Architecture in the Ajitāgama and the Rauravāgama

(A study of two South Indian texts)

by

Bruno DAGENS

Member, Ecole Française d'Extrême-Orient

SITARAM BHARTIA INSTITUTE OF SCIENTIFIC RESEARCH

NEW DELHI, INDIA

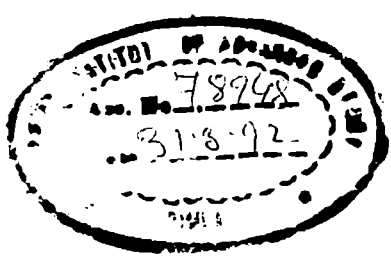
Architecture in the Ajitāgama and the Rauravāgama

(*A study of two South Indian texts*)

by

Bruno DAGENS

First English Edition 1984



Published by:

Sitaram Bhartia Institute of Scientific Research
1101, New Delhi House
27, Barakhamba Road, New Delhi-110001

Filmset and printed at All India Press, Pondicherry-605001, INDIA.

FOREWORD

This book is a slightly revised version, in English, of the French original *Les enseignements architecturaux de l'Ajitāgama et du Rauravāgama*, which appeared in 1977 as Vol.57 in the Publication Series of the Institut Français d'Indologie (Pondicherry). Revision has involved just the emendation of errors and the rewriting of various passages for the sake of clarity. The choice of architectural terms, in English, was an equivalent task to that which confronted us when we started our French translations of Sanskrit architectural texts. Aside from the *Dictionary of Architecture* by Sir Nikolaus Pevsner (and al.) and language dictionaries, we have made use of the glossary given by M. Meister and M. A. Dhaky at the end of the first volume of their *Encyclopaedia of Indian Temple Architecture*, recently published (1983); in this glossary there is a fairly comprehensive range of architectural terms, carefully chosen with descriptions of Indian monuments in mind: a much needed instrument for the study of Indian architecture. We should, however, lay stress upon the tentative nature of our endeavour and point out as well that we are not dealing with the whole vocabulary of Sanskrit architectural texts but only with that used in two specific religious manuals of South India.

This work appears in the context of a research programme on Vāstuśāstra conducted jointly by the Sitaram Bhartia Institute of Scientific Research and the Institut Français d'Indologie. After preliminary work on the translation, an initial draft was made by Mr. P. Kuppusamy for S.B.I.S.R. and, with the help of that draft and of our friend Mary Premila Boseman, whom we wish to thank for her part in the work, we have prepared this version. Mr. Madanlal Himatsinghka has been very instrumental in putting together this project; we wish to thank him and, as well our friends Tomi Courtin, Jean Pousse and Guy Welbon who gave us their help at different stages of the translation. It will be apparent how very much our researches owe to our friend and mentor N. R. Bhatt. In

the end we express our thanks to Mr. O. P. Bhartia, Chairman of Sitaram Bhartia Institute of Scientific Research and Dr. F. Gros, Director of Institut Français d'Indologie.

Pondicherry — April 1984

CONTENTS

I

INTRODUCTION

§ 1.1. It is well known that in the *āgama*, *paddhati*, *saṃhitā* and other religious manuals of the kind commonly used in South India, the description of the liturgy is given, in most cases, together with more or less comprehensive expositions relating to architecture. Such expositions serve a dual purpose: to present the setting in which the ceremonies are to be enacted and to describe the very specific ceremony which the construction of a building, particularly a temple, is. This does not mean that these texts are innovative for we already know of the importance of similar data taken by Louis Renou from the *gṛhya-sūtra* (La maison védique, *J.A.* 1939 pp. 481–504). The texts we are concerned with deal with these questions from a more technical point of view and one which is more systematic. When dealing with a *śaivāgama* whose content is, in theory, divided into four sections (*vidyāpāda*, *kriyāpāda*, *caryāpāda*, *yoga-pāda*) one must look at the *kriyāpāda* for passages concerning architecture. There are very few texts, *Mṛgendrāgama* is an example, where that part contains no allusion to this domain. Such references are numerous in certain texts as, for example, the *Kāmikāgama* and the *Īśānaśivagurudevapaddhati* and, to a lesser extent, the *Tantrasamuccaya* and the *Marīcisaṃhitā* both of which are Vaiṣṇava. What is found in those texts and especially the *Kāmikāgama* can be looked upon as genuine architectural encyclopaedias comparable to specialized treatises, *śilpaśāstra* or *vastuśāstra* such as the *Mānasāra*, the *Mayamata* and as well the *Kāśyapaśilpaśāstra*. Other texts, though they give a place to civil architecture and town-planning, are more specifically orientated toward religious architecture: such are the *Suprabhedāgama* and as well the *Kāśyapajñānakāṇḍa*, the latter of Vaiṣṇava inspiration. Lastly a large number of manuals limit their scope to religious architecture and often deal with it in a cursory way. The two works we are studying, the *Ajitāgama*

and the *Rauravāgama*, are fairly typical of this kind of manual and the latter, as we shall see, tends rather to allude to rules supposedly already known than to give systematic expositions whether more or less exhaustive.

§ 1.2. Without going into the details of their contents at this point, it is possible to say that, as far as they deal with architecture, the *Ajita* and the *Raurava* are primarily concerned with furnishing a description of the Śiva sanctuary, its main temple dedicated to the Liṅga, its enclosure walls and its various annexes such as the ancillary outbuildings and the chapels of the attendant deities (*parivāradevatā*). In addition there are numerous descriptions of pavilions (*maṇḍapa*) since this is precisely the type of building in which the daily and occasional rites are performed. For sanctuaries of divinities other than Śiva, the information supplied applies only to a few particulars: location, names of Attendants . . . etc. (§ 5.17). This is hardly surprising since these sanctuaries conform to the overall pattern appropriate to Śiva. In comparison, data about civil and domestic architecture are confined to a few random references; thus for example in the *Ajita* apropos the system of measures (12.9–10: "Royal palaces, towns and the like, as well as ponds, tanks etc. are to be measured with the cubit named *dhanurmuṣṭi*") or, regarding orientation (9.1: "I explain how to ascertain the direction of the East . . . which is to be done before beginning the construction of the houses of gods, brahmins, kings and others") or when dealing with a specific type of base (*adhiṣṭhāna*) fit for the dwellings of "brahmins, gods, kings and vaiśya" (13.9). The point of these references is only to emphasize, if need be, that the general rules of architecture are common to all buildings, religious or secular. As we shall see repeatedly, this narrow specialization is accompanied by a certain limitation in the number of variations given for the buildings described and for their architectural components, as well as in the dimensions prescribed for both. In this context it is worth noting that, though our texts mention that temples may have as many as twelve (*Ajita*) or sixteen storeys (*Raurava*) (§ 4.4), most of the precise information con-

cerns only single or double storeyed temples as thousands of these are to be found in South India. It is as if the compilers of our two books had deemed it unnecessary to insist upon descriptions of cathedrals when their books were meant for country vicars. Moreover this specialization and this limitation often go along with a certain dryness and as is evident the *Ajita* and the *Raurava* give more information about the outward appearance of the buildings than about their structure. We shall see too that they attach importance to the materials only in so far as these are in some way involved in a rite.

§ 1.3. Whichever way one turns when dealing with this material one comes up against a body of information which is the result of a deliberate choice, from material we know to be extremely rich thanks to the *śilpaśāstrā*. This in itself would be enough to justify an analysis of these two texts even if the certainty of the power to enhance our understanding of the systematic treatises by the study of related texts were not a sufficient reason for the enterprise. We should add that the characteristics enumerated above, which in our opinion lend particular value to the study of the *Ajita* and *Raurava* are also to be found in similar works such as the *Kāraṇāgama* which could have been taken as the subject of this initial study. Actually the decisive factor in our choice was having at our disposal excellent critical editions by N. R. Bhatt for both the manuals we are studying here. In fact, the experience of translating the *Mayamata* has shown us that most of the *āgama* published in non-critical editions would be useless for systematic study if we did not have at our disposal the manuscript versions with which to verify the printed texts, as these are literally teeming with misprints and unwarranted emendations. The *Kāraṇāgama* is a good example and so is the *Kāmikāgama* which we had occasion to study in detail in connection with the *Mayamata* to which it is closely akin. We should add that the same thing can be said about relatively recent editions such as that of the *Kāśyapaśilpaśāstra* (also called *Aṃśumatkāśyapāgama*) published in Tanjore in 1960 and 1968 in an edition which is no improvement at all on that published in Poona in 1926. Here for the

most part we have followed the text of our two *āgama* as it has been established by N.R.Bhatt and have indicated the very rare places where it has seemed necessary to use readings other than those chosen by him (for a list of such readings, see Appendix I).

§ 1.4. As previously indicated it is in the *kriyāpāda* of an *āgama* that observations on architecture are generally found and this is true of the two texts we are studying. A list of those chapters that, in both of them, deal particularly with architecture is given below. We shall see at a glance that the contribution of the *Ajita* is greater than that of the *Raurava* as is shown by the number of chapters as much as by their length. In fact fifteen of the fifty-four already published chapters of the *kriyāpāda* of the *Ajita* are almost exclusively devoted to architecture and to the rites which accompany the work of construction (*Ajita* chap. 6–16 and 37–39). We should add that the full version of this *kriyāpāda* consists of eighty-three chapters: the thirty chapters yet to be published, listed below in Appendix II, are so far known only through a single manuscript which is defective to such an extent that it would be pointless to publish them (see *Ajita* vol. II p. ii). Therefore we shall give here a brief survey of the contents of the fifteen published chapters dealing with architecture, indicating the number of verses in each of them, to facilitate comparison with the *Raurava*. Chapters 6 (*deśanirdeśaḥ*, 27 verses) and 7 (*karṣaṇavidhiḥ*, 26 v.) give the principles which dictate the choice of the site and the rules concerning the tests to which the chosen site is to be submitted. Chapters 8 (*vāstupūjāvidhiḥ*, 43 v.) and 9 (*śaṅkusthāpanavidhiḥ*, 17 v.) deal with the pegging-out of the building, the appeasing of the gods who protect the site, and its orientation. Chapter 10 (*ādyeṣṭakāvidhiḥ*, 62 v.) is mainly concerned with the rite that accompanies the placing of the "first bricks" and also contains interesting details about the laying of the foundations. General characteristics of the temples are given in Chapter 12 (*prāsādalakṣaṇavidhiḥ*, 20 v.) which begins with a systematic presentation of the units of measure and their respective uses. The different levels (*varga*) whose superposi-

tion makes up the elevation of a building are described in Chapters 13 (*adhiṣṭhānavidhiḥ*, 20 v.) and 14 (*pādādilakṣaṇam*, 94 v.) which are supplemented by Chapters 11 (*upapīṭhavidhiḥ*, 14 v.) and 16 (*piṇḍikālakṣaṇavidhiḥ*, 56 v.); the former deals with the socle, an additional level which may be placed under the base and the latter, whilst concentrating upon pedestals, supplies a great deal of vocabulary relating to the mouldings. The laying of the foundation deposit is dealt with in Chapter 17 (*garbhanyāsavidhiḥ*, 41 v.) The rites which mark the completion of the construction are found in Chapter 15 (*mūrdheṣṭakāvidhiḥ*, 50 v.). The general characteristics of the pavilions are enumerated in detail in Chapter 37 (*maṇḍapalakṣaṇavidhiḥ*, 42 v.) while the next two chapters describe the concentric walls which surround the main temple as well as the gateways, the galleries built up against these walls, the chapels of the Attendants and the various ancillary buildings (Chapters 38 *prākāralakṣaṇavidhiḥ*, 53 v. and 39 *parivārālayavidhiḥ*, 54 v.). To the information given by these systematic chapters must be added that which is to be found scattered in other chapters of this *kriyāpāda*, and, particularly, various rules relating to the materials (apropos the Liṅga) and several descriptions of pavilions (*Aj* 27.149..., 28.63..., etc.).

§ 1.5: Out of the forty-six chapters which make up the *kriyāpāda* of the *Raurava*, only four are devoted to architecture and they are very short. Chapter 39 (*prāsādalakṣaṇavidhiḥ*, 35 v.) deals with the description of the temples but a third of it is made up of lists of dimensions; it mentions the levels of elevation without describing them but on the other hand it does include interesting details, very succinctly put, about the interior layout of the temple. Chapter 40 (*maṇḍapalakṣaṇavidhiḥ*, 23 v.) less comprehensive than the equivalent chapter of the *Ajita*, presents in a clear and systematic way the interior layout of square and rectangular pavilions. Chapter 41 (*prākāralakṣaṇavidhiḥ*, 14 v.) gives the proportions of the enclosures which surround the main temple and describes the galleries that may be built up against their walls. Lastly Chapter 42 (*gopuralakṣaṇavidhiḥ*, 5 v.) is of interest, despite its brevity, for

it enumerates the various shapes that the roofs of the gateways may assume. The rites that go with the construction of the temple are not dealt with but there is a lot of information disseminated throughout the text which supplements that given in the four chapters we have just mentioned and considerably increases the value of the *Raurava* as it pertains to our subject. It is particularly valuable for its descriptions of the provisional temple (chap. 27 *bālasthāpanavidhiḥ*) and of a range of pavilions; one finds as well noteworthy terms used in connection with certain ceremonies, as for instance those performed for the installation of the Liṅga and its pedestal (chapters 28 and 29).

§ 1.6. Analysis or translation of texts dealing with architecture poses from the start a twofold vocabulary problem: defining the terms and translating them. We should say at once that one could avoid problems of translation—and thereby many problems of definition—simply by retaining the Sanskrit nomenclature but that such an approach does not seem desirable to us. As we will have occasion to show in detail apropos the discussion of mouldings, the texts we are examining consistently employ rather a large number of terms to designate a single element. The reasons for this procedure are not obvious but we may assume that exigencies of the prosody are often responsible for it. Therefore if we retain the Sanskrit nomenclature of our texts we shall end by obscuring otherwise clearly defined features by giving them several synonymous designations. The confusion would then be increased by the fact that we are dealing here with a twofold polysemy for, if a single element may be referred to by several words, those several words may also apply to different elements. To take one example which we shall examine later, the words *gala* and *kaṇṭha* may be used to designate both a recessed moulding *and* the attic (§ 3.8). When one decides to translate the vocabulary it is essential to preserve coherence in the choice of terms used to render the Sanskrit ones. In the first French version of this book we utilized, as far as possible and in a more systematic way than we were able to do when translating the *Mayamata*,

the *Vocabulaire de l'Architecture* published in 1972 by the Office of the Inventaire général des monuments et richesses artistiques de la France. As the main purpose of that book is to facilitate descriptions of the monuments of classical Western architecture, it may at first seem inapt for studies of Indian architecture yet its normative scope and the clarity of the definitions it gives make it a remarkable reference book. Therefore we have followed it as far as possible even when its definitions are surprising and appear to be contrary to current usage. Thus, to take one of the most striking examples: "sanctuaire" and "temple" are defined together as follows: "(the sanctuaire') is the consecrated area containing the altar and the temple . . . ; the temple is the building sheltering the image of the divinity" (*op.cit.*, vol.I, p. 138). Nevertheless, we believe that book is an excellent guide even when dealing with languages other than French. We have stated in the foreword which approach we have followed in translating the present study into English and must repeat that this rendering is a tentative one where the emphasis is more on the definition of Sanskrit terms than on their precise translation.

§ 1.7. The specialized vocabulary of Sanskrit architectural treatises is rarely quoted in classical dictionaries which are even poorer in this respect than the *Śabdakalpadruma*. The sole exception is the *Sanskrit-English Dictionary* by V.S. Apte which in its three-volume edition (1957–59), revised under the direction of P.K. Gode and C.G. Kharve contains some definitions taken from the works of P.K. Acharya (see below). As far as we can see from the few fascicles published so far, the new *Encyclopaedic Dictionary of Sanskrit* . . . edited by A.M. Ghatage (Poona 1976–) seems to do no more than follow the same path. This shortcoming on the part of the dictionaries may seem surprising since as early as 1834 the *Essay on the Architecture of the Hindus* by Ram Raz provided an initial collection of definitions, a number of which may be considered as definitive, particularly those referring to mouldings. Ram Raz mostly utilized the *Mānasāra* and despite the general nature of its title, his book is mainly a commentary on the first chapters of

this treatise together with translated excerpts. It is this same *Mānasāra* that served as the basis of the works of P. K. Acharya nearly a century later. This author edited and translated the text and published his *Dictionary of Hindu Architecture* (1927), reprinted in a slightly revised version under the title of *Encyclopaedia of Hindu Architecture* (1946). P. K. Acharya's dictionary contains a very large vocabulary and his definitions are supported by numerous quotations from technical literature, as well as from epigraphical and classical texts. As we have had occasion to observe elsewhere (*Mayamata*, vol I, p. 26) this author is a victim of the abundance of his sources, of the primacy he accords to the *Mānasāra* and of his frequent references to Vitruvius. Still his dictionary remains a basic reference work although it must often be used with caution. P. K. Acharya's work was the forerunner of a number of studies, for instance an important article by A. K. Coomaraswamy (Indian Architectural Terms, *J.O.A.S.*, vol. 48, 1928, pp. 250–275) and especially a study by N. V. Mallaya on the chapters concerned with architecture in the *Tantrasamuccaya* (*Studies in Sanskrit Texts on Temple Architecture*, 1949). Beside these two outstanding examples there are less important works such as *The Canons of Indian Art* by T. Bhattacharya (1963) marked by a strong bias against *Mānasāra*. *A Study of Hindu Art and Architecture* by L. K. Shukla (1972) is nothing more than an uncritical compilation of lists of terms borrowed, in the main, from P. K. Acharya's dictionary and D. N. Shukla's studies of the *Samarāṅgaṇasūtradhāra* deal with a text rather far removed from the agamic school we are concerned with. Stella Kramrish's huge work *The Hindu Temple* (1946) deals more with the speculations to which studies of temple architecture lead, than with precise interpretations of technical terms. Lastly, as far as the earliest Sanskrit architectural nomenclature is concerned, we have the *Vedic Index* (1912) by A. A. Macdonell and A. B. Keith and, above all, L. Renou's article on the vedic house, mentioned at the beginning of this introduction; it is here that we find the first acceptance, from the technical point of view, of terms in common use in *śilpaśāstra*, whether the names of architectural components or of structures.

§ 1.8. The authors we have so far mentioned have based their studies on the theoretical treatises and the vocabulary they have selected is that of treatises. G. Jouveau-Dubreuil's approach is quite different for in his *Archéologie de l'Inde du Sud* (1914, vol. I) he refers to oral sources. The nomenclature he uses to describe monuments was given to him by his Tamil informants, most of them temple priests. Up to a point this vocabulary is in common and current use but, although they are presented in their Tamil form, most of the words he uses are to be found in South Indian Sanskrit *śilpaśāstra* whether in their original Sanskrit form, in a sanskritised form (*pōtikai*/*potikā*) or in translation (*kūḍu*/*nīḍa*). In most cases G. Jouveau-Dubreuil gives French equivalents and his study, illustrated by sketches which have been frequently copied, appears in many cases to be definitive in this regard. His book was translated into English as early as 1917 under the title *Dravidian Architecture* and remains one of the classics on the subject. An approach which is ultimately similar is to make use of the architectural vocabulary found in inscriptions. In particular this offers the advantage of specifying the meanings of words used, in so far as the inscription has clear links with the monument that bears it. It would appear that, to date, this approach has not often been chosen. D. C. Sircar's *Indian Epigraphical Glossary* (1966) is too summary a compilation to be of use while P. K. Acharya who has occasionally used the epigraphical vocabulary in his dictionary is here again, somewhat the victim of the overabundance of his sources. However we should mention an important article by K. G. Krishnan, Architectural Terms in South Indian Inscriptions (in *Studies in Indian Temple Architecture*, 1975) which contains the first systematic survey of Sanskrit and Tamil architectural vocabulary as employed in inscriptions; as an example of a study conducted on such a basis it is worth mentioning an article by P. R. Srinivasan dealing with an inscription of Tiruvorriyūr (*J.O.R. Madras*, vol. XXXII, 1962–63, pp. 11–17). Lastly the fact should not be overlooked that a number of archaeologists use purely Sanskrit nomenclature in describing monuments. Such a procedure is only justified if the terms used are clearly and correctly defined which has not

always been the case. A well known example of incorrect usage is the term *vimāna* which is used by most authors to designate the upper portion of a temple when, in fact, it actually applies to the temple as a whole. As far as South Indian architecture is concerned, one of the few authors who seems to have used this approach properly is H. Sarkar, a reliable expert on monuments and texts who has written a monograph which, though brief, is a model of its kind, *The Kampaharesvara Temple at Tribhuvanam* (1974). However since the completion of the original version of our study, the publication of the first part of the *Encyclopaedia of Indian Architecture* (1983) marks a renewal in the use of Sanskrit terminology for describing monuments. In fact this is the first time this terminology has been employed on a large scale in descriptions authored by several scholars, all of them referring to a single and comprehensive glossary. This glossary, published up to now in a summary form (*loc. cit.* vol. I, pt.1/2 pp. 285–291), is primarily meant for the readers of the Encyclopaedia and gives to each Sanskrit word a well defined meaning corresponding to the use of that word in the descriptions of actual monuments. However, as we have already stated, such precision is not to be found in the use of the very same words in theoretical literature; for instance this glossary gives different definitions of the terms *gala*, *grīva*, *kaṇṭha* and *kandhara*, which is most certainly useful for the description of monuments but absolutely irrelevant when dealing with *śilpaśāstra* where such terms are synonymous and ambiguous (§ 3.8). In a way one can say that all the Sanskrit terms used in this Encyclopaedia could have been replaced by the English equivalents given in its glossary without impairing the clarity of the descriptions. Nevertheless, as we have already stated in our Foreword, this glossary gives us one of the best collections of English architectural terms applied to Indian Art and thus is a major contribution to studies such as ours.

§ 1.9. This study is, above all, an analysis and a survey of the architectural information to be found in the *Ajita* and in the *Raurava*. We shall look successively at the teachings that deal with general matters (system of measures, materials,

choice of site and progress of the work of construction), architectural components (mouldings, levels of elevation, details of plans and decorative elements) and the different categories of buildings (*prāsāda*, *maṇḍapa* . . .). We shall conclude with a presentation of the general layout of the Śiva sanctuary and the special features of those of other gods. As far as possible we have tried to limit ourselves to the domain of architecture, leaving aside data which deal purely with ritual. In these texts however these domains are interwoven and it is often difficult to determine where the instructions given to the craftsman (*śilpin*) end and where those directed towards the priest (*ācārya* or *deśika*) begin. By the same token information relating to iconography has only been included in so far as it has been found relevant to the study of architecture, which mainly means that dealing with measures and material. Finally this is not a comparative study of the teachings of our two *āgama* and of those found in the several other texts originating in South India and dealing with architectural questions and kindred matters. We have, on the contrary, endeavoured to examine our texts in isolation, using parallel texts as little as possible. Such a procedure may appear artificial in so far as, in both texts, architecture is often presented as a given and is far from being the central topic it is in treatises having encyclopaedic pretensions such as those previously mentioned. This factor is clearly apparent in the *Raurava* which enumerates more often than it defines or describes. Nonetheless it seemed to us that by proceeding in this way we had the best chance to come to a relatively precise definition of architecture as it is conceived in these two texts and that such an approach, repeated with other texts would ultimately permit the defining of tendencies—if not formal schools—in a confusing and voluminous literature. As we have suggested elsewhere (*Mayamata*, vol. I p. 24), specifying these tendencies while increasing the number of monographs on actual monuments is the only way, in our view, that will permit us to determine more precisely the links between theoretical texts and monuments. We may also hope that establishing these tendencies will eventually allow us to put the texts in chronological order although this

remains hypothetical. There are good reasons to date the architectural tradition found in our treatises back to the last quarter of the first millenium, such as the similarities existing between the temples they describe and those found in Indianised countries such as the Khmer empire (*Mayamata*, vol. I, p. 4). On the other hand it is almost certain that these treatises, which have never ceased to be read and employed, have several times been adjusted according to the prevailing fashion. In their present form they are the result of a long evolutionary process, the various stages of which elude us.

II

GENERALITIES

SYSTEM OF MEASURES

§ 2.1. Like other texts of this kind the *Ajita* and the *Raurava* make simultaneous use of absolute measures and relative ones when giving the dimensions and proportions of architectural features and of buildings or clusters of buildings. In the *Ajita* the chapter devoted to the *prāsāda* begins with a theoretical exposition of the system of absolute measures (12.2–14) which as we shall see is only loosely followed in the rest of the book. The basic unit here is the dimension of a "speck of dust" (*rajas*) which evokes an "atom" (*aṇu*) and which can be perceived in a ray of light penetrating through a latticed window (*jāla*) into a dark room (*Aj* 12.2–3). Its multiples are: the "(ordinary) speck of dust" (*rajas* = 8 units), the "hair end" (*valāgra* = 8 *rajas*), the "nit" (*līkṣa* = 8 *valāgra*), the "louse" (*yūka* = 8 *līkṣa*) and the "barley grain" (*yava* = 8 *yūka*) (*Aj* 12.2–4). The units of this first series are called in some texts "formless" (*amūrta*) and the only one whose use is prescribed in the descriptions in the *Ajita* is the "barley grain" used, for example, in giving the dimensions of the inner partitions of the casket intended for the foundation deposit (*garbhabhājana*, *garbhaphelā*, *Aj* 17.9); the same term *yava* also refers to a conventional unit used to give the proportions of the statues (§ 2.4). The units in common use are the "(standard) digit" (*mānāṅgula* or simply *aṅgula*) and the "cubit" (*hasta*, *ratni*, *kara*). The *mānāṅgula* is equal theoretically to six, seven or eight *yava* (*Aj* 12.5–6) and there are three types of cubit (*Aj* 12.7–10): the cubit proper (*kiṣkuhasta* = 24 *mānāṅgula*), the "cubit of Prajāpati" (*prājāpatya* = 25 *mānāṅgula*) and the "bow handle" (*dhanurmuṣṭi* = 26 *mānāṅgula*). According to the theory of measurement presented in the *Ajita* each of these cubits has a specific function: the *kiṣkuhasta* is meant for measuring palanquins, seats and other pieces of

furniture (*śibikāsanādi*), the *prājāpatya* for *prāsāda* and *maṇḍapa* and the *dhanurmuṣṭi* for royal palaces, towns, tanks, ponds . . . etc. A fourth type of cubit, the value of which is not given, would be used for measuring rivers, mountains and geographical features in general; here we have the *dhanurgrahakara* which according to the *Kāmikāgama* (I.16.11) is equal to 27 *aṅgula*. It should be noted that this system remains largely theoretical and is not applied in the rest of the text. For instance in the treatment of *prāsāda* (*Aj* 14.7–11) the breadth of their pilasters is given as three *aṅgula* when the *prāsāda* is three cubits wide *or* as one twenty-fourth, one twenty-fifth or one twenty-sixth of the width of the *prāsāda*, which leads us to suppose that the cubits in question can be of twenty-four, twenty-five or twenty-six digits. On the other hand it is indicated elsewhere that there are fifty-three possible breadths for the pillars of *maṇḍapa* and that they range from two and a half *hasta* to nine *hasta* by successive increases of three *aṅgula* (*Aj* 37.4–5); in order that such an arrangement be numerically exact a cubit of twenty-four digits is to be used and not twenty-five as in the theoretical prescription for the *maṇḍapa*. These divergencies are only of marginal importance; they are of interest in that they point to inconsistencies, the existence of which can be accounted for when we consider that the author of the *Ajita* had recourse to very diverse sources when dealing with architectural materials; let us add that these are not at all peculiar to the *Ajita*. Another discrepancy between this theoretical account and its practical application in the text lies in the fact that neither the "span" (*tāla* = ½ *hasta*) nor the "pole" (*daṇḍa* = 4 *hasta*, see also § 2.2) are mentioned in it. The pole appears only rarely in the text (*Aj* 9.3), but the span on the other hand is in constant use for describing pavilions (*Aj* 18.39; 40.10...). Without defining them, the *Raurava* employs the units in common use, that is digit (*aṅgula*), span (*tāla*) and above all cubit (*hasta*, *ratni*, *kara*); in this regard the text appears to take into consideration only the cubit of twenty-four digits (see for example, *Rau* 41.8–9: "the breadth of the enclosure walls ranges from one to two cubits by successive increases of three digits which goes to make nine possibilities . . .").

§ 2.2. In order to give the specific proportions of different components of a whole, the method most commonly employed in our texts, as elsewhere, consists of dividing, arbitrarily, the dimension of the whole into *N* number of equal parts (*aṃśa*, *bhāga*) and of indicating the number of parts apportioned to each component. This method is used in the descriptions of moulded sets (socle, base . . . see tables I to IV) as well as in that of the elevation of the building and for determining the size of the sanctum relative to that of the temple in which it is situated (§ 4.7). Besides these units which are significant only in very specific contexts and in relation to a given element, there are others which can be used as units of reference when dealing with elements different from one another. The most important of these is the "module" called "*daṇḍa*" (see also § 2.1), defined by the *Ajita* as being equal to the width of the top of the shaft of the pillars of the building, this breadth being one eighth less than at the bottom of the shaft (*Aj* 14.12–13). This module is used particularly for giving the recessed or projecting positions of several of the components of the elevation (*Aj* 14.52, 55, 65) as well as for features articulated to the basic plan such as the forepart (*Aj* 12.53, § 3.34). The *Raurava* does not seem to make use of this module which is not surprising when we consider that detailed descriptions of buildings and of their components are practically non-existent in this work. The same word *daṇḍa* which as we have seen stands for a "pole" is also used by the *Ajita* when giving the width of the main temple (*mūlaprāsāda*) of a sanctuary, such width serving as the unit of reference for the calculation of the dimensions of the enclosures which surround such a temple (*Aj* 38.1 ; § 5.6). The *Raurava* which uses this system, does not however use the term but simply speaks of the "width of the *prāsāda*" (*prāsādavyāsa*, *Rau* 41.1).

§ 2.3. The horizontal proportions of the *maṇḍapa* are generally presented with the aid of a specific relative unit which in our two texts is most often called *paṅkti*. The *Raurava* sometimes calls it *aṃśa* although this is more ambiguous (*Rau* 40.11, 12. . .) while in various other texts of a similar nature

we find *bhakti* (*Mayamata* t. I p. 614). This unit can be defined as being the value, constant for any one building, of the distance which separates two pillars situated in the same row, or two parallel rows of pillars. The distance may be taken between the faces of the pillars and will then correspond to an intercolumniation, or between their centres, though this is never clearly specified. If it corresponds to the intercolumniation we would render *paṅkti* precisely as "bay" since the distance determined is equal to the width of the "bay" delineated by two parallel rows of pillars; in one case, in fact, *paṅkti* appears to be used with the meaning "bay" apropos the wall which may possibly close a *maṇḍapa* (§ 4.17). Since there is some doubt we shall use the less precise term "unit". As we shall see later, the actual intercolumniation can, at the centre of a *maṇḍapa*, be equal to three times its theoretical value whilst certain central pillars are left out altogether (§§ 4.14, 18...). Lastly it remains to note certain ambiguities in the use of *aṃśa* as a synonym of *paṅkti* in the *Raurava*; in this text, in the description of one and the same *maṇḍapa*, *aṃśa* may stand first for a linear measure, the *paṅkti*, and then for a square measure which is equal to a square *paṅkti*: thus for example it is said (*Rau* 40.12b–13) that a *maṇḍapa* nine units (*aṃśa*) wide has a central lantern (*kūṭa*) of nine [square] units (*aṃśa*), that is to say three units wide (*nandāṃśe vistṛtāyate . . . madhye kūṭaṃ navāṃśakam . . .*) (see §§ 4.17 fol.). According to the *Ajita* the absolute value of the *paṅkti* should be from one and a half to five cubits by successive increases of a quarter of a cubit, giving sixteen possibilities (*Aj* 37.8–9) yet, according to the same text, the *paṅkti* may also be equal to the height of the pillars (*ibid.*) in which case it has a value ranging from two and a half cubits to nine cubits (§§ 3.17 & 4.16). In fact from those descriptions of *maṇḍapa* where the dimensions are given in cubits and in *paṅkti* simultaneously, we can see from both our texts that the value of the *paṅkti* ranges from one and three fourths to five cubits (§§ 4.23 sq).

§ 2.4. To complete the picture, mention must be made of the conventional units reserved for ceremonies and for the

iconography. Thus for "sacrifices and other rites" the *Ajita* prescribes the use of *mātrāṅgula* the value of which is equal to the middle phalanx of the middle finger of the right hand of the *ācārya* (*Aj* 12. 11–12). The *Raurava* gives a similar definition of the *kṛtamātra* which should be used for making the firepit (*kuṇḍa*): it is equal to either the length or the breadth of the middle phalanx (. . . etc.) of the one who makes the *kuṇḍa* (*kartṛ*) (*Rau* 14.3). For the iconometry there exists a complex system, the fundamental unit of which is the *dehalabdhāṅgula* (*Aj* 12.13–14) also indicated by the names *mātra*, *aṅgula* or *aṃśa* (*Aj* 36.38 and *Rau* chap. 35 passim). This *dehalabdhāṅgula* has for its sub-multiples the "barley grain" (*yava*, see § 2.1) and for its multiples the *kolaka* (= 2 *dehalabdhāṅgula*) and the *kalā* (= 3 *deha*°) (*Aj* and *Rau*, *ibidem*) as well as the *tāla* (§ 2.1), the variable value of which is around 12 *dehalabdhāṅgula*. Thus ten *tāla* can be equal to 124, 120 or 116 *dehalabdhāṅgula* and nine *tāla* 112, 108 or 104 of them (*Aj* 36.23–27).

§ 2.5. The horizontal measurements of a building, the length (*āyāma*, *mukhāyāma*) and the breadth (*vistāra*, *vistara*, *tāra*, *viśāla*, *tati vyāsa*), are taken along reference lines (*māna-sūtra*, *pramāṇasūtra*) which are drawn at the time of the pegging-out of the building (§ 2.23) and which correspond to the limits of its basic plan (§ 3.32). According to the *Ajita* (38.2–3) the reference line of a *prāsāda* is plumb with the exterior face of the pillars (or pilasters) of its *pādavarga* (§ 3.16) or with a torus (*kairava*, § 3.7) which is probably that of the base (§ 3.14), or with an element called *upāna* which could be the plinth of the base (§ 3.3) but which is more probably an adjustment layer situated under this base (§ 2.25). According to the *Raurava* (41.2) the elements of reference are the pillars (as above) or the *jagatī* or the *homa*. *Homa* seems to be applied to the adjustment layer (§ 2.25) and *jagatī* may stand, as we shall see, either for the plinth or for the lower string-course of the base (§§ 3.3 & 5). In the case of the enclosure walls the reference line is plumb with their interior face or with their median axis (*Aj* 38.18) or with their interior or exterior faces or with their median axis (*Rau* 41.4–5: "the dimensions of the enclosures

are given with the walls or along the interior of the walls or leaving out the walls"). Although our two texts do not make precise mention of it, it is only from this line of reference that the dimensions of the outlying features of the plan, such as the foreparts, are to be measured (§ 3.34).

§ 2.6. The purpose of the *āyādi* system is to facilitate the establishing of the character of a dimension, whether it is more or less beneficient, by connecting it to numerical series, certain elements of which are auspicious and others inauspicious. This relation is made through a sequence of arithmetical operations. First, the chosen dimension is multiplied by a given number, determined we do not know how, then the product obtained is divided by the number of elements which make up the series envisaged and, as a result, a remainder is obtained which is always less, by at least one unit, than the number of elements in the series; the element, the order number of which in the series corresponds to the number obtained as remainder, is that which tallies with the dimension; should the element be inauspicious then the dimension has to be modified. There are generally six series as is the case in our two texts and sometimes the expression *ṣaḍvarga* is used to designate them (see Acharya, *Encyclopaedia of Hindu Architecture*, 1946, sv), but there may also be eight or nine series. The use of this procedure is very common so that it is natural for both our works to include an exposition of this "purification by the *āyādi* "(*Aj* 28.64). In both texts this exposition is inserted into a chapter which deals with iconography (*Aj* 36.375–390; *Rau* 35.11–13), but the *Ajita* clearly states that the rules are valid "for all the *vastu*" (*ṣaḍ ete kalpanīyās tu sarvavastuṣu deśikaiḥ*, *Aj* 36.376) which can be Liṅga or statues as well as "palanquins, carts, seats . . . etc." (*śibikārathakhaṭvādi*) or "temples, pavilions . . . etc." (*prāsādamaṇḍapādi*).

§ 2.7. The series envisaged by the *Ajita* (36.375–390) are those of "gains" (*āya*), "losses" (*vyaya*), "matrices" (*yoni*), "asterisms" (*nakṣatra*), "solar days" (*vāra*) and finally "parts" (*aṃśa*). The following precisions are given:

I. For obtaining the "gain" the chosen dimension should be multiplied by eight and divided by ten; the remainder which is the "gain" should be more than the remainder obtained through the operation on the "loss".

II. For the "loss" the multiplier is nine and the divisor is ten.

III. There are eight "matrices" which are: (1) "flag", (2) "cloud", (3) "lion", (4) "dog", (5) "bull", (6) "ass", (7) "elephant" and (8) "crow". To obtain the matrix the dimension should be multiplied by three and the product divided by eight; the remainder should be an odd number since matrices having even numbers are inauspicious so that, theoretically, all dimensions of even numbers are eliminated, as is the case in all other texts (see *Mayamata* t. II p. 73).

IV. The "asterisms" are numbered from one to twenty-seven starting from Aśvinī/Aśvayuj; the asterism corresponding to the dimension is obtained by multiplying the said dimension by eight and then dividing the product by twenty-seven. The auspicious or inauspicious nature of each asterism is thus indicated (*Aj* 36.386b–387): starting from the birth asterism of the prince or from the asterism of the village, one should count the twenty-seven asterisms by groups of nine; in each of those three groups the third asterism is *vipat* ("adversity"), the fifth is *pratyara* ("disunion"), the seventh *naidhana* ("death") and they are inauspicious; moreover if the Moon is in the eighth asterism of the twenty-seven counted as above, it means destruction.

V. The "day of the week" is determined by multiplying the dimension by nine and dividing the product by seven; the days being numbered from Sunday (*vārāḥ sūryādir ucyate*), remainders corresponding to Thursday, Friday and Monday are auspicious (*vāreṣu guruśukrajñacandrāḥ śubhakarāḥ*, *Aj* 36. 388).

VI. The "parts" are "thief" (inauspicious), "enjoyment" (auspicious), "power" (do.), "wealth" (do.), "king" (do.), "eunuch" (inauspicious), "absence of fear" (auspicious) and "abundance" (do.). The part is determined by multiplying the dimension by four and dividing the product by nine.

(Information on these series is given in a much more summary form in the *Raurava* (35.11–13) which restricts itself to enumerating the six series and to indicating that the "gain" is obtained by multiplying by eight and dividing by twelve and the "part" by multiplying by four and dividing by ten.)

MATERIALS

§ 2.8. Our two texts barely touch upon the question of materials used in the construction of edifices and where and when they do so they deal with it briefly and in a rather off-hand fashion. Thus, about the materials used in construction of a *prāsāda* (§ 4.2) we learn from the *Raurava* that the wall which separates the sanctum from the aisle is of stone or bricks (*Rau* 39.18, § 4.8), that the floor of this sanctum "is made solid with stones and bricks" (*Rau* 29.31) and that what is in stucco (*sudhā*) has to be renovated in stucco should the need arise (*Rau* 44.4, 19). All this is of little importance except that it serves to point out that a temple can be constructed of stone or bricks and that some parts of its facades are masked by stucco. The only other edifice in respect of which the question of materials comes up in this text, is the "provisional temple" (*taruṇālaya*, § 4.37): its walls are of burnt bricks or of clay (§ 2.12) and its roofing is of "grass or other materials of the same kind" (*tṛṇādyair*, *Rau* 27.7–8). If we turn to the *Ajita* the question can hardly be said to be clarified for it is only in the passages dealing with the placing of the "first bricks" (*ādyeṣṭakā*) and of the "crowning bricks" (*mūrdheṣṭakā*) that we learn, quite incidentally, that a *prāsāda* may be constructed of stone or bricks or "of a combination" (*miśra*) of the two (*Aj* 10.1–3; 15.1–3; §§ 2.26 and 3.29). In addition we learn from that text that the finial (*stūpi*) may be made of diverse metals or of stucco or of clay (fired or not) (*Aj* 14. 90–91; § 3.30) and that the roof of the *maṇḍapa* comprises a layer of bricks (*Aj* 37.36; § 3.24). Finally the same text, while mentioning methods of calculating the dimensions of the pillars, lays down a specific rule for those which are of wood (*dārupāda*, *Aj* 14.6; § 3.17) and this leads us to suppose that the others are of stone; this is

not a great deal of use since the nature of the material constituting a particular pillar is never given.

