vṛścika, Scorpio; 9) Dhanus, Sagittarius; 10) Makara, Capricorn; 11) Kumbha, Aquarius; and 12) Mīna, Pisces. The text states that all of them except the eighth, Vṛścika, are auspicious.⁵⁰ The astrological

⁴⁸ *Mānasāra* IX, 86-87.

⁴⁹ *Mayamata* XXXIII, 59-60, trans. Dagens. In the *Mānasāra* a list of auspicious *aṃśas* is given (LII, 373-376): 1) *bhūṣa*, “ornate”; 2) *śuddha*, “pure”; 3) *dhīra*, “brave”; 4) *candana*, “charming”; 5) *veśman*, “palace”; 6) *bhrūbandhana*, “knitting of eyebrows” (that is, frowning); and 7) *vīra*, “heroic.” The text then states (vv. 375-376), rather casually, that *anyatsarvam taskarādyam*, “all other [*aṃśas*] beginning with *taskara*,” have disastrous effects. This statement somehow implies that there are more than nine *aṃśas*; however, those named including *taskara* adds up only to eight. The list given here is also quite different from that in the *Mayamata*. The confusion in the *Mānasāra* regarding *aṃśa* is all the more evident in a statement in another chapter (LXIV, 80) which declares that *taskara*, thief, *dhana*, wealth, and *śaṇḍa*, eunuch, are inauspicious.

⁵⁰ *Mānasāra*, IX, 88. In Chapter LXIV, 81, it is stated that the sixth *rāśi*, Kanyā, is also inauspicious.

signification of *gaṇa* is that of a series of lunar mansions classed under the three heads of *deva*, god, *asura*, demon, and *manuṣa*, man.⁵¹ The text simply states that *āsura*, demonic, and *mānuṣa*, human, are to be avoided.⁵² For *nayana*, the formula is given as follows: the total days of the week, seven, is multiplied by three, and to it is added the *nakṣatra* of the day. The sum is then divided by seven. The remainder gives the *nayana*, in the order of *ekanetra*, one-eyed, *dvinetra*, two-eyed, and so on (*netra* being a synonym of *nayana*).⁵³ It is not clear from this account how this principle is brought into relation with the architectural or iconographic object because no measurement of the object is engaged in the formula.

The verificatory function of *āyādi ṣaḍvarga* effects a “theoretical purification” of *pramāṇa* by sifting out the inauspicious, and generates basic measurements (breadth, length, perimeter) readily applicable in the construction process. These basic measurements and their corresponding auspicious astrological contingencies can be tabulated and memorized. The choice of a particular measurement in a particular situation is governed by the set of external factors such as size of site, birth-star of client, and so on, that constitute that situation. Since these factors are already accounted for in the measurements listed in the table, the *sthapati* can easily determine the most appropriate basic measurements of an architectural or iconographic object by

⁵¹ Apte, *A Practical Sanskrit-English Dictionary*, p. 643. As Acharya notes, *gaṇa* may be seen as another alternative to *tithi*, lunar day (Acharya, *Architecture of Mānasāra*, p. 67, note 3).

⁵² *Mānasāra*, IX, 89; also LXIV, 82. In the latter, Acharya wrongly classes *āsura* and *mānuṣa* as *yonis*.

⁵³ *Mānasāra* IX, 90-93. Acharya thinks that *nayana* is “a third alternative to *tithi*” (Acharya, *Architecture of Mānasāra*, p. 67, note 4). In Chapter LXIV, there is a brief mention of this principle again (v. 83):

ekanetram dvinetram vā samyuktā sam(kṛtāṃśam) visarjayet |

It must be pointed out that Acharya’s emendation of the Sanskrit text here in adding *amśa* is problematic: this makes *ekanetra*, one-eyed, *dvinetra*, two-eyed, and so on as classes of *amśa*, part, rather than *nayana* or *netra*, eye, which is clearly not the case. What is stated in the above verse is basically that the two *netras* mentioned here are to be avoided.

using such a table. The *Mānasāra* itself does not contain any tables of measurements derived using the *āyādi śaḍvarga*; neither does the *Mayamata*. One may still assume that such tables were regularly composed and applied in practice.⁵⁴

3.2) Geometrical

3.2.1) *Padavinyāsa*, Scheme of Plot-Disposition

Chapter VII of the *Mānasāra* is titled *Padavinyāsalakṣaṇam*, “Characteristics of the Disposition of Plots.” The chapter outlines a number of schemes by which the delineated site is divided into plots. A typical scheme of plot-disposition is a conceptual instrument intended to “order” the delineated site.⁵⁵ This tool is constructed out of geometrical and numerical principles of quadratic division. Therefore the number of plots in the scheme is always a perfect square. The text first gives a list of thirty-two such schemes. In the ascending order of their number of plots from one to 1024 (the series being 1, 4, 9, 16 . . . 961, 1024 plots), they are: 1) *sakala*, whole; 2) *pecaka*, couch; 3) *pīṭha*, pedestal; 4) *mahāpīṭha*, great pedestal; 5) *upapīṭha*, low pedestal; 6) *ugrapīṭha*, high pedestal; 7) *sthaṇḍila*, altar; 8) *caṇḍita*, circumscribed; 9)

⁵⁴ *Manuśyālaya Candrika* and *Tantrasamuccaya* are two treatises (said to be compiled not before at least 16th century CE) particular to the architectural practice of the Kerala region, and deal respectively with residences and temples. Both outline the concept and formulae of *āyādi śaḍvarga*. Modern editions of both contain as appendix an elaborate table of applicable measurements and their corresponding astrological contingencies (see Kanippayyur Sankaran Nambudiripad, ed., *Manuśyālaya Candrika* [Kunnamkulam: Pañcāṅgam Pustakaśālā, 1993], Appendix, pp. 174-89; and Kanippayyur Damodaran Nambudiripad, *Tantrasamuccaya* [Kunnamkulam: Pañcāṅgam Pustakaśālā, 1968], Appendix III, pp. 1553-72).

⁵⁵ In a recent article, Sonit Bafna makes the following assertion regarding the treatment of *padavinyāsa* in *vāstuśāstra* texts: “. . . the *padavinyāsa* scheme was always uncomfortably placed within the context of the technical literature of the *vāstu* manuals. In these manuals, the series of these diagrams is introduced abruptly, without any explanation regarding its nature and role” (Bafna, “On the Idea of the *Maṇḍala* as a Governing Device in Indian Architectural Tradition” in *Journal of the Society of Art Historians* [No. 59.1: March, 2000], p. 30. This assertion has several problems: Bafna’s interpretation of the introduction and treatment of the concept in the texts as “abrupt” and “uncomfortable” is not objectively demonstrated, and therefore remains completely subjective. The texts do explain the nature and role of the scheme, if only in a general way, nevertheless emphasizing its importance in practice (for instance, *Mānasāra* VII 266-69; *Mayamata* VII, 54-56). He understands the *vāstu* texts as technical manuals, which stems from a reductive understanding of the nature of theory itself, and which, to me, lies at the root of the error.

paramaśayika, primal recliner; 10) *āsana*, seat; 11) *sthānīya*, local; 12) *deśya*, regional; 13) *ubhayacaṇḍita*; twice-circumcised; 14) *bhadra*, auspicious; 15) *mahāsana*, great seat; 16) *padmagarbha*; lotus-womb; 17) *triyuta*; thrice-yoked; 18) *karṇāṣṭaka*, eight-cornered; 19) *gaṇita*; computed; 20) *sūryaviśālaka*, extensive as the sun; 21) *susamhita*, well-endowed; 22) *supratikānta*, beautiful rival-spouse; 23) *viśālaka*, capacious; 24) *vipragarbha*, Brāhmaṇa-womb 25) *viśveśa*; lord of the world; 26) *vipulabhoga*, copious enjoyment; 27) *viprakānta*; Brāhmaṇa-spouse 28) *viśālākṣa*, large-eyed; 29) *viprabhakti*, Brāhmaṇa's portion; 30) *viśveśasāra*, essence of lord of the world 31) *īśvarakānta*; lord's spouse and 32) *candrakānta*, moon's spouse.⁵⁶ Among these thirty-two schemes, only seven are treated in more detail: *sakala*, single-plot (which does not have much detail, to begin with); *pecaka*, four-plot; *pīṭha*, nine-plot; *mahāpīṭha*, sixteen-plot; *upapīṭha*, twenty-five-plot; *maṇḍūka*, sixty-four-plot, and *paramaśayika*, eighty-one-plot, schemes (Figs. 7 & 8 respectively). The further elaboration of these schemes includes the assignment of deities to the plots. In figures that represent these schemes, this is signified by the names that are written in the plots.

The scheme of plots (beginning with *caṇḍita* and *paramaśayikā*) may also be read in the manner of four concentric square "rings" (the technical term is *vīthi*, literally, "path"): the innermost is the *brahmavīthi* (identical with *brahmasthāna*, here path and spot or "place" become one); the next is *devavīthi*, ring of the gods, then *manuṣavīthi*; that of humans, and finally, the outermost, *piśācavīthi*, that of demons (Fig. 9).⁵⁷ In the

⁵⁶ *Mānasāra* VII, 2-50.

⁵⁷ This reading of the scheme of plots is given in connection with planning of villages in IX, 170-180, where layout of streets occupy a prime concern. In a temple complex, the concentric layers from inside to outside correspond to a gradation from the sacred to the profane. The categories "sacred" and "profane" owe to Mircea

paramaśayika scheme of eighty-one plots, forty-five deities are accommodated within the figure. The nine central plots which constitute the *brahmavīdhi* are occupied by Brahmā; the forty plots (16+24) in the next anterior ring, *devavīdhi*, are occupied by twelve deities⁵⁸; and the thirty-two peripheral plots, constituting the *manuṣavīdhi*, are occupied by thirty-two deities.⁵⁹ Outside the figure, to the *piśācavīdhi* are assigned the four quarter-lords in the four corners, and four demonesses in the cardinal directions. When these last eight are also included, the total number of “beings” that collectively represent order and chaos amount to fifty-three.

A significant portion of the chapter is dedicated to icononomy and iconology in which the iconic features of each deity within the figure are stipulated so that the *sthapati* may meditate on each while assigning it to its plot. Some of the forty-five deities are derived from the Vedic pantheon of thirty-three major deities; the exact origin of others is still a matter of ambiguity.⁶⁰

Eliade (see Eliade, *The Sacred and The Profane: the Nature of Religion*. Trans., William R. Trask [New York: Harcourt Brace, 1959]).

⁵⁸ Stella Kramrisch interprets these twelve deities as the twelve “aspects” of the Vedic deity Āditya, Sun (Kramrisch, *The Hindu Temple* [Rpt., Delhi: Motilal Banarsidass, 1976], Vol. I, pp. 89-91. On Āditya, see Joel Peter Brereton, *The Rgvedic Ādityas*. American Oriental Series, Vol. 61 [New Haven, CT.: American Oriental Society, 1981]). This interpretation has been challenged by Bafna (see Bafna, “On the Idea of the *Maṇḍala* as a Governing Device,” pp. 31, 48, Notes 33 and 38).

⁵⁹ As in the case of *āyādi ṣaḍvarga*, there are, again, some differences in the constitution of this geometrical tool across texts. The differences are often in the sequence of deities occupying the peripheral plots (see Acharya, *Architecture of Mānasāra*, pp. 52-57. The footnotes in these pages compare the schemes in different texts).

⁶⁰ Bafna is right in stating that “the deities themselves are . . . something of a mystery – they are not the common deities of classical Hinduism that had been prevalent since the middle of the last millennium” (Bafna, “On the Idea Governing the *Maṇḍala*,” p. 30). His critique of Stella Kramrisch’s exercise of tracing the identity of the deities and reconstructing the scheme of the *vāstupuruṣamaṇḍala* follows in *Ibid.*, pp. 30-31, 48, notes 33-38.

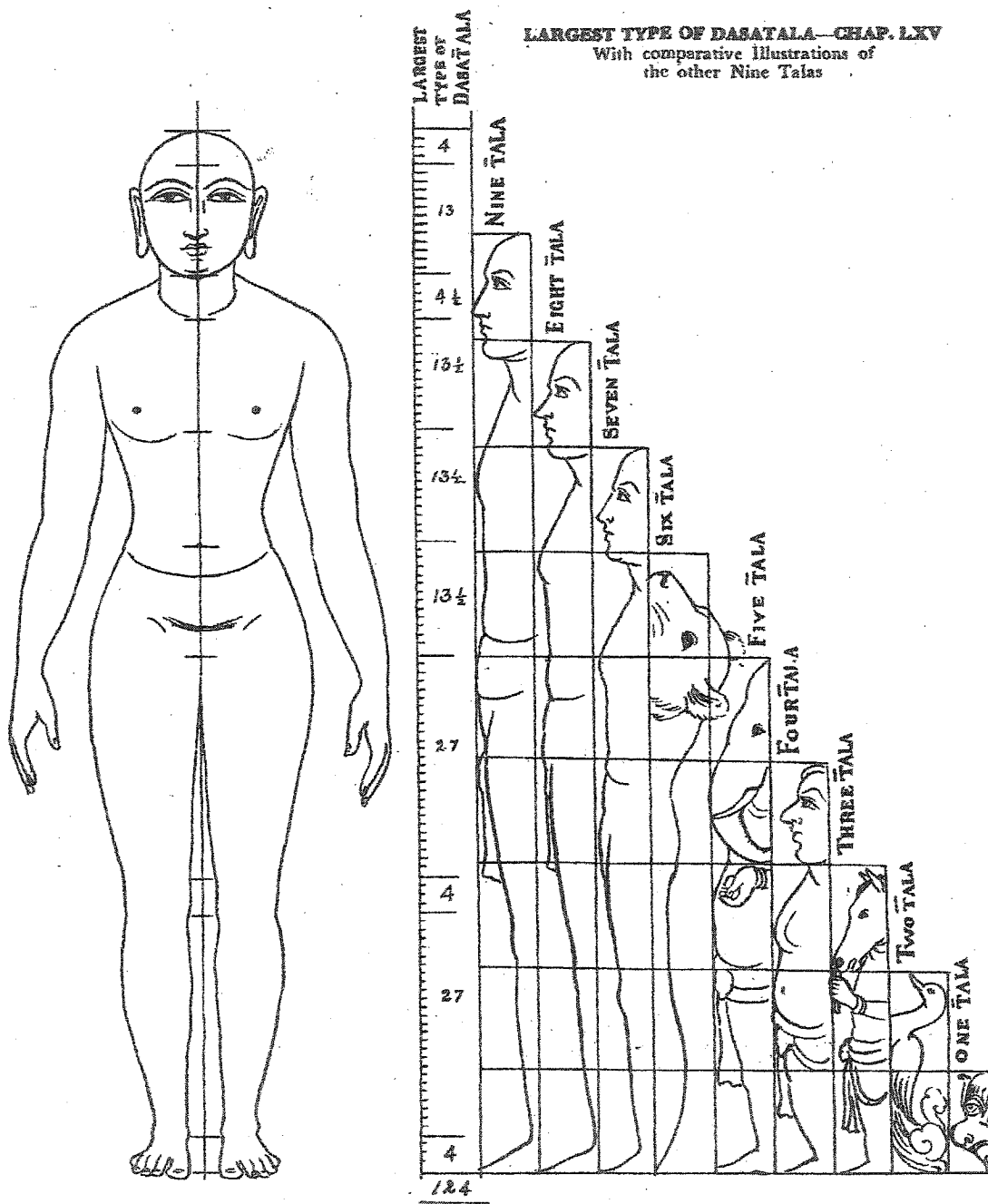


Fig. 6: *Uttama Dasatāla*, Highest Ten-Span (total height divided into 124 *apśas*, parts), Compared to Spans from 9 to 1.

From: P. K. Acharya, *Architecture of Mānasāra: Illustrations of Architectural and Sculptural Objects*. *Mānasāra* Series No. V (Rpt. Delhi: Low Price Publications, 1995).

N O R T H

Wāga Vāyu	Kukhya					Diti	Isa
Roga	Rudra- rāja Rudra	Bhālāṣṭa	Soma	Nrga	Aditi	Āpa Āpa- vāta	Par- janya
Soṣa			Bhūdhara				Jayanta
Asura		Mitra					Aditya
Jalādhipa			Brahmā		Āryaka		Satyaka
Puṣpadanta			Vivasvat				Bhr̥ga
Sugriya	Indra- rāja Indra	Bhr̥ga- rāja	Gandharva	Yama	Rākṣasa	Savin- dra Sa- vindra	Antar- ikṣa
Dauvā- rika Pitr̥	Nrga					Vitatha Pūṣan	Agni

Fig. 7: *Maṇḍūkā* Scheme of 64 Plots

From: *Mayamatam: Treatise of Housing, Architecture and Iconography*. Bruno Dagens, trans. & ed. (New Delhi: Indra Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass Publishers, 1995).

N O R T H

Vāyu	Wāga	Kukhya	Bhāl- lāṣṭa	Soma	Nrga	Aditi	Uditi	Isa
Roga	Rudrarāja Rudra	Bhūdhara				Āpa	Āpavāta	Parja- nya
Soṣa								Jayan- ta
Asura	Mitra	Brahmā				Āryaka		Nahan- dra
Jalā- dhīpa								Aditya
Puṣpa- danta								Satya- ka
Sugri- va	Indrajaya Indra	Vivasvat				Savin- dra	Savindra	Bhr̥ga
Dauvā- rika						Savindra		Antar- ikṣa
Pitr̥	Nrga	Bhr̥ga- rāja	Gandha- rva	Yama	Rākṣa- sa	Vita- tha	Pūṣan	Agni

Fig. 8: *Paramaśayika* Scheme of 81 Plots.

From: *Mayamatam: Treatise of Housing, Architecture and Iconography*.

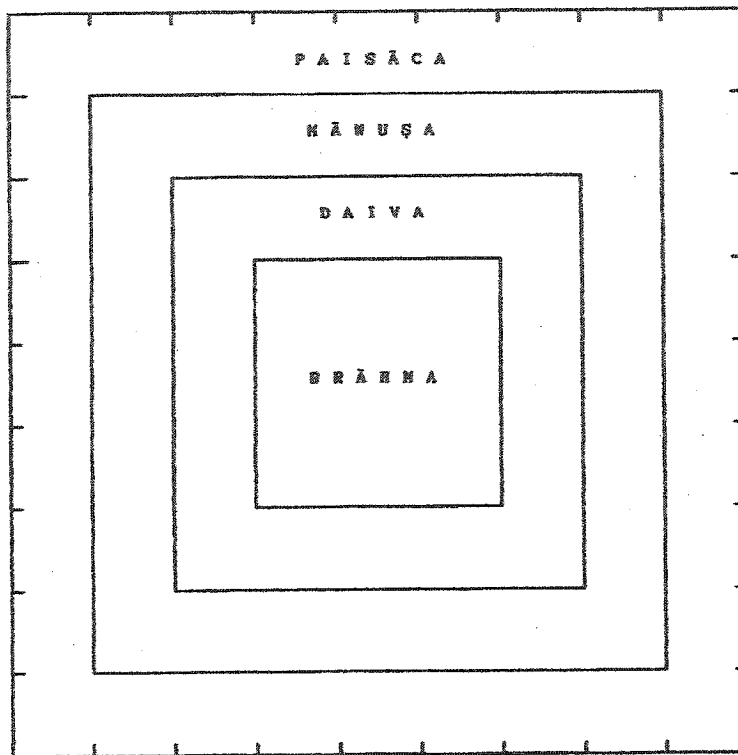


Fig. 9: *Padavinyāsa* as Concentric *Vīthi*s, "Paths."

From: *Mayamatam: Treatise of
Housing, Architecture and
Iconography.*

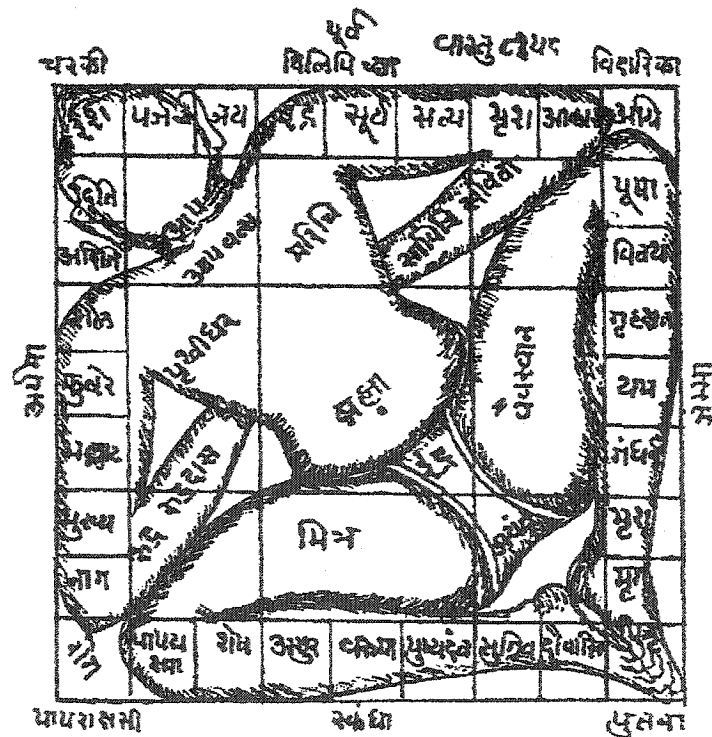


Fig. 10: *Padavinyāsa* as *Vāstupuruṣamaṇḍala*.

Rendition from an unknown manuscript.

3.3) Typological

3.3.1) *Vāstuprakaraṇa*, Matrix of Architectural and Iconographic Object-types

In Chapter III of the *Mānasāra*, titled *Vāstuprakaraṇam*, the general classification of architectural objects is stated as follows: *vastu*, earth, is the primal object; *vāstu*, objects of architectural making, encompass buildings, conveyances and furniture. The term *prakaraṇa* in the compound *vāstuprakaraṇa* derives from *pra√kr* in which the prefix *pra*, “forward, forth, in front,” is added to the generic *√kr*, “to do.” Among the meanings of *pra√kr*, one is of special interest from a taxonomic point of view: “to place in front, mention first.” *Prakaraṇa* has the meanings of “topic, subject-head, [its] treatment, chapter or section,” all of which have taxonomic connotations. It also means “relation, context,” which connote a “matrix comprised of types” generated by taxonomy. *Vāstuprakaraṇa* is, thus, the typological matrix of architectural objects, and its instrumentality derives from its reticulate nature.

The discussion in the text proceeds to the planning of concrete architectural objects in Chapter IX, *Grāmalakṣaṇam*, “Description of Villages.” Here, at the outset itself, the text gives a list of eight “types” of villages: 1) *daṇḍaka*; 2) *sarvatobhadra*; 3) *nandyāvarta*; 4) *padmaka*; 5) *swastika*; 6) *prastara*; 7) *kārmuka*; and 8) *caturmukha*. This classification is stated to be *tattadrūpeṇa*, “according to the form of each.” The form, by necessity, also involves measurement (the basic dimensions of breadth and length). For each type of village, the text gives a series of predetermined breadth

measurements to choose from. The rule for deriving length is also stated for each type. For instance, for the *sarvatobhadra* village, a set of 127 breadths beginning with 61 *daṇḍas*, rods, and ending at 313 *daṇḍas*, the increment being 2 *daṇḍas* (thus the series follows as 61, 63, 65 . . . 309, 311, 313) is given. This village-type is square in shape; thus its length is the same as breadth.⁶¹

The fundamental classification of buildings is based on the classes of “beings” for whom they are built. The hierarchy of beings, from deities to the four basic classes of the civil society of the time, Brāhmaṇa, Kṣatriya, Vaiśya and Śūdra (based primarily on occupation), form one continuous gradation. There are, however, two ontological distinctions within this gradation, which rest upon the understanding of the nature of the deities as *amara*, “immortal,” and the first three classes as *dvija*, “twice-born” (that is, “initiated”).⁶² Both this gradation and distinction obtain in the classification of dwellings. At the general typological level, the emphasis is more on the gradation than the distinction: building-types are stated as fit for the dwellings of both gods and humans.⁶³ As a result, the distinction between a temple as the dwelling of a deity and

⁶¹ *Mānasāra* IX, 25-26.

⁶² In traditional scheme of classification of society, the Śūdra class was excluded from the status of “twice-born,” while still forming part of civil society. Those excluded from civil society were *caṇḍālas*, those of the mixed caste, *yavanas*, foreigners or barbarians, *dāsyas*, slaves, and so on.

⁶³ Chapter XVIII, *Vimānalakṣaṇam*, “Features of the *Vimāna*,” open with these verses (2-4):

taitilānām dvijādīnām varṇānām vāsayogyakam ||
ekabhūmivimānādiravibhūmyavasānakam |
bhaktisaṃkhyā(khyām) tadākāram sthū(tū)pikādyaiś(di) ca lakṣaṇam ||

The *vimāna* from single-storied upto twelve-storied [that are] fit for the dwelling of gods, classes [of men] such as the twice-born, and [its] features such as number of stories, their form, pinnacle, and so on [are described].

Vimāna, in the strict technical sense, is the roof-tower above the adytum of the temple. In the verse above, it is expanded to include the roof of human residences as well (often, it also signifies building as a whole). The *vimāna* may have a *bhūmi*, false story, numbering from one to twelve, each of which is treated separately in the following twelve chapters (XIX-XXX). At the beginning of Chapter XIX, *Ekatalavidhānam*, “Composition of Single-Storied [*Vimāna*],” the four-fold general classification of *vimāna* according to cubit unit used is mentioned: *jāti*, *chanda*, *vikalpa* and *ābhāsa* (XIX, 2). By including roofs of human residences as well under *vimāna* in the line

the residence of a Brāhmaṇa, for instance, is rendered as one of degree and not of kind. This is further attested by the fact that the rituals involved in the consecration of a temple and inauguration of a house evince a remarkable parallelism.⁶⁴ The distinction between residence and temple is, then, expressed more in terms of their respective “functional” aspects.⁶⁵ The ontological distinction between temple and residence, however, does not disappear altogether. It is brought to relief in the rule that in a residential layout according to any plot-disposition scheme, the central plot of Brahṁā is not to be occupied.⁶⁶ In the temple, on the other hand, this plot is occupied by the adytum with the principal image installed within it.

In Chapter XI, Bhūmilambavidhānam, “Composition of Stories,” the text gives a list of geometrical shapes from which to choose: 1) square; 2) circular; 3) rectangular; 4) hexagonal; 5) octagonal; and 6) oval.⁶⁷ In the case of stories, the proportional relationship between breadth and height assume more importance. Here, the text gives

above, the four types of *vimāna* also, by extension, apply to temples and human residences. The same typological “inclusion” of temples and residences occurs also in the six-fold classification of *śālā*, building block (XXXV, 1-4).

This scheme of classification of buildings may be contrasted to that in the Western tradition, in which the distinction between the “sacred” and the “profane” (or “secular”), and by extension, between *templum* and *domus* is more stark. The discussion by the fifteenth century architectural theorist Leon Battista Alberti is quite representative of this feature (see *Leon Battista Alberti: On the Art of Building in Ten Books*. Trans. Joseph Rykwert, Neil Leach & Robert Tavernor [Cambridge, MA.: The MIT Press, 1988], Books V, VII, VIII & IX).

⁶⁴ Compare the contents of Chapters XXXVII, Gṛhapraveśavidhānam, “Prescriptions for Entering the House,” and LXX, Nayanonmīlanalakṣaṇam, “Description of Opening the Eye,” which treat the inauguration of a house and consecration of a temple respectively.

⁶⁵ This is evident in the treatment of residence in Chapter XXXVI, Gṛhamānasthānavidhānam, “Prescriptions for Measurement and Layout of Residence.” In addition to mentioning a few breadth-length proportions generically and stipulating the use of the *paramaśāyika* scheme of plots (eighty-one squares), the discussion concentrates on assigning various rooms and “functions” (for instance, granary, treasury, dining, kitchen, and so on) to various plots and quarters of the site.

⁶⁶ *Mānasāra* XXXIV, 15:

brahmasthānam vinānyeṣām sarveṣām vāsayogyakam |

Except the place (plot) of Brahṁā [which is in the centre], all other [plots] are fit for dwelling [of humans].

This all-important rule is mentioned in the text almost in passing; however, one can assume that in actuality, it was well interiorized by the *sthapati* so that he never violates it.

⁶⁷ *Mānasāra* XI, 2-4.

five classes of breadth-height proportions to choose from: 1) *śāntika*, where height = breadth; 2) *pauṣṭika* (height = 1.25 breadth); *jayada* (height = 1.5 breadth); 4) *sarvakāmika* (height = 1.75 breadth); and 5) *adbhuta* (height = twice breadth).⁶⁸

In Chapter XVIII, titled *Vimānalakṣaṇam*, “Description of *Vimāna*,” the text gives a three-fold classification of *vimāna*, tower or roof, based on its geometrical shape: *Nāgara*, *Vesara* and *Drāviḍa*. The *Nāgara* type is defined as that *vimāna* which is *caturākṛti*, square-shaped. The definition of *Vesara* (the term having the sense of “mixed”) is less clear: it seems to involve circular, elliptical and oval shapes. *Drāviḍa* is that *vimāna* which is usually hexagonal or octagonal (and sometimes even quadrangular) in shape.⁶⁹

At the beginning of Chapter XIX, a four-fold classification of buildings based on the “scale” of measurement is made. They are: *jāti*, *chanda*, *vikalpa* (sometimes also called *saṅkalpa*) and *ābhāsa*. The first type, *jāti*, is stated as measured in *pūrvahasta*, literally, “former or first hand (cubit),” that is, *kiṣku* of 24 *anṅulas*. The other three are measured respectively in three-fourths, half, and one-fourths of that cubit (that is, scales of 18, 12 and 6 *anṅulas* respectively).⁷⁰ Buildings in general are classified as male and female according to their shape: equiangular and circular are male; rectangular are female.⁷¹ Yet another classification is outlined in the same chapter,

⁶⁸ *Mānasāra* XI, 20-23.

⁶⁹ *Mānasāra* XVIII, 93-99. These definitions of the three classes of *vimāna*, in themselves, are insufficient to warrant the empiricist-historicist classification of North, South and East Indian temples as *Nāgara*, *Vesara* and *Drāviḍa* “styles” by architectural historians of the nineteenth and twentieth centuries.

⁷⁰ *Mānasāra* XIX, 2-5. These scales, as is clear, are too small to be of practical application in measurement of buildings. They seem more to provide a conceptual basis for classification of buildings.

⁷¹ *Mānasāra* XIX, 14-15.

based on the most striking dimension of the building: 1) *sthānaka*, erect; 2) *āsana*, seated; and 3) *śayana*, recumbent, in which this dimension is height, breadth and circumference respectively. In case of temples, this classification reflects also in the posture of the principal image, as standing, sitting and reclining.⁷²

Classifications of *śālā*, building-block or hall that is walled and closed, *maṇḍapa*, pavilion that is pillared and usually open, and *gopura*, gate-house, are given in Chapters XXXV, XXXIV and XXXIII respectively. In the case of *śālā*, the classification is six-fold, based on the layout and number of blocks in front of or around a court: 1) *daṇḍaka*, which is a single block; 2) *swastika*, having two blocks interconnected at right angles; 3) *maulika*, having three blocks around a court; 4) *caturmukha*, four blocks enclosing a court; 5) *sarvatobhadra*, seven blocks enclosing two courts; and 6) *vardhamāna*, ten blocks enclosing three courts.⁷³ The classification of pavilions is too manifold to enlist in full here. The bases of their classification are form (basic composition, as well as presence of additional components that adapt it for a particular use, as for instance, *madhyaraṅga*, central stage, in a theatre-pavilion) and measurement proportions. *Gopura*, gate-house, is classified into five, based on the *prākāra*, court (and its enclosing wall), at the periphery of which it is located. The text mentions five concentric courts in large temple or residential complexes. From inner to outer, their respective gate-houses are: 1) *dvāraśobha*; 2) *dvāraśālā*; 3) *dvāraprāsāda*; 4) *dvāraharmya*; and 5) *mahāgopura*.⁷⁴

⁷² *Mānasāra* XIX, 7-13.

⁷³ *Mānasāra* XXXV, 3-4, 50, 54-55, 62-71.

⁷⁴ *Mānasāra* XXXIII, 8-11. As is attested by the South Indian Dravidian temples of the late medieval period (for instance, the Mīnākṣī temple at Madurai, c. 1750 CE), the successive *gopuras* increase in height towards

Classifications are made not only of buildings, but also their spatial and structural components, as well as ornaments and mouldings. Thus, components such as base, column, entablature, pent-roof, dome and pinnacle, court, door and window are classified; so also are mouldings and capitals (Chapters XIII-XVI; XVIII, XIX, XXXI, XXXIX). Similarly, the other objects of *vāstu* – conveyances and furniture – are also classified (Chapters XLIII-L).⁷⁵

In iconography, the general typological classification is given only for the *śivaliṅga*. The *liṅga* at its most basic level is *svayambhuva*, self-originant; within it, ontological distinctions are made between *udbhuta*, arisen (“revealed proper”), *daivika*, *mānuṣa*, *gāṇava* and *ārṣa*, pertaining to (in the sense of “made by”) gods, humans, consorts of Śiva, and sages respectively.⁷⁶ Some of the types operative in classification of buildings (such as the four-fold beginning with *jāti* and the three-fold beginning with *nāgara*) obtain also in the classification of the *liṅga*. The classes are based, as in the case of buildings, on the form and proportions of the *liṅga*.

The arithmetical, geometrical and typological tools used for the actualization of *pramāṇa* constitute one aspect of the instrumental dimension of *vāstuśāstra*. The other aspect of

the periphery of the temple complex. Thus, the *mahāgopura*, the outermost gatehouse, is also the tallest. William Curtis observes that the shift of verticality in the evolution of Dravidian temple-form from the center (in the feature of the *vimāna*, tower above the sanctum – basically a North Indian motif) to the periphery (in the *gopura*, gatehouse) must have owed so much to socio-economic and political roles as theological ones that the institution of the temple played in medieval Tamil Nadu (see Curtis, “Space Concepts and Worship Environment in Śaiva Siddhānta,” in Clothey & Long, eds., *Experiencing Śiva: Encounters with a Hindu Deity* [Columbia, MO.: South Asia Books, 1983], pp. 90-96).

⁷⁵ See Appendix I for the respective titles and contents of these chapters.

⁷⁶ *Mānasāra* LII, 225-230.

its instrumentality lies in its language. It is, therefore, important at this point to turn attention to the language of *vāstuśāstra*, that is, the means of its linguistic expression, by which its priority with respect to practice is asserted.

4. Morphology of Rules

The science of architecture according to the *Mānasāra* encompasses at least three major strands: 1) principles of composition as well as of the craft of making; 2) accounts of technical and ritual procedures; and 3) classification of its products – buildings and its component parts, images, furniture, and so on. With respect to the account of the science (that is, the grammatical outline of its rules), three morphological types may be identified: 1) *sūtra*, aphorism; 2) *vidhi*, injunction;; and 3) *lakṣaṇa*, description. These morphological types roughly correspond to the three strands of the science. Thus, the principles are stated in the form of *sūtra*; the accounts of procedures, both technical and ritual, are *vidhi*; and the accounts of classification of buildings etc. are *lakṣaṇa*. It goes without saying that *vidhi*, as injunction, is by nature prescriptive in tone; however, it is noticed that the same prescriptive tone is achieved in the case of the other two morphological types as well. Thus, the predominant tone of the text is prescriptive. The claim of the priority of the *śāstra* is reflected in this tone. In this section, specific examples of each of the above forms of rules are analyzed in order to examine their syntactic features by which the prescriptive tone is effected.

4.1) *Vidhi*, Injunction

In Sanskrit, verbal conjugations, governed by rules of tense, mood and voice, are key in indicating the tone of a sentence. There exists in classical Sanskrit four dominant moods of verbal conjugation: the imperative, optative, benedictive and conditional. Among these, the first three are more pertinent to the current discussion and hence warrant closer scrutiny. The imperative mood (known in Pāṇinian grammatical terminology as 'loṭ'), is "the usual mode of command or instruction."⁷⁷ Since the imperative is used most commonly in direct address, the verb assumes its second person conjugate form (singular, dual or plural) in usage. The optative mood, in Pāṇinian terminology, is called *vidhi* 'liṅ'; it is also known as the potential mood.⁷⁸ The benedictive or *āśīr* 'liṅ,' is considered as a modification of the optative, and is used to confer a blessing or express the speaker's wish.

The fact that the technical Pāṇinian term for the optative mood is *vidhi* 'liṅ' already is indicative of the conjugation of the verb in the optative as the primary mode of expression of *vidhi*, injunctions. The dominant tone of this mood is that of prescription.

⁷⁷ Robert & Sally J. S. Goldman, *Devavāṇīpraveśikā*, p. 197.

⁷⁸ See A. A. Macdonnel, *A Sanskrit Grammar for Students* (Oxford: Oxford University Press, 1927), Ch. IV, "Conjugation"; and also Goldman & Goldman, *Devavāṇīpraveśikā*, p. 245. Macdonnel sees the benedictive sense as part of the optative and hence does not list it separately. For the Goldmans, there are predominantly two uses for the optative: prescription and hypothesis. The first use of prescription

indicates that the subject [or agent] should, ought, must generally, or had better, perform the action or undergo the state expressed by the verbal root. As such, it serves a similar (injunctive) function as that of the [imperative]. The difference is that here the 'command' is usually of a general sort (Ibid., p. 245-6).

As hypothesis, the optative "indicate[s] either a state contrary to fact, or one which is probable, but not certain. The first of these usages is most common in relative clauses, while the second is common in the sense of 'might,' 'may,' or 'would'" (Ibid., p. 246).

The following examples from the text in which verbs denoting both ritual and technical operations occur illustrate this point.

i) LXX, 13-14:

*harmye vā maṇḍape vāpi sthapatisthāpakāvubhau |
sthāpanātpūrvake kuryāduktavadaṅkurārpaṇam ||*

Before the installation [of the image], both the *sthapati* and the *sthāpaka* [together] should conduct the [ceremony of] sowing of the seeds in the building or in the pavilion.

The *kriyāpada*, word denoting action (that is, verb) in this verse is *kuryāt*, “[he] should do (conduct),” the third person, singular, optative conjugation of the root $\sqrt{kr}$, “to do.” Semantically, the root $\sqrt{kr}$ is of a generic kind, which can indicate a whole range of specific actions.

ii) LXX, 41:

śuddhatoyena sampūrya vedikopari vinyaset |

Having filled [the pots] with pure water, [the *sthapati*] should place them upon the altar.

The verb in this verse is *vinyaset*, the third person, singular optative of $vi\sqrt{nyas}$, “to place.”

Sometimes, as demanded by the context, it is a secondary derivation of the verbal root (in the *Mānasāra*, most commonly, the causative) that is conjugated in the optative mood. Consider the example (LXX, 73):

paścāttu svarṇalipyē(lepe)na payasājyena lepayet |

After that (the chiseling of the eyes), [the *sthapati*] should cause to anoint [the eyes] with milk and water by means of a gold brush.

The verb *lepayet* is the third person singular causative-optative of the root *√lip*, “to smear, anoint.”

In *vidhi*, injunction, the verb is usually an action verb that instructs the agent (indirectly, in the third person) to carry out a concrete action. However, occasionally in the form of *vidhi* (again, where situation demands), verbs of being are also found to be used. For instance (LXX, 22-23):

tanmaṇḍapasya madhye tu vedim kuryāttu caktavat ||
tadagre cāgnikuṇṭam syād gomayālepanam bhavet |

And in the middle of that (sacrificial) pavilion, he should make an altar as stated. And at its edge should be the fire-pit; it should be cow-dung-besmeared.

The two key verbs of being in Sanskrit are *√as* and *√bhū*. Both occur in the second line: *syāt* and *bhavet*, third person singular optative conjugate form, as *syāt* and *bhavet* respectively. This line is an injunctive predication regarding the location and condition of the fire-pit.⁷⁹

An interesting variation of the usual form of *vidhi*, injunction, in the third person optative conjugation of the verb is found in the following example (LXX, 45-46):

⁷⁹ The compound *gomayālepana*, by virtue of the nature of its final member, *ālepana*, besmearing (the other member being *gomaya*, cow-dung) is a verbal noun. As a verbal noun, it does not fit into the syntax of the above sentence. To correct the syntax, it must be emended as *gomayālepita*, in which case the final member is a past passive participle. In this case, the compound becomes an adjective qualifying *agnikuṇṭa*, fire-pit, which is the subject of the sentence.

upavedyupari sthāpya cōktavaccāṣṭamaṅgalaṃ |
paścāttu śilpibhiḥ prājñaiḥ pādaprakṣālanam kuru(kriyeta) ||

And having placed the *aṣṭamaṅgala* (eight auspicious things) upon the altar as said, and after that, let *pādaprakṣālanam* (ceremonial ablution of mouth and feet) be conducted by the wise artisans.

The root verb in the second line (which is the absolute clause of this complex sentence⁸⁰) is *√kr*, “to do, conduct.” It is conjugated in the imperative mood. As mentioned earlier, the imperative mood is most common in direct address. Thus, this syntactic shift from the optative to the imperative mood should correspond to a semantic shift from outlining injunctions in general to a more direct command.⁸¹ However, the fact that the agents of the verb (the “wise artisans”) are declined in the instrumental case calls for an emendation of the verb to the passive form for the sake of grammatical correlativity.⁸² The passive construction retains the distance of generality from the immediacy of direct speech.⁸³

It is, perhaps, redundant to cite full verses as examples of *vidhi*, injunctions, regarding technical operations: the same prescriptive tone is effected here, again by means of conjugation of verbs denoting the operations in the optative mood. There is one feature

⁸⁰ Usually, the presence of a gerund indicates that the sentence is a complex one, comprised of a relative and an absolute clause. The gerund itself occurs as the *kriyāpada*, word denoting action, of the relative clause. The relative clause in the verse above is its first line, its *kriyāpada* being the gerund *sthāpya* (of the root *√sthā*, “to place”), and the absolute clause the second line. The second line has the curious feature of the presence of a cluster of (indeclinable) particles at its beginning: the “frozen ablative” particle *paścāt*, “after that,” and *tu*, usually having the adversative sense of “but,” but used sometimes in the sense of “and.” Considering the fact that the second line is the absolute clause in the sentence which can, in itself, exist as a complete sentence independent of the relative clause, this particle-cluster is redundant semantically, unless the intention is to highlight the importance of the ritual action that follows (washing of the mouth and the feet).

⁸¹ In its unemended form, *pādaprakṣālanam kuru*, “[you] do, conduct the washing of mouth and feet,” indicates just this. In doing so, it paints an image of the context as the *sthāpaka*, priest, giving direct orders to the *sthapati* and his assistants in the conduct of the ritual.

⁸² The emendation of the verb *√kr* in the sentence would demand its conjugation in the third person singular passive imperative form. The form that Acharya gives, *kriyeta*, is erroneous. The correct form is *kriyatām*.

⁸³ It must be noted that the use of passive imperative does occur in direct conversation also, to convey a sense of formality and politeness (see Goldman & Goldman, *Devavāṇīpraveśikā*, p. 201).

in injunctions on technical operations, however, that must be highlighted: there are more instances of the causative-optative conjugate form of the verbs that denote the operations; for instance, *kārayet*, “[he] should cause to do or make”; *visarjayet*, “[he] should cause to remove”; *yojayet*, “[he] should cause to yoke, join.” The primary semantic sense of the causative form of the verb is chain of command: “one agent prompts another agent to perform the action named by the verb root.”⁸⁴ When the text uses the third person conjugation of verbs, it has in mind, above all, the *sthapati*, master-builder, as the agent of the action. Thus, in ritual, the *sthapati* himself conducts the operations. The use of verbs in their causative derivation to denote technical operations indicate that the *sthapati* conducts them through, or by means of, his assistants who follow his command.⁸⁵ This discretion in the use and non-use of the causative-optative conjugation of verbs to denote technical and ritual operations respectively points to the dominance in the text of the voice of the *sthāpaka* over that of the *sthapati*.

4.2) *Sūtra*, Aphorism

In the *Mānasāra*, general principles pertaining to architectural and iconographic making are expressed in the form of *sūtra*, aphorism. These principles could more specifically be geometrical and numerical axioms and theorems as well as theological and metaphysical concepts. The most basic syntactic feature of the *sūtra* form is the nominal sentence. The semantic effect of nominalization is usually (depending on the

⁸⁴ Richard Hayes, *Saṃskṛtabhāṣāpravartanam: Continuing Sanskrit* (Montreal: McGill University [unpublished], 1999), Chapter 9, “Causative Verbs,” p. 128.

⁸⁵ The text does on occasion specify the agent when he is other than the *sthapati*. For instance, the operations of measurement (such as moving the measuring cord around in the site) is conducted by the *sūtragrahin*.

context) apposition, equation, and even identification of two themes or two things, or of a thing and a theme. Again, depending on the context, there are several ways in which this nominalization is achieved syntactically. The prescriptive tone is achieved by referral to the authority of tradition by using a number of verbs which have the meanings of “tell, declare, announce, remember,” and so on, in the past passive participle form.⁸⁶ On account of this feature, it may be well to further qualify the prescriptive tone of the *sūtra* form as “declarative.” Consider the following examples:

i) II, 40:

munīnām nayanodvīkṣya(kṣyam) tatparamāṇurudāhṛtam ||

That which is to be perceived by the eyes of the sages is declared as *paramāṇu* (atom).

In this sentence, there occurs the gerundive *udvīkṣya* of the root *ud√vīkṣ*, “to perceive,” which is a transitive verb. The “root sentence,” so to speak, in this case, is: “The eyes of the sages perceive[d] the *paramāṇu*, atom.” The gerundive is used as an adjective to indicate that the noun *paramāṇu* which it modifies is the direct object of the action expressed by the verb root. In other words, the gerundive as verbal adjective, agreeing in case, number and gender with the object, nominalizes the passive voice.⁸⁷ In addition, the prescriptive dimension in the semantics of the gerundive indicates an injunctive bind of the object (*paramāṇu*) to the action (perception).⁸⁸ The other verbal participle in the sentence, *udāhṛta*, “is declared” (the past passive participle of *√udāhṛ*,

⁸⁶ For instance, *prokta*, “it is said” (from *prav√vac*, “to tell, announce, explain”); *smṛta*, “it is remembered” (from *√smṛ*, “to remember”); *prakīrtita*, “it is renowned” (from *prav√kṛt*, “to proclaim, announce”).

⁸⁷ In its role of nominalization, the gerundive is not unlike the past passive participle (see Goldman & Goldman, *Devavāṇītoraveśikā*, p. 281).

⁸⁸ On the prescriptive dimension of the gerundive, the Goldmans state that “[i]ts force is very similar to that of the *vidhi līn* or optative mood” (Ibid).

“to declare, announce”), by virtue of its very meaning, effects further an overall prescriptive, declarative, tone to the sentence.

ii) II, 47:

mānamātram tridhā proktam yavavṛddhiviśeṣataḥ |

Mānamātra [is] in three ways, it is said, with respect to the increment of *yava*, barley-corn.

In this example, the nominalization is effected by the implicit presence of the verb *√as*, “to be” that qualifies the subject which is *mānamātra*. In addition, the declarative verb is also present in the passive: *proktam*, “it is said.”

iii) II, 50:

vitastyugmam kiṣkuḥ syātpṛājāpatyo 'ṅgulādhikam(kaḥ) ||

Two *vitasti*, span, should be [one] *kiṣku*; *pṛājāpatya* [is] [one] *aṅgula* added [to it].

Here, in the first half, the verb *√as*, “to be” is explicitly used, while in the second, it is implied. Its conjugation in the optative mood renders the *sūtra* with a prescriptive tone.

iv): II, 53:

caturhastam dhanurdaṇḍam daṇḍāṣṭam rajjumeva ca |

Four *hasta*, cubit, [is] a *dhanurdaṇḍa*, staff; and eight *daṇḍa* is a *rajju*, rope.

Once again, the verb *√as*, “to be,” is implied, and, as in the previous example, its sense is equative.

v) III, 3-4:

dharā harmyādi yānam ca paryāṅkādi caturvidham |
dharā pradhānavastu syāttatajjātiṣu sarvaśaḥ ||

Earth, edifices etc., conveyance and furniture etc., [thus are] four kinds [of *vastu*, architectural objects]. The earth should be the principal object; in all the [other] kinds [it is] omnipresent.

Here, in the first line, the verb *√as*, “to be,” is implied, and serves to appose and yoke the particular with and to their universal, which is *vastu*, in the exercise of classification. Given the prolific classification found throughout the text, it is in this specific role (of apposing and connecting the particular and the universal) that the verb *√as* is most commonly used. In the second line, the verb is conjugated in the optative; here its role does not stop at simply apposition of *dharā*, earth, and *vastu*, object, but extends to predication and even identification, of the former as *pradhānavastu*, principal object.