§ 2.9. This deficiency in our texts however relates only to the materials used in the construction proper, obviously because they are only of marginal interest to those addressed by these *āgama*. When the operations involved in a rite or concerned directly with the sacred character of the work of the *śilpin* are in question, the information on the materials used and on the way in which they are to be employed is usually very precise and it often points to important developments. This information may sometimes be concerned with the construction of the temple, as with the placing of the first bricks and of the crowning bricks, since it is then that it touches upon the two important points of construction which mark the beginning and the end of the work (§§ 2.24 & 26). However these operations most often refer to the making and laying in place of what can, with a little licence, be called the "furniture" of the temple, of its dependent buildings and, in a general way, of the sanctuary: Liṅga and images, pedestals, main altar for offerings, substitute altars, firepits, poles for flag and lamp. In the majority of cases, our texts mention the materials to be used along with their qualities and defects, and, as well, the result that may be expected from the use of them. Moreover it will be found that, except in the case of references relating to the walls of the *prāsāda*, the roof of the *maṇḍapa* and the dimensions of the wooden columns, all the instances cited in the preceding paragraph are also related to operations of this type and are directly linked with rites. Taking the information thus furnished as our starting point we shall study here the different types of materials, bearing in mind that the specific circumstances in which they appear limit the significance of the observations that can be made. In spite of this initial defect it is possible to glean from these data some elements of vocabulary. Furthermore the empirical principles which must often have guided the *śilpin* have in themselves a value general enough to be of fairly extensive application. We shall therefore study consecutively: the stones, the bricks, the wood, the coatings

and the mortars. When it comes to the metals, the only information we have is in the form of a list of those which can be used in the making of the finial and we shall mention them in connection with this (§ 3.29).

Stone

§ 2.10. The merits and demerits of the stones (*śilā*, *aśman*, *dṛṣad*) used for making Liṅga are dealt with at length in the *Ajita* (5.25–57). The final choice of a stone can be made only after an examination consisting of two major stages. First, the more obvious characteristics of the stone are scrutinized to determine its "age" for a stone can be "young" (*bāla*), "mature" (*suyauvana*, *yuvan*) or "aged" (*vṛddha*) (*Aj* 5.28). A "young" stone sounds "dull" (*mandadhvani*) and its surface is so soft that a heron or a crow can cut it with its beak (*Aj* 5.29); such a stone can be used for the making of a Liṅga if it is neither "rough" (*rūkṣa*) nor damaged (*upahata*), nor deteriorated by alkaline waters (*kṣārāmbumadhyastha*) (*Aj* 5.32). The "mature" stones are the best; they are "cold" (*śītala*), give a deep sound (*dhīraśabda*), have a fine odour and are dense (*nibiḍāṅga*) and as well they are pleasant to the touch (*Aj* 5.30–31). It is worth recalling here that the expression "pierre froide" (cold stone) is used by French stone-cutters to refer to a stone which is very dense and which has a high resistance to crushing and which is therefore of good quality but we cannot be sure that the same characteristics are meant by *śītala* (see *Mayamata*, t. II p. 274 note 17). A stone called "aged" should always be discarded (*Aj* 5.31–32); it is rough (*rūkṣa*) and cellular (*jarjara*), it does not produce any sound and it is "cracked like [the skin of] a toad" (*maṇḍūkavatkhaṇḍa* is probably to be read here rather than *bandhūka*°, see *Mayamata* 33.15). Once this first inspection has been carried out, the stone must be examined more closely in order to uncover defects which, though less obvious, must nevertheless be considered as prohibitory. To this end the stone is first coated with a variety of colouring substances (*gairikā*, *viṣa*, *kāsīsa*) and then, after twenty-four hours, it is washed before being carefully

examined; a piece is cut so that the internal structure may be studied (*Aj* 5.34–36). Flaws thus discovered are "strokes" (*rekhā*), "drops" (*bindu*) and "stains" (*kalaṅka*) and, as well, *vimala* and lastly "circumvolutions" (*maṇḍala*). Of these terms the first three (*Aj* 5.33) are borrowed from the lapidaries (see for example *Ratnaparikṣā* 20 as quoted in L. Finot, *Les lapidaires indiens*, Paris 1896 p. 7) and it is not clear exactly what they correspond to when used for stones rather than gems. The *vimala* would seem to be specks of metals in their native state, such as gold, red copper (or iron? *loha*) and white copper (*kaṃsya*) (*Aj* 5.33). Finally there are some stones which, when cut, reveal circumvolutions and these are called "pregnant" (*sagarbha*, *Aj* 5.36); the *Ajita*, like parallel texts quoted in the notes by its editor, gives a method of interpretation for these *maṇḍala* which are always inauspicious: according to it, their respective colours are related to specific animals (*Aj* 5.37 . . .). We may wonder if the inauspicious character of such stones is not essentially due to their being of poor quality, since such coloured circumvolutions are known to characterize stones which have been altered by external agents, atmospheric and others.

§ 2.11. Stone as we have seen can enter into the construction of the *prāsāda*; it may also be used in making the main altar for offerings (*mahāpīṭha*, *Aj* 39.54; § 5.11), pedestals (*Aj* 16.51; *Rau* 28.72; § 5.3), altars substituted for the statues of Attendants (*Rau* 33.8), socle (*vedikā*) intended for supporting the flag-pole and, finally, it can be made use of for the Liṅga as for statues (*Aj* 4.11 and 36.283). When a stone is quarried for the purpose of carving a Liṅga, the "face" (*mukha*) which is the bottom part of it as it is set in the ground, must be given special attention for there will be found the "face" of the Liṅga which must face the door of the sanctum at the time of the installation (*Aj* 5.26–27). Also to be noted with care are the "head" (*śiras*) and the "bottom" (*mūla*) of the stone which correspond, respectively, to the top and the bottom of the Liṅga (*ibidem*). Details relating to the working of the stone are practically non-existent, except for those which concern the

mortar (*bandhana*) to be used for fixing the Liṅga to its pedestal and that pedestal to the ground (§ 2.6). It should be noted however with regard to pedestals, that the *Raurava* envisages the use of stone and bricks together for one and the same pedestal (§ 5.3) while the *Ajita* makes clear that pedestals may or may not be monolithic and uses the term *śilārūpa* to mean the bonded blocks making up a non-monolithic pedestal (*Aj* 16.51 and § 5.3).

Bricks

§ 2.12. Bricks are designated by the word *iṣṭakā* which is introduced if necessary in a compound word which specifies their nature; however when the "bricks" referred to are those, the installation of which marks the beginning and the end of the work of construction, then *iṣṭakā* does not necessarily correspond to a brick as such, since what are indicated by this word are stones when the edifice is to be built in stone, and bricks when it is to be built just of bricks or of both the materials combined (*śailadhāmni śilā tadvac caiṣṭake ceṣṭakā bhavet/iṣṭakaiva bhaven miśre . . . Aj* 15.2; see also *Aj* 10.4 and §§ 2.24 and 3.29). Added to this the *Raurava* appears to use the abridged form *iṣṭa* instead of *iṣṭakā* for we read (*Rau* 33.8a) about altars that can be substituted for statues of Attendants (§ 5.12): (*piṭham*) *aśmajaṃ saudhajaṃ vāpi ceṣṭajaṃ vātha kalpayet . . .* which sentence may just possibly be translated as ". . . the altar may be made of stone or of 'stucco' according to the material desired"; however it seems logical, given that the form *iṣṭa* does not, to our knowledge, occur elsewhere, to regard this as a list not of two but of three materials; we can see that this form must have troubled the transmitters of the text since *pīṭhajam* is substituted in one manuscript for *ceṣṭajam*, which may be admissible, whilst *teṣṭajam*, used in the other manuscript, does not seem to make sense unless the word is a wrong reading for *tviṣṭajam* which is hardly different in meaning from *ceṣṭajam*. The bricks can be fired or just dried in the sun. The first kind are called *pakveṣṭakā* (*Aj* 27.95; 39.57 . . . ; *Rau*

27.7) or *supakveṣṭakā* (*Aj* 21.3, 47) and the second *apakveṣṭakā* (*Aj* 21.3,47; 27.96). Also in question is the word *mṛd* used by the *Raurava* apropos the construction of the provisional temple (*Rau* 27.7: *mṛdā pakveṣṭakābhis tu kalpayet*) and apropos the socle of the pole (*kṛtvāśmanā vā sudhayā mṛdā vā*, *Rau* 18.39) which could allude to the use of the bricks which are shaped and dried before being laid in place or, simply, to a kind of cobvert. Lastly we note that *iṣṭakā* is sometimes used without any specification, for example when it is applied to the roofing of the *maṇḍapa* (*Aj* 37.38) or to the making of the pedestals (*Rau* 28.72–73).

§ 2.13. Apart from noting whether or not the bricks have been baked, our texts have nothing to say about the making of them and next to nothing about their dimensions which are dealt with only in the exceptional cases of the first bricks and of the crowning bricks; their length is twice their breadth and four times their thickness (*Aj* 10.1–2; 15.2–3); in terms of absolute value this length ranges from twelve to sixteen digits for the crowning bricks while for the first bricks, it is one digit for *prāsāda* three cubits in breadth and two for those of four cubits . . . etc. (*ibidem*). Brick structures are, most often, covered with a coat of "stucco" (*sudhā*) and that is what the *Ajita* is referring to when it says that the main altar is made of fired bricks together with stucco (*sudhāpakveṣṭakāmaya*, *Aj* 39. 54); the *Raurava* expresses it much more clearly when it says that the pedestal (*pīṭha*) is built with a brick core (*iṣṭakāgarbha*) and with stucco (*Rau* 28.72–73 and 30.55). Other than this no details are given as to the particular manner in which the bricks are to be used in construction nor about the materials used to join them together. However our texts give numerous examples of the use of bricks: for the construction of *prāsāda* (§ 2.8), *maṇḍapa* and the provisional temple (*taruṇālaya*) as well as for the making of the main altar (*mahāpīṭha*), of pedestals, of substitute altars, of the support for the pole (*Aj* 27.95–96) and of sacrificial firepits (*kuṇḍa*, *Aj* 21.3,47).

Wood

§ 2.14. Wood, which seems to play an important part in the construction of most of the temporary pavilions (§ 4.23) as well as in that of the roofings with rafters (*lupā*) such as those of the *taruṇālaya* (§ 4.37) and of certain gateways (§ 3.29), is, except for one detail relating to wooden pillars (§ 2.8), mentioned only in connection with the making of the Liṅga (*Aj* 5.18–19), the pole for the flag (*Aj* 27.74; *Rau* 18.29–30), the post for a lamp (*dīpadaṇḍa*, *Rau* 26.3–4), the *stūpidaṇḍa* serving as axis for the finial (*Aj* 15.6; § 3.29) and finally, the framework (*śūla*) of the clay-images (*Aj* 36.285). In the majority of cases, information is restricted to lists of suitable trees (§ 2.15) though indications are sometimes added as to the qualities of wood to be used; the nature of these indications is most often very general and could usually be applied equally to the construction timber. Thus, for a Liṅga (*Aj* 5.18–19) the chosen tree must have a cylindrical bole, without knots or fissures and bear leaves, flowers and bark. Moreover this tree should not have been damaged by elephants or other animals and should not have been set on fire either by lightning or by anything else. It should be neither bent nor twisted nor dry. In the same text are enumerated these same defects which are also to be avoided in the choice of the tree destined to be the flag-pole, the only addition being that the tree should not be worm-eaten (*Aj* 27.75). The *Raurava* gives the following indications concerning the wood for *dīpadaṇḍa* (*Rau* 26.3–4): it should neither be too long (in relation to its thickness?) nor broken, nor dried by the sun; it should not have fallen to the ground already and should not be too young, too old nor overladen with fruits. . . .

§ 2.15. Grouped below in alphabetical order are the names of the trees found in the five lists mentioned in the preceding paragraph. Each Sanskrit term is given along with a botanical name very likely referring to the tree in question but it should be borne in mind that there are uncertainties regarding some of these identifications due to there being no systematic study on the subject. We have made use here of correspondences

given in works published by the Institut Français d'Indologie (Pondichery), such as the index of H. Brunner-Lachaux's *Somaśambhupaddhati* or of A. Raison's *Hārītasaṃhitā*. In spite of its uncertainties, this list may be of use in helping to build up a corpus of botanical Sanskrit words whilst giving, in the absence of precise identifications, indications as to the use of the woods; such indications, once collected on a large scale, cannot but facilitate a more exact identification of the trees. We may observe, in concluding, that the list of trees for *dhvajadaṇḍa* differs considerably from one text to the other.

Ariṣṭa (*Sapindus trifoliatus*, L.); making of the Liṅga (*Aj*).
Aśoka (*Saraca indica*, L.): making of the *dhvajadaṇḍa* (*Aj*).
Asana (*Terminalia tomentosa*, Bedd.): *stūpidaṇḍa* (*Aj*), *śūla* (*id.*)
Karañja (*Pongamia glabra*, Vent.): Liṅga (*Aj*).
Ketaka (*Pandanus odoratissimus*): *dhvajadaṇḍa* (*Rau*).
Kramuka (*Areca catechu*, L.): *dhvajadaṇḍa* (*Aj*, *Rau*); *dīpadaṇḍa* (*Rau*).
Kṣīriṇa (*Mimusops hexandra*, Roxb.): *dhvajadaṇḍa* (*Rau*).
Khadira (*Acacia catechu*, Willdm.): Liṅga, *śūla*, *stūpidaṇḍa* (*Aj*).
Khādira (variety of *khadira*): *dhvajadaṇḍa* (*Rau*).
Candana (*Santalum album*, L.): Liṅga, *śūla* (*Aj*); *dhvajadaṇḍa* (*Rau*).
Campaka (*Michelia champaka*, L.): *dhvajadaṇḍa* (*Aj* and *Rau*).
Tamāla (*Garcinia pictoria*, Roxb.): *dhvajadaṇḍa* (*Aj*).
Tāla (*Borassus flabellifer*, L.): *dīpadaṇḍa* (*Rau*).
Tintriṇi (*Tamarindus indica*, Roxb.): *stūpidaṇḍa* (*Aj*).
Devadāru/sutaru (*Pinus deodara*, Roxb.): *dhvajadaṇḍa* (*Rau*); Liṅga, *śūla* (*Aj*).
Nameruka (*Elaeocarpus ganitrus?*): *stūpidaṇḍa* (*Aj*).
Nālikera (*Cocos nucifera*, L.): *dīpadaṇḍa* (*Rau*).
Padmavṛkṣa (*Prunus puddum*, Roxb.): *stūpidaṇḍa* (*Aj*).
Panasa (*Artocarpus integrifolia*, L.): *śūla* (*Aj*).
Puṃnāga (*Calophyllum inophyllum*, L.): *dhvajadaṇḍa* (*Aj*).
Bilva (*Aegle marmelos*, Correa): *dhvajadaṇḍa* (*Aj*, *Rau*); Liṅga (*Aj*).
Madhūka (*Bassia latifolia*, L.): Liṅga, *stūpidaṇḍa*, *dhvajadaṇḍa* (*Aj*).

Munivṛkṣa (?): *dhvajadaṇḍa* (*Rau*).
Rājavṛkṣa (?): *śūla* (*Aj*).
Vakula (*Mimusops elengi*, L.): *śūla* (*Aj*).
Veṇu (Bamboo): *dhvajadaṇḍa* (*Aj*, *Rau*); *śūla* (*Aj*).
Śami (*Prosopis spicigera*, L.): Liṅga (*Aj*).
Siṃśapa (*Dalbergia sissoo*, Roxb.): *stūpidaṇḍa* (*Aj*).
Śirīṣa (*Albizia lebbek*, Benth.): *dhvajadaṇḍa* (*Aj*).
Saptadala/*saptaparṇa* (*Alsthonia scholaris*, Br.): *śūla* (*Aj*); *dhvajadaṇḍa* (*Rau*).
Surataru: see *devadāru*.

Mortar, stucco, coatings . . . etc.

§ 2.16. Mortar appears in our texts with regard to the laying in place of the Liṅga and its pedestal; these two elements are to be firmly joined to each other and to the liners which separate them from the ground (§ 5.3). The mortar most frequently mentioned is the *aṣṭabandha* (*aṣṭabandhana*) and it is the only one the composition and the preparation of which are explained (*Aj* 18.216–218; *Rau* 29.28; 30.51; 44.19). The *Raurava* also makes mention of the use of a "mortar [hard as a] diamond" (*vajrabandha*, *Rau* 29.28) which would, according to K. M. Varma, be of gelatine, i.e. a glue with a bone powder basis (*The Indian technique of clay modelling*, 1970, p. 90). The same text also mentions the use of *sudhā* and *kalka* for such assemblings (§ 2.17). The *aṣṭabandha*, "mortar (made) of eight ingredients" is well-known but the way of preparing it and the eight components vary slightly from one text to another (K. M. Varma, *op.cit.* p. 11). According to the *Ajita* (18.216–218) the components are: lac (*jatu*), red chalk (*gairikā*), beeswax (*siktha*), *sarja* (Vatica Robusta?) resin, bdellium (*guggulu*), molasses (*gula*), sesame oil (*taila*) and limestone powder (*śarkarācūrṇa*). These different substances are to be mixed and boiled so as to get a fluid substance to which will then be added equal amounts of *sarja* resin, limestone powder, lime (*cūrṇa*) and cow-buffalo butter.

§ 2.17. We have seen that *sudhā* is used for coating brick

structures; in such a case the term can be translated by "stucco" although there is no precision about its composition and we do not know whether or not it includes marble powder as does stucco proper. Since it is strongly adhesive its use as a mortar for fixing the *ādhāraśilā* to the floor of the sanctum would seem to be justified (*Rau* 30.39; § 5.3). As for *kalka* which can be used in place of the *aṣṭabandhana* for fixing the Liṅga into the socket of the pedestal (*Rau* 30.54) it is probably equivalent to *śarkarākalka* ("limestone paste") i.e. a mixture of limestone powder and numerous vegetable juices which can be used to shape the statues when applied in successive coats (K. M. Varma, *op.cit.* p. 24 and *Rau* 39.32); it is probably used for fixing the Liṅga because of its fluidity which lets it flow in between the Liṅga and the inner faces of the mortice of the pedestal.

CHOICE OF A SITE

§ 2.18. The *Raurava* does not deal with the question of the selection of a site intended for a sanctuary whereas the *Ajita* devotes its 6th and 7th chapters to the subject. Here the rules given are meant for the most part to apply to the construction of a shrine for Śiva, but as has already been pointed out they hold good for most of the other deities whose shrines are mentioned in the work (§§ 5.1*& 17). A suitable site (*bhū*, *deśa*) should correspond to certain general criteria (*Aj* chap. 6) and should be capable of passing a series of tests designed to verify its technical qualities and its fertility (*Aj* chap. 7).

Auspicious and inauspicious sites

§ 2.19. The list of auspicious sites begins with a recapitulation of the sacred places in Indian geography: mountains, rivers, lakes and other places where there is water, holy regions (*kṣetra*) and pre-eminent places of pilgrimage (*Aj* 6.1–8). Next are recommended sites already sanctified by an earlier sanctuary or by being the abode of holy persons (*Aj* 6.9–10); then come those made "pleasant" by the presence of auspicious

trees, plants, birds or animals (*ibid.* 10–17); finally it is suggested that, in an inhabited area, the eight points of the compass are suitable for the installation of a Liṅga (*ibid.* 24–27). The prohibited sites (*ibid.* 18–23) may be recognized, first of all, by their vegetation: inauspicious trees are present (particularly thorny ones) or there are dried up bushes, dead trees or trees struck by lightning or burnt by forest fires. The presence of venomous snakes and colonies of ants is also prohibitory as is the fact of the site having been, over a long period of time, the abode of Caṇḍāla or Pulinda; uncultivated sites are also to be shunned as are those where there are bones or potsherds in the ground or a lot of stones and gravel as well as those where water is not found even after digging deeply (§ 2.20). To conclude, the chosen site should not be hemmed in too much neither should its ground be badly cracked and nor should it be completely surrounded by trees. Without doubt these requirements which are above all concerned with the purity, pleasantness and fertility of the place are primarily of religious significance.

Testing the site

§ 2.20. There are two types of test to which the site has to be submitted: the first three tests are designed to verify, empirically, that the chosen area is technically fit to support a building; the fourth is purely ritualistic in intent and we need not linger over it: by ploughing and sowing the soil, its fertility is assured, for a temple, like a plant, must be able to "grow" (*Aj* 7.11–23). The first test (*Aj* 7.4–5) consists in checking the stability of the ground by stamping on it: solid (*sthira*) ground gives off a deep sound. The second test is designed to make sure that the ground is compact (*Aj* 7.6–7) and to that end a hole is dug in the middle of the site and the soil taken from that hole is then put back; if the soil is not sufficient to fill up the hole it means that the site is not up to standard and must be abandoned. If, on the other hand, the hole is completely filled up or even overflowing with soil, this is a sign of the high quality of the site. Appearances to the contrary,

this procedure is perfectly logical for if the soil does not fill the hole it is because the ground it is taken from is not compact enough and therefore unsuitable for a construction. This test is completed by a check of the density of the soil of which a bushel (*āḍhaka*) should weigh at least sixty *pala* (*Aj* 7.7–8). The third test is for the degree of dampness of the site (*Aj* 7.9–10) and, as we have seen (*Aj* 6.21 and § 2.19), the ground must not be too dry and, as well, water must be found without it being necessary to dig very deep; however it must not be too moist nor too permeable either. A marsh is not suitable for the construction of a building and too permeable a soil is likely to lose a great deal of its stability after heavy rains. To verify this point, a pit is dug in the middle of the site and is filled with water. Nine steps are then taken away from the pit and upon returning it is observed whether or not the level of the water has changed which it should not have done because, if the level has risen, then the ground is too damp and probably too permeable and if it has sunk it means the soil is either too dry or too permeable. It is only after these technical tests have been carried out that the ploughing and sowing, which will attest in the final analysis to the religious suitability of the site, can commence.

WORK PROCEDURES

Preliminary work

§ 2.21. The construction of a temple has to be preceded by the setting up of a "provisional installation" (*bālasthāpana*) to which the *Raurava* devotes the whole of its twenty-seventh chapter. This sequence of rites begins with the erection, to the East or to the North-East of the anticipated location of the permanent temple (*Rau* 27.5), of a "provisional temple" (*taruṇālaya*, § 4.37) which is intended to house a "provisional Liṅga" (*bālaliṅga*). This provisional temple has to be maintained until the work of construction is completed and it is clearly stated that the absence of such a *bālasthāna* will make the principal foundation cause death (*bālasthānaṃ vinā mūlasthā-*

panaṃ mṛtyukhetukam/*Rau* 27.3). The chapter of the *Ajita* given over to this subject has not been published so we have not been able to make use of it (see Appendix II). On the other hand the section of this text which has been published describes in great detail the work which marks the beginning of the building of the principal temple; however no mention is made of this work in the *Raurava*. In the *Ajita* are to be found the orientation of the site, the setting out of the building and the laying of the foundations. These operations are combined with ceremonies for placating the deities who protect the site (*vāstūpujā*, *Aj* chap. 8) and for the laying of the "first bricks" (*ibid.* chap. 10).

§ 2.22. The orientation of the site (*Aj* chap. 9) has to be made at that time of the year when the sun is in the North (*Aj* 9.2), which shows incidentally that our texts are designed to be used to the South of the Tropic of Cancer. A good day must be chosen, one on which there are no spots on the sun and which is in the bright fortnight of a month which falls under a sign favourable to the founder (*yajamāna*) of the building (*ibidem*). The instrument used is a gnomon (*śaṅku*), twenty-four, eighteen or twelve digits (*aṅgula*) high; it tapers toward the top, the circumference of its base being equal to its height and that of its apex being a third this size (*Aj* 9.5-7). It must be set up at the centre of a squared off area, wide as a pole (*daṇḍa*), demarcated in the middle of the site. At that place the ground must be "smooth as a mirror" and its horizontality has to be checked with a water-level (*samaṃ kṛtvā jalena Aj* 9.3-4). Around the gnomon is traced a circle of which the radius is equal to the height of the instrument (*Aj* 9.7). First are marked on the circle the two points where the extremity of the shadow cast by the gnomon reaches it: in the West in the morning and in the East in the evening. After these two points have been joined with an East-West line two more lines are drawn parallel to it; it would seem that one of these passes through the center of the circle which is to say through the base of the gnomon and that the second is symmetrical, in relation to the centre, with the first line referred

to above. Next are drawn with the aid of intersecting arcs which form "fishes" (*matsya*), three North-South lines perpendicular to the preceding ones; in this way a square is obtained, the sides of which correspond to the four cardinal directions and of which the medians intersect at the base of the gnomon. It is on the basis of this square that "the *prāsāda* will be constructed" (*Aj* 9.7–17).

§ 2.23. The outlining of the limits of the building is done at the time of the ceremonies for placating the deities protecting the site (*Aj* chap. 8). The procedure starts with a careful leveling of the ground which is then coated with cowdung. After that, by the medium of a cord coated with white powder, a diagram consisting of eighty-one squares in nine rows of nine each is drawn. The exterior dimensions of this diagram correspond to those of the anticipated building (*Aj* 8.10–12) which means the limits of the diagram are drawn along the *mānasūtra* (§ 2.5). Next are placed on the diagram the protecting deities, starting with Brahmā who takes up the nine central squares. The deities are worshipped with various offerings and the ceremony ends with an oblation (*Aj* 8.12–43).

§ 2.24. Once demarcated and ritually prepared, the location of the temple must be adapted to support, without risk of damage, the weight of the building to be constructed. This does not, properly speaking, seem to refer to foundations and, in fact, it is sufficient to establish an especially dense ground (*Aj* 10.6–10). Towards this end an excavation is made which exactly corresponds to the dimensions of the building and the depth of which varies according to its importance; if it is to be a "large" building (§ 4.4) the depth will equal the height of its *pādavarga* (§ 3.15) and for a "medium" building (§ 4.4) it will be three quarters of that height and if it is to be a "small" building (*ibid.*) the depth of the excavation will be equal to the height of its base (*adhiṣṭhāna*, § 3.14). The excavation is then filled with sand which must be watered for three days before being pounded with tree trunks or trampled by elephants. We

should bear in mind that the use of a procedure like this which leads to obtaining an outstandingly stable ground is confirmed by the study of Khmer mountain-temples (see for example J. Dumarcay, *Le Bayon—histoire architecturale du temple*, Paris 1973 p. 12). Once this foundation is established and before the construction proper is embarked upon, there remains only the laying in place of the five "first bricks" (*ādyeṣṭakā*) at the bottom of a pit, the position of which on the plan of the building corresponds exactly to that of the foundation-deposit (*garbha*) placed above it within the base (*Aj* 17.2 and § 3.14). This position varies according to the category of building: for a *prāsāda* (§ 4.2) the pit must be located under the wall to the right (or to the South?) of the door (*Aj* 10.11) or equally under the right (or southern) jamb of the door (*Aj* 17.3); for a *gopura* (§ 4.33) it is under the wall to the right (or the South?) of the door (*Aj* 10.12; 17.4); for a *sabhā* (§ 4.38) it is under the right (or southern) jamb of the door (*Aj* 17.5). For a *maṇḍapa* (§ 4.13) it is to be dug either under a pillar which is situated in the North-East or South-East parts of the building without being at a corner (*Aj* 10.13–15) or under a pillar located in the southern part of the building (*Aj* 17.4). Finally if an enclosure wall (*prākāra*, § 5.4) is being dealt with this pit will be found at its North-East corner (*Aj* 10.12). We have already seen that the "first *bricks*" must be of stone when the building is in stone (*Aj* 10.3–4 and § 2.12); they are five in number and bear respectively the names Nandā, Bhadrā, Jayā, Riktā and Pūrṇā (*Aj* 10.5). The first four should be placed at the bottom of the pit in such a way that a free space is left in the centre (*Aj* 10.45–55). The cavity thus formed must, first of all, be filled with water with flowers in it. It is important that a right-revolving current should be able to be imparted to that water and if the inverse occurs this is a fault (*Aj* 10.55–57); the text is not precise however as to whether or not this fault must lead to the site being abandoned. Next, into the cavity are put precious stones, metals (*loha*), colourings (*dhātu*) and seeds (*bīja*); these are then covered with earth or crushed lime before the fifth brick is placed above them (*Aj*

10.58–60). "Now," says the author of the *Ajita*, "let the *prāsāda* be built here" (*Aj* 10.62).

§ 2.25. In ending this summary of the little information to be found in our texts on the substructure of buildings, we may note that both seem to imply the presence of an adjustment layer situated above the foundation proper and below the first level of the elevation (the base or the socle, §§ 3.13 & 14). We have seen (§ 2.5) that the *pramāṇasūtra* can be plumb with the *upāna* (*Aj*) or the *homa* (*Rau*) of the building. We shall see as well that the word *upāna* is frequently employed to designate the lower limit of the elevation of a building, as for example when the *Raurava* (39.24) speaks of the *prāsāda* of the *vesara* type which are circular "from *upāna* to finial" (§ 4.11). In both these cases we may take it that *upāna* means "plinth" (§ 3.3), since the plinth of the base is the lower moulding of the first level of the elevation and we may consider *homa* as being another term used to designate a plinth. It is however notable that the *Kāmikāgama* (I 52.6–10) explains that a double layer is to be established above the foundation (described as above § 2.24); its lower part called *prakṛti* or *prakṛtibhū* includes small gutters intended to facilitate drainage whilst the upper part, called *janmabhū* or *upāna* or *homa*, has to support the base (*adhiṣṭhāna*). In this circumstance it would seem legitimate to accept the hypothesis that it is this layer which is meant here. It is understood that such an element serves more conveniently as a point of reference than does a moulding such as the plinth which is in fact no more than a part of a sub-set of the building.

Setting in place of the Liṅga and completion of the work

§ 2.26. We are given no details about the progress of the work of construction itself, aside from the indications, more or less concordant, which our texts give as to the moment when the Liṅga and its pedestal *pīṭha* § 5.3) are to be set in the sanctum of a *prāsāda*. According to the *Raurava* (30.53) this

installation should be done when the base is built, either before the placing of the door jambs or before the installation of the "crowning bricks" (§ 2.27). According to the *Ajita* (18.31–33) there are two possible circumstances: for "ordinary" Liṅga the installation is made when the temple is still open to the sky (*sāvakāśe vimāne*), either before the setting of the door or before the installation of the crowning bricks; in the case of Bāṇaliṅga, Udbhutaliṅga (= Svayaṃbhuliṅga) and of Liṅga of precious stones or of similar materials (*ratnādi*) the installation cannot be made before the temple is completed (*dhāmni niṣpanne*). We can assume that, in a general way, the chosen moment depends on the dimensions of the Liṅga and certainly on those of its pedestal. Obviously when a large monolithic element is under consideration it is not possible to introduce it into an already completed temple and it must, therefore, be set in place even before the walls of the *pādavarga* of the ground floor have been erected.

§ 2.27. The end of the work of construction is marked by the setting in place of four "crowning bricks" (*mūrdheṣṭakā*, § 2.12) and of the finial (*stūpi* § 3.29) in the course of a ceremony which also includes the placing beneath the bricks of a sacred deposit symmetrical with the foundation deposit (*Ajita* chap. 15). According to the *Raurava* the provisional temple must be completely destroyed along with the Liṅga that was installed there (*Rau* 27.51–52).

Restoration work

§ 2.28. Restoration such as may be undertaken when a temple is ruined or damaged is mentioned by the *Raurava* which however is more concerned with the atonement ceremonies that accompany it than with the work itself (*Rau* chap. 44). In the *Ajita* this subject is dealt with only in an unpublished chapter which we have not been able to make use of (*jīrṇoddhāravidhih*, see Appendix II). Such work necessitates the construction of a provisional temple (*Rau* 27.2,47; § 4.37) which would seem to have a life of not more than twelve years (*Rau*

27.50). The renovated building should be made identical to the original (*Rau* 44.3) whether the reconstruction of an entire temple is undertaken or just repairs involving, for example, the aediculae (*kūṭādi*, § 3.43). The renovation otherwise may deal only with the "stucco" (*sudhākarma*) which covers the facades or with the inner installation of the sanctum, for example the refixing of the Liṅga (*Rau* 44.19–20).

III

ARCHITECTURAL ELEMENTS

MOULDINGS

§ 3.1. In both texts, as has already been pointed out, descriptions of buildings are more concerned with their external aspect, especially their decoration, than with their structure. Thus the descriptions of some of the "levels" (*varga*, § 3.12) which constitute the elevation of the buildings deal mostly with the design of their moulded decoration. Such decoration may be made up from specific mouldings which will be examined together with the level they pertain to, such as the pillars (§§ 3.19. . .) and the finial (§§ 3.30–31). On the other hand the socle (*upapīṭha*, § 3.13), the base (*adhiṣṭhāna* . . ., § 3.14), and the entablature (*prastara* . . ., § 3.23) are all decorated with the same kind of mouldings so that it is appropriate to look at these mouldings before going on to the study of those levels. We shall include here mouldings of pedestals (*pīṭha* . . ., §§ 5.3–4) and of the main altar for offerings (*mahāpīṭha*, § 5.11) whose design is similar to that of the bases. As usual, descriptions of moulded sets are no more than coded lists of mouldings and numbers corresponding to their relative height. We have summarized the lists given for socles, bases, pedestals and altars in Tables I–IV (at the end of the book) and that relating to entablatures in the paragraph dealing with that level (§ 3.23). Once again the contribution of the *Raurava* is minor: apart from the design of two types of pedestals and of the main altar it amounts to some isolated terms. It does however supply us with several points of reference of use when we come to the wealth of material to be found in the *Ajita*. This text describes no fewer than four types of socle, eight of base and ten of pedestal; it presents, on two occasions and in different terms, one and the same type of entablature

and, lastly, gives a description of the main altar with a variant for it.

§ 3.2. It is the subject of the mouldings which poses one of the most acute translation problems pertaining to terms. The correspondences that can be determined are nowhere near as exact as one could wish or as one might suppose from the perfectly defined technical terms used in classical European architecture. To a great extent this lack of clarity is due to the fact that even obvious analogies of profile do not diminish the basic differences between Indian and European moulded decorations. In addition the characteristics of the vocabulary pertaining to mouldings found in the *śilpaśāstra* play their part in this state of affairs. This vocabulary is both rich and ambiguous. Its richness, which is more surface than fundamental, consists in its using a large number of words for a much smaller number of different mouldings. Moreover the meanings of the terms are often ambiguous and imprecise and tend to apply more to groups of mouldings than to well-defined members of those groups. For instance, in our texts five names for "lotus" are employed to indicate a profile which can be identified as that of the doucine: however it can be an upright doucine or an inverted one, that is to say, the profile and counterprofile are not distinguished one from the other (§ 3.3). Another outstanding example is found in the words whose literal translation would be "neck" (*gala*, *kaṇṭha*) and which are applied to all recesses whether large as the dado of a pedestal or narrow as a groove (§ 3.8). This imprecision is partly compensated for however by itemized descriptions of moulded sets; this facilitates the identification of the profiles as each moulding is designated by its position and its proportional height. On the other hand data as important as the value of the projection (*nirgama*, *niṣkrānta*) or of the recess (*veśa*, *veśana*) of each moulding are not given which does not mean that they are not taken into account. The *Raurava* makes this clear when it says that the recess or the projection of the mouldings (*aṅga*) of the main altar (*mahāpīṭha*) must conform to what has already been laid down for bases (*aṅgānāṃ veśaniṣkrāntam adhiṣṭhānoktavat kuru*/

Rau 33.20); this precision is unfortunately of little help since the text is content to name two types of base without describing them (§ 3.15). The first attempt to define and translate the terms employed in *śilpaśāstra* and other texts of the kind, using equivalents borrowed from the vocabulary of classical European design of mouldings was made by Ram Raz in his *Essay*... referred to above and his system of correspondences was then utilized, without any notable changes, by P. K. Acharya in the two editions of his dictionary. Here our intent is to deal with the problem, using as much precision as possible and confining our study to the vocabulary found in our texts, helped by the nomenclature given in the *Encyclopaedia of Indian Temple Architecture*, and without attempting to disguise the fact that some translations we have chosen are only approximate. We shall successively examine projecting mouldings such as plinth, string-courses and torus, recessed mouldings such as dado, recessed bands and grooves, composite mouldings like doucine and cornice and neutral mouldings like fillets.

Projecting mouldings

§ 3.3. The plinth, which is located at the bottom of the socles, bases, pedestals and altars is differently named according to its degree of thickness. For a *thick* plinth the names of the Earth are employed: *jagatī* (*Aj* 13.8), *vasumatī* (*Aj* 13.4), *dhātrī* (*Aj* 13.9). We shall see (§ 3.5) that these terms, together with others of the same kind are also applied to a thick string-course which sometimes surmounts either a narrow plinth or a "false plinth" (*kṣudra upāna*, § 3.4). The thick plinth is however rare and found at the bottom of only three kinds of bases (table II). Elsewhere on bases (*ibid.*) as well as on socles (table II), on pedestals (table III) and on altars (table IV), the plinth is a relatively narrow feature indicated by the words *paṭṭikā*, *pura* and, even more often, by *pāduka* and *upāna*. The literal meaning of *paṭṭikā* (*Aj* 16.30,33,39) is "strip" or "band" which explains why it is commonly used to indicate string-courses (§ 3.6) and, to a lesser extent, fillets (§ 3.11). Since the plinth is no more than a string-course placed at the bottom of

a moulded set, its designation, *paṭṭikā*, is perfectly justifiable. It should however be noted that we find that word used only in connection with pedestals (Table III). *Pura* which appears only once (also in a description of a pedestal, *Rau* 28.76), probably owes its meaning "plinth" to the fact that the plinth is the *first moulding*. *Pāduka* (*Aj* 11.5,11,12; 13.5,6,10,11; 16.11, 14,17,26; 39.45) and *upāna* (*Aj* 11.7,10; 16.36; 39.50;-*Rau* 28.79; 33.17) are both derived in a most appropriate way from words meaning "shoe". We have seen (§ 2.25) that *upāna* is also applied to the adjustment layer on which a building rests and to the socle which in some cases elevates the central platform (*vedikā*) of certain sacrificial pavilions (§ 4/24). We may note here that *upāna* is not to be found in standard dictionaries unless in the compound *sopāna* which means "staircase" and which the *Śabdakalpadruma* defines as "that by which one climbs up the *upāna*" (*sopānam—upānam uparigamanaṃ tena saha vidyamānam*), without however defining the "*upāna*".

§ 3.4. The mouldings of some bases and some pedestals are distributed over two superposed registers of unequal height (§§ 3.15 and 5.4; tables II and III). The upper register is by far the more important and at its bottom is always found a narrow moulding indicated by the expression "*kṣudra upāna*" when it is on a base (*Aj* 13.2,5,6,10) and by the word *kampa* when it is on a pedestal (*Aj* 18.26). *Kṣudra upāna* literally means "small plinth" and *kampa* is generally applied to a fillet, that is to a narrow neutral moulding inserted between two more important elements (§ 3.11). Both these designations seem to be most appropriate. It could be said that this moulding makes for a new starting point in the moulded decoration and that it plays the part of a plinth, hence it appears reasonable to refer to it as a "false plinth"; moreover its position at the conjunction of the two registers justifies the use of *kampa* to designate it.

§ 3.5. On the top of the *narrow* plinth (*upāna. . .*) of a moulded set with only one register, or of the false plinth referred to above, there is often a thick string-course which we shall

call "lower string-course" in order to distinguish it from other string-courses which can be parts of a moulded set (§ 3.6). It is indicated by the names of the Earth after the fashion of the thick plinths: *jagatī* (*Aj* 16.11,14,27; 39.45;-*Rau* 28.76; 33.17; 41.2), *dharaṇī* (*Aj* 16.18) *avani* (*Aj* 13.6), *vasumatī* (*Aj* 13.10) or even *jagativasumatī* (*Aj* 13.5). We do not know if the compound *jagatīdala* belongs to the same series or not; it appears in the *Ajita* (16.22) as designating a thick moulding which surmounts the plinth (*pāduka*) of a pedestal; it can be understood as a name for a string-course decorated with a row of petals (*dala*); however, we shall see that, sometimes, an inverted doucine is substituted for the lower string-course (§ 3.9) in such a way as to suggest that *jagatīdala* can also be understood to mean "the petals constituting the *jagatī*" which would be a very vivid way of saying that the lotus-like doucine, surmounting the plinth, plays the same part as does the lower string-course. We come across a similar problem when dealing with the rather narrow *padmatuṇḍa* which tops the *pāduka* of the *ramya-pīṭha* pedestal (*Aj* 16.41): it is not clear whether such a moulding is called "lotus-face" because it is decorated with lotuses, in which case it may be a string-course or a reed, or because it has a lotus-like profile which would mean it is a doucine (§ 3.9).

§ 3.6. The lower string-course referred to above is found only on a few of the bases, pedestals and altars, whereas most of the moulded sets described in our texts include in their upper part a string-course surmounted in most cases by one or several thin mouldings such as fillets or narrow doucines, to which is added for a pedestal the rim (*ghṛtavārī*) of the tank (§ 5.4). The capitals and the finial are the only moulded sets where this feature is missing. This "upper" string-course has several names, the most frequently used being *paṭṭikā* which we find mentioned in descriptions of socles (*Aj* 11.10...), bases (*Aj* 13.3,5), pedestals (*Aj* 16.12,32...; *Rau* 28.77) and altars (*Aj* 37.40; *Rau* 33.19) as well as those of the attic (*Aj* 14.66) or of the bracket-capital (*potikā* § 3.21 & *Aj* 14.47). *Paṭṭikā* is ambiguous however; in some cases meaning a plinth (§ 3.3) it is also a synonym of *kampa* (fillet, § 3.11) which may explain

why its use to designate a string-course has sometimes been emphasized by the coining of the compound *mahāpaṭṭikā*. One good example appears in the description of the *mahāpīṭha* where it is found in the *Ajita* (39.45–50 and table IV): the upper string-course (*mahāpaṭṭikā*) surmounts a fillet (*paṭṭikā*) and is itself surmounted by a "top-fillet" (*ūrdhvapaṭṭikā*), both fillets being far narrower than the *mahāpaṭṭikā*. In the parallel description found in the *Raurava*, the upper string-course is just called *paṭṭikā* and the two bordering fillets *kampa* (see table IV). We must add that *mahāpaṭṭī* is found in cases where there is no ambiguity and where the upper string-course does not even appear as a very thick element (*Aj* 13.4,21; 16.24). As for the other words used to designate that upper string-course, they can all give rise to misunderstandings whether it is *prastara*, *vedikā*, *prati* or *vājana* which is used. In fact *prastara* is used mainly to designate the entablature and the ceiling which is at the same level (§ 3.23) but the very same term is used in the *Ajita* to designate the upper string-course of that entablature (*Aj* 14.53) or of one belonging to a pedestal (*Aj* 16.44). The term *vedikā* usually designates the platform which is in the middle of the sacrificial *maṇḍapa* (§ 4.24) or one which forms the base of the flag-pole (*Rau* 18.39). When the elevation is described the same word *vedikā* is used to indicate the platform which is the lower part of the attic (§ 3.25) and to indicate the low moulded set which can be inserted between the base and the level of the pillars (§ 3.15); in this last example the low moulded set (*vedikā*) comprises an upper string-course which is designated as a *vedikā* (*Aj* 14.2–3). Lastly the enclosure walls (*prākāra*) may be elevated by a stereobate which is also called *vedikā* (§ 5.8). Similar ambiguity is to be found in the use of the word *prati* which designates the low moulded set inserted between the base and the level of the pillars, referred to above, (*Aj* 12.44) and the upper string-course of the base itself (*Aj* 13.7–10,13) or of the entablature (*Aj* 37.31–32 and § 3.23). *Vājana*, a term usually designating a fillet (§ 3.11), is found in descriptions of two socles (table I) in such a position that it must refer to a projecting moulding as opposed to the fillet proper which is a neutral linking feature. The *vājana* men-

tioned in the first description (*Aj* 11.7) is found between two *kampa* and it is the principal moulding on the upper part of the socle, that is to say its "upper string-course". In the second case (*Aj* 11.7b–9) two *vājana* are indicated: the first is located in the lower part of the socle between a groove (*kandhara*, § 3.8) and a fillet (*kampa*) and it appears to be a projecting string-course; the second *vājana* is, as above, located in the position and place of the upper string-course.

§ 3.7. The torus is a moulding common to numerous bases and pedestals (tables II & III); it is also found on the *mahāpīṭha* (table IV). It is indicated by the terms *kairava* (*Aj* 3.2,4, 5...; 16.11,15; 39.45), *kumuda* (*Aj* 13.6,8,12; 16.19;-*Rau* 28.76) and *kumbha* (*Rau* 33.18); they are interchangeable as can be seen in the parallel descriptions of the *bhadrapīṭha* pedestal (table III: *kairava/kumuda*) or those of the *mahāpīṭha* (table IV: *kairava/kumbha*). It should be noted that *kumbha* also designates the main part of the bell-capital and of the finial as well as the bell-capital and the finial themselves (§§ 3.19,31). Sometimes the semi-circular profile of the moulding is given emphasis by an adjective such as *suvṛtta* (*Aj* 13.6) or *vṛtta* (*Aj* 16.19,42–43). The expression *kairava aṣṭāśra* is also used (*Aj* 13.5); this would be the literal designation of an eight-sided profile which could be a fluted torus but, according to the convention by which a semi-circular torus is called "circular" (*vṛtta*), a *kairava aṣṭāśra* is more likely to be semi-octagonal and this means that we have the familiar moulding very often to be seen on bases which looks like a huge champfered string-course of which the contour can be inscribed in a semi-circle; this would explain why it is designated by the same word as is the torus proper. We add here that, on some monuments, the base has an alternative moulded configuration where the torus and the champfered string-course are on the same level and are each the continuation of the other. Whatever the exact profile of the Indian "torus", its thickness varies with its relative position on the elevation of the moulded set; the thickest ones are generally to be found directly above a thick plinth or a thick lower string-course, both of which are designated by terms such as *jagatī* or

vasumatī. On the other hand a torus appearing half-way up the moulded set is, in most cases, rather narrow and may be referred to more precisely as a reed than as a torus: thus, for instance, on the pedestals *yakṣapīṭha*, *vijayapīṭha* and *ramyapīṭha* (table III). In this respect the parallel descriptions of the pedestal *padmapīṭha* which are given by the *Ajita* and the *Raurava* are of interest (table III): the central moulding is called *vṛtta* in the *Ajita* and *karṇavetra* in the *Raurava*. Clearly *vṛtta* could mean a torus as well as a reed since both of these are normally semi-circular, but, as far as the *Raurava* is concerned, the *karṇavetra* seems to be a reed (*vetra*) with an angular pattern and is probably a moulding similar to the *kairava aṣṭāśra* we have just been discussing though far narrower.

Recessed mouldings

§ 3.8. As has been already pointed out, most of the recessed mouldings are indicated by a series of terms of which the literal meanings are always "neck, throat" (*gala*, *kaṇṭha*, *kandhara*) and the specific value to be attributed to them in each particular case is determined by the proportions given in the itemized descriptions. The same term can have two different and precise applications when one and the same moulded set is being described, thus, for example, *kaṇṭha* in the description of the first type of *pādabandhâ* base in the *Ajita* (table II and *Aj* 13.2–3). These names, meaning "neck" can also designate the fourth level of the elevation, that is the attic (§ 3.25); this is an additional source of confusion since the main part of this level is a dado, that is a recessed moulding called "neck" (*gala*). We find, apart from these very common and ambiguous terms, *skandha* and more often *antarita* the meaning of which is more precise (below). Setting aside the whole question of proportions, it must be said in conclusion that the exact form of these recessed profiles does not emerge clearly and that it is usually not possible to tell if they are rounded or straight. We shall use in our translations "dado", "recessed strip" and "groove" according to the distribution indicated below but it will be evident that, in a number of cases, the choice of a particular

term remains very subjective. "Dado" will be used to translate *gala* or *kaṇṭha* when they are applied to a recess which is, proportionally, of very great height as is always the case with socles where such an element makes up one third or more of the height; this is also the case with some pedestals (*cakrapīṭha*, *vedipīṭha*, *saumyapīṭha*, table III); and it is the same when we come to the main moulding of the *vedikā*, which is inserted between the base and the level of the pillars (§ 3.15), and to the main part of the attic (§ 3.25). These same terms *gala* and *kaṇṭha* will be translated as "recessed strip" when they are applied to a thinner moulding which generally tops a torus as, for instance, on bases I to IV (table II) or on the pedestals *bhadrapīṭha*, *ramyapīṭha* and *śrīkarapīṭha* (table III) or on the *mahāpīṭha* (table IV). "Groove" will be used for the narrow recesses which, in most cases, are inserted, together with the fillets, between the main projecting or composite mouldings and which both our texts indicate by the names *kaṇṭha*, *gala*, *kandhara* and *antarita*. The *antarita* always corresponds to a groove topping a fillet which is designated in every instance as an *āliṅga* (§ 3.11); the *antarita*/*kaṇṭha* equivalence is confirmed by the *Ajita* in its dual description of the entablature when it makes use of both terms to indicate one and the same moulding (§ 3.23). We shall also use "groove" for the narrow and most probably rounded recess which is indicated by the name *kaṇṭha* when in connection with the bell-capital (§ 3.19) and by *skandha* or *kandhara* when in connection with the finial (§ 3.30). Lastly it may be mentioned that the finial comprises a thin and elongated stem which is called by the names *grīva* and *kaṇṭha* (*ibid.*) . . .

Composite mouldings

§ 3.9. *Padma*, *ambuja*, *paṅkaja*, *abja* and *jalaja* all indicate a composite moulding with the profile of a lotus petal. We have translated these words as "doucine" following in this, as in most other cases, G. Jouveau-Dubreuil and Ram Raz, who uses the synonym "cyma". It is understood that the profile of this Indian doucine is not as regular as that of the "doucine"

of classical Western architecture which is defined as "a composite moulding with profile in S, the extremities of which tend towards the horizontal" (see *Vocabulaire de l'architecture*, p. 128). As we have already pointed out, however, a doucine must be defined by its direction: it is *upright* when it is concave at the top, convex at the bottom and overhanging, and it is *inverted* when it is convex at the top, concave at the bottom and not overhanging. Such specification never occurs in the descriptions in our texts. Once, in the description of the *padmapīṭha* pedestal given in the *Raurava*, we find the compounds *adhaḥpadma* and *ūrdhvapadma* (*Rau* 28.79–81, table III); it is clear however that the two prefixes indicate no more than the position of the two doucines in relation to the middle moulding of the pedestal. This lack of precision is not a serious inconvenience as long as what is in question is a doucine situated immediatly above the lower part of the moulded set, that is to say the plinth or the lower string-course topping that plinth; in this case the doucine cannot be otherwise than inverted, as for example on the first register of bases or pedestals with two registers (tables II & III) or on some socles (table I: types I and II). In the same way, the elements with perfectly symmetrical mouldings are easily interpreted, thus the third and fourth types of socle (table I) or the pedestals *yaksapīṭha*, *padmapīṭha*, *cakrapīṭha* (table III) or the lower part of the *mahāpīṭha* (table IV); it is evident in all these cases, that the lower doucine is inverted and that the upper one is upright. The picture is much less clear when we come to deal with more complex moulded sets where small doucines together with fillets and grooves separate the main mouldings, for instance for the bases I, III, IV and VIII (table II) or for the pedestals *śrīkarapīṭha*, *vajrapīṭha* or *ramyapīṭha* (tables III A and B); since we do not think it possible to determine with any certainty the direction of these small doucines, this factor has not been mentioned in the tables. On the other hand it will be seen from these tables that the different terms enumerated at the beginning of this paragraph are interchangeable and that there is no specific correspondence between any one of them and the position or size of the doucine it indicates. Lastly, let us men-

tion that the term *padma* which is the one that appears most frequently in connection with doucines, appears too in the names of other mouldings, for example the *padmatuṇḍa* which would appear to be a string-course with lotus decoration (§ 3.5) or the *padmavājana*, the top moulding of the base *padmabandha* (*Aj* 13.13, table II), which must correspond to a fillet with lotus decoration; there is as well the *padma* of the bell-capital which is probably a doucine like link-moulding (§ 3.19) and the *padma* (or *ambuja*) which constitutes the base of the finial (§ 3.30). Finally, the upper element of the altar (*mahāpīṭha*) appears in the form of a lotus flower (*kamala*) with its petals (*dala*) and its receptacle (*karṇikā*) (§ 5.12).

§ 3.10. The dripstone or cornice is one of the rare mouldings which is indicated by a single term only, albeit a well known one, *kapota*. It is mentioned on two occasions in the *Ajita*, in connection with the base that bears its name (*kapotabandha*, *Aj* 13.6–7 & table II) and with the entablature of which it is the most important feature (§ 3.23). It should be noted that, in both cases, it is specified that the cornice supports small dormer-windows (*nāsī*) which are known to be one of its characteristic decorations.

Fillets

§ 3.11. The words *kampa*, *paṭṭikā* (*paṭṭa*), *vājana*, *kṣepaṇa* and *ālińga* appear in most descriptions of moulded sets. They designate narrow flat mouldings which are generally in a neutral position, neither projecting nor recessing, between more important ones or at the summit of the whole set. These words have been rendered, uniformly, as "fillet" but some nuances in their respective uses are noted. The most frequently used is *kampa* which, as we have already seen, can also be applied to a "false plinth" (§ 3.4). It indicates the two fillets which border the dado of a socle as well as the one which tops the same socle and which forms a neutral element between its upper string-course and the plinth of the base which it supports (table I). The description of the *pādabandha* base is cha-

racteristic of the use of the term since four *kampa* are mentioned there (table II): the lowest one separates the torus (*kairava*) from a small doucine (*padma*), the second is between this doucine and a recessed-strip (*kaṇṭha*),the third between this last and another small doucine (*padma*) and the fourth tops the upper string-course (*paṭṭikā*) of the base. The same sort of variety is to be found in the different uses of *paṭṭikā* which may also designate either a narrow plinth or a string-course (§§ 3.3, 6); thus in the description of the *mahāpīṭha* given in the *Ajita* (table IV) the term is used, first, to indicate the fillet (*or* the string-course?) which tops the *upapīṭha* of the altar, then to indicate the fillet which separates the torus (*kairava*) from a recessed strip (*gala*), then the one which is between this recessed strip and the upper string-course (*mahāpaṭṭikā*!) and lastly to indicate the "upper fillet" (*ūrdhvapaṭṭikā*) which tops the body of the altar and separates it from the lotus (*kamala*) above. In the parallel description (*Raurava*) this "upper fillet" is simply called *kampa*. *Vājana* which also designates a string-course, appears less frequently and seems to be applied, mainly, to the fillet which crowns moulded sets such as the bases IV and V to VIII (table II); it also appears several times in the descriptions of the entablature (§ 3.23) where it is interchangeable with *paṭṭikā* except when applied to the fillet which runs along the top of the architrave and which forms part of it in such a way that it can be considered as being a fascia. *Kṣepaṇa* is found only once and then its position makes it obvious that it is used as a synonym for *kampa* (first type of pedestal, table III). Lastly we have the *āliṅga*, already mentioned; except in one case (third type of base, table II) it is always surmounted by a groove called *antarita* and the parallel descriptions of the entablature show that the pair *āliṅga-antarita* corresponds exactly to the pair *paṭṭikā-kaṇṭha* (§ 3.25).

LEVELS OF THE ELEVATION

§ 3.12. The elevation of a building is made up of several "levels" (*varga*, *aṅga*) which are horizontal divisions of the decoration, corresponding roughly to different structural divi-

sions from which they draw their names. These levels are not to be confused with the "storeys" (*tala, bhū*) with which we shall deal later. From bottom to top, six kinds of levels are differentiated, that is the levels of the base, of the pillars, of the entablature, of the attic, of the roof and of the finial. Different categories of building are defined technically according to the number of levels which constitute their elevation. Thus the *prāsāda*, having all six, is called *ṣaḍvarga* (§ 4.2), the *maṇḍapa*, with only three, is a *trivarga* building (§ 4.13), the *sabhā* with five a *pañcavarga* one and the *dhiṣṇya* with four is a *caturvarga* one (§§ 4.38–39). To the main levels, as listed above, can be added a socle (*upapīṭha*) placed under the level of the base (only *Ajita*, § 3.13) and the low intermediate level (*vedikā, prati*) which can be inserted between the base and the *pādavarga* (§ 3.15); these supplementary features are not taken into account when defining edifices and a *prāsāda* is always *ṣaḍvarga* even if its elevation includes them. It is the same when a building has more than one storey; in such cases, each storey additional to the ground floor appears on the elevation as a supplementary pair of levels of pillars and of entablature inserted between the entablature of the ground floor and the attic. Thus a two-storeyed (*dvitala*) *prāsāda* has two levels of pillars and two levels of entablature whilst remaining a *ṣaḍvarga* building. We note here that practically all types of edifices described in our texts may have several storeys: the *prāsāda* (up to sixteen storeys § 4.3), the *maṇḍapa* ("one or several storeys", *Rau* 40.20), the *gopura* (same expression, *Rau* 42.3a) and the *mālikā* ("one or two storeys, *Aj* 38.26 and § 4.36). Except for the "level of the pillars" which is referred to twice under the name of *pādavarga* (see § 3.16), all the levels are designated by the same term as the structural part of the building to which they are intended to correspond; that is to say that the "level of the base" is designated by any one of the numerous terms designating the base itself (§ 3.14) and that, aside from the rare expression *pādavarga*, the "level of the pillars" can be designated by any of the words meaning "pillar, column" (§ 3.16). This is ambiguous since there is not always an exact correspondence between the elevation of the

building and its internal structure; for instance, with reference to the *prāsāda*, the floor (*sthala*) of the sanctum (*garbhagṛha*) inside the building marks the upper limit of the structural base but it is always situated lower than the summit of the "level of the base" as it appears on the elevation. Such ambiguities give further proof that our texts are not meant for craftsmen but rather for non-technical people, such as temple priests or lay devotees, in other words for those whose concern is to ascertain that the appearance of a completed temple is in accordance with established standards. This bias is very apparent in the *Ajita* which gives detailed descriptions of all the *varga* whereas the *Raurava* does no more than enumerate them. In the *Ajita* the passages devoted to socle, base and entablature are concerned with little other than the outlines of their moulded parts; that dealing with the level of the pillars is concerned only with the different kinds of pillars and pilasters; descriptions of the attic or of the roof confine themselves to the niches or to the false dormer-windows (*nāsī*) which are the most visible features of those two levels. In fact, such descriptions deal with little other than the *prāsāda* and the *maṇḍapa* which are the types of buildings which dominate our texts.

Socle

§ 3.13. The socle (*upapīṭha*) is described in the eleventh chapter of the *Ajita*; the *Raurava* only goes so far as to give an incidental note: that the pedestal (*viṣṭara*) of the Vṛṣa's image can be "like a socle" (*upapīṭhākṛti*, *Rau* 33.11). This socle is meant to elevate an edifice or to make it more beautiful; its use is, however, in no way compulsory (*Aj* 11.1). It would appear that it can be used in place of a base for a *maṇḍapa* (*Aj* 37.28, § 4.16) and the same designation *upapīṭha* is applied to the socle which elevates the main altar (*mahāpīṭha*, § 5.11); in that case the *upapīṭha* is very similar to the *upavedikā* (*Rau*) or the *upāna* (*Aj*) that can go under the platform (*vedikā*) of some sacrificial pavilions (§ 4.24); it is also very similar to the *upavedikā* which is beneath the support (*vedikā*) of the flag-pole (*Rau* 18.39). The height of the socle is dependent upon that of

the base (§ 3.14): it is equal to three, four, five, six or seven quarters of the height of the base or to seven thirds of it or, otherwise, it is double the height (*Aj* 11.2–3). The socle is, naturally, broader than the base which rests on it and its projection is related to its own height, being one, two or three tenths of it or else it is related to the breadth of the pillars and is then equal to one, two or three modules (*daṇḍa*, § 2.2, see *Aj* 11.3–4). The *Ajita* describes five types of socle together with their mouldings, the principal one always being a dado (*gala*, *kaṇṭha*) decorated with a row of dwarves (*bhūta*), or elephants, *vyāla*, lions or even of small pilasters (*Aj* 11.13). All socles are crowned by a fillet (*kampa*) which is the connecting link with the base (table I).

Base (table II)

§ 3.14. For designating the base, apart from *adhiṣṭhāna* which is the term most frequently used, there is *masūra* (*Ajita* only) and, more rarely, *ādhāra* (*Rau* 39.20; 41.11) and *dharātala* (*Aj* 28,64), together with *tala* (*Aj* 29.14; 40.10;-*Rau* 18.61; 41.11) which also means "storey" (§ 3.12). It is not clear whether *kuṭṭima* which is used twice in the *Ajita* (35.10; 44.2), applies to the base or, more loosely, to a piece of ground prepared for the laying out of a sacrificial area (*sthaṇḍila*). These terms, apart from the last one, are interchangeable (see for instance *Rau* 39.20 and 21) and they indicate, without differentiating them, the base and the level of the base. The height of the level of the base of the *prāsāda* is one half that of the *pādavarga* of the ground floor (*Aj* 12.61–63;-*Rau* 39.19–21). For *maṇḍapa* there are several possible systems: for example, in the general description of the pavilions (§ 4.16) the *Ajita* (37.27–28) gives this height as being one half, one third or two fifths that of the *pādavarga* whereas the *Raurava* (40.21) says only that the proportions are to be the same as those of the temple to which the *maṇḍapa* is attached. Sometimes slightly different proportions are given for each specific type of pavilion (§ 4.16). According to the *Ajita* (13.1) the projection (*nirgama*) of the plinth of the base in relation to the *pādavarga* is two

modules or two modules and a quarter or two and a half modules. This specification is important given that the reference-line (*pramāṇasūtra*) of the edifice is plumb with the plinth, lower string-course or torus of the base or with the external face of the pillars of the *pādavarga* (§ 2.5). On the other hand, no indications are given as to the projection or recess of any of the mouldings of the base.

§ 3.15. There are no descriptions of bases in the *Raurava*; it merely indicates that the base must be of the *pratibandha* type or of the *aṅghribandha* type. Both these names are found amongst the eight types of bases described in the *Ajita*: there *aṅghribandha* is in the form of *pādabandha* which amounts to the same, since *aṅghri* and *pāda* are synonymous (§ 3.16). As can be ascertained when dealing with pedestals *padmapīṭha* (§ 5.4 and table III) this similarity of names does not permit us to assume a corresponding similarity of designs. Four types of bases described in the *Ajita* have a moulded design on one register and three of them are markedly asymmetrical: the plinth and the surmounting torus occupy at least two thirds of the height (types II,V and VI, table II); the fourth one (type VIII) has a narrow plinth (*pāduka* § 3.3) and its main mouldings are the inverted doucine surmounting that plinth, a torus in the middle and the upper string-course such as one finds on all bases. On the bases with two registers the lower register which does service as a socle always comprises two mouldings of equal height which for types III, IV and VII (table II) are a narrow plinth and an inverted doucine. In the description of type I (*Aj* 13.6) the moulding above the plinth is named *pāda*; this term may indicate a string-course ornamented with miniature pilasters but could also be a wrong reading for *padma* and we must emphasize that in three manuscripts the word *pādam* is omitted which distorts the meter and goes to show that the word poses a problem. The upper register always starts on a narrow false plinth (*kṣudra upāna*) and the moulded set above it can be extremely asymmetrical, as on type VII, the upper register of which is an almost exact repetition of the moulded design of type I which has only one

register. The decoration to be found on some of the mouldings is specified only for the *kapotabandha* type: its eponymous cornice has miniature dormer-windows whilst its upper string-course (*prati*) is decorated with a frieze of monsters (*vyāla*). The principal moulding of all bases described is a string-course (*paṭṭikā, mahāpaṭṭikā, prati* § 3.6) surmounted in most cases by a fillet (*kampa, vājana, padmavājana* § 3.11) above which is located the narrow supplementary level (*prati*) which separates the level of the base from that of the pillars and which is presented as pertaining to both of them simultaneously: it is the top of the first and the bottom of the second (*Aj* 14.2) and one can take it as a kind of stylobate. Its height is two modules (*daṇḍa*) and its design is very simple: one dado (*gala*) set between two fillets (*kampa, paṭṭa*) and surmounted by a string-course (*vedikā*) (*Aj* 14.2–4). As both the words *vedikā* and *prati* are ambiguous (§ 3.6) there is nothing to tell us if, as the compiler of the *Ajita* has it, the *prati*, which should not be interrupted by the placing of a door, corresponds to this kind of stylobate or to the upper string-course of the base (*Aj* 12.44 and below § 3.37).

Level of the pillars

§ 3.16. The *pādavarga* is the principal level of the edifice and corresponds, roughly, to its "inhabitable" portion. We have seen that, together with the entablature, it is repeated as many times as there are upper storeys to the edifice. We should add, however, that setting aside the first one, that is the ground floor, the storeys are often fictive and that, particularly in the case of the *prāsāda*, the representation of several upper storeys does not necessarily mean that the building comprises more than one "inhabitable" floor. As has already been pointed out, the compound *pādavarga* is found only twice in the *Ajita* and never in the *Raurava* (see *Ajita* 12.64 and 14.47). Everywhere else in both the texts we find, either the specific word "*stambha*" or any of those whose first meaning is "foot" or "leg" (*pāda, aṅghri, gātra, caraṇa*), all of which are ambiguous in more ways than one since applied both to pillars and pil-

asters (below); these words can indicate: either the full order (shaft, bell-capital, abacus and bracket-capital) or the shaft itself (§ 3.18); moreover the so-called *pādavarga* can be devoid of pillars and, in fact, in most of the edifices described in our texts it appears in the guise of a wall (*bhitti, kuḍya*), often decorated, we should add, with pilasters. It is thus with all *prāsāda* (§ 4.7) and can be thus in the case of *maṇḍapa* (§ 4.17). These pilasters are sometimes named specifically *bhittistambha* or *bhittipādagata* and, more often, *pāda, stambha* . . . etc. None of this prevents the description of the *pādavarga* from being, in fact, that of the "pillars" which, in the guise of pilasters, are its most conspicuous elements.

§ 3.17. The height of the "level of the pillars" of the single-storeyed *prāsāda* is equal to two eighths or three ninths of that of the building (*Aj* 12.62–64; *Rau* 39.19–20; for *prāsāda* of more than one storey, see § 4.6). The *maṇḍapa*, according to the *Raurava* (39.21) has proportions which are the same as the *prāsāda* to which it is attached (§ 4.16) whereas the *Ajita* indicates for its pillars the use of absolute measures (from two and a half to nine cubits) but we do not know if these correspond to the height of the full order, that is the *pādavarga*, or only to that of the shaft of the pillars or pilasters (§ 4.15). As far as the horizontal proportions are concerned, we know that the *pādavarga* is recessed in relation to the base (§ 3.14). The number and the spacing of the pillars (or pilasters) is indicated precisely only with regard to the *maṇḍapa* as we shall see when dealing with them (§ 4.17). Nothing is said in the *Raurava* about the breadth of the pillars: according to the *Ajita* it must be calculated differently depending on whether a *prāsāda* or a *maṇḍapa* is dealt with, but in either case, the breadth as indicated, is that of the bottom of the "pillars" which is one eighth more than the width at the summit which corresponds to the module (*daṇḍa* § 2.2). For the *maṇḍapa* this width is calculated from a height which may be that of the shaft or that of the *pādavarga* (above): for pillars it is one eighth, one ninth or one tenth and for the pilasters these dimensions must be reduced by one quarter or by one half (*Aj* 37.4–7). The thick-

ness of the wall against which the pilasters are set is two and a half times the width of the pillars for which the wall is substituted and the projection of the pilasters in relation to this wall is either a quarter (if they are square section) or a half (if they are rounded) of this thickness (*Aj* 37.21). In the case of *prāsāda*, the width of their pillars and pilasters can be calculated in two different ways which lead, as has already been pointed out, to the same result (§ 2.1). According to the first method there are as many digits (*aṅgula*) in the width of a pillar or pilaster of the ground-floor *pādavarga*, as there are cubits (*hasta*) in the total breadth of the *pādavarga* itself and, for the upper storeys, this width must be decreased by two digits per storey (*Aj* 14.7–9). According to the second method (*ibid.* 14.10–11) the width of the pillars or pilasters is one twenty-fourth, one twenty-fifth or one twenty-sixth of that of the edifice. For the rest we shall see that the thickness of the walls of a *prāsāda* is calculated from the width of its sanctum (§ 4.7) but it can be noted that the value of the projection of the pilasters is not given. It remains to point out that wooden pillars (*dārupāda*) have a width equal to one seventh, one eighth or one ninth of their height (*Aj* 14.13 and § 2.8).

§ 3.18. Apart from the question of their structure and dimensions, the pillars and pilasters are considered to be identical and the thirteen descriptions of "pillars" given in the *Ajita* (14.14–32) apply equally to both. This text presents three main categories of such "pillars" (*Aj* 14.5): first, those which possess the full order, that is a shaft (*pāda*) surmounted by a bell-capital (*kumbha*), an abacus (*maṇḍi*) and a bracket-capital (*potikā*); the second category is of those which have no abacus and the third those which have neither abacus nor bell-capital but only the bracket capital resting directly on the summit of the shaft. The *Raurava* which devotes only one and a half verses to the subject (*Rau* 39.26–27a) gives three names for special types of pillars which may or may not be provided with a bracket-capital which may either rest directly on the summit of the shaft or be separated from it by the abacus and the bell-capital which, according to this text, are always to-

gether. Although these specifications are not accompanied by any description, it may be mentioned that the names given to three types of pillars in the *Raurava* are the same as those of the first three listed in the *Ajita* (§ 3.22).

§ 3.19. What we call the "bell-capital" is called literally "pot" that is *kumbha* (*Aj* 14.5,21,32...;-*Rau* 39.26–27) or *kalaśa* (*Aj* 14.22,23,30) according to the name of its main component. Its height is equal to one and a half or one and three quarters of the width of the pillar and it is to be divided into nine equal parts which are to be apportioned in the following way (starting from the bottom) (*Aj* 14.34–36):

Name of the component	height	width
dhṛk (?)	1/9	1 module
kumbha	4/9	2 modules
kaṇṭha	1/9	1 module
āsya (or *vaktra*)	1/9	1½ modules
padma	1/9	1½ modules
vṛttagrīvā? or *hīnau*?	1/9	width of the bottom of the pillar.

Dhṛk is a conjectural reading that we suggest in place of *dṛk* (chosen by the editor) or *dhruk* (given by a manuscript), for neither of which are we able to give a meaning. This element has the same width as does the top of the shaft on which it rests and it would appear to be a connecting element corresponding to the astragal; it would then be a "support" for the main part of the capital, hence its name. The *kumbha* which occupies nearly half of the total height of the capital, has a name as vivid as those used for a similar element in Western architecture, "bell" or "basket", to indicate that it is both rounded and huge. The top part of the capital is separated from this "bell" by a groove (*kaṇṭha*) and it comprises three elements of equal height, the first of which appears to be a band decorated with protomés or masks (*āsya*, *vaktra*) and the second a doucine (*padma*), probably an inverted one for it makes the connection with the third element which is slightly narrower. In fact the width of this third element is said to be

equal to that of the "bottom of the pillar", that is to say to one and one eighth modules (§ 2.2). This element poses a problem: it is indicated twice in the description of the capital, first by *vṛttagrīva* (*Aj* 14.35), then by *hīnau* (*ibid.* 37); a manuscript gives the reading *vṛttaśrīṣau* (obvious error for *vṛttaśīrṣau*) instead of *vṛttagrīvā(-s)* and in some other texts the same element is designated *vṛttabhinnau* (see *Dīptāgama* and *Īśānaśiva* quoted in *Mayamata*,t.I, p. 280 n. 33). It would seem that it is a double moulding which consists of a "reed" (*vṛtta*) and a "groove" (*grīva*), both of which are narrower than the element on which they rest, hence their collective designation under the dual form "*hīnau*" ("the two small"?). The *Ajita* (14.41–42) lists five varieties of bell-capital, distinguished one from the other by their respective sections, which should be similar to those of the shafts these varieties are designed to surmount. Thus the *śrīkara*, *ṣoḍaśāśra*, *candrakānta* and *saumukhya* capitals correspond to the circular, sixteen-sided, octagonal and square shafts respectively. The published text indicates that the fifth type (*priyadarśana*) is meant to apply to the pillars "*atibhāra*" but it seems to us that this word is to be read "*atidhāra*" and that it should be understood that it applies to the multi-faceted pillars such as the one called *vṛttakānta* (§ 3.22, type VI).

§ 3.20. The *maṇḍi* ("abacus") is a complex element and the description given by the *Ajita* (14.37–40) is no clearer than those found in parallel texts such as the *Mayamata* (15.34–39), the *Dīptāgama* (5.25–27) or the *Īśānaśiva*° (31.55–65). The exact meaning of the term is not certain and the rendering "abacus" that we propose is a poor substitute, the advantage of which is that it makes it clear that this is a secondary element that can be inserted between the capital and the entablature or, more precisely, between the bell-capital (*kumbha*) and the entablature or the bracket-capital (*potikā*); moreover as we have seen, the *Raurava* says that a pillar endowed with a bell-capital must necessarily have a *maṇḍi*. Lastly we should point out that, on the one hand the name of the *maṇḍi* is connected with one of its components (*maṇḍikā*) and, on the other, that

this same name may perhaps establish a connection with the adjective *maṇḍita* ("decorated"?) used in qualifying certain pillars (*maṇḍitastambha*, see *Mayamata* 12.91 or *Kāmikāgama* I.55.23) and also certain *maṇḍapa* as for instance in the *Raurava* where *maṇḍita* is used concurrently with *maṇḍa* and *maṇḍya* for qualifying the *maṇḍapa* without lantern-roof (§ 4.18). According to the *Ajita* this abacus comprises two main parts. The lower one, the width of which is considerable (3 or 4 modules), has a height equal to three quarters of that width and is divided into three equal parts each corresponding to one particular component. At the bottom we have the *utsandhi* which forms the link, hence its name, with the bell-capital (*utsandh.* appears thus in the manuscript and has been corrected to *utsedha* by the editor, see *Mayamata* 15.36). Then we have a "reed" (*vetra*) and lastly a *maṇḍikā*(?). This lower part of the *maṇḍi* is "like the pillar" (*Aj* 14.38) which doubtless signifies that its section is of the same type as that of the shaft and the bell-capital; it is also said that it has "the aspect of a serpent's tongue" (*nāgadalābha*, cf. *Mayamata* 15.36 *nāgavaktrasamākāra*) which we do not understand, although according to what can be seen on the actual monuments this element could be equated with the set made by a flat lotus-like moulding surmounted by a slab which in most cases tops a bell-capital. The main component of the upper part of the *maṇḍi* is called *vīrakānta* and its section is square (*Aj* 14.39, read *caturaśram* as given in the Ms. and not *caturaṃśam* as corrected in the edition); its width is only one module and its height is three quarters of that. In other texts it is called *vīrakaṇḍa* (*Mayamata* 15.37; *Śilparatna* I.21.96; *Īśānaśiva*° 31.56) or *vīrakaṇṭha* (*Mānasāra* 15.87) which seems to be the best reading since it appears as a dado ornamented with a human figure. It is surmounted by a groove (*skandha*, *Aj* 14.40) above which a doucine-like (*ambuja*) feature establishes the link with the bracket-capital.

§ 3.21. The so called "bracket-capital" (*potikā*, *bodhikā*), a common feature in Indian architecture, is an elongated element which is inserted between the summit of the pillar (whether or not it has a bell-capital and an abacus) and the

architrave (*uttara*) of the entablature (§ 3.23). Its main aim is to strengthen the architrave exactly where it rests on the pillar by extending the bearing area and it could perhaps be more precisely designated as a "support for the entablature". This would concur with the findings of P. Stern who on several occasions has studied this element and has shown that the designation "corbeau" used after G. Jouveau-Dubreuil is not appropriate (see eg. *Colonnes indiennes d'Ajanta et d'Ellora*, Paris 1972 p. 25); the same could be said of "corbel" or "bracket" which are normally applied to a projecting block the tail of which is embedded in a wall. The two terms used in our texts for indicating it, *potikā* (*Aj* 14.43) and *bodhikā* (*Aj* 37.29; *Rau* 39.26), differ in appearance only since the second results directly from sanskritization, with attendant confusion between mute and voiced and between aspirated and non-aspirated, of the Tamil *pōtikai* of which *potikā* is nothing but the transcription. Thus the terms are interchangeable and we must discount the difference that P. K. Acharya assumes between them (*Encyclopaedia* . . . 1946, ssvv.). The dimensions of the bracket-capital are twice indicated by the *Ajita*, for the *prāsāda* and for the *maṇḍapa*. In the first case three types are distinguished (*Aj* 14.43–45): the first one is five modules long and only one module high and is meant for the pillars "provided with all the elements" (*sarvāṅgastambha*) that is possessing a bell-capital and an abacus; the second type, for pillars with bell-capital but without abacus, is four modules long and three quarters of a module high; the third, for pillars with neither bell-capital nor abacus, is three modules long and half a module high; the width of each of them is one module. For the pillars it is indicated only that the bracket-capital is three, four or five modules long, that its height is equal to its width or to half of it and that this width is equal to the diameter of the bottom of the pillars, so that it is a little bigger than the module (*Aj* 37.29–30; § 2.2). The decoration (*Aj* 14.46–47) consists of a string-course (*paṭṭikā*) which occupies the upper one-third of the height and below which is found, at each end of the *potikā* and with a width of one quarter of a module, a decoration consisting of "waves"

(*taraṅga*) which correspond to what G.Jouveau-Dubreuil called "rouleaux" or "copeaux" (*Archéologie du Sud de l'Inde* t.I p. 94, "rollers" or "shavings" in the English translation). On the other hand it seems that a secondary piece is disposed perpendicular to the main axis of the *potikā* (*karkarīkampa* instead of *karkarīkaṇṭha*?) and that its projection (*nirgati*) in relation to each of the sidefaces is equal to the width of the *potikā* or is three quarters or one half of it; we can surmise that this piece is meant to represent the peg which was used in wooden architecture to strengthen the joint of the bracket-capital and of the pillar.

§ 3.22. The descriptions of thirteen specific types of pillars given by the *Ajita* (14.15b sqq) deal, essentially, with the form of their shaft and, should the question arise, with that of their base which seems to be considered as forming an integral part of the shaft; in most cases they mention as well the presence or absence of the bell-capital and the abacus but they do not refer to the bracket-capital: we know that, in the *Ajita* as opposed to the *Raurava*, its presence is taken for granted (§ 3.18). It should be pointed out, finally, that these descriptions are given in connection with the *prāsāda* and that the names given here for the different types do not appear elsewhere in the text but that it is said in connection with the *maṇḍapa* that the form of their pillars must correspond to what has been given in the chapter related to the *prāsāda* (*Aj* 37.7a and § 4.17). The different types are as follows:

I *Brahmakānta* (*Aj* 14.15b,16a): square section pillar; the expression *salakṣaṇa* probably indicates that it includes a bell-capital and an abacus; mentioned in the *Raurava* (39.26).