4.3) *Lakṣaṇa*, Description

The syntactics of *lakṣaṇa* as description is often similar to that of *sūtra*. The main difference between the two lies in the semantics. The semantic content of *sūtra*, as already seen, pertains to theological and nomological principles, whereas that of *lakṣaṇa* has an ontic emphasis, pertaining to descriptive accounts of concrete objects and persons. Again, the prescriptive, declarative, tone is achieved by the use of the

earlier mentioned verbs in the present passive or past passive participle form. Consider these examples:

i) Characteristics of the *sthapati*, master-builder (II, 26):

sthapatiḥ sthāpanāyārhaḥ vedavicchāstrapāragah ||
sthāpanādhipatiryasmāttasmātsthapatirucyate |

The *sthapati* [is] the one qualified for erection; [he is] knowledgeable in the *veda* [and] profoundly learned in the *śāstra*. Since [he is] the lord of erection, therefore [he is] called *sthapati*.

ii) Characteristics of *sthapati* and *sthāpaka* (LXX, 3):

sthapatiḥ prakṛtiḥ proktaḥ sthāpako jīvamiṣyate |

The *sthapati* [is] the generator [of the image], it is said; [and] *sthāpaka* is said to be [its] life.

iii) Characteristics of objects (XIX, 14-15):

samāśram samavṛttam yatpuruṣam ceti kathyate ||
āyatakāradhiṣṇyam vā vanītetī prakīrtitam |

Equiangular [or] circular [abode] is spoken of as ‘male’; and the abode oblong in shape is declared as ‘female.’

The slot of the agent(s) in examples ii) and iii) above is left blank, which is often the case in the text. However, several instances also occur in the text in which this slot is filled by usages such as *purāṇaiḥ* and *purāṭanaiḥ*, both meaning, “by the ancients,” and *budhaiḥ*, “by the learned.”⁸⁹ In all these instances, the agent (the ancients, the learned ones) represents undisputed authority.

⁸⁹ For instance, *Mānasāra* IX, 417:

The instances in the text where explicitly theological and mythological contents occur (as when in Chapter II, it outlines the origin and foundation of *vāstuśāstra* and genealogy of the builders' guild), syntactically, the same linguistic means examined above are employed in the narratives. A separate morphological "type" may be distinguished for these only upon a semantic basis (the case being somewhat akin to the distinction between *sūtra* and *lakṣaṇa*).

b) KNOWING

In the *Mānasāra*, a broad constitution of *vāstuśāstra* as architectural knowledge is drawn in the account of the knowledge and expertise of the members of the builder's guild. In that account, occurring in Chapter II, three strands of knowledge pertaining to the practice of architecture can be differentiated. Firstly, a specialized knowledge of the craft, a skilled expertise; secondly, knowledge of the principles of craft; and finally, knowledge of *Veda*, that is to say, the metaphysical significance of operations. The

nrpāṇāṃ vā 'tha vaiśyānāṃ योग्यमुक्तं पुरातनाṃ |

[The village-type *prastara*] is said by the ancients as fit [for the dwelling] of kings and merchants.

Jan Gonda, in his monograph on the Sanskrit passive, traces a "passive turn" in the history of the language from its ancient Indo-Iranian and Vedic phases to that in later, epic and classical, phase. He shows that the use of passive conjugate form of verbs in earlier texts is more in the intransitive active and eventive senses rather than the passive sense itself. According to him, only when the agent is explicitly mentioned in the instrumental case does the verbal conjugate in the passive qualify semantically also as passive, "real passive," in his own words (Gonda, *Remarks on the Sanskrit Passive* [Leiden, E. J. Brill, 1951], "Conclusions and Additional Remarks," pp. 73-108). It must be noted, however, that the verbs that are examined by him do not include declarative verbs. Therefore, in the instances of the use of the passive conjugate forms of these verbs, the condition of explicit agent-specification in the instrumental case (that Gonda puts forward) need not be absolute to qualify their semantics also as passive in the full sense.

Also, it must be noted that in the usages cited above, "the ancients" and "the learned ones" are understood as "agent" of declaration in a collective sense, even though the nouns denoting them are declined in the plural, as *purātanaṃ* and *budhaiḥ*.

principles of craft, by virtue of occupying the center of this tripartition, become the locus of convergence of two mutually opposite courses: that of an empirico-inductive epistemological system in which principles are derived a posteriori through abstraction from the practice of craft, and that of a hypothetico-deductive “theotechnic” system⁹⁰ in which principles are constructed a priori as rules governing the concrete realization of the idea (here, divine manifestation). Although the dual dimensions of a quasi-scientific practical knowledge and of grammatical rules of reification are captured in these “theoretical” principles, what characterizes their conception specifically as *śāstra* is the intentional usurpation of the dialectical tension between the two to privilege the latter over the former. Śāstraic intentionality appropriates craft practice to nomological and normative ends.⁹¹ The normative discourse, always textually mediated (through written treatises and not merely orally), is endowed peremptorily with a divine provenance. In the process, the principles assume a heavily prescriptive tone and become divinely revealed injunctions. As a result, from the perspective of the textual tradition of *vāstuśāstra*, architectural practice is conceived as a deontological process. *Śāstra* as a divinely ordained “science” attempts relentlessly to subjugate its ontology expressed phenomenologically; the latter is acceded only to the extent it serves śāstraic epistemology. However, despite the deontologizing efforts of śāstraic intentionality, its phenomenological dimension is never fully eclipsed, but always present as an undercurrent that surfaces on occasions in various subtle ways in the texts. These

⁹⁰ It is “theotechnic” in that it pertains to “making of the divine.”

⁹¹ Consider the statement of Bruno Dagens on śāstraic intentionality while analyzing the process of writing of the *Mayamata*: “The apparently deceptive conclusion is that the theory of architecture of the *Mayamata* is based on/extrapolated from already existing monuments. . . . For the sake of elaborating “prescriptive” rules, the author(s) analyzed the models and reduced them to subsets, types, archetypes . . . giving rise to architectural forms in the treatise” (Dagens, “Iconography in the *Śaivāgamas*: Description or Prescription?” in Dallapiccola, ed., *Śāstric Traditions in Indian Arts*, p. 152).

subtleties perhaps even suggest a tacit acknowledgement by the śāstraic nomothets of the indefeasibility of this phenomenological dimension of śāstra, and their imaginative play with it in texts using literary and linguistic tools. A hermeneutic sensibility in the perusal of the texts helps identify these clues and the nuances they imply regarding the nature of śāstra.

The dialectical nature and structure of *vāstuśāstra* obtains specifically as that between deductive and inductive methods of its reasoning,⁹² and prescriptive and descriptive dimensions of its rules. In the phenomenological light, it also follows that the act of knowing itself occurs not merely in rationalist or empiricist frames, but rather in modes that are fundamentally noetic and poetic (in the widest sense). In other words, knowing is a “grasping” that is intuitive and immediate. In the *Mānasāra*, the foundational nomological principle of *vāstuśāstra* that posits “measure” as its essence displays the characteristic more of philosophic truth (as a “universal essence”) than scientific law.⁹³ It is, thus, object of a priori and immediate knowledge, grasped through eidetic intuition. This phenomenological mode of knowing extends, in turn, to the realm of the śāstra proper: positing laws or propositions, constructing instruments and conducting experiments. Thus, the act of predetermination of *pramāṇa*, axiomatic reference measurement, is more a noetic apprehension rather than mere rationalistic deduction.⁹⁴ In the constitution of *mānopakaraṇa*, conceptual instruments of measurement, the

⁹² The structure of syllogism in the school of Nyāya, Logicism, already demonstrates this. It is five-limbed and contains universal proposition as well as particular example, thus engaging both deduction and induction (see Hiriayanna, *Outlines of Indian Philosophy*, pp. 256-57).

⁹³ The essential nature of *māna* as “measure” has already been shown in the linguistic analysis of the compound *mānasāra*, at the beginning of the chapter.

⁹⁴ It is “noetic” in that it “brings in the specific element of intentionality” to the process (Husserl, *Ideas: General Introduction to Pure Phenomenology* [London: George Allen & Unwin, 1931], p. 249).

dialectical nature of *śāstra* emerges stronger: the process is not purely deductive but also inductive. Again, they are, more properly, noetic and poetic processes based on perceptual experience and transcendental reduction.⁹⁵ These manifest in a subtle non-instrumental vector that operates simultaneously with their instrumentality. The “experiments” (in the sense of empirical “tests”) associated with *bhūmiparīkṣā*, “examination of site,” conducted in the site itself, are also based on phenomenological perception (that engages the entire sensorium) and inference rather than modern scientific analysis conducted in the abstract and rarefied environment of a laboratory. In the following section, this phenomenological dimension of *vāstuśāstra* in its constitutive elements as well as its linguistic form (that is, of rules) is elaborated.

5. Phenomenology of Measurement, Instrument, and Experiment

5.1) “Unity” of Units

a) *Paramāṇu*, Atom

In the system of architectural measurement, two units assume a certain primacy over others: *paramāṇu*, atom, and *aṅgula*, digit. The former is presented as the basic unit upon which the entire system is founded. The latter, as the first unit in the system which refers to the human body, assumes what may be called a “pivotal” status.

⁹⁵Both the epistemology of Nyāya, Logicism, and the ontology of Vaiśeṣika, Particularism, display a certain phenomenological tenor. For both, the primary *pramāṇa*, mode of knowing, is *pratyakṣa*, perception; within Nyāya, perception is further qualified as *avayavipratyakṣa*, “perception of the whole.” This doctrine also offers the buttress against the phenomenalist reduction of perception into mere sense-data (see J. N. Mohanty, “Nyāya Theory of *Avayavipratyakṣa*,” in Mohanty, *Phenomenology and Ontology* [The Hague: Martinus Nijhoff, 1970], pp.183-197).

About the *paramāṇu*, the text states thus (II, 40):

munīnām nayanodvīkṣya(kṣyam) tatparamāṇurudāhṛtam ||

That which is to be perceived by the eyes of the sages is declared as *paramāṇu*.

The verb that denotes “perception” in this line is the gerundive *udvīkṣya*. The basic root is *√īkṣ*, which has a range of meanings, all related to sight: “to see, behold, perceive, observe, look at, gaze.” The two prefixes added to the root, *ud* and *vi* have, in themselves, the respective senses of “arising” and “asunder.” These senses of the prefixes indicate that the “seeing” discussed here is somehow a “higher” and yet “analytical” kind. In the phenomenological sense, this “higher analytical seeing” is an exercise of the eidetic faculty that enables doubly a direct intuitive grasp of its object, as well as the process of bracketing and reduction of tangible phenomena/realities and their perception.⁹⁶ Thus, the system of measurement can be understood in two ways: 1) as constructed upward (that is, from small to large units) based on the first and immediate perception of *paramāṇu*; and 2) as based on the pivotal unit *aṅgula*, digit, from which smaller units upto *paramāṇu* and larger units upto *rajjū*, rope, are derived respectively by division and aggregation.

The idea that *paramāṇu*, atom, is the smallest unit of measurement draws from the ontology of the Vaiśeṣika school. The first category according to Vaiśeṣika is *dravya*, substance, of which there are four external kinds: earth, water, fire and air. *Paramāṇu* is the smallest indivisible material “unit” that constitutes each of these four substances.

⁹⁶ In the parlance of Nyāya-Vaiśeṣika, this is *alaukikapratyakṣa*, “transcendental perception,” particularly of the yogic kind, which “. . . brings man face to face with supersensuous objects like atoms, *dharma*, etc. . .” (Ibid., p. 250).

It is infinitesimal, indivisible, indestructible, and therefore, eternal. It is of four kinds, distinguished qualitatively, corresponding to the four substances. The world of matter arises from a combination of atoms, first into dyads and then triads that are progressively available to ordinary perception.⁹⁷ As can be seen, at the level of *paramāṇu*, there is a convergence of ultimate material and mensural principles, that is, between “matter” and “measure.” Following this, there obtains a certain parallelism between the “construction” of the material world and the system of measurement from the infinitesimal to the perceptible.

In contrast to the additive or “constructivist” approach of Vaiśeṣika, the treatment of matter and cosmos has an “evolutionist” slant in Śaiva theology.⁹⁸ The concept of *paramāṇu* is replaced in Śaiva theology by that of *bindu*, “pure materiality in nuclear state.” In *vāstuśāstra*, if *paramāṇu* is the basic unit of measurement, *bindu* is the geometric concept of “point,” which has the additional significance as center of a circle.⁹⁹ The symbolism of center and circumference of a circle has been explained in terms of being and becoming: the center is the node of being that is timeless and static, while the circumference is the locus of the flux of becoming.¹⁰⁰ In the peg and cord operations that are conducted upon the building site in the course of its orientation and

⁹⁷ See Ibid., pp. 229, 238; and also Wilhelm Halbfass, *On Being and What There Is: Classical Vaiśeṣika and the History of Indian Ontology* (Buffalo: SUNY Press, 1992), Chapter 5, “The Vaiśeṣika Concept of Substance.”

⁹⁸ Śaiva theology is undergirded by the categories of Sāṃkhya, Enumerationism. The difference between Sāṃkhya and Vaiśeṣika at their core is that the former is a *satkāryavāda* (the claim that effect pre-exists in cause) while the latter is *asatkāryavāda* (which claims that effect does not pre-exist in cause). For an account of the confrontation between the two systems as well as their mutual accommodations to each other, see Halbfass, *On Being and What There Is*, Chapter 3, “Genesis, Enumeration and the Question of Being,” pp. 55-60.

⁹⁹ See H. N. Chakravarti, “Bindu,” in Bäumler, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, pp. 1-24.

¹⁰⁰ See Alice Boner, “Introduction,” Boner, Bettina Bäumler & Sadāśiva Rath Sarmā, trans. & ed. *Vāstusūtra Upaniṣad: The Essence of Form in Sacred Art* (Delhi: Motilal Banarsidass, 1996), p. 13. Here, the symbolism of the circle is discussed in the context of image-making; however, it applies in architecture as well. In iconography, the *bindu*, center, usually coincides with the *nābhi*, navel, of the image (see H. N. Chakravarty, “Nābhi,” in Bäumler, ed. *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, pp. 25-46).

delineation, what establishes the “connection” between center and circumference is the *sūtra*, measuring cord. “Geometry” is already a measuring – of the earth, that is, the site. The measurer is the *sūtragrāhin*, bearer of the measuring cord, who is also called in the text as *bindutattvajña*, “knower of the principle of *bindu*.” By means of the ascription of this title to the *sūtragrāhin*, the link between “measure” and “matter” is established here, if only in an oblique manner.

The conflict of cosmogonic speculations between Vaiśeṣika ontology and Śaiva theology would normally render the concepts of *paramāṇu* and *bindu* as mutually incompatible within the same theoretical framework. However, this is a problem only from a strictly philosophico-theological point of view. In *vāstuśāstra*, the conflict is resolved by assigning the two concepts respectively to the arithmetical and geometric aspects of “measure.”

b) *Aṅgula*, Digit

The place of *aṅgula* in the system of architectural measurement has already been demonstrated. In the context of iconography, there is another extended discussion of *aṅgula*. The various options listed by the text regarding the derivation of height of the image has also been mentioned already. These options can be categorized broadly into two, on the basis of their derivation: 1) as derived from actual measurements of objects (for instance, the width of the sanctum); and 2) as obtained from a system of

measurement.¹⁰¹ *Āṅgula* is mentioned as one such system (here, the distinction between “unit” and “system” of measurement seems to collapse). The text differentiates three kinds of *āṅgula* in this context. The first is *mūlaberāṅgula*, literally, “finger of the main image,” also called in the text as *dehalabdhāṅgula*, “finger obtained from the body [of the image].” Its value is determined as 1/96th part of the height of the image.¹⁰² Here, *āṅgula* is understood as one “part” or division of the total height. Next is *mānāṅgula*, which is the width of eight *yava*, barley-corns.¹⁰³ The third is *mātrāṅgula*, defined as the measurement of the middle phalynx of the middle finger of the right hand of the maker.¹⁰⁴ Among these, the first and the third are more properly understood, again, as measurements derived from an object (the image, and the finger of the maker respectively). In the case of the second, the simple mention of the formula, 8 barley-corns = 1 *āṅgula*, must be understood as an implicit reference to the whole system which has *paramāṇu* as its basis (otherwise, seen in themselves, the formula, and especially barley-corn as the object of derivation of the measurement, are rather arbitrary). In other words, there seems to be an implicit distinction made here

¹⁰¹ *Mānasāra* LV, 11-16. In the first category, the temple is the principal object; also mentioned are the main image of the temple and the (body of the) *yajamāna*, patron. Thus, length of the temple, height of the adytum, width or height of the door of the adytum, height of the base, height of the main image and height of the *yajamāna* are the actual dimensions mentioned that serve as bases for iconographic measurement. In the second category, the systems mentioned are the *hasta*, cubit, *āṅgula*, digit, and *tāla*, span. It must be noted that these are also “units” in the system of measurement outlined in Chapter II (*tāla* has the same value as *vitasti*).

¹⁰² *Mānasāra* LV, 54:

caturviṃśaccaturbhāgam mūlaberodayam bhavet ||

¹⁰³ *Mānasāra* LV, 56:

yavutārāṣṭamātram syānmānāṅgulamiti smṛtam ||

The play between the words *māna* and *mātra* is evident in this line also, although here, *mātra* simply means width.

¹⁰⁴ *Mānasāra* LV, 57-58:

*karturdakṣiṇahastasya madhyamāṅgulamadhyame |
parvadrgham tata(tta)nnāham mātrāṅgulamudīritam ||*

This tripartition of *āṅgula* is mentioned in several Āgamic texts. For instance, according to the *Suprabhedāgama* (XXX, 1-9; quoted in Acharya, *A Dictionary of Hindu Architecture*, p. 9), there are three kinds of *āṅgula*. The first is *mānāṅgula*, obtained by the gradual increment of *paramāṇu*. Next is the unit *mātrāṅgula*, derived from the middle phalanx of the middle finger of the *ācārya*, priest. Finally, there is the *dehalabdhāṅgula*, the measurement obtained from the image: its value is equal to 1/nth of the height of the image, ‘n’ being the number of parts into which the height is divided. The *Mayamata* (V, 11-12) admits only a bipartition – *mānāṅgula* and *mātrāṅgula* – treating *dehalabdhāṅgula* as a synonym of the latter.

between *mānāṅgula* on the one hand, and *mātrāṅgula* and *mūlaberāṅgula* on the other – that of “absolute” and “relative.”¹⁰⁵ *Mānāṅgula* is stipulated to be applied in iconography to measure stationary and movable images, and *mātrāṅgula*, to measure *ātmārtham beram*, “images of personal worship.”¹⁰⁶ This distinction in the applicatory function of the two units is rather artificial and arbitrary.¹⁰⁷ It points once again, to the attempt to present the process by which *mānāṅgula* is derived as purely conceptual. The same tendency is visible in the case of *mātrāṅgula* as well: the relationship between the semantics of this compound and what it signifies (the measurement obtained from the middle phalanx of the middle finger of the right hand of the maker) is an arbitrary one. Furthermore, comparing the semantics of the compounds *mānāṅgula* and *mātrāṅgula* also reinforce this conviction. There is no “real” difference between the meanings per se of these two compounds, irrespective of how they are analyzed. The difference between them is purely nominal, and stems from their respective technical definitions.

Āṅgula is thus presented as a “pure concept” (that is, bereft of any ontological dimension) from which its standard and universal character are claimed to issue. Tautological ascriptions such as *mānamātra*, “measure-measure,” and technical coinages such as *mānāṅgula*, “measure-digit,” effectively evince this mentality. However, in the final analysis, the fact remains that the fundamental reference in the

¹⁰⁵ Acharya calls *mānāṅgula* as “the standard measure” (Acharya, *Dictionary of Hindu Architecture*, p. 6). Dagens elaborates the distinction between *mānāṅgula* and *mātrāṅgula* more clearly, as absolute and relative units (Dagens, “Index-Glossary,” *Mayamatam, Treatise of Housing, Architecture and Iconography*, Vol. II, p. 356).

¹⁰⁶ *Mānasāra* LXIV, 88-89.

¹⁰⁷ This becomes more clear when viewed against the applications of these units stipulated by *Suprabhedāgama*: *mānāṅgula* is applied in the measurement of temples, pavilions, courts, gatehouses, villages and other settlements, and *mātrāṅgula* in the measurement of sacrificial objects (the option of using *mānāṅgula* for this purpose is also available). *Dehalabdhāṅgula* is limited to iconography.

meaning of *anṅula* still rests on the body (even before it is qualified further by technical terminology or definitions), specifically, the finger. This reference to the body (finger) in the development of *anṅula* as measuring unit is explicitly stated in the following passage from the purāṇic text, *Brahmāṇḍa Purāṇa* (1.2.7. 91-95, trans. Acharya):

... [P]eople at first lived in caves, mountains and rivers, etc. They began to build houses in order to protect themselves from cold and heat (*śītoṣṇa vāraṇāt*). Then they built *kheṭas* (towns), *puras* (houses), *grāmas* (villages) and *nagaras* (cities). And to measure their length, breadth and the intermediate distance between two settlements (*sanniveśa*), the people instinctively (*yathājñānam*) employed their own fingers. Thence forward the *anṅulas* are used as standard measurement.¹⁰⁸

This ontological grounding of *anṅula* and the phenomenological mode of its knowing, in turn, qualify the understanding of notions of its standard and universal character. The body was the “universal” referent of measurement in pre-modern times. The “universality” of *anṅula* derives simply and primarily from this fact. Despite the seeming attempt in theory to deontologize the universality of *anṅula*, it was never realized in practice. There is no historical evidence whatsoever of an actualized pan-

¹⁰⁸ Quoted by P. K. Acharya, *A Dictionary of Hindu Architecture*. *Mānasāra* Series No. 1 [Rpt., Delhi: Low Price Publications, 1995], p. 8). The Sanskrit verses read thus:

yathāyogam yathāprīti niketeśvavasānpurā |
madhuhunvatsu niṣṭheṣu parvateṣu nadiṣu ca ||
saṃśrāmyati ca durgāṇi dhanvapārvatamaudakam |
yathājoṣam yathākāmam sameṣu viśameṣu ca ||
ārabdhāstānniketānvai kartum śītoṣṇavāraṇāt |
tatastānnirmayāmāsuḥ khetāni ca purāṇi ca ||
grāmāṃścaiva yathābhāgam tathaiṣa nagarāṇi ca |
teṣāṃyāmaviṣkambhāḥ sanniveśāntarāṇi ca ||
cakrustadā yathājñānam mītvāmītvātmanonṅulairh |

The compound *yathājñānam* (obtained by combining *yathā*, which means “according to,” to *jñāna*, knowledge), is an *avyayībhāva*, indeclinable, compound. Syntactically, *avyayībhāva* compounds function in a sentence as adverbial particles. In the verses above, a whole series of such compounds occurs. Thus, the ancients lived *yathāyogam*, “according to requirements or circumstances,” and *yathāprīti*, “according to pleasure”; they sought rest *yathājoṣam*, “according to liking,” and *yathākāmam*, “according to desire”; they measured with their own fingers *yathājñānam*, “according to knowledge.” Semantically, these adverbial compounds suggest a certain pre-reflective immediacy to the respective actions they qualify. As Maurice Merleau-Ponty points out, such a pre-reflective, perceptual, mode of being as and knowing with one’s own body is eminently phenomenological (see Merleau-Ponty, *The Phenomenology of Perception*. Trans. from French by Colin Smith [London: Routledge & Kegan Paul, 1962], Part One: “The Body,” and Part Two: “The World as Perceived”).

Indian universality of the unit, in the sense of a uniform application of a standard *aṅgula* in construction throughout the subcontinent. In other words, in actuality, it was a relative unit that admitted local variations in its application.¹⁰⁹

This qualification of the universality of *aṅgula* reflects the understanding of universality according to Vaiśeṣika ontology. Vaiśeṣika lists *sāmānya*, universal, as one of its principal categories. The universal is defined as “. . . that which is *nitya*, eternal, and inheres in many [individuals or particulars].”¹¹⁰ It exists in the three “real” categories of substance (for example, man-ness), quality (red-ness) and activity (thrown-ness). The universal is qualified as “real” (as distinct from “ideal”) although it is dependent on cognition. The universal as “real” is also distinguished from “conceptual,” the latter being characterized by abstraction *ad infinitum*. From this ontological perspective, the “real universal” which is the basis for the universality of the unit *aṅgula* is *aṅgulatva*, “finger-ness.”¹¹¹ Similarly, the Vaiśeṣika categories of *viśeṣa*, particular, and *samavāya*, inherence, offer a means to understand the nature of “relative” *aṅgula* (that is, the particular instances of derivation and application), and

¹⁰⁹ A useful contrast to this mode of universality that is the nature of *aṅgula* is the totally deontologized universality of the metric system. Meter, its basic unit of linear measurement, is defined as the length equal to the distance traveled by light in a vacuum in 1/299,792,458 of a second. It is applied uniformly throughout the world, wherever the system is adopted. This uncompromising universalism is impossible without the momentous weight of the power of instrumentation behind it which, almost always, has a political arm. For instance, the deontological standardization and universalization (in the sense of uniform application) of the foot-inch system, even though derived originally from the body, was made possible only because of its association with British imperial power (thus earning it the appellation, “Imperial System”).

¹¹⁰ Raju, P. T., *Structural Depths of Indian Thought* (Albany: State University of New York Press, 1985), p. 259. Also see Hiriyanna, *Outlines of Indian Philosophy*, pp. 233-34; and Halbfass, *On Being and What There Is*, Chapter 6, “The Vaiśeṣika Concept of *Guṇa* and the Problem of Universals.”

¹¹¹ Six conditions are set forth for a universal to be real: 1) as suggested by the definition, it should exist in many individuals; 2) there can be only one universal in case where nominal or technical distinctions of individuals are made, when two terms refer to the same class of individuals; 3) it must not lead to cross-classification or hybridity; 4) it must not lead to an infinite regress or abstraction *ad infinitum*; 5) it must be positively related to the individuals (by this condition, universals of non-being are excluded); and 6) its presence in individuals must not destroy their very nature (see Raju, *Structural Depths of Indian Thought*, p. 259). *Aṅgulatva* is seen to satisfy them all.

the relationship between the universal and the particular. The category of *viśeṣa*, particular, defined as the “ultimate differentiator,” grants the ontological distinction and status to each instance of derivation and application of *aṅgula* (from one building situation to another), although between themselves they are alike in all characteristics. The relationship between the universal and the particular is that of *samavāya*, inference.¹¹² The feasibility of “application” of the universal (*aṅgulatva*) to the particular (a concrete instance of measurement using the unit *aṅgula*) was afforded within the horizon of *samavāya* by virtue of its sense in early Vaiśeṣika as referring primarily to material cause and its product (understood as not pre-existing in the cause).¹¹³ Thus, the relationship between the universal and the particular is “intentional” and not accidental or arbitrary. However, in the later understanding of *samavāya* as “inference,” the same relationship between the universal and particular is also “necessary” and “predicative.”¹¹⁴ Following this, *aṅgulatva* obtains in *aṅgula* not merely by application but by way of the dialectic between application and predication.

The units in the system of measurement from *paramāṇu* to *aṅgula* are too small to be of practical value. Nevertheless, they all refer to a real object, as is evident from their names. *Aṅgula* is the first unit that refers to the body, and following it, there are two

¹¹² The idea of *samavāya* is captured only with difficulty in its translation as “inference.” Hirianna translates it as “necessary relation.” Observing these difficulties in translation, Halbfass states thus:

At any rate, classical Vaiśeṣika considers *samavāya* as a principle that is supposed to account for the co-occurrence and coalescence of different and ontologically distinct world constituents within concrete things. In a sense, it restores the unity and concreteness of things after their categorical decomposition (Halbfass, *On Being and What There Is*, p. 75).

¹¹³ Halbfass, *On Being and What There Is*, p. 148.

¹¹⁴ Halbfass notes that in the later Vaiśeṣika of Praśastapada,

inference appears as the cosmological and ontological foundation of the possibility and legitimacy of predication. . . . Because of *samavāya*, . . . the world is not merely a conglomeration of nameable, enumerable entities, but an integrated structure of predicative relations; because of *samavāya*, we can speak about the world in sentences and not in isolated words (Ibid., p. 149).

more: *vitasti*, span (which is the distance between the tips of the thumb and middle finger when stretched) and *kiṣku-hasta*, cubit (length of fore-arm).¹¹⁵ It is also noticed that *kiṣku* is the locus of another transition: it marks the first instance when the same term refers in addition to the unit, to the tool of measurement as well. Thus, *kiṣku* is also the cubit-scale. This aspect of homology between unit and tool of measurement, stemming from the homonymy, extends to the succeeding bigger units in the system as well: *daṇḍa*, rod, and *rajju*, rope.

5.2) Verification: Symbolism of the Remainder

Two synonymous terms are used in the text to denote remainder: *śiṣṭa* and *śeṣa*. The nouns themselves are *śiṣṭam* and *śeṣam*, both neuter in gender; the nominal stems *śiṣṭa* and *śeṣa* are adjectival participles (more specifically, past passive participles). Both derive from $\sqrt{\text{śiṣ}}$, “to hurt, kill,” and also “to spare.” Regarding *śiṣṭa*, in addition to being from $\sqrt{\text{śiṣ}}$, another possibility of its derivation is also admitted: as from $\sqrt{\text{śās}}$, “to instruct, teach, command.”¹¹⁶ The two possibilities may be explained according to the Pāṇinian scheme in the following way: 1) $\sqrt{\text{śiṣ}}$ [kta] => śiṣ + ta = *śiṣṭa*; and 2) $\sqrt{\text{śās}}$ [kta] => śiṣ + ta = *śiṣṭa*. In both instances, the governing *pratyaya* is ‘kta.’ The *pratyaya*

¹¹⁵ The fact that the etymologies of these three terms are more or less obscure shows that they are understood primarily as vocables rather than semantic units. Nevertheless, attempts at etymologizing have been conducted in the case of *aṅgula* and *vitasti*. The first is tentatively traced to three phonetically and semantically similar verb roots: $\sqrt{\text{vaṅk}}$, “to mark,” $\sqrt{\text{vaṅg}}$, “to move, walk” and $\sqrt{\text{vāg}}$, “to move” (see Monier-Williams, *A Sanskrit-English Dictionary*, pp. 4, 7 and 8; and also Mantrini Prasad, *Language of the Nirukta* [Delhi: D. K. Publishers, 1975], p. 264). The etymology of *vitasti*, according to Monier-Williams, is probably from *vivtan*, “to stretch.” The text *Upādisūtra*, which specializes in derivations of words the etymologies of which are otherwise not traceable, gives a derivation of *vitasti* that is strictly morphological: *vi taseḥ ti* (see Apte, *A Practical Sanskrit-English Dictionary*, p. 1486). Regarding the etymology of *kiṣku*, the lexicographers are uniformly silent. Thus, it may be difficult to demonstrate the reference to the body of these three terms by means of etymology alone. But, “usage is stronger than derivation,” as Fritz Staal notes regarding the meaning of words, quoting the *Mīmāṃsā* dictum (Staal, “Māna” in Bäumler, ed., *Kalātattvakośa*, Vol. II, *Concepts of Space and Time*, p. 256).

¹¹⁶ See Apte, *A Practical Sanskrit-English Dictionary*, p. 1555. Sometimes $\sqrt{\text{śiṣ}}$ is understood as a weak form of $\sqrt{\text{śās}}$ (see Monier-Williams, *A Sanskrit-English Dictionary*, p. 1076).

'kta' has the primary function of deriving adjectival participles from verb roots. When added to the root of a transitive verb, as is the case here, it conveys two senses: 1) the action itself; and 2) the patient of the action.¹¹⁷ Thus *śiṣṭa* assumes a whole range of meanings, a few of which are: "the act of teaching" as well as "the teaching (itself)" in the sense of "that which is taught"; similarly "killing" and "sparing," as well as "that which is killed," and "that which is spared." That which is spared is the "remainder."

As has already been shown, *śāstra* also derives from *√śās*, "to teach, instruct." The governing *pratyaya* of its derivation is 'ṣṭran' (thus, *√śās* [ṣṭran] => śās + tra = *śāstra*). The basic sense of this *pratyaya* is instrumentality, that is, the means by which the action is performed.¹¹⁸ The instrumental dimension of *śāstra* as teaching or instruction ("rule") is reflected in this derivation. The fact that *śāstra* and *śiṣṭa* derive from the same verbal root *√śās* points to the simultaneous action of semantic vectors within its horizon that advance and counter instrumentality. In other words, *śiṣṭa* as remainder counters *śāstra* as command or instruction (rule, theory) in the instrumental sense. The dual meanings of *√śiṣ*, "to hurt, kill," and "to spare," may also be understood as corresponding to the same semantic vectors that advance and oppose instrumentality. It is also important to notice that the senses of teaching or rule as "that which is taught," and remainder as "that which is spared" (both non-instrumental and patientive) share the same signifier, *śiṣṭa*.

¹¹⁷ Hayes, *Saṃskṛtabhāṣāpravartanam*, p. 65.

¹¹⁸ Ibid., p. 63.

In *vāstuśāstra*, even though all the rules may be understood as containing this non-instrumental vector, the six formulae of *āyādi ṣaḍvarga* assume a special importance in this regard, because they are based specifically on the principle of remainder. Also, this is the sole instance in which a mathematical “factorization,” so to speak, of contingencies is attempted. However, this attempt at factorization is not of a functionalist vein, as was the case with the nineteenth century European theorist Gottfried Semper.¹¹⁹ On the other hand, the principle of remainder, the pivotal principle for these “equations,” itself has a metaphysical-cosmological basis. It is found in the following passage of the *Atharva Veda* (IX, 7. 1-3, trans. W. D. Whitney):

In the remnant [are set] name and form
 In the remnant [is set] the world;
 Within the remnant both Indra and Agni, everything is set together.
 In the remnant heaven-and-earth, all existence is set together;
 In the remnant, the waters, the ocean, the moon, the wind is set.
 In the remnant are the being one and the non-being one, both death, vigor,
 Prajāpati; they of the world are supported on the remnant.

The imperfection characteristic of existence is reflected in the temporal cycles we experience: the unequal solar and lunar cycles as well as the seasonal cycles owing to the obliquity of the earth’s axis. Residue or remainder is the effect of this imperfection. At the same time, it is the seed of continuance of these cycles, and, indeed, of existence itself. At another, but closely related, level, the potency of the residue stems from it

¹¹⁹ In his essay, “The Attributes of Formal Beauty,” Semper defined “style” as a “function.” He wrote (emphases original):

... there is ... a stylistic conception of what is beautiful in art – this considers the object not as a collectivity but as a unit, as the uniform *result* or *function* of several variable values that unite in certain combinations and form the coefficients of a general equation; by giving these variables the values appropriate to the particular case, one will arrive at the solution of the problem: $U = C(x, y, z, t, v, w, \dots)$.

He then goes on to list the “coefficients” of a work of art (see Semper, “The Attributes of Formal Beauty” [Manuscript 1856/1859], in Wolfgang Hermann, *Gottfried Semper: In Search of Architecture* [Cambridge, MA.: The MIT Press, 1984], pp. 241-42).

being the left-over of sacrificial offerings after their consumption by the gods. *Vāstuśāstra* engages the principle of residue in its astrological and alchemical bearings through the six formulae of *āyādi ṣaḍvarga*, so that architecture plays its reconciliatory role with imperfect existence. Thus, as Kramrisch comments, “*vāstu*, derived from *vastu*, . . . signifies residence as well as residue.”¹²⁰ In this process, the six formulae operate instrumentally at one level, as already shown, but not merely so. By virtue of the semantic affinity between rule and remainder outlined above, these formulae themselves exhibit a certain “residual” character within the larger corpus of *śāstraic* rules. Their non-instrumental character manifests precisely in enabling the reconciliatory role of *vāstu* by explicitly engaging the effect of imperfection which is the remainder.

5.3) *Vāstupuruṣa*: Geometry, Language and Body

The scheme of *padavinyāsa*, disposition of plots, has geometrical and linguistic dimensions, represented respectively by the grid of plots and names of deities that occupy the plots. Left to themselves, these two dimensions remain unreconciled; their reconciliation is possible only corporeally. This corporeality is supplied by the idea of *vāstupuruṣa*, literally, “spirit of *vāstu*,” whose “body” is stated in the text as contained within the delineated site with his different limbs occupying the various plots (Fig. 10). The *vāstupuruṣa* is described as *kubja*, hump-backed, and *kuṭilakṛśa*, crooked-bodied. He lies in the site face down and diagonally, with his head in the north-east and feet in

¹²⁰ Kramrisch, *The Hindu Temple*, Vol. I, pp. 37, 44-45. Also see Kramrisch, *The Presence of Śiva* (Princeton: Princeton University Press, 1981), pp. 52-68.

the south-west corners. His torso occupies the central plots of the figure; left and right arms and legs fall along the north to west, south to west, north to east and south to east peripheries respectively. The location of his vital organs such as *karṇa*, ears, *nāḍī*, artery, *śīra*, vein, *vaṃśa*, vertebrae (six in number), *hṛdaya*, heart, and *medra*, penis, are mentioned without always specifying the exact plot or line.¹²¹

This role of the body in the reconciliation of geometry and language, especially in the act of making, that the concept of *vāstupuruṣa* signifies has its foundation, above all, in the Vedic account of cosmogony. According to the *Puruṣa Sūkta* of the *Rgveda* (X, 90), the cosmos arises out of the sacrifice of *puruṣa*, primeval man. This cosmogonic principle established the homology between body on the one hand and sacrificial site and altar on the other in Vedic sacrificial ritual through the idea of *vāstupuruṣa*. The exposition of this idea is found in texts on Vedic ritual such as the *Śatapatha Brāhmaṇa*. Later mythological renditions of *vāstupuruṣa* in Purāṇic texts convey more or less the same idea, sometimes emphasizing the aspect of creation as the emergence of order out of chaos.¹²² In such accounts, *vāstupuruṣa* personifies chaos, whereas the deities who pin him down by sitting upon his various limbs are agents of order. In all cases, the homology between body and the object of making is maintained. This reciprocal identity between the two prevents a merely instrumental understanding of *padavinyāsa*, in the context of which *vāstupuruṣa* is mentioned. Geometry and language are reconciled in the body of the *puruṣa*, which is at once homologous with the site, the maker, and the patron. Both the symbolic and practical dimensions of *padavinyāsa* are

¹²¹ *Mānasāra* VII, 253-65. A shorter description is found in XXXV, 186-202.

¹²² For an exposition of the various accounts of *vāstupuruṣa* in the tradition, see Kramrisch, *The Hindu Temple*, Vol. I, pp. 67-84.

engaged in making, so that the object (settlement, building) not merely represents but fully embodies *puruṣa*.

5.4) Taxonomy: *Vastu*, Earth and *Vāstu*, Edifice

The taxonomy of particular architectural objects into different classes or types in the *Mānasāra* is preluded by a “definition” of architecture, followed by a general classification of its objects. In Chapter III, titled *Vāstuprakaraṇam*, “Elaboration of *Vāstu*,” the following verses expound this definition and classification (III, 1-3):

taita(ti)lāśca narāścaiva yasminyasmin paristhi(ṣṭhi)tāḥ |
tadvastu su(sū)ribhiḥ proktam tathā vai vakṣyate 'dhunā ||
dharā harmyādi yānam ca paryāṅkādi caturvidham |

Wherever gods and humans abide, that is *vastu*, it is thus stated by the wise sages; now, this is described. [Its classification is] in four ways: earth, buildings etc., conveyances and bed (furniture in general).

Each of the four categories are elaborated further. The earth is the primal *vastu*; edifices include *prāsāda*, temple, *maṇḍapa*, pavilion, *sabhā*, assembly (court), *śālā*, hall, *prapā*, water-pavilion, and *raṅga*, theatre. Conveyances include *syandana*, fast-moving chariot, *śibikā*, palanquin, and *ratha*, chariot.¹²³ Finally, the objects listed under furniture are *pañjara*, cage, *mañjalī*, swing, *mañja*, couch, *kākāṣṭha*, bedstead, *phalakāsana*, plank-seat, and *bālaparyāṅka*, small couch.

Even though *vastu* and *vāstu* are listed as simple categories, the ontological relationship between them is quite complex. Before giving the above mentioned list of

¹²³ *Yāna* literally means “vessel”; thus, ships and boats also may be included in this category, even though they are not explicitly listed.

specific objects under the category of *vāstu*, the text devotes the following verses in an attempt to explicate this relationship between *vastu* and *vāstu* (III, 4-6):

dharā pradhānavastu syāttatajjātiṣu sarvaśaḥ ||
vimānādīni vāstūni vastutaḥ vastusaṃśrayāt |
tānyeva vastu caiveti kathitam vastuvidbudhaiḥ ||

The earth should be the principal *vastu* among all kinds (species), universally. All [objects that are] *vāstu* such as *vimāna* (tower, or temple in general) and so on, in fact, [derive] in consequence of *vastu*. Indeed, they (*vimāna* and such) are said to be also ‘*vastu*’ by the enlightened knowers of *vastu*.

What is immediately striking in this passage is the “play” that involves the words *vastu* and *vāstu*, which are phonetically near-identical. The former is used independently and in compounds. The indeclinable particle *vastutaḥ*, “in fact,” is also deftly inserted, adding to the whole phonetic effect. This word-play and phonemic embellishment are, at one level, merely demonstrative of a certain literary flair.¹²⁴ Their import, however, runs much deeper.

The term *vastu* occurs four times here. Its first occurrence is in the compound *pradhānavastu*. Here, the sense of *vastu* is as “object, thing.” *Dharā*, Earth, is predicated to and identified as *pradhānavastu*, “principal object” (by means of *syāt*, the third person optative conjugate of *√as*, “to be”). Building on this predication, *vastu* again signifies Earth when it occurs in the compound *vastusaṃśrayāt*, “in consequence of *vastu*.” Its third occurrence is on its own, as a proper noun: as the technical name of the genus (Earth, or even “objects in general”) which applies also to the species (objects of human artifice). And finally, in the compound *vastuvidbudha*, the term

¹²⁴ For an analysis of this *śabdālaṅkāra*, literary ornament, effected by phonemic repetition, see Edwin Gerow, *Figures of Indian Speech* (The Hague: Mouton, 1971), pp. 64-67.

vastu signifies not only things in the genus and species mentioned above, but also their “essence.”¹²⁵

Both *vastu* and *vāstu* derive from the root *√vas*, “to dwell,” and also, “to be.” In both cases, there exists a semantic gap between the verbal root and the nouns in the process of their derivation; in other words, the derivation is merely formal.¹²⁶ This seemingly insignificant detail implies that the distinction between *vastu* and *vāstu* are, in the end, rather artificial and arbitrary from a strictly etymological point of view. However, by usage, the terms, especially *vastu*, have accrued quite a range of meanings. Thus, lexicographically, *vastu* has the following meanings: 1) a really existing thing, reality; 2) an object, thing in general; 3) substance, matter; 3) wealth, property; 4) essence, nature, pith; and 5) plot of a drama. *Vāstu* has the meanings of both site of building as well as the building itself.

The fact that the etymological distinction between *vastu* and *vāstu* is arbitrary demands that the specific meanings in which they are to be understood be “assigned” to them. This feature is found in the above lines. The text uses these terms first nominally as heads of categories. Then, in the course of “defining” them, it assigns particular senses

¹²⁵ The compound *vastuvidbudhāḥ* is primarily an appositional *karmadhāraya* and may be glossed as *vastuvitāḥ budhāḥ*, “the enlightened ones [who are] knowers of *vastu*.” The first component *vastuvid*, “knower of *vastu*,” is, in itself, an *upapadasamāsa*, “reduced word compound,” formed by adding the “reduced word” form of the verbal root *√vid*, “to know,” to *vastu*. The “knowledge” signified at this point is in the sense of “expertise” in *vastu*, its genus (Earth, things in general, building site) and species (architectural objects). On the other hand, the expansion of this compound by adding to it the term *budha*, “enlightened one,” (to form the compound *vastuvidbudha*) implies a higher knowledge that involves the ontology and metaphysics of things.

¹²⁶ According to the text *Uṇādisūtra*, which offers strictly morphological derivations of nouns the etymologies of which are semantically unaccountable, the respective derivations of *vastu* and *vāstu* from *√vas* are as follows: 1) *√vas* [tun] => *vas* + *tu* = *vastu*; and 2) *√vas* [tun] => *vās* + *tu* = *vāstu*. The *pratyayas* ‘tun’ and ‘tun’ simply denotes the adding of the syllable ‘tu’ to the root; the retroflex ‘ṇ’ in the second denotes that the vowel in the root is augmented besides (that is, ‘a’ becomes ‘ā’). Since there is no semantic dimension in either case, it is doubtful whether these are themselves *pratyayas* in the strict Pāṇinian sense.

to each. This assignment is authoritative: the fact that the optative conjugate *syāt*, “should be,” of the verb *√as*, “to be,” is used for the purpose attests it. Thus, *vastu*, first of all and in a general sense, is “wherever gods and humans dwell,” which is identified more specifically as *dharā*, Earth. Conversely, the Earth is the primary *vastu*, [architectural] object. This principle of *vastu* as Earth may be understood as implying the “givenness” of this world, which is the essential and existential precondition for dwelling. However, in order to dwell, humans must also build. By the creative intervention of humans, *vastu* is transformed into *vāstu*, the “setting” (that includes site as well as building) for ordered existence. In the *Mānasāra*, *vāstu* comprises “products” of human artifice, more specifically dwellings of gods and humans. *Vastu* is primary; *vāstu*, being derivative of *vastu*, is secondary. The Vaiśeṣika principle of *samavāya*, inherence of the universal in the particular, obtains in this relationship between the two: *vastu* being primary, inheres in *vāstu*.¹²⁷ This hierarchy is further emphasized in the statement that objects that are *vāstu* may also be called *vastu* (but not vice versa: that is, the Earth is never understood as *vāstu*). Despite this “sanction” allowed by the *vastuvidbudha*, those enlightened in the knowledge of *vastu*, the *Mānasāra* qualifies itself explicitly as a *vāstuśāstra* (and not as a *vastuśāstra*) in its title which is repeated in the colophon at the end of every chapter.¹²⁸ The significance of

¹²⁷ The explication of the relationship between *vastu* and *vāstu* in the *Mayamata* illustrates this point well (II, 1-3, trans. Dagens):

Experts call all places where immortals and mortals dwell, ‘dwelling sites’ (*vastu*). I present their different varieties which are four in number: Earth, temples, conveyances and seats. The Earth is the principal dwelling place because it is on Her that constructed dwellings (*vāstu*) such as temples have appeared and it is because of Her nature as site and because of the (temples’) union with (this site) that the ancients called them ‘dwelling sites’ in this world.

¹²⁸ In contrast, the treatise *Mayamata*, possibly utilizing the same sanction, calls itself a *vastuśāstra* in colophons at the end of each chapter. The use of *vastu* instead of *vāstu*, occurs again in the title of the chapter discussing the definition and classification of architecture (Chapter II, *Vastuprakārah*). Also in the text, edifices are mentioned sometimes as *vastu* and at other times as *vāstu*. The definitions of *vastu* and *vāstu* in the *Mayamata* (II, 1-3) are the same as those in the *Mānasāra*. Bruno Dagens takes notice of this particular tendency in the *Mayamata* (the frequent use of *vastu* instead of *vāstu*) but dismisses it as well as the difference in colophonic designation

this qualification is that it highlights the theological emphasis on the active role of human agency in making manifest the cosmic order and, indeed, the divinity itself.

In the phenomenon of classification of architectural objects that occurs throughout the *Mānasāra*, there is almost no explicit mention of the process or “act” of naming and classification occurs at one instance. In other words, the text supplies only lists of categories and the basis of classification in each case, and not actual descriptions of concrete encounters with the buildings. However, the phenomenological dimension of this taxonomy is contained in the names themselves, and can be accessed through their etymology and semantics. These reveal something of the mnemonic associations, emotional responses, and even metaphysical principles that are involved in the act of naming. The act of naming involved in the taxonomy is essentially poetic, and its mode of knowing, noetic: not only is a terse description of the characteristic features of the object captured in the name, but also an immediate, intuitive contact with and grasping of its very essence is attained.¹²⁹ The one instance where the text explicitly mentions the process or “act” of naming is illuminative of this crucial point. The classification of buildings as *sthānaka*, erect, *āsana*, seated, and *śayana*, recumbent, is stated as follows (XIX, 7-9):

between the *Mayamata* and the *Mānasāra* as mere indiscriminations by its authors: “The *Mānasāra* and the *Mayamata*, whose contents are identical, are designated in colophons as a *vāstuśāstra* and *vastuśāstra* respectively, which shows that these designations do not make for any reliable indication as to the content or originality of the works they are applied to” (Dagens, “Introduction,” *Mayamatam: Treatise on Housing, Architecture and Iconography*, Vol. 1, p. x, Note 2). This statement does not sufficiently explain the intentional designation of the *Mayamata* as a *vastuśāstra*. The import of such a designation of the *Mayamata* as a treatise on “dwelling” (as a process) with respect to the *śāstra*, “theory,” it purports begs to be further dwelled upon by its own scholars.

¹²⁹ Following this observation, it is clear that the sense of “building type” that is generated out of the exercise of taxonomy here is neither the instrumental nor the historicist sense of type posited respectively by the nineteenth century French architectural theorists, J. N. L. Durand and Quatremère de Quincy. For a brief discussion and critique of these latter (as well as their twentieth century renditions), see Carroll William Westfall, “Building Types,” in Robert Jan van Pelt & Carroll William Westfall, *Architectural Principles in the Age of Historicism* [New Haven: Yale University Press, 1991], especially pp. 144-51).

utsedhe māna(nam) gr(grā)hyam cetsthānakam tatprakathyate |
vistare māna(nam) samkalpya cāsanam tadudīritam ||
pariñāhe pade vāpi mānam śayanamīritam |

If the measure in the height is to be grasped, then it is known as *sthānaka*. And the measure having been imagined in the width, that is stated as *āsana*. The measure [perceived] in perimeter or even in foot (?) is pronounced as *śayana*.