II *Viṣṇukānta* (*Aj* 14.16b,18a): provided with a bell-capital and an abacus, the pillar comprises an inferior square section element surmounted by a circular or octagonal drum; the lower component seems to be twice (*tatkaṇṭhamānena*: error for *tatkarṇa*°) as wide as the drum and its height is one and a quarter, one and a half, one and three quarters or twice its width; mentioned in the *Raurava* (*ibid.*).

III *Rudrakānta* (*Aj* 14.18b–19a): variant of the preceding one, the upper drum of which has a sixteen sided section; mentioned in the *Raurava* (*ibid.*).

IV *Saumya* (*Aj* 14.19b–20): pillar with bell-capital and abacus; its sixteen-sided drum rests on a square base one module wide(?) and with a height of one quarter of that of the drum(?).

V *Vāsantika* (*Aj* 14.21): octagonal pillar with a bell-capital and without abacus.

VI *Vṛttakānta* (*Aj* 14.21b–22a): pillar, the circular shaft of which is faceted (? *aśrākāraḥ suvṛttakaḥ*); bell-capital (*kalaśa*) without abacus.

VII *Pūrvāgrastambha* (*Aj* 14.22b–23a): this pillar seems to be a variant of the preceding one; its shaft rests on a square base and its bell-capital is of circular section.

VIII *Citrakhaṇḍa* (*Aj* 14.23b–26): the composite shaft of this pillar consists of five elements (*bhūtākṛti*), three of which are square section and the other two sixteen-sided. Thus, starting from the top, we have a square drum with a height of one and a half or one and a quarter modules, a sixteen-sided element bordered by two lotus-like mouldings with a height of one module, a second square element one and a fifth modules in height, a second sixteen-sided element the same as the first one and a third square element which takes up the remaining height. There is nothing to indicate the presence of bell-capital and abacus.

IX *Vajrakhaṇḍa* (*Aj* 14.26b–28a): the shaft of the pillar consists of a median octagonal part set in between two square elements, each two modules high; the description ends with the mention of a division into nine parts the reason for which is not known to us.

X *Ramyakhaṇḍa* (*Aj* 14.28b): a square section pillar which can probably be distinguished from the *brahmakānta* type by the absence of bell-capital and abacus.

XI *Carukhaṇḍa* (*Aj* 14.29–30a): the shaft surmounted by a bell-capital is divided into five equal parts two of which, at the bottom, correspond to a square element; the distribution of the remaining parts is not given.

XII *Skandakānta* (*Aj* 14.30b–31): the shaft with circular or square section is surmounted by a bell-capital and an abacus and rests on a lotus-like base (*padmāsana*) two modules high.

XIII *Siṃhapāda* (*Aj* 14.31b–32): an image of a lion makes up the lower part of the pillar and occupies one third of its height, the rest of which is taken up by a square or octagonal shaft.

Entablature

§ 3.23. The entablature is indicated by the terms *mañca* (*Rau* 39.20,21; 40.9,21) and *prastara* (*Aj* 12.45,62; 14.47,48, 55,56,64; 27.86; 37.31,32,40; 38.21; *Rau* 39.13,21,30). *Mañca* may perhaps also be applied to the lower part of the attic (§ 3.25). *Prastara* which indicates the entablature as well as the ceiling which is found at the same height (§ 3.24), is also applied to a string-course (§ 3.6 and table below). The height of the entablature of the *prāsāda* is half that of the corresponding *pādavarga*, no matter what the number of the storeys (§ 4.6); for the *maṇḍapa* it is one third or half this height according to the *Ajita* (37.31) whilst the *Raurava* simply indicates that the proportions of the *maṇḍapa* are the same as those of the *prāsāda* to which it is to be attached (*Rau* 40.21). The *Ajita* is the only one of the two texts which describes entablature and it gives two parallel descriptions of it, one for *prāsāda* (*Aj* 14.47–58) and the other for *maṇḍapa* (*Aj* 37.31–32). These descriptions are summarized in the following table:

Elements (from the top)	height	
vājana or *paṭṭikā* (fillet)	1/20	
prastara or *prati* (string-course)	2/20	
kaṇṭha or *antarita* (groove)	1/20	
paṭṭikā or *āliṅga* (fillet)	1/20	
kapota (cornice, dripstone)	7/20	*or* 2 or 3 modules
paṭṭikā or *vājana* (fillet)	1/20	*or* $\frac{1}{3}$ or $\frac{1}{4}$ of a module
bhūtamālā or *vasantaka* (frieze)	3/20	*or* 1 module
vājana (fillet, fascia)	1/20	*or* $\frac{1}{3}$ or $\frac{1}{4}$ of a module
uttara (architrave)	3/20	*or* $\frac{1}{2}$ or $\frac{3}{4}$ of a module or 1 module

The *uttara* is the architrave proper but it is indivisible from the *vājana* which surmounts it and which is square section. The width of the architrave is naturally equal to that of the pillars and as well to that of the bracket-capitals on which it directly rests. The frieze whether it is decorated with dwarves (*bhūtamālā*, *Aj* 14.50) or with plant-like motifs (? *vasantaka*, *Aj* 14.57) projects by one module in relation to the architrave but its upper half is masked by the overhang (*lambana*) of the dripstone (*kapota*) (*Aj* 14.51–52). This dripstone has a considerable projection, equal to its height; on its extrados are miniature false dormer-windows (*kapotanāsī*) a half module wide and it is moreover ornamented at the corners with foliage (*patra-vallī*) which is carried on up to a height of two modules (*Aj* 14.54–55).

§ 3.24. The structure of the ceiling (*prastara*) which is found at the same height as the entablature is described only in connection with the *maṇḍapa* (*Aj* 37.33–36). In this context it is a particularly significant element since this kind of edifice has only the first three levels ending with the entablature (§ 4.13) and the ceiling tends to be confused with the roof. The architrave (*uttara-vājana*, together) plays the role of a wall-plate on which rest the beams (*tulā*); these support the joists (*jayantī*) which the small joists (*anumārga*) rest on. It is on these last that we find set out a compact (*ghana*) layer of bricks which forms a slightly convex terrace (*chattrākāra*, literally "like an umbrella", *Aj* 37.36). The breadth of the beams is four times, three times or twice the height of the fascia (*vājana*) which surmounts the *uttara* (§ 3.23); they can be square or rectangular section and in the latter case their thickness is a half or a quarter of their breadth. The dimensions of the joists and small joists are respectively one half and one quarter of those of the beams (see below § 4.18 for other types of roofing for the *maṇḍapa*).

Attic

§ 3.25. The fourth level of the elevation looks like a dwarf

storey, the height of which is no more than one eighth or one tenth of the total height of an *ekatala prāsāda* (§ 4.6). It is placed under the roof and above the entablature (of the last storey in the case of a building with more than one). This level is very much recessed in relation to the entablature and this fact taken in conjunction with the fact that the roof is often referred to as the "head" of the edifice (§ 3.27) explains why it is always indicated by the term "neck" (*grīva*, *kaṇṭha*, *gala*) which, as we have seen, is also applied to the recessed mouldings (§ 3.8). We shall indicate it by "attic" which may designate the upper storey if it is less high than the others although this term does not necessarily imply that it is greatly recessed in relation to what it surmounts (see eg. *Vocabulaire de l'architecture*, plates II–5, II–22 or XI–18). The description devoted to it by the *Ajita* (14.67–76) is, as we have already pointed out, very brief; moreover it is inconclusive due to the fact that the editor had at his disposal only a single manuscript and that very corrupt (see *Ajita*, vol. I p. viii and p. 101 n.3). The attic can be broken up, for the sake of presentation, into three superposed elements: a platform which is used as its base, a dado meant to be the *pādavarga* of this dwarf-storey and a simplified entablature. The platform which is called *vedī* or *vedikā* is probably moulded, its mouldings however are not mentioned here. Its height is two modules (*Aj* 14.65); it is in recess in relation to the entablature on which rests the attic and the value of its recess (*veśana* for *vejana* according to the Ms. and *vājana* proposed by the editor) is three modules (*Aj* 14.65) but it can also be calculated so that the width of the platform is seven eighths of that of the *prāsāda* (therefore of the entablature) which gives it a value equal to one sixteenth of the width of the *prāsāda* (*Aj* 14.69). The dado which constitutes the main part seems to have a height equal to three elevenths of that of the attic taken in its entirety (*Aj* 14.66), which is surprisingly small. This dado is recessed in relation to the platform and its width seems to be four fifths (*Aj* 14.67) or four sevenths (*Aj* 14.69) of that of the platform. It would appear to be bordered at the base and at the top by a narrow string-course or by a fillet (*kampa*, *paṭṭikā* *Aj* 14.66–67). In the description of that dado can be found a

feature which in the manuscript is named *yodikā* (*Aj* 14.67), a word which N. R. Bhatt proposes correcting to *potikā*: it would then be the bracket-capitals of pilasters flush with the body of the attic-storey; although such pilasters are not mentioned in the description of the attic itself, they are perhaps referred to apropos the *mahānāsī* of the roof (§ 3.28). This interpretation can be justified in view of the presence of a set forming an entablature on the top of the dado. This entablature consists of an *uttara* and a *vājana*, the total height of which seems to be two modules, the *vājana* making up a third of the *uttara* (*Aj* 14.67–68). We have already mentioned the pair *uttara/vājana* and we know that it can form simultaneously an architrave resting on pillars (or pilasters) and a wall-plate supporting a roof (§ 3.23–24). It is however difficult to know whether this double function is present here, since no details are given, neither about pilasters nor as to the manner in which the attic and the roof are joined: we only know that both must be built with the same outline, that is the attic will be circular or square according to the shape of the roof (§ 4.11). Lastly we do not think that the expression *grīvamañcaka* used by *Raurava* in connection with the Mohinī temple can mean this "entablature of the attic" of which we have just spoken (see *Rau* 37.8: *garudaṃ siṃham ukṣaṃ vā kalpayed grīvamañcake*). It is not, in fact, easy to see how the images of Garuḍa, lion or bull could be arranged at the summit of an element which constitutes the base of the roof; it is probably preferable to interpret *grīvamañcaka* as "the platform (*mañca*) [which is at the bottom] of the attic (*grīva*)" or, better, "the entablature of [the storey which is under the] attic"; given such an interpretation, it is possible to make a connection between that sentence and the one which is used apropos the temple of Śiva: "one must establish [images] of bulls at the corners of the entablature which is at the bottom of the attic" (*prastare galamūle tu koṇeṣūkṣān prakalpayet*, *Rau* 39.30; §§ 5.8 & 19).

§ 3.26. The presence of a niche (*nāsikā*, § 3.44) on each of the four sides of the attic of a *prāsāda* is expressly mentioned only by the *Ajita* which gives the following description (*Aj*

14.70–76): the niche has a rectangular opening surrounded by an arch (*toraṇa*, § 3.45) the jambs (*pāda*) of which support an upper girder decorated by a goose frieze (*haṃsamālā*); the interior width is four and a half or five modules or is equal to the depth which is either two or three modules. The projection of the jambs in relation to the plumb of the dado (*gala*) of the attic seems to be equal to one sixth or one third of the width of the platform (*vedī*) supporting that dado. The upper girder is two thirds of a module high. These niches, all the elements of which must be decorated (*sarvāṃśaṃ śobhanāyuktam*) are for sheltering the divine images (§ 5.2). The *Raurava* makes little mention of the attic and says nothing about the presence of these niches; it enumerates the divinities placed at the cardinal points without specifying the level of the elevation to which they are to be fitted. We may wonder however if the projecting false dormer-windows (*bhadranāsikā*) which it places on the roof (§ 3.28) do not in fact top niches situated in the attic, as is the case according to the *Ajita* in which the "big" false dormer-windows (*mahānāsikā*) are placed above the niches (*nāsikā*) which we have been discussing.

Roof

§ 3.27. Besides the specific term *śikhara* (*Aj* 12.45,62,64; 14.76...; 38.22,38; *Rau* 39.28) the words, the first meaning of which is "head", are used for indicating the fifth level of the elevation, the one which corresponds to the roof, thus *mastaka* (*Rau* 39.21), *śīrṣa* (*Rau* 39.20) or *śiras* (*Rau* 42.4). These terms, with one exception, are only used in connection with *prāsāda* and *gopura*. In fact the only other type of building described in a detailed manner is the *maṇḍapa* and we know that it has only the first three *varga* and that its roofing is situated at the level of the entablature and is theoretically an almost flat terrace (§ 3.24); however *śīrṣa* is used once in connection with the *snapanamaṇḍapa* the roofing of which comprises a central lantern surmounted by a finial (*stūpyārohitaśīrṣaka*, *Rau* 24.3, § 4.18). Lastly, we note that the roofing supported by rafters which covers the provisional temple (*taruṇālaya*) is simply in-

dicated by the word *lupā* ("rafter") (*Rau* 27.7 and § 4.37). We shall therefore consider here only the roof meant to be the penultimate *varga* of *prāsāda* and *gopura*.

§ 3.28. The more or less detailed descriptions given by our texts do not indicate the structure of the roof of the *prāsāda* and content themselves with counting the false dormer-windows (*nāsī*, *nāsikā* § 3.44) which are set there. Thus according to the *Ajita* there are, on the extrados of the *śikhara*, four big false dormer-windows set at the four cardinal points (*Aj* 14.81); four smaller ones can be inserted between them when the roof is octagonal or circular (*Aj* 14.82). The biggest which are the only ones described (*Aj* 14.77–80) have a width equal to one third that of the roof, a height which is equal to three quarters of their width and a depth of two modules. Their jambs are similar to the pilasters of the attic or to the jambs of the niches of the attic (? *grīvapādavat*, § 3.25) and they support a crowning (*śiras*) the height of which is equal to half the width of the dormer-windows. This crowning, which probably forms an arch, is ornamented with a mask of *kinnarī* (*kinnarīvaktra* proposed by the editor for *kambarīvaktra* of the Ms.) and many lianas, dwarves (as well as other figures of the same type) riding lions, *vyāla* and elephants. In the *Raurava*, the two and a half verses (39.28–30a) devoted to the roof of *prāsāda* are extremely confused; to us it appears that distinctions are made between three types of false dormer-windows: the (big) false dormer-windows with significant projection (*bhadranāsikā*, literally "false dormer-window forming protuberance" § 3.44), the (big) false dormer-windows with little projection (*abhadranāsikā*) and the small ones (*alpanāsī*). The first of these would be found at the top of the four facades of large *prāsāda* with square or circular roof, the second ones at the top of the corners of large *prāsāda* with circular roof (*vesara*, § 4.11) and the third at the top of the facades and possibly at the corners of the smaller *prāsāda*. The different types of *śikhara* so far presented go with the *prāsāda* the *śikhara* of which, even if it is circular or octagonal, is built on the basis of a square and we have hardly

any details about the coverings of the two (or three) rectangular *prāsāda* listed in the *Ajita* (§ 4.12)

§ 3.29. As far as gateways (*gopura* § 4.33), the plan of which is generally rectangular, are concerned, the *Raurava* (42.4–5) simply enumerates, without describing them, six possible forms for their roofs: the wagon-roof (*śālākāra*), the flat roof (*harmyākāra*), the roof with double slope and a framing of rafters (*lupārohitaśiras*), the roof in the form of *maṇḍapa* (*maṇḍapa*), the one in the form of *sabhā* (*sahārakam* error for *sabhākāram*?) and lastly the one which is "like an umbrella" (*chattrākāra*). A *śālā* is an edifice which is generally elongated and its wagon-roof ends with two very characteristic horse-shoe gables. We interpret *harmyākāra* as indicating a flat-roof taking for our evidence the definition of the *harmya* as found for example in the *Mayamata* (26.100: *muṇḍākāraṃ śīrṣakaṃ harmyam etat*) and in other parallel texts (*ibid.* t. II p. 36, n. 78); we may suppose that this flat roof is situated above the attic unlike the roof "in the form of *maṇḍapa*" which must correspond to that of a gateway which, in the manner of *maṇḍapa*, consists of only three *varga* and which consequently has its roof exactly at the height of its entablature. The roof "in the form of *sabhā*" is probably characterized by two hips (§ 4.38) while the roof "like an umbrella" is doubtless pyramidal unless it is simply a convex terrace analogous to the covering of the *maṇḍapa* described by the *Ajita* (§ 3.24).

Finial

§ 3.30. The finial is the last level of *prāsāda* and *gopura* and, exceptionally, of a *maṇḍapa* (§ 4.30). It is indicated by the precise term *stūpi* (*Aj* 12.45,63...; 14.83–87; *Rau* 24.3; 26.19, 20,28...; 39.21) or by *kumbha* (*Aj* 14.90) which specifically indicates its main component. The *Raurava* uses *kuṇḍala* on three occasions when the context makes it clear that it is the finial that is meant or more precisely the summital bud of this finial (*Rau* 39.20,23,24); for example about the *nāgara* type of

prāsāda the text has this to say: "it must be square from base to *kuṇḍala*" (*kuṇḍalāntam adhiṣṭhānād vedāśraṃ nāgaraṃ bhavet*, *Rau* 39.20) and this is also indicated by the *Ajita* which says that this *prāsāda* "is square from ground to finial" (*bhaumādistūpiparyantaṃ nāgaraṃ caturaśrakam*, *Aj* 12.67a). It is not obvious how we may move from the normal meaning of *kuṇḍala* ("ring") to that of finial; on the other hand it is possible that *kuṇḍala* is a wrong reading for *kuḍmala* ("flower bud") which is sometimes used to indicate the "bud" of the finial (*Mayamata* 19.17) and thus by extension the finial itself (*ibid.* 19.58).

§ 3.31. The finial is made in metal (gold, silver, copper, lead or bronze) or of clay, fired or simply dried (*Aj* 14.90–91). It is placed at the summit of the roof above the crowning bricks (*mūrdheṣṭakā*) during a ceremony which marks the end of the work of construction (*Aj* chap. 15); there are four of these "bricks" (which can be stones § 2.12) and they hold in place a vertical stake (*kīla*) which is the same height as the finial which is intended to encase it (*Aj* 15.47–48). The finial tapers towards the top (*ānupūrvyāt kṛśam*, *Aj* 14.83); its section is square or circular according to which of these designs the roof follows. When the roof is established according to an elongated plan there are several finials aligned on its ridge, thus for example for the *prāsāda* of *svastibandhana* type (*Aj* 12.70, § 4.12) which has three of them as well as for gateways (*gopura* § 4.33) though their finials are dealt with only incidentally in connection with the placing of lamps (*Rau* 26.20: *parivārāgrālaye ca gopureṣu ca stūpiṣu/dīpādhārāṃs tu vinyāsya. . .*). Only the *Ajita* gives a detailed description of the finial; it enumerates its elements on two occasions with shades of difference in the vocabulary, the first time when indicating their widths (*Aj* 14.83–86) and the second time when giving their relative heights (*ibid.* 87–89). The width (or the diameter) of each of them is determined by a complex system of relations to the width of the slab (*pāli*) which constitutes the base of the finial; the width of this slab itself is three fifths of the width of the platform (*vedī*) of the attic which is equal to that of the roof (*Aj* 14.83 and 77). The different components and their proportions are as follows, starting from the bottom of the *stūpi*;

for the sake of clarity we have reduced the system of proportions for widths to a simple basis, the unit of which is 1/45 of the width of the base slab:

	(14.87-89)	(14.83-86)		height (14.87-89)	width (14.83-86)
A	*pāli*	*pāli*	base slab	2/32	3/5 of that of the roof
B	*ambuja*	*padma*	lotus (doucine)	4/32	27/45 of A
C	*skandha*	*kandhara*	groove	1½/32	18/45 —
D	*ādhārapaṭṭī*	*pāli*(?)	slab (?)	1½/32	3/45 —
E	*ghaṭa*	*kumbha*	vase	7/32	9/45 —
F	*mūlapadma*	?	doucine	1½/32	?
G	*grīva*	*kaṇṭha*	stem	6/32	1/45 —
H	*kampanīvra*	*pāli*	slab (?)	1½/32	?
I	*valka*	?	peduncle	1/32	?
J	*mukula*	*mukula*	bud	6/32	1/45 —

As we can see from these two lists the finial is made up of four main parts of approximately equal height, separated by low linking elements. Thus we have a base (A-B) made up of the very wide slab resting on the top of the roof and on a "lotus" which must have a doucine-like profile and which elevates the vase (E) which as its name suggests is rounded. Then we have an elongated stem (G) whose name "neck" indicates its very slender appearance and lastly a bud of great height at the summit (J); it is perhaps this bud which is referred to in the *Raurava* as indicating the whole finial. The linking elements (D and H) probably appear as kinds of slab projecting slightly in relation to the narrow elements, groove (C) or stem (G) which they top; this is clear from the compound *kampanīvra* (H) which means literally "the projection (*nīvra*) of the fillet (*kampa*')". The *mūlapadma* must be an inverted doucine-like element which adjusts the breadth from the huge "vase" to the thin "stem". Lastly the *valka* (I) which constitutes the base of the "bud" may owe its name, literally "bark", to the fact that due to its position it corresponds to the peduncle which looks like the bulging of the skin of the stem at the bottom of a flower bud.

PLANS: ELEMENTS AND LAYOUT

Plans

§ 3.32. Most of the edifices described in our two texts have a main body (demarcated by the *pramāṇasūtra* § 2.5); its plan is drawn according to a regular square or rectangle on which are to be articulated various supplementary features, for example the forepart (§ 3.34). Leaving aside certain specific *prāsāda*, this plan is uniform at all levels of the edifice from the ground up. The main body thus determined constitutes in most cases a "closed" volume which is nowhere open to the sky. The square plan is used for a great number of *maṇḍapa* (§§ 4.19–20) and it is the basic outline for most of the *prāsāda*, even for those having their upper part (attic upward) designed on a circular or octagonal basis (§§ 4.11–12). The rectangular plan is also used for the *maṇḍapa* (§ 4.19 & 21) and for one, or possibly two, *prāsāda* (§ 4.12); it is the only plan prescribed for the *sabhā* (§ 4.38), the *gopura* and the edifices "in the form of *gopura*" (§ 4.35); it is also the plan of the *mālikā* but this is a special case since, as we shall see, *mālikā* are galleries attached to the interior faces of the enclosure walls; they surround a courtyard and are designed according to the plan of the enclosure, that is to say, they are always rectangular (§ 5.6). The only other type of edifice with a central courtyard dealt with in our texts is the *catuśśāla* which, according to the *Ajita* (38.43) serves as kitchen of the sanctuary; it is not described in this text but we know that it is a house comprising four main buildings (*śālā*) enclosing a central courtyard the plan of which may be square or rectangular (*Mayamata* chap. 26). The only edifice whose plan is circular is the *prāsāda* of the *vesara* type but the circular design may also be applied to its upper part alone (§ 4.11). The octagonal design is found only in the *Ajita* in connection with the upper part of two square *prāsāda* and of a third one which could be rectangular (§ 4.11–12). Lastly the only composite plan given is that of the *prāsāda* of the *hastipṛṣṭha* type which is characterized by the presence of an

apse and which is thus "at the same time circular and rectangular" (*āyataṃ vṛttam eva ca*, *Aj* 12.72).

§ 3.33. According to their purpose the edifices described have an extremely simple interior layout which explains why the information on this subject, where it exists, is given briefly. The *prāsāda*, all of which are temples, naturally have a central sanctum (*garbhagṛha*, § 4.7) but we are not told if its plan must conform to that of the edifice or if it is always square as its given proportions lead us to suppose (*ibidem*). In the "large" temples this sanctum can be surrounded by concentric aisles (*alinda*); their presence, which can be understood in relation to the ritual (facilitating the circumambulation of the divinity inside the temple itself when the sanctum proper is too congested), is more probably due, however, to technical necessities: installation of the stairs leading to the upper storeys and, above all, the lightening of the solid masonry surrounding the sanctum (§ 4.8). Whilst on this subject, it should be noted that nothing is said about the layout of the upper storeys of the *prāsāda*; in particular we are not told if the stairs in question lead up to closed rooms or just to the small terraced ledges determined by the recessed position of the facade of an upper storey in relation to the storey immediately below. All the *maṇḍapa* have one single room, entirely free from inner pillars in the case of the small pavilions which have four or twelve pillars arranged on the periphery only (§ 4.20 types I and II); everywhere else we find a hypostyle room with regularly spaced pillars (except sometimes at the centre where the intercolumniation may be thrice what it is elsewhere, §§ 4.17–18). Allusion is never made to any internal division of a *maṇḍapa*. We can assume the existence of such a division in the case of the *mālikā* since these cloister-like galleries can house the apartments whose function is to serve the sanctuary and which must be separated one from the other (§§ 4.36 & 5.9). Lastly, we note that nothing is said about the internal layout of *gopura* and we do not know if the two doors on their elongated sides give access to a central room or if they are simply linked by a corridor going through solid masonry.

Outlying elements of the plan

§ 3.34. The features which are articulated to the plan of the main body and which are consequently placed outside the space demarcated by the *pramāṇasūtra* are usually of small dimensions. The only exceptions are the *mukhamaṇḍapa* which serves as an entrance hall to the *prāsāda* and which in certain cases can be bigger than the edifice of which it is an annexe (§ 4.9) and the surrounding gallery (*vāra*) which according to the *Ajita* can circle certain *maṇḍapa* (§ 4.22); in both cases these features are intended to increase the inhabitable space of the main body. This does not seem always to be the case with the forepart, indicated by diverse names, which can be built against the central part of the facades of the *prāsāda* or of the *maṇḍapa*. These are the elongated elements with only slight projection which, for the *prāsāda* (they are then called *bhadra*) occupy the middle of one or more of the blind faces of the edifice (§ 4.10): these placements are also those of the arches which house the images (§ 3.45) and it would seem that when both these elements exist on one facade the *bhadra* is intended to highlight the image. Only the *Ajita* specifies the position of *bhadra* and then only when dealing with one-storey *prāsāda* so we do not know if these foreparts are to be elevated as far as the upper storey(-s) or if they are confined to the ground floor. The term *bhadra* is used in the *Raurava* in the compound *agrabhadra* which indicates the forepart which is to be situated in front of the entrance of a rectangular pavilion (*Rau* 40.16); we are not, as in the preceding case, dealing with a solid element but rather with an expanded porch; it is this that is indicated by the *Ajita* which names it *nirgama* ("projection") and which prescribes its position on the axis of the access stairs and, consequently, of the doors (*Aj* 37.23-25, § 4.22).

§ 3.35. The *Ajita*, in describing the *prāsāda saubhadra* (*Aj* 12.68, § 4.12) says that it should include "forepart and *viśāla*" (*sabhadraṃ saviśālam*). *Viśāla* is usually applied to the width or to the area and, were it not for the simultaneous presence of the *bhadra* it would be considered simply as a synonym of this

term, the forepart being characterized by its area here as it is characterized by its projection in the appellation *nirgama* (above). The editor of the text, by the expedient of a quotation from the *Suprabhedāgama* (31.104a quoted in *Ajita* t. I p. 83 n. 4), postulates a connection between this element and a *maṇḍapa* with a hundred pillars called *viśāla* which seems to us to be as unlikely as the established connection (*ibid.* n. 2) between the *bhadra*/forepart of which we have just spoken and the *bhadra-pīṭha* which is a type of pedestal (§ 5.4). In fact these words, used to indicate the various types of edifices or architectural elements, are all-purpose names the value of which varies from one work to the other and, sometimes, even from one chapter to the next in the same work. To take for an example once more the word *viśāla* which in the *Suprabhedāgama*, as we have seen, indicates a type of pavilion with a hundred columns, we note that, in the *Ajita*, it is applied in the form *śrīviśāla* to a pavilion with thirty-six pillars (*Aj* 37.13a, § 4.20 type III) and that in the *Kāmikāgama* (I.45.41) it indicates one of the categories of *mālikā*. To take another example *ābhāsa* in *Raurava* indicates a *prāsāda* whose width ranges from fifteen to twenty-seven cubits (*Rau* 39.1sq.; § 4.5) and in the *Ajita* a sanctuary with unique enclosure (*Aj* 38.13; § 5.6) and in the *Mayamata* things as varied as temples, pavilions, houses, *sabhā* and methods of squaring off the timber (*Mayamata*, t. II index). To return to *viśāla*, it seems to us that, in this particular case, it must be an elongated element which in all likelihood is to be placed between the main body and the forepart.

§ 3.36. Another term posing problems is *raṅga*: according to the *Raurava* (40.16 and 18) the rectangular pavilions, one of which is provided with a forepart (*agrabhadra*), have at the rear a *raṅga* of three units (width or length?). It is not stated if it is exterior to the *maṇḍapa* in which case it would be in symmetry with the *agrabhadra* at the front, or if it is inside. In the first case it may be a forepart which, unlike the *agrabhadra*, would not correspond to an entrance; thus it could play the role of a kind of "apse" of elongated rather than rounded plan. In the second case it is most likely a canopy; we already know that

raṅga which in classical literature indicates the stage of a theatre, a theatre itself or an edifice of that type, is often applied to a canopy or an analogous structure: it is what is meant by the *Kāmikāgama* when it says that "the *raṅga* is a *maṇḍapa* constructed in the interior of a *maṇḍapa*" (*Kāmikāgama* I.50.94); if this hypothesis is accepted the *raṅga* is not an element exterior to the plan but an interior construction intended to shelter an image.

Doors

§ 3.37. There are no descriptions relating to doors in the *Raurava*; the word *dvāra* does not even appear in the chapters describing the *prāsāda*, the *maṇḍapa* and the gateways; the information on the door itself and its frame, which we shall refer to in due course, is given only very incidentally. The *Ajita* gives two categories of doors distinguished one from the other by the buildings for which they are intended and by the level at which they are situated on the facade of an edifice as well as by their proportions. The more common type corresponds to the doors of the *prāsāda* and of the *maṇḍapa* (*Aj* 12.37–44). The doors of this type must be placed between the base (*adhiṣṭhāna*) and the entablature (*prastara*); they must in no case interrupt the *prati* (supplementary level or string course? §§ 3.6 & 15) which crowns the base (*Aj* 12.44 where the correction of *naiva* to *caiva* is certainly an inadvertance on the part of the editor; see the parallel texts in *Mayamata*, t. I p. 264); their height may be equal to the distance which separates this *prati* from the architrave (that is to say, to the height of the *pādavarga*) or to that distance, less one tenth, one ninth or one eighth (*Aj* 12.37–38); their width is equal to half this height or to half, less one or two tenths (*Aj* 12.39–40). The proportions are a little different for the door which gives access to the sanctum (*garbhagṛha*, § 4.7) which is then called *gehadvāra* (*Rau* 30.50), *vaktra* (literally "mouth", "face" *Rau* 11.1) or simply *dvāra* (passim). The dimensions of this door are calculated in terms of those of the sanctum, its width being one fourth of that of the sanctum and its height one half of it

(*Aj* 12.40–41); these dimensions sometimes serve as the basis for the calculation of those of the Liṅga, of the image of the deity and of those of the *triśūla* or of the image of Vṛṣa, both situated in front of the temple (*Aj* 4.6; 36.6–8; *Rau* 39.9,11; 35.7–8). The compound *śuddhadvāra* (literally "pure door") used in this connection by the *Ajita* (36.6) probably shows that the reference dimensions here are those of the door proper, that is the interior dimensions of its frame, and not those of the exterior of the frame nor of the opening (see the same expression used in a similar context in the *Marīcisaṃhitā* chap.8 p. 38, last para.). The second type of door is peculiar to the gateways (*gopura*, § 4.33); their doors do not in fact rise from the summit of the base but from the "*upāna*" which could be the plinth of this base (or possibly of the socle, *upapīṭha*) or most probably the adjustment layer found beneath it (*Aj* 38.40–41, § 2.25). We are therefore dealing with a porte-cochère or even with a chariot-gate; its dimensions can be calculated in two different ways (*Aj* 38.41–43): according to the first, the height which is double the width, is equal to the distance which separates the *upāna* from the entablature, that is to the total of the height of the *pādavarga* and of the *adhiṣṭhāna* and, possibly, of the *upapīṭha*; according to the second method this height is nine, ten or eleven spans (*tāla* = ½ cubit, § 2.1) and the width is, as before, half the height.

§ 3.38. The frame of the doors is made up of two jambs called *śākha* (*Aj* 12.41–43; 20.126) or *pāda* (*Aj* 20.126), a lintel (*udumbara Aj* 12.42 or *pataṅga*, *Rau* 10.15) and a raised threshold (*dehalī*, *Aj* 12.42 and 20.126–127 or *bhuvaṅga*, *Rau* 10.15). These four elements are all square section and their width is equal to one fourth the height of the door itself (*Aj* 12.41); this may appear considerable but it allows for the placement of a significant decoration: different types of foliage (*vicitrapatravallī*, *Aj* 12.42) to which are added, on the lintel, the images of Śrī, Sarasvatī and Vighneśa and, on the jambs, those of the two Nidhipāla, one holding the conch and the other the lotus (*Aj* 12.42–43). The term used to indicate a leaf is *kavāṭa*; when it is not in dual form (*Aj* 20.128; 30.50; *Rau* 10.15), its appear-

ance in compound words does not tell us whether our texts also consider the existence of doors with single leaf (*Aj* 32.12; *Rau* 27.8). The *paṭṭikā* which is mentioned apropos the double door which gives access to the sanctum (*Rau* 10.15) is probably the rabbet-bar covering the gap between the two leaves (in the *Mayamata* 13.31, it is called *skandhapaṭṭikā*). The only lock mentioned is a horizontal latch (*argala*, *Rau* 27.8, see *Mayamata* t. II p. 217 n. 26).

§ 3.39. The number of doors and their positions vary according to the type of edifice and are rarely the subject of precise indications. The *prāsāda* have one door only, situated in the centre of the main facade (§ 4.7) but the *mukhamaṇḍapa* which is in front of this entrance may possibly include lateral accesses in addition to that which is situated on the axis of the sanctum (*Rau* 40.21, § 4.9). For the *maṇḍapa* they may number one to four and they are most probably in the middle of the facades since they correspond to the foreparts (*nirgama*) situated in that position (§ 3.34). Lastly we note that the pavilions for installation of the Liṅga have four doors and that the proportions of two of these are to be calculated from those of the Liṅga and not, as might be supposed, according to the general rules (§§ 4.22 & 26). Finally as far as the gateways are concerned it may be supposed that their doors (described above) are fitted into their elongated sides but that is never specified (§§ 4.33sq.); and besides we know that these buildings may be replaced by simple gates set into the enclosure walls (*ibidem*).

Windows

§ 3.40. Windows are never dealt with directly in our texts and this is explained by the fact that the two types of edifices described in detail are the *prāsāda* and the *maṇḍapa*, the first one of which is entirely closed and the second most often open on all sides (§ 4.17). It goes without saying that the false dormer-windows which are found on the roof of the *prāsāda* and on the dripstone cannot be included in the category of

windows (§ 3.44). The only reference to a window in the *Ajita* is to the latticed window (*jālaka*) already mentioned in the exposition of the system of measures (*Aj* 12.2; § 2.1). The *Raurava*, for its part, simply indicates that the passage (*antarāla*) which links two *maṇḍapa* can include latticed windows (*jālaka*) when it has no lateral entrances (*veśa*) (*Rau* 40.8a; § 4.22).

Stairs

§ 3.41 Mention has already been made of the stairs (*sopāna*) which are set in the aisles (*alinda*) allowing access to the upper storeys of the *prāsāda* (§§ 3.33 & 4.8). These are the only ones named by the *Raurava* which in lieu of description indicates only that they are dextrogyre (*pradakṣiṇavaśāt*) which could be an allusion to spiral staircases (see eg. *Mayamata* t. I p. 490). In the *Ajita* the stairs which give access to the summit of the base of certain pavilions, the position of which corresponds to that of the foreparts (*nirgama*, § 3.34) are bordered by two rails in the form of elephant's trunks (*hastihasta*, *Aj* 37.25–26). The same text points out, though without giving more details, that the main altar (*mahāpīṭha*) must be accessible by stairs when it is elevated by a socle (*Aj* 39.52; 5.11).

DECORATIVE ELEMENTS

Aediculae

§ 3.42. The decorative elements which we shall discuss here are those which are built on the facades of the edifice without modifying its plan, unlike foreparts placed with an "eye to decoration" (*śobhārtham*, *Aj* 12.32) and yet appearing on the basic plan as outgrowths (§ 3.34). Amongst these decorative elements are found diverse aediculae which are mentioned, though not described, in connection with *prāsāda* (*Aj* and *Rau*), *maṇḍapa* (*Rau*) and enclosure walls (*Aj*). According to the *Raurava* these aediculae are intended to shelter divine images (§ 5.2) but they can also be purely decorative (*Rau* 39.14a). In the case of a *prāsāda* they can be installed

"above the base", that is against the *pādavarga* of the ground floor or "above the entablature", that is against the *pādavarga* of the upper storey (or storeys) and probably against the attic if the *prāsāda* has only one storey (*Rau* 39.13). No details are given for the *maṇḍapa* but the first of the two possibilities given above hardly seems practicable when the *pādavarga* is present as a portico, and not as a wall (§ 4.17) and consequently we may suppose that the aediculae are set above the entablature; however due to the latter being the final level of the *maṇḍapa*, they cannot be built against a wall but should form a sort of coping at the summit of the elevation. As far as the enclosure walls are concerned we may suppose they originate from the stereobate which may possibly serve as base of the wall proper (§ 5.8).

§ 3.43. The aediculae mentioned in our texts are of three types which with the help of parallel texts can be defined as follows: first are *kūṭa* which are square plan and which are generally situated at the corners of an edifice, hence their frequent appearance under the name *karṇakūṭa* (*Aj* 12.68,73; *Rau* 39.11,12 and 40.20); those attached to enclosure walls are, of course, simply called *kūṭa* (*Aj* 38.23). It should be pointed out that this term *kūṭa* is also applied to an edifice analogous to a *maṇḍapa* (§ 4.14) and to the lantern which can sometimes be found in the centre of the roof of a pavilion (§ 4.18). The *koṣṭha* (*Rau* 39.11–12) or *śālā* (*Aj* (38.23) are the elongated aediculae covered by a wagon-roof (*śālākāra*); they are never situated at a corner of an edifice and their length is generally twice the width of the *kūṭa* situated on the same level (*Rau* 39.11). The term *śālā* is also applied to the wagon-roof (§ 3.29) and to some edifices which in our texts at least are poorly defined (§ 4.40). Lastly we find *pañjara* (*Aj* 12.69,70 and 38.23; *Rau* 39.11–12) which are placed between the *koṣṭha* and the *kūṭa* or between two *koṣṭha*; they are square plan and their width is equal to that of the *kūṭa* found at the same level (*Rau* 39.11); they probably owe their name ("cage") to the fact that they usually appear as a sort of small kiosk with four pillars whilst the *kūṭa* and the *koṣṭha* have the appearance of

closed edifices, the door opening of which is occupied, if applicable, by the image of a deity. Such "cages" can also be found on the platform of the attic (§ 4.12).

Niches and false dormer-windows

§ 3.44. We have already had occasion to mention the presence of *nāsī* (*nāsikā*) on the extrados of the dripstone (§ 3.10), on the attic (§ 3.26) and on the roof (§ 3.28). *Nāsī* means "nose" and the use of such a word implies that the element referred to forms a projection. The descriptions which are given in connection with the attic and the roof show that the term is, in fact, applied to two different features. Apropos the attic a *nāsī* is a niche enclosed by a projecting *toraṇa* and intended to shelter an image whereas a *nāsī* placed on a roof has a purely decorative function: no divinity is placed at the centre but the surrounding decorations, on the other hand, would seem to be especially rich (§ 3.29). When we are dealing with a roof then this element is present as a blind dormer-window, which has led us to refer to it by the convenient expression "false dormer-window"; we also use this expression for the *nāsī* found on a cornice since this moulding is in fact nothing but a convention representing the eave of a roof. These different niches and false dormer-windows are usually designated according to their relative dimensions which explains the use of the expression *mahānāsikā* and *alpanāsikā*: the first are generally situated at the cardinal points and the second at the intermediate directions (§§ 3.28 and 4.12). However in connection with the *prāsāda*, the *Raurava* appears to classify these *nāsī* according to their projection whether it be great or small, since it distinguishes the *nāsikā* from the *bhadranāsikā* ("niche forming forepart, § 3.28) but the passage devoted to these features is too brief to permit of judging the exact importance of this indication. Lastly, it remains to mention the specific use of *nāsikā* in connection with the pavilion for the ceremony of the swing (*ḍolāmaṇḍapa*, § 4.31). It is stated that in this pavilion the inner crossbeam (*uttara*) which supports the swing is surmounted by an arch (*toraṇa*) the *nāsikā* of which

is ornamented with *vyāla* and *haṃsa* (*Aj* 26.69a). It seems that *nāsikā* in this case designates the "gable" limited by an arch, by analogy with the niches which, as we have seen, are sometimes surrounded by an arch.

Arches

§ 3.45. The word *toraṇa* is used in our texts to indicate an arch the roles of which can be many and various. It can be a simple arch worked out of branches and leaves and placed at the entrance to a temporary pavilion constructed for a particular ceremony as, for example, in the case of sacrificial pavilions the entrances of which are characterized by *toraṇa* which are arches of plantain stems and leaves (*Rau* 18.62). Besides these ephemeral arches which, in actual fact, replace the doors themselves, we also find a number of decorative arches which are sculpted on the walls of the edifices. We have already spoken of those which surround certain niches (§§ 3.36 & 44) and there are others found in the middle of the blind faces of the lower *pādavarga* of the *prāsāda* and possibly on the foreparts (*bhadra*, § 3.34) that is to say, in positions where the doors would be if the *prāsāda* were open on four sides and not just on one. The analogy between these *toraṇa* which surround divine images (§ 5.2) and the door is the more striking in that the proportions may be similar. The *Ajita* specifies that these *toraṇa* reach from the *prati*, situated at the summit of the base, to the architrave (*uttara*) at the bottom of the entablature (*Aj* 14.60): such indication, as we have seen, has already been given apropos the door of the sanctum (§ 3.37). The width of the *toraṇa* is equal to half of the height thus calculated or it may be half of the intercolumniation of the pillars of the *pādavarga* (*Aj* 14.60). The *toraṇa* includes two pillars (*pāda*) occupying one third of the height, the rest of which is taken up by the arch proper which rests on these two pillars and which is called here *makara*, probably due to the *makara* decoration which it usually bears (*Aj* 38.23; § 5.8). It remains to note that an arch crowns the cross-beam supporting the swing in the *ḍolāmaṇḍapa* and that it surrounds an ornamented gable (*nāsikā*, §§ 3.44 and 4.31).

IV

EDIFICES

§ 4.1. All the edifices described in both texts pertain to religious architecture as has been pointed out. They are temples or chapels housing divine images or they are buildings for the service of the sanctuary or those erected for the performance of certain ceremonies. In any of these cases they can be temporary or permanent structures. Thus besides the permanent temples which are usually *prāsāda* (§ 4.2...), we have the *taruṇālaya* (§ 4.37) constructed to stand for a limited period and we shall see that several *maṇḍapa* are only temporary constructions erected upon the occasion of a particular ceremony (§ 4.13) whilst others form part of the structures which must be present in a sanctuary. Most of these different types of construction pertain to well defined architectural categories which will be mainly what we will study here, reserving for the next chapter the general layout of the sanctuaries (*bhavana*). Here we shall look at the *prāsāda* which can be defined as being temples with a six level elevation, the *maṇḍapa*, pavilions with three levels, the *gopura* which are the gateways, the *mālikā* which look like cloister shaped galleries and, lastly, the *taruṇālaya* referred to above; we shall mention various edifices on which there is singularly little information in our texts (*sabhā*, *dhiṣṇya*. . .).

PRĀSĀDA

§ 4.2. From the architectural point of view a *prāsāda* is defined as a building with six levels of elevation (*Aj* 14.91). In practice in the texts it is invariably a temple which houses a divinity whether it be the principal temple of a sanctuary as is sometimes specified by the use of compounds such as *mūla-prāsāda* or *mūlālaya* or *mūlaharmya* (below), or the chapel of

Attendants of Śiva such as Caṇḍeśa, Brahmā, Jyeṣṭhā, Gaṇeśa, Viṣṇu or Arka (*Aj* 39.11–14; § 5.14). Unless we are mistaken this term *prāsāda*, in the *Raurava* as well as in the *Ajita*, always means precisely "temple (*or* chapel) provided with six levels". The only exception to this is a token one; it is the use of the expression "like a *prāsāda* for the gods" (*devaprāsādavat*) in connection with a *dhiṣṇya* which, as we shall see, is defined simultaneously, as a divine abode (*devatāgṛha*) with three or with four levels (*Aj* 14.92; § 4.39). It is probable that the similarity in this particular case is with respect to the function and not to the elevation. Aside from *prāsāda* a certain number of other terms are used for the same category of edifice: *vimāna* (*Aj* 12.34,47), *sadman* (*Aj* 12.30,36...; *Rau* 39.12...), *sadana* (*Rau* 39.1,2...), *niveśa* (*Aj* 39.13) and, most especially, *harmya* (*Aj* and *Rau passim*), *ālaya*, *dhāman* and *gṛha* (*Aj* and *Rau passim*); the last three of these are also used, as might be expected, for indicating buildings of no matter what type. To take only a few examples, the chapel of Vṛṣa has the form of a pavilion (*maṇḍapākāra*) and is called *ālaya* (*Aj* 39.12), a *sabhā* is a *dhāman* (*Aj* 14.93; § 4.38) and, as we have just seen, a *devadhiṣṇya* is at the same time a *devatāgṛha*. *Ālaya* is used frequently in the compound *śivālaya* to designate not a temple but the complete complex of buildings which constitutes the sanctuary of Śiva (for example *Rau* 39.9 or *Aj* 51.6); in this context it is a synonym of *bhavana* (below). We know that *harmya* as applied to a roof appears to have the specific meaning of "building with a flat roof" (§ 3.39). The word *bhavana* seems to be used to indicate the sanctuary in its totality as opposed to the temple proper. Thus we read in the *Ajita* that "after having performed the circumambulation of the village (*grāma*) one enters the sanctuary (*bhavana*) and moves towards the sacrificial pavilion (situated in the enclosure, § 5.10) and after that one circumambulates the temple (*dhāman*) . . ." (*Aj* 28.95–98). Lastly *mandira* which appears only once (*Rau* 36.2) seems to designate, in a general way, the sanctuary, in the particular case when Viṣṇu is the principal deity of that sanctuary.

Dimensions of the *prāsāda*

§ 4.3. The information given by both texts on the subject of the dimensions of the *prāsāda* varies quite a lot and we shall introduce their points separately (§§ 4.4,5). We shall now note some characteristics common to both texts. First and foremost, the sole dimension given in its absolute value is the width of the *prāsāda*; we have seen elsewhere that this width may possibly serve as a unit of reference for calculating the dimensions of the enclosures of the sanctuary (§ 2.2) and it is from this width that the height is to be determined, according to the proportions which vary from one text to the other. No reference is made to the calculation of the length though the *Ajita* does mention one kind of *prāsāda*, or perhaps two (see § 4.12) whose plan is rectangular. Another noteworthy point is the very small width given for the smallest *prāsāda*—three cubits according to the *Ajita* and only one cubit according to the *Raurava*—and we can better understand such dimensions if we consider that the available descriptions can be as well applied to the principal temple as to the chapels of the Attendants which surround it, chapels the size of which is limited by the narrowness of the courtyard (see § 5.6). Lastly we should not be misled by the large number of widths given in both the texts; several of them pertain only to multiple storeyed temples which are hardly touched upon in our texts. For example the *Ajita* when giving the width of the temples with one to twelve storeys describes only the one-storeyed type and, in the same way, the *Raurava* which deals with temples of up to sixteen storeys is limited when it comes to detailed proportions of the edifices with three or more storeys (§ 4.6).

§ 4.4. According to the *Ajita* (12.15–20) twenty-eight widths are possible for the *prāsāda* and these range from three to thirty cubits by successive increases of one cubit and are divided into three groups which correspond to the "small" temples (*kanyasa*, *avara*, *adhama*), the "medium" ones (*madhya-ma*) and the "large" ones (*uttama*, *śreṣṭha*). There are well defined heights (*Aj* 12.34–37) and numbers of storeys (*Aj* 12.

46–60) corresponding to each of these categories and these data are summarized in the following table:

category	No. of storeys	widths in cubits	ratio height/width
"small"	1	3 to 10	
(3 to 10	2	5 to 10	
cubits)	3	7 to 10	2/1
	4	9 and 10	
	5	9 (?) (a)	
"medium"	3	11 and 12	
(11 to 20	4	11 to 14	
cubits)	5	11 to 16	
	6	13 to 18	12/7
	7	15 to 20	
	8	17 to 20	
	9	19 and 20	
"large"	8	21 and 22	
(21 to 30	9	21 to 23	
cubits)	9	21 to 23	11/7
	10	21 to 26	
	11	23 to 28	
	12	25 to 30	

(a) it is possible that *daśāṃśe* should be read instead of *nandāṃśe*.

§ 4.5. There are thirty-six possible widths given in the *Raurava* (39.1–8). They range from one to seventy-one cubits by successive increases of two cubits and they are divided into five groups and not three, in the following manner:

category	widths in cubits	No. of storeys
kṣudra ("small")	1 to 13	1,2 or 3
ābhāsa	15 to 27	3,4 or 5
vikalpa	29 to 41	6,7 or 8
chanda	43 to 55	8,9 or 10
jāti	57 to 71	13 or 16

It is indicated that the corresponding heights may be calculated from the chosen width in one of the five following ways (*ibidem*):

śāntika (Height = $\frac{1}{4}$ of the Width), *pauṣṭika* (H. = $\frac{1}{2}$ W.), *jayada* (H. = $\frac{3}{4}$ W.), *adbhuta* (H. = W.) and *sārvakāmika* (H. = $1\frac{1}{4}$ W.). No mention is made of a relationship between any one of these and any of the five categories examined.

Elevation of the *prāsāda*

§ 4.6. The vertical proportions of the different levels (*varga*) are clearly defined only in connection with one-storeyed edifices (*Aj* and *Rau*) and with those of two storeys (*Rau*). They are summarized in the following tables:

one storeyed *prāsāda*

	Aj 12.61-63a		*Aj* 12.63a-65a		*Rau* 39.19b-20	
finial	*stūpi*	1/8	*stūpi*	1/10	*kuṇḍala*	1/8
roof	*śikhara*	2/8	*śikhara*	2/10	*śīrṣa*	2/8
attic	*kaṇṭha*	1/8	*grīva*	$1\frac{1}{2}$/10	*grīva*	1/8
entablature	*prastara*	1/8	*prastara*	$1\frac{1}{2}$/10	*mañca*	1/8
level of the pillars	*pāda*	2/8	*pāda*	3/10	*caraṇa*	2/8
base	*adhiṣṭhāna*	1/8	*masūra*	$1\frac{1}{2}$/10	*ādhāra*	1/8

(In *Ajita*'s second description, the total is indicated as "nine parts": *navāṃśake* or *navāṃśakaiḥ* according to the different Mss. This is an obvious mistake since it is of ten and a half parts as it appears in the itemized description).

two-storeyed *prāsāda* (*Rau* 39.20b–21)

finial	*stūpi*	1/11
roof	*mastaka*	2/11
attic	*gala*	1/11
entablature (2nd storey)	*prastara*	1/11
level of the pillars (do.)	*aṅghri*	2/11
entablature (1st storey)	*mañca*	1/11
level of the pillars (do.)	*aṅghri*	2/11
base	*adhiṣṭhāna*	1/11

We note that the socle (*upapīṭha*) is nowhere taken into consideration in establishing these proportions and this is not surprising since it is not a compulsory element and its proportions in any case follow naturally from those of the base under

which it is placed (§ 3.13). On the other hand, the *prāsāda* with two storeys is a straightforward development of that with one storey, in that they are of equal height. The vertical proportions of edifices with three or more storeys are calculated, according to the *Raurava*, from those of edifices with two storeys but the indications on this subject are never very clearly given (*Rau* 39.22–23a). It would seem that the height of an edifice with three storeys is to be divided into twelve equal parts: eleven of them are apportioned as above and correspond to the base, to the first two storeys, to the attic, to the roof and to the finial. The twelfth one is sub-divided into three: two thirds correspond to the level of the pillars of the third storey and one third to its entablature. Thus the total height of this third storey is equal to one third that of each of the two lower storeys. The same procedure is employed for buildings with four and more storeys: each time one part sub-divided into three is added for the supplementary storey; it continues like this for edifices with up to sixteen storeys, the heights of which are divided into twenty-five parts probably apportioned as follows:

finial	1/25	
roof	2/25	
attic	1/25	
16th storey	1/25	($\frac{1}{3}$ for the entablature and $\frac{2}{3}$ for the level of the pillars)
...	...	
3rd storey	1/25	(do.)
entablature (2nd storey)	1/25	
level of the pillars (do.)	2/25	
entablature (1st storey)	1/25	
level of the pillars (do.)	2/25	
base	1/25	

In this way are obtained *prāsāda* whose two lower storeys equal each other in height, which height is thrice that of each of the upper storeys, themselves equal one to another.

Layout of the *prāsāda*

§ 4.7. The *prāsāda* consists of a single central room, the sanctum, which may be surrounded by one or several concentric aisles (*alinda* § 4.8). This sanctum, normally called *garbhagṛha* (*Aj* 12.21; *Rau* 39. 14...) is very often indicated simply by *garbha* (*Aj* and *Rau passim*), a term which is also applied to the foundation deposit (*Aj* chap.17). Also found are *garbhāgāra* (*Rau* 13.22), *dhāmagarbha* (*Aj* 12.27), *antargṛha* (*Aj* 25.38) and *antaḥsthāna* (*Aj* 49.60). Its proportions are given only for small *prāsāda*, those without aisles: its width must be one fourth, three fifths or four sevenths that of the *prāsāda* (*Aj* 12.21–24) or one third or three fifths of that width (*Rau* 39.14–15). In both cases the remainder of the width of the *prāsāda* is taken up by the thickness of the wall (*bhitti*) which surrounds the sanctum and which, in the absence of the aisle, is also the external wall of the edifice. Lastly we should add that according to the *Ajita* (12.25–27), the width of the sanctum of a *prāsāda* constructed (reconstructed?) around an already existing Liṅga (*pūrvaṃ sthaṃ liṅgam*) must be either nine or twelve times the width of the Liṅga and that the thickness of the walls is one third or half the width of the sanctum. The pedestal of the image or of the Liṅga (*pīṭha*, *piṇḍikā* § 5.3) is placed off centre and slightly towards the North-East in the sanctum (*Rau* 28.68; 30.37); it is fixed to the floor with mortar (*sudhā*) which is strong (*ibidem*). Furthermore, the floor itself inclines slightly from South to North in order to facilitate the flow of liquids falling from the spout of the pedestal (*Aj* 13.14). The level of the floor is always lower than that of the bottom of the *pādavarga* and it should correspond to that of the drainage duct (*jalanirgamanacchidra*) bored through the wall of the temple (*Aj* 13.14–15). According to the *Ajita* (*ibid.*) this duct should be situated at the same level as the top of the socle of the building (*upapīṭha*) or at the same level as the torus (*kairava*), the dado (*gala*) or the upper string-course (*paṭṭikā*) of the base; it must be bored in the middle of the north face of the *prāsāda* or at its north-east corner; this seems to be the case

whatever the orientation of the building (§ 4.9). The *Raurava* gives no specific details about this element and takes into consideration only its position at the North (*Rau* 11.3). The duct is extended to the exterior by a gargoyle (*nāla*) (*Aj* 13.16–19) which is a projecting stone (*nāsaśaila*), square section with a width equal to that of the pillars (that is to say one module) or, as well, to the thickness of the wall which supports it; its length is twice its width, or it is three quarters more than that width or three times it. A gutter (*jalāyana*) is cut in the middle of the upper face of this stone: it is trapezoidal section and its breadth at the bottom is one eighth less than at the top where it is equal to a third of the width of the gargoyle. The extremity of the gargoyle is a sculpted spout resembling an elephant's lower lip (*gajādharoṣṭāṃśa*) and is slightly downwards inclined. We shall not deal again here with the door of the sanctum (*gehadvāra*, § 3.37) apart from pointing out that its position is determined by the overall orientation of the sanctuary. If dedicated to Śiva the temple will usually open to the East but the possibility of a westward orientation is envisaged on several occasions (*Rau* chap.11; *Aj* 14.66; 18.257; 39.22). The chapels of the Attendants should open so as to face the main temple (§ 5.13); apropos sanctuaries dedicated to other gods we shall see that, in the case of Gaṇeśa for example, the door should always be at the East whereas for Skanda it may be at the West or at the East... (§§ 5.17...).

§ 4.8. The "aisles" (*alinda*) which may surround the sanctum are mentioned only in the *Raurava* (39.10,16 foll.) which specifies that such elements are only to be found in temples belonging to the four superior categories (*ābhāsa*...), temples which, as we have seen, are at least fifteen cubits wide and which have at least three storeys (§ 4.5). These aisles are covered passages enclosed by two walls and, where there is only one aisle its interior wall, which is at the same time the wall of the sanctum, is called *gṛhapiṇḍi* (*Rau* 39.16) and its exterior wall is also the exterior wall of the *prāsāda* and is called *hāra* (*ibid.*). When there are several aisles (as many as nine are possible, *Rau* 39.17) the *hāra* of the first is the interior wall of

the second and so on. It is indicated moreover that these aisles are also to be found in the upper storeys (see below) and that the dextrogyre stairs found at the corners (for which *karṇe karṇe* should be read instead of *kaṇṭhe kaṇṭhe*, *Rau* 39.17a) rise from the aisles of the ground floor giving access to those of the upper storeys (*Rau* 39.17–18). In addition it is stated that the wall (that is the *gṛhapiṇḍi*) which separates the sanctum from the innermost aisle is made of solid stone and brick masonry. On the other hand, apart from the statement that small temples have no aisles, there are no data on the relationship which must exist between the dimensions of the temple and the number of *alinda* and none either on the proportions of the *gṛhapiṇḍi*, the *alinda* and the *hāra* and again none about the role played by the covered passages except apropos the stairs leading to the upper storeys. It should be pointed out with reference to this last, that the translation of *alinda* by "aisle" pertains more to their arrangement than to their function. It is worthy of note that, unless we are mistaken, in the description of the rites which are enacted in the temple, there is no mention of the use of these *alinda*. This omission is one more indication of our texts' lack of interest in temples of large dimensions; such an attitude can however be explained if we take into consideration that these *alinda* have less to do with cult requirements than they have with architectural exigencies of a technical kind. According to the *Raurava*, as hâs already been seen, the stairs giving access to the upper storeys are installed in the *alinda* but it is not clear why the presence of such stairs would necessitate the existence of several concentric *alinda*. It is certain on the other hand that in temples with multiple storeys, which are the only type dealt with here, the arrangement of the upper storeys which are recessed in relation to the lower ones has the effect of considerably thickening the walls of the lower storeys. We therefore wonder if the *alinda* are not intended mainly to lighten this masonry; their probable narrowness would guard against such lightening having a weakening effect upon the solidity of the whole.

§ 4.9. The entrance to the *prāsāda* itself may have an an-

nexe before it which we shall describe here though in fact it belongs to the category of pavilions (*maṇḍapa*, §§ 4.13...). We are here dealing with the *mukhamaṇḍapa* which is articulated to the main facade of the *prāsāda* and which can be considered as forming an actual part of the temple. This "pavilion of the door (of the *prāsāda*)" is intended essentially for the accomplishment of rites which cannot be enacted inside the *prāsāda* due to the narrowness of the sanctum and due to its being encumbered by the pedestal. This kind of building can be found in front of a temple or of a chapel and the *Ajita* makes it clear that the *parivārālaya* of Caṇḍeśa must have one of these (*Aj* 39.11; § 5.14). There are two complementary descriptions of the *mukhamaṇḍapa* in the *Ajita*, one apropos the temple of Śiva (*Aj* 12.28–31) and the other given along with general points connected with *maṇḍapa* (*Aj* 37.37–40). The *Raurava*, on the other hand, devotes only two verses to this building (*Rau* 40. 1–2) and in the chapter describing the *prāsāda* does not even mention its existence. Also called *ardhamaṇḍapa* (*Aj* 28.99; *Rau* 40.2), *agramaṇḍapa* (*Rau* 27.6) or above all simply *maṇḍapa*, the *mukhamaṇḍapa* is, like all *maṇḍapa*, an edifice the elevation of which consists of only three levels to which may possibly be added a socle (*upapīṭha*). According to the Ajita these three levels should be equal in height to the *prāsāda*'s corresponding ones (*Aj* 12.28; 37.39–40) or they should be smaller by one, two, three . . . or eight sixteenths (*Aj* 12.28–29). In width the *mukhamaṇḍapa* should be equal to the *prāsāda* (*Aj* 12.31; *Rau* 40.1) or smaller by one fourth or one fifth (*Aj* 12.31) or bigger by half or three quarters (*Rau* 40.1). Neither of our texts indicate whether this building is square or rectangular but it may be understood as following the same rules as other *maṇḍapa* (§ 4.21). Calculated in relative units, the width can be one, two, three or four *paṅkti* (*Aj* 37.37); we know that this unit corresponds to the distance which separates neighbouring pillars and expressions of this sort signify that the facade of the *pādavarga* of the *mukhamaṇḍapa* may have two corner pillars or two corner pillars separated by one, two or three intermediate pillars (§ 4.20). It should be noted that, since the value of the *paṅkti* is constant for one and the same building, the arrange-

ment involving three and five pillars (two and four *paṅkti* in width) includes a pillar situated on the axis of the edifice and, thus, on that of the temple itself, which is surprising; we shall see that in the descriptions of square pavilions the number of *paṅkti* is always uneven and consequently the number of pillars always even, which means that there are no axial pillars at all (§ 4.20). The link between the *mukhamaṇḍapa* and the *prāsāda* is made, according to the *Ajita*, by a covered passage (*antarāla*); its width is equal to that of the *mukhamaṇḍapa* or it is less by one *paṅkti* or it is one, two, three or four modules more (*Aj* 37.38). The interior breadth of the passage (*praveśa*) should however always be two modules (*Aj* 37.39); this last indication is surprising since we would expect this breadth in relation to that of the door of the sanctum. The *Raurava* mentions the *antarāla* linking the *mukhamaṇḍapa* to the *prāsāda* in connection with the positions of the images of the *dvārapāla* (*Rau* 32.1) but it describes only the one intended to link two *maṇḍapa* (*Rau* 40.5b; § 4.22). Access to the *mukhamaṇḍapa* is probably through an external door situated on the axis of that of the sanctum but this is not mentioned in our texts and, moreover, there is half a verse, somewhat confused, in the *Raurava* which seems to indicate that a *mukhamaṇḍapa* has a side door whose width is one to three modules (*Rau* 40.2b): *ekaṃ vā dvitridaṇḍaṃ vā pārśvaveśārdhamaṇḍapam* (the readings in the other manuscripts are no clearer: . . . *pārśvevedārthamaṇḍapam* or *parśvevedārdhamaṇḍapam*). Lastly, it can in any case be supposed that the door (or doors) has before it a forepart (*nirgama*) and stairs (*sopāna*) as do the doors of the other *maṇḍapa* (§ 4.22).

§ 4.10. As we have seen (§ 3.34) foreparts (*bhadra*) can be fitted onto the blind faces of the *prāsāda*; their width is one third or two fifths that of the temple and their projection which is very small is one module or one and a half modules. They do not necessarily have to appear on each of the three blind faces; there may be only one of them, in which case it is found at the back, or two, on the lateral facades (*Aj* 12.32–34). Whether they have foreparts or not, the blind faces of the *pādavarga* are to be ornamented with median arches (*toraṇa*, § 3.45) sheltering the

divine images (§ 5.2). To these are added the aediculae which can be fixed onto the *pādavarga* of the ground floor or of the second storey (or of the attic?) (§ 3.42). The *Ajita* mentions them only in passing in connection with particular types of *prāsāda* (§ 4.12). The *Raurava* on the other hand gives the general rules governing their arrangement (*Rau* 29.11–13): a facade should have square aediculae at the corner (*karṇakūṭa*), three long aediculae (*koṣṭha*), one of them at the centre and the other two equidistant from the centre and the corners and, lastly, four "cages" (*pañjara*) placed in such a way as to separate, one from the other, the aediculae mentioned above. The text adds that the open space which is left between these aediculae is the *hārāntara* which leads us to suppose that the given arrangement is relevant only to a temple with aisles (*alinda*) since it is this type of temple whose exterior walls are called *hāra* (§ 4.8). These *hārāntara* ("wall intervals") are half the width of the square aediculae and of the cages and a quarter that of the elongated aediculae. To these various elements are added the niches and false dormer-windows found in the attic and on the roof (for their overall arrangement see §§ 3.26,28 and 44).

Classification of *prāsāda*

§ 4.11. We have seen that both our texts classify *prāsāda* according to their dimensions (§§ 4.4–5) but equally they set out to group them according to differences in design which may exist between the plan of the upper levels (attic, roof and finial) and that of the lower ones (see also § 3.32). This system of classification is well known from the *śilpaśāstra* and the terms used for indicating the different types, which hardly vary from one text to the other, have sometimes caused an unjustifiable pseudogeographical conclusion to be drawn (on this subject see *Mayamata*, vol. I p. 6 and vol. II p. 350). According to the *Ajita* (12. 65-68a) there are three kinds of temple, referred to by the names *nāgara*, *drāviḍa* and *vesara*, of which the *Raurava* mentions only two (*nāgara* and *vesara*) (*Rau* 39.23–25 and 28–29). A *nāgara* temple is square from plinth to finial (*Aj* and

Rau). It should not have more than eleven storeys (*Rau*) and, on its roof at the cardinal points are false dormer-windows of considerable projection (*bhadranāsikā*) and at the intermediate directions some much smaller ones (*alpanāsikā*) (*Rau*). Lastly, as we shall see later, this *nāgara* type is suitable for a chapel to Jyeṣṭhā and to Durgā as Attendants of Śiva (*Aj* 39.14; § 5.14). The *drāviḍa* temple (*Aj*) has its three upper levels constructed on an octagonal plan, the others being square plan. The chapel of Viṣṇu as Attendant of Śiva belongs to this category (*Aj* 39.14; § 5.14). Lastly, the *vesara* type is either circular from plinth to finial (*Rau*) or square below and circular above (*Aj* and *Rau*); on the roof there may be niches of greater or lesser projection or small niches (*Rau*); no examples of its uses are given.

§ 4.12. To this traditional classification the *Ajita* adds descriptions of specific types of *prāsāda* which are characterized by the details of their plan or by the presence or absence of certain secondary or decorative elements. It deals especially with the *saubhadra* type (*Aj* 12.68b–69) which is "to grant enjoyment" (*bhogada*) and which is "suitable for all gods" (*sarvasurocita*). As its name indicates, it is characterized by the presence of foreparts (*bhadra*) to which are added *viśāla* (?, § 3.35). Its entablature supports corner aediculae (*karṇakūṭa*) and the platform (*vedikā*) of its attic built on an octagonal plan supports eight "cages" (*pañjara*). It is not indicated whether it is of the *drāviḍa* type nor whether the attic itself, the roof and the finial should also be built on an octagonal plan. The *svastibandhana* type (*Aj* 12.70) is rectangular (*caturaśrāyata*) and its roof has three finials (*stūpi*, §§ 3.30–31), and it should have neither "cages" nor aediculae (*pañjarādivihīna*). The description of the *sarvatomukha* type is not very clear (*Aj* 12.71–72a); it would appear that its ground plan should be rectangular as in the preceding case, however the sentence *āyataṃ viṇā(?) proktam* may be understood to mean that, as compared with the preceding type, it has no long side and that consequently it is square. Its attic and its roof (no mention is made of the finial) are octagonal but rest on a circular platform (*āṣṭamāśraśiro-*

grīvaṃ vṛttavedikayā yutam); these indications are more easily understood if the ground plan is square than if it is rectangular. This temple is provided with *mahānāsikā* but we do not know if these are the false dormer-windows of the roof or the niches of the attic (§§ 3.26,28,44). Lastly the *sārvakāmika* type (*Aj* 12. 72b–74) belongs to the *hastipṛṣṭha* category ("like an elephant's back") that is, it is built according to a rectangular plan one of whose small sides is replaced by a semi-circular apse (§ 3.32). Its attic and its roof are built on the same plan; its entrance facade has a gable (*lalāṭa*) and its apse is most probably covered by a hip. It has no aediculae but does have a large niche on the gable in front and smaller ones (or false dormer-windows) at the back and on the sides. The chapel of Vināyaka as Attendant of Śiva is built on this model and so, probably, is the chapel of Skanda (*Aj* 39.13; § 5.14).

MAṆḌAPA

§ 4.13. Pavilions (*maṇḍapa*) are certainly the edifices most frequently mentioned in our texts in which there are hardly any rites to be performed elsewhere than in a *maṇḍapa*, whether it is a permanent edifice built in proximity to the temple or a temporary construction erected for the occasion of a particular ceremony (§ 4.23). Not to be forgotten is the *mukhamaṇḍapa* which can serve as a vestibule for certain *prāsāda* but which we shall not deal with here again (§ 4.9). Lastly, we note that as far as our texts are concerned the only *maṇḍapa* which is a temple as such is "the edifice in the form of a *maṇḍapa*" which shelters the statue of Vṛṣa, as Attendant of Śiva (*Aj* 39.12; § 5.14). Technically the *maṇḍapa* is an edifice with three levels of elevation (base, level of the pillars and entablature) to which a socle can possibly be added (below §§ 4.16...). The *Raurava* indicates that a *maṇḍapa* may have one or several storeys (*tala*) (*Rau* 40.20) but that is all it gives on the subject and neither it nor the *Ajita* describes *maṇḍapa* with multiple storeys. The roofing of the *maṇḍapa* is situated at the level of its entablature and appears as a slightly convex terrace, sometimes with a central lantern (*kūṭa*, § 4.18). It is supported by pillars set out

according to a regular orthogonal pattern based on the unit of measurement pertaining to the *maṇḍapa* (*paṅkti* or *aṃśa*, § 2.3). The *maṇḍapa* would thus appear to be a hypostyle building which may be completely open to the exterior or, on the contrary, partially or completely closed by walls on which pilasters may be fixed or which may be set in between the pillars (§ 4.17). The plan is square or rectangular (§ 4.19) but, as with the *prāsāda*, these regular forms can be modified by the addition of secondary elements (§ 4.22).

§ 4.14. As far as the nomenclature is concerned we note that the term *maṇḍapa* (or *maṇṭapa* in its Tamil form) is in constant use and is never replaced by a synonym except in certain compound words; thus we shall find *yāgaśālā*, *yāgadhāman* or *yāgagṛha* (*yāgageha*) used parallel with *yāgamaṇḍapa* to designate a sacrificial pavilion (§ 4.24). As well, we may consider the possibility that certain annexes to the temple designated by imprecise terms, *sthāna* or *niveśana* for instance, may actually appear as *maṇḍapa* (*Aj* 38.43... and § 5.9). We shall consider later the use of the terms *maṇḍa*, *maṇḍya* and *maṇḍita* in the *Raurava* (§ 4.18). It remains to deal with the *prapā* and the *kūṭa*. *Prapā* is used to designate certain small buildings : when a Liṅga or an image is installed it is here that the preparatory rites in water (*jalādhivāsa*) and the ceremony of the bath (*snāna*) of the god are performed (§ 4.29). The *prapā* is also mentioned in the *Raurava* as a possible substitute for the *maṇḍapa* for the installation ceremony (*Rau* 30.13–14; 31.20; § 4.28). Otherwise our texts give no definition of this type of edifice but it is most probably, here as elsewhere, a simplified version of the *maṇḍapa* characterized by the absence of a base and by a lightweight roof supported by pillars set directly into the ground (see *Mayamata*, vol. I pp. 618,620). Such a description corresponds very closely to the *Ajita* (18.97) where it is stated that the *prapā* should be built *above* the Liṅga (*liṅgopari prapāṃ kuryāt*) which is placed on the ground itself. As regards *kūṭa*, proposed by the *Raurava* as a substitute for a *maṇḍapa* or for a *prapā* (*Rau* 31.20), it is probably a variety of *maṇḍapa* characterized by a framework with rafters (*lupā*, § 3.29). Both texts devote one

chapter to the general characteristics of the *maṇḍapa* (*Aj* chap. 37 and *Rau* chap. 40). We shall try in the following paragraphs to regroup this general information with that found in descriptions of the *maṇḍapa* which are constructed with a view to particular ceremonies and with which we shall deal, in detail, later on (§§ 4.23...).

Dimensions of the *maṇḍapa*

§ 4.15. The dimensions of the *maṇḍapa* which are given in absolute values (cubits or spans) are the width and, more rarely, the height. Sometimes instead of the total height or as well as it, we are given the height of the pillars or that of the base. The length on the other hand is never directly indicated (§ 4.21). Whilst dealing in a general way with the width of the *maṇḍapa* the *Ajita* says "expressed by odd numbers of cubits, it is from three to thirty-one cubits which gives twenty-nine possibilities" (*Aj* 37.1–2). The last number mentioned in this sentence makes it clear that a parallel set of dimensions exists, given in even numbers; it must be from two to thirty cubits or from four to thirty-two and it is not easy to choose between these two possibilities since, in the same text, is described a pavilion two cubits wide (the smallest of the *ḍolāmaṇḍapa*, § 4.31) and another thirty-two cubits wide (the pavilion for the installation of large Liṅga, § 4.21 type I) . . . As far as the *Raurava* is concerned it deals with the same subject in a sentence difficult to understand (*Rau* 40.3): *sāṣṭahastaṃ samārabhya dvidvihastavivardhanāt/ trayoviṃśacchataṃ yāvattāvan maṇḍapaṃ vistṛtam*. This could literally be translated: "the width of a *maṇḍapa* ranges from eight to one hundred and twenty-three cubits by successive increases of two cubits". However we note that the number one hundred and twenty-three seems excessive and that widths of *maṇḍapa* described in the rest of this text go from five cubits (the smallest of the sacrificial pavilions, § 4.24) to thirty-six (pavilion for funeral rites, § 4.32). The total height of the pavilions is, as we have said, only rarely given in absolute values. In the chapter dealing with *maṇḍapa* in general, the *Ajita* only gives the heights possible for the

pillars (below) and it is only apropos the pavilions for installation of the Liṅga (§ 4.26) and of statues (§ 4.27) that the subject of the height of the *maṇḍapa* arises. In the first case (*Aj* 18.34 sq) it can be of fifteen, nine or five spans (*tāla* = half a cubit, § 2.1), and, in the second case, it should be of twelve spans. The height of the pillars theoretically goes from five to eighteen spans (*Aj* 37.8–9; § 3.17); the only specific heights indicated are eleven and nine spans for the pillars of the *snapanamaṇḍapa* (*Aj* 29.14; § 4.30). Lastly the height, in absolute value, of the base is given only for the pavilions for installation of the Liṅga and of images (*Aj* 18.45 and 40.10: one span) and for the *snapanamaṇḍapa* (*Aj* 29.14–15: one and a half spans).

§ 4.16. The vertical proportions of the *maṇḍapa* are not always made clear by our texts. In the general chapter it devotes to *maṇḍapa* the *Raurava* limits itself to indicating that base, level of the pillars and entablature must have the same proportions as those of the main temple (*mūlaharmya*) (*Rau* 40.21) but we wonder if such a formula is not meant to apply mainly to *mukhamaṇḍapa* (§ 4.9). It is only apropos the sacrificial *maṇḍapa* (*yāgamaṇḍapa*, § 4.24) that this text indicates the height of the base, which should be one third or one quarter that of the pillars (*Rau* 18.62), without giving precise reference to that of the entablature. According to the *Ajita* the height of the base should be half, two fifths or a third that of the pillars (*Aj* 37.27–28a) and that of the entablature a half or a third of it (*Aj* 37.31). In specific descriptions the proportions of the entablature are never given. As for the base, its height should be a third that of the pillars in the case of the *ḍolāmaṇḍapa* (*Aj* 28.63sq.; § 4.31) and in that of the *snapanamaṇḍapa* it should only be three twenty-seconds or a sixth of the height of its pillars (*Aj* 29.14–15; § 4.30); the last two numbers are very small but this is undestood since we are dealing with a temporary pavilion. The erection of a large base is a considerable work and we may infer that this type of very low base appears much more frequently than our texts would lead us to suppose. It can even be assumed that these pavilions erected for short periods do not include a base at all, after the fashion

of the *prapā* (§ 4.14) unless they are built on existing permanent bases as can sometimes be seen in the courtyards of certain sanctuaries (particularly in Kerala). Apart from the proportions, no further details are given apropos the bases which must therefore correspond, theoretically, with general types already described (§§ 3.14–15). The *Ajita* only says that they can be elevated or simply replaced by a socle (*sopapīṭhaṃ tu vā kuryāt kevalaṃ vopapīṭhakam*, *Aj* 37.28). In the specific descriptions only the *ḍolāmaṇḍapa* is presented as having a socle, the height of which is equal to that of its base or to three quarters of it (*Aj* 28.65a where obviously *sopapīṭhakam* is to be read instead of *somapīṭhakam*).

§ 4.17. The pavilions described throughout our texts are all edifices which are completely open and their *pādavarga* therefore appear as colonades. Both texts indicate, however, that the *maṇḍapa* can also be totally or partially enclosed by walls (*kuḍya*, *bhitti*). According to the *Raurava* these walls seem to be set in between the pillars: "to ensure solidity a wall can be built on the periphery of a *maṇḍapa* in whichsoever bays desired" (*balārthaṃ bāhyataḥ kuḍyam iṣṭapaṅktiṣu kalpayet*, *Rau* 40.19b); the same text, using *aṃśa* instead of *paṅkti* to designate the bays, adds "a *maṇḍapa* may be accessible from all sides or, equally, it may have a wall in the bays desired or a wall (all around)" (*saveśaṃ paritaḥ kuḍyam iṣṭāṃśe kuḍyam eva vā*, *Rau* 40.23b). The *Ajita* simply indicates the manner in which the thickness of the wall and the projection of the pilasters applied on it (§ 3.17) are to be calculated. Aside from the dimensions, the pillars of the *maṇḍapa* should "conform to the rules prescribed for pillars in the chapter devoted to *prāsāda*" (*Aj* 37.7) and they therefore correspond to the type we have already described (§ 3.22). The *Ajita* merely points out that they must all be provided with a bracket-capital (*bodhikā*, *Aj* 37.29–30; § 3.21). Finally we may suppose, although it is not stated, that the pillars are most often in wood. The number of pillars visible on each face of the *pādavarga* is determined by the dimensions of that face given in "units" (*paṅkti*, *aṃśa*), defined as being the distance between two neighbouring pillars situated on one

and the same line, which distance must be constant for a given *maṇḍapa* (§ 2.3). If the width of a pavillion is three units then four pillars will be visible on the face of the *pādavarga* which corresponds to this width: two corner pillars and two intermediate ones. If the pavilion is square and thus, as above, with a width of three units, the total number of the pillars which support the roof will be sixteen of which twelve will be peripheral and four interior. In the same way a pavilion five units square is to consist of a total of thirty-six pillars: four central pillars surrounded by twelve interior pillars, themselves surrounded by twenty peripheral pillars (for the other square pavilions and for the rectangular pavilions see below §§ 4.19 sq.). Most of the pavilions utilized in the ceremonies described in our texts have at their centre a platform (*vedikā*) and, so that it can be installed, the four central pillars may be omitted which means that a square pavilion three units wide should not consist of more than twelve peripheral pillars, and as well that a square pavilion five units wide should not consist of more than thirty-two pillars: twelve interior pillars and twenty peripheral ones. In the *Ajita* we read that the sacrificial pavilion (*yāgamaṇḍapa*, § 4.25) is square, that each side is of three units and that it consists of sixteen or twelve pillars (*Aj* 27.150–153), or else that "the three types of (square) pavilions (intended for the installation ceremony of the images) consist of thirty-six pillars but that the sage priest can omit the four central pillars in order to lay the platform" (*ṣaṭtriṃśatstambhasaṃyukte prokte'smin maṇḍape traye| varjayed deśiko dhīmān madhye stambhacatuṣṭayam|| vedyartham athavā . . . Aj* 40.7–8a). This arrangement is possible for practically all sizes of pavilions (see below § 4.20...) but the omission of the central pillars results in there being in the middle of the *maṇḍapa* an actual intercolumniation of three units which obviously presents a problem with reference to the roofing of that part of the edifice.