According to these verses, the basis of this three-fold classification of buildings is the perception of a certain predominance of their height, breadth, or perimeter, over the other two.¹³⁰ The process of perception is indicated in the first line by the word *grāhya*, gerundive of *√grah*, “to grasp.” Its object is *māna*, “measure,” which is not the actual height, but a more “essential” entity that subsists in it (hence the locative, *utsedhe*, “in the height”). The process of naming, then, may be accounted for in the following way. The essential measure of the building is grasped as subsisting in the height, the basis of this grasping being a basic perception of the dominance of the height of the building over its horizontal dimensions. On the basis of this noesis, it is called *sthānaka*. The qualification of measure as “grasped” is absent in the second and third lines. Nevertheless, the naming of the other two classes also involve the same noetic process, as is indicated, if only inchoately, by the word *samkalpya* (gerund of *sam√kṛp*, “to wholly imagine”) in the second line.

¹³⁰ Since perimeter is dependent on breadth (in addition to length), the distinction between *āsana* and *śayana* as respectively the “dominance” of breadth over perimeter and vice versa must be understood not literally, but in terms of the relationship of the horizontal dimensions to height. Thus, the *āsana* building is squat, having maintained a balance between breadth and height. In *śayana*, the horizontal dimension dominates the vertical; thus the building is perceived as recumbent.

In cases where only the list of names of the various classes are given, the etymology and semantics of the names are resorted to in order to elucidate the phenomenological dimension of the process. Such lists of classes of architectural objects abound in the text.¹³¹ However, for the sake of brevity, the examples that follow are limited to the most general kinds of classification that illustrate the above point.

a) The pentadic classification of buildings according to breadth-height proportions:

i) *śāntika*, “pacifying” (in which height = breadth); ii) *pauṣṭika*, “invigorating” ($h = 1.25b$); iii) *jayada*, “conquering, overcoming” ($h = 1.5b$); iv) *adbhuta*, “wondrous” ($h = 1.75b$); and v) *sarvakāmika*, “satisfying all desires” (height = twice breadth). As is evident, these names denote certain emotional states that are the responses to or effects of particular breadth-height proportions. Also, in the Atharva Vedic tradition, some of these terms (notably *śāntika* and *pauṣṭika*) stand for certain ritual practices and associated *mantras* that are aimed at attaining particular “ends.” These ends may be subjective emotional states or objective situations (such as victory over enemy).¹³² Also, the Atharva Vedic treatment of *rasa*, pith, taste or flavor, in the context of its discussion of magical rituals and practices of alchemical bearing, finds its way into later śāstraic treatises on the arts (poetics, dramaturgy and so on) in a more “aesthetic”

¹³¹ In addition to listing the names of different classes or types of objects, the text, quite often, also gives synonymous terms that denote the same object. To mention one example: the synonyms for temple (dwelling of a deity) is given in XIX, 108-112 as *vimāna*, *harmya*, *ālaya*, *adhiṣṭhāna*, *prāsāda*, *bhavana*, *kṣetra*, *mandira*, *āyatana*, *veśma*, *grha*, *āvāsa*, *kṣaya*, *dhāma*, *vāsa*, *geha*, *āgāra*, *sadana*, *vasati*, *nilaya*, *tala*, *koṣṭha*, and *sthāna*. This feature qualifies it, in addition to being a śāstraic treatise of architecture, also as a veritable *nikhaṇṭu*, lexicon, of architectural terms.

¹³² On this point, see B. R. Modak, *The Ancillary Literature of The Atharva Veda: A study with special reference to The Parīṣiṣṭas* (New Delhi: Rashtriya Veda Vidya Pratishthan & Munishiram Manoharlal Publishers, 1993), pp. 26-27, 272-73, 318.

context. This is especially the case in the *Nāṭyaśāstra* of Bharata (dated c. 200 CE), the authoritative treatise on dramaturgy in the Indian tradition, which is also the first śāstraic treatise on the arts. In Chapter VI of the *Nāṭyaśāstra*, the theory of *rasa* as “aesthetically produced flavors” or “rhetorical sentiments” in the context of the science of drama is elaborated. The eight *rasas* are: 1) *śṛṅgāra*, erotic; 2) *hāsyā*, comic; 3) *karuṇa*, pathetic; 4) *raudra*, furious; 5) *vīra*, heroic; 6) *bhayānaka*, terrible; 7) *bībhatsa*, odious; and 8) *adbhuta*, wondrous.¹³³ Later thought added to these *śānta*, pacific, *rasa*.¹³⁴ It is evident that there is some overlap between the meanings of the names of classes of buildings mentioned above and the nine *rasas* of dramaturgy. The association of *śāntika* to *śāntarasa* and *adbhuta* to *adbhutarasa* is self-evident. There seems to be an association, albeit tenuous, of *sarvakāmika* to the *rasa* of *śṛṅgāra*. Similarly, there seem to be associations, more vague and therefore generic, of *pauṣṭika* and *jayada* to the *rasas* of *raudra*, *vīra*, *bhayānaka* and *bībhatsa*.

b) The four-fold classification of buildings according to the *hasta*, cubit, used for measurement (Chapter XIX) :

i) *jāti*, “the true state” (deriving from *√jan*, “to be born”), in which the *ghanurdaṇḍa-hasta*, cubit of 27 *aṅgulas*, is used; ii) *chanda*, “pleasing” (from *√chad*, “to seem good, please”) which uses the *ghanurmuṣṭi* of 26 *aṅgulas*; iii) *vikalpa*, “undecided, doubtful”

¹³³ *Nāṭyaśāstra* VI, 15. These eight *rasas* are derived out of eight corresponding *sthāyibhāvas*, “stable emotional states,” which are listed as follows (VI, 17): 1) *rati*, eros; 2) *hāsa*, mirth; 3) *śoka*, sorrow; 4) *krodha*, anger; 5) *utsāha*, vigor; 6) *bhaya*, fear; 7) *jugupsā*, disgust; and 8) *vismaya*, wonder.

¹³⁴ Its corresponding *sthāyibhāva* was named as *śama*, repose, cessation. Obviously, the term *śāntarasa* is oxymoronic, and its inclusion among the *rasas* led to endless controversies. It denotes a state in which the opposite aesthetic experiences of excitement and repose meet and are reconciled. In the thought of the Kashmir Śaiva theologian and aesthetic theorist Abhinavagupta, *śāntarasa* is, indeed, a state in which the poles of aesthetic and mystical (religious) experiences themselves meet and are reconciled. For a detailed treatment of Abhinavagupta's thought on *śāntarasa*, see J. L. Masson & M. V. Patwardhan, *Śāntarasa and Abhinavagupta's Philosophy of Aesthetics* (Poona: Bhandarkar Oriental Research Institute, 1969).

(from *vivṛīp*, “to be undecided”) using *prājāpatya* of 25 *āṅgulas*; and iv) *ābhāsa*, “fallacious appearance” (from *āvbhās*, “to appear”), using the smallest *hasta*, cubit, the *kiṣku* of 24 *āṅgulas*). These names denote the metaphysical order of descent from the real to the illusory, which, in turn, serves as a foundation for more practical concerns of hierarchical organization. The most pervasive among them is the organization of the society itself, according to the *caturvarṇa*, four-tiered class scheme.¹³⁵

c) The six-fold classification of buildings based on horizontal composition:

1) *daṇḍaka*; 2) *svastika*; 3) *maulika*; 4) *caturmukha*; 5) *sarvatobhadra*; and 6) *vardhamāna*. Here, the semantics of the names almost always directly describe the form of the building. *Daṇḍaka* is “rod-like,” being a single rectangular building block; and *svastika* is “plough-shaped” (L-shaped, or sometimes cross-shaped), being comprised of two blocks interconnected at right angles. In the case of the *maulika* type, the connection between meaning and form is not as direct; it takes a stretch of the imagination to even tentatively suggest it. The meaning of *maulika* is both “head, top, crown,” and “root” (and deriving from the latter, “radical, principal,” as well). The form of this building type, which has three blocks around a front-yard, is that of an

¹³⁵ The textual legitimation of the *caturvarṇa*, “four-tiered class” (*varṇa* literally meaning “color”) finds its source in the *Puruṣa Sūkta* of the *R̥gveda* (X, 90), which states that the Brāhmaṇa, priestly, Kṣatriya, royal, Vaiśya, merchant, and Śūdra, servant, classes are generated respectively from the mouth, arms, thighs and feet of the *Puruṣa*, cosmic man. The textually legitimized hierarchy of *caturvarṇa*, and its actual practice (which is extant even today) as *jāti*, “caste-system,” have been topics of much scholarly interest and controversy in Indology. Louis Dumont, a social anthropologist, uses the hierarchy (in both its textual and actual renditions) to argue for a “hierarchical imperative” in human societies (with the qualification that “hierarchy” need not necessarily imply “power” in a post-structuralist sense), against the dominant egalitarian ideologies of the post-Enlightenment epoch (see Dumont, *Homo Hierarchicus: An Essay on the Caste System*. Trans., Mark Sainsbury [Chicago: The University of Chicago Press, 1970]). Wilhelm Halbfass agrees with Dumont’s basic thesis; he also seeks to bring to light the traditional understanding of the caste-system through the categories of the Vaiśeṣika and Mīmāṃsā schools (see Halbfass, “*Homo Hierarchicus: The Conceptualization of the Varṇa System in Indian Thought*,” in Halbfass, *Tradition and Reflection: Explorations in Indian Thought* (First Indian Edition, Delhi: Sri Satguru Publications, 1992), pp. 347-90).

inverted 'U,' and is imagined as resembling a crown (as it sits on the head). Its feature of having two flanks evokes also the image of roots. In the case of *caturmukha*, "four-faced," the direct relation is resumed: it describes a building that has four blocks around a courtyard. *Sarvatobhadra*, "auspicious or pleasant from every side," is the building that has seven blocks around two courtyards; its auspiciousness stems from the symmetry of the composition, in reference to the block between the two courtyards.¹³⁶ *Vardhamāna*, "growing, increasing," describes the building with ten blocks enclosing three courtyards, the composition obtained by the "growth" of *sarvatobhadra* by three more blocks.

5.5) *Parīkṣa*: Perception and Observation

In Chapter V, *Bhūparīkṣāvidhānam*, "Procedures for Examination of Site," the text mentions certain tests that ascertain the quality of the soil and thereby the suitability or unsuitability of the site for building. The first is as follows: a sample of the soil from the site is filled in a pot and manured with cow-dung. Seeds of all sorts are sown in the pot, and their sprouting and growth are observed.¹³⁷ The next test is described thus: a pit of one cubit is dug in the site and filled with water. The following day, the water level is observed. If there remains some water in the pit, the soil is considered firm and fit; if it has disappeared, the soil is unfit. The same test is further extended: the earth

¹³⁶ In poetics, *sarvatobhadra* is a figure of formal composition that stresses axial symmetry. It is defined as "a verse having the same number of lines as syllables, which can be read backwards and forwards both horizontally and vertically" (Gerow, *Indian Figures of Speech*, p. 189).

¹³⁷ *Mānasāra* III, 4-9.

that was dug out of the pit is shoveled back into it. If the pit is not filled, the soil is considered not firm; if the soil fills or exceeds the pit, it is considered good.¹³⁸

These tests are, at best, quasi-scientific, and based entirely on perception and experience. Even the results of the observation are stated not so much in “scientific” terms but in terms of consequences such as loss of wealth, destruction and so on. Also, even though there is a degree of “experimenting urge to facts” detectable in these operations, there is no “mathematical skipping of facts” that precedes them which would qualify them as experiments in the modern scientific sense.¹³⁹

6. Rules: Description and Prescription

The predominantly prescriptive tone of śāstraic rules has been pointed out. A closer hermeneutical reading of the text, however, reveals a subaltern current of description that runs through the corpus of rules. This prompts a revision in the understanding of vāstuśāstraic rules. According to this more precise understanding, śāstraic rules are fundamentally descriptive, with prescription as its adjectival qualification. In other words, they are, by nature, “prescriptive descriptions.”¹⁴⁰ Thus, in the case of rules in

¹³⁸ *Mānasāra* III, 20-26.

¹³⁹ See Martin Heidegger, “Modern Science, Metaphysics and Mathematics,” in David Farrell Krell, ed., *Martin Heidegger: Basic Writings* (San Francisco: HarperSanFrancisco, 1992), especially p. 292.

¹⁴⁰ Bruno Dagens uses the formulation “descriptive prescriptions” when he talks about the morphology (“written form”) and ontology (nature) of theory in the *Mayamata* (Dagens, “Introduction,” *Mayamatam: Treatise of Housing, Architecture and Iconography*, p. ci). He does not qualify this statement by making distinctions within the body of śāstra itself such as principles and injunctions, but treats it as a uniform entity. At first sight, the distinction between “prescriptive description” and “descriptive prescription” may seem trivial and lead one to think that the latter is also an accurate formulation. This is not the case, however. In Dagens’ formulation of “descriptive prescription,” the assumption is that the śāstraic rules are primarily, by nature, prescriptive. If this is indeed the case, its descriptive dimension is, in the final analysis, contingent and superfluous: that is, it is not necessary and can be dispensed with. On the other hand, the grammatical analysis above shows that śāstraic rules of nomology and taxonomy are, by nature, descriptive. The prescriptive dimension is only a secondary (albeit necessary) one. Ritual and technical injunctions, on the other hand, are simply prescriptions, albeit subtending the descriptive dimension

the form of *sūtras* and *lakṣaṇas*, the morphological analysis has demonstrated the śāstraic intent of authorization of the “already existing” as canonical by means of the declarative verbs. This very need to authorize arises because the accounts of the already existing are primarily descriptive by nature.¹⁴¹

Again, the morphological analysis has shown the use of *vidhi* ‘liṅ’ or the optative mood to express ritual and technical injunctions. As noted then, the predominant tone of the optative or potential mood is that of prescription.¹⁴² According to Sanskritists, the potential mood covers a range of senses of subtle distinction: 1) *prerana*, command (persuasion); 2) *nimantrana*, direction; 3) *āmantrana*, invitation; 4) *adhīṣṭha*, expression of wish; 5) *samprakṣṇa*, interrogation or inquiry (or courteous questioning); and 6) *prārthanā*, prayer.¹⁴³ As is seen, there exists a certain reciprocity and fluidity between these senses of the optative mood, from command to wish to supplication.¹⁴⁴ Thus, in itself, a verb inflected in the optative holds the potential to be interpreted in more than one way with respect to its sense. In other words, even though the dominant tone of the optative mood is prescriptive, it still allows for the dialectic between description and prescription.

within them. Expressing this descriptive dimension adjectivally, as Dagens does, is not inherently necessary and therefore may only have a rhetorical value.

¹⁴¹ This descriptive dimension is captured in the semantics of the term *lakṣaṇa* itself, which means “sign, mark, symbol, characteristic feature, attribute, quality.” For a full treatment of its etymology and semantics, see K. D. Tripathi, “Lakṣaṇa,” in Bettina Bäumer, ed., *Kalātattvakośa: A Lexicon of Fundamental Concepts of the Indian Arts*. Vol. I: *Eight Selected Terms*. Kapila Vatsyayan, gen. ed. (New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass Publishers, 1988), pp. 135-44.

¹⁴² T. S. Maxwell calls this particular inflection of verbs, “in the quasi-imperative terms of the optative,” the “śāstric (śāstraic) form” (Maxwell, “*Silpa* versus *Śāstra*” in Anna Libera Dallapiccola, ed., *Śāstric Traditions in Indian Art*, p. 10).

¹⁴³ H. H. Wilson, *An Introduction to Sanskrit Grammar of the Sanskrit Language* (London: J. Madden and Co., 1841), pp. 110-12.

¹⁴⁴ What fixates (or rather, “gathers”) this fluidity around a specific sense is of course, the context of its usage in the text itself, which in turn is situated relationally in its own world.

The other dominant feature of śāstraic injunctions that was brought to attention earlier is the proliferate use of action verbs in their causative conjugate form. A historical study of the syntactics of causative construction and their semantic import yields some surprising insights that qualify (and, at times, even counter) the senses of hierarchy and instrumentality that are usually associated with it.

As noted in the earlier analysis, the inflection of the verb in the causative form indicates that “one agent prompts another agent to perform the action named by the verb root.”¹⁴⁵ In a causative construction, the agent that does the prompting, known as the *prayojaka*, “prompter,” is considered to be both the *hetu*, cause,” as well as the *karṭṛ*, “agent” of the action.¹⁴⁶ The patient of the causative verb when the verb is intransitive, one of motion, or one that denotes an act of knowing (for example, √*rj*, “to shine”; √*gam*, “to go”; and √*jñā*, “to know,” respectively) is the agent of its primary (that is, non-causative) form. This patient (known as “causee” in modern linguistic analysis of causative constructions) is always marked in the accusative case. When the verb is transitive, the patient of the causative verb is, again, the agent of its primary, non-causative, form; but in this instance, it is marked in the instrumental case. However, two verbs, √*kr*, “to do, make,” and √*hr*, “to carry,” allow a choice between the accusative and instrumental cases for marking the patient of their causatives.¹⁴⁷

¹⁴⁵ Richard Hayes, *Saṃskṛtabhāṣāpravartanam*, Chapter 9, “Causative Verbs,” p. 128.

¹⁴⁶ *Kāśikavṛtti* 1. 4. 55; quoted in *Ibid.*

¹⁴⁷ *Ibid.*, p. 130. Of course, the laying down of rules by the grammarians is part of an a posteriori formalization of the language (which in Sanskrit occurred around the treatise *Aṣṭādhyāyī* of Pāṇini during the late Vedic-early Classical period), and per se, does not account for its historical development. Thus, it cannot be simply taken for granted that causative constructions involving transitive verbs always existed and their patients were marked in the instrumental case. Modern linguistic studies in Sanskrit have addressed this issue, that is, tracing the development of particular features of the language. Such a study of causative constructions is conducted by the linguist Hans Heinrich Hoch. In his paper titled “Sanskrit Causative Syntax: A Diachronic Study,” he investigates the origin of the Sanskrit causative and its use in the various phases of development of the language from the Vedic

Even though this feature with respect to these two verbs, in the way it continues to exist in later Sanskrit, may be seen as a “lexically determined archaism,”¹⁴⁸ it has a profound semantic connotation: that of the surviving non-instrumental sensibility even within the hierarchization and instrumentalization brought about by text and ritual. It is not by accident that much of the activity that happens at a building site falls within the semantic purview of these two verbs.¹⁴⁹ Consider the example (VI, 7):

sthāpanātpūrvadivase sthalaśuddhim prakārayet |

[The *sthapati*] should cause to perform the purification of the place [of erection]¹⁵⁰ on the day before the erection [of gnomon].

The verb is *prakārayet*, the causative-optative of *√kr* in the third person singular. Its patient is *sthalaśuddhi*, “purification of the place (of erection of gnomon),” declined in

to the classical. Hock observes that in the earliest Rgvedic Sanskrit (comprising mostly of hymnal compositions), the class of verbs that permitted causative formation consisted of 1) intransitives; 2) semi-transitive verbs of motion; and 3) “affected agent” transitives (examples of these classes are respectively: 1) *√vrdh*, “to grow”; *vardhayati*, “[he] makes grow”; 2) *√vrt*, “to turn”; *vartayati*, “[he] makes turn”; and 3) *√vas*, “to wear”; *vāsayati*, “[he] causes to wear”). In these instances, the causee, when attested, appeared in the accusative case. In later Vedic language (such as the literature of the *Atharva Veda* which contains among other things, incantations and magical formulae) there was an increase in causative constructions, and the class of verbs that were used expanded to include non-affected agent transitive verbs (for example, *√dā*, “to give”; *dāpayati*, “[he] causes to give”) as well. Syntactically, however, there was no significant change in this stage: the causee was still marked in the accusative. During the period of Vedic prose Sanskrit (characterized by the emergence of the ritual texts of the *Brāhmaṇas*), more new verbs (of all the classes mentioned above) began to be used in causative constructions. It was in this stage that the causees of transitive verbs (of both the affected agent and non-affected agent classes) began to be marked in the instrumental (as an alternative to the accusative) case for the first time. This was true for both animate and inanimate causees. According to Hock, this significant innovation of marking causees in the instrumental case arises from a reinterpretation mainly of animate “instrumentals of means” as the agent of the primary (non-causative) verb. This development was made possible by the fact that there was often room for causees to be not specified on the surface, leaving the causee slot empty as it were. Hock also notices that the marking of a causee (especially animate) in the instrumental case over and above the accusative points to a condition of its “reduced agency.” In such a condition, the causee becomes more a passive instrument than an active agent (see Hock, “Sanskrit Causative Syntax: A Diachronic Study,” in *Studies in Linguistic Sciences*, Vol. 11, No. 2 [Fall 1981], pp. 9-33). In other words, the causee is the locus of convergence of the opposing vectors of activity (at the level of the primary verb) and passivity (at the level of its causative derivation).

¹⁴⁸ The condition of reduced agency can be inferred only from actual situations, and hence this feature of instrumental marking is, according to Hock, “pragmatically determined” rather than “lexically determined.” The two instances of *√kr*, “to do, make,” and *√hr*, “to carry,” as verbs retaining a choice between the instrumental and the accusative cases to mark their causees are then, an “archaism” of lexical determination (*Ibid.*, p. 33).

¹⁴⁹ The verb *√kr*, “to do,” in its causative-optative conjugation is found quite frequently throughout the text in the context of ritual and technical injunctions. On the other hand, *√hr*, “to carry,” is seldom found in the text. However, it is easy to imagine that this verb indicates one of the most frequent activities taking place at a medieval building site.

¹⁵⁰ *Sthalaśuddhi* as “purification of place” has both ritual and practical connotations.

the accusative case. In the sentence, the agent of the verb in its primary, non-causative form (who would probably be an *anucara*, subordinate, of the *sthapati*) is not specified; in other words, the slot of the causee is empty. This slot can be filled in two ways in the case of the verb *√kr.* by declining the causee in the instrumental case and in the accusative case. They would read respectively as . . . *sthalaśuddhim anucareṇa prakārayet*, and . . . *sthalaśuddhim anucaram prakārayet*. In the first, the causee (the *anucara*, subordinate) is simply an instrumental of means and therefore in the state of reduced agency. In the second, however, while taking the order from the *sthapati* and carrying it out, he is not simply an instrumental of means, but is “actively participating” in the process (in the sense of somehow being transformed by it).¹⁵¹

The manner in which the notions of description and prescription as the dual dimensions of *śāstra* are treated is not always consistent in the *Mānasāra*. This is most evident in the relationship between titles of chapters and their contents, and between titles themselves. Every chapter-title (except the first, which is called *Samgrahaḥ*, “Summary”) has as suffix either one or the other of the two terms, *lakṣaṇa* and *vidhāna*. The term *lakṣaṇa*, as is already seen, denotes description of characteristic features. *Vidhāna*, “arrangement, planning,” and also “precept, rule (that regulates the arrangement),” is semantically close to *vidhi*, injunction, both of which derive from the

¹⁵¹ Causative verbs, as already noted, indicate a “chain of command,” that is, the first party prompts the second party who prompts the third party to act. In this case, the intermediary agent is regarded as *karaṇam*, “instrument” (Hayes, *Samskr̥tabhāṣāpravartanam*, p. 131). It is not difficult to imagine this situation in a building site, given the hierarchical structure of the guild, and its subordination to the *sthāpaka*, priest. However, as Hayes notes, in linguistic accounts themselves the chain of command is a “thankfully rare” occurrence. In imagining the actual situation of the building site, one must always keep in mind the self-transformative aspect of the ritual and technical operations, which are stipulated to be conducted throughout meditatively.

Similarly, in instances of causees that are inanimate (such as the use of tools), there is no parallel linguistic expression per se that points to a non-instrumental sensibility at work. Again, that must be inferred from the stipulations in the text that assign tutelary deities to measurement and tools, and the insistence of a meditative state of mind in their use. These have already been discussed at length in the previous chapter.

same root *vi√dhā*, which has a range of meanings, from “dispose, arrange,” to “ordain, prescribe.” *Vidhānam* thus denotes prescription. In chapter-titles, these two terms, at first, seem to be used with a certain discretion: the suffix *vidhāna* occurs in titles of chapters dealing with architectural or iconographic composition (for example, *Lingavidhānam*, “Composition of *Līṅga*”) and *lakṣaṇa*, in titles of those describing characteristics, as for instance, the chapters on iconology (LIV – LXIII). However, one notices an almost “playful” flip in this consistency occasionally yet markedly – playful in that it is seen to occur in the titles of consecutive chapters that have identical contents – suggesting in intent a degree of equivocation and fluidity between the senses of description and prescription. The *Mānasāra* being a lengthy treatise consisting of seventy chapters, there is sufficient room among the chapters for such a “play.” A few mentions of these here suffice to illustrate the point: Chapter IX is *Grāmalakṣaṇam*, “Description of Village,” and X, *Nagaravidhānam*, “Composition (Planning) of Town”; Chapter XIV is *Adhiṣṭhānavidhānam*, “Composition of Socle,” and XV, *Stambhalakṣaṇam*, “Description of Column”; LIV is *Śayanavidhānam*, “Composition of Bedstead”; and LV is *Simhāsanalakṣaṇam*, “Description of Throne.” This “play” or slippage also suggests that the suffix (*vidhāna* or *lakṣaṇa*) does not always correspond to the actual content of the chapter. For example, in the title of the final chapter, *Nayanonmīlanalakṣaṇam*, the suffix used is *lakṣaṇa*. However, the content of the chapter is not so much a “description” but rather a series of injunctions (prescriptions) for the rituals constituting the ceremony of opening the eye of the image within which the technical operation of chiseling its eye is set.

7. Paryanta, Limits, of Śāstra

In the *vāstuśāstra* of the *Mānasāra*, the overarching mantle of prescription, which nevertheless admits a dialectic with description, corresponds to a similar structure and dynamic between the ritual and technical dimensions of making. That is to say, although *vāstuśāstra* expounds the aegis of ritual as pervading all activities at a building site, it still admits a distinction – one of degree and not of kind – and thereby, a dialectic as well, between the ritual and technical dimensions of making. In the text, on the one hand, it is seen that *śāstra* or theory-as-rules, through numerous distinctions and specifications, attempts relentlessly to regulate even the minutiae of practice. On the other hand, in this very enterprise, *śāstra* finds itself constantly at its own limits: it makes exceptions to rules, allows alternatives or often issues statements that are, at best, very generic, thereby granting the practitioners some degree of freedom and license in exercising their imagination and judgment to make critical decisions at the site. The expression *yathoktavat*, “the rest as said,” is often found in the text, which leaves to the discretion of the *sthapati* matters that are not stipulated by specific injunctions.¹⁵² Other than the common expression just mentioned, there is a whole array of tropes by which the limits of *śāstra* are acknowledged in the text. It is a fruitful exercise to explore them.

¹⁵² For instance (LXX, 110): *śeṣamaṅgam yathoktavat* | This expression can be interpreted as referring to the oral tradition prevalent among the practitioners by which practical knowledge was transmitted to posterity. At the same time, the expression may also be understood as an attempt towards a blanket assimilation of the oral tradition within the śāstraic textual tradition.

Dagens interprets a similar expression in the *Mayamata* which says *yathā yukta yathā śobham* as that “structure” within *śāstra* that allows the *sthapati* “right to originality” (Dagens, “Iconography in the *Śaivāgamas*,” in Dallapiccola, ed., *Shāstric Tradition in Indian Arts*, p. 152).

In the system of architectural measurement, among the units, the *kiṣku* or *hasta*, cubit, is further distinguished into four kinds: *kiṣku*, *prājāpatya*, *dhanurmuṣṭi* and *dhanurdaṇḍa*, comprising respectively 24, 25, 26 and 27 *aṅgulas*, digits. The text goes on to stipulate the particular “application” of each of these as follows (II, 54-57):

*yane tu śayane caiva kiṣkuhastena mānayet ||
vimānasya tu sarveṣām prājāpatyena mānayet |
mānayedvāstu yaṁmānam dhanurmuṣṭikareṇa ca ||
grāmādīnām na mānānām (ca sarveṣām) mānayet taddhanurgraham |*

In the carriage and couch, [the *sthapati*] should cause to measure by means of the *kiṣku* cubit. And of *vimāna* and all, he should cause to measure with *prājāpatya*. And he should cause to measure *vāstu* with that measure [which is] *dhanurmuṣṭi* cubit. Of villages etc. and all such, he should cause to measure [with] *dhanurgraha*.

There is a genuine attempt here to specify the object for each kind of cubit. However, the terms *vimāna* and *vāstu*, used to name the objects of the two middle cubits, admit a certain fluidity in their meanings. *Vimāna* in general means any measured object, and can denote conveyance, flying machine, building (specifically temple), and tower above sanctum of temple.¹⁵³ Similarly, *vāstu*, as already seen, means architecture in general, including delineated site, building, conveyance, furniture, and even village or town. In the light of this fluidity in meaning of these intermediate terms, the specificity effected by the naming of an object for the application of each kind of cubit is only an apparent one: for instance, the *dhanurmuṣṭi* can be used to measure conveyances, buildings as well as villages. If at all to endorse this point, one of “exception,” the text further states that the *kiṣku* also may “optionally” be used for the measurement of all these objects (II, 58):

¹⁵³ See Acharya, *Dictionary of Hindu Architecture*, “*Vimāna*,” pp. 551-56.

kiṣkuhastena yanmānam mānayetdviśvatastu vā ||

But he should optionally measure that measurement [already mentioned] everywhere by the *kiṣkuhasta* (*kiṣku* cubit).¹⁵⁴

In Chapter IX, *Grāmalakṣaṇam*, “Description of Villages,” the text stipulates the basic class or type of *daṇḍaka* village as that fit for the habitation of Brāhmaṇas. Further distinctions are made and their names specified in the *daṇḍaka* type based on several criteria: 1) the particular state of life adopted by the Brāhmaṇas inhabiting it (*maunin*, “silent anchorite,” *yati*, “hermit,” *dīkṣita*, “initiated”); 2) location (river-bank, mountain-top and so on); and 3) number of inhabitants. After this rigorous taxonomic exercise, the text states thus (IX, 124-125):

anyeṣām viprasamkhaiśca yatheṣṭam nāma [pra]kalpayet ||
anyānyanuktam[kṭāni] sarveṣām śāstramārgeṇa kārayet |

Of all other [villages], and by the groups of Brāhmaṇas, he should determine [their] name according to [his] liking. Of all others that are not stated [here], he should cause to do by way of *śāstra*.

The first line contains the expression *yatheṣṭam*, “according to [one’s] liking,” which implies a freedom of choice in the process of naming.¹⁵⁵ The second line admits that all

¹⁵⁴ The sentence is rather muddled grammatically, indicating, perhaps, the relative difficulty in expressing statements of exception. Also interesting in this sentence is the presence of two adversative particles: *tu*, “but,” and *vā*, “or.” The latter also has the meanings of “as well as,” “optionally,” and “indeed.”

¹⁵⁵ This usage *yatheṣṭha*, “according to [one’s] liking,” and its variant *yathēccha*, “according to [one’s] desire,” is found elsewhere also, in the same chapter. For instance, after stipulating rules for the employment of schemes of plot-disposition in the planning of villages, the text states (v. 419):

tadyadheṣṭapadam śilpi(śilpī) grāme ca parikalpayet |

The *śilpin* (artisan) should determine in the village that plot [-scheme] [which is] according to [his] liking.

Regarding the location of temples outside the precincts of the village, the text states (v. 398):

evamantargatāndevān bahiraṅge yathēcchayā ||

Thus [is stated the location of temples of] the gods within [the precincts of the village]; [those] in the outer part, [the *sthapati* should locate] according to his desire.

the specifics regarding the taxonomy of villages for Brāhmaṇas is not exhausted here, and directs the *sthapati* to deal with them “by way of *śāstra*.” The context of this usage informs that *śāstra* is understood here at best in a loose and generic sense; the specificity it alludes to on the surface is only a pretense.¹⁵⁶

Again, in the same chapter, after giving a lengthy account of disposition of buildings in the eight classes of villages, the text makes the following statement (IX, 496-501):

*atha paurāṇike grāme saṁdigdhe vāstu nirṇayet ||
rakṣito grāmaṁ vinyāsam (saḥ) śāstre yuktam viśeṣataḥ |
purātaneṣu grāmeṣu devatā cotsavārthakam ||
nirvāstu yatra tatra syādvāstunirṇāyamiṣyate |
paurāṇyām (nye) devatāharmyam sarvathā 'pi na kārayet ||
tasmāttadanusareṇa kuryātvāstunirṇayam |*

Now, [when] in doubt, [the *sthapati*] should determine [the location of] buildings [as done] in an ancient village. The preserved disposition of the village is especially enjoined in the *śāstra*. In ancient villages, gods [were installed] for the sake of festivals. Wherever [there was] no building, there should be determined (located) buildings, it is said. In an ancient [village], he should not cause to make, at all times, edifice for the gods (temple). Therefore, in accordance with that he should conduct the determination of buildings [in the village].

This account is too fragmentary to reconstruct a full picture of the context of discussion.

On the one hand, it seems to concern planning interventions in an already existing village: its “expansion” while preserving the existing order (the third line instructs to

This oblique identification of the delineated and ordered village as the “realm” of *śāstra* and its rules, and the “outside” as that of one’s personal opinions and likings, as well as the implicit privileging of the former over the latter, are quite symptomatic of the *śāstraic* mindset.

¹⁵⁶ Acharya translates the second line thus: “All those things which are not specified here should be made according to the rules of the *Śāstra* (i.e. local custom).” His interpretation of “rules of *śāstra*” as “local custom” is quite an arbitrary one: there is nothing in the line or the context itself that connotes even obliquely a geographically based custom. On the other hand, to self-consciously found architectural theory (even its marginal, “unspecified” aspects) on “custom,” thereby unsettling it from its metaphysical foundations, is a modern project which has its origins in the writings of the seventeenth century French architect and theorist Claude Perrault. For a detailed treatment of this topic, see Lily Chi, *An Arbitrary Authority: Claude Perrault and the Idea of Caractère in Jacques-François Blondel and Germain Boffrand* (Montreal: School of Architecture, McGill University, Ph. D. Dissertation, 1997). Acharya seems to be unwittingly under this modern influence in his translation.

adopt the strategy of “infill”). On the other hand, the first line seems like an instruction to the *sthapati* to turn to the object of the ancient (yet living) tradition of practice – that is, an ancient village – when he is “in doubt” regarding some planning precept. In other words, the object is included as a source of *śāstra* instruction. The second line makes a claim to this effect, that the domain of *śāstra* extends beyond rules to its object as well.¹⁵⁷ This may be understood as another, albeit indirect, way of acknowledging the limits of *śāstra* as rules stipulated in the text.

Similarly, in Chapter X, titled *Nagaravidhānam*, “Planning of Towns,” the following verse, found towards the end, grants freedom to the *sthapati* to exercise his discernment (X, 115):

vastuvāṇīyam(vāstuvinyāsamiti) jñātvohāpohena yojayet |

[The *sthapati*], having known the [aforesaid rules for] disposition of buildings [in the town], should, by fully considering the pros and cons, cause to enjoin [them].

The term *ūhāpoha* is a compound of *ūha* and *apoha*. The meaning of *ūha* ranges from “change, modification,” to “guess, conjecture,” “examination and determination” and “(analogical) reasoning.”¹⁵⁸ *Apoha* derives from *√apoh*, “to remove, dispel” and “to

¹⁵⁷ One detects a degree of historical consciousness in this account, no matter which of the two interpretations is chosen. In his translation, Acharya magnifies this historical consciousness far beyond its proper limits:

Thereafter, in case of doubt, the disposition of buildings should be in accordance with the custom obtaining in an ancient village; but the (future) expansion of the village should be (always) kept (in mind); this is particularly enjoined in the *Śāstra* (science of architecture); besides in ancient villages gods were installed only on the occasion of a special festival, and open spaces (lit. devoid of houses) used to be left anywhere and everywhere (i.e. without any special object in view), while (now) the disposition of houses (in proper quarters) is (specifically) wanted; in fact in an ancient village a (permanent) temple of a god was not invariably built (as is the practice now-a-days); therefore, in accordance with this criterion, the disposition of houses should be carried out (Acharya, *Architecture of Mānasāra*, p. 90).

Terms such as (again), “custom” and “future expansion,” and the sharp contrast drawn between past and present, old and new, all ring an unmistakably modern note, one that is alien to the context of the *Mānasāra*.

¹⁵⁸ *Ūha* derives from *√ūh*, “to note, mark, observe,” also “to guess” as well as “to reason, deliberate.”

deny,” as well as “to reason by way of negating,” and means, in the opposite sense of *ūha*, as “removal of doubt” and “negative reasoning.” The compound *ūhapoha* has the overall sense of a “reasoned consideration” of all available options in a given situation. Nevertheless, there exists within it also the (more intuitive) sense of an “informed guess” regarding which option is the most appropriate in that situation, that serves to free the decision-making process from the shackles of rigid, rule-bound, determinism.

The final verse of Chapter XII, Garbhavinyāsavidhānam, “Planning of the Disposition of Foundation,” reads thus (XII, 218):

anuktam karma yadyastu svagrhe tvāsa(ga)moktavat ||

But [the *sthapati* should conduct] that action which is not specified here according to what is said in the tradition in [his] own house (guild).

The phrase *svagrhe āgamoktavat*, “that which is said in the (inherited) tradition in one’s own house,” admits, again, a source of instruction outside the strict realm of śāstraic rules in the treatise. Nevertheless, even in this phrase, the term *āgama*, which has also the meanings of “sacred text” as well as “theory,”¹⁵⁹ is used, indicating that the particular “tradition” (which may be interpreted as “practical wisdom”) that pertains to the *sthapati*’s household (guild) acquired through practice still falls within the overall framework of “theory.”

In Chapter XIX, Ekatalavidhānam, “Planning of Single Story [Building],” towards the end, there occurs this verse (XIX, 258):

¹⁵⁹ *Āgama* in this sense is understood as synonymous to *śāstra*. Its basic meanings are “arrival,” and also “acquisition, accumulation.” Acharya translates *āgama* as “custom.”

ekabhūmim kuryādadhikam copapīḍha(dham) rucirārtham samyutam |

[The *sthapati*] should make [an] additional socle jointly [with] the single-story [building], for the sake of appearance (beauty).

The root verb of *rucira* is *√ruc*, “to shine, look beautiful”; the verbal noun *rucci* means “splendor, appearance, beauty,” and also “taste, relish.”¹⁶⁰ The norm for the single-story building is to provide one socle; however, the text allows the option of an additional socle if it is deemed “beautiful” or “tasteful.”¹⁶¹

These statements of exception are mentioned usually towards the very end of a chapter which may be seen as a “spatial” means employed by the text to denote the limits of theory. In any chapter, first, the rules pertaining to the topic of discussion in that chapter is rigorously laid out; then a series of good effects (such as longevity and prosperity) when the rules are followed, are arrayed. Following this, admonitions of dire consequences (loss of wealth and health, even death and destruction) if the rules are not followed are stated. This same general structure obtains to a certain degree in the chapterization of the treatise as well: the admonitions coalesce into a whole chapter – the penultimate chapter – titled *Āṅgadūṣaṇavidhānam*, “Rule [in case of] Defective Limbs.” This chapter lists a series of defects in proportion (which result from not following the rules) in the component parts of the temple and the image, and their

¹⁶⁰ *Rucira* is adjectival; in the strict grammatical sense, the phrase should contain the noun *rucci* and not the adjective *rucira*. The phrase would then read *rucirārtham* instead of *rucirārtham*.

¹⁶¹ By virtue of these meanings of the term *rucira*, this statement captures well a faint heartbeat of “modernity” within the tradition of *vāstuśāstra*; it recalls the seventeenth and eighteenth century European discussions in architectural theory around notions of beauty (positive and arbitrary), custom and taste.

On another occasion (Chapter LXV, 181), in the context of measurement of images, the text allows the freedom to increase or decrease the measurement of the limbs by one part, “for the sake of splendor.” The phrase used here is *śobhārtham*. The noun *śobha* (deriving from *√śubh*, “to shine”) is synonymous to *rucci* in the sense of “splendor, brilliance,” but lacks the latter’s sense of “taste.”

corresponding ill-effects. The *Mānasāra* does not explicitly mention any ritual of atonement for these defects some of which at least, despite the vigilance of the *sthapati*, are inevitable in the course of construction. However, it is impossible to imagine in actual practice the completion of a building without such a ritual. In fact, the *Mayamata* has a mention in this regard, in Chapter XVIII that discusses the final ceremonies of consecration and completion of a building. After the *sthapati* completes the rituals of consecration and installation of finials, the *sthāpaka* conducts “. . . a purification according to the rule and with the aid of rites such as sacrifice . . .”¹⁶² Dagens comments on this ritual thus: “By these rites the *sthāpaka* atones for all faults in construction work, of which the consequences may be very important.”¹⁶³

All the above expositions evince that contrary to the conclusions from a precursory and merely formal reading of the text, the dialectic between description and prescription was very much alive in the repertoire of rules that constitute *vāstuśāstra*. From this, it follows that the nature of *vāstuśāstra* as recorded in treatises such as the *Mānasāra* was not predominantly technical know-how. The treatises were not used as technical manuals for construction. On the other hand, their aim, as T. S. Maxwell notes, “. . . was to positively mediate between priestly and artistic traditions of practice.”¹⁶⁴

¹⁶² *Mayamata* XVIII, 199 (trans. Dagens).

¹⁶³ *Mayamatam: Treatise on Housing, Architecture and Iconography*, p. 301, note 82.

¹⁶⁴ Maxwell, “*Śilpa* versus *Śāstra*” in Dallapiccola, ed. *Shāstric Traditions in Indian Art*, p. 11. This is also George’s conclusion: “Texts thus may be seen as intermediaries between Brahmanical and architectural communities” (George, *Construing Constructs*, p. 240).

Part B)

*PRA*YOGA, "Practice"

Chapter 3: "TECHNOLOGY," OR THE HORIZON OF CRAFT

a) PRACTICE AS APPLICATION OF THEORY

The notion of *śāstra* as a priori leads to the understanding of its object *prayoga*, "practice," as "application" of śāstraic rules in the realm of action. When taken on its own, this understanding would lead to the conclusion that practice is a deontological (that is, merely rule-obeying) activity. As mentioned in the Introduction, this non-accordance of a full ontological status to *prayoga* in śāstraic discourse manifests itself in the scarcity of compounds ending with the word *prayoga* as counterparts to those ending with *śāstra*. *Vāstuśāstra* is the "theory or science of architecture"; its object is simply *vāstu*, "architecture," and not *vāstuprayoga*. Viewed from the angle of practice, *vāstu*, "architecture," in naming the object of *vāstuśāstra* remains too generic a term to sufficiently signify the procedures, skills and techniques involved in the actual process of making. Even the definition of *vāstu* given by the *Mānasāra*, as objects of human artifice (buildings, furniture and so on), falls short of such a signification. A term that meets this specific criterion of signifying the skills and techniques of architectural making is *vāstuvīdyā*. The word *vidyā* derives from *√vid*, "to know, and signifies, first and foremost, knowledge that is intellectual and spiritual (knowledge of the Vedas, metaphysics and logic, as well as self-knowledge). However, *vidyā* also signifies knowledge that pertains to the practical arts and sciences (agriculture, medicine, and so on). The latter kind of knowledge includes the sense of "technical skill," a meaning

that is absent in the semantic horizon of the word *śāstra*.¹ Thus, with *vidyā* having both the senses of intellectual (scientific and philosophical) and practical (technical) knowledge, the term *vāstuvīdyā* denotes traditional architecture in both its theoretical and practical aspects. A striking precedent of this term in traditional discourse is found in the pre-śāstraic text, *Vāstusūtra Upaniṣad*. This text states explicitly in the opening passage that its content is *vāstusthāpakavidyā*, “science of erection of *vāstu*.” *Vāstu*, in the context of this text is restricted to pillar (as axis mundi); *vidyā* as “science” encompasses the “how,” “what” and “why” (techniques, principles and metaphysics respectively) of the practice of making and erecting pillars. With the dominance of śāstraic epistemology during the classical and medieval period, the term *vidyā* and its sense as technique were relegated to the periphery of textual discourse of architecture. The emphasis on the “what” of architecture in traditional śāstraic discourse was effected, to a great degree, at the expense of an interest in the “how.” In order to gain a better understanding of traditional practice (and, in turn, the relationship between theory and practice), it is imperative that its technical dimension be given its due attention. In this chapter, I undertake this project, by conducting a theoretical reflection on the nature of traditional practice. This reflection seeks to make explicit the latent discourse of *vidyā* within the overall aegis of *śāstra*; hence the title of the chapter as “Technology.” The following discussion covers the two aspects of practice that are bracketed by the text: 1) the application of śāstraic concepts and rules of measurement, proportion, and typology; and 2) the science of materials, its general principles, and their application.

¹ Monier-Williams notices that *√vid* in its infinitive *vettum* has the sense of “to know how to” (Monier-Williams, *A Sanskrit-English Dictionary* [Rpt., Delhi: Motilal Banarsidass, 1995], p. 963).

1. Śāstraic Rule and Practical Application

The constitution of units and systems as *mānopakaraṇa*, conceptual tools of architectural and iconographic measurement, has already been discussed in the previous chapter. The system with *paramāṇu*, atom, as the smallest unit and *rajjū*, rope, as the largest, is applied in architectural measurement. The text stipulates four kinds of cubits, *kiṣku*, *prājāpatya*, *dhanurmuṣṭi* and *dhanurgraha*, and their respective applications in the measurement of conveyances and couches, buildings and villages.²

Similarly, the schemes of *tālamāna*, iconometry, from *daśatāla*, ten-span, to *dvitāla*, two-span, having the further distinctions of *uttama*, highest, *madhyama*, intermediate, and *adhama*, lowest, find their particular application in iconography. The *uttama daśatāla*, highest ten-span, scheme is applied in measuring the images, both stationary and movable, of the triad of Brahmā, Viṣṇu and Śiva,³ and even of Jain and Buddhist images.⁴ The *madhyama daśatāla*, intermediate ten-span, scheme is applied to the female consorts of the male deities such as Lakṣmī (who is the consort of Viṣṇu).⁵ The seven mother goddesses are measured in the *navatāla*, nine-span, scheme.⁶ With regard to the images of the seven sages, the seven-span scheme is used to measure Agastya, eight-span for Kāśyapa and Bhṛgu, and the nine-span scheme for the others (Vasiṣṭha,

² *Mānasāra* II, 54-57.

³ *Mānasāra* LI, 91-94.

⁴ *Mānasāra* LV, 89 and LVI, 17 respectively.

⁵ *Mānasāra* LIV, 73. The text omits the specification *madhyama*, intermediate, to the ten-span scheme while mentioning the measurement of Sāvitrī and Sarasvatī, the female consorts of Brahmā, and Gaurī, who is Śiva's consort, (LIV, 37 and 112). But it can be safely assumed that *madhyama* is intended here since *uttama*, highest, is reserved to images of male deities.

⁶ *Mānasāra* LIV, 128.

Bhārgava, Viśvāmitra and Bhāradvāja).⁷ Similarly, regards the images of the four classes of devotees, the largest nine *tāla* scheme is used to measure the *sālokya*, the smallest ten *tāla* for *sāmīpya*, the intermediate ten *tāla* for *sārūpya*, and the highest ten *tāla* scheme for the *sāyūjya* class.⁸ The measurements of animals that are “vehicles” of the deities are made in smaller *tāla* schemes.⁹

The *āyādi śaḍvarga*, as discussed already, is a theoretical concept of instrumental value in the generation and verification of measurements of architectural objects. The text specifies its application in arriving at the right measurement of villages and of buildings.¹⁰ In iconography, it is similarly applied to verify measurements (principally height) of the *śivaliṅga*, and of images in general.¹¹

Application of the geometrical tool of *padavīnyāsa*, scheme of plot-disposition (which has thirty-two variations) is mentioned in the text in connection with planning and layout of villages and buildings, as well as with conduct of rituals. With regards to village-planning, the text states that the *sthaṇḍila*, *caṇḍita* or *paramaśayika* scheme (of forty-nine, sixty-four and eighty-one plots respectively) may be employed.¹² In the rite of *bali*, sacrifice, conducted on the site, the *maṇḍūka* (sixty-four plots) or *paramaśayika* is to be employed.¹³ The layout of the building is conducted by means of the ritual

⁷ *Mānasāra* LVII, 4-6.

⁸ *Mānasāra* LIX, 9-12. It is significant to notice that the highest ten *tāla* scheme is used to measure both the *sāyūjya* class of devotees as well as the triad of male deities, Brahmā, Viṣṇu and Śiva. This is the iconographic expression of the highest Śaiva Siddhānta ideal – that of the devotee “becoming” Śiva.

⁹ For instance, the swan, the vehicle of Brahmā, is measured in the two *tāla* scheme (LX, 6).

¹⁰ *Mānasāra* IX, 63-67, and XXX, 168-176 respectively.

¹¹ *Mānasāra* LII, 349-350, and LXIV, 88-89 respectively. The application of *āyādi śaḍvarga* is mentioned separately also in the measurement of the image of *garuḍa*, eagle, which is the vehicle of Viṣṇu (LXI, 29-42).