§ 4.18. We shall not deal here again with the entablature proper (*prastara*, *mañca*, § 3.23) except to recall that it is not mentioned at all in the descriptions of specific *maṇḍapa*. The roof of the *maṇḍapa* is, as we know, at the same height as this

entablature and is one with the ceiling (§ 3.24). We have seen (ibid.) that, according to the *Ajita*, it comprises three layers of wooden pieces (beams joists and small joists) and a layer of bricks. It is therefore a weighty structure which must be supported by pillars fairly close together if sagging of the architraves (*uttara*) is to be avoided; this probably explains why, in absolute value, the unit (*paṅkti*) does not exceed five cubits (§ 2.3) and at the same time it makes us wonder how the roofing of the pavilions, the central part of which has an actual intercolumniation of three units, is achieved. In the *Ajita*, the absence of any reference to the roofing, aside from the description of the heavy structure mentioned above, prevents us from knowing how the author of the text envisages this covering. Moreover, it is possible that we should consider the type of roofing described as being mainly theoretical and that the *maṇḍapa* without central pillars are covered just with palms which gives much more leeway as regards the choice of the span of the architraves. The *Rauravа* is more explicit; devoted to the general characteristics of the *maṇḍapa* chapter 40 gives a description of the pavilion, the central pillars of which are absent, and mentions the presence of a *kūṭa* found at the centre of the pavilion. The width of this *kūṭa*, when indicated, is equal to three units, that is to the width of the space made free at the centre by the omission of four pillars. Thus, for example, the square pavilion nine units wide can consist of a hundred pillars or just ninety-six if it has, at its centre, a *kūṭa* three units in width (*Rau* 40.13, literally "a *kūṭa* occupying nine parts of the surface", see § 2.3). This description is of interest when read with a parallel one according to which the *snapanamaṇḍapa* (§ 4.30) has ninety-six pillars and comprises at its centre "a roof surmounted by a finial and three units wide" (*Rau* 24.3: *madhye tantu navāṃśaṃ syāt stūpyārohitaśīrṣakam*) or according to the reading of one of the manuscripts "a roof mounted upon rafters and three units wide" (. . . *lupārohitaśīrṣakam*, *ibid.* crit. note), which is still more typical. If we accept the evident parallel between the two descriptions the *kūṭa* appears as a sort of lantern covered by a roof with two or four slopes. This type of covering allows for a span greater than that of the flat

roofs. The lantern is probably to rest on the twelve pillars which surround the space cleared in the centre. As we shall see, this lantern also exists in the case of certain rectangular pavilions without ever being more than three units wide (§ 4.21). Regarding the square pavilions, the *Raurava* mentions here too the presence of a lantern with reference to certain pavilions whose network of pillars is complete. Thus the pavilion five units wide with thirty-six pillars may be *sarvamaṇḍita* (below) or it may have a central *kūṭa* one unit wide or a *kūṭa* three units wide (*Rau* 40.10–11): in the first case the *kūṭa* rests on the four central pillars and, in the second, on the twelve pillars which surround them. It may be supposed that, in this type of pavilion, the point of the lantern is to elevate the roofing at the centre of the *maṇḍapa* in order to install there a canopy (*vitāna*) for example. As we have just seen, the *maṇḍapa* with thirty-six pillars and without lantern is described as *sarvamaṇḍita* (*Rau* 40.11a) and this term, as well as others related to it, is found in other descriptions. Thus the pavilion with sixty-four pillars and without a lantern is *maṇḍita* (*Rau* 40.12a); that with one hundred pillars and without *kūṭa* is *maṇḍa* (*ibid.* 13a); in the same way the rectangular pavilion with eighty pillars and without a lantern is *maṇḍita* (*ibid.* 17a) but its counterpart has seventy-two pillars and a lantern and is described as having a lantern at its centre and a *maṇḍya* all around it (*Rau* 40.18a: *anyāvṛtaṃ maṇḍyam antaḥ pakṣāṃśakūṭakam*, see below § 4.21 type II). We consider that this last quotation demonstrates clearly the opposition which exists between the structures qualified by terms such as *maṇḍita* and the *kūṭa*/lantern, the first being connected with the flat roofing which is normally that of *maṇḍapa*. It remains to be known what relation the word *maṇḍapa* may have with the terms *maṇḍita*, *maṇḍya* and *maṇḍa* which is another problem altogether. We know the traditional etymology of *maṇḍapa* as it appears, for instance, in the *Mayamata* (25.26a: *maṇḍaṃ subhūṣaṇaṃ taṃ pātīti maṇḍapam iṣyate*, see other references in our edition) and the different interpretations of it, according to whether one takes *maṇḍa* to mean "ornament" or "platform" (see the details in Mayrhofer, *sv maṇḍapa*). We know, however, that *maṇḍa* also means "head"

and we wonder if, in the particular case which interests us, it is not this that should be understood from the use of *maṇḍa* (*maṇḍita*, *maṇḍya*) since it would thereby stress the fact that the (flat) roofing is the "head" of the *maṇḍapa* in the same way as the *śikhara* is the "head" (*śīrṣa*, *śiras*) of a *prāsāda* or of a *gopura* This is an hypothesis and we might equally take it that the flat roof is like the "cream" (*maṇḍa*) on top of milk. Lastly, we recall that it is not impossible that the different terms about which we have been speaking are to be related to the name of the abacus (*maṇḍi*) which may be placed above the bell-capital (§ 3.20).

§ 4.19. Pavilions may be square or rectangular but there is hardly a mention of the latter in our texts other than in the chapters dealing with general characteristics of the *maṇḍapa*. It is there that the *Ajita*, having stated that all the pavilions should be square (*Aj* 37.3a: *caturāśrāḥ samāḥ sarve maṇḍapāḥ parikīrtitāḥ*), gives nevertheless a rule for calculating the length (*mukhāyāma*) of pavilions based on their width (*Aj* 37.18; § 4.21) but in the rest of the text only one rectangular pavilion is mentioned, the *ḍolāmaṇḍapa* (*Aj* 28.63; § 4.31). The *Raurava* which gives different methods for calculating the proportions of rectangular pavilions (*Rau* 40.4–5a, 14sqq; § 4.21) adds that square pavilions are intended for *snapana* rites and rectangular ones for the clothing of the images (*Rau* 40.20a: *samāśraṃ snapanārthaṃ tu pariveṣārtham āyatam*) but the only rectangular pavilion mentioned in the rest of the text is a *snapanamaṇḍapa* (*Rau* 24.2–3; § 4.30); as for the pavilions where the clothing of the gods is performed (*āsthānamaṇḍapa* § 4.23) they are never described. . . Whether the pavilions are square or rectangular is determined, as has been seen, by the number of units (*paṅkti*, *aṃśa*) which make up their width and, should the case arise, their length, as well as by the number of their pillars and by the possible presence of a central lantern (*kūṭa*).

§ 4.20. The width of square pavilions is always expressed by an odd number of units -one, three, five, seven or nine- and that of their pillars, consequently, always by even numbers,

from four to one hundred. The different types presented in our texts are as follows:

I. Pavilion one unit wide: this very simple edifice which we may call a "kiosk" has only four corner pillars; it is mentioned in the *Ajita* which calls it *śrīkara* (*Aj* 37.10a).

II. Pavilion three units wide: this is the most widespread model and the *Ajita* calls it *śrībhadra* (37.10b); as we have seen there are two types (§ 4.17), one with sixteen pillars (*Aj* 37.10b; *Rau* 40.9) and the other with twelve pillars (*Aj* 37.11a). The sixteen pillar type is mainly used for serving in the ceremonies of installation (below §§ 4.25 sq.) and also as a sacrificial pavilion (*yāgamaṇḍapa*) for the *mahotsava* (*Aj* 27.151; *Rau* 18.60; § 4.24). The twelve pillar type is only mentioned as a sacrificial pavilion for the *mahotsava* (*Aj* 27.151; § 4.24) and as a *snapanamaṇḍapa* (*Aj* 29.13).

III. Pavilion five units wide: according to the *Raurava* which does not say how this model is used, there are three types all of which appear to have thirty-six pillars (*Rau* 40.10–11a). The first is *sarvamaṇḍita* and probably has a completely flat roof; the second has a lantern (*kūṭa*) which rests on the four central pillars and the third a lantern resting on sixteen pillars (above § 4.18). According to the *Ajita* there are two types (*Aj* 37.12b–13a): one has thirty-six pillars and is called *śrīviśāla*; no example of its use is given. The other type has thirty-two pillars and is called *śrībhoga*; it can serve for the installation of images of more than five cubits (*Aj* 40.4 sq and § 4.27) and of Liṅga of medium size (*Aj* 18.38; § 4.26).

IV. Pavilion seven units wide: there are two types, called *śrīkūṭa* by the *Ajita*. One has sixty-four pillars (the *Raurava* says it is *maṇḍita*), the other has sixty pillars and a central lantern (*Rau* 40.11b–12b[1] and *Aj* 37.13b–14a). According to the *Ajita* the first type can serve as a *snapanamaṇḍapa* (§ 4.30) and the second as a pavilion for installation of Liṅga of large size (§ 4.26).

V. Pavilion nine units wide: we have seen (§ 4.18) that, according to *Raurava* (40.12b–13) they are of two types: the one with a hundred pillars is a flat-roofed *maṇḍapa* and the other, with ninety-six pillars has a lantern which, as we have

seen, appears to be surmounted by a finial (*stūpi*) in the particular case of the *snapanamaṇḍapa* (*Rau* 25.2–3). The *Ajita* (37. 14b–17) calls it *maṇḍapa sarvatomukha* and, to the two types described in the *Raurava* it adds a third which would appear to have only seventy-six pillars, at least according to the description: "or else having left out the four central pillars we have twelve pillars around and we omit the twenty pillars (which are normally) exterior to these twelve pillars" (*athavā madhyame tyaktvā vedapādāṃs tu tad bahiḥ / ravipādayuto bāhye hīnaṃ viṃśatpādo'pi yaḥ*). The *Ajita* does not refer to the use of this *sarvatomukha maṇḍapa*.

§ 4.21. According to the *Ajita* (37.18–19) the plan of a rectangular pavilion is taken from that of the square pavilion of the same width and the length chosen should always be a whole number of *paṅkti* without being more than double the width. The possible omission of the central pillars should be made according to the same proportions. For example, we can say that, from a square pavilion three units wide provided with sixteen or twelve pillars can be obtained rectangular pavilions with the following proportions:

		number of pillars	
width	length	(with central pillars)	(without...)
3	4	20	14
do.	5	24	16
do.	6	28	18

The *Raurava* gives two procedures: according to the first which is analogous to that given by the *Ajita* the plan of a rectangular pavilion is taken from the square pavilion of the same width bearing in mind that the length should not be more than triple the width; the possible ratios are: 5/4, 6/4, 7/4, 8/4, 9/4, 10/4, 11/4 and 12/4 (*Rau* 40.4–5a, 21a). The second method uses for a basis two standard plans, one five units wide and seven long and the other seven units wide and nine long (*Rau* 40.14–19a). In both cases two solutions are envisaged according to whether or not the pavilion has at its centre a space covered by a lantern (*kūṭa*):

I. The standard pavilion five units wide and seven long has forty pillars if it has no lantern otherwise the lantern is three units wide and five long and there are only forty pillars. In both cases this type of pavilion includes, at the back, a *raṅga* (§ 3.36) three units wide and, at the front, a forepart (*agra-bhadra*, § 3.34) with a width or a projection of one unit. The length of this pavilion can be increased by two units at a time up to triple its width which gives the following possibilities:

		number of pillars	
width	length	without *kūṭa*	with *kūṭa*
5	7	48	40
do.	9	60	48
do.	11	72	56
do.	13	84	64
do.	15	96	72

II. The standard pavilion, eleven units wide and nine long has eighty pillars when it has no lantern and is then defined as *maṇḍita* (§ 4.18). Otherwise it has only seventy-two pillars and a lantern of three units by five as in the preceding case. It too includes a three unit *raṅga* at the back. Again as in the preceding case the length can be increased by two units at a time up to triple the width which gives the following possibilities:

		number of pillars	
width	length	without *kūṭa*	with *kūṭa*
7	9	80	72
do.	11	96	84
do.	13	112	96
do.	15	128	108
do.	17	144	120
do.	19	160	132
do.	21	176	144

§ 4.22. We have seen that the plan of a pavilion, as in the case of a *prāsāda*, can be modified by the addition of secondary

elements such as surrounding gallery or forepart (§ 3.34). The surrounding gallery (*vāra*) is, according to the *Ajita* (37.22–23) one unit wide which is to say that it has only one row of pillars parallel to the sides of the main body. These pillars have the same appearance as those of the *maṇḍapa* itself but their height should be less by one quarter or by one half and, moreover, it can be assumed that they rest directly on the ground and that they support the eaves of a leaning roof which takes its support from the main body. The foreparts are either *agrabhadra* one unit wide (or with one unit projection?) mentioned in connection with a rectangular pavilion (*Rau* 40.16b; § 4.21 type I) or *nirgama* which according to the *Ajita* (37.23–25) project by one unit and are three units wide and the number of which varies from one to four in ratio of one per face, as do those of access stairs and corresponding entrances. In this regard we recall that we have hardly any details about the doors of the pavilions which may often appear in the guise of simple arches of leaves and branches (*toraṇa* § 3.43); their number is sometimes given in connection with certain specific pavilions and is always four in this case (*Aj* 27.151; 18.48b); it is only in connection with the *maṇḍapa* for installation of the Liṅga that the *Ajita* specifies that the east and north doors should have widths related to the dimensions of the Liṅga (§ 4.26). In any case the *maṇḍapa* dealt with in our texts are generally open buildings with bases often of little elevation and it may be supposed that they are, nearly always, accessible from all sides. . . . In its general chapter on the *maṇḍapa* the *Raurava* describes the passage that may link two neighbouring pavilions (*Rau* 40.5b–8a) which it calls *antarāla* (*maṇḍapākhyadvayor antar antarālaṃ prakalpayet*) a term often used, as we know, to designate a covered passage linking the *mukhamaṇḍapa* to the *prāsāda* (§ 4.9). This *antarāla* may appear in the guise of a *maṇḍapa* or it may be *sāvakāśa*, an expression which would appear to correspond to an open-roofed passage; otherwise it may possibly have a lateral entrance or, equally, side walls broken by latticed windows (*jālaka*). Its width goes from one to nine cubits unless it is to be calculated in terms of the number of units of the

width of the *maṇḍapa*; the relation between the two dimensions however is not indicated. To the different types of foreparts mentioned above can be added, as we have seen, the *raṅga* which is found "at the back" of two rectangular pavilions (§§ 3.36 and 4.21). Lastly it may be remembered that aediculae of all types (*Rau* 40.20: *karṇakūṭādi*, "corner aediculae . . . etc") can adorn the facades of pavilions.

Specific types of pavilions

§ 4.23. The pavilions described in connection with specific rites are quite numerous; in particular are dealt with: sacrificial pavilions, pavilions for the ceremonies of installation of images and of the Liṅga and those intended for the bathing of images and of the Liṅga, *snapanamaṇḍapa*, *ḍolāmaṇḍapa*, and *maṇḍapa* constructed on the occasion of funerals. A certain number of others are however mentioned without any description at all and these we will enumerate here so as not to have to come back to them. Thus the *puṣpamaṇḍapa* ("pavilion for flowers") is mentioned as a possible place for the celebration of *ārātrika* (*Aj* 23.5) and it is probably the edifice called *puṣpaśālā* which is presented as a permanent annexe to the temple in the *Ajita* (38.45; see also § 5.10); the *dharmaśravaṇamaṇḍapa* where discourses are given is equally a permanent annexe to the temple (*Aj* 38.46; § 5.10). On the other hand we do not know if the "pavilion of the dance" (*nṛttamaṇḍapa*) mentioned by the *Raurava* (19.14) is built specially for the ceremony of the sacred dance (*śuddhanṛtta*, literally "pure dance") or whether it is a permanent edifice like the preceding ones. Lastly the *āsthānamaṇḍapa* is often mentioned (*Rau* 18.105; 26.34; *Aj* 22.58, 259,284 and 291): it is here that the portable images (*utsavamūrti*) are "clothed" and here that they are probably kept between festivals, when they are taken out in procession (hence the name "audience pavilion"). We here recall that this last pavilion is following a rectangular plan (§ 4.19).

Sacrificial pavilion

§ 4.24. The sacrificial pavilion is used for ceremonies including oblations (*homa*) and is characterized by the presence of a central platform (*vedikā*) surrounded by a variable number of firepits (*kuṇḍa*) of different forms (for descriptions of these firepits see *Raurava* chap.14 and *Ajita* 21.3–50). This pavilion is most often designated by the name *yāgamaṇḍapa* (*Aj* 27.149; 28.4; 38.49; *Rau* 17.7; 18.60,136) but we find as well *yāgagṛha* (°*geha*) (*Aj* 27.280,303; 28.44; 35.9; *Rau* 25.59), *yāgadhāman* (*Aj* 27.274,281), *yāgaśālā* (*Rau* 11.12) and naturally *maṇḍapa* (passim). This can be a permanent edifice in which case it is situated to the North-East of the temple of which it is an annexe (*Aj* 38.49; § 5.10); there is no description of it in either text, the *Raurava* limiting itself to saying that its internal disposition should be reversed when it is annexed to a temple facing West (*Rau* 11.12; § 4.7). It would appear, furthermore, that in this permanent pavilion are enacted the ceremonies of the offering of lights (*ārātrika*, *Aj* 23.4), of the plenary oblation (*pūrṇāhuti*, *Aj* 37.303; 28.44) or of the *aṅkurārpaṇa* (*Rau* 17.7). Certain ceremonies however necessitate the construction of a temporary sacrificial pavilion: for example the great annual festivals (*mahotsava*) or the ceremonies which accompany the installation of a Liṅga or an image. We shall return later to these pavilions for installation (§§ 4.25 sq). The chapters devoted to the *mahotsava* in our texts contain detailed descriptions of the sacrificial pavilions which are to be constructed as occasion demands (*Aj* 27.149 sq and *Rau* 16.80 sq). This *maṇḍapa* which, according to the *Raurava*, may also be a *prapā* (§ 4.14) should be built in the vicinity of the temple at any of the cardinal and intermediate directions except the West and South-West, according to *Raurava* or only to the North, North-East, South and South-East according to *Ajita*. It is square and its width is five, seven or nine cubits according to the *Raurava* and five, seven or ten according to *Ajita*; this width must be divided into three units (*paṅkti*) and there may be sixteen (*Aj* and *Rau*) or twelve pillars (*Aj*) and thus it corresponds to two possible types of three unit pavilions (§ 4.18 type II). The

height of its pillars is one third its width (*Aj* and *Rau*, literally "equal to one unit") and that of its base is one third or a quarter that of the pillars (*Rau*). Access is by four doors (*Aj*) each one of which has an arch (*toraṇa*, *Aj* and *Rau*) before it. Inside, it has a central platform (*vedikā*), the width of which is one third that of the *maṇḍapa* (*Aj* and *Rau*), its height being half its width (*Aj*) or one cubit (*Rau*) which is more or less as for a *maṇḍapa* five or seven units wide. This platform may, according to the *Raurava*, be elevated by a socle (*upavedikā*) two digits high and with a projection of three digits. The *vedikā* is intended to receive the pitchers into which the deities are invoked and its upper surface should be "smooth" as a mirror" (*Aj* 27.154). It is around this *vedikā* that the firepits for oblations are arranged. According to the *Ajita* there are nine firepits for important ceremonies, five for those of lesser importance and only one for the small ceremonies. The *Raurava* says only that there may be nine or five. When there are nine, a square (*caturaśra*, *vedāśra*) one should be placed at each of the cardinal points, a circular (*vṛtta*) one at each corner and a lotus-shaped one (*padmakuṇḍa*, *ambuja*°) between the one at the North-East and that at the East. The *Raurava* in addition makes it clear that the square firepits at the East and the South may be replaced by lotus-shaped ones. In order to obtain the disposition of five firepits it is sufficient to omit the circular ones at the corners and, according to the *Ajita* to place the lotus-shaped firepit at the North-East. Lastly when there is only one firepit it must be placed at one of the cardinal points. Apart from those sacrificial pavilions intended for the *mahotsava* there are as well those intended for the foundation ceremony of a sanctuary or for the ritual of atonement called *pavitrāropaṇa*. For the foundation ceremony (*Aj* 17.12–14) the pavilion is built in front of the temple under construction or to the South or the North. It is five, six or seven cubits wide and contains a platform (*vedikā*) surrounded by four square firepits unless there is only one which is then still square and situated at the East. For the *pavitrāropaṇa* (*Rau* 25.32–34) the square pavilion is built at the East or at the North-East of the temple; its platform elevated by a socle (*upavedikā*) should be

surrounded by five square or circular firepits arranged at the cardinal points and at the North-East.

Pavilions for ceremonies of installation

§ 4.25. Ceremonies of installation of the divine representations (Liṅga or images) and possibly (*Rau* Chap. 29) of their pedestals necessitate the construction of pavilions designated most of the times as *maṇḍapa* without other indications (*Aj* 42.6; 46.18, 38; 47.1; 48.14; *Rau* 28.27; 29.8; 30.13; 31.20; 37.23; 38.18). However we also find the expressions *adhivāsārthamaṇḍapa* (*Aj* 18.34), which refers to the preparatory rituals (*adhivāsa*) and *pratiṣṭhāmaṇḍapa* (*Aj* 40.39; *Rau* 36.15) or *sthāpanārthamaṇḍapa* (*Aj* 40.4); one may note that the *Ajita* appears to employ the two last expressions without reference to the precise definitions it gives for *pratiṣṭhā* and *sthāpana* (*Aj* 18.7 sq): *sthāpana* designates the actual setting in place of the Liṅga which is done with the help of the craftsman (*śilpin*) while the *pratiṣṭhā* is the ritual installation which is enacted with the help of the formula (*mantra*) of the god. These pavilions resemble to a great extent the sacrificial pavilions (*yāgamaṇḍapa*) and have, as those do, a central platform (*vedī*, *vedikā*) surrounded by firepits the number and the forms of which vary according to the deities as well as according to the texts. The ritual for the installation includes the "bathing" (*snāna*) of the deity which most often takes place in a separate pavilion or in a separate *prapā* (*snānamaṇḍapa*, *snānaprapā*, § 4.29) but the *Raurava* sometimes speaks of a location for this bathing (*snānavedī*, *snānaśvabhra*) inside the pavilion for installation itself (§ 4.28 types II,III,IV). According to the *Ajita* the dimensions and the number of pillars of these pavilions are related to the nature and the size of the representation to be installed there; according to the *Raurava*, these variations apply only to the dimensions and the *maṇḍapa* always has sixteen pillars. The interior arrangement too is slightly different in one text than in the other and we will therefore deal with these pavilions separately starting with those described by the *Ajita*.

§ 4.26. For the installation of the Liṅga the *Ajita* gives three types of square pavilions intended for the large, medium and small Liṅga (*Aj* 18.34 sq). Provided with a varying number of pillars these pavilions all have a base half a cubit high; the text says literally that "their ground has a height of one span" (*Aj* 18.45b: *maṇḍapānāṃ tu sarveṣāṃ tālamātrasthalocchrayam*). They have four doors each with an arch in front (*Aj* 18.48b) and it seems that the interior width of those doors which are situated at the North and at the East depends on the dimension (length? width?) of the Liṅga which is to be installed (*mānena niścite liṅge prāgudagdvāragarbhayoḥ| tānmānadviguṇaṃ vāpi triguṇaṃ vā caturguṇam| | hīnamadhyottamaṃ kuryāt . . . Aj* 18.44–45a). Their central platform (*vedī*, *vedikā*) is in brick, baked or unbaked, and is to be elevated by a socle (*upāna*, § 3.3) (*Aj* 18.46–47a). The bathing of the Liṅga always takes place in separate *snānamaṇḍapa* (§ 4.29). The specific characteristics of these three types of pavilions are as follows:

I. For the large Liṅga (*Aj* 18.34–38a) the pavilion is thirty-two cubits wide and fifteen spans high. Having a width of seven units (*paṅkti*) it only has sixty pillars (see §4.20 type IV with lantern) and the free space at its centre is occupied by a platform: its width is three sevenths that of the pavilions, its height is one cubit and that of its socle (*upāna*) four digits. This platform is encircled by two concentric series of firepits, the first, of nine which are square (East), in the form of a vulva (*yonikuṇḍa*) (South-East), a half-moon (South), triangular (South-West), circular (West), hexagonal (North-West), lotiform (North), octagonal (North-East) and again circular (between north-east and east firepits); the second series comprises twenty-four square firepits. The doors situated in the North and in the East have a width equal to four times that of the Liṅga (see above).

II. For the Liṅga of medium size the pavilion (*Aj* 18.34–38a) is fifteen cubits wide with a height of nine spans. It has only thirty-two pillars and therefore conforms with the type *śrībhoga* (§ 4.20, type III). The space freed by the omission of the four central pillars is occupied by a platform five cubits

wide (that is one third of the width of the *maṇḍapa*), three spans high (hence of greater elevation than in the preceding case) and supported by a socle three digits high. It is surrounded by sixteen firepits arranged in only one circle: eight of these are placed at the cardinal and intermediate directions as above and they are separated one from another by eight circular firepits. The doors at the North and East are triple the width of the Liṅga.

III. For the small Liṅga the pavilion is ten cubits wide and five high and it has sixteen pillars (§ 4.20, type II). The width of the platform is one third that of the pavilion itself and its height is two spans whilst that of its socle is two digits. The nine surrounding firepits are arranged in the same way as the first series of type I. The doors at the North and at the South are twice as wide as the Liṅga.

§ 4.27. It is only of those *maṇḍapa* for the installation of the image which represents Śiva alone (*kevala*) that the *Ajita* gives a complete description (*Aj* 40.4 and following), however, apart from the number and the arrangement of the firepits this description is valid for all the deities and the text only indicates thereafter that a pavilion is "as above" (*pūrvavat*) and otherwise discusses only the firepits. According to the general description this pavilion must be erected to the East, North, South or North-East of the temple where the deity is to be installed. It is six cubits high and the height of its base is half a cubit (§ 4.16) whatever may be the width of the pavilion or the number of its pillars. The central platform is, likewise, always one cubit high. Where the statues are ten cubits tall the pavilion is twenty-five or fifteen cubits wide and includes thirty-two pillars (§ 4.20, type III *śrībhoga*). The arrangement is the same for statues of five cubits except that the width is then sixteen or fifteen cubits. For the small images the pavilion is twelve, seven or five cubits wide though there are always sixteen pillars (§ 4.20, type II). The rite of bathing the deity always takes place in a separate building (§ 4.29). As has been seen the arrangement of the firepits follows a specific rule for each deity as follows:

I. When Śiva is alone (*kevala*) (*Aj* 40.10–12a) there are nine firepits arranged like those for the installation of the small Liṅga (§ 4.26, type III) and this arrangement is also suitable for the composite images of Harihara (*Aj* 44.26) and of Ardhanārī (*Aj* 45.12 and 21) as well as when Śiva is represented in the company of Brahmā and Viṣṇu (*Aj* 42.6).

II. When Śiva is with Umā (*sāmbika*) (*Aj* 41.26b–27) there should be a vulva-form firepit (*yonikuṇḍa*) at each corner of the platform. It would seem that these four firepits are additional to the nine for Śiva alone but the description of the oblation which follows (*Aj* 41.36 sq) is very confused and it is possible that these *yonikuṇḍa* replace the firepits in the forms of vulva, triangle, hexagon and octagon which are found at the corners of the preceding arrangement.

III. For Vṛṣendra, principal Attendant of Śiva (*Aj* 46.19), there are five firepits which are square (East), half moon (South), circular (West), triangular (North) and lotiform (North-East). This arrangement is equally suitable for the installation of Brahmā (*Aj* 47.2).

IV. For the Mātṛkā (*Aj* 48.12–14) there should be nine firepits: square (East), circular (North-East), lotiform (between North-East and East) and vulva-form (everywhere else that is: South-East, South, South-West, West, North-West and North).

V. For Vināyaka (*Aj* 49.17–20) there are two possible arrangements depending on whether the oblation is made in nine firepits or only in five. In the first case the firepits at the cardinal points starting from the East are, respectively square, semi-circular (literally "like a bow", *dhanur*), circular and triangular; those of the intermediate directions (South-East . . .) are all square and the "principal" firepit (*pradhāna*) is lotiform and is between that of the North-East and that of the East. In the second case there are no square firepits at the intermediate directions and the lotiform principal firepit is at the North-East.

VI. For Skanda arrangements are the same except that the principal firepit is hexagonal instead of lotus-form (*Aj* 50.15–16 and 43 sq.).

VII. For Caṇḍeśa (*Aj* 51.8–10) two arrangements again are possible. When there are nine firepits those at the cardinal points are square and those at the intermediate directions, as well as the principal firepit (between North-East and East), are circular. When the oblation is five-fold there are no circular firepits at the intermediate points and the principal one which is circular is at the North-East.

VIII. For Jyeṣṭhā the principal firepit is in the form of a vulva (*Aj* 52.11a); there should be four others (*Aj* 52.10 is a hypothetical reconstruction but see *ibidem* 23 and following).

IX. For Durgā (*Aj* 53.18b–20) there are nine firepits. Those at the cardinal points are square, those at the intermediate directions vulva-form and the principal firepit (between North-East and East) is lotus-form.

X. For Sūrya (*Aj* 54.13–15) there are nine firepits: eight square at the cardinal and intermediate points and one lotiform between the North-East and the East or there are only five firepits, square at the cardinal points and lotiform at the North-East.

§ 4.28. As indicated above, all the "pavilions for installation" described in the *Raurava* are edifices with sixteen pillars (§ 4.20, type III). The width of the central platform is always one third that of the *maṇḍapa* and its height is generally one cubit; this platform rests most often on a socle (*upavedikā*) and its upper face "is to be covered by a layer of red earth, smooth as a mirror". (*Rau* 27.29b). Besides the platform and the firepits surrounding it, the *maṇḍapa* sometimes encloses the place for the bathing of the statue (*snānavedī*). Although a certain number of *maṇḍapa* are described in detail, more or less, we note that the text is sometimes content to indicate that the ceremony of installation takes place in a pavilion without giving more detail (installation of images of Śiva, *Rau* 35.293, or of that of Viṣṇu, *Rau* 36.15).

I. For the installation of the Liṅga (*Rau* 27.27 sq.), the *maṇḍapa*, built in front of the temple should be from seven to fifteen cubits wide which gives nine possibilities corresponding to nine sizes of Liṅga (*Rau* 27.3–4). The platform resting on a

socle (*upavedikā*) two digits high and with a projection of five digits, is surrounded by five firepits which are: square (East), semi-circular (South), circular (West), triangular (North) and lotiform (North-East) unless they are all square. The arrangement is the same for the provisional Liṅga (*bālaliṅga*, *Rau* 27.12b–15; § 4.37) but substitution by square firepits is not envisaged. The bathing of the Liṅga takes place in a separate *snānaprapā* (§ 4.29).

II. In the particular case of commemorative Liṅga (*kṣetra-liṅga*) (*Rau* 30.13–15) the pavilion which can also be a *prapā* (§ 4.14) is nine cubits wide and its central platform (there is no mention of the *upavedikā*) has only four firepits at the cardinal points; these are all square. In addition there is a secondary platform to the North of the main one; it is one cubit wide and intended for the bathing of the Liṅga (*snānavedī*).

III. In the *maṇḍapa* for the installation of the pedestal (*pīṭha*, *piṇḍikā*) of the Liṅga (*Rau* 29.8–20a) the platform placed on a socle should be surrounded by five vulva-form firepits at the cardinal points and at the North-East. The *snānavedī* is at the North as in the preceding case. This pavilion is to be constructed to the East, to the North-East or to the North of the temple.

IV. The *maṇḍapa* for the installation of Gaurī is the only pavilion for installation of an image of which a fairly detailed description is given (*Rau* 31.18–23). It may be a *maṇḍapa* proper or a *kūṭa* or again a *prapā* (§ 4.14) and it is to be constructed in front of the temple of the God or of the Goddess. Its width is seven, eight or nine cubits; its doors (*or* door) are surmounted by decorative arches (*toraṇa*, § 3.45). Its platform, which is placed on a socle two digits high and with a three digit projection, is surrounded by five lotus or vulva-form firepits arranged at the cardinal points and at the North-East. The northern part of this pavilion encloses a pit for the bathing of the image (*snānaśvabhra*); the width of this pit is triple that of the pedestal of the image to be installed and it is encircled by three (or by two or only one) levels of steps (*mekhalā*, literally "belt") made of earth; through these steps is bored a duct (*nāla*) at the north face with a spout (*jalādhāra*) at both ends.

V. For Mohinī (*Rau* 37.23–24a) and Nāgarāja (*Rau* 38.18b–19) the descriptions are much more summary. The number of pillars is not indicated but, considering the dimensions we may assume that there are sixteen as in all other cases. For Mohinī the pavilion is nine cubits wide and its platform, placed on a socle, has circular firepits at the cardinal points. For Nāgarāja the pavilion is only seven cubits wide and a sole firepit should be placed at the East of the platform.

VI. For the images representing Someśvara the text limits itself to indicating that a two cubit wide platform with a height one third of this width should be placed in a *maṇḍapa* in front of the temple; this platform rests on a socle. There is a circular firepit in the East and a vulva-form one in the North-East (*Rau* 31.20–21). We may wonder whether, in this particular case, the *maṇḍapa* is not simply the *mukhamaṇḍapa* of the temple for, in fact, it is not the construction of the edifice itself which is dealt with but only the making of the platform (*maṇḍape cālayāgre tu madhye vedīṃ prakalpayet*/*Rau* 34.20a).

Pavilions for the bathing of the gods and for rites in water

§ 4.29. The ceremony for the installation of Liṅga and of images includes a bath (*snāna*) given to the god either inside the *maṇḍapa* for installation as we have seen above, or in a separate building. According to the *Ajita* this building is a *maṇḍapa*, the *snānamaṇḍapa* (*Aj* 18.99; 40.39; 41.28; 42.7; 45.12; 46.16; 47.10; 49.28; 50.17,30; 51.21; 54.30); it is to be set up at the North-East of the pavilion for installation (*pratiṣṭhāmaṇḍapa*) and its width should be equal to that of the central platform of this pavilion (*Aj* 40.39–40). At the centre of the *snānamaṇḍapa* there is a platform (*vedī*, *snānavedikā*) supporting a tank provided with a drainage duct (*nālāvaṭa*) (*Aj* 40.40; 47.10). According to the *Raurava* this building is a *prapā* (*Rau* 28.34; 29.7) at the centre of which is a pit (*śvabhra*) one cubit wide and encircled by three levels of steps (*mekhalā*) with a duct (*nāla*) at the North (*Rau* 28.35; see also above § 4.28 IV). The preparatory rite in water (*jalādhivāsa*) which is equally part of the ceremony of installation takes place on

the bank of a river or of any stretch of water, of a *tirthā* in short, and it necessitates the construction of a *prapā* above the Liṅga (*Aj* 18.97; 28.93; *Rau* 28.26; 29,7; § 4.14); we have seen that this light building rises without base directly from the ground; according to the *Raurava* (29.7) it has four pillars.

§ 4.30. The *snapana* ceremony is a ceremony of propitiation intended to "avoid an untimely death, to calm ills and fears, to atone for faults . . . etc." (*Aj* 29.1 sq.). It consists of mentally "bathing" Śiva and his entourage in a series of pitchers containing diverse liquids and substances. The ceremony is as meritorious as the pitchers are numerous but the possible numbers vary slightly from one text to the other (on this subject see *Raurava* vol.I p. 145 and following). In our texts the numbers go from four to one thousand and eight in the *Ajita* (29.20 and following) and from nine to one thousand and nine in the *Raurava* (Chap. 20 to 24). The pitchers are arranged according to well-determined diagrams (see the drawings given by N. R. Bhatt in his two editions) and these diagrams are to be drawn in front of the temple whether or not inside a *maṇḍapa* (*Aj* 29.16). This *snapanamaṇḍapa* is dealt with in a slightly different way in each of our texts and we shall therefore look at it in them separately. According to the *Ajita* (29.12–16) there are three types of *snapanamaṇḍapa* suitable for the large, medium and small *snapana*. For the large *snapana* with 1008, 508 or 216 pitchers (*Aj* 29.20–21a), the square pavilion is thirteen cubits wide and has sixty-four pillars which is to say that it conforms to the *śrīkūṭa* type (§ 4.20 type IV). Its pillars should be eleven spans high and its base should be only sixteen digits high which is very little in view of the proportions prescribed for the pavilions in general in the chapter devoted to them (§ 4.16). For the medium *snapana* with 108,48 or 24 pitchers the pavilion should be only seven cubits wide and for the small ones with 16,8 or 4 pitchers, only five; in both cases there are only twelve pillars (see § 4.20, type II without interior pillars) which are nine spans high and which are placed on a base sixteen digits high as in the preceding case. These three pavilions are to have a floor "smooth like a mirror"

and should be provided with four entrances with arches in front of them. The *Raurava* which mentions that the *snapana* with twenty-five and one hundred and eight pitchers are carried out in a *maṇḍapa* (*Rau* 21.1; 23.3) describes only that intended for the *snapaṇa* of one thousand and nine pitchers (*Rau* 24.2–3). There can be nine possible widths for this pavilion, from 15 to 23 cubits; it can be square or rectangular but must have ninety-six pillars and a central lantern surmounted by a finial and three parts wide (literally "occupying nine parts", see § 4.18). The square type obviously corresponds to what we have seen above (see § 4.20, type V) and, as far as the rectangular type is concerned, it may be a straightforward development of the square type but with an increase in the number of pillars or, alternatively it may be a pavilion seven units wide and thirteen long with ninety-six pillars (§ 4.21 type II).

Pavilion for the ceremony of the swing

§ 4.31. The "swinging" ceremony (*ḍolotsava*) is a propitiatory rite in the course of which the processional images (*utsava-mūrti*) of the god to be celebrated (*utsaveśvara*) and his consort are placed on a swing set in a *maṇḍapa* (*Aj* chap.28). The *Ajita* which speaks of this ceremony, describes at one and the same time the pavilion itself and the interior frame intended to support the swing (*Aj* 28.63–79) and this description ends confusedly. To give an example, the word *stambha* indicates in turn the pillars of the *maṇḍapa* and the smaller ones which serve as jambs for the frame. The *maṇḍapa* is rectangular; its length is not indicated (§ 4.21) but its width may be two, eight or fourteen cubits or it may be three, nine or fifteen (*Aj* 28.63–64a). It has a base (*dharātala*, *adhiṣṭhāna*) elevated by a socle (*upapīṭha*). On this base are found, in the first place, the pillars of the *maṇḍapa* itself (their number is not indicated) and, in the second, the jambs of the frame (the height of which is different, see below). This *maṇḍapa* is *prapālaṅkṛta* (*Aj* 28.68a) which would seem to indicate that it is provided with a light roofing

(§ 4.14). The two jambs of the frame (*ḍolāstambha*) are connected by a crossbeam (*uttara*, see as well § 3.23) above which is an arch (*toraṇa*) the top of which corresponds with those of the pillars of the *maṇḍapa*. The gable (*nāsikā*) of this arch is decorated with *vyāla* and with *haṃsa* (*Aj* 28.69a). Lastly, the swing itself (*ḍolā*) has a seat made of a plank (*phalaka*) provided with rings (*valaya*) to which are attached chains (*śṛṅkhalā*) for suspension. The vertical proportions of the *maṇḍapa* and of the frame are given on the basis of the height of the base which should be equal to a quarter of the width of the edifice (*Aj* 28.64b). Thus the height of the socle (*upapīṭha*) is equal to that of the base or is smaller by a quarter and that of the pillars of the *maṇḍapa* is three times that of the base. The jambs of the frame have a height equal to five thirds that of the base, the crossbeam (*uttara*) making up one third of it and the arch being the same height as the base (literally: "is equal to three fifths of the jambs" *Aj* 28.65–68). These different proportions can be summarized in the following table where, for the sake of clarity, it is to be understood that the total height is divided into fifteen parts (or into fourteen and three quarter parts according to the height of the *upapīṭha*):

pavilion		frame	
		toraṇa	3
stambha	9	*uttara*	1
		ḍolāstambha	5
		adhiṣṭhāna	3
		upapīṭha	3 (*or* 2¾)

To conclude, we note that the text specifies that the jambs of the frame should be slightly tapering; their width at the base is one eighth of their height and this width should be reduced at the top by a tenth (*Aj* 28.67, see also *Aj* 37.5 and above § 3.17).

Pavilion for funeral rites

§ 4.32. There is only a brief description of the pavilion for funeral rites and that only in the *Raurava* (46.23–31). It is a large square pavilion thirty-six cubits wide and constructed at the cremation ground (*śmaśāna*) when the body is carried there. There is a firepit (or several?) at the centre of the edifice as well as two altars (*vedī* or *vedikā*) placed in the North-West and the North-East at a distance of one cubit from the firepit. The site of the funeral pyre (*citāsthāna*) is found to the South-East of the firepit. The altars are square and are eight digits wide at the North-West and seven digits wide at the North-East. The site for the funeral pyre is rectangular and measures four cubits by two cubits and eight digits. In the course of the description of the pavilion there is only one firepit of which it is said that the width is one cubit and that it is encircled by one level of steps (*mekhalā*) eight digits wide and four high (*Rau* 46.26–27); its form is not indicated but, on the other hand, in the description of the oblation (*Rau* 46.99 and following) there are, in the first place, firepits in different forms which can be related to oblations made with specific intentions and, in the second, "four firepits found at the four corners" (*Rau* 46.106a, no precise indications given as to their form). It would seem that the different forms prescribed must be those possible for the central *kuṇḍa* but we do not know if the four firepits dealt with next can be substituted for that at the centre or should simply surround it. The forms prescribed for the central(?) *kuṇḍa* are hexagon, circle, lotus, triangle, vulva and square (*Rau* 46.100–105).

GOPURA

§ 4.33. The gateways intended for crossing the enclosure walls (*prākāra*, §§ 5.5 sq.) which surround the temple are very cursorily described in the *Ajita* (38.31–42) as they are in the *Raurava* which devotes only one five verse chapter to them (chap. 42). Both texts are much more concerned with the presentation of the dimensions of these edifices than with their

architectural characteristics. We know that a temple may have up to five enclosures, always numbered from the centre (§ 5.5). According to the *Ajita* the first has only one entrance situated in front of the door of the temple itself whilst the others have two of them, situated on the axis of the temple at the front and at the back or they have four at the cardinal points (*Aj* 38.29–30). The same text goes on to say that these entrances may appear in the form of a gateway or of a simple gate (*Aj* 38.31: *gopuraṃ syāt pratidvāraṃ kevalaṃ dvāram eva vā*). For designating in general fashion the gateways the only term that appears in our texts, apart from *gopura* is *dvārāyatana* ("building of the door" *Rau* 26.6). *Gopura* is an ambiguous term which may refer as much to gateways in general as to those proper to particular enclosure walls or, to those of a definite architectural type (by the expressions *gopurākāra* or *gopurākṛti*, below § 4.35). There are in fact some specific terms, for giving precise indications about the gateway corresponding to each one of the five enclosures; in parallel texts these are generally as follows: *śobhā* (or *dvāraśobhā*) for the gateway of the first enclosure, *śālā* (or *dvāraśālā*) for that of the second, *prāsāda* (or *dvāraprāsāda*) for that of the third, *harmya* (or *dvāraharmya*) for that of the fourth and *gopura* (or *dvāragopura*) for that of the fifth (see *Mayamata*, vol. I p. 570 n. 5). The *Raurava* does not make use of these terms in the chapter devoted to gateways where they are designated collectively by *gopura*, but this series appears incidentally in the same text in connection with *dvārapāla*, the statues of which should be placed "on both sides of the doors (of the gateways) of which the first is *śobhā* and the last *gopura*" (*Rau* 32.2: *śobhādigopurānteṣu dvārasyaiva tu pārśvayoḥ*). The *Ajita* employs different nomenclature in that it calls the gateway of the first enclosure *dvāragopura*, that of the fifth *mahāgopura* and the remaining three *gopura* (*Aj* 38.32–36) which does not prevent its using *gopura* in the general sense (see for example *Aj* 38.31 quoted above) nor from adding that the gateways of the first and fifth enclosures, that is the *dvāragopura* and the *mahāgopura*, are "in the form of *gopura*" whereas the others may be "in the form of *harmya*" (*Aj* 38.39–40a; *teṣu pañcamam ādyaṃ ca gopurākāram ucyate/śeṣeṣu harmyavad*

vāpi . . . ; see below 4.35). We shall see that this multiplicity of meanings for *gopura* can sometimes create problems when positions are given in relation to the "*gopura*" without more precise indications (§ 5.11). We should point out that it seems, generally speaking, that this "*gopura*" is the gateway of the sanctuary (*bhavana*, § 4.2) which is to say that it is found on the outermost enclosure wall which constitutes the peribolos whatever the total number of enclosure walls may be (§ 5.5). This equation of *gopura* with the entrance of the sanctuary matches up with the definition of *gopura* as the gateway of the fifth enclosure (above) taking into consideration the use of the term in non-religious architecture to designate for example, the fortified gate of a town or of a palace.

§ 4.34. According to the *Raurava* the dimensions of the gateways are calculated from the width of the main temple of the sanctuary (*mūlaprāsāda*): the width of the gateways is always equal to that of the temple and their length increases as one moves from the centre of the sanctuary. Their height is equal to their length or double their width (*Rau* 41.2–3). These different proportions are summarized in the following table, taking as the unit the width of the temple:

	1st encl.	2nd encl.	3rd encl.	4th encl.	5th encl.
wide	1	1	1	1	1
length	1¼	1½	1¾	2	2
height	1¼ or 2	1½ or 2	1¾ or 2	2	2

The system of proportions given by the *Ajita* is less coherent (*Aj* 38.31–39) and this text provides only a horizontal dimension expressed in cubits and the height, determined from the dimensions of the *prāsāda*. The horizontal dimension, called *vistāra*, is three, five or seven cubits for the gateway of the first enclosure, five, seven or nine for the second, seven, nine or eleven for the third, nine, eleven or thirteen for the fourth and eleven, thirteen or fifteen for the fifth. *Vistāra* normally designates the width but, by analogy with the indications given by the *Raurava* it may be supposed as well that these increasing dimensions correspond rather to the length of the gateways.

In any case, it is small dimensions that are dealt with there and these are scarcely suitable for anything other than gateways of "small" *prāsāda*, those whose width does not go beyond ten cubits (§ 4.4) and which are almost the only ones which the *Ajita* describes in any detail (§§ 4.3 sq.). According to the *Ajita* there are two methods for calculating the height of the gateways (*Aj* 38.38–39); by the first that height is equal to the total height of the *prāsāda* or to that of its roof which is to say to the total height reduced by the height of the finial. By the second method the reference unit is the width of the *prāsāda* and the gateways have a height equal to one and a half times, one and three quarter times or twice this width. There are no references to the application of any particular proportion to a gateway situated on a specified enclosure wall.

§ 4.35. As we have seen, neither text gives a significant architectural description of the gateways and we have seen too that the *Ajita* states that the gateways may be "in the form of *gopura*" or "in the form of *harmya*" (*Aj* 38.39–40; § 4.33). The first expression (*gopurākāra*) does not give us much information but we may note that an analogous expression (*gopurākṛti*) is used to define the appearance of the chapel of the Seven Mothers which is twice as long as it is wide (*Aj* 29.12–13 and below § 5.14). The other expression used (*harmyavad*) is open to two different interpretations according to the sense in which we take *harmya*: if we consider it purely and simply as a synonym of *prāsāda* (§ 4.2) we may understand that the gateways in question, those of the intermediate enclosures, may have the same appearance as the temple. We know however that *harmya* can equally be employed to designate a particular kind of roof and that the term carries this sense in the *Raurava* precisely in relation to the roof of the gateways (§ 3.29). If we accept that interpretation it is then understood that these edifices have a flat roof. The only precise detail given by the *Ajita* with reference to gateways concerns their doors and, as we have seen these are chariot doors or portes cocheres which go up between the plinth (*upāna*) of the base and the architrave (*uttara*) of the entablature (§ 3.37). Turning to the *Raurava* we

find that the information given is hardly more precise. From it we do learn, however, that the gateways are rectangular (*Rau* 42.1–2) and that they may have one or several storeys, that their roof may assume diverse appearances (*Rau* 42.3–5) and that it may have one (or several?) finials (*Rau* 26.20 and §3.30). We shall not return to the subject of the roofs (§ 3.29) but as far as the number of storeys is concerned we note that it is associated with that of the storeys of the principal temple in a sentence the precise meaning of which eludes us (*Rau* 42.3a: *eko vānekabhūmir vā gaṇyādīn ṣadanoktavat*); it may perhaps be understood that the number and proportions of the storeys follow the same rules as do those of the *prāsāda*.

MĀLIKĀ

§ 4.36. *Mālikā* are hypostyle buildings which may be constructed against the interior face of an enclosure wall (*prākāra*) thus constituting a sort of cloister gallery. They are intended to house images of the Attendants when those are placed against the enclosure walls (§ 5.13), as well as certain offices of the temple which, as the *Ajita* says, are "set against the enclosure walls" (*prākārāśrita*, *Aj* 38.43; below § 5.9). According to the *Ajita* (38.25–27) these galleries may have one or two storeys and they have one, two or three rows of pillars parallel to the enclosure wall (*Aj* 38.25: the text says literally that *mālikā* are one, two or three *paṅkti* wide). According to the same text the calculation of the value of the *paṅkti* and that of the height of the pillars as well as that of the base should be "carried out as before" which probably refers back to the chapter dealing with *maṇḍapa* (see §§ 4.13 and following). This text concludes its description of *mālikā* with a rather peculiar sentence (*jalamārgavihīnaṃ vā śālākāraṃ prakalpayet*, *Aj* 38.27a); it is not clear as to whether this should be applied to the *mālikā* or to the enclosure walls against which they are standing. The first hypothesis postulates the presence of gutters (*jalamārga*) in the absence of which the *mālikā* will have the form of a *śālā*, that is an edifice with a wagon-roof (§ 4.40);

according to the second hypothesis this sentence may simply refer to a drain bored through(?) the enclosure wall. The information in the *Raurava* (41.10–12) is somewhat different: the *mālikā* should have a depth of three, four or five cubits, the number of *paṅkti* should be odd and should be the same overall, which probably means that the gallery must have the same number of rows of pillars (parallel to the wall) round the whole circumference of the courtyard. The same text makes it clear that the base (*ādhāra*) of the *mālikā* should be three quarters that of the temple and that the pillars (*caraṇa*) and the entablature (*prastara*) should have the same dimensions as those of the temple. This is an interesting point in that it indicates to us that the *mālikā*, like the *maṇḍapa*, has just the three first levels (*varga*).

OTHER BUILDINGS

Provisional temple

§ 4.37. The provisional temple (*taruṇālaya*, literally "young temple") is an edifice of simple structure intended as a temporary substitute for a temple under construction or undergoing repairs (*Rau* chap.27; for *Ajita* see § 2.21). It is to be constructed before the beginning of work on the temple itself, to the North-East or to the East of that temple (or of its site if the construction is new) (*Rau* 27.5). It is a square building three, four or five cubits wide, its height being equal to its width or to that width reduced by a quarter or a half (*Rau* 27.6). Its extremely simple elevation consists of only two levels which are of equal height. They are: the wall made of baked bricks or of adobe and the pitched roof made up of a framework of rafters (*lupā*) covered by thatch (*tṛṇa*) (*Rau* 27.7–8). The sanctum where the provisional Liṅga (*bālaliṅga*, *Rau* 27.8b sq.) is found is closed by a door with leaf (*kavāṭa*) and latch (*argala*) (*Rau* 27.8; § 3.38). This door can have a pavilion in front of it (*agramaṇḍapa*) playing the same role as the *mukhamaṇḍapa* in front of certain *prāsāda* (*Rau* 27.6; § 4.9).

Sabhā

§ 4.38. *Sabhā* are mentioned only in a brief description in the *Ajita* (12.93–94) and in the enumeration of the forms for the roofs of the gateways (*sabhākāra*, *Rau* 42.4; § 3.29). According to the definition in the *Ajita* a *sabhā* is an edifice with five levels of elevation built on a rectangular plan (the length being double the width or greater by a quarter, by a half or by three quarters); it is meant to house the representations, manifest (*sakala*) and unmanifest (*avyakta*), that is to say the images of the gods or their symbols. The indication of the presence of five levels would be interesting if they were enumerated, for the *sabhā*, mentioned very frequently in parallel texts, is never described; the only exposition known to us that is at all detailed is in the *Mayamata* (25.198 sq.) and it is very confused. According to current practice in South India the term *sabhā* is used for indicating hypostyle buildings whether square or rectangular which are covered by a four-sloped roof when square and a two-sloped roof with two hips when rectangular; they have only one storey and no attic (*grīva*). This last point corresponds closely to the description given in the *Ajita* since their elevation is thus of only five levels. The interior pillars are generally arranged so as to leave a vast space at the center (as in the *maṇḍapa* with lantern, § 4.18); this is made possible by the utilization of a framework with rafters. This type of edifice is often used for the shrine of Śiva Naṭarāja as in the well known example of Cidambaram.

Dhiṣṇya

§ 4.39. As we have previously had occasion to point out, the *dhiṣṇya* is a temple (*devatāgṛha*) with three or four levels and "resembling a *prāsāda* meant for the gods" (*Aj* 14.92; § 4.2). It is intended to shelter an unmanifest image (*avyakta*) (*Aj* 14.94). This very summary description would appear to correspond to a small edifice which may be constructed in place of a complete *prāsāda*. Its three or four levels make for different identifications: when there are three the building may be

analogous with a *maṇḍapa* (base, level of the pillars, entablature/flat roof) or again with a provisional temple (§ 4.37) where the elevation would consist of a wall and a roof which would have a finial added to it; for the four level arrangement we may equally envisage a building analogous with a *kūṭa* (§ 4.14) with a base, a level of the pillars and a pyramidal roof surmounted by a finial.

Śālā and *catuśśāla*

§ 4.40. Our texts give neither description nor definition of *śālā* but the term is used on several occasions to designate buildings, or a form of roof or, lastly, a type of elongated aedicula. In the first case it is invariably used in the compound words which designate the ancillary outbuildings of the temple: *yāgaśālā* (*Rau* 11.12), *puṣpaśālā* (*Aj* 38.45), *śastraśālā* (*Aj* 38.47) and *vastraśālā* (*ibidem*). We have seen that the first two of these compound words correspond to edifices which are also designated by *maṇḍapa* (§§ 4.23–24) and we should perhaps consider that, in these two examples at least, *śālā* is used in a very general sense ("building", "edifice"...). This cannot be the case, however, when the term is used to designate a wagon-roof constructed on an elongated plan (§ 3.29). This type of roof, which also characterizes the elongated aediculae, hence the parallel use of *śālā* with *koṣṭha* to designate them (§ 3.43), is theoretically the covering of the *śālā* proper which constitutes the main part of a house (*Mayamata*, vol. II p. vii) which is to say an elongated building sometimes divided into several rooms and bordered on one of its long sides by a verandah (*ibidem*). A house may comprise one or several of these buildings and is called, accordingly, *ekaśāla*, *dviśāla* ... etc.; when there are four *śālā* they are arranged so as to form a quadrilateral at the centre of which is a courtyard and it is thus that the *catuśśāla* serving as kitchen should appear (*Aj* 38.43; § 3.32 and 5.10).

V

GENERAL ARRANGEMENT OF SANCTUARIES

§ 5.1. The principal temple (*mūlaprāsāda*) of a sanctuary (*bhavana*, § 4.2) built on a suitable site (§ 2.18) shelters in its sanctum the god to whom the temple is dedicated. This temple is surrounded by an enclosure (*prākāra*) or by several concentric enclosures, the walls of which are interrupted by doors or gateways (§ 4.33) and in which are installed the Attendants (*parivāra*) of the principal god, and where are also found the various auxillary buildings necessary to the functioning of the sanctuary; these are in the first place the edifices meant for service and, in the second, one or several large altars for offerings (*mahāpīṭha*) as well as the flag-pole (*dhvajadaṇḍa*). The general schema presented in more or less detail by our two texts apropos the sanctuary of Śiva (*śivālaya*, § 4.2) applies equally to those dedicated to other deities and this explains why the teachings regarding other sanctuaries are very largely limited to a few specifics such as the enumeration of the propitious sites (§ 2.18) or the names of the Attendants (§§ 5.17 sq.). To take one example, the *Raurava* in presenting the sanctuary of Viṣṇu (*harimandira*) and listing its possible positions indicates that as far as "the temple, the pavilions and the rest" are concerned, this sanctuary must "conform to what has already been laid down", that is what has been said in connection with the sanctuary of Śiva (*Rau* 36.1–3) and mentions the Attendants only incidentally, in connection with the *pūjā* (*Rau* 36.28–30). We shall therefore, first present here the sanctuary of Śiva with its main temple, its enclosures . . . etc. and, at the end of the chapter, we will give in addition some specific information regarding the sanctuaries of other gods.

SANCTUARY OF ŚIVA

The principal temple

§ 5.2. We shall not return to the architectural description of the main temple which can be a *prāsāda* (§§ 4.2 sq.) or, simply, a *dhiṣṇya* (§ 4.39) except to recall that the descriptions we have deal with hardly anything but the one-storey buildings and to note that our texts do not make clear whether or not a *prāsāda* of any particular category or of any particular type can be used indiscriminately (§§ 4.11–12). At the corners of the building the entablature should carry images of bulls, or of dwarves with their hands joined over their hearts (*bhūtān hṛdaye' ñjaliṃ vinyaset*), or both of them at the same time (*Rau* 39.30–32). The presence of bulls means that victory is sought after whilst that of dwarves brings prosperity (*puṣṭi*) and that of the two series together, liberation (*mokṣa*). These images are installed upon the terraced ledge created by the recess of the attic above the entablature and they are thus found "on the entablature at the foot of the attic" (*prastare galamūle*, *Rau* 39.30). For the rest, the facades of the temple are abundantly populated by gods the positions of which the *Ajita* gives in a systematic fashion: to start with there are the images in the niches surrounded by arches which are found on the three blind faces of the *pādavarga* (*Aj* 14.59–64; §§ 3.45 and 4.10); if the temple opens to the East (§ 4.7) we find Śiva in the form of Dakṣiṇāmūrti in the South and of Liṅgodbhavamūrti in the West (literally: "Īśvara in the form of Liṅga and accompanied by Brahmā and Viṣṇu") and, lastly, Brahmā in the North. If the temple opens to the West, the images in the South and North are as above, there is naturally nothing in the West and Viṣṇu is found in the East. A second series of images are to be installed in the large niches at the cardinal points of the attic (*Aj* 14.74–76; § 3.26): in the East, Śakra mounted on his elephant or Skanda; in the South, Śiva in the form of Īsāna or of Lakulīśvara (ityphallic image); in the West, Narasiṃha or Rudra but this last may equally be in the North in place of Brahmā who is normally found there. The *Raurava* gives a list of "divinities of the cardinal points" (*diśāmūrti*) without in-

dicating the level at which they are to be installed but, as this is a series of four, it is probably intended for the attic (*Rau* 39.33–35): in the East may be Skanda, Vināyaka or Sahaja-Brahmā who may also be in the North; in the South, Dakṣiṇā-mūrti, in the West a form of Viṣṇu and, lastly, in the North Dhanada-Kubera or Vidhātṛ-Brahmā (above). As well, the same text indicates that "the gods beginning with Sukhāsāna" (*sukhāsānādidevān*, *Rau* 39.15) must be placed "everywhere" (*sarvatra*); this refers to the eight, thirteen or fourteen manifest forms of Śiva which are enumerated and described in Chapter 35 of that *āgama* (see *Raurava* vol. II p. 75 note 9 for the different numbers of these forms found in this text). As this sentence is given at the end of the chapter dealing with the temple itself (*prāsāda*) we may suppose that these images should be distributed amongst the different aediculae or niches of the facades (§§ 3.40 sq. and 4.10) but it is to be noted that according to the *Ajita* the *vyaktaliṅga*, that is the manifest images, should be installed in the different enclosures of the sanctuary (*Aj* 38.51–53; below § 5.16). Lastly it is only the *Raurava* that mentions the Dvārapāla which should flank the door of the *prāsāda* and that (or those) of its *mukhamaṇḍapa* and of its *antarāla* (*Rau* 32.1). The same images are to be found on both sides of the doors of the gateways (*ibid.*) which explains why the series given by the *Raurava* is concerned with the four cardinal points and not just with the East and West which are the usual directions for the door of the temple itself. We have therefore the following pairs (*Rau* 32.6–8): in the East, Nandin and Kāla; in the South, Daṇḍin and Muṇḍin; in the West Vijaya and Bhṛṅgin and, lastly, in the North Gopati and Ananta.

§ 5.3. It is in the unmanifest form of Liṅga that Śiva is installed in the sanctum of the main temple. The *Raurava* indicates in addition however that there should be a manifest representation of Śiva accompanied by Umā (Someśa) placed against the wall at the rear of the sanctum behind the Liṅga (*Rau* 34.1–2; *ibidem* t.II p.viii–ix). The Liṅga may have various forms and dimensions (*Aj* chap. 4; *Rau* chap. 28). It should be placed slightly off-centre towards the North-East

(*Rau* 28.68; 30.37) so as to rest on the floor (*sthala*) of the sanctum via the intermediary of a flat stone placed over a sacred deposit (*brahmaśilā Aj* 18.170 sq. or *ādhāraśilā*, *Rau* 28.68); this stone is cantoned by four smaller stone liners (*nandyāvartaśilā Aj* 18.214 sq.; *Rau* 28.71; 29.3) which are placed under the pedestal (*pīṭha*, *piṇḍikā*). We shall notice that the Liṅga does not rest *on* the pedestal but *in* it and that the height of the pedestal should be such that only the upper element of the Liṅga (*śivabhāga*) is visible (*Rau* 28.74). The pedestal is moulded (below) and it is made either of stone or of bricks or of the two used together (*Rau* 28.72–74; *Aj* 16.51–52). When it is stone it should be monolithic according to the *Raurava* but the *Ajita* points out that, when necessary it may be made by assembling several blocks of stone the number of which, however, is not to exceed four and nor should there be any joint in the upper part of the pedestal, that is to say its tank (see below). The brick pedestal is made up of a "core of bricks" (*iṣṭakāgarbha*, *Rau* 28.73a) coated with stucco (*sudhā*); lastly the "mixed" (*miśra*) pedestal of which mention is made only in the *Raurava*, has its lower part in bricks covered with stucco and its upper part in stone; the text says literally that "below, the doucine is (in bricks) coated with stucco and the upper part is of stone" (*miśre tv adho'mbujaṃ saudham upary aśmamayaṃ bhavet*) but we do not know exactly which doucine is under discussion and in fact, of the two types of pedestal described by the *Raurava* (§ 5.4 and table III), one (*bhadrapīṭha*) has no doucine and the other (*padmapīṭha*) has two. The assembling of pedestal and Liṅga and the attaching of them to the floor should be done with mortar of the *aṣṭabandha* type (*Aj* 18.216; *Rau* 29.28) or of the *vajrabandha* type (*Rau* 29.28, see above § 2.16).

§ 5.4. The *Raurava* describes two types of pedestal, *bhadrapīṭha* and *padmapīṭha* (*Rau* 28.73–81), without saying whether they are square or circular. The *Ajita* (chap. 16) presents ten of them, five square and five circular (*Aj* 16.9–10) amongst which is the *bhadrapīṭha* (square) corresponding to the pedestal of that name described in the *Raurava* and the *padmapīṭha*

(circular) the mouldings of which differ from those presented by the *Raurava* under the same name. In table III at the end of this book we have grouped together the different descriptions which we have already used in the general study of mouldings (§ 3.1). Apart from on the upper rim, the mouldings appear very similar to those of the base and we find in particular the arrangements with two registers already noted (§§ 3.4 and 3.15). The rim (*ghṛtavārī*) is the border of the tank *avaṭa*) which constitutes the upper face of the pedestal and which is intended to receive the liquids which are poured over the Liṅga during the various ceremonies. This rim is interrupted in the middle of the northern side of the pedestal by a projecting spout (*nāla*) which allows these liquids to run toward the floor of the sanctum (*Aj* 16.48–50; *Rau* 28.78–79). We recall here that this floor inclines so as to regulate the flow towards the duct bored through the wall and ending in the gargoyle at the exterior of the *prāsāda* (§ 4.7)

Enclosures

§ 5.5. The enclosures are described briefly in the *Raurava* chap.41) and in rather more detail in the *Ajita* (chap.38). *Prākāra* which can be translated by "enclosure" indicates as well the courtyards the specific name of which is *aṅkana* (*Aj* 31.10 and 49) and also the walls which surround them (*śāla*, *bhitti*, *kuḍya*). A fully developed sanctuary has five enclosures, which are always numbered starting from the centre of the layout, the specific names of which are: *antarmaṇḍala* (*Aj* and *Rau*) for the first, *antarhāra* (*Aj*, *Rau*) or *antarahāra* (*Rau*) for the second, *madhyahāra* (*Aj*, *Rau*) for the third, *maryādi* (do.) for the fourth and, lastly, *mahāmaryādi* (*Aj*, *Rau*) or *bāhyasāla* (*Rau*) for the fifth which is placed at the limit of the sanctuary and which constitutes its peribolos. We do not know if the expression *antaraṅkaṇa* ("interior courtyard") used by the *Ajita* (38.49) indicates one of the inner enclosures in particular (*antarmaṇḍala* or *antarhāra*) or if it is to be understood in a looser sense. The number five is the maximum for the enclosures and, according to the *Raurava* there may only be three, two or one of them

(*Rau* 41.13). The *Ajita*, in which the number may be from one to five, points out moreover that a sanctuary with only one enclosure is called *ābhāsa* (*Aj* 38.13, not to be confused with the *ābhāsa* temple which is dealt with in the *Raurava* § 4.5) and that its enclosure is to be constructed in the position envisaged for the second, third or fourth enclosure of a sanctuary which has five of them (*Aj* 38.27–28), which means that it is to be established according to the dimensions proposed for one of these three enclosures.

§ 5.6. Dimensions have a significant place in descriptions given by our two texts whether concerned with the thickness and height of the walls (§ 5.7) or with the area of the courtyards. It is only the *Ajita* however which notes that the enclosures are drawn up according to a rectangular plan and that their length (*mukhāyāma*) is equal to one and a quarter times, one and a half times, one and three quarter times their width or, again, twice, three times or four times this width (*Aj* 38.16–17). This width (*vistāra*, *viśāla*, *tati*) is the significant dimension since from it is also calculated the distance which separates the different enclosure walls of the central temple and that which separates two successive walls or, as well, the two opposite sides of the same enclosure. On this subject, we note the amphibology of *vistāra* which may designate indiscriminately any one of these dimensions: thus when the Raurava says *prāsādasadṛśavyāsaṃ tripādaṃ vārdham evā va/ antarmaṇḍalavistāram.../ antarmaṇḍalavistāradviguṇo'ntarahārakaḥ* (*Rau* 41.1–3) it should be understood that *vistāra* designates, in the first instance, the distance which separates the temple from the wall of the first enclosure and, in the second, that which separates the two opposite walls of that enclosures. The units employed are the cubit as well as the width of the central temple, the width which the *Ajita* calls *daṇḍa* (§ 2.2) and which must be taken along the *pramāṇasūtra*; we know that this is the basic line for all dimensions of an edifice (§ 2.5) and it is from this same line that the dimensions of the enclosures are taken. We have grouped in the table at the end of the paragraph the different dimensions after having reduced them to the depth

of the courtyards so as to facilitate comparisons, this depth being the distance separating two successive enclosure walls or, in the case of the *antarmaṇḍala*, the temple from the first enclosure wall. This table gives rise to the following notes: as far as the depth of the first courtyard is concerned the *Ajita* indicates that "to protect and embellish the temple" it may be equal to three quarters of its width instead of a half (*Aj* 38.14) but it does not say if the dimensions of the other courtyards should be modified nor how it is done if so; elsewhere, for the dimensions in cubits we read *Aj* 38.10a in the following manner: *ādyaṃ sālāṅkaṇāntaṃ tatigatam athavā vahnibāṇābdhinandai rudrair hastaiḥ kramaśaparimittam ādyamānaṃ vidheyam* (thus following manuscript C, instead of . . . *kramoccaiḥ parimitam adhamādyādyamānaṃ vidheyam* chosen by the editor). It does not seem possible in fact that the heights (of walls, § 5.7) are to be found there since it deals with *tati*. In conclusion, our last point refers to a more general range: if the proportions given here for the enclosures are compared with those for the corresponding gateways as given elsewhere (§ 4.34) we notice that, taking for example the proportions given by the *Raurava*, the gateway of the first enclosure occupies at least half of the depth of the corresponding courtyard which leaves hardly any room for the offices and the chapels of Attendants.

Calculation of the depth of the courtyards

	1st encl.	2nd encl.	3rd encl.	4th encl.	5th encl.
A. Unit = width of the main temple					
	1	1½	1½	1½	1, 1½, 3, 4½
Rau	¾	1¼	1¼	1¼	1¼, 2½, 3¾
41.1-4	½	1	1	1	1, 2, 3
Aj 38.5-7	½	½	1	2	3
Aj 38.14	¾	?	?	?	?

B. Unit = cubit

Rau 41.5-8	3	9	15	20	29
	5	11	17	22	31
	7	13	19	24	33
Aj 38.8-9	7	8	10	16	20
Aj 38.10	3 to 11	5 to 13	7 to 15	9 to 17	11 to 19

§ 5.7. Our texts agree upon the fact that the thickness of the enclosure walls varies from one to two cubits but whereas the *Ajita* (38.19-20) gives five possible thicknesses corresponding to five enclosures, the *Raurava* (41.8-9) offers nine, without justifying this number which obviously does not correspond to the number of enclosures. As for the height of these walls the *Raurava* indicates that it goes from three to six times their thickness (*Rau* 41.9-10) while the *Ajita* envisages several possibilities (*Aj* 38.20–22): if the sanctuary is "small" (*kṣudra-dhāman*, see § 4.4) the height of the apparently unique enclosure wall should be at least equal to that of the temple and may possibly exceed it by a quarter or a half; in the other cases the wall may be raised right to the top of the level of the pillars, of that of the entablature, of that of the attic or of that of the roof. It may be supposed that the heights increase in progression from the centre but that is not expressly indicated and moreover the text gives four possibilities and not five as it does for the thickness (above) for example. By the same token we may say that only three possible values are given for the heights of walls expressed in cubits (*Aj* 38.22: six, seven or eight cubits).

§ 5.8. The base of the wall may consist of a stereobate (*vedikā*) (*Aj* 38.28; § 3.6) the proportions of which are not given. The coping (*śiras*) may have, according to the *Raurava* (41.14), the form of a parasol (*chattrābha*), that of a bubble

(*budbudākāra*) or that of a half-moon (*ardhacandrākṛti*). In the first case the reference is to a coping with two slopes and in the second to a round coping but we do not know if the third expression alludes to a round profile differing slightly from that of the "bubble" or if it should be considered as applying, not to the coping itself, but to semi-circular merlons which would be arranged on the ridge of the wall. This last hypothesis does not however accord with the presence of "numerous (images) of bulls and dwarves" on this ridge (*Rau* 41.14; the *Ajita* 38.24 mentions only the bulls). Against the wall are applied decorative elements which, according to the *Ajita*, are either aediculae which are narrow (*kūṭa*), elongated (*śālā*) and in the form of cages (*pañjara*) or arches (*toraṇa*) (see above §§ 3.43 and 3.45). They are separated, one from another, by pilasters "provided with all the elements" (*sarvāṅgāṅghri*), that is: shaft, bell-capital, abacus and bracket-capital (§ 3.18). It may be supposed that the stereobate dicussed above functions as the base of these aediculae, or niches, as well as of the pilasters, the lower part of the coping taking the place of the entablature of these pilasters. Lastly, there is nothing to indicate what is to be done when galleries (*mālikā*) § 4.36) are constructed against the inner face of the enclosure walls. It is possible that the decorative elements we have just mentioned are retained but this is not certain. Finally it may be supposed that the niches and aediculae set against the wall, in certain cases shelter the images of the Attendants and other divinities installed in the different enclosures (§ 5.13-15) when these images are "set against the wall" (*bhittisamāśrita*).

Outbuildings

§ 5.9. The regular functioning of the sanctuary calls for several annexes which are enumerated only in the *Ajita* (38. 43 sq.); they are collectively indicated by the vague term *sthāna* (*Aj* 38.50b) which may be translated by "place". Some of these annexes are installed in more or less well defined edifices (*maṇḍapa*, *śālā*, *catuśśāla*, §§ 4.13 and 40) whereas the others probably correspond to sections of the galleries (*mālikā*)

demarcated by partition walls (§ 3.33) thus justifying the use of imprecise terms such as *sthāna*, *niveśana* or *ālaya*. These outbuildings are listed together with their positions determined according to the cardinal points but the enclosure in which they are situated is not indicated precisely and, especially, we do not know if the expression "*antaraṅkaṇe*" indicates a specific enclosure or just any one of the inner courtyards (§ 5.5); that, and what we know of the narrowness of the courtyards (§ 5.6) makes it difficult to understand the manner in which these annexes and the chapels of Attendants are arranged (see § 5.13 sq.). Let us however note, that unlike the chapels, the outbuildings are never situated on the cardinal axes of the sanctuary.

§ 5.10. In the enclosure where the outbuildings are, we find in the eastern part the kitchen (*pacanasthāna*) and its annexes: the granary (*dhānyasthāna*) and the "storeroom for condiments" (*vyañjanasthāna*). Only the kitchen is well-defined architecturally since it should be a *catuśśāla*, that is to say a house with a central courtyard surrounded by four buildings (§ 4.40). It is situated to the South of the median axis of the enclosure; the granary is found to the North of that axis and the storeroom for condiments at the south-east corner. In the southern part of the enclosure is found the "place of water for the baths" (*snānāmbhaḥsthāna*), to the East of the median axis, and the "building for flowers" (*puṣpaśālā*) to the West of that axis. It would seem that what are being discussed here are the stores where are kept the ingredients used for *pūjā*: the water for the bathing of the god and the flowers for making diagrams or ornaments. We have previously seen (§ 4.23) that the *puṣpaśālā* is mentioned elsewhere under the name of *puṣpamaṇḍapa* (*Aj* 23.5) and that these two designations probably correspond to the two forms that this building can take: that of a hall with a wagon-roof (§ 4.40) and that of a pavilion with a flat roof. Lastly, we note that this *puṣpaśālā* may equally be placed in the western part of the enclosure next to the *dharmaśravaṇamaṇḍapa*. In the south-west corner should be found the temple treasury (*dhanadhānyānāṃ sthānam*). The western

part of the enclosure is occupied by two constructions whose functions are closely related: in the South the "pavilion for religious discourses" (*dharmaśravaṇamaṇḍapa*) and, in the North the "school" (*vidyāsthāna*). At the north-west corner is found the "room for the arms" (*śastraśālā*) and that for the "garments" (*vastraśālā*); in both these cases the rooms house objects which are used to "equip" the god at the times of the great processions. Next to them we find the "dormitory" (*śayanasthāna*) which may serve as a temple for Gaurī (*Rau* 31.3) and which is otherwise usually used for the processional images (*utsavamūrti*). Lastly, at the north-east corner is found the sacrificial pavilion (*yāgamaṇḍapa*, § 4.24) beside which are, in the first place, the storeroom for the umbrellas and other accessories of that kind (*chattrādīnāṃ niveśanam*) and, in the second, the wells (*kūpasthāna*).

Main altars for offerings

§ 5.11. According to the *Ajita* (39.42–43) there should be two main altars for offerings (*mahāpīṭha* or *pīṭha*) found, respectively, at the front and at the back of the "*gopura*" at a distance from it of from three to fifteen cubits. Reference to inner and outer altars leads us to suppose that the term *gopura* applies here to the gateway of the outermost enclosure of the sanctuary. The *Raurava* (33.16 sq.) would appear to be speaking of only one altar which could then correspond to the *Ajita*'s outer altar (cf. *Rau* 18.22) and the same text points out that this altar should be situated on the axis of the entrance of the sanctum at the East or the West of the temple according to the latter's orientation (*Rau* 11.9 and § 4.7). Made of stone or of a core of bricks covered with a coating, the altar appears as a moulded body as high as it is wide, its upper face being occupied by a lotus (*kamala*), on the receptacle (*karṇikā*) of which offerings are placed. The two descriptions our texts give differ slightly so we shall present them separately (for details of the mouldings see table IV). According to the *Ajita* (39.43–52) the altar is square and its width, which is equal to its height, can be from three to seven spans giving seven possi-

bilities. The altar itself may be placed on a moulded socle (*upapīṭha*), the top of which is reached by a flight of stairs (*sopāna*). Images of bulls are found at the corners of the altar and at those of the pedestal images of the *mahābhūta*. Lastly this text points out that the outer and inner altars (above) should have the same dimensions. According to the *Raurava* (33.16–21) the width of the altar may be from one to two cubits (= 2 to 4 spans) giving nine possibilities. This altar is square or octagonal or "provided with buttresses in the middle" (*madhyabhadrayuta*) which last seems to be alluding to a square altar, provided on each of its faces with projecting elements. Images of bulls and of dancers (*nāṭaka*) are to be placed at the corners. As for the mouldings (table IV), it is pointed out that their recesses or their projections should conform to what has been said regarding the bases (*aṅgānāṃ veśaniṣkrāntam adhiṣṭhānoktavat kuru*, *Rau* 33.20a, see § 3.2).

The flag-pole

§ 5.12. The pole for the god's banner (*dhvajadaṇḍa*) may be situated near or at a distance from the temple but always on the axis of its door (*Aj* 27.91–92; *Rau* 18.22–23). According to the *Raurava* it may be in front of or behind the image of Vṛṣa (§ 5.14) or "between the (main) altar and the *gopura*" or else "in front or in the middle of the second enclosure" or in the third enclosure. The expression *pīṭhagopurayor madhye*, also found in the *Ajita* (below), is not clear but we may suppose that here again the *gopura* is the *dvāragopura*, that is the gateway of the last enclosure (§ 4.33). According to the *Ajita* the pole is "in front of the temple or inside the enclosures" (*prāsādāgre . . . prākārābhyantare vā*) which would seem to signify that it may be in the first enclosure, and thus just in front of the temple or in one of the others. According to the same text this pole may be in front of the (main) altar (which of them is not certain since the *Ajita* prescribes two, § 5.11), in front of the *gopura* (?), in front of or behind Vṛṣa, between the *gopura* and the (main) altar or between the *gopura* and Vṛṣa (which last would seem to allude to a temple with only one enclosure) or,

finally, in the fourth or fifth enclosure. According to *Raurava* (18.30) the height of the pole is triple that of the temple. According to the *Ajita* (27.73) the pole may be as high as the temple or it may reach only to the level of the top of its roof and not to the finial; or it may reach to the level of the *nāsikā* (of the attic? of the roof?) or to that of the attic or to that of the entablature. It may, equally, be as high as the "*gopura*" or it may measure ten, eleven or twelve cubits (*Aj* 27.77). The *dhvajadaṇḍa* comprises two elements: the pole itself (*daṇḍa*, *Aj* and *Rau*; *yaṣṭi*, *Rau*) and an upper element (*upadaṇḍa*) which supports the ring (*valaya*) through which passes the cord (*rajju*) of the flag (*Aj* 27.78 sq. *Rau* 18.32 sq.). It is made of a carefully chosen wood (§§ 2.14–15) and is planted in a square masonry support (*vedikā*, *Aj* 27.94–97; *Rau* 18.38–39) which, according to the *Raurava*, may be elevated by a socle (*upavedikā*).