¹² *Mānasāra* IX, 166-169.

¹³ *Mānasāra* VIII, 3-4.

marking of the plots in the excavated foundation pit; here the *upapīṭha* (twenty-five plots) or *paramaśayika* may be used. Whenever a pavilion is made for the conduct of a specific ritual associated with construction (for instance, erection of column, erection of pinnacle, chiseling the eyes of the image), the plots are marked on the floor of the pavilion. In these instances, the application of the scheme is more ritualistic than practical. Thus, in the ritual of erection of column, the pavilion-floor is marked with *capḍita* and *sthaṇḍila* schemes¹⁴; in the erection of pinnacle, either *sthaṇḍila* or *upapīṭha* is used¹⁵; in the ceremony of inauguration of a house, both *sthaṇḍila* and *upapīṭha* are to be marked on the floor of the pavilion.¹⁶ In the ritual of chiseling the eye of the image, the pavilion-floor is marked with either *sthaṇḍila* or *pīṭha* (nine plots) schemes,¹⁷ and the altar thereupon with either *upapīṭha* or *pīṭha*.¹⁸

The application of *vāstuprakaraṇa*, typological matrix of architectural objects, lies in assigning particular types to particular situations and requirements. For instance, among the eight types of villages mentioned, the first four (*daṇḍaka*, *sarvatobhadra*, *nandyāvarta* and *padmaka*) are selected for settlements of Brāhmaṇas. The second and third may be chosen for temple-towns as well. The *swastika* type is assigned to capital cities, *kārmuka* for settlements of Vaiśya, merchant, and *caturmukha* for Śūdra, servant, classes respectively.¹⁹

¹⁴ *Mānasāra* XV, 382-385.

¹⁵ *Mānasāra* XVIII, 344-345.

¹⁶ *Mānasāra* XXXVII, 25, 29.

¹⁷ *Mānasāra* LXX, 29-30.

¹⁸ *Mānasāra* LXX, 36. It is seen that among the thirty-two schemes, only a few are chosen for application. The rationale behind this selection as well as behind the choices accorded between them are difficult to discern; the text does not provide any.

¹⁹ *Mānasāra* IX, 22, 28, 34, 39, 45, 53, 57.

2. Science of Materials and Application

The discussions on the respective natures of the two principal materials – wood and stone – are genuinely a posteriori. Knowledge of the nature of these materials is attained through primary perceptual experience of the materials, and induction of general principles based on this experience. The positing of these principles and their application constitute the “science” of wood and stone.

i) Wood

In Chapter XV, *Stambhalakṣaṇa*, “Description of Column,” the text dedicates a section titled *dārusaṃgrahaṇa*, for a discussion of the properties of wood and procedures of its collection. Acharya translates *dārusaṃgrahaṇa* simply as “collection of wood.” *Samgrahaṇa* means not only “gathering” but also “grasping” in the sense of understanding. The prefix *saṃ* which has the sense of “together,” when added to the verb root *√grah*, “to grasp” denotes that this understanding is of a perceptual and holistic (rather than analytical) kind. The “science” of wood encompasses the correct procedures associated with the gathering of wood from the forest as well as a perceptual grasp of the properties of various kinds of timber.²⁰

²⁰ It must be noted that during the medieval millennium, all across the subcontinent (except certain regions such as Kashmir in the extreme north, and Kerala in the south-west, which is adjacent to the Tamil country), the predominant material for temple-building was stone and not wood. The reason, then, that this section on the science of wood is included in the text may be understood as either attempting a synchronic pan-Indian (or, at least, a pan-Dravidian) universality, or diachronic pan-historical universality, or both. In the former case, it would include the contemporaneous building tradition of Kerala which was in wood; in the latter it would be the extant science of wood, even after the tradition of practice switched to stone. As Walter Ong notes, the manuscript tradition is primarily an “additive” rather than “editive” one.

Characteristic of the "science" of timber is the basic three-fold classification of trees, as male, female and neuter. The female tree, also called *chāyāvṛkṣa*, "shady tree," is that which has a pleasant form with a thick base that tapers towards the top, has no sprouting horn, has branch-ends strewn like an umbrella, and which gives a cool and pleasant shade. The male tree is that which has a pleasant form with a uniform trunk-width from base to top and no branches, and which also gives a cool and pleasant shade. A tree is neuter when its trunk is thinner at the base than at the top and therefore is difficult to be erected upright, has many shoots and branches that are twisted, has cuts and perforations, and is *uṣṇa*, "hot," that is, without shade.²¹

The text then gives three lists of particular trees the wood of which can be used, in temples and houses, as respectively 1) the main load-bearing supports (that is, columns); 2) beams and planks, that is, for horizontal spanning; and 3) vertical props and poles.²² The three lists collectively display an impressive knowledge of the main varieties of timber-yielding trees in the subcontinent, as well as a certain understanding of the structural properties of their timber. The latter is evident from their particular assignment as load-bearing, horizontal, or vertical members in a building.

²¹ *Mānasāra* XV, 314-322.

²² *Mānasāra* XV, 348-359. These lists are as follows. Trees whose timber is suitable for main load-bearing columns are: *dhūmaka*, (smoky-tree) *kṣīrīṇī* ("milky-tree"), *khādīra* and *khadīra* (Acacia Catechu), *śāka* (Ocimum Sanctum), *nimba* (Azadirachta Indica), *śami* (Mimosa Suma), *śākhā* (literally, "branch"), and *mṛga* ("deer-tree"). Those whose timber is used as planks and beams are: *khādīra* (Acacia Catechu), *kṛtimāla* (Cassia Fistula), *vyāghraka* ("tiger-tree"), *ācchadana* (literally, "covering"), *mṛga*, *drākṣā* (grape-vine), *śākhā*, *rudra* (vine) and *jambuka* (rose apple tree). The third list comprises *kera* (coconut tree), *veṇu* (bamboo), *tāla* (palmyra), *mauni* ("silent tree"), *kiṃśuka* (Butea Frondosa), *pūga* (Areca Catechu), *puṣkala* (literally, "abundant"), *amalaka* (Emblica Officinalis), *kiṃśīri* (probably *kiṃkiri*, Flacourtia Sapida), *harita* (Myrobalan), and *saptaparṇa* (Alstonia Scholaris). Tamarind, sandal and red sandal, which could be used for all purposes, complete the list of trees that may be used in temples and human dwellings.

Both the Latin nomenclature and English names in the above lists are given by Acharya in his translation of these verses (Acharya, *Architecture of Mānasāra*, p. 170). He mentions that *mauni*, "silent," trees include Agati Grandiflora, Buchanania, Latifolia, Brutea Frondosa, Terminalia Catappa, Artemisia Indica and the mango tree (Ibid., Note 1).

The text stipulates that the collection of wood be carried out at an auspicious conjunction during the southern or northern *āyana*, solstice, or during the four months beginning with Māgha (January-February), during the waning phase of the moon. It then gives a long list of good and bad omens that the *sthapati* and his retinue must be aware of while proceeding to the forest, so that the bad ones may be avoided and the good ones sought after. Offerings are made to the spirits inhabiting the forest; a fire-sacrifice is also conducted. Specifications regarding the hewing and felling of trees are also given in terms of auspiciousness and inauspiciousness. If the hewn tree falls towards south, west, north-east or south-west, it is auspicious; if it falls in the other four directions, it is inauspicious. When felled, a tree must “jump” upwards before coming to rest; it must also not fall upon other trees. It is inauspicious if these two conditions are not met. Finally, it is auspicious if an elephant, bull or horse roars when the tree is felled, and inauspicious if any other animal roars. There are, of course, propitiatory offerings to remedy inauspicious occurrences during this tedious process of gathering wood.²³

The “application” of the science of wood is treated in Chapter XVII, *Sandhikarmavidhānam*, “Prescriptions for Making Joints.” Here the text lists eight types of wood-joinery based on the number of pieces that are joined, and describes them in detail.²⁴ The main “scientific” principle to be observed in wood-joinery is

²³ *Mānasāra* XV, 323-339.

²⁴ *Mānasāra* XVII, 7-18. They are: 1) *mallabandha*; 2) *brahmarāja*; 3) *veṇuparva*; 4) *pūgaparva*; 5) *devasandhi*; 6) *ṛṣisandhi*; 7) *iṣuparva*; and 8) *daṇḍika*. The terms *bandha*, *sandhi*, and *parva* are synonymous and mean “knot, joint,” etc. Regarding these joints, Acharya comments:

regarding the gender-compatibility of the component pieces. Wood that is male and female may be joined to the same or opposite gender. Thus, male-male, male-female, and female-female joints are allowed. Neither male nor female should ever be joined to neuter.²⁵ There is also the stipulation that when making columns out of tree-trunks, the base and capital of the column must correspond to the base and top of the trunk, and its shaft to the middle portion of the trunk.²⁶

The text discusses in some detail the making of various instruments used in the process of construction, specifying materials to be used and outlining the procedures. These instruments include those of measurement (cubit-scale, rod and rope), that of site-preparation (plough), and that of orientation (gnomon). The wood listed as appropriate for making the cubit-scale are *samī* (Acacia Suma), *śāka* (Ocimum Sanctum), *cāpa*, “bow-tree,” *khadira* (Acacia Catechu), *tamālaka* (Xanthochymus Pictorius), *kṣīrīṇī*, “milk-tree” (Mimusops Kanki), and *tindinī*, Tamarind. The wood is kept immersed in water for three months, then taken out and hewn by the *takṣaka*, carpenter, into a piece one cubit in length and with a rectangular section measuring one *āṅgula* by half *āṅgula*.²⁷ This is the *kiṣku*, cubit-scale. The *daṇḍa*, rod, is made out of the smooth,

The general shapes of these joints are indicated by their names: the first one would look like (two) wrestlers wrestling against each other; the second one would have four heads like the four-headed deity; the third indicates the bamboo joints; the fourth is like the areca or betel-nut joints; the fifth is called divine and made of seven pieces of timber; while the sixth is called sagely and formed of eight pieces; the seventh is arrow-shaped, and the eighth would have many joints (Acharya, *Architecture of Mānasāra*, p. 188, note 1).

The “scientific” principles of wood-joinery derive not only from the properties of wood, but also from the philosophic, astronomical and medical connotations contained in the rich semantic horizon of the term *sandhi* (see Bettina Bäumer, “Sandhi,” in Bäumer, ed., *Kalātattvakośa: A Lexicon of Fundamental Concepts of the Indian Arts*, Vol. II: *Concepts of Space and Time*. Kapila Vatsyayan, gen. ed. [New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass Publishers, 1992], pp. 275-302).

²⁵ *Mānasāra* XVII, 24-26.

²⁶ *Mānasāra* XV, 360-361.

²⁷ *Mānasāra* II, 59-63.

unbent, unbroken and non-porous stem of *kramuka*, betel-nut tree, or *veṇu*, bamboo.²⁸ The *rajju*, rope, may be made out of coconut fibre, *kuśa* grass (*Poa Cynosuroides*), bark of banyan tree, silk cotton, thread of *kiṃśuka* (*Butea Frondosa*), bark of the palm tree, *ketaka* (*Pandanus Odoratissimus*) or any other suitable bark.²⁹ The rope must be free of knots; it is stipulated as made of three interwoven strands for measuring temples and dwellings of Brāhmaṇas and Kṣatriyas, two strands for houses of Vaiśyas, and single strand for houses of Śūdras.³⁰

The plough for the furrowing of site is made from the wood of *bandhura*, babul tree, *khādīra* (*Acacia Catechu*), *nimba* (*Azadirachta Indica*), *saraḷa* (*Pinus Longifolia*), or of trees that are *saraktakṣīrīṇī*, literally, “with blood and milk”.³¹ The gnomon is made out of *kṛtamāla* (*Cassia Fistula*), *śamī*, *candana* (sandal or *Sirium Myrtifolium*), *raktacandana*, red sandal (*Caesalpina Sappan*), *khadira*, *tinduka* (*Diosphyros Embryopteris*), *kṣīrīṇī*, “milk-tree” (*Mimusops Kanki*) or *subha-danta*, “tooth-tree.”³² The wooden pegs that mark the corners while measuring and delineating the site are made from *khadira*, *ādīmeda* (literally, “fattened, thick”), *madhūka* (*Bassia Latifolia*), milk-tree (*Mimusops Kanki*) or other *sāravṛkṣa*, “pithy trees.”³³

²⁸ *Mānasāra* II, 66-67.

²⁹ *Mānasāra* II, 69-71. The Latin names are from Acharya's translation (*Architecture of Mānasāra*, p. 9).

³⁰ *Mānasāra* II, 73-74.

³¹ *Mānasāra* V, 56-57.

³² *Mānasāra* VI, 10-12.

³³ *Mānasāra* VI, 108-110.

ii) Stone

The discussion of the properties of stone and the procedure of quarrying it occurs in an iconographic context, in Chapter LII, *Lingavidhānam*, “Composition of *līṅga*.” What is elaborated as the “science” of stone is, thus, in connection with the specific iconographic object, *śivalīṅga*. Given the affiliation of the *Mānasāra* to Śaivism, this is the most important iconographic object. Even though this science of stone is discussed in the context of the *śivalīṅga*, it does have wider application in the general context of iconography (sculpting of images of other deities) and architecture (construction in stone).

The fundamental principle of the science of stone is stated in the following verse (LII, 200):

prabhūtam ca sthitam sarvam prithvyākāśāyatam tathā |

All [stones] that are arisen and erected are extended, thus, towards earth and sky.

The verb *āvyaṃ* not only means “to stretch, extend,” but also “to procure, keep, hold in.” Thus, a stone “stretches” from earth to sky; it also “holds in” the two. Here, “stone” is identified with the *śivalīṅga* itself, the semi-iconic image of Śiva, which is the world-pillar, the axis that connects the micro- and macrocosms. The use of the terms *prabhūta*, arisen (that is, “natural”), and *sthita*, erected (or “man-made”), which are the two basic classes of *śivalīṅga*, denotes this identification. Thus, the foundational principle of the “science” of stone is the *śivalīṅga* itself. The science of stone, then, applies primarily in identifying and marking a “self-arisen” stone as well as

hewing and erecting a stone, so that in both cases it fulfills its cosmic function as *śivalinga*.

The first step in this process is to ascertain the base and head of a stone as it is found lying on the ground. The direction in which stones lie is an important feature which plays a role in their classification as male, female and neuter. The other criteria are their form in terms of shape and thickness, and sound produced. The male stone has uniform shape in base, middle and top; it is quadrangular, and produces the sound of a jewel-box. It lies on the ground lengthwise in any particular direction. The female stone has a broad base which tapers towards the top and is circular in shape; it produces the sound of bell-metal. The text omits the detail of how it lies on the ground. The neuter is that which is broad at base and top and thin in the middle; it has many edges and reliefs, it lies lengthwise in four corners, and produces no sound.³⁴ Based solely on the sound produced, two more kinds of stone are also mentioned. The stone which produces a *tāla*, musical note, is *vallī*, “creeper-stone”; the one producing the sound of a buffalo is *vrkṣa*, “tree-stone.”³⁵ Regarding the application of the classes of stones, the text stipulates that male stones are to be used for the *līṅga*, shaft, and female for its *yoni*, pedestal. Male stones are also used to sculpt images of male deities, and female

³⁴ *Mānasāra* LII, 198-211. A little later, in v. 271, the text states that one part of a female stone should be *kalita*, “low-sounding,” and, again, in v. 272, that the neuter stone should have *sūkṣmadāṣa*, “minute teeth-marks.”

³⁵ *Mānasāra* LII, 212-213. Following this are two cryptic statements (214-215):

pūrvoktadhvanī (ktārdhānī) nādam yāvanā ca śilā bhavet |
śilāsarveṣu vṛttam ca śilācchā [līm] vivardhayet ||

And the sound as said before [when produced], the stone should be *yāvanā*. Among all stones, circle (circular stone called *śālī*?) should be made to increase.

The Sanskrit verses are grammatically and lexically unsound and therefore difficult to translate; Acharya's emendation and translation are also unconvincing. The term *yāvanā* literally means “pertaining or belonging to the Greek (or any foreigner)” and also “mixing, mingling.” Here it seems to be used in the latter sense: stone of mixed properties.

stones for images of female deities. Neuter stones are not used in iconography (because there are no beings, divine, human or animal that are “neuter”), but in the construction of buildings.³⁶ Stones to be avoided are those covered by leaves, burnt by fire, disfigured by being fallen into a pit, “licked by the sun,” spotted, wet or split. The color of stone is also noticed: black and blue are the preferred ones for the *śivaliṅga*; also preferred is that stone which is “as if wrought with gold lines.”³⁷ In the journey to the forest to quarry the stone, the omens to look out for are the same as those mentioned in connection with gathering of wood. In the quarry, the *sthāpaka* makes the first ritual cut; the workers then split the stone and carry it to the work-site.

Chapter LXVIII titled *Madhūcchiṣṭavidhānam*, “Prescriptions for [casting the image in] Wax,” is an attempt to outline the process of making images in metal using a wax cast. However, the information contained therein is rather scattered and fragmentary, which evinces either a lack of familiarity or a certain lack of interest (or both) with regard to both the procedures of metal-work and the principles of the science of metallurgy.³⁸

The above account is a further demonstration of the *śāstraic* claim of the priority of theory over practice. Even *vidyā*, as “technology,” is seen here to be simply serving as

³⁶ *Mānasāra* LII, 216-218.

³⁷ *Mānasāra* LII, 273-274. These *śivaliṅga* and images are for installation in the temple and public worship. Elsewhere, the text stipulates stones of white, red, yellow and black colors respectively for making *śivaliṅga* and other images for use in private worship by the *Brāhmaṇa*, *Kṣatriya*, *Vaiśya* and *Śūdra* classes. However, it also allows the provision that black-colored stone is suitable for all four (LII, 219-222); another example of exception to rules.

³⁸ It must be remembered that the artistic patronage of the *Cōlas* produced in the region, exquisite bronze images of the deities. Modern studies on these bronzes (for instance, O. C. Ganguly, *South Indian Bronzes: A Historical Survey of South Indian Sculpture with Iconographical Notes based on Original Sources* [Calcutta: Nababharat Publishers, Revised and Enlarged Second Edition, 1978; Douglas Barret, *Early Cola Bronzes* [Bombay: Bhiulabhai Memorial Institute, 1975; and Vidya Dehejia, *The Art of the Imperial Cholas* [New York: Columbia University Press, 1990]) all focus on iconographic features and artistic merit rather than techniques of casting the image employed by the artisans.

handmaid to the śāstraic claim. Even though the a posteriori nature of the science of wood and stone is noted in the above elaboration, so far, it has not done sufficient justice to how this dialectic within theory itself may modify the relationship between theory and practice. In order to complete the picture, it is, therefore, necessary to so extend the investigation as to focus on the process of making itself.

b) MAKING

*kamalajahariharādidevatānām ca sarvam ||
vidhimiha sakalarūpam cakṣurunmīlanam ca |
kṛtimiti cākḥilamuktam mānasāram purāṇaiḥ ||*

Mānasāra LXX, 112-114.

All forms and opening the eyes of gods such as the lotus-born (Brahmā), Hari (Viṣṇu) and Hara (Śiva), and all rule [] making and everything [is] thus said here [in the] *Mānasāra* by the ancients.

The above verses occur towards the end of the final chapter of the treatise, and exude a certain conclusory tone. Owing to several inconsistencies in their grammatical composition (which Acharya has left without emendation), these verses do not yield a cogent translation.³⁹ Despite this difficulty, they still yield important insights into the

³⁹ Presenting a problem in particular is the declension of the terms *vidhi*, rule, and *kṛti*, making (a verbal noun deriving from *vr̥*, “to do”). In light of the fact that the sentence is in the passive voice, the declension of the pair *vidhi* and *kṛti* in the accusative case is untenable from the point of view of sentence structure. This is because in a sentence in the passive voice, the patient of the verb is the subject of the sentence and hence declined in the nominative case. The specific task is to figure out the relationship between the two words within the larger semantic context of the sentence. The fact that both are found to be declined in the same case points to an appositional relationship between the two, and may suggest that both be emended to declension in the nominative case. However, this poses semantic difficulties: the translation would read “. . . rule, making and everything [is] said . . .” A dative relationship between the two is what probably makes most sense in the translation and the larger semantic context of the sentence: *kṛtaye vidhi*, “rule for making.” However, even after the necessary emendations (*vidhi* from accusative to nominative case, and *kṛti* from accusative to dative case) this reading requires leaping over the difficulty posed by the word-order in the present composition of the verse: *vidhi* and *kṛti* are placed quite far from each other. In his translation of these verses Acharya deftly maneuvers around these problems by completely and deliberately ignoring the word *kṛti* in his translation: “The rules of chiseling all sorts of eyes of the lotus-born

relationship between theory and practice. After having elaborated the ritual and technical details of chiseling the eyes of the image, the text draws attention, through these lines, once again to the relationship between the rules written down in the text and making. The priority and binding nature of the rules is stressed: the invocation of “the ancients” as authority is made to this effect. However, the presence of the word *kṛti*, “making,” and also “[literary] composition,” as well as the blank left in the text with regard to the relationship between *vidhi* and *kṛti* (which leaves open more than one possible interpretation) opens the possibility of understanding the composition of rules (writing the treatise) itself as a making. Yet another significant term in these verses is *sakalarūpa*, compounded from *sakala*, “complete,” and *rūpa*, “form.” Simply translated, the compound has the innocuous meaning, “all forms.” In the theological scheme of divine immanence of Śaiva Siddhānta, *sakala* is the *avastha*, state, of becoming in which the divine first assumes nominal attributes and then gradually assumes *rūpa*, manifest form. This is in contrast to *niṣkala*, the state of being of the divine, without name, form or attributes.⁴⁰ The implication of the above statement then could well be this: the manifestation of the divine made complete by the ceremony of “opening” the eye of the image (literally by the actual chiseling, which is qualified in the text as “writing”) is effected in a figurative sense also in writing the rules for it (that is, compiling the treatise). Writing the treatise is a “making” just as making the temple and image is a “writing.” This reciprocal identification between “making” and “writing” discreetly accedes to the primacy of a perceptual “textuality” that antecedes

Brahmā, Hari (Viṣṇu), Hara (Śiva) and all other gods are stated in detail in this *Mānasāra* as prescribed by the ancients” (Acharya, *Architecture of Mānasāra*, p. 647).

⁴⁰ M. Dhavamony, *Love of God According to Śaiva Siddhānta* (Oxford: Clarendon Press, 1971), pp. 209-11, 226-28. Correspondingly, *sakala* is a state of being in the world of the self as well: “the empirical and the transmigratory existence.” This is distinct from *kevala*, “the pre-empirical isolation,” and *suddha*, “supra-empirical state” (see K. Sivaraman, *Saivism in Philosophical Perspective* [Varanasi: Motilal Banarsidass, 1973], pp. 290-91).

and encompasses both “orality” and “textuality,” as the original religious sense and inspiration of sacred architecture.⁴¹ After the “theoretical” intervention of śāstraic textuality in the process of making, this subtle mode of reciprocity “describes” the hermeneutical circle between “texture” and “text,” and around orality, which is the aspect that mediates between the two. It is this hermeneutical circle that resists the treatise itself from being understood as a mere “manual.” The same dynamic reciprocity also safeguards the temple from a reductive, deconstructionist, reading as “mere text.” Within the grand project of sacred architecture to establish permanence over transience through a monumental “spatialization of time” in the temple, this reciprocity effected also a reverse “temporalization of space” by means of iterative ritual (during and after construction) that includes orality as a fundamental element in its constitution.

Before attempting to trace the specific contours of the reciprocal identity between making and writing within the *vāstuśāstra* of the *Mānasāra*, it is necessary to explore, if only cursorily, the foundational metaphysical principles that facilitate such an identity at the levels of their origin and historical development.

⁴¹ I have taken the license to coin the neologism “textuality,” derived from “texture.” It captures the dimension of the “materiality” of writing in an intense sort of way, especially as it relates to orality and textuality.

The relationship between “text” and “texture” and the primacy of the latter over the former are attested in a literal sort of way in the practice of epigraphy – inscription on walls of temples and pedestals of columns and images – by the builders and iconographers. The permanence of the medium and the relatively weak presence of orality contributes to a stronger sense of history and personal identity in this practice than in the writing of manuscripts. Builders and iconographers inscribed historical facts regarding construction of temples such as date, royal patronage, land-grant order, and so on, on the walls of temples. Often, they inscribed their personal “signatures” (that is, name, lineage, and in some cases short self-eulogies) as well, on walls and pedestals of columns (for these, see Acharya, *A Dictionary of Hindu Architecture*. *Mānasāra* Series No. 1 [Delhi: Low Price Publications, 1995], Appendix II, “A List of Historical Architects with Short Notes on their Works”). For a polemic against orientalist and nationalist conceptions of the problem of history in India constructed upon the foundations of philology, archaeology and even epigraphy, see Daud Ali, “Royal Eulogy as World History: Rethinking Copperplate Inscriptions in Cōḷa India,” in Ronald Inden, Jonathan Walters & Daud Ali, *Querying the Medieval: Texts and the History of Practices in South Asia* (Oxford: Oxford University Press, 2000).

3. Divine Name and Divine Form

The famous *Puruṣa Sūkta*, Hymn of the Cosmic Man, of the *Rgveda* (X, 90) is a pithy synopsis of Vedic cosmogonic speculations. According to this hymn, the gods created the world by sacrificing *puruṣa*, the primeval Man. Out of the dismembered body of *puruṣa* arose the cosmos, its various constituents and their underlying order.⁴² This creation hymn together with others from the same *Rgveda* articulated in mythopoetic form and mode Vedic man's religious impulse rooted in perception of natural phenomena, his deification of and obeisance to them. However, the seeds of metaphysics – a quest for the unmanifested – were already present in these ponderings on the problem of origins.⁴³ In such a perceptive and speculative “wrestle” with the phenomenal and transcendental realms, the idea of cosmogony as from the body of the *puruṣa* enabled the Vedic man to muse of all that is manifest as “. . . His Form that is everywhere to be seen.”⁴⁴

⁴² *Rgveda* X, 90, “The *Puruṣasūkta*” (trans. R. T. H. Griffith):

When they divided *Puruṣa*, how many portions did they make? What do they call his mouth, his arms? What do they call his thighs and feet?
The Brahmin was his mouth, of both his arms was the *Rajanya* made. His thighs became the *Vaiśya*, from his feet the *Sūdra* was produced.
The moon was gendered from his mind, and from his eye, the sun had birth; Indra and Agni from his mouth were born, and *Vāyu* from his breath.
Forth from his navel come mid-air, the sky was fashioned from his head; earth from his feet, and from his ear, the regions. Thus they formed the worlds.

⁴³ For instance, the refrain, “Who is the god whom we should worship with the oblation?” in the creation hymn of the *Hiranyagarbha*, Golden Embryo (*Rgveda* X, 121) reflects this speculative spirit. Also the idea of “nothing” or “non-existence” is contemplated in another creation hymn (X, 129), that begins thus: “There was neither existence nor non-existence then, neither the realm of sky nor the space beyond . . .” (trans. Wendy Doniger O’Flaherty, in *The Rig Veda: An Anthology* [New Delhi: Penguin Books, 1981]).

⁴⁴ *Rgveda* VI, 47.18 (Trans. Bettina Bäumer, in Bäumer, ed., *Rūpa Pratirūpa: Alice Boner Commemoration Volume* [Delhi: Biblia Impex Private Limited, 1982]):

rūpamrūpam pratirūpo babhūva
tadasya rūpam praticakṣaṇḍya |

He became the original Form of every form.
It is His Form that is everywhere to be seen.

In the Vedic period in India, among the followers of the R̥k, Yajur and Sāma Vedic traditions, the cult of the fire-sacrifice was prevalent. Offered primarily to propitiate the deities at the supplication of a patron, the fire-sacrifice was an event of orientation in space and time that re-established the cosmic order through the ritual re-enactment of cosmic creation. The first instances of sacred architecture in India that involve a certain procedural complexity occurs in the Vedic fire-altars, made in conjunction with the ritual of the fire-sacrifice. The fire-altar was constructed of bricks (usually one thousand in number) based on the measurement unit *aṅgula*, finger-breadth, at a cardinally oriented site and at the occasion of an auspicious astrological conjunction. The body was copiously employed both concretely and symbolically in the making of the altar: the altar was considered to embody *puruṣa*; the measurement unit of the altar, *aṅgula*, was derived from the body of the sacrificer (that is, patron).⁴⁵ The making of the altar, thus, revealed a correspondence of macro- and microcosmic orders. At the event of the sacrifice, the altar was the locus of convergence of the transcendental and phenomenal realms. However, it remained an ephemeral structure in that it was abandoned once the ritual was over.⁴⁶

The structuring of ritual procedures and conduct of the fire-sacrifice in order to ensure its efficacy resulted in the birth of the quasi-sciences of *vedāṅga*, “limbs of Veda.”

⁴⁵ For a detailed discussion of the making of fire-altars, see Fritz Staal, *Agni: The Vedic Ritual of the Fire Altar*, 2 Vols. (Berkeley: Asian Humanities Press, 1983). Volume I contains a comprehensive documentation of the event of the fire-sacrifice held in Kerala in 1975. Also see Patrick A. George, *Construing Constructs: A study of North Indian temple design and construction* (Philadelphia: University of Pennsylvania, Ph. D. Dissertation, 1994), pp. 55-62.

⁴⁶ The ephemerality of the altar is further emphasized in the fact that “after having constructed [it] three times out of bricks, the sacrificer constructed it [entirely] out of *mantras*, or sacred spoken verses, with each *mantra* representing an individual brick” (Alexander Seidenberg’s observation based on *Baudhāyana Śulbasūtra* 2. 82; quoted in George, *Construing Constructs*, p. 64).

These were six in number: 1) *śikṣā*, phonetics; 2) *kalpa*, ritual; 3) *vyākaraṇa*, grammar; 4) *nirukta*, etymology; 5) *chanda*, metrics; and 6) *jyotiṣa*, astrology. As is evident, the majority of these were exegetical in nature, the concern of which was to arrive at an accurate understanding of the textual account of ritual. The literature of *vedāṅga* was a body of works collectively known under the epithet of *sūtra*. This epithet followed the form and content of the works: the *vedāṅga* literature contained descriptions of already existing practices and principles governing them in aphoristic form.⁴⁷ Within the branch of *kalpa*, ritual, is included the science of *śulva*, “geometry.”⁴⁸ The *Śulvasūtra* texts, which describe the principles of geometry and mensuration that are engaged in making the fire-altar, thus also belong to the genre of *sūtra* texts.⁴⁹ This set of abstracted principles of geometry were derived a posteriori from perceptual knowing in actual practice.⁵⁰ However, the very process of abstracting and recording these principles gave rise to a certain awareness regarding their a priori, universal, nature as “axioms” and “theorems” which, in turn, endowed them with an instrumental power of prescription.⁵¹ The birth of śāstraic intentionality lay in this transformation of

⁴⁷ See Sheldon Pollock, “The Theory of Practice and the Practice of Theory in the Indian Intellectual History” in *Journal of American Oriental Studies* (No. 3 [105], 1985), p. 503.

⁴⁸ Regarding the etymology and semantics of *śulva*, Bibhutibhusan Datta states thus:

The word . . . *śulva* is derived from the root . . . *√śulv* meaning ‘to measure’ and hence its etymological significance is ‘measuring’ or ‘act of measurement.’ From that it came to denote ‘a thing measured’ and consequently ‘a line (or surface)’ as well as ‘an instrument of measurement’ or ‘the unit of measurement.’ Thus the terms *śulva* or *rajju* have four meanings: 1) mensuration: the act and process of measuring; 2) line (or surface) – the result obtained by measuring; 3) a measure – the instrument of measuring; and 4) geometry – the art of measuring (Datta, *The Science of the Śulba: A Study in Early Hindu Geometry* [Calcutta: University of Calcutta, 1932], p. 8).

⁴⁹ Principal among these are the *Baudhāyana*, *Āpastambha*, *Kātyāyana* and *Mānava Śulvasūtras* (Ibid., Chapter I, “*Śulba*,” pp. 1-7).

⁵⁰ See A. Seidenberg, “The Geometry of the Vedic Rituals,” in Staal, ed., *Agni: The Vedic Ritual of the Fire Altar*, Vol. II, pp. 95-126; and also Seidenberg, “The Ritual Origin of Geometry,” in *Archive for the History of the Exact Sciences*, No. 1, 1960-62, pp. 497-498.

⁵¹ This echoes Pollock’s general observation: “Any such recording of cultural data may have the effect, perhaps a natural and inevitable effect, of establishing authoritative principles” (Pollock, “The Theory of Practice,” p. 503).

Datta uses the term “postulate” in the sense synonymous to “axiom” for the principles of geometry enunciated by the *Śulvasūtras* that are tacitly assumed to be true by their authors. He goes on to say that

“descriptive catalogue to prescriptive system,”⁵² primarily in order to warrant the efficacy of sacrifice. In these aphoristic rules are found the rudiments of *vāstuśāstra*.

The development in Indian religiosity subsequent to early Vedic exoteric ritual activity and its rules was the more esoteric, (pre-systematic) speculative, thought of the *Upaniṣads*. Following Upaniṣadic speculations, the ephemeral union of the transcendent and phenomenal, once concurrent with participation in the propitious event of the fire-sacrifice, began to retreat from the realm of corporeal experience to that of cognition and contemplation. Such a “gnostic” turn had the effect of a sapient endorsement of śāstraic intentionality by the Upaniṣadic sages.⁵³ It provided the inspiration and impetus behind the prolific “theorizing” of all cultural practice to normative ends, drawing from the “hard data” of actual, existing, practices, as well as from inherited traditions. Over a period extending from about 300 BCE to 400 CE, the historical span marking the onset and development of the classical period,⁵⁴ the entire sphere of religious and civic life was gradually subjected to a degree of formulaic systematization by *śāstra*. To ascertain in practice the instrumental efficiency of this

... they might not be postulates in the Euclidean sense of the term; but they can certainly be so called in accordance with the meaning given by Aristotle, namely ‘whatever is assumed, though it is a matter for proof, and used without being proved. . . . Branding of them as postulates raises the important question of the character of the early Hindu geometry as regards the matter of demonstration. Of course the propositions of the *Śulba* are not proved after the manner of Euclid by purely deductive reasoning. On the other hand, it is not wholly empirical without any semblance of demonstration (Datta, *The Science of the Śulba*, pp. 41, 50).

⁵² Pollock, “Theory of Practice,” p. 504.

⁵³ Pollock traces the idea that “a worshipper who acts after conceptualizing its meaning . . . attains greater efficacy than the worshipper who is unable to do so” to the *Caṇḍogya Upaniṣad* (I, 1.10). With this, “knowing that” subordinates “knowing how” (Ibid., p. 504).

⁵⁴ See Romila Thapar, *A History of India*. Vol. 1 (New Delhi: Penguin Books, 1990), pp. 70-166.

systematization, *śāstra* ramified into different specialties such as law and ethics, politics and economics, astronomy, medicine and the arts.⁵⁵

It would be apt to name this development in the intellectual tradition as “scientific”; however, there was also a simultaneous development in thought that was more properly “philosophic.” This involved speculations in metaphysics, ontology, language, logic, and psyche, in the form of *sūtras*, aphorisms. Even though the religious sense or impulse did play a role in inspiring such “philosophic” thought, the latter was not always bound by it. As a result, some of the above streams of thought displayed a remarkably “non-theistic” character in their early phases. However, the later phases of their development were marked by their use in orthodox brahmanical apologetics regarding the authority and validity of the Veda as revelation. This was in response to the challenges of the “heterodoxies” of Buddhism and Jainism. It was the instance of a conscious appropriation of the various streams of philosophic thought by an explicitly religious intent, and honing them to a definitive end (defense of Vedic revelation).⁵⁶ As a result, the philosophic streams developed, through commentaries of their foundational

⁵⁵ In this scheme, all cultural enterprise was brought under the three “worldly” *puruṣārthas*, “aims of man”: 1) *dharma*, ethico-religious conduct; 2) *artha*, acquisition of wealth; and 3) *kāma*, enjoyment of life. The practice of the three eventually prepared man for the attainment of a fourth (which, in fact, was his ultimate aim), namely *mokṣa*, liberation of self from this-worldly fetters. The “theorizing” of the first three began in the terse aphoristic form of *sūtra* texts that described and summarized existing practices. They were later superseded by the legislative *śāstra* intentionality which generated prescriptive treatises in these areas (moral-ethical-legal, politico-economic and artistic theory) that sought to dictate and regulate them. Of the three *puruṣārthas*, artistic enterprise, including architecture, came generally under *kāmaśāstra*. The earliest *śāstra* text on art was *Nāṭyaśāstra* (c. 200 C. E.), the treatise on dramaturgy, attributed to Bharata. In this text, the second chapter is dedicated to the discussion of the making of theatres and stage-sets.

⁵⁶ This said, however, it must also be noted, in the words of Wilhelm Halbfass, that . . . the relationship between the Veda and Hinduism is ambivalent, even paradoxical, and that it involves complex problems of continuity and change. According to Louis Renou, reverence for the Veda, even in the most orthodox circles of Hinduism, was nothing more than a ‘tipping of the hat,’ a ceremonial gesture without genuine affinity or commitment (Halbfass, *On Being and What There Is: Classical Vaiśeṣika and the History of Indian Ontology* [Albany: SUNY Press, 1992], p. 33; and also the essay, “The Presence of the Veda in Indian Philosophical Reflection,” in Halbfass, *Tradition and Reflection: Explorations in Indian Thought* [Delhi: Sri Satguru Publications, 1992], pp. 51-85).

sūtras, the rigorous architectonic structure of “systems.” These are the six *darśanas*, “philosophico-theological reflections,” of the late classical period: 1) Nyāya, Logicism; 2) Vaiśeṣika, Atomism or Particularism; 3) Sāṃkhya, Enumerationism; 4) Yoga, Self-Intuitionism; 5) Mīmāṃsā, Ritualism or Exegetism; and 6) Vedānta (literally “end of Veda”), Transcendentalism.⁵⁷

The exercises of philosophic reflection of *darśana* and scientific enterprise of *śāstra* shared a “logocentric” nature which was derived from the belief in the revelation of Veda, Word, as the transcendent *śāstra* par excellence. Also, their shared innate structure was that of an epistemological dualism between *pramāṇa*, norm of knowledge, and *prameya*, its object. This was most pronounced in the Nyāya and Mīmāṃsā schools. In addition, an ontological dualism obtained in the Sāṃkhya school between *puruṣa*, spirit, and *prakṛti*, matter, and in the Vaiśeṣika school between *artha*, object, and *padārtha*, category.⁵⁸ These features collectively rendered these *darśanas* with a protopositivistic tenor in their early phases of development.⁵⁹ However, the history of the Indian intellectual tradition does not record any major event of a “triumph” of positivism characterized by a radical privation of metaphysics. On the other hand, the traditional intellectual enterprise (scientific and philosophic) was “infiltrated” by soteriological concerns, and more or less culminated in the

⁵⁷ See Hiriyanna, *Outlines of Indian Philosophy*, Part III, “Age of the Systems,” pp. 177-187; and also Jose Pereira, *Hindu Theology: A Reader*, “The Evolution of Hindu Theology,” pp. 42-46.

⁵⁸ See Halbfass, *On Being and What There Is*, p. 76.

⁵⁹ See K. Sivaraman, *Śaivism in Philosophical Perspective*, pp. 18-19.

transcendentalist metaphysics of Vedānta⁶⁰ and the theologies of the devotional religious sects of the medieval period.⁶¹

The religious practice of the fire-sacrifice had only limited access – to the Brāhmaṇa priests and the upper strata of the Vedic society. Parallel (and even prior) to the cult of the fire-sacrifice of the R̥gvedic tradition was the stream of religiosity and practices of the masses. This religiosity was based on a phenomenal naturalism that was relatively free of metaphysical concerns.⁶² It was practiced through fertility rituals, worship of mother goddesses and of objects perceived to be imbued with divine presence. Even though evidences of interaction between the two streams are found in the *R̥gveda* itself,⁶³ it was with the *Atharva Veda*, the last of the four Vedas, that the latter stream of religiosity gained admittance to Vedic orthodoxy, following its reluctant appropriation and assimilation by the priests. The *Atharva Veda* was representative of popular religion; in it are found magico-religious rituals often of an esoteric kind, thus offsetting the exoteric cult of the fire-sacrifice.⁶⁴ Metaphysical concerns arising from Atharva Vedic tradition of religious practice led to development of the idea of divine immanence, as well as the assertion of iconographic practice as a legitimate means of

⁶⁰ Vedānta, though transcendentalist in emphasis, was not without an ontological dimension. Halbfass calls the Vedānta of Śaṅkara a “soteriology” (Halbfass, *On Being and What There Is*, pp. 38-39).

⁶¹ This is not to discount certain developments in the fields of logic, hermeneutics, grammar and poetics in the mid-late medieval period, which can be collectively characterized as a “neoscholastic” movement (for a discussion of this movement in general and in particular within Mīmāṃsā, see Lawrence McCrea, “Novelty of Form and Novelty of Substance in Seventeenth Century Mīmāṃsā,” in *Journal of Indian Philosophy*, No. 30 [2002], pp. 481-94).

⁶² This mindset had its classical expression in the exquisite poems of the Tamil Caṅkam age (c. first century BCE – fourth century CE), that are of two categories: *akam* (literally, “interiority”), poems of love, and *puram* (literally, “exteriority”), poems of war. The work of A. K. Ramanujan, an eminent scholar and writer includes collection and translation of these poems (see Ramanujan, trans. & ed., *Poems of Love and War: From the eight anthologies and the ten long poems of classical Tamil* [New York: Columbia University Press, 1965]).

⁶³ On the issue of the influences of the pre- and extra-Vedic religiosity on the Vedic fire-sacrifice ritual, see Romila Thapar, “The Archaeological Background to the *Agnicayana* Ritual,” and Asko Parpola, “The Pre-Vedic Indian Background of the *Śrauta* Rituals,” in Staal, ed., *Agni: The Vedic Ritual of the Fire Altar*, Vol. II, pp. 3-40 & 41-75 respectively.

⁶⁴ Hirianna, *Outlines of Indian Philosophy*, p. 37.

knowing the divine. In other words, if the metaphysics inspired by the fire-sacrifice cult of the R̥gvedic tradition emphasized *nāma*, the nomic aspect of the divine which signified its transience and transcendence (resulting in a valorization of language and even linguistic apriorism – the Sanskrit language and the science of *mantras*), metaphysics in the Atharva Vedic tradition emphasized its *rūpa*, morphic aspect, which, in turn, signified its permanence and immanence.⁶⁵ The Atharva Vedic *skambha*, “world-pillar” (or “world frame,” as Halbfass translates) made and installed by the *sthāpaka* was the epitomic embodiment of the latter concept.⁶⁶

The *Vāstusūtra Upaniṣad*, belonging (by its own claim) to the Atharva Vedic tradition (and which precedes the *Mānasāra*, by a conservative estimate, at least by eight centuries⁶⁷), defends the practice of image-making against challenges by priests of the fire-sacrifice cult. The text propounds that divine Form is coequal with divine Name. Alice Boner, one of the translators of the text, comments that

[The sage Pippalāḍa] impresses upon [the priests of the fire-sacrifice cult] that Form is like *Vāk*, creative Word, and its means of expression equivalent to the written or spoken word. Although working in a different medium, it has equal power of evoking a vision of the Ultimate Reality, of the eternal divine Law governing the Universe, of penetrating into the essence of truth and Being.⁶⁸

⁶⁵ These respective emphases on the nomic and morphic aspects of the divine corresponded to the oral and aural sensibilities on the one hand and the tactile and visual on the other. This is not to discount the presence of the morphic aspect of the divine in the R̥gvedic and its nomic aspect in the Atharva Vedic traditions. In the former, the geometrical form of the altar was significant as the body of the deity; so were the particular formulae of magical incantations in the latter.

For a detailed study of the nomic aspect of the divine from the Vedic period onwards, see Jan Gonda, *Notes on Names and the Name of God in Ancient India* (Amsterdam: North Holland Publishing Company, 1970).

⁶⁶ It must be noted, however, that the notion of “sacred-post” was not altogether absent from the fire-sacrifice complex. There was in that complex, *yūpa*, post, to which the sacrificial victim was tied. The *yūpa* was, however, of much less importance than the fire-altar in the hierarchy of objects made for the sacrificial performance.

⁶⁷ See the discussions in the dissertation regarding the date of the *Mānasāra* and the *Vāstusūtra Upaniṣad* in “Introduction” (pp. 8-10), and Appendix III, “On the Date of the *Vāstusūtra Upaniṣad*,” respectively.

⁶⁸ Alice Boner, “Introduction” in Boner, Bäumer and Sharma, eds., *Vāstusūtra Upaniṣad: The Essence of Form in Sacred Art* (Delhi: Motilal Banarsidass, 1996), p. xxxiv. In the quote above, there is a specific point that calls for a correction, one that is central to the topic of this chapter: Boner’s clubbing together of the spoken and the

With elegant brevity in the aphoristic form, the text outlines the metaphysics of form-figuration. The *Vāstusūtra Upaniṣad* is a *sūtra* text, and therefore of the same genre as the *Śulvasūtra* texts with respect to form: it outlines the principles (the “what”) of the craft of form-figuration. However, with respect to content it is a member in the family of Upaniṣadic texts (which it explicitly claims by means of its title) in that it deals also with metaphysics: the “why” of form-figuration. As its translators note, this text occupies a pivotal position in the history of Indian architectural theory, being a unique instance in which the “what” (principles) and the “why” (metaphysics) of making strike a delicate balance.⁶⁹ It is further significant to notice that the “how” (technique) of making also receives considerable attention in this text.⁷⁰ It points, in the end, to an integral vision of theory, called in the text as *vāstusthāpakavidyā* (and not as *vāstuśāstra*).

Innate to both the Rgvedic ritual of the fire-sacrifice and the Atharva Vedic religious theory of divine Form and practice of image-making and worship was an ontological dualism. It is this same dualism that inheres in the notions of a personal deity and devotee, and in the disposition of devotion by the latter towards the former. As already noted, *bhakti*, the Sanskrit term for devotion, derives from the root *vbhaj*, “to divide, partake.” Development towards the idea of a personal deity can already be found in the Upaniṣadic period, even though the dominant grain of Upaniṣadic thought is a non-

written word and pitting them against Form. *Vāk* is the uttered (and not written) Word; “writing” in the Atharva Vedic tradition is associated more to “texture” than “text” by being identified with the “making” of Form.

⁶⁹ Ibid.

⁷⁰ For instance, the text gives detailed accounts of tools such as divider, compass and chisel, the manners of their maintenance and use, as well as procedures of preparation of stone for the sake of carving (II, 19; III, 5-21).

dualistic transcendentalism.⁷¹ The coalescence and maturation of this idea occurred during the classical period in the rise of sectarian devotional movements. The most prominent among them were the Śaiva and Vaiṣṇava sects which respectively claimed the prominence of Śiva and Viṣṇu. These theistic revelations worked out variously as notions of “incarnation” and “real presence,” and their theological articulation employed the metaphysics of divine immanence. While the categories for the theological systematization of these theistic revelations were appropriated from that of the *darśanas*,⁷² the “medium” of their ritual practice was the occult substantiality of Tantrism. The Tantric substrate of beliefs within these theistic systems is also evident from the mythical and theological formulations by these sects of the dual masculine-feminine principles (as the deity and his female consort, the divine Being and its creative Energy respectively). Within such a scheme of theology and ritual practice, the making of images and their worship were understood as operations of elemental manipulation and sublimation that brought about a “real” transformation in the image as well as in the devotee as maker and worshipper. This transformation progressed towards that instance of *darśana*, auspicious sight, which facilitated the “communion” of the deity and devotee, and at which the duality between them was overcome.

These “specific” theistic revelations of a personal deity, in order to be “orthodox” according to brahmanical conceptions, had to be considered as a “completion” of and consistent with the “general” Vedic revelation of the Word and, thus, within the overall

⁷¹ Traces of dualistic theism that particularly refer to Śiva are found in *Katha* and *Śvetāśvatāra Upaniṣads* (see Dhavamony, *Love of God According to Śaiva Siddhānta*, p. 338).

⁷² For example, among the thirty-six *tattvas*, principles, of Śaiva Siddhānta, twenty-five were co-opted from the Sāṃkhya system (the remaining eleven being more specific to Śaiva revelation). As well, the thought and techniques of Yoga were adopted into Śaiva spiritual practices of meditation and contemplation.

aegis of the latter.⁷³ As a result, the overarching framework of śāstraic rules and categories of the *darśanas* that applied to language, epistemology and ontology remained valid for these theistic schools as well. However, in the theistic order, the rules breathed a fresh phenomenological life as the nature of divine knowing was transformed from systematic cognizance to corporeal sentience, and the affective heart of the devotee reinstated as the center of being. As well, the categories, both epistemological and ontological, of the *darśanas* assumed a fresh life in serving to undergird theological explications, as in the already mentioned case of Śaiva theology.

The school of Śaiva Siddhānta, especially in its South Indian Tamil variation, at times polemically asserted itself as extraneous to the Vedic tradition. A distinct “orthodoxy” in itself, revelation in the Śaiva Siddhānta tradition consisted, first and above all, of Śiva as the supreme deity, as well as the theological texts of the *Āgamas* and the sacred hymns (in praise of Śiva) composed in Tamil by the major saints of the tradition. However, even in this case, though the specific content was claimed to be different from that of the Veda, the “component” of the “word” (or “logos”) still existed (in the form of sacred texts) within the body of revelation.⁷⁴ To that extent, Śaiva Siddhānta could not escape the śāstraic notion of rules and the principles and categories of exegesis outlined by the *darśanas*. The phenomenological vivification of śāstraic rules and the affective heart of the devotee as the center of being, thus, applies to the Śaiva

⁷³ For the characterizations of the revelation of Veda and (revelatory) experience of personal deity as “general” and “specific,” see Sivaraman, *Saivism in Philosophical Perspective*, pp. 25-30.

⁷⁴ In fact, the hymns of the saints, as *tirumurai*, sacred speech, came to be known as the Tamil Veda (see Indira Peterson, *Poems to Śiva: The Hymns of the Tamil Saints* [Princeton: Princeton University Press, 1989], pp. 52-59).

Siddhānta tradition, and assumes considerable force because of the emphasis laid on the “personhood” of Śiva.

The religiosity of devotional theism forged a synthesis between the two key components of revelation: word and personal deity. This synthesis, attained within a cosmological setting and cyclical temporality, generated the homology between divine Name and Form, a principle that is found to be at work throughout the making of temple and image, and in the daily worship at the temple after its completion and consecration. It is worth examining the import of this homology between divine Name and Form on “theory” in the *Mānasāra*.

The *Sulvasūtra* and the *Vāstusūtra Upaniṣad* expounded principles of geometry and measurement in relation to the making of fire-altars and images. Medieval vāstusāstraic texts such as the *Mānasāra* inherited and appropriated these principles for temple-building and image-making.⁷⁵ In the process, there was a formal shift of “theory” from *sūtra*, aphorism, to śāstraic *vidhi*, injunction. Substantively, this corresponded to a shift (in fact, a “reduction”) of the discussion of the “what” and the “why” in the former to simply the “what” in the latter.⁷⁶ Since the primary objective of

⁷⁵ For instance, *aṅgula* as the unit of measurement as well as procedures of orientation and delineation of the site are expounded in the *Sulvasūtra* texts. The *Vāstusūtra Upaniṣad* contains principles of the science of materials (stone, to be specific: I, 9-10), and rudiments of the *tālamāna* system of iconographic measurement as well (IV, 12-29).

⁷⁶ Pollock’s analysis of śāstraic *vidhi*, injunction, on the basis of classical Mīmāṃsā and Kantian philosophy infers that “in śāstra, the what and the how are collapsed into one normatively injunctive system” (Pollock, “Playing by the Rules: Śāstra and Sanskrit” in Dallapiccola, ed., *Shāstric Traditions in Indian Art* [Stuttgart: Franz Steiner Verlag, 1989], p. 308). This statement demands a qualification in the realm of the practical arts (among which is architecture). Rather than a “collapse” of the “what” and the “how,” it would be more accurate to state that the written textual tradition of śāstra was always limited to the treatment of the “what.” The “how,” that is, technical knowledge of the craft, generated and refined through practice, was transmitted mostly orally within, and guarded jealously by, the guild of the craftsmen.

temple-building and image-making was to make manifest the divine, it was the homology between divine Name and Form that sustained the role of passion and imagination within an otherwise constraining bind of śāstraic rules. Within *vāstuśāstra* itself, this manifested as the persistent dialectic between description and prescription. With respect to “making,” the same homology guarded its ontological status from being completely subsumed by *śāstra*, thereby maintaining a reciprocity in the relationship between *śāstra* and *prayoga*. At another level of theorization, this reciprocal relationship between *śāstra* and *prayoga*, inspired by the homology between divine Name and Form, obtains as a certain reciprocal identity between “text” and “texture,” manifested in the parallelism between the processes of “writing” (the treatise) and “making” (the temple). It is timely and expedient, now, to investigate into how both sides of this reciprocal identity between making and writing, text and texture, operate within the theory of the *Mānasāra*: in other words, how making the temple is a “writing” and writing the treatise a “making.”

4. Making as Writing

navavastreṇa gopyāṅgam (bimbasya) netramālikhet |

Mānasāra LXX, 67.

Having concealed the limbs (of the image) with new clothes, [the *sthapati*] should write [its] eyes.

The *Mānasāra* qualifies the iconographic operation of chiseling the eye of the image as “writing.” The horizon of meanings that “writing” encompasses as denoted by the Sanskrit root *√likh* extends from “scratching, scraping, furrowing,” and “tearing up (the

ground))” to “inscribing, engraving” and “tracing.” By a substitution of the liquid, *ṽlikh* becomes *ṽrikh* (also meaning “to scratch, scrape”), the root of the word *rekhā*, line.⁷⁷ The common semantic thread that runs through these renderings have a distinctly architectural slant. Such a signification evinces, at first, an ambiguity between literary writing and architectural drawing – one that remains without being clarified throughout both the literary and architectural traditions of India.⁷⁸ More than a confusion between literary writing and architectural drawing, especially in the light of the near-absence of representational drawings in the Indian architectural tradition,⁷⁹ what this persistent ambiguity suggests, in fact, is a broader overarching semantic fluidity between language and architecture. As noted already, this fluidity owes its source to the twin aspects of the divine, its Name and its Form and the homology between them. It is the interplay between “orality” and “textuality” (both preceding and parenting “textuality” in the sense of written theoretical texts) that animates the process of temple-building and image-making. This interplay between “orality” and “textuality” in the process of making “translates” into concrete operations of demarcation, orientation, delineation and disposition.

⁷⁷ George, *Construing Constructs*, p. 129.

⁷⁸ George points out that there exists an initial ambivalence between writing and drawing in Vitruvius as well. However, Vitruvius clarifies in his treatise “that the process of ‘scratching’ to which he refers is an architectural one, divided into three categories: *ichnographia*, *orthographia* and *scaenographia*.” This clarification, George notes, is absent in the (North Indian) medieval treatise he examines, the *Samarāṅgaṇasūtradhāra* (George, *Construing Constructs*, pp. 129-30). It is absent in the South Indian treatises *Mānasāra* and *Mayamata* as well.

⁷⁹ A singular exception to this is the treatise from the Eastern Indian region of Orissa, the *Śilpaprakāśa*, which contains some remarkable figures of *yantras*, mystic diagrams, that undergird temple composition in plan, as well as details of ornament, thumb sketches of temple plans, elevations and component parts such as plinth, column, pedestal, capital, ornaments and iconographic reliefs (see Rāmacandra Kaulācāra, *Śilpa Prakāśa: Medieval Orissan Sanskrit Text on Temple Architecture*. Trans. and annot. by Alice Boner and Sadāśiva Rath Sarmā [Leiden: E. J. Brill, 1966], Plates).

Making begins with demarcation, of which the simplest version is scratching a stone. In the earliest naturalist religiosity, scratching a stone or smearing it with paste or oil in order to “mark” the presence of divinity within it was a complete sacred architectural and iconographic act in itself. It disclosed the primeval “textural” unity of “writing” and “making,” which, in turn, signified the oneness of (sacred) architecture and iconography.⁸⁰ In Vedic religious practice, the architectural and iconographic scene witnessed the advent of a new dynamic. The followers of the cult of fire-sacrifice, belonging to the Rk, Yajur and Sāma Vedic traditions, privileged the transience of “orality” over the permanence of “textuality”: that is, *nāma*, Name of the divine to be uttered and heard, over *rūpa*, its Form to be made, kept and seen. The fire-sacrifice ritual necessitated the making of fire-altars. These altars were considered as the iconic representation of Agni, the fire-deity, to whom the sacrifice was offered, and often had a bird-like form (the form of Agni) in varying degrees of abstraction (Fig. 12). In this feature of the fire-altar, the primeval unity of architecture and iconography was still maintained to an extent. However, the primacy of sacred recital of the divine Name over the act of making the divine Form was manifested in the fact that the altar was ultimately an ephemeral structure: it was abandoned once the ritual was over.

As noted already, the cult that retained a certain primacy of divine Form over Name within the Vedic religiosity was that of the *skambha*, world-pillar, made and installed at sacred locations. “Textural” permanence was preserved in this Atharva Vedic tradition of form-figuration, which is a more direct precursor of medieval iconography. To the

⁸⁰ This essential oneness between “making” and “writing” is set in relief in the still undeciphered hieroglyphic pictograms of the Harappan seals (on these seals, see Asko Parpola, *Deciphering the Indus Script*, pp. 52-57).

extent that medieval iconography inherits the Atharva Vedic tradition of *skambha*, the sculpting of images for the medieval temples as recounted in the *Mānasāra* is a “writing” (and hence the use of the verb *√likh* to indicate the act of chiseling); the undifferentiated sense of “writing” and “making” remaining more or less undisturbed in the materiality of the image. The *Vāstusūtra Upaniṣad*, dealing with the compositional and metaphysical principles of form-figuration, offers the bridge between the ancient practice of making and erecting the *skambha* and the medieval iconographic practice of making the image of the deity and its establishing in the temple.⁸¹

In medieval iconography, the act of demarcation happens when the *sthāpaka*, accompanying the *sthapati* and his assistants to the quarry, identifies a stone that is endowed with the qualities stipulated for iconic making, and makes the ritual first cut.⁸² The workers then split the stone and carry it to the workshop. Following this, a preliminary orientation of the stone is conducted at an auspicious conjunction when it is set up firmly with wooden pegs atop a bed of *darbha* grass in the workshop.⁸³ In iconography, the operations of delineation and disposition converge in the marking of the *khilapañjara*, (literally, “stone-cage”), compositional diagram (Fig. 11), on the stone

⁸¹ The text draws out the distinction between *śulva* and *śilpa*, the former associated with making fire-altars and the latter with carving images (IV, 9-10). Also, in the text, a distinction is made between “post” and “pillar” in terms of “function,” even though in essence they are the same as form-generators (IV, 11, 19). They are indicated respectively by the terms *yūpa* and *stambha* (the term *skambha* itself, found in the *Atharva Veda*, is not found here). *Yūpa* is set up at sacrifices (IV, 21), while *stambha* is set up by the *kāmacāri*, “one who is consumed by desire” (IV, 20, 22). This evinces, on the one hand, the interaction between the Ṛk and Atharva Vedic traditions, and, on the other, the attempt of the latter to preserve its characteristic features.

Skambha and *stambha* derive respectively from *√skambh* and *√stambh*, both of which have the meaning, “to prop, support.” However, *√stambh* also has the meaning, “to stupefy, paralyze,” which is absent in the semantics of *√skambh*. Thus, while both *skambha* and *stambha* mean, primarily “pillar” or “column” as “that which supports”, the latter not only just supports, but also “stupefies” or arouses wonder. The use of *stambha* instead of *skambha* in the *Vāstusūtra Upaniṣad* for pillar may have been intended to capture the wonder aroused by the sight of divine manifestation in the pillar.

⁸² *Mayamata* XXXIII, 30. The *Mānasāra* (LII, 184-87) also has the *sthāpaka* accompany the retinue to the quarry but does not explicitly mention him as making the first cut.

⁸³ *Vāstusūtra Upaniṣad*, II, 1-2.

by means of *vajra*, white stone powder. The suggestion by the word *vajra*, which literally means diamond, is that the “marking” is not a mere drawing using powder, but also a slight engraving on the stone by means of a hard object.⁸⁴ The *Vāstusūtra Upaniṣad* elicits the geometrical composition of *pañjara* by means of circle and line, the symbolic import of each, and the marking procedure. First, a circle is marked on the stone slab using a compass.⁸⁵ The *bindu*, center, of this circle is the static and timeless *marma*, the vital spot of being: the navel that is the font of all creation (to be made to coincide with the navel of the image). The circumference of the circle denotes metastatic time, the locus of the indefinite flux of becoming. The symbolism of the circle with its dual components of center and circumference is that of the unifying correspondence of macro-microcosmic orders. This correspondence is established on the sculptural stone by “squaring the circle,” that is, when a square is marked circumscribing the circle. The square delineates the slab by fixing the limits of order within which the image is to be contained, thus transforming the slab into a *kṣetra*, “potent field” or “sacrificial site.”⁸⁶ The subsequent markings are of the order of disposition. The diagonals of the square, intersecting at the *bindu*, center, are then traced, rendering the site as “active.” A rhombus is inscribed within the circle, constructed from the same center. The diagonals of the rhombus complete the “earth-field,” the domain of divine manifestation in the image.⁸⁷ These lines are the dynamic

⁸⁴ See Boner et al, eds., *Vāstusūtra Upaniṣad*, “Critical and Exegetical Notes,” p. 125. Also, the sacred, “precious,” nature of the instrument of “writing” is implied here, and compares well with the use of gold brush to write the eye of the image.

⁸⁵ *Vāstusūtra Upaniṣad*, II, 6. The elaboration of *Sūtra* 4 describes drawing two intersecting circles on the slab that symbolize *prakṛti* and *puruṣa*, matter and spirit. But as the translators note, “it is more logical that a first circle is made (*Sūtra* 6).” This theme of the twin intersecting circles and the double square inscribing them, despite its significant symbolism, is not pursued further in the text (see *Ibid.*, “Critical and Exegetical Notes,” p. 126).

⁸⁶ *Vāstusūtra Upaniṣad* II, 11; and *Ibid.*, “Critical and Exegetical Notes,” p. 127.

⁸⁷ *Vāstusūtra Upaniṣad* II, 12-13. *Pañjaras* of other geometric compositions are also mentioned for the same purpose of sculpting the image: for instance, *koṣṭhaka*, grid (VI, 5-10) and *śaḍaḥkoṇaka*, hexagram (II, 17).

elements of the composition. They correspond to the elements thus: vertical lines are lines of fire; horizontal, those of water; and diagonal lines those of wind.⁸⁸ They serve as guides for disposition of limbs of the image.⁸⁹ The *pañjara* is redrawn several times as the sculpting proceeds, so that compositional continuity is maintained in the image.⁹⁰ Sculpting the image, thus, is throughout a “writing”; its final stroke is the chiseling of the eye.

The procedures within medieval temple-building (as distinct from iconography) of demarcation, orientation and delineation of the site and their geometrical and metaphysical principles are inherited from the ancient *Sulvasūtra* texts that discuss the making of fire-altars. In temple-building, the act of demarcation of the site is conducted by its ritual furrowing.⁹¹ Orientation of the site and its delineation by measuring and fixing its limits are conducted by a series of peg and cord operations on

⁸⁸ *Vāstusūtra Upaniṣad* VI, 5. Also see Bettina Bäumer, “Lines of Fire, Lines of Water: The Elements in *Silpaśāstra*,” in Bäumer, ed., *The Āgamic Tradition and the Arts*. Kapila Vatsyayan, gen. ed., *Prakṛti: The Integral Vision* (New Delhi: Indira Gandhi National Center for the Arts & D. K. Printworld, 1995), Vol. III. The chapters on iconology in the *Mānasāra* is content with the fleshing out of the “frame” set up by the *Vāstusūtra Upaniṣad*: a general description of the iconic features and attributes of various deities.

⁸⁹ *Vāstusūtra Upaniṣad*, II, 8.

⁹⁰ John Mosteller, in his study of Indian sculptures, observes that the use of *khilapañjara* continues in the still surviving iconographic tradition at Mamallapuram in South India. He calls it the “substructure” of the sculpture that generates the configuration and features of the image. It is continually removed while sculpting and hence continually redrawn (see Mosteller, *Proportionality in Early Indian Sculpture: A study based upon the analysis of 110 standing, male images of ca. Second century B.C. to 500 A.D. from the Gangetic Plain* [Philadelphia: University of Pennsylvania, Ph. D. Dissertation, 1986], p. 81; quoted in George, *Construing Constructs*, p. 133. Also see Mosteller, “Text and Craftsmen at Work,” in Michael Meister, ed., *Making Things in South Asia: The Role of Artist and Craftsman. Proceedings of the South Asia Seminar* (Philadelphia: Department of South Asia Regional Studies, University of Pennsylvania, 1988). T. S. Maxwell echoes the same iconographic function of the diagram (“construct”) as form-generator for the iconographer, but also sees in it a deeper “meditational” function for the devotee:

... these constructs (probably the first lines incised upon the stone block after quarrying and dressing, and before sculpting) were *maṇḍalas* intended to be used as aids to meditation; they were, so to speak, ‘fleshed out’ by being used as basic plans of the multiple anthropomorphic figures of gods and their various aspects or projections which the worshipper (*bhakta*) perceived visually (Maxwell, “Nand, Parel, Kalyanpur: Śaiva Images as Meditational Constructs,” in Michael Meister, ed., *Discourses on Śiva* [Philadelphia: University of Pennsylvania Press, 1984], p. 63).

⁹¹ *Mānasāra* V, 10-11; 78-87. The *sthapati* conducts the ritual plowing in three rounds. It is then completed by the tillers.

the site. A spot in the central part of the site is leveled and purified, the gnomon erected there, and a circle drawn around it. The shadow of this stationary "pen" in its traversal from west to east in the course of the day is marked at the two points where it meets the circle. The line joining these points give the approximate east-west direction; its perpendicular, constructed by intersecting segments of circles, gives the north-south direction. Delineation is measuring the oriented site: the actual extent of the structure is measured from the center using the measuring cord, its boundaries are drawn and corners marked by wooden pegs driven into the ground.⁹²

The act of disposition, in the case of the fire-altar, is the actual making itself of the altar. The measurements of the altar (length, breadth and height) are derived either by multiplication of unit brick-size or division of the delineated site. The total number of bricks being fixed, the size of the brick and the number of courses are calculated. The bricks are then "placed" in the pattern worked out for each course after a *mantra* is uttered over each of them (Fig. 12). In temple construction, a much more complex undertaking, this same "placing" is the germ of the act of disposition, even though the actual laying of building blocks is postponed. In this case, disposition is the allotment of plots and deities in the delineated site. The term denoting this operation in the *Mānasāra* is *padavinyāsa*, a compound of the words *pada* and *vinyāsa*. The word *pada* means "footstep, trace, vestige," and also "a part, portion, division, a plot of ground." It has as well, the meaning of a literary unit: "a word or an inflected word or the stem of a noun," from which it expands to "a portion of a verse, quarter or line of a stanza."

⁹² *Mānasāra* VI, 96-108.

Vinyāsa derives from *√as*, “to cast,” and means “disposition, placing (that involves a touching), arrangement, composition.” Thus the term *padavinyāsa* has multiple connotations: tracing of footsteps on the ground, disposition of plots in the delineated site, and composition of a literary work. In temple-building, *padavinyāsa* stands for marking the *vāstupuruṣamaṇḍala* on the site. The site is ordered by disposing the plots of this *maṇḍala*, the geometry of which is usually a grid of squares, upon it by a quadratic division of the delineated site. The symbolism of the *vāstupuruṣamaṇḍala* encompasses both geometrical and linguistic dimensions: this operation is at once the disposition of plots and placing of words therein – words here being names of the deities presiding over each plot. The interplay of geometry and language is connoted in yet another manner in the symbolism of the *maṇḍala*. The number of deities presiding over the plots within the delineated site, together with the eight demons (personifying chaos) outside the immediate limits of the site, add up to fifty-three. This corresponds to the total number of letters in Sanskrit (sixteen vowels including the *anusvāra*, the pure nasal *m*, and the *visarga*, the spirant *h*, the thirty-five consonants including the ten semi-vowels, and the two principal conjunct consonants *kṣa* and *jña*).⁹³ The procedure of *padavinyāsa*, disposing of plots and placing of words, charges the site with the reconciled macro-microcosmic orders, transforming it into a *kṣetra*, potent field,⁹⁴ and regulates the spatial and structural organization of the temple accordingly.

⁹³ Conjunct consonants are numerous in Sanskrit. But somehow, *kṣa* and *jña* assume a certain primacy among them, sufficient enough to be included in the official list of letters which otherwise do not include conjuncts. This feature captured the attention of the Sanskritist H. H. Wilson: “Some lists [of letters] add *kṣa* and *jña*, but these are compounds” (Wilson, *An Introduction to the Grammar of the Sanskrit Language for the Use of Early Students* [London: J. Madden & Co., 1841], p. 2). Incidentally, these “principal” conjunct consonants comprise the fundamental syllabic unit in the verbal roots *√ikṣ*, “to see,” and *√jñā*, “to know,” respectively.

⁹⁴ The concept of *kṣetra* is treated comprehensively in Baidyanath Saraswathy, “Kṣetra,” in Baümer, ed., *Kalātattvakośa*, Vol. II: *Concepts of Space and Time*, pp. 93-118.

The *pada* disposed in the site as plot and word simultaneously becomes the fecund geometric and linguistic unit or “seed” out of which the body of the temple grows.⁹⁵

In order to ascertain continuity of the spatio-structural disposition predicated for the temple at the beginning of construction, the diagram is redrawn ritually at important stages of construction, which, in turn, also ensures conceptual continuity of its corresponding symbolic order throughout. Thus, the practical and symbolic “functions” of the diagram are engaged simultaneously in these ritual markings.⁹⁶ The last of these rituals is the lengthy inaugural ceremony of the temple comprising the rituals of invocation of the deity into the image, opening its eye by chiseling, and finally, installing it in the awaiting adytum of the temple. At the inaugural ceremony, distinctions between making and writing as well as between architecture and iconography “dissolve,” so to speak, in the primordial textuality. As the deity is made manifest in the monumental textuality of the completed temple, it is salvaged from petrification amongst the undulating folds and entombment within the dark chamber of the temple precisely on account of the orality that is a constitutive element in the rituals performed during and after its construction.

⁹⁵For a comprehensive survey of the concept of *bīja*, seed, in the Indian religious, philosophic and artistic traditions, see H. N. Chakravarty, “Bīja,” in Baumer, ed., *Kalātattvakośa*, Vol. I: *Eight Selected Terms*, pp. 117-44.

⁹⁶Sonit Bafna challenges the “constructions” by twentieth century scholars of *vāstuśāstra* such as Acharya, Kramrisch and Meister regarding the nature and role of the *vāstupuruṣamaṇḍala* in theory and practice. His critique is directed mainly at the idea that this *maṇḍala* was “... a single, conceptually pure entity that has persisted unchanged through the development of architecture in the subcontinent.” He offers instead, a “revised notion” of the *maṇḍala* that is nevertheless “ad hoc [and yet having] ... the virtues of 1) providing a better accountability of the available evidence, and 2) lending historical depth to the idea ...” (Bafna, “On the Idea of the *Maṇḍala* as a Governing Device in Indian Architectural Tradition,” in *Journal of the Society of Architectural Historians*, 59:1 [March, 2000], p. 47). In attempting to counter what he sees as an oversimplification of the understanding of the idea of the *maṇḍala*, Bafna ends up overcomplicating it. His statements on *vāstuśāstra*ic texts betray a misconception regarding the nature of traditional theory – in itself and in its relationship to practice. He seems to miss the point that the role of theory is to set up and expound conceptual archetypes, and that this does not contradict their varied applications across geographical and historical spans. Theory (and in turn, the concept of *vāstupuruṣamaṇḍala*) understood thus, the issue that he takes with Kramrisch and others becomes a non-issue.

The “life” of the deity in its twin aspects of name and form is extended after the completion of the temple through the daily conduct of rituals of public worship. In other words, the utterance of the name of the deity (in the formulations of *mantra*) continually enlivens its form in the temple and image during the worship rituals. During worship, the devotee hears the name of the deity being uttered in the *mantras*, circumambulates the temple which is its manifest form, and finally turns eastward to face the installed image in order to receive *darśana*, auspicious sight, of the deity. In the quest for spiritual liberation within Hinduism along the path of *bhakti*, devotion, the moments of union between deity and devotee occur by means of this recitation, orientation and mutual seeing at such instances of ritual worship conducted in the temple.

5. Writing as Making

*pitāmahendrapramukhaiḥ samastaiḥ
devairidam śāstravaram puroditam |
tasmātsamuddhṛtya hi mānasāram
śāstram kṛtam lokahitarthametad ||*

Mānasāra LXX, 115-118.

This most excellent *śāstra* is [caused to be] arisen before (revealed by) all the prominent gods such as the Grandfather (Brahmā) and Indra. Indeed, this *Mānasara śāstra* is composed having been extracted from that [revelation], for the benefit of the people.

These are the final verses of the final chapter, and hence of the treatise itself. They are found to be a modified iteration of the verses immediately following the opening

paeon in the first chapter. As in the verses of the first chapter, here also the continuum of the origin of *vāstuśāstra* as divine revelation, and the composition of the treatise itself as extracted from this revelation is laid out. The “modification” hinges primarily upon the pronouncement of the purpose of writing the treatise: *loka-hitārtha*, “for the benefit of the people.” This quite generic statement raises in its wake the question of exactly how the composition of the treatise benefits the people, and ultimately, once again, the question of the nature of the treatise. Acharya attempts to answer these in his translation of these verses by stating that the *Mānasāra* is a “guidebook (for architects).”⁹⁷ The treatise, for sure, does not benefit the people directly, but only through the mediation of the “agency” of the builders, that is, by their practice of the science contained in it. Thus, it may be assumed without impunity that the treatise was written primarily for the builders. The issue, then, is what exactly is meant by “guidebook.” For Acharya, the understanding of the treatise as a guidebook follows the lines of positivism: theory is reduced to functional principles and technical know-how, and the treatise is a manual that contains a set of such instructions. Practice, then, becomes a robotic execution of these instructions. It has already been sufficiently demonstrated in this dissertation that such an understanding of architectural theory in general and the treatise *Mānasāra* in particular is untenable. On the other hand, it is more proper to understand the manner in which the treatise served as a “guidebook” for the builders in a metaphorical sense. It is seen that the reciprocity and identification between “making” and “writing” subtends in the compilation of the treatise as well. In

⁹⁷ Acharya’s translation of the verses reads thus:

This great science (of architecture) was at first revealed by Brahmā, Indra and all other gods: it is from their statements that this *Mānasāra* (the essence of measurement) has been compiled as a guidebook (for architects) for the benefit of the people (Acharya, *Architecture of Mānasāra*, p. 647).

other words, writing the treatise itself was considered a process of making. This is reflected in the treatise in its overall structure – the sequential organization of contents and their chapterization – that displays a marked parallelism with the overall structure of the temple and the sequence of architectural and iconographic procedures.

The opening verse of the treatise is a venerational hymn, which captures the overall disposition of devotion by which the enterprises of both making the temple and writing the treatise are carried out. The first chapter, *Samgraha*, “Summary,” is a condensed presentation of the chapter-wise scheme and scope of the whole treatise, which may be seen as akin to the exercise of a mental assessment of the scheme and extent of the building project that the *sthapati* undertakes prior to its commencement.

The first three chapters play a “foundational” role in stating the basic principles that comprise the “why” and “what” of architecture: the theological foundations of sacred architecture as well as the epistemological foundations of its science are laid therein. The opening paean couches the principle of the pentadic elemental constitution of the universe and the admixture and segregation of the elements in the processes of creation, preservation and dissolution of the universe. Mimetic (in the sense of a re-enactment) of the cosmic process, architectural making draws from the same principle of elemental manipulation. In the second chapter, the text establishes the divine *a priori* of architectural intent and agency in conformity with the doctrine of the *Saiva tattvas*, principles of divine and cosmic evolution: *Īśvara* (the fourth evolute of *Para Śiva*) is *Viśvakarman*, Creator of the Universe, who generates the cosmic egg. From

the four faces of Īśvara emanate genealogically the four-tiered guild of the *sthapati*, the members of which are skilled in the craft of building, learned in its principles, and knowledgeable with regard to its metaphysics. The systems of measurement employed in making, as well as the tools of measurement and the procedure of making them are stated next. Making, understood as a metaphysical act of “measuring,” establishes the esoteric correspondence between terrestrial and celestial orders by engaging the mathematical proportions of the human body in a role of mediation, thus enabling harmonic human dwelling on earth.

“Dwelling,” in the senses of both verb and noun, as the object and subject of architectural intent is the topic of the third chapter. There, the text defines and classifies architecture: the earth is *vastu*, the primal architectural “object.” By human creative intervention, *vastu* is transformed into *vāstu*, which may be understood in the generic sense as “ordered existence.” The particular artifacts of *vāstu* are stated to be *harmya*, buildings, *yāna*, vehicles, and *paryanka*, furniture.

The following chapters (IV-VI) deal with the preliminary steps of construction: selection of site, its clearing and leveling, examination of its soil, its orientation and delineation. The quasi-empirical dimension of these steps necessitates the engagement of the perceptual faculties, whereas their mathematical (geometric and mensural) aspects demand a calculative approach. Chapter VII discusses the various schemes of plot-disposition which are meant as both symbolic and practical “tools” in planning and layout, from an overall “urban” scale to even the smallest components of a building.

Chapter VIII contains prescriptions for *vāstubali*, the sacrifice offered to *vāstupuruṣa* on the site at the commencement of construction. Zooming out to an urban scale, the next two chapters (IX and X) discuss the planning of villages, towns and forts. Details beginning with the overall geometrical shape of the village or town, layout of streets, position of entrance gateways, location of the royal palace and ancillary structures, as well as of temples to various deities, and finally, housing quarters for people of all ranks of the society according to caste and occupation, are elaborated. Here, the temple in an urban context is pondered upon by its situation on the allotted plot within the layout of the village or town. It is true that in such an urban context a distinction operates between the politics of the religious and the political, which are represented by the institutions of the temple and the royal palace respectively. Within the specific context of discussion of the layout and planning of villages and towns in the *Mānasāra*, the temple does not hold an all important and central position: it is simply mentioned among other edifices whose disposition in the overall layout are stated. Even though in actuality there often did exist “competition” between the institutions of the temple and the royal palace,⁹⁸ the overarching religious and cultural assumption still was that these politics were not mutually exclusive. The distinction between them was not one of kind but degree, the political being an “extension” of the religious.⁹⁹ The founding of the

⁹⁸ On the point of the long-standing friction between the Brāhmaṇa, priestly, and Kṣatriya, kingly castes (prolifically attested in traditional mythological and legendary accounts), Celestin Bouglé draws from the work of Max Weber to note that

... the two powers which [Weber] calls the *sacerdotium* and the *imperium*, were not always amicable. Sometimes they helped each other, at other times, they acted as mutual checks. Subtle formulae are employed to avoid giving predominance to one or the other. However, in the final analysis, the Brahmin is superior: he can exist without the Kṣatriya, but the latter cannot exist without him (Bouglé, “Caste Hierarchy and Priesthood,” in D. F. Pocock, trans. with intro., *Essays on the Caste System by Celestin Bouglé* [Cambridge: Cambridge University Press, 1971], p. 213, note 9).

⁹⁹ A political agenda often subtended the religious or devotional when temples were founded under royal patronage: not only did the deity take on royal attributes, but the king assumed a divine, invincible, status (in relation to his vassals) as well. This was especially true in South Indian Śaivism supported by the Cōḷa kings (see Richard

temple and the village or town were not separate events, but coextensive.¹⁰⁰ The relationship between the town and the temple extends further into a harmonic proportionality of their measurements as well. This is established by the *āyādi śaḍvarga*, the set of six formulae, employed in ascertaining and verifying the measurements of both village and temple. Operating on the principle of remnant or residue, which is signified by the remainder in the calculations, these formulae set up a range of astrological contingencies that determine the horizontal extent (length and breadth) of the town (and in turn of the temple, as well as of other buildings in the town). Harmony between the whole and its constituent parts (between town and individual buildings, and within the composition of a building and its own parts) is attained when the dimensions accord to the auspicious among all the collocated contingencies. This theme of harmony continues in the next chapter (XI); in discussing the height of temple and other public buildings in the town in terms of number of stories, the proportions between horizontal and vertical dimensions are considered. In

Davis, *Ritual in an Oscillating Universe*, pp. 6-8). This is seen in the *Mānasāra* in the remarkable parallelism in structure and content between the ceremonies of *abhiṣeka*, coronation (literally, "anointing"), of the king (XLIX, 169-219) and the installation of the image of the deity and its worship in the temple (LXX). After outlining the ceremony of *abhiṣeka* of the king, the text makes a statement that further underscores the parallelism between the king and the deity (XLIX, 228-229):

*uktāḥ sarvābhiṣekāḥ sakalanṛpatibhiḥ(tīnām) kāmānityākhyakam ca |
anyairnaimittikādyairapi ca yaducitam tattaddevābhiṣekāḥ ||*

All anointings that are said (the four kinds: 1) *prāpta*, accomplished; 2) *maṅgala*, auspicious; 3) *vīra*, heroic; and 4) *viśaya*, victorious [are those] of all the kings; and besides, the anointing of each god [is by] those named *kāmya*, desirable, *nitya*, daily, and by others such as *naimittika*, occasional, according as is fitting.

¹⁰⁰ This is especially evident in the concentric layout of temple cities of South India built during the mid-late medieval periods such as Srirangam and Madurai. The gradation from the "sacred" to the "secular" occurs radially from the sanctum of the temple to the outermost limits of the city through a series of concentric courtyards that, in contemporary phraseology, are "urban spaces." However, this is not to say that this gradation erased all ontological difference between *naimitya*, "particular" or "special," and *nitya*, "everyday, mundane" (to use a ritualistic rendition of "sacred" and "secular"), nor is it to discount the fact that temples were also built at sacred locations that were distant from the city. In fact, there is one instance in the text, where the association of the particular and the everyday with temple and village respectively is seen to be reversed. In the context of *balikarma*, sacrificial offerings, at the beginning of construction, the text states thus (VIII, 16):

devālayārtham sāmānyam grāmārtham tu viśeṣakam ||

[The *sthapati* should offer] for the temple, general, and for village, particular [sacrifice].

Here, the text uses the philosophic categories of Vaiśeṣika – *sāmānya*, general, and *viśeṣa*, particular – rather than the ritualistic terms *naimittika* and *nitya* to qualify the sacrifices.

the term *bhūmilamba*, occurring in the title of this chapter, *bhūmi* means “earth, base of a geometrical figure,” as well as “story of a building.” The noun *lamba*, meaning “perpendicular,” derives from *√lamb*, “to hang down,” and also “to depend.” The vertical dimension is proportionally dependent on the horizontal extent of the building. Several sets of proportional measurement of length, breadth and height are outlined in this chapter. These arithmetical formulations aid the *sthapati* in roughly conceiving the overall size and proportions of the temple structure before its actual construction begins.

Even though the textual proposition up to this point regarding planning, layout and measurement may suggest temple-building as proceeding systematically and unidirectionally from conception to execution, in actual practice construction unfolded through a constant dialogue between the conceptual and the concrete. It was activated not only by the “incrementality” of the construction process, but also by its unforeseen situations and contingencies. In the text, the methods and procedures of construction are not elaborated: for instance, the method by which the overall proportions of the temple are translated into dimensions of specific blocks of stone, the courses of assemblage of these blocks, the “engineering” (in modern parlance) procedure of elevating and aligning them in their proper positions, and so on. These were the subject of special knowledge and skill of the guild of the *sthapati*, recorded and transmitted only in oral accounts.¹⁰¹ However, the text does capture the spirit of

¹⁰¹ Śāstraic interest and enterprise was limited to outlining the “what,” that is, general principles of architecture. In the *Mānasāra*, these principles were understood, above all, as systems of proportional measurement. Thus, from the śāstraic point of view alone, as George infers from the text *Śilparatna*, “the work of the temple was distributed in a systematic order [following the hierarchy of the guild of the *sthapati*] from textually based planning

dialogue between conception and construction in the five succeeding chapters (XII-XVI) in a distinct tone of “prescriptive description” of the constituent parts of the temple, their different classes according to shape and proportional measurements, and their construction. These descriptions follow the same sequence as that of actual construction: starting from the foundation, socle, base and column to entablature and roof with its dome and finial. The various classes of proportional measurements of *vimāna*, superstructure of a building (in the case of a temple, the tower above the adytum) is described next (Chapter XVIII). Having introduced the architectural element of the *vimāna* (which literally means “measuring asunder”), the *Mānasāra* incrementally “constructs” this superstructure textually up to twelve stories high, by describing in twelve chapters (XIX-XXX), *vimānas* of one to twelve stories. This figurative textual construction of each story is all the more significant to the theme of reciprocal identification between making and writing, because it is a redundancy within the economy of a strictly prescriptive intent.

Once the temple edifice is constructed thus, the horizontal spatial organization of the temple complex is attended to in descriptions of courts and ancillary structures such as shrines of attendant deities, pavilions for different uses, and gate-houses (Chapters

to proportional application, to measured construction.” The schematic disposition of spatial and structural elements of the building was conducted by marking the *vāstupuruṣamaṇḍala*, the “trace” of the building. The overall proportional measurements of the edifice, the systems of which were prescribed by the text, were arrived at by the *sthapati* through a series of calculations (including the six formulae) and translated into concrete dimensions of the superstructure by means of arithmetical and geometric progressions. Even though temple-building proceeded hierarchically, rendering it “theoretical,” the absence of scaled representational drawings as tools enabling a prevision of the building evinces that temple-building was necessarily a “constructive practice” in which an active dialogue ensued between theory and practice. The traces (the *maṇḍala* diagram as scheme of plot-disposition for horizontal layout, arithmetico-geometric constructs for vertical measurements) were doubly conceptual and constructive, usually requiring repeated markings and calculations in the course of construction. Thus, construction of the superstructure proceeded step by step, story by story. In other words, the temple “drew itself” into being (George, *Construing Constructs*, pp. 147, 192, 238-46). I owe the term “constructive practice” to Alberto Pérez-Gómez and Louise Pelletier in their discussion of the building of Gothic cathedrals (Pérez-Gómez and Pelletier, *Architectural Representation and the Perspective Hinge* [Cambridge, MA.: The MIT Press, 1997], p. 8.

XXXI-XXXV). This movement away from the sanctuary of the temple towards the periphery is, in turn, also a movement towards the “secular”: Chapters XXXVI-L describe residences and palaces, conveyances, furniture pieces as well as objects signifying royalty (the crown and ornaments for the various limbs of the body, throne, umbrella and so on). The attention switches back to the sacred in the chapters on iconography, as, indeed, the temple is incomplete and meaningless without the image. Iconic representations of deities are described (Chapters LI-LXIV) in their physical features and attributes, as well as their iconometric proportions. The *śivaliṅga* and its pedestal are treated in more detail than images of other deities.¹⁰² The physical characteristics of deities are drawn from mythology; the proportional measurements in all their modal variations follow the elaborate system of iconometry, *tālamāna*. This latter is the topic of Chapters LXV-LXVII. Hierarchies are outlined in this system (*uttama*, highest, *madhyama*, intermediate, and *adhama*, smallest, as well as *daśa*, ten-part, *nava*, nine-part, and so on) for the measurement of images ranging from the presiding deity of the temple to the attendant deities, consorts and other divine beings, sages and saints. The six formulae are applied to the height of the image as well, so that it conforms to the same auspicious astrological contingencies as that of the temple building.

¹⁰² As mentioned already, this is a key evidence that betrays the allegiance of the *Mānasāra* to the Śaiva sect. There is no separate chapter dedicated to the details of the image of Viṣṇu, the principal deity of the rival Vaiṣṇava sect; they are mentioned only briefly together with descriptions of images of Brahmā and Śiva in Chapter LI. On the other hand, the text dedicates a brief chapter each (LV and LVI respectively) to describe Jain and Buddhist images. Also, there is a lengthy chapter that gives iconographic details of *garuḍa*, eagle, the vehicle of Viṣṇu. Viṣṇu being not treated in an independent chapter is either a gross oversight or, from a modern perspective, “non-sectarianism” with a polemical edge.

The principal medium and material of iconography is stone. However, in one brief chapter (LXVIII), the text includes a discussion of an alternate process of image-making: casting the images in metal using wax molds. This discussion is at best sketchy: it does not enunciate the basic principles or techniques of this process. In the penultimate chapter of the treatise (LXIX), the dire consequences of defective construction (resulting from not following adequately the śāstraic precepts) are stated – a textual correspondent of the rite of atonement for defects that is usually conducted towards the end of construction. In the final chapter, the chiseling of the eye and the ceremony of the installation of the image and inauguration of the temple are discussed. This ceremonial note in which the treatise ends reflects the same spirit and structure that pervades the culmination and consummation of sacred architecture and iconography.

6. *Rūpaka*, Metaphor, and *Līlā*, Play

The above adumbration of the chapter-wise contents of the text and their sequential organization that corresponds with temple-building highlights the intent of a mutual identification between the processes of making (the temple and image) and writing (the treatise). Stemming from the homology between the twin aspects of the divine – its Name and Form – this mode of reciprocal identification points to metaphor as the primary trope under the auspices of which the processes of making and writing unfold. The word for metaphor in Sanskrit is *rūpaka*, literally, “with form”; it also stands for

“play” (drama).¹⁰³ As already seen, making the temple and image facilitates the “assuming form” of the divine. The metaphorical identification of making the temple and image with writing the treatise unites the assuming form of the divine in their respective media: the textural and the textual.¹⁰⁴ In other words, governed by *rūpaka*, metaphor, the composite process of “making” (as encompassing building the temple, sculpting the image and writing the treatise) combats the incipient dualism of the phenomenal realm by seeking what was understood as the primary unity between the material and linguistic aspects of being through the gestures of “transference” or “identification.” Following this, it is not far-fetched to assume that the text itself, while content-wise being a scientific treatise, originally had a “sacred” ontological status and was an object of veneration by the builders’ guild. The modern Critical Edition, printed, bound and thus “technologized” (and inevitably secularized), has been drained more or less totally of this status.¹⁰⁵ The ascription of the epithet “standard treatise” to

¹⁰³ As a figure of speech, *rūpaka* belongs to the traditional field of *alaṃkāraśāstra*, literally, “science of ornament,” or poetics. Edwin Gerow, a pre-eminent scholar in the field of Indian poetics provides a detailed discussion of this figure and its variations as defined and understood by the traditional *alaṃkāraśāstra* theorists (see the entry *rūpaka* in Gerow, *A Glossary of Indian Figures of Speech* [The Hague: Mouton, 1971], pp. 239-59).

¹⁰⁴ Within the textual medium itself, and specifically in a manuscript culture, the twin aspects of orality and literacy remained mutually identified in the process of the simultaneous recitation and writing of the text, and in its constant recitation and memorization (see Walter Ong, *Orality and Literacy: The Technologization of the Word* [London: Methuen, 1982], p. 119).

¹⁰⁵ In order to determine whether any “remnant” of this status exists out there, one must first investigate whether any guild of *sthāpatīs* who adhered specifically to the *Mānasāra* as its patrimonial *vāstuśāstra*ic text still survives. If this venture was already unsuccessful during the time of Ram Raz in the early nineteenth century, then its chances are probably even slimmer today. In this regard, even the status of the eleven surviving manuscripts is rather precarious. Today, all of them are in various libraries in India and England. From Acharya’s descriptions of them, D, E, F, G and J are palm-leaf manuscripts, and the rest are written on European paper. Copying on palm-leaf being the traditional way of preserving and transmitting texts, one may assume that the palm-leaf manuscripts may have been in the custody of the guilds of *sthāpatīs* before they fell into the hands of collectors and thus were wrested out of their contexts. With respect to the manuscripts on European paper, it is quite likely that they were copied at the request of English colonial officials. There is a key evidence in manuscript B that suggests this: Acharya notes that it is recorded in its last page that “. . . this work has been written by one Rāmānujācārya for the Kumpani Bahadur (East India Company) in the Śalivāhana Śaka era 1677. The date of its being recorded is given in English, 14th April, 1823” (Acharya, “Preface,” *Mānasāra on Architecture and Sculpture*, p. x). Thus, in the case of this manuscript and its kindred ones (those in paper), the technologization and secularization of the text and its alienation from context was set in motion at the moment of the copying itself.

the *Mānasāra* by Acharya (which is accepted without question by most modern scholars) is a poignant indicator of the current secularized condition of the treatise.

The signification of *rūpaka* as play or drama invokes also the notion of *līlā*, “play.”¹⁰⁶ Although drama as “play” is the mode and medium of representation par excellence, the notion of *līlā* extends much further than the aesthetics of representation itself. It pervades cosmological, theological and mystical speculations. In fact, *līlā* in aesthetics is derivative of the same in these latter three. The cosmological processes of creation, preservation and dissolution were explained as *līlā*, “cosmic frolic” (as Jose Pereira translates), in response to the question of their ultimate telos or purpose.¹⁰⁷ Even in specific theological casts (whether Śaiva, Vaiṣṇava, or Śakta), the creation of the universe by the deity and the particular instances of its *avatāra*, self-descent (that is, manifestation), into the phenomenal realm, dalliance and other modes of interaction with devotees therein, were but play. So also was its *tirodhāna*, obscuration, from the same phenomenal realm.¹⁰⁸ Set within such a cosmological and theological framework,

¹⁰⁶ There exist in key texts synonyms of *līlā* that convey the same notion; chief among them is *krīḍā*. Modern commentators strive to demonstrate that in traditional Indian thought, *līlā* as “play” was not a concept drawn in contradistinction with “work,” nor is it the same as the modern “sports” (see for instance, Clifford Hospital, “*Līlā* in Early Vaiṣṇava Thought” in William S. Sax ed., *Gods at Play: Līlā in South Asia* [Oxford: Oxford University Press, 1995], p. 23).

¹⁰⁷ The *Brahmasūtra*, attributed to Bādarāyaṇa, the foundational text of the school of Vedānta contains the key aphorism in this regard (2. 1. 33): *lokavat tu līlākaivalyam*, “as in the world, [creation is] play alone.” In the *advaita*, non-dualist, scheme of Vedānta espoused by Śaṅkara, *līlā* is figurative (that is, metaphorical) and belongs to the realm of “lower knowledge,” while in the *viśiṣṭādvaita*, qualified non-dualist, Vedānta of Rāmānuja, it is the autonomous and sensuous enjoyment of the sensory world by the liberated Self. This latter interpretation marks the meeting of metaphysics and aesthetics, a theme which is articulated and developed even further in the Kashmir Śaiva school of Trikā, Triadism (see Robert Goodwin, “The Play World of Sanskrit Poetry” in Sax, ed., *Gods at Play*, pp. 51-56; also see Bettina Bäumer, *Schöpfung als Spiel: Der Begriff līlā im Hinduismus, seine philosophische und theologische Deutung* [Munich: Ludwig Maximilian University, Ph. D. Dissertation, 1969], pp. 80-107). Goodwin observes that the *lokavat*, “as in the world,” of the *sūtra* was interpreted by both Śaṅkara and Rāmānuja as referring probably to courtly amusements and pleasure gardens (Ibid., p. 51). The word *kaivalya* denotes absolute autonomy and self-containment. Thus, *līlā* as an activity is totally self-contained and therefore “perfect”; it connotes absolute freedom and autonomy (self-absorption) when associated with a deity, as when a child is at play. Its echo with the late eighteenth century European dictum “art for art’s sake” is remarkable.

¹⁰⁸ Regarding *līlā* in Śaivism, Bettina Bäumer states thus:

all human acts of making, the mimetic paradigm of which was cosmic creation, were permeated by the notion of *līlā*.

In the realm of language and text, “play” manifests above all in *kāvya*, poetry, through figures of speech. According to traditional *alaṃkāraśāstra*, “science of ornament” (that is, poetics), all poetic figures are considered as having the “basic condition” of *vakrokti*, literally, “deviant speech.”¹⁰⁹ This was in contradistinction to *svabhāvokti*, “telling the nature [of something].” On the other hand, the same *śāstra* included *svabhāvokti* also as a poetic figure. The exact relationship between the two was a matter of ongoing debate between major theorists of *alaṃkāraśāstra* such as Bhāmaha and Daṇḍin (c. seventh century CE). After scrupulously analyzing these debates and their commentaries by modern scholars, Edwin Gerow concludes thus:

It can be assumed that neither Bhāmaha nor Daṇḍin intended to oppose *svabhāvokti* to *vakrokti* so categorically, for to do so would have been to deny poetic status to *svabhāvokti*, which neither is willing to do. I think the key to the understanding of *svabhāvokti* lies in our discussion of conventional discourse. *Svabhāvokti* is not to be taken as synonymous with “literal” or direct discourse,

In Śaivism, whether Śaiva Siddhānta or Kashmir Śaivism, the divine activity has five phases, called *pañcakṛtya*, which correspond to a frequent fivefold division: *śṛṣṭi*, *sthiti*, *saṃhāra*, *tirodhāna*, and *anugraha* (creation, preservation, dissolution, veiling and liberating grace). All these activities of Śiva have been related to *līlā*, though sometimes one or other activity has been particularly linked with playful spontaneity. In the *advaita* of Kashmir Śaivism, these five phases also occur in any conscious being, not only the Supreme (Baumer, “The Play of the Three Worlds: The *Trikā* Concept of *Līlā*” in Sax, ed., *Gods at Play*, p. 35).

In an early article, Ananda Coomaraswamy, tracing the scattered references to play in the Vedic and Upaniṣadic texts, attempted to connect the notion of play with Vedic deities such as Agni and Soma and thus establish that it was actively engaged in Vedic and Upaniṣadic thought (Coomaraswamy, “*Līlā*” in *Journal of the American Oriental Society*, No. 61, [1941]). Hospital finds it not a convincing argument: while the notion of play was implicit in Vedic and Upaniṣadic thought, it became more explicit and actively engaged only in the later developments of Indic theology (see Hospital, *Līlā* in Early Vaiṣṇava Thought,” in Sax, ed., *Gods at Play*, pp. 24-25).

¹⁰⁹This “definition,” if one may, of poetic figure is found in the following verse from the treatise of Bhāmaha who is considered as the earliest theorist in *alaṃkāraśāstra* (Bhāmaha, *Kāvyaḥ alaṃkāra* (2. 85), translated and quoted in Gerow, *A Glossary of Indian Figures of Speech*, p. 42, note 98):

saiśā sarvaiva vakroktir anayārtho vibhāvvyate
yatno 'syāṃ kavinā kāryaḥ ko 'laukāro 'nayā vinā |

This [*aiśayokti*, ‘hyperbole’] is nothing but *vakrokti*; by means of it the sense is displayed. The poet must make an effort in its regard, for what figure is there which lacks [an element of] it?”

but rather is a cover term for the poetic possibilities implied by conventional language.¹¹⁰

The fact that the *Mānasāra* belongs to the genre of a śāstraic text and not *kāvya*, poetry, suggests that the underlying intent in its compilation was more “scientific,” even “technical” to a degree, than “poetic” or “fictional.” Therefore, the predominant mode of its language is *svabhāvokti* (in the sense that emphasizes the distinction from *vakrokti*). Even in the section in the text that is an explicitly mythological narrative, the divine genealogy of the guild of the *sthapati* (Ch. II, vv. 5-20), the language is without any “poetic excess” but, rather, is sober and matter-of-facted. This said, however, the efforts to minutely describe the subject at hand – the architectural object (building, image and such), the technical or ritual act, the property of materials (stone, wood) – points to the effect of *svabhāvokti* itself as a figure that harvests the “poetic possibilities implied by conventional language,” as Gerow puts it.¹¹¹ Also, there are occasions in the text when the language of *svabhāvokti* itself is seen to accommodate a “poetic space” within it. A conspicuous example is in the final chapter of the text, *Nayanonmīlanalakṣaṇam*, “Description of the Opening of the Eye [of the Image].” As discussed in detail already, the account of the chapter encompasses the iconographic operation of chiseling the eyes of the image, their subsequent covering with cloth, the ritual of invocation of the deity into the image, and finally removal of the cloth covering the eyes so that they are “opened.” Indeed, from the theological standpoint of Śaiva Siddhānta, “opening of the eye” is, above all, *svabhāvokti* in that it describes the

¹¹⁰ Gerow, *A Glossary of Indian Figures of Speech*, p. 47. Also see the entry *svabhāvokti* in *Ibid.*, pp. 324-26.

¹¹¹ In these subjects of description, one can identify the four metaphysical categories that the traditional theorist Daṇḍin enlists as addressed by *svabhāvokti*: *jāti*, “the true state” or “type”; *kriyā*, “act”; *guṇa*, “quality” or “attribute”; and *dravya*, “thing” or “individual” (*Ibid.*, p. 325). *Svabhāvokti*, thus, could well be understood in the sense of phenomenological description.

“true nature” of the event. However, the homology between divine Name and Form that underlies the interrelationship between the term “opening the eye” and the specific iconographic and ritual acts signified by it allows also a poetic (more specifically, metaphorical) interpretation of that term within an overall theological aegis. In other words, the two interpretations do not contradict each other; rather they signify the theological and aesthetic facets of the same act of making.

Poetic figures manifesting *vakrokti* are also present in the text despite it being a scientific treatise. A few examples are given below for the sake of illustration. These verses have already been quoted in the dissertation in the context of other topical discussions. Here, they are reiterated in order to analyze the specific poetic figure employed.

Consider the following verse (III, 4-6):

*dhārā pradhānavastu syāttattajjātiṣu sarvaśaḥ ||
vimānādīni vāstūni vastutaḥ vastusaṃśrayāt |
tānyeva vastu caiveti kathitam vastuvidbudhaiḥ ||*

The earth should universally be the principal *vastu* among all kinds (species). All *vāstu* such as *vimāna* (temple, also its tower) and so on, in fact, [derive] in consequence of *vastu*. Indeed, they (*vimāna* and such) are said to be also ‘*vastu*’ by the enlightened knowers of *vastu*.

The term *vastu* is repeated several times to create a phonetic effect. The phonetic proximity of the word *vāstu* and the particle *vastutaḥ* further enhances it. The semantic proximity of these latter two to *vastu* is what amounts to a “word-play” of sorts in the

verse. A case may be made here for the figure of *yamaka*, “cadence,”¹¹² even if it is an uncouth attempt when compared to the elegant verses of Sanskrit poetry.

In the context of word-play, the “playful” flip between the suffixes *lakṣaṇa* and *vidhāna* (signifying “description” and “prescription” respectively) in titles of consecutive chapters containing closely similar topics is at once conspicuous: Chapter IX, *Grāmalakṣaṇam*, “Description of Village,” and X, *Nagaravidhānam*, “Planning of Towns,” to mention one occasion. The two suffixes are interchangeably used to the effect that either one can signify both description and prescription. Even though not obtained within the span of a verse per se (and therefore failing to qualify according to the definition given by *alaṃkāraśāstra*), there is, nevertheless, a double entendre at work here, which invokes the figure of *śleṣa*, “pun.”¹¹³ Here, the figure of pun enables the scholastic-scientific distinction between “descriptive” and “prescriptive” dimensions of *śāstra* to be maintained and made ambiguous at the same time.

The figures of *upamā*, simile, and *rūpaka*, metaphor, are employed in the final chapter, *Nayanonmīlanalakṣaṇam*, in order to bring home the theological significance of the iconographic and ritual acts. Consider the following verse (LXX, 8-9):

udīte tu sahasrāṃśau yathā gacchati samantataḥ ||

¹¹² *Yamaka* literally means “doubled” or “restrained.” It is defined according to the traditional *śāstra* as “a figure in which a part of a verse . . . is repeated within the confines of the same verse usually in such a way that the meaning of the two readings is different” (Ibid., p. 223). Owing to the highly developed and formal character of this figure in Sanskrit, Gerow chooses to render *yamaka* as “cadence” rather than “word-play.” The proximity of *yamaka* to *śleṣa*, “pun,” is obvious. The difference between *yamaka* and *śleṣa* is that in the former, the two meanings of an identical sequence of words are obtained sequentially, while in the latter, they are obtained simultaneously. In other words, *yamaka* is “pun spelled out” (Ibid., pp. 223-24).

¹¹³ The term *śleṣa* derives from *śliṣ*, “to embrace, adhere, conjoin”; Gerow calls it “. . . the associating figure par excellence” (Ibid., p. 289).

tathaivamasthamānādi locanasya janasya ca |

Just as at the rising of the sun its myriad rays spread around, so also the opening and closing of the [inner] eyes of the people.

Even though the verse is poorly constructed (in terms of both grammar and poetics), it is clear that the figure attempted here is *upamā*, simile. In traditional theory, *upamā* has four components: 1) *upameya*, “subject to be compared”; 2) *upamāna*, “object of comparison”; 3) *sādhāraṇadharmā*, “common property”; and 4) *dyotaka*, “clarifying element” (that is, comparative adverb *iva*, “like,” and other such indicators).¹¹⁴ When all four are explicitly mentioned, it is a *pūrṇopamā*, “full simile.” In the above verse, one has to infer the missing components to complete the picture. The subject of comparison is the self-manifesting deity, and object, the rising sun. The common property is the spreading of light (and its effect of dispelling darkness), and the indicator, the relative-correlative construction *yathā-tathā*, “in what manner . . . in that way. . .”

Consider also the verse (LXX, 111):

hṛdayakamalamadhe dīpavattatparam syāt |

[The deity] should be supreme [and] like a lamp, in the center of the lotus-heart [of the devotee].

Both simile and metaphor are employed in this verse. First, simile: the deity (subject), is compared to a lamp (object); what is common is light. The comparison is effected

¹¹⁴ Ibid., p. 142.

by adding the suffix *vat*, “like,” to the object.¹¹⁵ In the term *hrdayakamala*, lotus-heart, the figure is metaphor. The heart (subject) is identified with the lotus (object). The specific means by which the identification is effected is that of compounding,¹¹⁶ the compound being an equational *karmadhāraya*.

The same notion of play obtains in the domain of architectural composition. “Ornamentation” is key in this regard, and provides the architectural “vocabulary” for the purpose. Through the permutations and combinations that this vocabulary permitted, variations of the same basic temple-archetype (the sanctum with tower above and porch in front) were “invented” and employed in the composition and construction of different temples. The *Mānasāra* mentions these various compositions in its elaborate system of classification of temples. It also has prolific descriptions of ornaments associated with the spatio-structural components of the temple such as sanctum, front porch, gate house, pavilion, court, socle, pedestal, column, entablature, roof, walls, doors, and windows, in their respective chapters. These descriptions elaborate the physical characteristics as well as proportions of the ornaments. Also, the usage *sarvālaṅkārasamyuta*, “conjoined with all ornaments,” is often found in the text.¹¹⁷ In the “language” of architectural composition, although a distinction is made between the spatio-structural component and ornament, they were not dichotomous.¹¹⁸ On the other hand, one may understand the relationship between “structure” and

¹¹⁵ The *upamā* constructed by the use of the suffix *vat* is called *vatyupamā* (Ibid., p. 163).

¹¹⁶ Hence it is called *samastarūpaka*, compounded metaphor (Ibid., pp. 256-57).

¹¹⁷ For instance, Ch. XV, 168; XVI, 87.

¹¹⁸ The understanding of the relationship between structure and ornament in architecture as dichotomous is a modern Western one which has its roots in the Vitruvian distinction between *firmitas*, “firmness,” and *venustas*, “beauty” (Vitruvius, *The Ten Books on Architecture*. Trans. Morris Hicky Morgan [New York: Dover Publications, 1960], Book III, Chapter III, para. 6).

“ornament” as reflecting that between *svabhāvokti* and *vakrokti* in poetics. Even though the primary intention of building the temple was theological, it is not too far-fetched to assume that the undercurrent of a “poetic” intent was also present in the process of its composition and construction. The task of recognizing “figures” in a particular temple that would comprise the poetics of its architectural composition involves, first, a meticulous morphological study of its overall form vis à vis the basic conceptual archetype, as well as choice and placement of particular ornaments. The poetic intent behind these choices and, thus, the particular figures of composition can be discerned by pitting the morphological data against the specific mythological-theological program behind the conception and construction of the temple.¹¹⁹

To the extent that the notion of play was present in sacred architecture and iconography, the nature of the process of making was not limited to its initial appearance as a mere rule-obeying process. On the other hand, it engaged the imagination of the *sthapati* and allowed room for serendipity and spontaneity, improvisations and innovations.¹²⁰ The game of chess provides a striking paradigm for

¹¹⁹ Michael Meister's article, “Juncture and Conjunction: Punning and Temple Architecture” in *Artibus Asiae* (No. 41, 1979) is a groundbreaking one in this line of research. Meister studies the temples of Khajuraho in Central India which are notorious for their explicit sexual imagery and notices the location of relief-images of copulating couples in panels on juncture walls between the sanctum and front porch. In another temple, at Chittor in the same region, he notices that the juncture walls have relief-images of deities with a double nature such as Harihara (Viṣṇu and Śiva in one form or body) and Ardhanārīśvara (male and female aspects of Śiva in one body). These evidences lead him to conclude that these are instances of “architectural pun.” As far as I know, there are no further studies in this line of the poetics of architectural composition and construction, a much fertile field, either by Meister himself or by others.

¹²⁰ In traditional Sanskrit poetics, the trope *bhāvikā* signifies “imagination,” understood as the formal exercise of invention of variations of an archetype. On this trope, Gerow comments thus:

In the Indian tradition, . . . imagination (*bhāvikā*) is generally described as the ability to make the several images of the individual poetic statements coherent in terms demanded by the work as a larger whole. It is manifested in such things as the plot . . . , by the lack of shocking contrast in its development, by the general appropriateness of one image to its neighbors, and the like. . . . The imagination as a quality of the whole is an *alamkāra* [embellishment] of repetition . . . (Gerow, *A Glossary of Indian Figures of Speech*, pp. 68-69).

this “playing by the rule”¹²¹ that displays a certain “algorithmic” nature; the field, rules and pieces are limited, but the possibilities of the game-plan, as it unfolds, near-infinite.

According to the *Mānasāra*, the co-operation of the *sthapati* and *sthāpaka* is crucial in medieval sacred architecture and iconography. As seers, knowers and makers, the *sthapati-sthāpaka* duo “played” their respective stipulated roles in the dramatic reenactment of cosmic creation by making manifest the divine through ritual construction and consecration of the temple and image. In light of the thesis of the mutual identification of the processes of making and writing, it may not be too itinerant a speculation that their co-operation extended as well to the textual construction of the temple through the compilation of the *Mānasāra*.¹²²

¹²¹ This apt phrase is used by Sheldon Pollock to title his paper “Playing by Rules: *Śāstra* and Sanskrit” in Dallapiccola, ed., *Shāstric Traditions in Indian Art*.

¹²² Here, I wish to avoid a generalization. The sequential organization of contents that corresponds roughly to the structure as well as processes of construction and consecration of a temple is specific to the *Mānasāra*. Noteworthy is the contrast in sequence of contents in the *Mayamata*, the sister treatise of the *Mānasāra*: all procedures of construction are elaborated in the first eighteen chapters. The remaining eighteen chapters are dedicated to taxonomy: prescriptive descriptions of temples and images of different classes according to shape and size. The *Mayamata* thus ends on a rather unceremonious note. Interestingly, in Chapter I, Saṃgraha, “Summary,” while giving a summary of the contents, the text mentions the ceremony of *cakṣurumllanam*, “opening of the eye [of the image],” as the last topic. Thus, according to this chapter, the treatise ends at Chapter XVIII. Dagens offers no critical comment on this anomaly between what is said in the Summary and the actual length of the treatise, whether the last eighteen chapters were added on later, and so on.

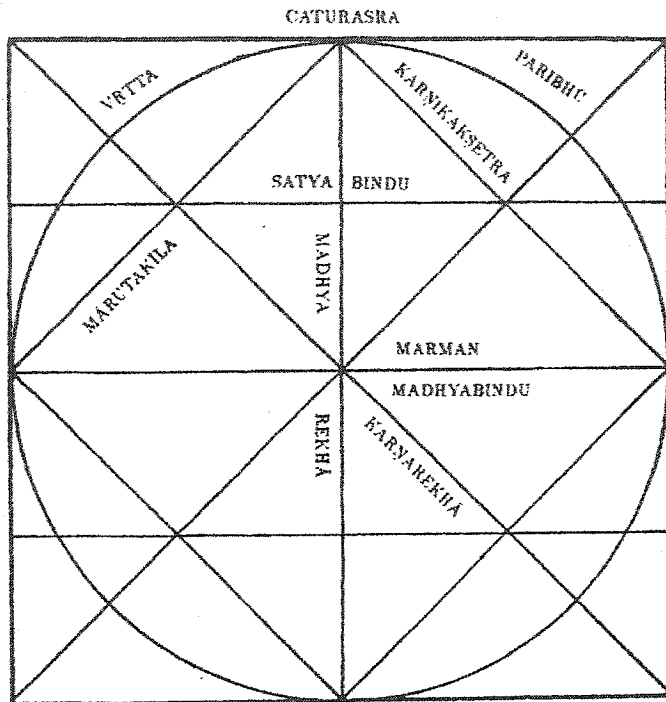


Fig. 11: *Khilapañjara*,
Compositional Diagram, for the
Atharva Vedic *Skambha*, World
Pillar.

From: *Vāstusūtra Upaniṣad: The Essence of
Form in Sacred Art*. Alice Boner, Sadaśiva
Rath Śarma & Bettina Bäumer, trans. & ed.
(Third Revised Edition, Delhi: Motilal
Banarsidass Publishers, 1996).

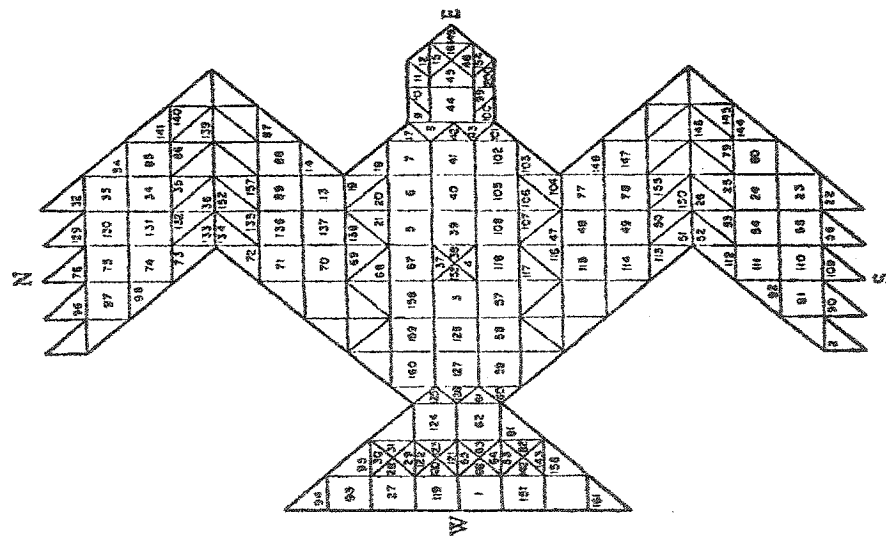


Fig. 12: First Course of Bricks: Five-tipped Bird Altar as
Agni, the Rgvedic Fire-Deity

From: Fritz Staal, *The Science of Ritual* (Poona: Bhandarkar Oriental
Research Institute, 1982).

CONCLUSION

1. Summary

The *Mānasāra* ends with the final colophon, *mānasāram sampūrṇam*, “the *Mānasāra* is whole.”¹ Being whole implies “completion,” that is, a “closure” of that circle the treatise set out to describe: elaborating the tenets of *vāstuśāstra* as enunciated by the ancient authorities. The final verses of the final chapter, being a modulated reiteration of the opening verses of the first chapter, effect this closure so that in the colophon it can be declared that the treatise is complete.

Likewise, the completion of the dissertation is incumbent upon the “closure” of the hermeneutical circle by revisiting the initial concern with which I embarked upon the study: the possibility of a meaningful reconciliation between modern science and technology and traditional modes of theory and practice in the context of contemporary architectural practice in India. This issue demanded, at first, a refined understanding of the nature and structure of traditional architectural theory itself and its relationship to traditional practice. The main body of the dissertation constituted an attempt at

¹ In the term *sampūrṇa*, the basic meaning of “whole, complete, full,” is born by *pūrṇa*; the prefix *sa-* serves to intensify this meaning. The philosophical import of *pūrṇa* as “plenum” is fully captured in the well-known *mantra* found in the *Bṛhadāraṇyaka Upaniṣad* (V. 1.1):

pūrṇamadaḥ pūrṇamidam pūrṇāt pūrṇamudacyate |
pūrṇasya pūrṇamādāya pūrṇamevāvaśiṣyate ||

That is whole; this is whole; from the whole, the whole is taken.

The whole having been taken out of the whole, the whole alone remains.

The philosophical, ritualistic and artistic horizons of *pūrṇa* and its correlate *śūnya*, void, are treated comprehensively in Debabrta Sensharma, “Pūrṇa,” and G. C. Pande, “Śūnya,” in Bettina Bäumer, ed., *Kalātattvakośa: A Lexicon of Fundamental Concepts of the Indian Arts*. Vol II: *Concepts of Space and Time*. Kapila Vatsyayan, gen. ed. (New Delhi: Indira Gandhi National Centre for the Arts & Delhi: Motilal Banarsidass Publishers, 1992), pp. 429-47 and 399-428 respectively.

precisely such an understanding, through the exegesis of the *Mānasāra*. To recapitulate the insights described in the process: *vāstuśāstra* understands itself to be a priori with respect to its object, *prayoga*, practice. This self-understanding is founded theologically, in the claim that *vāstuśāstra* is a divinely revealed science. It is also reflected in the divine genealogy of the guild of the *sthapati* and its hierarchical organization. The claim and self-understanding of *vāstuśāstra* as a priori obtains epistemologically in the nomological principle of *māna*, measure, as the essence of the science of architecture, and the set of *vidhi*, prescriptive statements that outline the principles of the science of architecture, that derive from it. From this śāstraic perspective, *prayoga*, practice, is mere application of rules and therefore a deontological process.

A closer hermeneutical reading of the text, however, evinces a dialectic that is dissembled within the nature and structure of *vāstuśāstra*. Theologically, the objective of making (specifically, the temple and image) is to facilitate the manifestation of the deity, that is, its descent into the phenomenal realm. However, the same theology demands that making be a meditative practice which, in turn, generates the trajectory of ascent of the maker-as-devotee. The text stipulates rituals and meditations to accompany the technical operations, especially at important junctures of construction. Thus, the technical and theological dimensions of making interpenetrate each other. The trajectories of descent of the deity and ascent of the maker-as-devotee meet at the ritual moment of *darśana*, auspicious sight, at which the union of the deity and devotee is understood to occur.

Similarly, the nomological principle of measure displays more the characteristic of a philosophic truth that is grasped through eidetic intuition than merely a deductive, rationalistic, proposition or an inductive, empiricist, law. This phenomenological impulse is seen to extend to the nature of the grammatical principles of the science as well: they are primarily descriptive statements, with the śāstraic, prescriptive, tone as a secondary feature. In other words, they are “prescriptive descriptions.” This dialectic between description and prescription is captured in the text by exploiting the remarkable semantic fluidity that is contained within the syntactical structures of Sanskrit grammar. Also, in the case of the range of conceptual instruments to regulate practice that the text gives account of, it is seen that there persists a dialectic between conception and perception in their constitution. Thus, the instruments have a non-instrumental dimension as well, the foundation of which lies in the human body at the microcosmic level and in metaphysics and cosmology at the macrocosmic level.

The dialectical nature and structure of theory itself is seen to extend into its relationship with practice as a certain reciprocity between them. Within practice, it manifests as that between conception and construction, evinced by the admittance of exceptions to rules in the text. The reciprocity between theory and practice also manifests in a certain parallelism between “making” and “writing,” in other words, between building the temple and compiling the treatise, with respect to their structure of organization (that is, sequence of procedure of the former and chapterization of the latter). No exact one-to-one correspondence between textual accounts and built temples exists; rather,

the “identification” of making and writing is metaphorical, stemming from the homology between the Form and Name of the divine.

The predominant concern of *vāstuśāstra* is the “what” of architecture, that is, theoretical principles in the form of grammatical rules. Nevertheless, it still maintained an indubitable link with the “how” and “why” of architecture (that is, its craft and cosmological-theological dimensions respectively). The theological foundation and nomological outlines of *vāstuśāstra* evince that its fundamental role was in the conceptual realization of the archetypal program of divine manifestation within a cosmological setting. Making, especially sacred architecture and iconography, was the actualization of this program. In the “application” of śāstraic rules in the process of actualization, there was still room for the *sthapati* to exercise his imagination to improvise on them and invent variations of the same conceptually realized archetype in response to the demands of particular situations, as the extant temples testify.

In summary, the following features of *vāstuśāstra* may be gleaned from this entire study as having perennial significance for architectural practice: 1) the primacy of the site (and not the design-studio) as the locus of the “event” of architectural conception and construction, and the phenomenological appreciation of the site; 2) the foundation of architecture in the craft of making; 3) the yogic, meditative, dimension of practice that opens the channel of imagination of the architect, while at the same time offers the necessary discipline to restrain the imagination from devolving into mere caprice; and 4) openness to metaphysics and theology.

2. Epilogue

The ever-new weaveth the ever-old
Ever-telling the never-told.²

Even though the “paradigm” of traditional architectural theory and practice does ring a certain algorithmic note, it is qualitatively different from the positivistic functionalism of modern, technological, practice. The difference issues from the inherent symbolism of the traditional model that was molded by the metaphysical corollaries of its cosmological setting and framework of cyclical temporality, as well as its grounding in the craft of making.³ The classic ideational error current in contemporary architectural

² Quoted in S. R. Balasubramaniam, *Later Chola Temples (A. D. 1070-1280): Kulottunga I – Rajendra III* (Madras: Mudgala Trust, 1979), p. 1.

³ In his expositions on the nature of *śāstra* and its relationship to practice, Sheldon Pollock fails to highlight this conception of *śāstra* especially as it pertains to architectural and iconographic making (in fact, he specifically mentions the *Mānasāra* as an example of a *śāstraic* text on architecture). His analytical framework of *śāstra* is solely the epistemology of classical *darśana*, more specifically among them, *Mīmāṃsā*. It is in this classical context that he places the *Mānasāra* as “the earliest text on architecture and town-planning,” accepting the information on the date of the text given by G. S. Ghurye in his book *Vidyas* (Pollock, “The Theory of Practice and the Practice of Theory in Indian Intellectual History,” in *Journal of American Oriental Society* [No. 3, 105, 1985], p. 513). Pollock also finds an ally to *Mīmāṃsā* in the apriorism of Kant in understanding the *śāstraic* form of *vidhi*, injunction. Thus for him, the nature of theory is similar in Indian *vāstuśāstraic* texts (such as the *Mānasāra*) and Western post-Enlightenment treatises such as that of Laugier (see Pollock, “‘Playing’ by Rules: *Śāstra* and Sanskrit” in Dallapiccola, ed., *Shāstric Tradition in Indian Art*, pp. 304-07).

This problem owes, perhaps, to his method of analysis of *śāstra* that proceeds from the general to the specific: “. . . a systematic and synthetic analysis of the phenomenon [of *śāstra*] as a whole, as presenting a specific and unique problematic of its own . . .” (Pollock, “The Theory of Practice and the Practice of Theory,” pp. 500-01). The date of the text which Pollock accepts from Ghurye (who, in turn, might have borrowed it from Acharya), is untenable, as is already shown in the Introduction of the dissertation. As a result, Pollock does not dwell enough on the implications of the onto-theology of *Saiva Siddhānta* (the specific tradition to which the *Mānasāra* belongs) that vivified *darśana* from sheer intellection of the divine in the classical systems to *darśana* as a holistic, sentient, experience of the divine occasioned by devotional worship, even while developing within or in relation to the wider aegis of Vedic revelation and its epistemology. Also, Pollock’s favorable comparison of the deontology of *Mīmāṃsā* to Kantian deontological ethics cannot hold despite a certain formal similarity (and even axial symmetry) that obtains between them: the former rests ultimately on the transcendent Veda (which is totally outside the subject), while the latter on the autonomous will of the transcendental subject. Consequently, his assertion that the nature of theory in *vāstuśāstra* is the same as in Laugier’s treatise (*Essai sur l’Architecture*, 1752) is also rendered erroneous, at least in the case of the *Mānasāra*: Laugier’s language is a highly refined literary French as against the “barbarous Sanskrit” of the *Mānasāra*. The difference between the two do not stop merely at the level of refinement of their respective languages but extends to their basic intents and contents as well. Laugier, not an architect himself, is primarily concerned with the “why” of architecture, that is, the project of a self-conscious founding of architecture on sound principles in an age of advancing relativism. He posits the primitive hut and Nature as foundation and source of meaning of architecture, and derives rational principles from them for the one genuine style in which to build. His treatise is unmistakably historical, assessing and critiquing past and contemporary buildings and styles all of which, according to him, have somehow fallen short of the ideal (see Wolfgang Herrmann, *Laugier*

practice in India, one that is committed by both modern architects and representatives of the *vāstuśāstra* tradition,⁴ is to confuse and ultimately collapse the significations of *vāstuśāstra* injunctions with functionalist tenets of design and technological know-how, and, thus, to deem them as compatible to each other.⁵ Its ramifications seem, in the end, only to favor and further functionalism, with the traditional concepts supplying the cosmetic sleight either for a formalistic “Indianization” of buildings or to pacify

and *Eighteenth Century French Theory* [London: A. Zwemmer Ltd., 1962], Chapter II, “The Theoretical Foundation”). The prescriptive dimension of his theory must be understood only within this context, one that has nothing in common with that of the *Mānasāra*. Also, Laugier’s eminent “rationalism” does not admit of any discussion of building rituals in his treatise, despite his being a Catholic priest. In short, his epistemological concerns and methods are totally different from any that are found in the *Mānasāra*.

Yet another problem in Pollock’s comparison of *vāstuśāstra* with Western architectural theory is that he assumes all post-Enlightenment theory in the West to be of the same tenor, which is far from the case. For instance, there is a considerable shift in the nature of theory from the *Essai sur l’Architecture* (1752) by Laugier (discussed briefly above) to the *Précis des Leçons d’Architecture* (1802) by J. N. L. Durand, who admitted only an instrumental dimension to theory (see Alberto Pérez-Gómez, *Architecture and the Crisis of Modern Science* [Cambridge, MA: The MIT Press, 1983], pp. 61-65 and 298-314).

The barbarous Sanskrit of the *Mānasāra* evokes the treatise of Vitruvius (the first extant treatise in Western architectural history) whose Latin was also commented upon as barbarous. However, the barbarity of the respective languages alone does not afford a favorable comparison between the two, nor do a few similarities in textual content. Such a comparison was Acharya’s mistake (see Acharya, *Indian Architecture According to Mānasāra-Silpaśāstra*, Chapter V, “*Mānasāra* and Vitruvius”). The similarities in textual content owe to similarities in the qualification of those engaged in the building craft as knowledgeable in a range of subjects, and pre-modern methods employed to select, examine and orient the site in the Greco-Roman and Indian traditions. However, there is a significant distinction in the nature of theory in the two treatises: even though Vitruvius is aware of the *mathesis* of the ancient Greeks, his is a narrative (rather than normative) discourse that tells stories of origins and gives descriptions of extant buildings with respect to their components, proportions and so on. In other words, in Vitruvius, theory is frankly a posteriori. The *Mānasāra*, on the other hand, lacks personal authorship, hides the descriptive within the tone of prescription, and lays claims to divine provenance through fantastic genealogies, thus asserting the a priori of its theory.

⁴ Ever since the modern architect took over from the traditional *sthapati* as the principal figure in the contemporary architectural scene, the survival of the latter has been rather precarious and in pockets, and in most cases in a transmuted form: as the “expert” of *vāstuśāstra*. Since the traditional mode of practice in its more classical expression is struggling hard to survive, his knowledge of (or “expertise” in) *vāstuśāstra* is, by and large, only textual and devoid of concrete experience that derives from engaging in actual building. Thus, the contemporary expert of *vāstuśāstra* merely “represents” that tradition, unlike his predecessor, the *sthapati*, who truly “embodied” it.

⁵ For an account of the origin, nature and structure of the functionalism as that facet of positivism which obtains in architectural theory and practice and which dominates modern architectural practice, see Alberto Pérez-Gómez, *Architecture and the Crisis of Modern Science*, Part IV, “Geometry, Number and Technology,” and especially, Chapter 9, “Durand and Functionalism.”

Modern architects, perceiving a metaphysical void in their mode of practice which at its core is functionalist and reductive, and also plagued by the post-colonial political issues of identity and nationality that seek expression in architecture, often resort to *vāstuśāstra* for means to legitimize and validate their practice. On their part, the experts of *vāstuśāstra* play the role of consultants, offering their “theoretical expertise” in live projects or in “analyzing” problems concerning existing modern buildings. In the eagerness of the experts to demonstrate the universality of *vāstuśāstra*, the scope of the latter exercise is sometimes extended even beyond the boundaries of India. Then there are practitioners and pedagogues of architecture who are engaged in developing programs and curricula to teach *vāstuśāstra* in modern academic settings. Information on such ventures as these, which often yield comic results, is abundant on the Internet.

insecure clients.⁶ In this light, rather than categorically dismissing *vāstuśāstra* as insignificant nor discounting its insights, as some modern architects tend to do,⁷ what is called for is a strategy opportune in contemporary practice: that of a creative negotiation and navigation between the two modes. The cornerstone of this strategy is a discriminatory awareness that first sifts out the compatibilities and incompatibilities between the respective constitutive features as well as philosophico-theological (cosmological, eschatological and soteriological) horizons of the two modes. Such an awareness offers modern architects the necessary guidance to restrain from a practice that is merely ideologically driven: attempts to reconstruct an idealized “golden age” of the past, or to construct a futuristic, technocratic, utopia. On the other hand, it provokes them to reflect on whether there is, indeed, a foundational principle that would truly ensure the dimension of historical facticity as well as its transcendence to the architectural projects that they undertake. The dialectical polarization of and stalemate between tradition and modernity are overcome when these theoretical dispositions are sufficiently interiorized and incarnated (that is, translated into concrete action in actual projects) by modern architects. Then does their practice strive towards making all things truly and meaningfully new.

⁶ For example, consider these statements, made respectively by a famed *sthapati* of the *vāstuśāstric* tradition and a modern architect:

“... my deep involvement in the design and execution of huge-sized secular buildings for certain universities in Tamil Nadu as also Indianization of certain modern buildings in conjunction with contemporary architects have helped me understand the problems of contemporary architecture in India in respect of spatial concepts and aesthetics preferred by modern society” (V. Ganapati Sthapati, “Concept of Space in the *Vāstu* Tradition: My Experiences,” in Bäumer, ed., *The Āgamic Tradition and the Arts*, p. 130). “In Andhra Pradesh for instance, where the [*vāstuśāstra*] tradition still lives on, it is even applied to modern concepts of commercial buildings such as factories, theatres etc. The gods bring profit after all!” (Sumeeta Srinivasan, “The Modern *Vastu*” in *Architecture+Design*, September-October, 1991).

⁷ Consider the statement by Satish Grover, a leading contemporary architect, that much of *vāstuśāstra* is “deliberate esoteric mumbo-jumbo” (Grover, *The Architecture of India: Buddhist and Hindu* [New Delhi: Vikas Publishing House, 1980], p. 172).

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Appendix I: CHAPTER-WISE SUMMARY OUTLINE OF THE MĀNASĀRA

I: *Samgrahah*

Opening paeon; origin of *vāstuśāstra* as from Śiva and revealed through the gods and sages; chapter-wise outline of contents of the treatise.

II: *Śilpilakṣaṇapūrvakam Mānopakaraṇavidhānam*

The divine genealogy of the four-tiered builder's guild; qualifications of its members; the system of measurement, particular units and their application; instruments of measurement and their making.

III: *Vāstuprakaraṇam*

Classification of architecture as Earth, buildings, conveyances and objects such as furniture, ornaments, etc.

IV: *Bhūmisamgrahavidhānam*

Selection of site on the basis of soil, slope, water sources, flora and fauna.

V: *Bhūparīkṣāvidhānam*

Examination of soil by various tests; ritual possession of site, its ceremonial tilling, making of plough and description oxen used for it.

VI: *Saṅkusthāpanalakṣaṇam*

Making and erection of gnomon; orientation of site by the sciographic method, calibrations to be applied in different months of the zodiacal calendar; delineation of the site by its measurement and fixing limits with pegs; making of pegs.

VII: *Padavinyāsalakṣaṇam*

Disposition of plots in the delineated site, thirty-two schemes; deities presiding over the plots and their iconic features; *vāstupuruṣa*, spirit of the site, his corporeal features and manner of occupying the site.

VIII: *Balikarmavidhānam*

Sacrificial offerings to the deities presiding over the plots of the site.

IX: *Grāmalakṣaṇam*

Planning of villages: eight overall schemes and their variations; *āyādi śaḍvarga*, six formulae based on the principle of remainder to generate and verify basic measurements of the settlement; details of street layout, hierarchy of streets, location of temples, palace, residential quarters of various classes of inhabitants; height regulations of buildings; positions of entrance gateways; layout of drains.

X: *Nagaravidhānam*

Towns and forts: eight classes of towns based on location, inhabitants and their caste, and dominant activity (trade, administration, defense, etc.); seven types of forts based on location and characteristic features.

XI: *Bhūmilambavidhānam*

Shapes (in plan) of buildings: square, rectangle, octagon, circle, oval; pentadic classification of buildings according to height-breadth proportion.

XII: *Garbhanyāsaavidhānam*

Excavation of foundation; ceremony of disposition of plots and *garbhanyāsa*, deposit of seed that "impregnates" the site; different sets of articles of deposit for temples (according to presiding deity), and for residence (according to caste of owner); ceremony of laying the first brick/stone.

XIII: *Upapīthavidhānam*

Three-fold classification of socle according to height, each of which is again divided into four; description of moldings that are employed in the socle.

XIV: *Adhiṣṭhānavidhānam*

Classification of bases according to height into eighteen, and their subdivisions; proportionate measurements of the component moldings.

XV: *Stambhalakṣaṇam*

The column, its proportions, shapes, ornamentation, materials (principally wood), intercolumniation; procedures of collecting wood from forest; ceremony of erection of column.

XVI: *Prastaravidhānam*

Entablature, roof, parapet: their moldings and proportionate measurements; ornamentation (figures to be carved on them).

XVII: *Sandhikarmavidhānam*

Wood joinery: eight kinds, their manner of joining; use of spike and nail in joinery.

XVIII: *Vimānalakṣaṇam*

The superstructure of the temple (tower above the adytum): one-twelve stories; measurements, ornamentation of the crowning dome, dome-nail (pinnacle), pent-roof and front porch; the ceremony of placing the last four blocks of the superstructure and erection of dome-nail.

XIX: *Ekatalavidhānam*

Single-storied temples: classifications based on measurement and shape; proportionate measurements of each component of the structure; ornamentation and relief figures to be carved.

XX-XXX: *Dvi-daśatalavidhānam*

Temples from two to twelve stories and their classifications according to measurement, proportion, shape; details of staircases and their construction in Chapter XXX.

XXXI: *Prākāraavidhānam*

Courtyards: their proportionate measurements and features; five courtyards in the composition of larger complexes.

XXXII: *Parivāraavidhānam*

Shrines of attendant deities and their locations in various courtyards in a temple complex, also locations of ancillary functions (such as treasury, granary, etc.).

XXXIII: *Gopuravidhānam*

Gate-houses to the five courts, their proportionate measurements; components such as door, pillar, window, porthole, entablature, etc. and their measurements.

XXXIV: *Maṇḍapavidhānam*

Pavilions, as single story blocks as housing various ancillary functions of a temple or residence; also as open, pillared halls for ceremonies of coronation, consecration of temple, etc., to stage plays and artistic performances, and as sheds to shelter animals (horses, elephants), always located within the five courtyards.

XXXV: *Śālāavidhānam*

Residential blocks: different classes according to shape and proportions, description of their composition.

XXXVI: *Gṛhamānasthānavidhānam*

Measurement and spatial layout of a residence according to *padavinyāsa*, scheme of plot-disposition.

XXXVII: *Gṛhapraveśavidhānam*

Ceremony of inauguration of the residence.

XXXVIII: *Dvārasthānavidhānam*

Doorways, their disposition in temples and residences.

XXXIX: *Dvāramānavidhānam*

Measurements of doors in temples and residences.

XL: *Rājaharmyavidhānam*

Palace complexes; kings of nine ranks based on extent of kingdom, revenue, strength of army, etc., and their palaces.

XLI: *Rājāṅgavidhānam*

The qualities of a king; his entourage.

XLII: *Rājalakṣaṇam*

Royal insignia – crown, throne, etc.; administration of justice, collection and distribution of revenue.

XLIII: *Rathalakṣaṇam*

Royal chariot: its different classes, constituent parts, ornamentation.

XLIV: *Śayanavidhānam*

Couches, bedsteads and swings: their measurement and ornamentation.

XLV: *Siṃhāsanaalakṣaṇam*

Thrones: measurement and ornamentation.

XLVI: *Toraṇavidhānam*

Archways to temples and palaces: measurement and ornamentation.

XLVII: *Madhyaraṅgavidhānam*

Central theater for the performing arts in temple and palace complexes.

XLVIII: *Kalpavṛkṣavidhānam*

Characteristics of *kalpavṛkṣa*, the mythical all-giving tree that adorns thrones, pavilions, archways, bedsteads, etc.

XLIX: *Maulilakṣaṇam*

Crowns of various deities and classes of kings, their dimensions, jewels to be embedded in them; ceremony of coronation of the king.

L: *Bhūṣaṇalakṣaṇam*

Body ornaments and house-hold articles such as lamp-stand, fan, mirror, bird-cage, etc.

LI: *Trimūrtīlakṣaṇam*

The triad of deities (Brahmā, Viṣṇu, Śiva), their iconographic features.

LII: *Līṅgavidhānam*

The *līṅga*, semi-iconic image of Śiva: various classes, their proportionate measurements; features of stone suitable for its sculpting; collection of stone from forest; fruits of its worship.

LIII: *Pīṭhalakṣaṇam*

Measurements and details of the pedestal upon which the *līṅga* is to be installed.

LIV: *Śaktalakṣaṇam*

Female deities: their iconographic features.

LV: *Jainalakṣaṇam*

Iconographic features of Jain images.

LVI: *Bauddhalakṣaṇam*

Iconographic features of Buddhist images.

LVII: *Munilakṣaṇam*

Iconographic features of the seven sages of antiquity.

LVIII: *Yakṣavidyādharaḥlakṣaṇam*

Iconographic features of mythical beings.

LIX: *Bhaktalakṣaṇam*

Iconographic features of devotees; four classes of devotees according to four stages of spiritual ascendancy.

LX: *Haṃsalakṣaṇam*

Iconographic features of the Swan (vehicle of Brahmā).

LXI: *Garuḍalakṣaṇam*

Iconographic features of the Eagle (vehicle of Viṣṇu)

LXII: *Vṛṣabhalakṣaṇam*

Iconographic features of the Bull (vehicle of Śiva)

LXIII: *Siṃhalakṣaṇam*

Iconographic feature of the Lion.

LIV: *Pratimāvidhānam*

Proportionate measurement of images derived according to various principles; application of *āyādi śaḍvarga* to measurement of images.

LV: *Uttamadaśatālavidhānam*

The *tālamāna* system of measurement of images in its maximal variation that divides the overall height of image into 124 parts, from which is derived the measurement of each organ and limb.

LVI: *Madhyamadaśatālavidhānam*

The *tālamāna* system of measurement of images in its medial variation that divides the overall height into 120 parts, from which is derived the measurement of each organ and limb.

LVII: *Pralambalakṣaṇam*

Offset measurements of the images from the plumb-line.

LVIII: *Madhūcciṣṭavidhānam*

Metal casting of *liṅga* and other images in wax molds.

LIX: *Aṅgadūṣaṇavidhānam*

Consequences and penalties of defective construction for each component of building.

LXX: *Nayanonmīlanalakṣaṇam*

The ceremony of inauguration of the temple: opening the eyes of the image, its installation in the temple, deposit of precious stones.

Appendix II: SCHOLARSHIP ON THE MĀNASĀRA

In the Indian intellectual tradition of the ancient and medieval times, scholarship on a treatise existed in the form of *bhāṣya* and *vārttika*, commentaries and expositions.¹ This tradition of śāstraic discourse was sustained mostly by the Brāhmaṇa class, and its language was classical Sanskrit. Even though *vāstuśāstra*, science or theory of architecture, was occasionally listed among the branches of knowledge that make up the śāstraic corpus and *vāstuśāstraic* treatises proliferated all over India from the medieval period onwards, to the best of my knowledge, no commentary of the *Mānasāra* (or any other *vāstuśāstraic* treatise) existed in traditional śāstraic discourse. This may have been due to the Brāhmaṇas' consideration of *vāstu*, architecture, as a "craft,"² and therefore relegating its theoretical discourse as a concern only of its own practitioners who, incidentally, were non-Brāhmaṇas.

¹For example, in the field of grammar, Panini compiled *Aṣṭādhyāyī*, the first known Sanskrit grammatical treatise (c. 400 BCE). The works of the later grammarians Katyaiana (c. 250 BCE) and Patanjali (c. 150 BCE), *Vārttika* and *Mahābhāṣya* respectively, were commentaries of *Aṣṭādhyāyī*.

²In his book *Vidyas*, G. S. Ghurye, a prominent scholar in the field of sociology, examines the branches and hierarchies of *vidyā*, knowledge, in Indian intellectual history, beginning from the Vedic period. Ghurye's survey leads him to conclude that *śilpaśāstra* as a "head of learning" seldom featured in the numerous traditional listings and organizations of bodies of knowledge (*śilpa* is a generic term the meaning of which encompasses the mechanical and fine arts; scholars often use it interchangeably with *vāstu*, the more specific term for architecture). In the few instances when it is mentioned, he observes that "its close connection with the arts of song, music and dance is rather suggestive of its having been counted as a craft" (Ghurye, *Vidyas: A Homage to Comte and A Contribution to the Sociology of Knowledge* [Bombay: Indian Sociological Society, 1957], p. 48). As an evidence to this, he gives the case of the *Mānasāra*:

The work named *Mānasāra* after its author is the earliest extant text dealing with the subject of architecture, town-planning and also iconography. [The sage] Manasara, at the beginning of his great work, informs his readers that the first promulgators of the science which he is going to expound were the gods Siva, Brahma, Vishnu, and Indra, and the great sages Brhaspati and Narada. After them, Manasara himself dealt with it. It is interesting to note that even with Manasara's laudatory attempt at showing the divine origin of his science and his magnificent achievement in the text itself, his *Vidya* or lore failed to get an honorable place in the Indian conspectus of knowledge of contemporary and immediately following periods (Ibid).

Even though Ghurye's description of the text as the earliest extant text on architecture (probably echoing Acharya), is untenable, his observation cited above is significant in the discussion of traditional scholarship on the *Mānasāra*.

Architectural matters have, indeed, been discussed in treatises in other disciplines as well as religious texts that often times preceded the compilation of the *vāstuśāstraic* (that is, “avowedly architectural,” in Acharya’s words) treatises.³ Among these, the *Āgamas* especially of the Śaiva sect such as the *Kāmika*, *Karaṇa*, *Suprabheda*, *Raurava* and *Ajita* are of special significance for the *Mānasāra*. The basic structure of these *Āgamas* reveals a fourfold *pada*, division: *jñāna* (theological) knowledge; *yoga*, techniques of meditation; *carya*, religious conduct; and *kriyā*, ritual practice and associated architectural and iconographic making. These texts elaborate in their *kriyāpada*, in much detail, the principles and processes of making temples and images.⁴ Their accounts have a striking resemblance in form and content with those in the *Mānasāra*.⁵ The realization of a temple project (its building and consecration) could be possible only by the collaboration of theological and technical knowledge personified in the *sthāpaka*, temple-priest, and the *sthapati*, master-builder, respectively.⁶ Both the *kriyāpada* of the *Āgamas* and the *vāstuśāstra* of the *Mānasāra* may be thought of as

³For instance, *Arthaśāstra*, the treatise on statecraft and political science (dated c. 300 BCE), Chapters 22-25, 65 & 66 on military architecture; *Nāṭyaśāstra*, treatise on dramaturgy (dated latest 200 CE), Chapter 2 on theatres; several chapters in Purāṇic texts (such as *Agni*, *Vāyu*, *Matsya* and *Garuḍa*, dated variously from the dawn of the Christian Era onwards) that deal with worship of images in temples and making of images and temples; and accounts in the *Āgamas*, theological texts of the Śaiva, Vaiṣṇava and Śākta sects of medieval Hinduism, on the making of temples and images. For a detailed survey, see Acharya, *Indian Architecture*, Chapter I.

⁴The *Kāmikāgama*, for instance, in its sixty (out of a total of seventy-five) chapters that deal with architectural and iconographic making, gives systematic accounts of site selection, examination, orientation and delineation, systems of measurement and numerical-astrological formulae to be employed in the making and classification of buildings. Acharya comments: “. . . its treatment of the subjects can hardly be surpassed by that of an avowedly architectural treatise” (Ibid., p. 23).

⁵Acharya, after having perused the *Kāmika*, *Karaṇa* and *Suprabheda āgamas*, finds a “close similarity” in their chapter-contents with the corresponding chapters of the *Mānasāra* (Ibid., pp. 23-28). This similarity with the *Āgamas* is true as well in the case of the *Mayamata*, the other authoritative treatise of Dravidian and Śaivite architectural and religious affiliation (see Bruno Dagens, *Architecture in the Ajitāgama and Rauravāgama* [New Delhi: Sitaram Bhartiya Research Institute, 1984]; also see “Foreword” by Kapila Vatsyayan and “Introduction” by Bruno Dagens in *Mayamatam*, Vol. I).

⁶Mentions of this collaboration between *sthāpaka* and *sthapati* in the course of building and consecrating temple and image are found on several occasions in the *Mānasāra*: Chapter XVIII, 399-400; LXVIII, 20-22; LXX, 3-4; also in the *Mayamata*, Chapter VI, 19; XII, 35-37; XVIII, 139, 178-203, and so on.

resulting from this collaboration: a conscious “theorization” by compiling floating traditions of craft-practice that used to be preserved orally, and bringing them under a theological aegis. The *kriyāpada* completed the body of the respective *Āgama*, and the *vāstuśāstraic* treatise preserved and transmitted to posterity, the “theoretical” knowledge of practice.⁷ The theological legitimization, together with the degree of frozenness that the process of writing the manuscript effects even within the overall fluidity of the craft and oral traditions, may have, over time, imparted a degree of canonicity to the text of the *Mānasāra* with respect to practice.

1. *Mānasāra*: Transition from Transcription to Translation

As mentioned already, the extant manuscripts of the *Mānasāra* are transcriptions of a later date.⁸ From Acharya’s description of the manuscripts, it is seen that some of them (A, B, C, D, H, I and J) were written on paper with ink. The transcription of the *Mānasāra* continued well into the colonial period in Indian history, not only in the

⁷This “authorship” (understood in the sense of agency of compilation) of the *vāstuśāstra* by the *sthapati*, first and foremost a builder (and therefore wanting in literary proficiency), explains why the language of the *Mānasāra* in the manuscripts is a “most barbarous Sanskrit” as has been commented by Sanskritists such as G. Buhler, R. G. Bhandarkar and Rost who examined them (Acharya, *Mānasāra on Architecture and Sculpture*, “Preface,” pp. vii, xi; also see Acharya, *Indian Architecture*, Appendix, “The Language of the *Śilpa-Śāstra*,” pp. 199-214). In the appendix, he lists the grammatical irregularities in the text; he also points out that this style of language is found in inscriptions as well.

⁸In ancient and medieval India, climatic conditions necessitated frequent transcription of palm-leaf manuscripts for the preservation and transmission of a text. However, as scholars have noted, the objective of transcription in the case of *vāstuśāstraic* texts was not merely “preservation” but also transmission and updating of the text with respect to current practice by means of interpolations and additions. These contributed to the fluidity of the text. Kapila Vatsyayan, in her “Foreword” to Dagens’ critical edition and translation of the *Mayamata* says: “The question of interpolations in the Indian textual tradition is . . . a complex matter. Since at all times the text reflected actual practices, as and when actual practices went through modifications, these changes were reflected in the subsequent texts or incorporated into an already prevalent text” (Vatsyayan, “Foreword” in *Mayamata*, p. ix).

The manuscript tradition marked the transition from oral to literate culture. Thus, manuscripts, though encapsulating ideas in writing, were always “in dialogue with the world outside their own borders” (Walter Ong, *Orality and Literacy: The Technologization of the Word* [London: Methuen, 1982], p. 132).

traditional circles of the guilds, but also under the patronage of the British.⁹ The early “patrons” were in most cases freelance enthusiasts belonging to the administrative, commercial or military ranks of the English East India Company.¹⁰ This phenomenon of British patronage in the transcription of the manuscripts in the case-history of the *Mānasāra* may be seen as the first instances of a tentative and guarded tryst (along the textual line) between the “living” *vāstuśāstraic* tradition of South India and the rationally enlightened modern European mindset – the intellectual curiosity of the latter having been piqued by the “mystique” of the former.¹¹ The fact that the British patrons

⁹It is recorded in the last page of Manuscript B that it has been written (transcribed) by one Rāmānujācārya for the Kumpani Bahadur (a colloquial term from the colonial vocabulary that stood for the East India Company) in the Śaka era 1677. The date is given in English as 14th April, 1823. Similarly, the statement in the fly-leaf of Manuscript C mentions that it was “written out under the direction of Charles Philip Brown, 1830” (Acharya, “Preface,” *Mānasāra on Architecture and Sculpture*, pp. ix-xi).

¹⁰The city of Tanjavur and the region around it (which came to be known as the Carnatic) has had a quite checkered history from the age of the Cōḷa empire onwards. After the decline of Cōḷa power in the thirteenth century, Tanjavur was occupied successively by the Pāṇḍya kings of Madurai, the Hindu Vijayanagara empire, the Muslim kingdom of Bijapur, the Hindu Marathas, and the Muslim Nizam of Hyderabad. The region also witnessed the presence of and rivalry between the European colonial powers of Portugal, Holland, Denmark, France and Britain in the form of trading companies, first for trade and then political control. These colonial powers (especially the French and the British) often intervened in the rivalries between the native kingdoms of South India. The British (the English East India Company) emerged as the strongest among all the powers, both colonial and native, and the whole of South India gradually came under their direct or indirect control. Tanjavur and the Carnatic were annexed by the Company forces under the command of Lord Wellesley in 1799. For a brief account of the history of the region, see K. Rajayyan, *A History of British Diplomacy in Tanjore* (Mysore: Rao & Raghavan, 1969), and also *Selections from History of Tamil Nadu, 1565–1965* (Madurai: Madurai Publishing House, 1978).

¹¹This event occurred within the larger context of British (and European) interest in topics Indian – religious, intellectual and artistic – in the late eighteenth and early nineteenth centuries when the foundations of Indology as a classical scientific and systematic discipline were being established. The gradual emergence of Orientalist scholarship in the particular realm of art and architecture can be traced from within the complex history of European encounters with and responses to Indian art. For a thorough documentation of the history of European encounters with Indian (especially Hindu) art from the Middle Ages onwards, see Partha Mitter, *Much Maligned Monsters: A History of European Reactions to Indian Art* (Second Edition, Chicago: The University of Chicago Press, 1992). This is, indeed, a sweeping panorama of history that encompasses several centuries, personalities, and artistic and scholarly enterprises. For a modest yet focused study on the discourse on Indian architecture in the nineteenth century, see Sonit Bafna, *The Nineteenth Century Discourse on Indian Architecture* (Cambridge, MA.: Department of Architecture, Massachusetts Institute of Technology, M. S. Thesis, 1993).

As Mitter shows, the early “studies” by Europeans on Indian (Hindu) art ranged from responses to concrete encounters with the actual monuments and images of deities, ranging from the vivid and almost always fictitiously distorted accounts by medieval travelers, through the more sober yet often-times prejudiced reports by Jesuit missionaries in the sixteenth and seventeenth centuries, to the enthusiastic writings of the freethinking antiquarians of the eighteenth century. In the latter half of the eighteenth century, with the arrival of Sanskrit texts in Europe that triggered the “Oriental Renaissance” there, the climate was set for the study of Indian art to take a “philological turn.” Even though religious texts received the primary attention of Orientalist scholars, attention was drawn to śāstraic texts on the mechanical and fine arts as well. Sir William Jones, the pioneering scholar in the field of comparative philology and the founder of the Asiatic Society in Bengal in 1780, wrote in the first issue of the journal of the Society in 1788: “The *Śilpa Śāstra*, or collection of treatises on Arts and Manufactures, which must have contained a treasure of useful information on dyeing, painting, and metallurgy, has been so long neglected, that few, if any traces of it are found . . .” (Jones, “Discourses,” *Asiatic Researches* I, 1788, p. xiv; quoted in Mitter, *Much*

employed scribes (specializing in the “craft” of manuscript copying) from outside the *vāstuśāstra* tradition to “preserve” the text that they somehow came to possess is symptomatic of a rupture that was beginning to occur in the continuum of knowledge-transmittance within the tradition. At this historical moment, the climate was ripe for a modern study of *vāstuśāstra*, which was undertaken by a freelance Indian scholar, Ram Raz.

1.1) The Contribution of Ram Raz

Ram Raz’s study of Hindu architecture based on one manuscript of the *Mānasāra* and of a few other South Indian treatises such as the *Mayamata* and *Sakalādhikāra* was published posthumously in 1834 under the title *An Essay on the Architecture of the Hindus*.¹² Its contents were a “Preface,” two letters of correspondence by Raz to a certain Richard Clarke, a letter that Raz’s wife wrote after his death, the essay itself, and forty-eight plates of illustration. Ram Raz was an Indian judiciary official with the East India Company and a corresponding member of the Royal Asiatic Society of Great Britain and Ireland. The project of the study was commissioned by Richard Clarke.¹³ The original intent of the commission was to prepare a translation of the manuscript from Sanskrit to English in order to present the rules and precepts of Hindu architecture

Maligned Monsters, p. 147). The initial efforts of the British officials to collect and preserve (through transcription) the manuscripts of the *Mānasāra* may be seen as a heed to the call issued by Jones to consult the *śāstra* texts.

¹²Ram Raz, *Essay on the Architecture of the Hindus* (London: John William Parker, 1834). The Canadian Centre for Architecture in Montreal holds a copy of the original edition.

¹³That the project was commissioned by Richard Clarke, Esq. is stated by the author of the “Preface.” It is evident also from Raz’s two letters to Clarke. Richard Clarke was an official of the East India Company, holding offices in the Civil Department of the Madras Government. He was also a Senior Member of the Fort St. George College in Madras and had written an essay titled “Rickard’s India” (*Ibid.*, “Preface,” pp. iii, vi-viii). The name of the author of this “Preface” is not given in the text. Mitter takes him to be Clarke himself (Mitter, *Much Maligned Monsters*, p. 183), while Pramod Chandra identifies him as a certain Captain Harkness (Pramod Chandra, “The Study of Indian Temple Architecture,” in Chandra, ed., *Studies in Indian Temple Architecture* [New Delhi: American Institute of Indian Studies, 1975], p. 1, note 1).

and sculpture to the European public. The obscure technical terms of the text proved insurmountable obstacles for European freelance architectural enthusiasts to translate it; hence the agent of the project of translation had to be “from within” the tradition. Ram Raz was perceived by the British patron as the person best qualified to undertake the project. On the one hand, Raz was Indian and a Hindu of high lineage.¹⁴ Even though not a *sthapati* or a *sthāpaka* or even a scribe, thus not in any sense from strictly within the *vāstuśāstra*ic tradition, the fact of his birth in a high caste gave him access to Sanskrit which he most probably learned in his young age. He was also in a privileged position to be able to seek the assistance of both the “artist and philologist” (in the words of Clarke¹⁵), to unravel technical and linguistic knots in the text in the course of translation. On the other hand, he was an initiate in the modern European mindset, having studied English and worked within the British bureaucratic and judicial structures in India.¹⁶

Raz set out to translate the entire text of the *Mānasāra* but soon realized that it was a near-impossible task, for a number of reasons. To begin with, the manuscript of the *Mānasāra* and that of three other texts he had collected did not contain the full contents

¹⁴Raz, born in Tanjavur in 1790, claims to be a descendant of the Vijayanagara kings (the word *raz* being a vernacular variation of *rāj* meaning “king”). He must have belonged to the *kṣatriya*, kingly, caste.

¹⁵It is significant that Clarke mentions the more generic *śilpī*, “artist” (or “craftsman” – the distinction does not quite apply in the context of nineteenth century India), and the (Brāhmaṇa) *paṇḍita*, “philologist” (traditional scholar, man of letters) instead of *sthapati*, master-builder, and *sthāpaka*, temple-priest, in association with the treatises. This is echoed by Raz as well. This seems to stem from, on the one hand, an unfamiliarity on the part of both Clarke and Raz with the extent of the Āgamic association of *vāstuśāstra* (a fact that only later scholarship brought to light) that led them to see *vāstuśāstra* in a more secular light, and on the other, the possibility of a state of decadence of the *vāstuśāstra*ic tradition in both its theoretical and practical dimensions.

¹⁶Raz started his career with the East India Company as a clerk to the Adjutant of the Native Regiments of Infantry. In 1815, he was clerk at the office of the Military Auditor General. Later he was appointed as Head of the Fort St. George College Office by Richard Clarke, and then as Head English Master to natives. His career culminated in his appointment as Honorable Judge and Magistrate of the Adawlat Court in Hosoor (in Mysore Province, South India).

of the texts. Also, the language of the texts posed problems even to the traditional craftsmen and men of letters. In his first letter to Richard Clarke, he wrote: "The few scattered fragments are scarcely intelligible to the best *pandits*, since they are so full of memorial verses and technical terms that none but those who have been initiated regularly in the study of the art can comprehend them fully."¹⁷ However, he found that the *śilpīs*, craftsmen, themselves were "men of very limited acquirements, and totally unacquainted with the science."¹⁸ Presumably under the influence of the eighteenth century European antiquarian mindset of dating both the monuments and texts of India to a hoary antiquity, Raz cast some of the blame of unintelligibility of the texts on the sages of antiquity:

It is a melancholy truth that those venerable sages to whom our works on arts and sciences are attributed, in endeavoring to communicate instruction to the world have been guided rather by a mistaken ambition for rendering themselves reputable by the difficulty and abstrusiveness of their style, than by an anxiety to make themselves intelligible.¹⁹

Raz admitted that he was incapable of surmounting these difficulties and proposed to limit his endeavor to writing a short essay on Hindu architecture. He said that he might

¹⁷Raz, Letter to Richard Clarke, Madras, 13th October, 1827 in Raz, *Essay on the Architecture of the Hindus*, p. x.

¹⁸Ibid. As said in Note 14 above, this points to a state of decadence of the *vāstuśāstra* tradition at that time. Raz in his second letter to Clarke (Madras, 13th January, 1828), wrote: "The best workmen – disused to their own ancient style of building durable public edifices – now display an ignorance of it for want of encouragement owing to decline of native rule. . . . The study of this art [*vāstuśāstra*] has been long neglected . . . [the] few manuscripts have a lot of errors" (Ibid., pp. xi-xii).

¹⁹Raz, Letter to Clarke, 13th October, 1827, in Ibid., p. x. He was also aware of the debate amongst the antiquarians regarding the relative influence between Egyptian and Indian architecture, stemming from the notice of some of their formal resemblances. He refused to take sides in this debate stating that the resemblances may have been accidental -- that is, the respective architectural traditions of Egypt and India may have developed on their own, since "the wants felt by man being the same, it is not surprising that the remedies resorted to for supplying them should be similar or nearly so." If, on the other hand, there was indeed an exchange between the two cultures, Raz states that there is not enough evidence to take a conclusive stance on the issue: "The Western writers on antiquities have not placed this matter beyond doubt. And for my own part, I will not venture to affirm any thing with certainty, until I have collected sufficient information to form an opinion . . . until the *śilpasāstra* of the Hindus is correctly illustrated and laid before the public, the question . . . must remain problematical" (Raz, Letter to Clarke, 13th January, 1828, in Ibid., p. xiii).

add to this essay, "some descriptions of a few temples and porticoes principally taken from the Carnatic, with corresponding designs."²⁰

Raz begins the essay by stating that sixty-four standard treatises on architecture and sculpture under the genre of *śilpaśāstra* are known to exist.²¹ This information was obtained by him from "memorial verses of artists [that] seem to be patronymics of deities who revealed the particular art or authors of the treatises, the *rishis* (sages) of antiquity."²² He then lists a number of texts whose "scattered remains" were extant.²³ He had procured manuscripts of five texts: the *Mānasāra*, *Mayamata*, *Kāśyapa*, *Vaikhānaśa* and *Sakalādhikāra*.²⁴ Based on the manuscript of the *Mānasāra* that he found, Raz states thus:

Mānasāra is the most perfect [treatise] I have seen, and perhaps the most perfect on the subject that now exists. It is stated to be a production of a sage

²⁰Raz, Letter to Clarke, 13th January, 1828, in *Ibid.*, p. xiv.

Raz did manage to find "a sculptor from Tanjore of the Cammata tribe who was well acquainted with the practical part and with most of the terms used in the art" (Letter to Clarke, 13th October, 1827, in *Ibid.*, p. x) who might have helped him to decipher some of the technical terms in the text.

Partha Mitter errs in saying that Raz made the *Mānasāra* "available for the first time in English translation . . ." (Mitter, *Much Maligned Monsters*, p. 186). On the other hand, Sonit Bafna is more accurate when he says that ". . . in the end [Raz] produced not a complete translation but comparative commentary on [the treatises]" (Bafna, *The Nineteenth Century Discourse on Indian Architecture*, p. 35).

²¹Raz disagrees with William Jones who had stated that the known sixty-four treatises "contained useful information on sixty four different arts and manufactures." Raz translates *śilpa* as "manual art" and *śāstra* as "science," thus *śilpaśāstra* to mean "mechanical arts, commonly architecture." According to him, the sixty-four *śilpaśāstra* texts are therefore solely on architecture and sculpture. He says that of these, thirty-two are *mukhya*, "principal," and thirty-two, *upa*, "subordinate," treatises (*Ibid.*, p. 1). Raz does not elaborate on the distinctions "principal" and "subordinate"; neither does he comment on his qualification of the treatises as "standard."

²²*Ibid.*

²³The texts that Raz lists are *Mānasāra*, *Mayamata*, *Kāśyapa*, *Vaikhānaśa*, *Sakalādhikāra*, *Viśwakarmīya*, *Sanatkumāra*, *Sāraswatya* and *Pancarātram*. The fact that he was not quite aware of the distinction between the theological *Āgama* and the more technical *śilpa*- or *vāstuśāstra* is evident in his inclusion of two *Āgamas*, *Vaikhānaśa* and *Pancarātram* (both Vaiṣṇava and not Śaiva) in this list.

²⁴Acharya, based on his familiarity with the physical attributes of the eleven manuscripts (A to K) of the *Mānasāra* that survive today, thinks that the one that Raz procured might have been the manuscript J (Acharya, "Preface," *Mānasāra on Architecture and Sculpture*, p. xiv).

Raz complains once again about the general condition of these texts:

Mutilated as they invariably are in many important parts, almost every line of them is not only disfigured by gross errors, perpetuated by a succession of ignorant transcribers, but the technical terms and memorial verses with which the whole abounds, are also little understood either by the artists or the *pandits* of the present day (Raz, *Essay on the Architecture of the Hindus*, pp. 2-3).

named *Mānasāra*, and is of great celebrity in the south of India as affording copious information on every branch of the art on which he treats, but particularly on that of building sacred edifices, and is often consulted by the artists as the highest authority for the solution of contested points in architecture.²⁵

His statement that the *Mānasāra* was consulted by artists to resolve architectural contestations contradicts his own earlier statements that the technical terms in the texts were little understood by the artists.²⁶ Barring this one contradiction, Raz's statements are consistent in giving a rough picture of the condition of *vāstuśāstra* at that time. Both in its theoretical and practical dimensions, *vāstuśāstra* was in a general state of decadence. Raz observes that the decline of practice corresponding to decline of native rule and patronage, together with the rivalry between the Brāhmaṇas and the artisans (who jealously guarded the treatises and the knowledge of craft) gradually rendered obsolete the treatises and their theoretical contents.²⁷

The manuscript that Raz was using had only forty-one chapters of the text. However, in its preface, fifty-eight chapters and their contents were enlisted. He includes these in a lengthy footnote. About the dates of the *Mānasāra* and the other texts, he comments: "The exact age of . . . these treatises is very difficult to ascertain. Tradition gives to most of them an antiquity altogether extravagant."²⁸ To him, the efforts at dating them are hardly successful since "ancient history and chronology of the Hindus are obscure

²⁵Ibid., p. 3.

²⁶Partha Mitter's statement that the "aesthetic manual . . . *Mānasāra* . . . was consulted by practicing architects down to Ram Raz's day," has no empirical substantiation except for Raz's own self-contradictory statement on this (see Mitter, *Much Maligned Monsters*, p. 186).

²⁷Raz, Letter to Clarke, 13th January, 1828, in *Essay on the Architecture of the Hindus*, pp. x-xii.

²⁸Ibid, p. 8.

and oblivious.”²⁹ He finds in the treatises correspondences with the religion and rituals of the South, from which he draws the conclusion that all of them are of South Indian origin. From the few instances in the *Mānasāra* where it is said that it was written by the sage Mānasāra, Raz takes the term *mānasāra*, meaning “essence of proportion,” as both the name of the “author” and title of the work.

After these introductory remarks, Raz sets out to present the fundamental characteristics of Hindu architecture based on the contents of the text: the hierarchical structure of the builders’ guild, the range of subjects that the builder needs to be knowledgeable in,³⁰ the selection of site, its orientation using the gnomon, components of a temple structure and their various shapes and proportions that give rise to the different “Hindu orders.” At one point, he states that he is glossing over several sections of the manuscripts. In these sections are elaborated

... minute description of the mysteries, rites and sacrifices to be performed on various occasions in the building of temples, houses, villages, towns and cities; the ceremonies attending the consecration of images, the mode of determining the propitious measurement for commencing to lay the foundation of an edifice, as well as the rules for predicting the future prosperity of him who causes the edifice to be raised by the aspect of the stars, the situation of the building with respect to cardinal points and other astrological devices.³¹

²⁹Ibid. However, Raz cannot resist speculating based on “internal evidence” in the texts (which he does not specify) that they were written “in a period subsequent to the canonization of [the four Tamil holy men] Appar, Sundarar, Sambandar and Manikkavasakar [who] lived between the third and fifth century of Śalivahu.”

In connection with the text *Sakalādhikara* which is attributed to the sage Agastya, Raz gives a short account of the legend of Agastya as the one who introduced the North Indian religion in the South, settled the first Brāhmaṇas there, invented alphabets for the Tamil language and refined Tamil on the principles of Sanskrit (Ibid., pp. 7-10).

³⁰The *Mānasāra* mentions this only in a generic manner, that the *śhapati* should be well versed “in all the sciences,” but Raz gives a list: arithmetic, geometry, drawing, sculpture, mythology and astrology. He then compares this point favorably with Vitruvius’ treatment of the same (Ibid., p. 15).

³¹Ibid., p. 5.

These, to him, “are not immediately connected to the purpose of this essay.”³² The same attitude prevails in his treatment of the “mystical figure” which, in later *vāstuśāstra*ic scholarship came to be known as the *vāstupuruṣamaṇḍala*.³³ Raz dwells briefly on its role and function in the construction process,³⁴ but finds it as “little interesting or instructive to the European reader.”³⁵ Indeed, Raz here is influenced by and speaking to the formalist mindset of his nineteenth century European audience that is characterized by the denial of any transcendent meaning to architectural form.³⁶

As he delves into the minutiae of measurements, proportions and ornaments of the different “Hindu orders” mentioned in the texts (especially the *Mānasāra*, the “most perfect” one), Raz finds that their treatment is rather obscure. This causes him to shift tactics, so to speak, in the manner of studying the text: “. . . as an accurate idea . . . can be formed only by ocular observation of these decorations, it has been deemed unnecessary to follow our text too closely on this subject.”³⁷ The question, then, of the

³²Ibid., p. 22. He had mentioned this in his letter to Clarke (dated 13th January 1828) as well: “[A] considerable portion of the *śilpasastra* is connected with topics of religious rites, sacrifices and astrology with which we have no immediate concern.”

³³On the history of the concept of *vāstupuruṣamaṇḍala* as a construct of modern scholarship, see Sonit Bafna, “On the Idea of the *Maṇḍala* as a Governing Device in Indian Architectural Tradition” in *Journal of the Society of Architectural Historians*, Spring 2000, pp. 26-49.

³⁴Raz states:

[The] mystical figure . . . traced on the ground plan of villages and cities for the purpose, not only of offering oblations and sacrifices to the divinities who are supposed to preside over their various parts; but also of dividing the area into several compartments, to be applied, according to their supposed fitness, to the building of temples, and the formation of high roads, streets and cities; to each of which purposes the part over which a certain deity presides is considered more adapted than any other (Ibid., p. 41).

³⁵Ibid.

³⁶In the nineteenth century Europe of deontologized grammars and art histories, Raz’s work gained mention in the English designer Owen Jones’ *Grammar of Ornament* (1856) and the German art historian F. Kugler’s *Handbuch der Kunstgeschichte* (1842); (Mitter, *Much Maligned Monsters*, p. 183).

³⁷Ibid., p. 29. Raz registers his protest at the manner in which the text deals with the subject: “. . . such a loose manner of prescribing rules for the dimensions of architectural members must be considered objectionable, and but little compatible with science and taste” (Ibid., p. 26).

exact role of the text with respect to architectural objects remains unanswered in Raz's work.

Raz compares the formal aspects of Greco-Roman and Hindu orders such as ornamentation, intercolumniation, and systematization of proportions of the column based on the principle of apparent diminution of diameter with height. He argues strongly that due respect be given to Indian architecture for its achievements. Here, he may have been reacting against the prevalent "Classical bias" in European architectural discourse. Towards the end of the essay, after having presented systematically the principles, rules and classifications of Hindu architecture based on the contents of the treatises, Raz finds it an opportune moment to "indulge in a few words relative to [its] general appearance, and to the ideas which this is calculated to impress upon the mind."³⁸ Well informed of the architectural discourse in Europe around the aesthetic category of the sublime, his appraisal makes ample use of that notion.³⁹ He quotes two authors (without naming them) as saying that "architectural sublime" consists in "magnitude, height of the buildings, and solidity of the materials," and in "... splendor, magnificence and an inspiring appearance."⁴⁰ Raz patently

³⁸Ibid., p. 62.

³⁹In the emerging "science" of aesthetics in the eighteenth century Europe of the Enlightenment, the category of the "sublime" was proposed as distinct from (and even in opposition to) that of the "beautiful" by Edmund Burke in his influential work, *A Philosophical Inquiry into the Origins of the Sublime and Beautiful*, published in 1757. Kant also discussed the notions of beauty and sublimity in his *Critique of Judgement*. Whether it be in Burke's primarily psychological or Kant's philosophical approach to aesthetics, the issue at stake in this discourse was not so much the qualities per se of the aesthetic object as the state of the mind of the perceiving (or rather cognizing) subject. Thus, if beauty (explained first by Plato in metaphysical terms of essence, and from the Renaissance onwards increasingly along rationalist lines) was perceived to be the category fit for Classical works of art and architecture that maintains the mind "in restful contemplation," then sublimity (defined in late antiquity by Longinus as the quality that produces "not persuasion but transport") suited everything non-Classical such as Egyptian, Indian and Gothic, and aroused the strong emotions of terror and pain. For the influence of the notion of the sublime (as well as the later Romantic notion of the picturesque) among Europeans studying Indian art, see Mitter, *Much Maligned Monsters*, pp. 120-140.

⁴⁰Raz, *Essay on the Architecture of the Hindus*, p. 62.

observes that the Hindu temples possess these qualities "in an eminent degree, independently of that sort of light betwixt gloom and glare which increases the sublimity in architecture," and that "... in beholding these majestic and stupendous works, we are struck with admiration and respect, and animated with emotions of piety, virtue and religion."⁴¹

Finally, a few words ought to be said about the illustrations in the book. The majority of the forty-eight plates are illustrations of details of component parts of temples such as the tower above adytum, pedestal, base, pillar, entablature, gatehouse, and ornaments on them. A few plates are dedicated to layout schemes of villages. The figures were draughted in single line pen and ink, by a firm in London.⁴² Precision and due attention to disposition of architectural components are their hallmarks. In most cases, they were constructed solely on the textual accounts. With respect to existing buildings, their correspondence was limited to a vague similarity (Fig. 13). There are a few scattered instances, however, in which an existing temple is documented: Plate XXIII is the front elevation of the *vimāna* of the temple in Srirangam, and XXIV its side elevation; Plate XXX is the side elevation of the Vaikuṇṭhānātha Temple in Kanchipuram; Plates XLVII and XLVIII are both folded ones containing a frontal axonometric and ground plan respectively of the "Pagoda (temple) at Tiruvalur" (Fig. 14). This relative disinterestedness towards existing temples owes to the initial

⁴¹Ibid. Raz goes on to say that the Egyptian pyramids are best calculated to produce these impressions. The Hindu temples are "pyramidal," but smaller in size. However, he says, they were also executed with great skill so that "the parts are formed for the eye to embrace the whole, at the same time ... the sight is bewildered with the infinite variety of decorations. The interior, also, is so constructed as to cast a visible oblivion, that indispensable requisite of the sublime" (Ibid.).

⁴²At the bottom of the plates is written: "Lithographed for the Royal Asiatic Society by Day & Haghe, Lithographers to the King, Gate Street Lincoln's Inn Fields."

philological (rather than archaeological) emphasis in the nineteenth century discourse of architecture. Following this, architecture was understood, as Sonit Bafna rightly observes, “as a ‘science,’ a codified set of rules about dimensions and combinations to be applied to a given set of elements, . . . as a canonical body of knowledge comparable to the disciplines of grammar, anatomy, medicine and law, and defined through texts and treatises.”⁴³ In the end, the illustrations fail to bridge, on the one hand, the already existing “conceptual” (and not “real”) chasm between traditional architectural theory and practice further widened by Raz’s modern study, and on the other, the lacuna between traditional and modern architectural practice. Rather, as merely “constructs,” they remain in an abstract, conceptual, realm.

In the intervening years between Raz and P. K. Acharya, whose work marks the next major episode in the history of scholarship on the *Mānasāra*, Indian architectural discourse took a decisively archaeological turn.⁴⁴ These archaeological years of the nineteenth century were dominated by four towering figures, all British: James Prinsep, Alexander Cunningham, James Fergusson and James Burgess. Architectural discourse still served the more general project of reconstructing the ethnographic and religious history of the nation. In an address to the Society of the Arts in London in 1867, Fergusson said: “. . . the architecture of the country (India) may be considered as a

⁴³Bafna, *The Nineteenth Century Discourse on Indian Architecture*, p. 39. On the illustrations in Raz’s book, he comments: “For Ram Raz, the building was important only as an illustration of a particular set of rules or a typology defined in the *Silpa Sastras*” (Ibid).

Prior to Raz’s period, European antiquarians and travelers had sketched and studied Hindu temples and other monuments as part of their larger scheme of deciphering the mythologies in order to reconstruct the history of ancient India. Based on a measured drawing prepared by Le Gentil de la Galasiere (a member of the French Academy of Sciences who came to India in 1779 and studied Hindu astronomy, religious rites and architecture of the Coromandel coast in South India), Bafna shows that, for him, the Indian monuments were “a repository of clues regarding Indian mythology”; he was “more interested in the iconographical aspects of these buildings” (Ibid).

⁴⁴The seeds of scientific archaeology were already present in the works of antiquarians and travelers such as Le Gentil.

great stone book, in which each tribe and race has written its annals and recorded its faith.”⁴⁵ In order to study the ethnography from literary sources, he pointed out that one must study a great many languages, some of them extinct, whereas

... architecture has the advantage, that it is more distinct, that it never shifts its locality, and that it does not change with time: and in India especially, where we have so many rock-cut examples, we know exactly what the religion, what the art and what the civilization of the people were who excavated them. ... we can read the thoughts they then were wishing to express.⁴⁶

However, architectural discourse wrested free as an autonomous discipline during this period itself, in and through Fergusson's own endeavors. While Cunningham limited himself more or less to strictly archaeological field survey and research,⁴⁷ Fergusson dared to weave a grand theory of Indian architecture along historicist lines⁴⁸ out of the hard data that he collected, especially by the prolific use of photography.⁴⁹ Fergusson was the first scholar to write a comprehensive history of Indian architecture, the work published as *History of Indian and Eastern Architecture*.⁵⁰ His main concern in this work was the morphological evolution of Indian architecture: the delineation of

⁴⁵James Fergusson, *On the Study of Indian Architecture* (London: John Murray, 1867), p. 10.

⁴⁶*Ibid.*, p. 11. The primary focus of James Prinsep's endeavors was precisely this: deciphering inscriptions found on monuments. He was the first to read the ancient Brahmi script and decipher the inscriptions of the Mauryan emperor Asoka (c. 260 BCE); (see Dilip Chakrabarti, *A History of Indian Archaeology: From Beginning to 1947* [New Delhi: Munshiram Manoharlal Publishers, 1988], pp. 32-34).

⁴⁷Cunningham built up such a formidable reputation as archaeological surveyor that he was appointed the first Director General of the government-sponsored Archaeological Survey of India in 1861. For his contributions, see *Ibid.*, Chapter II, "Alexander Cunningham's Surveys and the Works of His Contemporaries and Successors."

⁴⁸The historicism of Fergusson owes above all, perhaps, to the philosophy of history of the most influential thinker of the time, G. W. F. Hegel. Significantly, in his universal history of art, Hegel had written on Indian art as stagnant or decadent, being incapable of the unilinear historical progress that, to him, Western art demonstrated (see Mitter, *Much Maligned Monsters*, pp. 208-220).

⁴⁹In his Preface to the First Edition of his work *History of Indian and Eastern Architecture*, Fergusson claims: "I possess, to give a single instance, more than 3,000 photographs of Indian buildings, with which constant use has made me as familiar as with any other object that is perpetually before my eyes . . ." (Fergusson, *History of Indian and Eastern Architecture*, Revised and Edited, with Additions [London: John Murray, 1910], Vol. I, "Author's Preface to the First Edition," p. ix).

⁵⁰At first, this work made up one of the volumes of his four-volume *Architecture in All Countries, from the Earliest Times to the Present Day*, published by John Murray, London in 1867. It was published independently as *History of Indian and Eastern Architecture* in 1876. A second edition of the book was published in 1910.

architectural styles and tracing their historical origin and development. In the process, architectural intentionality – “the thoughts they wished to express” – received only scant consideration.

2. P. K. Acharya's work on the *Mānasāra*

The philological approach to the study of Indian architecture was revived in the early twentieth century when the Sanskrit scholar and professor P. K. Acharya took up the study of the *Mānasāra*. He was aware of the fact that Raz's book had stirred up interest in the “monumental work” of the *Mānasāra* among some scholars. However, eighty years had elapsed after Raz without any research done on the text. When Acharya began his research in 1914, he had already collected eleven “badly preserved” manuscripts: a considerable advance from Raz's possession of a single manuscript. Acharya's research on the text obtained him a doctoral degree from the Faculty of Letters at the University of Leiden in 1918. His research led him also to the University of London, from where he eventually obtained a D. Litt. degree. He published his dissertation at Leiden in 1918 under the title, *A Summary of the Mānasāra: A Treatise on Architecture and Cognate Subjects*.⁵¹ It is evident that in order to prepare this work, Acharya had to not only collate and critically edit the manuscripts to produce a complete version of the text with seventy chapters, but also translate the text so as to access its contents. In this publication, the contents of the seventy chapters of the

⁵¹P. K. Acharya, *A Summary of the Mānasāra: A Treatise on Architecture and Cognate Subjects* (Leiden: E. J. Brill, 1918). In the “Preface” of this publication, Acharya states that it is only a small portion of an Introduction to the first Edition and the English translation of the *Mānasāra*, both prepared by him (but not yet in print at that time). He states that the objective of this *Summary* is “nothing more than to introduce the various topics in brief and facilitate the understanding of [his] Translation of the Text” (Ibid., p. vi).

critically edited *Mānasāra* is presented with extreme brevity (in seventy-two pages). Appended to it are four pages of “Addenda and Corrigenda,” but more interestingly a section titled “Theses.” Acharya presents twelve “theses,” a set of points of observation regarding the text and its contents (which he was to develop into formidable arguments in his later writings). These include, among others, the following: 1) meaning and use of the term *Mānasāra* as “the essence of measurement”: and as denoting both author and work; 2) the reason for the bad Sanskrit of the text as the literary deficiency of the architects who wrote it; 3) the relation of indebtedness between the *Mānasāra* on the one hand and the architectural portions of Purāṇic and Āgamic texts on the other; and 4) the similarities between the *Mānasāra* and the treatise of Vitruvius as pointing to their mutual dependence.⁵²

Acharya’s ultimate aim was, as noted already, to prepare a critical edition of the text and its translation into English – a thoroughly philological project, in which the language of the text had to be taken into full consideration. Echoing the opinion of Sanskritists that the language of the *Mānasāra* is a “most barbarous Sanskrit,” Acharya says:

[The language of the text] can hardly be called Sanskrit, which etymologically means the refined language of the Aryans, of their Vedas, Epics, Dramas, and other sweet literature. The text is replete with obsolete expressions and technical terms, of which there is no elucidation in any of the existing dictionaries.⁵³

⁵²The twelfth and last “thesis” occurs as a complete surprise in this context. It states thus: “Krishna’s advocacy of war described in the *Bhagavadgita* is justifiable, in other words, it was Arjuna’s sad duty to kill his relatives in the war for a righteous cause” (Ibid., “Theses,” p. 5). Acharya gives no hint at all regarding what prompted him to insert in this book as a final word, such a statement on the war in the epic *Mahābhārata* that has nothing to do with the *Mānasāra*.

⁵³Ibid., p. i.

In order to deal with this problem of obscurity, Acharya, at the suggestion of the authorities at the University of London, set out first to prepare “a full dictionary of all the architectural terms used in the *Mānasāra* with explanations in English and illustrative quotations from cognate literature.”⁵⁴ He completed this dictionary after consulting not only the *Mānasāra* but other known *vāstuśāstraic* texts, *śāstraic* texts in other disciplines such as politics and astrology, texts containing mythological and legendary accounts (Epics and *Purāṇas*), theological texts (*Āgamas*), works of literature (poetry and drama), as well as archaeological records from archaeological survey reports, and inscriptions published in the volumes of *Epigraphica Indica*, *Indian Antiquary*, *Corpus Inscriptionum Indicarum* and others. The dictionary, which became the first volume of Acharya’s seven-volume *Mānasāra* series, was published by Oxford University Press in 1927 under the title, *A Dictionary of Hindu Architecture*.⁵⁵ The *Dictionary* is, in itself, a monumental achievement: the extent of Acharya’s survey for its preparation was vast, and the list of technical terms of architecture included in it, thorough and exhaustive. Regarding its method and structure, Acharya states that he followed those of the Index to the names in the *Mahābhārata* compiled and arranged by S. Sorensen, as well as the *Vedic Index of Names and Subjects* compiled by A. A. Macdonnell and A. B. Keith. In the *Dictionary*, Acharya claims to have gone much beyond the method in the above works of giving references to the names, to cite the original passages in text or translation in which the term was found. He claims that

⁵⁴Ibid., pp. i-ii.

⁵⁵Acharya admits that the dictionary owed its origin to the glossary of architectural terms found in the *Mānasāra* which, inspired by the advice of F. W. Thomas, Librarian of the India Office in London, he had prepared for his own private use in order to edit and translate the text (Acharya, *A Dictionary of Hindu Architecture*, *Mānasāra* Series, Vol. I [Rpt., Delhi: Low Price Publications, 1995], “Preface,” p. vii).

presenting the full context of the terms was necessary to bring out the distinctions in meaning found in their usage.⁵⁶ For word-order, he followed the Sanskrit alphabet rather than the Roman, even though the words (as well as the citations) were transliterated into the Roman alphabet.

Acharya's method of quoting from diverse literary and archaeological sources pays off well in that it makes the *Dictionary* quite colorful and rich, and much more than a dry technical glossary. There are occasions, however, at which the method tends to become an end in itself, attempting to include too much information, risking loss of relevance. One such instance is when he discusses *nagara*, city. There, Acharya quotes from numerous sources, including a lengthy quotation of Vitruvius' discussion of cities. This juxtaposition is rather affected; it does not contribute much to the basic intent of the *Dictionary* – to explain Indian architectural terms. There are two lengthy appendices to the *Dictionary*: the first is a list of known Indian treatises on architecture, compiled from various manuscript catalogues. In this appendix, while giving information about the *Mayamata*, Acharya delves into lengthy quotations from various antiquarian scholars conducting research on Mayan civilization in Mexico. He concludes the section by quoting a statement by Professor Grafton Elliot Smith of University College, London, on the possible influence of the Indian intellectual and architectural traditions on Mayan civilization: "At University College, we are absolutely convinced that the Maya civilization was directly derived from India. We regard it as certain that

⁵⁶Acharya demonstrates this by giving the example of the technical term *pīṭha* which has several meanings: seat, altar, platform, pedestal of a column, basement of a building, plinth, the base of a *liṅga*. Short quotations such as *pīṭham aṣṭāṅgulam*, found in the *St. Petersburg Dictionary* (the largest Sanskrit dictionary, compiled by the German Sanskritists Bohtlingk and Roth) are not enough to make clear these shades of meaning. In citing the entire passages, Acharya claims to go beyond even the *St. Petersburg Dictionary* (*Ibid.*, pp. x-xi).

between the Fourth and the Twelfth Century there was a penetration from the South-East of Asia.”⁵⁷ Evidently, this is the argument that Acharya favors as well. The second is a list of historical architects with short notes on their works. The source for this list, he says, is archaeological rather than literary, for the sake of historical validity.⁵⁸

The *Dictionary of Hindu Architecture* is an invaluable contribution to scholarship on *vāstuśāstra*. At the time of its publishing, it was received with great enthusiasm by eminent literary and administrative personnel as well as scholars specializing in the various branches of Indology.⁵⁹ However, it has not been found to be in much use in *vāstuśāstraic* scholarship in the post-Independence period.

The second volume of Acharya’s *Mānasāra* series is titled *Indian Architecture According to Mānasāra Vāstuśāstra*. This volume, although small in size, is encyclopedic in its scope: in it, Acharya presents a sweeping survey of *vāstuśāstraic* discussions in Vedic, Buddhist and Classical literature, summaries and synopses of a number of texts (including the *Mānasāra* and *Mayamata*), a detailed argument

⁵⁷Ibid., p. 781.

⁵⁸Acharya explains in a footnote that the list “does not include the mere Stone Masons or Engravers of Inscriptions, nor those architects who are mentioned in treatises less historical than the Epigraphical records” (Ibid., p. 805).

⁵⁹In response to Acharya’s statement that “[w]hether the results will justify the great labor involved will have to be left to the actual experiment of those who are in need of such a work . . .,” Ananda Coomaraswamy affirmed in his “Review of Acharya’s *Summary of the Mānasāra* and the *Dictionary*” (originally published in the *Journal of the American Oriental Society*, No. 48, 1928) that the *Dictionary* especially was, indeed, a monumental work, and “. . . indispensable to every student of Indian architecture and realia. Only those who work along these lines will realize the great labor involved in [its] preparation, especially when they are the first of their kind . . .” However, Coomaraswamy adds a critique that Acharya’s work displays a lack of familiarity with the modes of practice of the traditional *sthapatis* (Coomaraswamy, “Indian Architectural Terms,” in Michael Meister, Ed., *Ananda K. Coomaraswamy: Essays in Early Indian Architecture* [New Delhi: Indira Gandhi National Centre for the Arts & Oxford University Press, 1992], p. 72).

regarding the date (together with the geo-political and religious contexts) of the text. In chapter IV of this volume titled “*Mānasāra* and Vitruvius,” Acharya conducts a chapter-wise comparison of textual contents of the two treatises. He discovers several similarities between the two texts in their form and content: their dedications (to the creator of the universe and to the emperor [Caesar], respectively⁶⁰), qualification demanded of architects as knowledgeable in a range of subjects, discussion of architectural operations such as selection, examination and orientation of site, language (ungrammatical, “barbarous,” Sanskrit and Latin respectively), as well as the ambiguity surrounding their titles. From these, Acharya suggests that there must have been a “connecting link between the two authorities.”⁶¹ The question was put before the Oriental conference held in Calcutta in January, 1922, but no definitive conclusion was reached. The outcome of the conference prevented him from making any assertions regarding the “precise nature of the connection between the two treatises.”⁶²

The third volume of the Series is the complete and critical edition of the text in Sanskrit, and is titled, *Mānasāra on Architecture and Sculpture: Sanskrit Text with Critical Notes*.⁶³ In the English “Preface” to the Volume, Acharya gives a thorough description of the eleven manuscripts (A–K) of the text, and mentions the relationships

⁶⁰ Even though the Emperor was divine in the Roman religious mindset, he did not rise to the status or function of creator of the universe.

⁶¹ Acharya, *Indian Architecture*, p. 159. He “... refuse[s] to attribute all these affinities to mere chance.”

⁶² Ibid. It seems that Acharya would have favored the indebtedness of Vitruvius to the *Mānasāra*. A similar claim is made by Tarapada Bhattacharya, that Vitruvius is indebted to Indian *Vāstu Śāstras* (works on architecture that he speculates to have existed in antiquity from which even the *Ur-Mānasāra* derived). In addition to similarities in textual content, Bhattacharya presents a few scattered archaeological evidences on Roman presence in South India (see Bhattacharya, *Canons of Indian Art*, Chapter XIX, “Relation of *Mānasāra* with Vitruvius,” pp. 196-99). These evidences are far from sufficient to dismiss with finality the possibility of autonomous development of the Indian and Graeco-Roman architectural traditions which the two treatises represent.

⁶³ Acharya’s use of the term “sculpture” to denote that which is “iconography” (in the more precise sense and faithfulness to the context) tells of the secularizing tendency that he inherits from Raz.

he discovered between the manuscripts in the process of collating them. He adopted the manuscript I, “the most perfect [one] available” as his *Codex Archetypus*. He also describes the methodology he followed in the critical edition of the manuscripts, the objective of which was “to prepare an intelligible text.” To this end, the numerous errors found in the manuscripts of the text posited a problem, and therefore, he says, “a certain amount of emendation [was] indispensable.” This procedure was conducted with discrimination: Acharya distinguished two kinds of errors: the first, *ārṣa*, that is, owing to “the peculiarities of holy sages”; and the second accruing from bad copying. The latter, he says, could easily be corrected, while the former was respected as an indelible characteristic of the text itself. Therefore, he, “the first editor of the *Mānasāra*, [had] no alternative than to take all these errors as *ārṣa*.”⁶⁴ Also, since the offices of editor, commentator and translator converged in one person, Acharya followed this principle: “[l]et an editor give what there is, and let the commentator say what might be and what ought to be.”⁶⁵ The eccentricities that are *ārṣa* are presented in parenthesis wherever they occur in the main text; the Critical Notes and Appendices included at the end of the volume further lists the errors and the emendations that have been made.

Volume Four of the *Mānasāra* Series titled, *Architecture of Mānasāra*, is Acharya’s English translation of the text. In the lengthy “Preface” to this volume, Acharya gives a historical account of his own work on the translation project, outlines its methodology, and reiterates some material from the previous volume such as summary of the

⁶⁴Acharya, *Mānasāra on Architecture and Sculpture*, “Preface,” p. xvii.

⁶⁵*Ibid.*

contents of the text, comparison with other texts and the argument about the date of the text. He claims that the translation of the *Mānasāra*, an architectural text, was an entirely new undertaking in the field of Indology, which he hopes would have “some practical benefit to the country.” For him, the *Mānasāra* was a practical guide-book for the architects of its time. The translation would make available the principles of architecture and construction outlined in the text for modern Indian architects to test whether they were “scientifically sound and suitable for modern buildings . . .”⁶⁶ Regarding the method of translation, Acharya states that his aim was “to reproduce the bare meaning of the *Mānasāra*, and to avoid . . . taking liberties with the language in order to bring out meanings other than what the most obvious and ordinary natural interpretation would suggest.”⁶⁷ That is to say, he reduces the interpretation of the terms to a “strictly technical” sense, ignoring the information from their etymologies that would suggest the extension of their semantic horizons beyond the technical.

The architectural and iconographic principles and proportions with respect to buildings, images, and their component parts that are outlined in the text are illustrated in the accompanying Volume Five, *Architecture of Mānasāra: Illustrations of Architectural and Sculptural Objects*.⁶⁸ As in the case of the plates in Raz’s *Essay*, all the

⁶⁶Acharya, *Architecture of Mānasāra. Translated from Original Sanskrit. Mānasāra Series Vol. IV* (Delhi: Low Price Publications, 1995), “Preface,” p. xiv.

⁶⁷*Ibid.*, p. xxi.

⁶⁸In the “Preface” to Volume Four, Acharya gives an account of the preparation of the plates. For the task of interpreting the text and the details given therein for the sake of illustration, several practitioners – both traditional builders from all regions as well as modern architects and engineers – were consulted. The architectural illustrations (layout schemes, plans, sections and elevations of buildings, their component parts such as base, column and entablature, and their details, were prepared over two years by Mr. S. C. Mukherji, a modern architect (holding a graduate diploma) “[who] had graduated with Sanskrit and ancient history and received training in the method and principle of Greco-Roman and modern architecture” (*Ibid.*, pp. xvi-xvii). Mr. R. L. Bansal, a civil engineer, did the astronomical calculations regarding the dialing and orientation of buildings. His studies and sketches of the moldings with respect to their reference in the text and occurrence in actual buildings were draughted by Mukherji.

illustrations are constructed from textual accounts in the manner of a transcription from letter to picture, even though Acharya claims that they are based also on study-sketches of actual buildings. These sketches themselves are not included in the set of illustrations. On the other hand, the figures illustrate typologically reduced specimens drawn from the classificatory accounts of buildings in the text (Fig. 15).⁶⁹ As a result, these illustrations also remain in a rarefied, conceptual, realm, devoid of any ontological depth. At a more fundamental level, the striking fact is that none of the manuscripts of the *Mānasāra* contained any illustrations whatsoever: it was the living tradition of practice itself that “illustrated” the theory. Acharya never takes notice of this fact, nor the theoretical implications it has upon his own attempts to illustrate the textual accounts.

In *Hindu Architecture in India and Abroad*, the sixth volume of the series, Acharya labors to demonstrate two main points: 1) that the body of architecture in the Indian subcontinent that can be classified as “Hindu” (in the broadest religious sense) must necessarily include the pre-Vedic urban civilization of the Indus Valley (c. 3000-1500 BCE), the grand buildings of the Vedic and Epic periods (c. 1500-300 BCE) found in literary accounts in the Vedas and Epics, as well as the buildings of Buddhist, Jain and

Finding a qualified person to illustrate the iconography proved more difficult. After much search, such a person was identified in Silpa Siddhanti Sivayogi Sri Siddalingaswamy, the head of the Jagadguru Nagalingaswamy monastery in Mysore state in South India, “who claim[ed] to be ‘a Silpin by heredity,’ to have ‘studied Silpa, painting etc., at the feet of Guru’ and to have been ‘training for a quarter of a century a number of youths in the art of sculpture, painting and kindred subjects according to Sastric canons’” (Ibid., p. xviii). Siddalingaswamy’s illustrations of iconography add up to twenty two plates, some of which are in color.

⁶⁹This is evident in the titles of the Sheets in which the term “[building] type” and its modifications (as in “Typical Section”) are most frequently found. For instance, Sheet LVI is the side elevation of a single-storied building mentioned in Chapter XIX. The note on the Sheet says: “All these types may be utilized both as temples and domestic buildings with slight difference in details to be indicated in the section.” Sheet LVII is titled “The One-Storied Building: The Typical Section.” The note says: “If this is to be used as a temple, the frieze and parapet should also be decorated with images of gods.” Needless to be said, the distinction between a temple and a house is far from being based on the presence or absence of iconography on friezes and parapets. Such a distorted understanding stems from the strictly typological reading of the classificatory accounts of buildings in the text.

Brahmanical (Śaiva and Vaiṣṇava) sects of the classical and medieval periods (300 BCE-1800 CE); and 2) that this “Hindu” architecture extends to the pan-Indian regions of Sri Lanka, Nepal and Tibet, the South East Asian regions of Indo-china and the Malay archipelago (which includes the modern nations of Burma, Malaysia, Thailand, Cambodia, Brunei and Indonesia), Central Asia, the Far East (China and Japan), and even Central America. To this end, he collects and presents a vast amount of evidence, both textual and archaeological.⁷⁰ Acharya’s argument, even though buttressed by hard evidence for the most part, runs the risk of over-generalization. For Acharya, “Hindu” architecture is primarily an idea, so to speak, the principles of which are outlined in its “standard treatise,” the *Mānasāra*. Consequently, the architecture of any particular historical period or region is a manifestation of this one “Hindu” architecture. Also, the use of the blanket term “Hindu” tends to trivialize significant distinctions in religion: between pre-Vedic and Vedic religiosities; between Brahmanism (as a later synthesis of pre-Vedic and Vedic thought) on the one hand and Buddhism and Jainism on the other. The development of Buddhism as an independent religion of its own right, especially in the course of its propagation in the Far East, is denied. From this framework, Acharya can assert (or imply), for instance, that a palace complex in Japan follows the *Mānasāra* in its conception and construction because of some vague formal correspondence in layout and detail it has to the accounts in the text.⁷¹ In the same formalist vein, the Mayan architecture of Central America is also included as a

⁷⁰Acharya, *Hindu Architecture in India and Abroad*. *Mānasāra* Series Vol. VI (Delhi: Low Price Publications, 1995). The evidence that Acharya presents draw mainly from the archaeological findings of Sir John Marshall in the Indus Valley and Aurel Stein in Central Asia, James Fergusson’s history of South East Asian architecture based on extant monuments, and his own survey of Vedic, Epic, Purāṇic and Āgamic texts.

⁷¹*Ibid.*, pp. 370-71.

derivative of Hindu architecture.⁷² This framework of understanding denies any possibility of indigenous development of architectural traditions. Ironically, Acharya uses the argument of indigenous development to chide Western Indologists who attempt to prove that the origins of Indian architecture lie in Persia.⁷³

The applicability of *vāstuśāstra* to modern Indian architectural practice is ultimately the concern with which Acharya conducts his scholarly work on the *Mānasāra*. This concern was shared by the architects of his time as well. In Appendix II of this volume, titled "The Future of Indian Architecture," Acharya critiques their attempted solutions which, to him, are tainted by a nationalistic fervor and do not rise above the superficiality of an arbitrary stylism. Acharya's own response to the problem was along the two-fold division of theory and practice. The former lay in the compilation, collation, edition and translation of the *Mānasāra* that he had already accomplished. This "standard treatise," he claimed, had "regulated all the known structures of India" in the past, and therefore contained the "grammar" of Hindu architecture for all times.⁷⁴ The latter was the series of "architectural experiments" that he conducted in order to demonstrate the applicability of the principles outlined in the text. They included two small shrines in his native village in Bengal and the guest house, Swastika Mansion, in Allahabad.

⁷²Ibid., pp. 372-74.

⁷³Ibid., Appendix I, "Indo-Persian Architecture," p. 376.

⁷⁴Acharya states that architecture is governed by a "general standard of beauty," which, in turn, "is largely dependent upon proportionate measurement of dimensions, disposition of component members, and types of verandahs, balconies, doors, windows, arches, porches, parapets and domes" (Ibid., p. 417).

Acharya gives a detailed description of the site, plan (spatial arrangement of rooms), proportions and ornamental details of the architectural components (pillars, railings), of the Swastika Mansion. He also provides plans, elevations (Figs. 16 & 17) and several photographs of the completed building. In all his elaborations, what is most striking is the absence of any symbolic intent in the conception and construction of the building. Even though dressed in an attire of traditional concepts and architectural elements, the program of the Swastika Mansion, at its core, is functionalist: what governs the design of the building are simply the contingencies of its functional program. An arbitrariness prevails in the design decisions: Acharya does not provide any reason for the choice of the particular features extracted from the *Mānasāra* such as the *swastika* “class” (or “type”) of ground-plan (*Mānasāra* XXXV, 203-222) and vertical proportions (XX, 34-41, 94), the *gr̥hasthambha*, principal column, in the front, screen patterns for window openings, and detail of railing surrounding the compound.⁷⁵ Even the sole instance of a symbolic purport in the whole program – an attempt, while describing the building, to identify *vāstupuruṣa*, the concept of “spirit of the site” that is stipulated in the treatise, with the central courtyard of the building – seems nothing more than a far-fetched afterthought.⁷⁶ In the end, Acharya’s own architectural response to those he criticized is only a more rigorous brand of the same formalism that is the mark of the attempts of

⁷⁵Ibid., pp. xv-xxiii.

⁷⁶Acharya states in a footnote:

[the] irregular-sided courtyard is intended to represent the prescribed unsymmetric figure of the Spirit of the house . . . lying on its face. His five principal limbs are represented by the five set of staircases ascending from the ground to the high-plinthe verandahs . . . The usual but unintelligible custom is still followed and the house-builders make on the actual building site a figure of the Spirit of the house with powdered chalk during the ceremonies of laying the foundations. That chalk-mark is, however, defaced in no time, while in the case of the Swastika Mansion, the courtyard and its five landings, representing the Spirit of the house, may be expected to last as long as the house does (Ibid., p. xvii).

It is clear from this statement about the figure of the *vāstupuruṣa* that Acharya is not at all aware of its role – both symbolic and practical – in the construction process which facilitates a building to “become” (and not merely “represent”) the *puruṣa*.

his contemporaries. Thus, Acharya's effort also fails to resolve the issues that he raised in his critique of their work.

The final volume of the series is more or less a recycling of the material of the *Dictionary of Hindu Architecture* under a more ambitious title, *An Encyclopaedia of Hindu Architecture*. Therefore it need not be commented upon. In the Foreword to this volume, Acharya mentions that a "few more volumes" dealing with "practical conclusions and workable plans and designs" are required to complete the work on the *Mānasāra*.⁷⁷ He was not able to accomplish this completion in his lifetime.

This lengthy critical appraisal of Acharya's work on the *Mānasāra* may be summed up thus: Acharya undertook the entire work of editing and translating the text and testing its precepts in practice within the epistemological framework of modern science. The scientific method certainly helped him in attaining a degree of precision, especially in the edition and translation of the text. However, the price of this "precision" has been high: the lack of a critical awareness of the reductive and objectifying tendencies of the scientific method renders problematic his very understanding of *vāstuśāstra* itself. Acharya imposed upon the *Mānasāra* his own concern of making *vāstuśāstra* available for modern practice, seldom allowing the text to speak for itself. This problem is evident in his reluctance to take into account the abundant occasions in the text that reveal the metaphysical foundations of architectural theory. As a result, he severed the link between the two and reduced theory to functionalist principles of design and

⁷⁷Acharya, *An Encyclopaedia of Hindu Architecture*. *Mānasāra* Series No. VII (Delhi: Low Price Publications, 1995), p. ix.

technical know-how. It is theory understood thus that Acharya applied in his architectural experiments. As already shown, the Swastika Mansion, contrary to Acharya's expectations and claims, failed to accomplish the intended synthesis between *vāstuśāstra* and modern practice. Consequently, his work on the treatise also suffered a similar fate.⁷⁸

3. Scholarship on the *Mānasāra* after Acharya

After Acharya, the dominant tendency among scholars has been to use the contents of the *Mānasāra* for comparative studies with other *vāstuśāstra*ic texts or to highlight a particular aspect of *vāstuśāstra*. This is the case in the work of D. N. Shukla, also a Sanskrit professor. Shukla's Ph. D. dissertation was on the *Samarāṅgaṇasūtradhāra*, an important North Indian medieval architectural treatise. After completing his dissertation, he continued his study of Hindu architecture and iconography by examining several other major treatises of the tradition. The study was published as the *Vāstu-Śāstra* Series in two volumes, titled respectively, *Hindu Science of Architecture* and *Hindu Canons of Iconography and Painting*, the former dealing with architecture and the latter with iconography.⁷⁹ In the Introduction to the first volume,

⁷⁸Pramod Chandra, in his survey of scholarship on Indian architecture, comments about Acharya's work on the *Mānasāra* as "love's labour lost" (Chandra, "The Study of Indian Temple Architecture," in Chandra, ed., *Studies in Indian Temple Architecture*, p. 26). This comment has become more or less the established view about Acharya's work among later scholars. According to Chandra, Acharya failed because he did not make use of the methods evolved by Ram Raz. Chandra considers Ram Raz's method of "[understanding the text] fairly accurately through consultation with a traditionally trained Sanskrit scholar and a 'good sculptor . . . well acquainted in the practice of architecture and terms used in the art' and [verifying] the knowledge gained by reference to the monuments themselves" as "basically sound and judicious" (Ibid., p. 1). Here Chandra fails to notice that the methods of both Raz and Acharya are essentially the same: the scientific method. Only that Raz had the advantage over Acharya of having lived (both historically and geographically) closer to the life-world of the text.

⁷⁹D. N. Shukla, *The Hindu Science of Architecture (Engineering, Town Planning, Civil Architecture, Palace Architecture, Temple Architecture, and an Anthology of Vāstu-Lakṣaṇas; Hindu Canons of Iconography and Painting (with an Anthology of Pratīma-Lakṣaṇa and Citra-Lakṣaṇa as well as an outline history of Indian painting, archaeological and literary). Vāstu-Śāstra Series Volumes I & II* (Lucknow: Vāstu Vānmayā Prakāśana Śāla, 1958).

Shukla states that his is a “comparative and critical study” of five treatises that are representative of the northern and southern “schools” of architecture: *Samarāṅgaṇasūtradhāra*, *Aparājita Pracchā*, *Viśwakarma Vāstuśāstra*, *Mānasāra*, *Mayamata*, and *Śilparatna*.⁸⁰ In Chapter V, titled “Study of Hindu Science of Architecture,” he presents the chapter-wise contents of the *Mānasāra*. Throughout the study, Shukla makes ample use of the *Mānasāra* and its accounts on architectural matters, while making some interesting observations based on them.⁸¹

Shukla comments on the *Mānasāra* as “the most popular and widely talked of . . . among [the treatises].”⁸² Aware of the different positions between Acharya and Bhattacharya regarding the date of the text, Shukla trivializes the issue by saying thus: “Indian culture being a very old culture, is not at all affected if a text is some centuries earlier or later.”⁸³ Instead, he proposes a new argument that divides the “evolution” of (South Indian) Hindu architecture and iconography into four phases, and identifies four texts as representing them. The first is the “infant” phase, characterized by the

⁸⁰This is a “new approach” in *vāstuśāstra*ic scholarship, according to Shukla. He observes that Ram Raz only summarized the contents of the *Mānasāra*; Dr. Acharya’s contribution confines to the edition, translation and [preparation of] dictionary of the *Mānasāra* . . . and Dr. Bhattacharya’s preoccupation with the historical genesis made him too much absorbed in non-scientific matters (Shukla., *Hindu Science of Architecture*, p. 6).

⁸¹Shukla presents accounts of the *Mānasāra* under the major topics of Town Planning, “Civic Architecture” (that is, human residences), its origin and development, Palace Architecture and Accessory Structures, Temple Architecture, its origin and development, and Temple Iconography. He observes that in the treatment of town planning in the *Mānasāra*, there is not much difference between fort, town and village: “all are fortified places intended for the residence of people” (Ibid., p. 232). Regarding civic architecture, he notes that the *Mānasāra* treats the residences of gods and men alike. This according to him points to the lack of a distinction in kind between the sacred and the secular in the *Mānasāra*: “. . . buildings in general are described in one category alone. If there are some additional delineations, they are just like appendices to them differing only in degree and not in kind” (Ibid., p. 308). He claims that such a distinction in kind between the sacred and the secular is original to *Samarāṅgaṇasūtradhāra*. Regarding the origin and development of *śāla*, house, he agrees with Acharya’s thesis that the tree was the archetype after which the house was built: *śāla*, house, is etymologically linked to *śākha*, branch (of a tree); also *kāṇḍa*, post of the house (the *Mānasāra* mentions a hierarchy of five posts in a house) derives from *kaṇḍa*, trunk of a tree (Ibid., p. 311).

⁸²Ibid., p. 154.

⁸³Ibid.

ithyphallic symbolism of the *linga* in iconography. The *Mayamata*, which treats the making of the *śivalinga* in much detail, is the representative text of this phase. In the second phase, iconography develops to include anthropomorphic images as well. The *Mānasāra*, in which much emphasis is given to measurement and proportion in architecture and iconography, represents this period.⁸⁴ According to Shukla, the third phase is “antithetical” and “fanatic” in nature (in that it acknowledges only Siva as the supreme deity), and is represented by the work *Aṃśumabhedāgama* (which, incidentally, is not *vāstuśāstraic* but an *Āgamic* text of the Śaiva sect). The fourth is the “synthesis” of the original thesis and the antithesis. Its representative text is the *Śilparatna*, “a work of broad catholicity and tolerance.”⁸⁵ Even though this neat scheme (that has a Hegelian slant) may have some appeal at a very general level, it does not address the particulars of the historical and geo-political context of the *Mānasāra*. Neither does it serve to alter the current scholarly consensus on this matter.

The only study of the *Mānasāra* itself after Acharya that raises the question of the nature of traditional architectural theory and its relevance to modern practice is a master’s thesis by K. Mariamma titled *Analytical Study of Manasara Vastusastra and*

⁸⁴Responding to the earlier speculations of Raz, Acharya and Bhattacharya, Shukla states:

[The] *Mānasāra* represents that period of Indian sculptural traditions when correct Proportions were the essence of Art. It is from this fundamental angle that this work has treated not only sculpture, but also architecture. The very name *Mānasāra* (the essence of measurement) is the keynote of the treatment of the subject. To me, *Mānasāra* is neither a *Ṛsi* – the author of the work – nor a title without significance. It is proportions – the different and detailed canons of Measurement that are life and breath of this work. The so-called barbarous Sanskrit in which it was written as contented by scholars was the Sanskrit of the artisans of India as handed down through oral transmission by the *Ācharyas* of the Science – the *Sthāpakas*. My study of the work convinces me of the distinct character of this work when finished art had to rigidly follow the canons of measurements (Shukla, *Hindu Canons of Iconography and Painting*, p. 59).

This view is echoed by another scholar, Lalit Kumar Shukla. See L. K. Shukla, *A Study of Hindu Art and Architecture with Especial Reference to Terminology* (Varanasi: The Chowkhamba Sanskrit Series, Vol. LXXXII, 1972), p. xxiv.

⁸⁵Shukla, *Hindu Canons of Iconography and Painting*, p. 59.

its Relevance to Modern Architecture, submitted to the University of Roorkee in India in 1981. Mariamma states in the Introduction of the thesis that her objective is to understand the principles of *vāstuśāstra* as “. . . crucially relevant to the understanding of modern architecture, rather than considering the direct applicability of the principles themselves.”⁸⁶ Phrased thus, Mariamma’s basic intuition captures the crux of the problem of the perceived hiatus between tradition and modernity in contemporary practice, and places the study of the *Mānasāra* within that context. By setting out to investigate the nature of theory in the text, Mariamma is well poised to build upon the foundation laid by Acharya. However, she contradicts herself almost immediately when she says that the objective of the study is “to re-evaluate the rational thinking of [the] *Mānasāra* tradition and create a logistic base for deductive applications to the modern context,” and that its scope is to “rationaliz[e] and objectify[. . .] criteria for application to the modern science of architecture.”⁸⁷ Furthermore, she understands the main issue of modern practice itself in India as that of a reclamation of “national” identity, evident in her formulation of the fundamental questions:

a) Can we [modern Indian architects] create a true National architectural tradition in the modern age that could be called Indian? b) Can the architectural traditions and canons of the past (which are available in plenty all over the Indian sub-continent) promise to establish an Indian Vernacular architecture?⁸⁸

The hermeneutical tone that Mariamma’s statement of intent had should have called for the hermeneutical “method” for the study of the text. The absence of this

⁸⁶K. Mariamma, *Analytical Study of Manasara Vastusastra and its Relevance to Modern Architecture*. Master’s Thesis, University of Roorkee, 1981, p. 6.

⁸⁷Ibid, pp. 8-9.

⁸⁸Ibid, p. 4. Mariamma does not seem to be using the term “national” in the sense of “nationalism” that opposes “orientalism” in Indological scholarship. Rather, she seems to be hinting at the issue of “regionalism” in architectural discourse: how to preserve regional architectural identities in the wake of the invasion of modern, “universalist,” architecture.

methodological framework in the thesis fails in the end to do justice to the claim of “analysis,” and the exercise tends to become one of freewheeling interpretation. The scholarly worth of the thesis is seriously undermined by this problem.

In the fourth chapter of the thesis, titled “Theory of *Mānasāra*,” Mariamma gives a summary of the information in the first seven chapters of the *Mānasāra* regarding units of measurement, procedures for the orientation and examination of site, and spatial layout of the building thereupon. This serves as a prelude to the following chapter, “Analysis of the Theory of *Mānasāra*.” The analysis proceeds under three main titles: “Architect,” “Approach,” and “Achievements.” The genealogy of the *sthapati*, master-builder, and the nature of his profession as stated in the text are mentioned first under “Architect.” An “interpretation” of this information along religious lines is then given.⁸⁹ No reference, textual or other, is mentioned as the source of this interpretation. A statement on the “moral value” of *vāstuśāstra* for modern architects completes the section.⁹⁰ The discussion under the title “Approach” is basically an outline of the traditional principles of design and methods of construction (the contents of Chapters IV–VI of the text).

Under “Achievements,” Mariamma gives the extent of architectural enterprise in ancient and medieval India: planned cities, temples, palaces, icons, ornaments and

⁸⁹Mariamma states: “A Hindu Architect believes in his divine genesis. Now his aim is to become worthy of that genealogy. He is tending to be perfect, above human errors and weaknesses. . . . Work is worship to him. . . . The ideal of the Indian *Silpi* is to work for God, king and humanity and not at all to satisfy the materialistic self. . . . Finally his work becomes an offering to God” (Ibid., p. 61).

⁹⁰“The moral level of the [modern] architect need[s] to be elevated by the study of the *Vastu Sastras* . . . Study and practice of *Vastu Sastras* would certainly bring in a change in our outlook towards the profession. . . . Happiness (*Ananda* or Bliss) the motif of [the ancient] Indian architect should be accepted by (Indian) architects of today also” (Ibid., pp. 62-63).

furniture. She then analyzes the South Indian temple town of Srirangam and the Br̥hadeśwara Temple in Tanjavur vis-à-vis the precepts of the *Mānasāra*, drawing the conclusion of a one-to-one correspondence between textual precepts and the city and temple in their horizontal and vertical dimensions. However, the “analysis” itself is preliminary at best: it is not buttressed by morphological studies. Therefore, her all easy conclusion also comes under question. She also conducts another exercise, of constructing a conceptual model of a house according to *vāstuśāstra*ic accounts and analyzing it. The limitations of this “analysis” are also obvious: there is no particular case study (that is, an empirical study of an actual house); as well, even the conceptual model of the house is studied solely from the angle of the modern discipline of climatology (which deals with how a design responds to sunlight, ventilation, and such “factors” of climate).

In the sixth chapter, titled “Derived Concepts,” an advance is made in the theoretical discourse when Mariamma elaborates the sixth (and the last) “derived concept.” This “concept” is formulated thus: “*vāstuśāstra* follows an efficient methodology.”⁹¹ It is the methodology of modular planning: working with known and established schemes of layout, measurements and proportions, as well as forms. She calls this the “top down approach” to design, and finds it to be safe, efficient and predictable with regards to form and dimensions of a building. This computational method, she observes, has

⁹¹Ibid., p. 120. Of these six “derived concepts,” the first four are vis-à-vis the traditional *sthapati*: 1) “Nature: his Teacher”; 2) “Human Form: his Directive”; 3) “Human Body: his Scale”; and 4) “Order and Discipline: his Doctrines.” The last two concern (traditional) Hindu architecture in general: 5) “Hindu Architecture: with an Aim and Purpose;” and 6) “Hindu Architecture: follows a Methodology” (Ibid., pp. 103-121). The contents under the first five are reiterations of what has already been said in previous chapters.

become “the newly accepted scientific approach.”⁹² Mariamma is right in pointing out that the deductive method of design is found in both *vāstuśāstra* and modern practice. However, she does not display here the understanding that this commonality of method between *vāstuśāstra* and modern practice is limited to a syntactic level and that their respective semantics are at odds with each other. She also forgets that the “bottom-up” approach was also present in *vāstuśāstra*, in continual dialogue with the top-down approach: even though layout and measurement schemes of a building were determined from “top-down,” its actual construction, beginning with the selection of the site itself, proceeded from “bottom-up.”

The content of the final chapter, titled “Thoughts on Relevance to Modern Architecture,” shows an attempt to bring to bear the findings of the analysis on the question of its relevance for contemporary practice. The attempt is, again, fraught with contradictions between the original intuition and its enunciation. On the one hand, Mariamma displays an awareness of the fundamental problem of modern architectural practice that stems from materialistic and solipsistic approaches, and reflected in a plethora of “styles.” For her, even though *vāstuśāstra* has several limitations,⁹³ its spiritual dimension and strict precepts make it a model from which modern architects can learn lessons. She does not advocate a “blind acceptance” of *vāstuśāstra* norms,

⁹²Ibid., p. 118. Mariamma contrasts the “bottom up approach” with the top down. She elaborates it as “starting from scratch” (that is, without any predetermined schemes to choose from) and assembling together a design based on a “functional analysis” (Ibid., pp. 119-120). She evidently favors the top-down approach because of its “scientific” nature. She fails to observe that, while these two approaches are different in their respective methodological specificities, both are but facets (rational and empirical) of the same modern scientific paradigm.

⁹³The metaphysics of *vāstuśāstra* is limited to Hindu thought alone; its association with astrology fosters superstition; its canons are rigid and deterministic (at least at a theoretical level); and the authority of the *sthapati* is more or less unquestionable. All these, and especially the last two, are unfavorable towards developing a critical dimension in practice, thereby fostering a tendency in the tradition towards ossification.

or a mere copying of forms. Instead, she says, they are to be brought up to date “to suit . . . the changing and complex needs of the modern society.”⁹⁴ She refrains from offering any prescriptions regarding how this is to be done by saying that it is left to the individual architect to work out the details. However, on the other hand, she sees especially the pre-determined geometry and rigidity of canons as positive and compatible with contemporary modular design using standardized building components. These, she thinks, are good for a “disciplined approach” to architecture. She also thinks that adopting this computational method by using the forms and measurement systems stated in the *Mānasāra* will ensure continuity with the past and bring about a “national architectural character.”

In the end, these inner contradictions are but symptoms of an unconscious syncretism stemming from the fact that the thesis has not investigated into and understood the notions of tradition and modernity at the level of their philosophico-theological foundations. Another important shortcoming of the thesis is that it pays no attention to the language of the *Mānasāra*. Without linguistic analysis (both syntactic and semantic), study of the nature of the theory in the text is bound to remain incomplete.

Another master’s thesis that mentions the *Mānasāra* in its title is by Brenda Cantelo – *Symbolism in the Hindu Temple: A Study in the Mānasāra* – submitted to the University of Calgary in 1984. Cantelo states that the aim of her thesis is to establish the “religious continuity between the [Vedic] sacrificial ritual [of *agnicayana*] and

⁹⁴Ibid., p. 128

temple construction.”⁹⁵ She uses the *Mānasāra* as the “standard text [of construction of the temple] to which others are compared . . .”⁹⁶ In the main body of the thesis, Cantelo discusses basic concepts associated with *vāstuśāstra* such as the origin and genealogy of the guild of the *sthapati*, the *vāstupuruṣamaṇḍala*, the classes of architectural objects, and so on, using the accounts on these topics in the *Mānasāra* as well as other texts. In studying the *Mānasāra*, Cantelo seems to have used Acharya’s English translation of the text. It is doubtful whether she has consulted the Sanskrit edition, or reflected on the meanings of key terms. In the end, the thesis falls short of the claim of its title, “a study in the *Mānasāra*.”

Like Cantelo, several other scholars and students consult the *Mānasāra* while addressing broader questions on *vāstuśāstra* simply because Acharya’s description of it as the “standard treatise” still has some currency.⁹⁷ In all such readings of the text, the principles and procedures found therein are merely reiterated without probing deeper into the nature of theory in the treatise and its relationship to practice. It seems that this concern would arise only if the question of the relevance of *vāstuśāstra* to modern practice is raised. Acharya raised this question, primarily out of his desire to establish a modern Hindu architectural practice by the application of traditional theory, and,

⁹⁵Brenda Cantelo, *Symbolism in the Hindu Temple: A Study in the Mānasāra* (Calgary: University of Calgary, M. A. Thesis, 1984), p. 2

⁹⁶*Ibid.*, p. 4.

⁹⁷For instance, an excerpt from the English summary of the article by H. Noguchi titled “A Study on Symbolism in Hindu Architecture” in a Japanese journal, *Southeast Asian Studies*, reads thus:

Hindu architecture, in addition to its functional aspects, is an expression of Hindu cosmology. *Mānasāra Vāstuśāstra*, an ancient treatise on Hindu architecture expounds four norms through which this cosmology is expressed: 1) a system of measurement, 2) a series of graphic patterns, 3) a range of component types of architecture, and 4) the specification of construction materials. In Southeast Asia as well as in India, historically these norms were applied to architecture, as well as to literature (Noguchi, “A Study on Symbolism in Hindu Architecture,” in *South Asian Studies*, 22, No. 1 p. 15).

perhaps, also in order to justify his vast scholarly undertaking. Mariamma also raised the same question, being active in contemporary architectural practice and education. Both attempts, in the end, fell short of adequately dealing with the question.

A more recent attempt in this regard is made by a scholar, Vibhuti Chakrabarti. In her book, *Indian Architectural Theory*, she traces the body of *vāstuśāstra* by compiling its principles from various texts including the *Mānasāra*, and classifying them under six headings in six chapters: 1) Architectural Team; 2) System of Measurement; 3) *Vastu Purusha Mandala*; 4) Orientation; 5) Site Considerations; and 6) Building Materials. In each of the above chapters, she includes a subsection at the end under such titles as “Contemporary Application,” “Contemporary Considerations,” and “Contemporary Use.”⁹⁸ The compilation of *vāstuśāstra*ic principles from a number of texts to conceptually reconstruct its body is not a new exercise altogether: this was, in a sense, D. N. Shukla’s project as well. What is amiss in Chakrabarti’s work is a reflection on the fundamental question of the nature of theory. Owing to this deficiency, her discussions on contemporary relevance of *vāstuśāstra* also remain rather superficial.

⁹⁸Vibhuti Chakrabarti, *Indian Architectural Theory: Contemporary Uses of Vāstuvidyā* (Richmond, Surrey: Curzon, 1998).

Appendix III: ON THE DATE OF THE VĀSTUSŪTRA UPANIṢAD

One of the classic problems haunting the discipline of Indology is the dating of texts. Debates among scholars and experts regarding the historical dates of particular texts are frequent. Such a debate exists regarding the date of the *Vāstusūtra Upaniṣad* as well. Alice Boner, one of the translators of the text, initially posited the date of the text as c. 700 BCE.¹ In the Third Revised Edition of the text (published in 1996), Boner, in her "Introduction," retracts the claim of this specific date of c. 700 BCE, and refrains from positing a specific alternate date. Nevertheless, her observations regarding the nature and content of the text imply that the text cannot but chronologically precede the *Śilpaśāstra* treatises of the medieval millennium.² Bettina Bäumer, who collaborated with Alice Boner in translating the text, also agrees with Boner's conclusion in stating thus: "... the fact that the text does not refer to structural temples, and mentions only 'image-halls' and cave-temples [*Sūtra* IV. 10], points to an early stage of development [of architecture and iconography]."³

In both the 1982 and 1996 Editions of the text, Dipak Bhattacharya, a scholar of Sanskrit and the *Atharva Veda*, offers his expert opinion regarding the date of the text in an essay titled, "On the Position of the *Vāstusūtropaniṣad* in Atharva Vedic

¹See Alice Boner, "Introduction," in Boner, Bettina Bäumer and Sadasiva Rath Sharma trans. & eds., *Vāstusūtra Upaniṣad: The Essence of Form in Sacred Art*. Sanskrit Text, English Translation and Notes (Varanasi: Motilal Banarsidass, 1982).

²See Boner, "Introduction," in Ibid. (Third Revised Edition, Delhi: Motilal Banarsidass, 1996) pp. 1-6.

³Bäumer, "Preface to the Third Revised Edition," in Ibid., p. xiii.

Literature.” In the 1982 Edition, Bhattacharya, citing certain internal (linguistic) evidences in the text, posited, in his own words, “an unusually late” date for the text: c. 1750 CE. In his essay in the 1996 Edition, Bhattacharya also, perhaps following Boner’s strategy, retracts the mention of this date and refrains from stating an alternate date. However, he still implies in his observations that the text belongs to a later date (roughly the second half of the medieval millennium).

Bhattacharya’s contention regarding the date of the text can be contested on several points. His statement that “the VSU is a treatise on the *Vāstusūtra* and *Śilpaśāstra* dealing with architecture and sculpture,”⁴ and that “[its] subject matter falls outside the general scope of Upaniṣadic discussion,”⁵ is to begin from a premise that already misses the basic nature, content and intent of the text. The VSU does not understand itself to be a śāstraic text: the word *śāstra* does not occur even once in the text. Moreover, the śāstraic form, characterized by a predominantly prescriptive tone, and *vidhi*, injunction, as the primary mode of linguistic expression, are absent in the VSU, as has been pointed out by Boner. Also, the stated intent of the VSU is to establish the tradition of iconography (making the divine Form) as a “contemplative practice” that is a legitimate way towards attaining divine knowledge and liberation (for instance, Sūtra I. 4, and its explication). If attainment of divine knowledge and liberation are the prime concerns of Upaniṣadic discussion, then the subject matter of the VSU falls well within that scope, contrary to Bhattacharya’s statement. Similarly, Bhattacharya’s

⁴ Ibid., p. 35.

⁵ Ibid., p. 36.

statements regarding specific internal evidences that would point to a later date of the text are also unconvincing. For instance, he states:

In fact, there are internal evidences in the VSU to show that in its present form it is much later than the *Bhāgavata Purāṇa* [which is dated c. ninth century CE, and which mentions architecture as a subtopic of the *Atharva Veda*]. Some of the geometrical terms used in the VSU are of very late origin. The words *sarala rekhā* (II. 9), *samāntarāla* (II. 16) occurring in the VSU are technical terms of *Rekhāgaṇita* (Linear Mathematics Euclidean Geometry) introduced in India through the Arabs. The Arabs came to India in the eighth century. But even during the time of Bhāskarācārya (twelfth century AD) Indian mathematics was not at all influenced by the Arabs. In fact, the main credit of the introduction of *Rekhāgaṇita* and the above-mentioned geometrical terms goes to Jagannātha, an eighteenth century mathematician of Jaipur.⁶

Bhattacharya's phrase, "the text in its present form," is already an inadvertent admittance that the text did exist in some "previous form" during a chronologically prior period. It points to the fluid nature of texts in ancient and medieval India by way of interpolations, additions and emendations. In this light, the strategy of relying on internal linguistic evidences in a text as the primary means (that is, without the support of semantics and external historical evidences such as those from archaeology) to establish its date cannot be all that sound; the conclusions derived thereby cannot be absolute and beyond question. Following this, there is no difficulty in assuming that the terms *sarala rekhā* and *samāntarāla*, which have the simple meanings of "straight line" and "equal spacing" respectively, were in use within the "practical" tradition of image-making and its discourse before they became strictly "technical" terms in "theoretical" geometry. These terms occur in the text within the context of explaining the metaphysical meaning of the *khilapañjara*, compositional diagram, which is drawn on the stone before the image is carved, and not within a discussion of theoretical

⁶ Ibid., pp. 36-37.

geometry. Finally, Bhattacharya's hypothesis regarding the origin of the VSU as being "in popular circles among semi-orthodox, semi-literate, elements, among architects knowing about the [*Atharva Veda*] from traditions floating among Atharva Vedic priests with poor training . . ."⁷ helps very little in supporting his claim of a later date for the text. The date 700 BCE first ascribed by Boner seems too early (a fact which Boner herself must have realized, as is evident from her retraction of the mention of this date in the 1996 Edition). It may be safer, then, to assume that the original version of the text came about sometime during the period of *sūtra* literature (c. 500 BCE-200 CE), closer, perhaps, to the latter limit of this long chronological interval. As mentioned already, this time period coincides with the early phase of temple-building: rock-cut temples with rows of images (thus, conceived as "image-halls") were being built in many regions in India. Also, this tradition chronologically succeeds (with some overlap) the period of Buddhist *caitya* halls and free-standing pillars.⁸

⁷ Ibid., p. 41.

⁸ See Percy Brown, *Indian Architecture: Buddhist and Hindu Periods* [Bombay: D. P. Taraporevala Sons & Co., 1965], Chapters II-VII

A Vimāna consisting of Seven Stories.

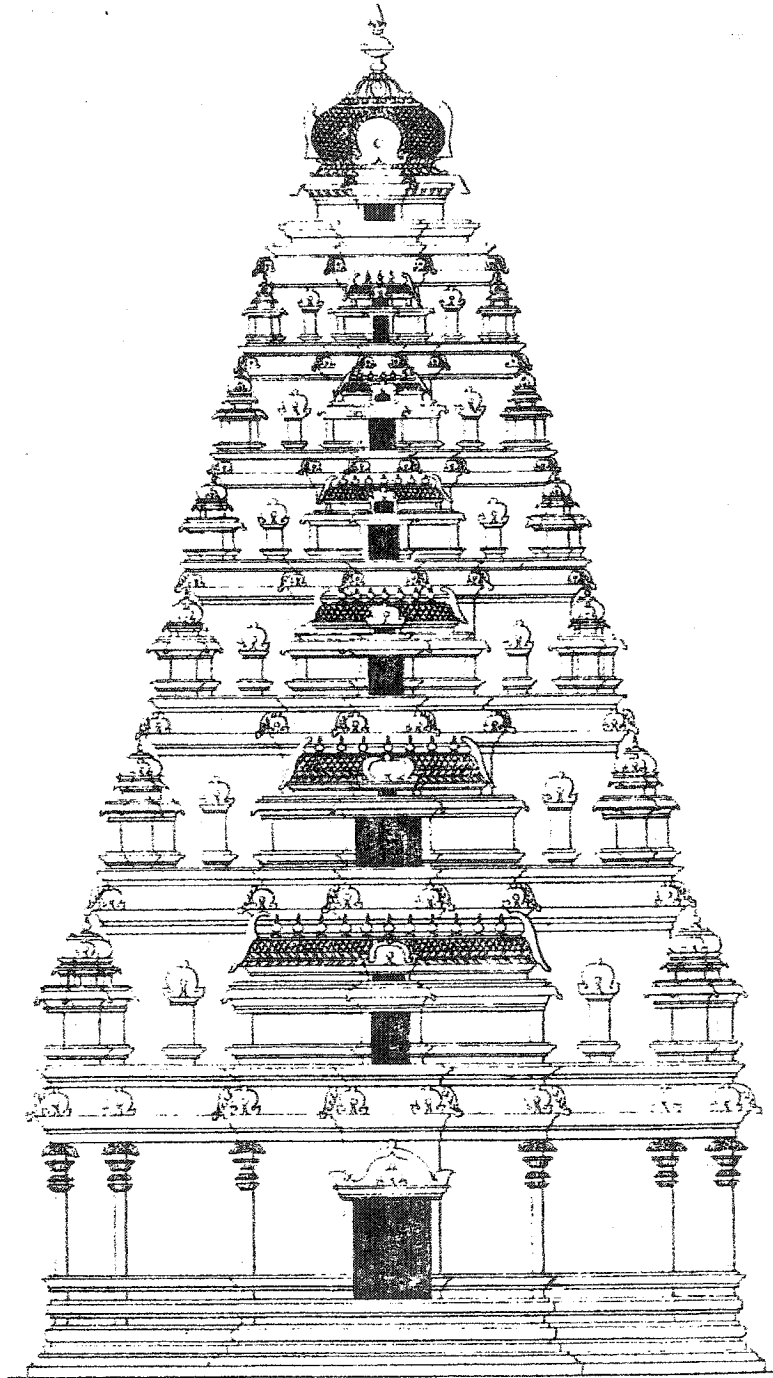


Fig. 13: "A *Vimāna* consisting of Seven Stories"
(Front Elevation)

From: Ram Raz, *Essay on the Architecture of the Hindus* (London: John

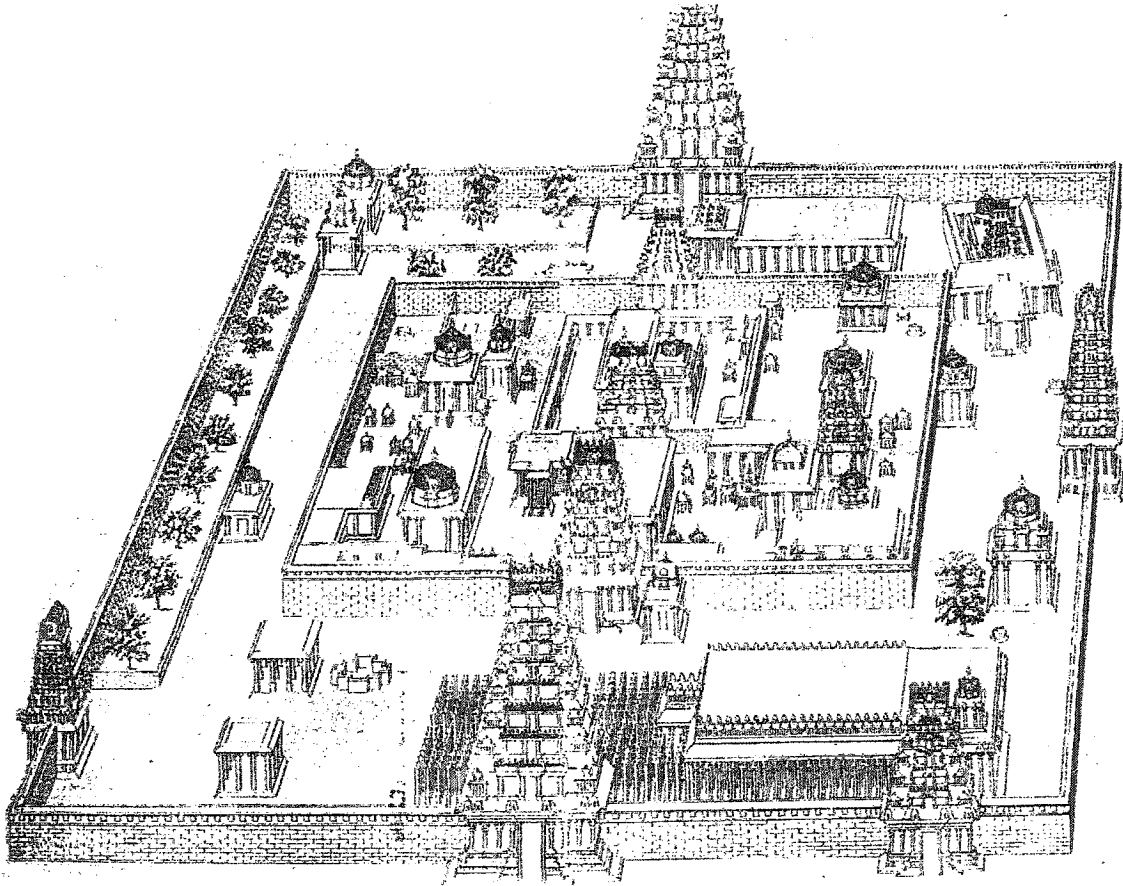


Fig. 14: "The Pagoda of Tiruvalur"
(Axonometric View)

From: Ram Raz, *Essay on the Architecture of the Hindus*.

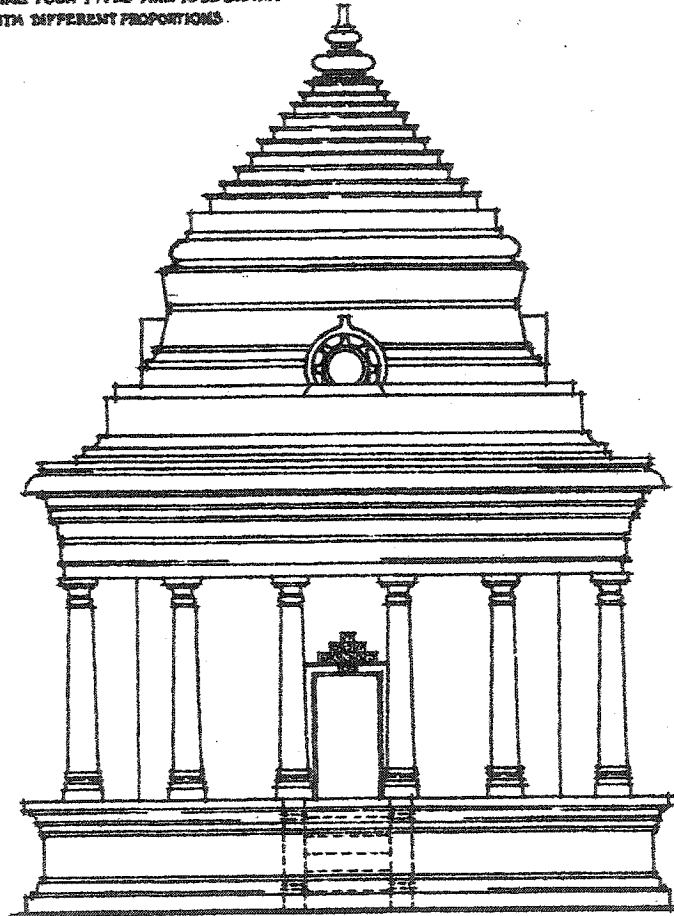
THE ONE-STOREYED BUILDINGS — CHAPTER XIX

THE ELEVATION TOWARDS THE BREADTH

NOTE:-

ALL THESE TYPES MAY BE UTILISED BOTH
AS TEMPLES AND DOMESTIC BUILDINGS WITH
SLIGHT DIFFERENCE IN DETAILS TO BE INDICATED IN THE SECTION

THE REMAINING FOUR TYPES ARE TO BE DRAWN
SIMILARLY WITH DIFFERENT PROPORTIONS.



THE THIRD TYPE
OF INTERMEDIATE PROPORTION.

HEIGHT = $1\frac{1}{2}$ BREADTH
= 12 PARTS.

SCALE OF 1 2 4 8 PARTS

B. C. MUKHERJEE

Fig. 15: A Single-Story Building Type (Side Elevation)

From: P. K. Acharya, *Architecture of the Mānasāra: Illustrations of Architectural and Sculptural Objects.*

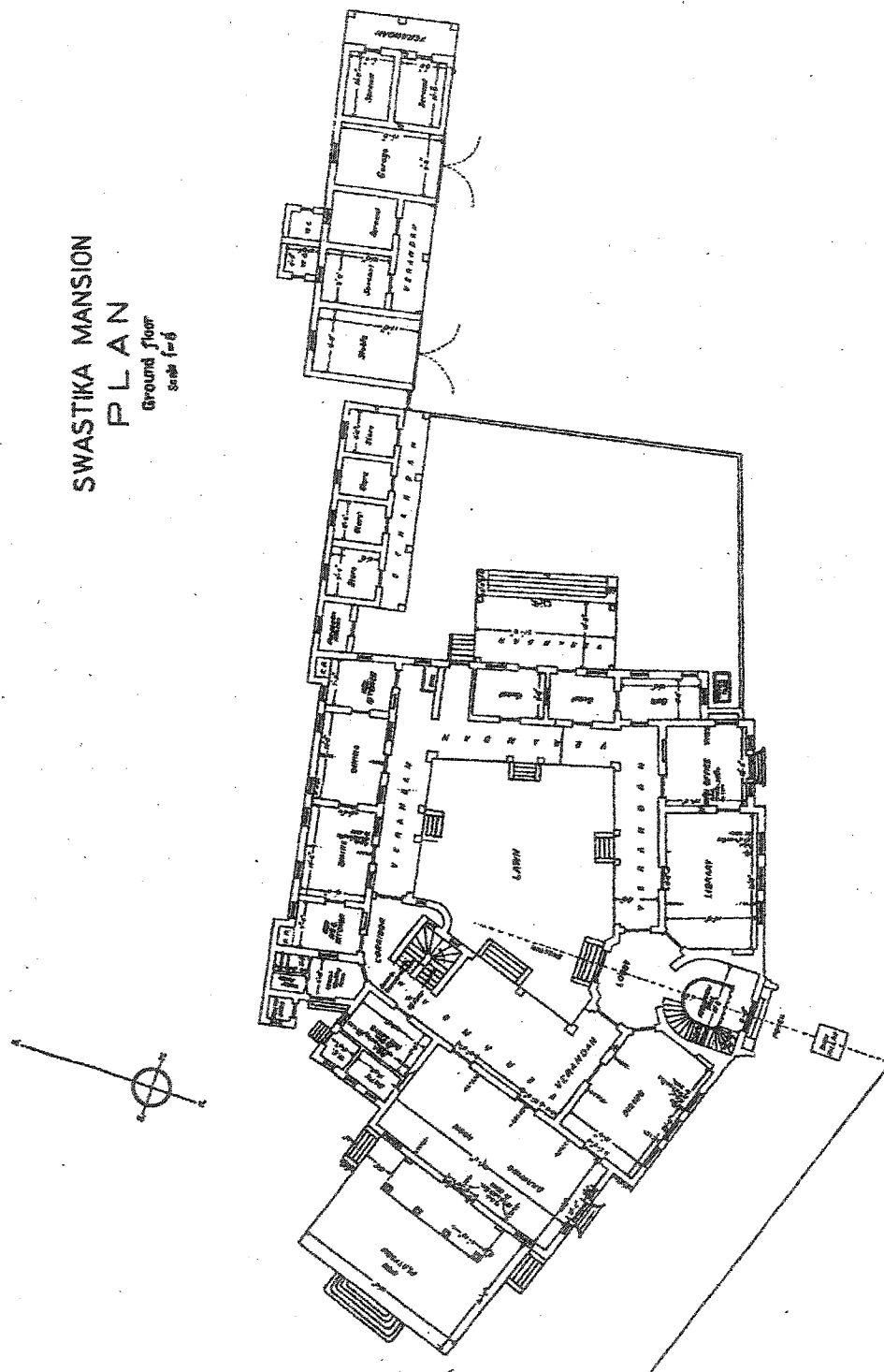


Fig. 16: Ground Floor Plan

From: P. K. Acharya, *Hindu Architecture in India and Abroad*.

SWASTIKA MANSION
ELEVATION
N.W. 6.4

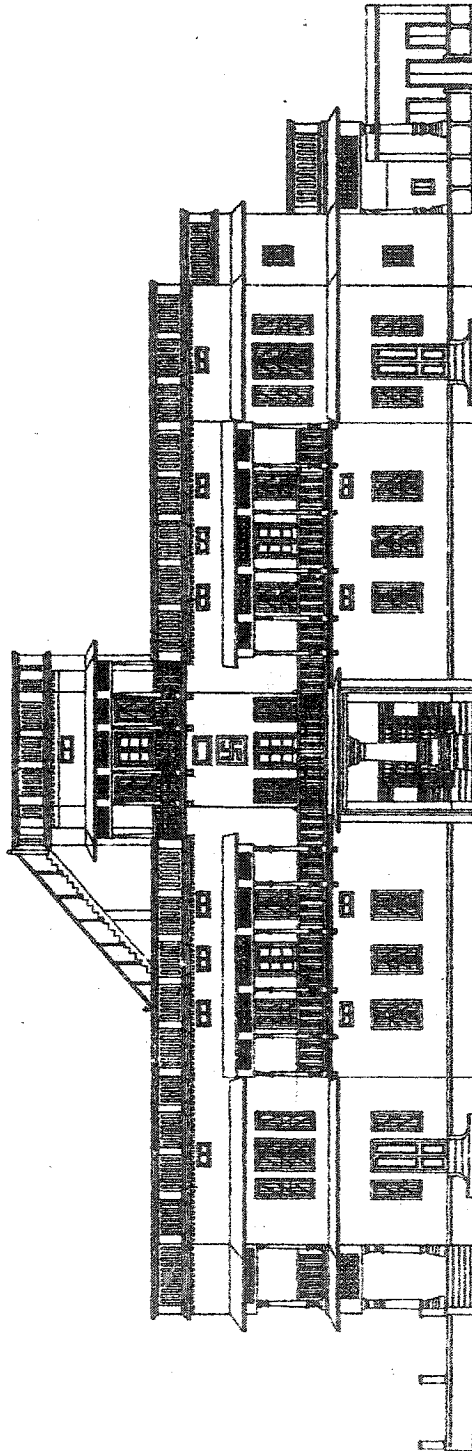


Fig. 17: Front Elevation

From: P. K. Acharya, *Hindu Architecture in India and Abroad*.

Plate XII: Swastika Mansion, Drawings