The Attendants

§ 5.13. The Attendants (*parivāradevatā*, literally "divinities of the entourage") of Śiva are installed in the first three enclosures of his sanctuary (*Aj* 39.1–3; *Rau* 33.1–2) in the form of images, whether or not sheltered by chapels, or in the form of altars (*pīṭha*, *balipīṭha*, *viṣṭara*), (*Aj* 39.34–36; *Rau* 33.6). They may be placed in the centre of a courtyard or against the inner faces of the enclosure walls (*Aj* 39.3; *Rau* 33.1–2) but in both cases they should always face the temple of Śiva (*Aj* 39.6; *Rau* 33.3). Lastly each of the Attendants has an appointed place but if the main temple opens to the West and not to the East this will reverse the positions of the Attendants found at the East and West of the first enclosure, respectively Vṛṣa and Skanda (*Aj* 39.22; *Rau* 11.9). It is not stated whether or not the positions of the Attendants of the second and third enclosures should be changed in the same way. The *Raurava* mentions the chapels of the Attendants only incidentally apropos the placing of the lamps (*Rau* 26.20). The *Ajita* is more comprehensive and gives definitions of the particular types of chapel suitable to Attendants of the first enclosure (see below § 5.14): it adds that these chapels are to have only one storey

(*Aj* 39.15) and that their exterior width should be calculated in terms of the width of the sanctum of the main temple (*mūla-prāsādagarbha*); it may be three, four, six or seven fifths of it or equal to it (*Aj* 39.4–6). We may suppose too that, when the Attendants are "placed against the wall (of the enclosure)" (*bhittyāśrita*) the chapels are a little different than the text indicates and that they sometimes take on the aspect of *kuṭa* or *śālā* built against the wall; we do not see however how the chapel *hastipṛṣṭha* of Vināyaka, in particular can be built against a wall without losing the apse which is its essential characteristic. The altars which may be substituted for images of Attendants are described in both our texts (*Aj* 39.16–21; *Rau* 33.6b–8a); called *pīṭha* or *balipīṭha* by the *Ajita* and *viṣṭara* by the *Raurava*, they are cut to size in stone or made of mortar (*saudhaja*) or bricks (*Rau* 33.8a); their width, equal to their height, is twelve, eighteen or twenty-four digits according to the *Raurava*; these heights are nine, eighteen or twenty-seven digits according to the *Ajita*, if we agree to take *kauśikā*, in the expression *kauśikāṅgulasaṃmitam* (*Aj* 39.16b), as a name of Durgā and as being associated with the number nine since there are *nine* Durgā (see *Bhaviṣyatpurāṇa* quoted in T. G. Rao, *Elements of Hindu Iconography*, 1914, vol I/2, append. C, p. 115). These altars may be square or circular (*Aj*) and may appear under two aspects. In the first case they are "as a lotus" and thus "lotus-altars" (*padmapīṭha*, not to be confused with the pedestal of the same type, § 5.4) and they are surmounted by a receptacle (*karṇikā*) where the offerings are placed (*padma-pīṭhaṃ tu kurvita padmākāraṃ sakarṇikam*, *Aj* 39.19a). In the second case they resemble a small pyramid of three degrees of steps (lit. "belts", *mekhalā*) at the summit of which is found a lotus (*Aj* and *Rau*); the *Ajita* adds a form with two degrees of steps and another with one; in the last case the altar would appear as a slab placed on the ground and supporting a lotus. Caṇḍeśa is the only Attendant of the first enclosure whose image should not be replaced by an altar (*Aj* 39.20–21); nine of these altars should be put in place of the Mothers and three in place of Jyeṣṭhā (do.), since the Mothers are always accompanied by Vīrabhadra and Gaṇeśa (for instance *Aj* 36.331

339) and Jyeṣṭhā by her son with a bull's head and by her daughter (do. 324–325).

§ 5.14. The *Raurava*, having indicated that there are Attendants in the first three enclosures (above), goes on to list only those of the first enclosure (*Rau* 33.2–3) and, amongst these, omits Caṇḍeśa. They are: Ukṣa in the East (for a temple opening to the East), Durgā in the South-East, Cāmuṇḍī in the South, Gaṇeśa in the West, Jyeṣṭhā in the North-West, Hari in the North and, lastly, Bhānu in the North-East. The text also prescribes the installation of the Śiva trident (*triśūla*) in front of the image of Ukṣa (*Rau* 33.11). The series given by the *Ajita* for this same enclosure is slightly different and it is accompanied, as we have said, by details of the chapels (*Aj* 39.7–21; table V at the end of the book):

I. East: Vṛṣa; his chapel which may itself be in a *maṇḍapa* or a *prapā* (*maṇḍapaprapāntarasaṃsthita*) is in the form of a pavilion (*maṇḍapākāra*); this should be a kiosk with four pillars (see § 4.20; type I).

II. South-East: Brahmā (instead of Durgā according to the *Raurava*); square chapel (*nāgara* type ?).

III. South: the Seven Mothers (instead of Cāmuṇḍī who is one of them); their elongated chapel (thrice as long as wide) is in the "form of a *gopura*" (*gopurākṛti*, § 4.35).

IV. South-West: Vināyaka/Gaṇeśa; apsidal chapel (*hastipṛṣṭha*, § 4.12) open to the East.

V. West: Guha; his chapel seems analogous with that of Vināyaka because both are presented in the following way: *hastipṛṣṭhaṃ gaṇeśasya niveśaḥ syād guhasya tu* (*Aj* 39.13b).

VI. North-West: Jyeṣṭhā; chapel of *nāgara* type (§ 4.11).

VII. North: two possibilities: Durgā/Kauśikī or Viṣṇu; the chapel of Durgā is *nāgara* type and that of Viṣṇu *drāviḍa* (§ 4.11).

VIII. North-East: Ravi/Arka; his chapel which opens to the West is qualified by *vidhānavat* ("according to the rule"); the same expression is found in the chapter devoted to the individual installation of Sūrya but it is quite clear this time that the temple is a *prāsāda* (*prāsādaṃ paścimadvāraṃ kṛtvā pūrvavidhānataḥ*, *Aj* 54.13); it would thus seem that *vidhānavat* here

simply indicates that the temple, or chapel, of Arka conforms to the general rules given for the temple of Śiva.

IX. At the North-East is equally to be found the chapel of Caṇḍeśa, devotee of Śiva, but it is situated outside the alignment of the other *parivārālaya* (*Aj* 39.11: *caṇḍeśālayam avyaktaṃ maṇḍale tu prakalpayet*, literally: "the chapel of Caṇḍeśa should be constructed without being included in the circle"). This chapel is a *prāsāda* with a *mukhamaṇḍapa* (§ 4.9) and its door is to the South. Let us add that the position given here is not to be modified in any manner at all (cf. *Aj* 51.6b–7a).

§ 5.15. For the second and third enclosures the *Ajita* lists the divinities and indicates their positions without giving any more details (Tab. V). In this way, we have in the second enclosure (*Aj* 39.23–26) the eight Lokapāla (each in the direction proper to him) as well as Arka and Candramas in the East (on each side of Śakra), Agastya and Nārada in the South, Śrī and Sarasvatī in the West, Vyāsa and Vagīśa (Patañjali) in the North and, lastly, the supernumerary Kṣetrapāla in the North-East (*Aj* 39.34). In the third enclosure are arranged together four groups, each of eight divinities: the eight Vasu, the eight Marut, the eight Mahānāga and the eight Pramatha (*Aj* 39.27–33). This refers to groups of secondary deities, hardly individualized at all and very abstract and which most often are installed in the form of altars.

§ 5.16. The Attendants just listed are not the only divine forms to be installed in the enclosures of the sanctuary of Śiva who is himself installed, not only in the form of the Liṅga in the main temple, but also in his manifest forms (§ 5.2) in the second, third and fourth enclosures (*Aj* 38.51–53). These images are to be placed against the wall so as to face the main temple. Moreover, "in the absence of walls" they are to be in the courtyards (*bhittiṃ hitvāṅgaṇe vāpi kārayed . . .*, *Aj* 38.53) which seems to be an allusion to an unfinished sanctuary the enclosures of which are outlined but not bordered by walls. It is, as well, Śiva who is installed in the form of commemorative Liṅga (*kṣetraliṅga*) set up in the third, fourth or fifth enclosure

(*Rau* 30.9–10). Lastly, Gaurī/Umā who, as we have seen, may be at Śiva's side on an image placed at the rear of the sanctum of the main temple (§ 5.3) may equally be installed in the "dormitory" (*śayanasthāna*) which is amongst the permanent annexes of the temple (§ 5.10).

OTHER SANCTUARIES

§ 5.17. As we have already pointed out, the indications given about the sanctuaries of divinities other than Śiva are very succinct; they are generally contained in the chapters relating to the installation (*sthāpana*) of these different divinities and which deal with their installation both as Attendants to Śiva and as principal deities in their own shrines. Little is to be found here other than the details bearing on the choice of the site, on the position of the door and, lastly, on the number of Attendants and their names. As for the site we are often merely referred back to what has been said about that of the Liṅga, that is the sanctuary of Śiva. In connection with the Attendants, we shall note that lists are most often given in relation to the putting in place of the pitchers used in the *kumbhābhiṣeka* and are thus concerned with their positions on a ritual diagram which is simply a reproduction of the layout of the sanctuary. The *Raurava* deals with the individual installation of Viṣṇu, of Mohinī and of Nāgarāja but for the last the only indication which is, strictly speaking, of interest to us is the one which shows that the image of Nāgarāja should be placed on a *bhadrapīṭha* or on a *padmapīṭha* (*Rau* 38.11). The *Ajita* deals with the installations of the group of the Mātṛkā, of Gaṇeśa, of Skanda, of Jyeṣṭhā, of Durgā and of Sūrya (we recall here that the chapters relating to the installation of Viṣṇu and Kṣetrapāla have not yet been published, § 1.4 and Append. II).

Viṣṇu

§ 5.18. The sanctuary of Viṣṇu (*harimandira*) may be installed in the middle of an inhabited area such as a village (*grāmādi*) or, again, at its cardinal or intermediate points or

between them, in other words, anywhere. It may equally be situated beside the sea or beside a river or a pool or again in a forest (*Rau* 36.1–2). The temple and its pavilions and other outbuildings are like those described for Śiva (*Rau* 36.3). The door is flanked by Śaṅkha and Cakra represented in their manifest forms; Garuḍa is in front of the door and the eight Attendants-listed for the *viṣṇupūjā*-are: Vimala, Vidhātṛ, Vikrama, Vijaya, Puṣṭimūrti, Vṛddhi, Tripada and Abhivṛddhida (*Rau* 36.28–30).

Mohinī

§ 5.19. The sanctuary of Mohinī (*mohinyāvāsaka*) is installed outside the inhabited area in whatever direction is desired. The temple (*harmya*), the pavilions (etc...) should be like those described for Śiva. An image of Garuḍa, of a lion or of a bull should be placed on the entablature (at the foot) of the attic (*grīvamañcake*, § 3.23) (*Rau* 37.7–8). Two divinities, Aṣṭāṅgī and Koṭarī, are placed in the sanctum at the sides of the entrance (*garbhagehe praveśasya pārśvayoḥ*) whilst two others, Śaṅkinī and Ṭaṅkinī, flank the "outer door" (*bāhyadvāra* (*Rau* 37.17–19) but we do not know if this "door" is simply that of the sanctum (or of the *mukhamaṇḍapa*) or that which may take the place of the gateway (§ 4.33). Lastly, sixteen female divinities take the place of the Attendants and should all face the main temple (*prāsādābhimukha*) but we do not know if they are arranged in one or several enclosures.

The Seven Mothers

§ 5.20. As we have seen, the Seven Mothers (*Aj*; Cāmuṇḍī only, according to *Raurava*) may be installed in the southern part of the first enclosure of the sanctuary of Śiva (§ 5.13). When they are installed in a separate place this may be in the north-eastern or northern sectors of a inhabited area such as a village (*grāmādi*) or, for preference, in a uninhabited spot (*vijana*) beside a river or a pool or in a park or a wood or, again, on a mountain (*Aj* 48.1–3). The temple itself is not described

but we may suppose that, like the chapel (§ 5.13) it is a building elongated from East to West and open to the North, since it is said that all the Mothers should face North, and that Vīrabhadra and Gaṇeśa should be arranged respectively to the East and the West of the Mothers, thus facing West in the first case and East in the second (*Aj* 48.59–60). Lastly, Cāmuṇḍā (Cāmuṇḍī), when the Mothers are Attendants of Śiva, is the last of the series, the order of which is therefore: Brāhmāṇī, Māheśvarī, Kaumārī, Vaiṣṇavī, Vārāhī, Indrāṇī and Cāmuṇḍā who is installed in the centre when we are dealing with a sanctuary apart (*Aj* 48.4); it is not indicated if this displacement implies that Vaiṣṇavī takes the place of Cāmuṇḍā or if there is a simultaneous shifting of the positions of this goddess and of Vārāhī and Indrāṇī.

Gaṇeśa

§ 5.21. Gaṇeśa (Vināyaka...) may be installed as Attendant to Śiva and as acolyte of the Mothers (§§ 5.13,20). When he has a separate sanctuary this may be installed in the southern or eastern sector of an inhabited area and, very generally, in all the places suitable for installation of the Liṅga of Śiva (*Aj* 49.15–16a). His temple (*dhāman*) always opens to the East (*Aj* 49.77). Vīra and Mahāvīra are the two guardians of his door before which is found the image of his mount, the rat, which is not named. His eight Attendants are, from the East, Supraveśa, Suvṛtta, Vāmana, Śaṅkhapāla, Bhairava, Vīreśa and Ugrarūpa; they do not seem to be represented except by altars (*Aj* 49.77–80).

Skanda

§ 5.22. Places suitable for Skanda (outside the sanctuary of Śiva) are those which are suitable for the Liṅga (*Aj* 50.14). His temple (*dhāman, prāsāda*) opens to the East or to the West. The eight Lokapāla are his Attendants, Viśākha and Naigameya his guardians, and the peacock, his mount, is installed in front of the door (*Aj* 50.75–76).

Jyeṣṭhā

§ 5.23. Information concerning the position of the sanctuary of Jyeṣṭhā is of no use since it is found in a section of the text reconstructed by the editor (see *Ajita* vol. II p. 179 note 2). Otherwise we find only the names of the female guardians of the door, Vidyujjihvā and Viśālākṣī, and those of the eight Attendants: Karālī, Kapilākṣī, Vimalā, Vibhujā, Bhāsvarā, Vitatā, Kīkasā and Kadru (*Aj* 52.43–45).

Durgā

§ 5.24. Positions suitable for the Liṅga are equally suitable for Durgā. Her temple (*prāsāda*) opens to the East, if enjoyment or victory is desired, and to the West if liberation is sought (*Aj* 53.16–17). Her two guardians (*dvāradevatā*) are Ulkāmukhī and Vijihvā ("She who has a mouth of fire" and "She who has no tongue"). Her mount, the lion, should be in front of the door. Her eight Attendants are Bhūmi, Jyeṣṭhā, Moṭī, Mohinī, Prakṛti, Vikṛti, Niyati and Nivṛtti. Lastly, on the main altar for offerings outside the sanctuary (*bāhyasthe mahāpīṭhe*), should be installed the whole group of Pūtanā (*Aj* 53.45–49).

Sūrya

§ 5.25. All positions suitable for the Liṅga are suitable for the sanctuary of Sūrya. Whether installed in a village or in other inhabited area, or in a sanctuary of Śiva, his temple should always be in the eastern sector and always open to the West (*Aj* 54.11–12). His guardians (*dvārādhyakṣa*) are Ugra and Praśānta; in front of his door should be installed Aruṇa the charioteer and one horse. His attendants are the Lokapāla (*Aj* 54.95–98).

VI

CONCLUSION

§ 6.1. A study of this kind can only draw partial conclusions bearing more upon the characteristics of the two texts studied than upon the way in which the whole corpus of works of the same nature envisages architectural questions. The first obvious thing to note is that the place given to architecture varies considerably from one text to the other. The *Ajitāgama* is by far the richer, giving as it does more descriptions and more technical terms. We are however struck by the fact that these descriptions concentrate a great deal upon points of detail and, in a very general fashion, upon the purely external and immediatly visible characteristics of the buildings; added to this, the vocabulary is considered as known and the minuteness of the descriptions assumes mastery of the *śilpaśāstra* on the part of the reader. This last factor is even more pronounced in the *Rauravāgama* which, as we have said, enumerates more than it describes; for example there is some ambiguity in its references to specific types of bases and pillars since, as we have seen, similar names are often used to designate different types: for example *padmapīṭha* pedestal, *ābhāsa* temples and *viśāla maṇḍapa*. This does not prevent the text from otherwise giving a series of interesting data on the interior layout of the "large" *prāsāda* as well as on the form of the roof of *gopura* and on the presence of a lantern above some *maṇḍapa*; it is very obvious in view of this last point that the *Raurava* is referring to known concepts which it remains for us to find more comprehensively presented in other texts. Finally, it is somewhat surprising to find the *Raurava* giving so little space to the rites which accompany construction, and to note the complete absence of any directions as to the sites propitious for the installation of a sanctuary. This lacuna is all the more curious in that the same work deals so extensively with the installation of the provisional temple. It is almost as if the compiler con-

siders that the temple is of interest to his readers only once it is built, the exposition of the provisional temple being justified since this building comes into play during construction of a new temple as well as during restoration work, to which the *Raurava* devotes a few verses. This explanation is not completely satisfactory however and we are inclined to think that these omissions must have occured during transmission of the text.

§ 6.2. Dimensions and proportions are important in our texts as in most parallel ones and, as we have seen, half of the chapter the *Raurava* devotes to *prāsāda* deals with little other than these questions; in the *Ajita* we notice the same kind of trend in the chapter dealing with *maṇḍapa* and these are only two examples amongst many. We are bound to wonder what the function of all these dimensions is, in works which do not appear to be intended for the construction technicians, and to wonder at the specificity of the dimensions given, in view of the texts' silence when it comes to construction techniques. We consider that the explanation is two-fold: firstly, dimensions play a decisive part in determining the auspicious character of the building by the expedient of the *āyādi* series. Even if the priest in charge of the temple, or the temple founder, has only a limited interest in techniques used to build the temple, it is likely that he is very much concerned with everything relating to the fruits that the service of the temple or its construction will bestow. It is possible to say that the choice of dimensions relates to the religious aspect of temple building as do the choice of the site and the placing of the foundation deposit. We consider that the second explanation of the importance accorded to dimensions is found in a certain hierarchical classification of buildings which, although it does not always appear clearly in the two texts studied here, does so more distinctly in others; thus, for example, the *Mayamata* (9.79 and following) explains that "small" temples are for small villages and that it is equally a mistake to construct a superior-class temple in an inferior built-up area as to do the reverse. This interest in dimensions accords with a general concern for conformity to strict norms; the same concern is apparent for the accomplish-

ment of the rites as for the establishment of the construction in which they are to be performed. Here we would seem to be touching upon the essential aim of the expositions relating to architecture in the manuals we have been studying: they give, above all, the norms and references which allow for a degree of control of the work done by the technicians, when the temple is constructed as well as during subsequent work. Ancient witness to this role played by *āgama* is given in an inscription from Uttaramērūr dating, most likely, from the eighth century, where it is said that the temple of Sundaravaradaperumāl was "built according to *āgama*-s" (V. Ganapathi Sthapati, "An interesting inscription from Uttiramerur". *Seminar on inscriptions- 1966*, ed. by R. Nagaswamy, Madras, 1968, p. 178 sq.; F. Gros et R. Nagaswamy, *Uttaramērūr*, Pondicherry 1970, p. 81). Much more recently, that is to say just a few years ago, we have seen the priests of the great sanctuary of Tirupati using the authority of the *āgama*-s to oppose the opening, in the enclosure wall of the temple, of a supplementary door intended to facilitate the circulation of the vast throngs of pilgrims who come there every year to make their devotions. This last example which is by no means unique shows very cogently how the *āgama*-s may be used, in a sense, against the technicians or, to be more precise, how they may be used by the technicians of the ritual against those representing more worldly concerns. It is safe to assume that such use is not new and that, as we have noted above, it is the one for which our texts were compiled. From the point of view of the study of architectural traditions the interest of these texts may thus be considered as being to some extent limited, since their area of concern is ritual and whatever touches more or less directly upon it; this has nevertheless the advantage to us of providing information which can be said to have been considered mandatory.

APPENDIX
I

Emendations to the published texts

References are to the *kriyāpāda*. The abbreviation "Ms" following a proposed emendation indicates that it is supported by a reading shown in a critical note on the published text; its absence indicates a conjecture.

Ajitāgama

5.31b	*maṇḍūkavat*	instead of	*bandhūkavat*
10.56b	*āvartam apasavyakam* (Ms)	"	*āvartam atha savyakam*
11.9a	*kaṇṭhaṃ* (Ms)	"	*karṇaṃ*
11.10a	*kaṇṭhaṃ* (Ms)	"	*karṇaṃ*
12.11b	*dvividhaṃ* (Ms)	"	*vividhaṃ*
12.31b	*catuḥpañcāṃśahīnaṃ vā* (Ms)	"	*catuḥpañcāṃśakaṃ vāpi*
12.44a	*dvāraṃ naiva* (Ms)	"	*dvāraṃ caiva*
12.63a	*daśāṃśake*	"	*navāṃśake*
13.7a	*padmaṃ ekaṃ* (Ms)	"	*pādam ekaṃ*
13.13b	*padmavājanam* (Ms)	"	*padmaṃ vājanam*
13.16a	*tadarthaṃ* (Ms)	"	*tadardhaṃ*
14.16b	*tatkarṇamānena*	"	*tatkaṇṭhamānena*
14.34a	*dhṛgunnatim*	"	*dṛgunnatim*
14.34b	*syāt kaṇṭham*	"	*syāt kuṇḍam*
14.38a	*tasyotsandhikam* (Ms)	"	*tasyotsedhakam*
14.42b	*atidhāreṣu* (§ 3.21)	"	*atibhāreṣu*
14.46a	*karkarīkampanirgatiḥ*	"	*karkarīkaṇṭhanirgatiḥ*
14.65b	*veśanaṃ*	"	*vājanaṃ*
28.65a	*sopapīṭhakam*	"	*somapīṭhakam*
37.11a	*bhaveddhīnam*	"	*bhaveddhīman*

Rauravāgama

28.77b	*dṛgbhāgaṃ*	"	*digbhāgaṃ*
28.80b	*karṇavetro*	"	*karṇaveśo*

33.21a	*karṇeṣūkṣayutaṃ*	"	*karṇeṣūktayutaṃ*
33.21a	*nāṭikānvitam* (Ms)	"	*nālakānvitam*
39.12b	*karṇeṣu* (Ms)	"	*kaṇṭheṣu*
39.17b	*karṇe karṇe* (Ms)	"	*kaṇṭhe kaṇṭhe*
39.20a,23b,24b	*kuḍmala°* (§3.30)	"	*kuṇḍala°*
40.7b	*maṇḍapasyokto°*	"	*maṇḍalasyokta°*
40.18a	*anyathāṅghryāvṛtaṃ*	"	*anyathānyāvṛtaṃ*
42.2a	*triguṇam tu vā* (Ms)	"	*dviguṇam tu vā*
42.4b	*sabhākaram*	"	*sahārakam*

II

Unpublished chapters of the *kriyāpāda* of the *Ajitāgama*
(list communicated by M. N. R. Bhatt)

55 *Kṣetrapālasthāpanam*
56 *Parivārasādhāraṇasthāpanam*
57 *Sarasvatīsthāpanam*
58 *Śūlasthāpanam*
59 *Vimānapratiṣṭhāvidhiḥ*
60 *Golakādisthāpanam*
61 *Gurupratiṣṭhāvidhiḥ*
62 *Harmyasaṃprokṣaṇavidhiḥ*
63 *Vṛṣadānavidhiḥ*
64 *Pradakṣiṇanamaskāravidhiḥ*
65 *Vasantotsavavidhiḥ*
66 *Navanaivedyavidhiḥ*
67 *Kṛttikādīpavidhiḥ*
68 *Pratyayādipaṭalaḥ*
69 *Adbhutaśāntiḥ*
70 *Jīrṇoddhāravidhiḥ*
71 *Saṃprokṣaṇavidhiḥ*
72 *Piṇḍikāsthāpanavidhiḥ*
73 *Prāyaścittavidhiḥ*
74 *Sakalārcanavidhiḥ*
75 *Viśeṣotsavavidhiḥ*
76 *Damanotsavavidhiḥ*
77 *Dīkṣāvidhiḥ*
78 *Śaivaśrāddhavidhiḥ*
79 *Ārcakasyāśaucavidhiḥ*
80 *Bhogāṅgārcanavidhiḥ*
81 *Śāstur utsavavidhiḥ*
82 *Bhaktapratiṣṭhāvidhiḥ*
83 *Ācāryalakṣaṇavidhiḥ*
84 *Śraddhotsavavidhiḥ*

BIBLIOGRAPHY

(PIFI: Publications de l'Institut Français d'Indologie, Pondichéry)

Aj = *Ajitāgama* crit. ed. by N. R. Bhatt, 2 vols. so far published, PIFI vols. 24–I, 1964, and 24–II, 1967.

Rau = *Raurāvāgama* crit. ed. by N. R. Bhatt, 2 vols. so far published, PIFI vols. 18–I, 1961, and 18–II, 1972.

Parallel sources

Dīptāgama (unpublished, transcript IFI n° T. 16).

Īśānaśivagurudevapaddhati ed. by T. Ganapati Sastri, Trivandrum Sanskrit Series vols. 69, 72, 77, 83, 1920–1925.

Kāmikāgama, Madras 1900 (Grantha characters).

— do, transcript IFI n° T. 198.

— *Pūrvakāmikāgama*, Madras 1975 (Nagari characters).

— *Uttarakāmikāgama*, Madras 1984 (do.).

— see also N. R. Bhatt, Analyse du Pūrvakāmikāgama in *Bulletin de l'Ecole Française d'Extreme-Orient* vol.64, 1977, pp. 1–38.

Kāraṇāgama

— *Pūrvakāraṇāgama*, Madras 1921 (Grantha characters).

— *Uttarakāraṇāgama*, Madras 1901 (do.).

Kāśyapajñānakāṇḍa ed. by R. Bh. Parthasarathi, Tirupati 1960.

— do., trans. by T. Goudriaan: *Kāśyapa's book of wisdom (Kāśyapajñānakāṇḍa) a ritual handbook of the Vaikhānasas*, Den Hague, 1965.

Kāśyapaśilpaśāstra ed. and Tamil transl. by K. S. Subrahmanya Sastri, Tanjore Sarasvati Mahal Series vols.89 (= part II), 1960, and 122 (= part I) 1968.

— *Kāśyapaśilpa* Ānandāśrama Sanskrit Series vol. 95, 1926.

Mānasāra sanskrit text with critical notes by P. K. Acharya, Oxford University Press, 1933 (reprint New-Delhi 1979).

— do., transl. by P. K. Acharya: *The Architecture of Mānasāra*, O.U.P. 1933 (reprint New-Delhi 1980).

Marīcisaṃhitā Śrīvimānārcanakalpa, Tirupati 1926.

Mayamata crit. ed. and French transl. by B. Dagens, PIFI vols. 40–I, 1970, and 40–II, 1976.

Mṛgendrāgama (kriyāpāda and caryapāda) crit. ed. by N. R. Bhatt, PIFI vol. 23, 1962.

Śilparatna ed. by T. Ganapati Sastri, vol. I, Trivandrum Sanskrit Series vol. 75, 1922.

Suprabhedāgama, Madras 1928 (Grantha characters).

— see also H. Brunner, Analyse du Suprabhedāgama in *Journal Asiatique*, vol. 255, 1967, pp. 31–60.

Tantrasamuccaya ed. by T. Ganapati Sastri, 3 vols., Trivandrum Sanskrit Series vols. 151, 169, 200, 1945–1962.

— do.: for the translation of passages dealing with architecture see below N. V. Mallaya's book.

Technical glossaries

Acharya (P.K.), *A dictionary of Hindu Architecture*, O.U.P., 1927 (reprint New-Delhi 1981).

Acharya (P. K.), *An Encylopaedia of Hindu Architecture*, O.U.P., 1946 (reprint New-Delhi 1979).

Meister (M. W.) and Dhaky (M. A.) (editors), *Encyclopaedia of Indian Temple Architecture*, vol. I part I in 2 vols., New-Delhi 1983.

Pevsner (N.), Fleming (J.) and Honour (H.), *A Dictionary of Architecture*, revised and enlarged, London 1975 (rev. ed. of J. Fleming, H. Honour and N. Pevsner, *The Penguin dictionary of architecture*, 2nd. ed., 1972).

Shukla (L. K.), *A study of hindu art and architecture*, Chowkhamba Sanskrit Series vol. 82, Varanasi 1972.

Sircar (D. C.), *Indian epigraphical glossary*, Delhi 1966.

Vocabulaire de l'architecture, 2 vols, Inventaire général des monuments et richesses artistiques de la France—Principes d'analyse scientifique, Paris 1972.

Books and articles

Acharya (P.K.), *Indian architecture according to Mānasāra-Śilpa-śāstra*, O.U.P., 1927 (reprint New-Delhi 1981).

Chandra (P.), The study of Indian temple architecture in *Studies in Indian temple architecture* (ed. by P. Chandra), Varanasi, 1975, pp. 1–39.

Coomaraswamy (A.K.), Indian architectural terms in *Journal of American Oriental Society*, vol. 48, 1928, pp. 250–275.

Filliozat (J.), Les Āgama çivaïtes, in *Rauravāgama* (ed. N.R. Bhatt) . . . vol. I, pp. V-XV.

Jouveau-Dubreuil (G.), *Archéologie du Sud de l'Inde*, vol. I: *Architecture*, Annales du Musée Guimet—Bibliothèque d'Etudes vol. 26–I, Paris 1914 (English transl. by S. Krishnaswami Aiyangar under the title *Dravidian architecture*, Madras 1917, reprint Varanasi 1972).

Kramrish (S.), *The Hindu temple*, 2 vols., Calcutta, 1946 (reprint Delhi 1976).

Krishnan (K.G.), Architectural terms in South-Indian inscriptions in *Studies on Indian temple architecture* (ed. by P. Chandra), Varanasi, 1975, pp. 307–317.

Mallaya (N.V.), *Studies in Sanskrit texts on temple architecture*, Annamalai, 1949.

Ram Raz, *Essay on the architecture of the Hindus*, London 1834 (reprint Delhi 1972).

Renou (L.), La maison védique in *Journal Asiatique*, vol. 231, 1939, pp. 481–504.

Sarkar (H.), *The Kampaharesvara temple at Tribhuvanam*, Pub. of the Department of Archaeology- Government of Tamil Nadu, Madras 1974.

Srinivasan (P.R.), A Sanskrit inscription of the time of Rājendra Chola I from Tiruvorriyūr in *Journal for Oriental Research-Madras*, vol. 32, 1962-63, pp. 11–15.

Stern (P.), *Colonnes indiennes d'Ajantâ et d'Ellora*, Publications du Musée Guimet-Recherches et documents d'art et d'archéologie vol. XI, Paris 1972.

Varma (K.M.), *The Indian technique of clay modelling*, Santiniketan, 1970.

INDEX OF ARCHITECTURAL TERMS FOUND IN THE AJITĀGAMA AND IN THE RAURAVĀGAMA

When one of the two texts (*Aj*, *Rau*) is mentioned after a Sanskrit term or an English equivalent this indicates that the term, or equivalent, appears in, or is valid, only for the text mentioned. The Sanskrit terms which are not found in our two texts are in brackets.

A

antarāla:—1. passage linking *prāsāda* and *mukhamaṇḍapa* §§ 3.40; 4.9; 5.2.—2. passage linking two *maṇḍapa* (*Rau*) § 4.22.
antarita (*Aj*): groove (recessed moulding) §§ 3.8, 23.
antargṛha (*Aj*): = *garbhagṛha* § 4.7.
antarmaṇḍala: first enclosure §§ 5.5, 6.
antarhāra: second enclosure § 5.5.
antaḥsthāna (*Aj*): = *garbhagṛha* § 4.7.
apakveṣṭakā (*Aj*): dried brick § 2.12.
abja (*Aj*): doucine § 3.9.
ambuja (*Aj*): doucine § 3.9, 20, 31.
argala (*Rau*): horizontal latch §§ 3.38; 4.57.
ardhacandrākṛti (*Rau*): half-moon like (ref. coping of wall or merlons) § 5.8.
ardhamaṇḍapa: = *mukhamaṇḍapa* § 4.9.
alinda (*Rau*): aisle (in a temple) §§ 3.33, 41; 4.7, 8.
alpanāsikā: small false dormer-window *or* small niche §§ 3.28, 44; 4.11.
avakāśa: see *sāvakāśa*.
avani (*Aj*): lower string-course (moulding) § 3.5.
aśman: stone §§ 2.10, 12; 5.4.
aṣṭabandha, aṣṭabandhana: kind of mortar §§ 2.16; 5.3.
aṣṭāśra: see *kairava aṣṭāśra*.

Ā

ādyeṣṭakā (*Aj*): first brick (laid in place during foundation ceremonies §§ 2.8, 12, 24.
ādhāra (*Aj*): base, level of base §§ 3.14; 4.6.
ādhārapaṭṭī (*Aj*): slab (element of finial) § 3.31.
ādhāraśilā (*Rau*): liner (for Liṅga) §§ 2.17; 5.3.
ābhāsa:—1. category of *prāsāda* (*Rau*) §§ 4.5, 8.—2. type of sanctuary (*Aj*) § 5.5.
āyādi: set of series used to establish character, auspicious or inauspicious, of a dimension §§ 2.6, 7.
āyāma: length § 2.5.
ālaya: temple *or* sanctuary §§ 4.2; 5.9
āvāsaka (*Rau*): sanctuary § 5.19.

āsya (*Aj*): band decorated with masks (part of bell-capital) § 3.19.

āsthānamaṇḍapa: audience pavilion (where portable images are kept and clothed) §§ 4.19, 23.

I

iṣṭa (*Rau*): = *iṣṭakā*? § 2.12.

iṣṭakā: brick § 2.12.

iṣṭakāgarbha (*Rau*): core of bricks (of a pedestal or of an altar) §§ 2.13; 5.3.

U

uttara (*Aj*):—1. architrave §§ 3.21, 23–25, 45; 4.18, 31.—2. cross-beam (of the frame supporting the swing) § 4.31.

utsandhi (*Aj*): element of bell-capital § 3.19.

udumbara (*Aj*): lintel of a door § 3.38.

upadaṇḍa: top-part of *dhvajadaṇḍa* § 5.12.

upapīṭha: socle (under the base of a building or under *mahāpīṭha*) §§ 3.1, 11, 12, 13, 37; 4.6, 9, 16, 31; 5.11. Tab. I and IV.

upavedikā (*Rau*):—1. socle (under central platform of sacrificial pavilions) §§ 3.3, 13; 4.24, 28.—2. socle (under the base of flag-pole) §§ 3.13; 5.12.

upāna:—1. plinth (usually narrow) §§ 2.5; 3.3, 37; 4.31; 5.6.—2. socle (= *upavedikā* 1.) (*Aj*) §§ 3.3, 13; 4.26.—3. see *kṣudra upāna*.—4. adjustment layer (*Aj*) §§ 2.5, 25.

E

ekatala, ekabhū, ekabhūmi: one-storeyed building § 3.12. (ekaśāla: house consisting of a unique building § 4.40.)

K

kaṇṭha:—1. recessed moulding (groove, recessed strip, dado) §§ 3.2, 8, 13, 19, 23, 25, 31.—2. attic, level of attic §§ 3.25; 4.6.

11

G

Gh

ghaṭa (*Aj*): vase (main element of finial) § 3.31.
ghṛtavārī: rim (at top of pedestals) §§ 3.6; 5.4.

C

cakrapīṭha (*Aj*): type of pedestal §§ 3.8, 9; Tab. III-B.
catuśśāla (*Aj*): house with four main buildings §§ 3.32; 4.40; 5.9, 10.
candrakānta (*Aj*): type of bell-capital § 3.19.
caraṇa: pillar, level of pillars §§ 3.16; 4.6, 36.
carukhaṇḍa (*Aj*): type of pillar § 3.22.
citāsthāna (*Rau*): site for funeral pyre § 4.32.
citrakhaṇḍa (*Aj*): type of pillar § 3.22.
cūrṇa (*Aj*): lime § 2.16.

Ch

chattrākāra: convex or pyramidal (ref. terraced or four sloped roofs) §§ 3.24, 29.
chattrābha (*Rau*): pitched (apropos coping of wall) § 5.8.
chanda (*Rau*): class of *prāsāda* § 4.5.

J

jagativasumatī (*Aj*): lower string-course (moulding) § 3.5.
jagatī:—1. thick plinth (*Aj*) §§ 3.3, 7.—2. lower string-course §§ 2.5; 3.5; 5.6.
jagatīdala (*Aj*): lotus-like lower string-course (?) § 3.5.
jayada (*Rau*): method for calculating height of *prāsāda* § 4.5.
jayantī (*Aj*): joist § 3.24.
jarjara (*Aj*): cellular (ref. stones) § 2.10.
jalaja (*Aj*): doucine § 3.9.
jalanirgamanacchidra (*Aj*): duct bored through wall of sanctum § 4.7.

jalamārga (*Aj*): gutter (at eave of roof) *or* drain (bored through a wall) § 4.36.
jalāyana (*Aj*): gutter (of gargoyle) § 4.7.
jāla, jālaka: latticed window §§ 2.1; 3.40; 4.22.

Ḍ

ḍolāmaṇḍapa (*Aj*): pavilion for ceremony of the swing §§ 3.44, 45; 4.15, 16, 19, 23, 31.

T

tati: width §§ 2.5; 5.6.
taraṅga (*Aj*): wave (decoration) § 3.21.
taruṇālaya (*Rau*): provisional temple §§ 2.8, 14, 21, 27; 3.27; 4.1, 37.
tala:—1. base, level of base § 3.14.—2. storey §§ 3.12; 4.35.
tāla:—1. span (= half a cubit) § 2.1.—2. conventional unit for images § 2.4.
tulā (*Aj*): beam § 3.24.
tṛṇa (*Rau*): thatch § 2.8; 4.37.
toraṇa:—1. arch §§ 3.34, 44, 45; 4.10, 22, 28; 5.8.—2. frame (for suspending a swing) (*Aj*) § 4.31.
taila: oil § 2.16.

D

daṇḍa:—1. pole (= 4 cubits) (*Aj*) §§ 2.1, 22.—2. module §§ 2.2; 3.17...—3. width of main temple taken as a relative unit §§ 2.2; 5.6...—4. main part of *dhvajadaṇḍa* § 5.12.
dala: petal (of lotus of *mahāpīṭha*) § 3.9.
dārupāda (*Aj*): wooden pillar §§ 2.8; 3.17.
dīpadaṇḍa (*Rau*): post for lamp § 2.14.
dṛk (*Aj*): one of the mouldings of bell-capital (error for *dhṛk*?) § 3.19.
dṛṣad (*Aj*): stone § 2.10.

Dh

N

P

B

Bh

M

makara (*Aj*): top part of arch § 3.45.
mañca: entablature §§ 3.23, 25; 4.2, 18; 5.19.
maṇṭapa: see *maṇḍapa*.
maṇḍa (*Rau*): for qualifying a *maṇḍapa* with complete pillar network §§ 3.19; 4.14, 18.
maṇḍapa: pavilion (building with three-level elevation) passim see § 4.13 and following, 4.9; 5.9, 14.
maṇḍala (*Aj*):—1. circumvolution (defect in stones) § 2.10. —2. "circle" (constituted by the eight main Attendants) § 5.14.
maṇḍi: abacus (placed on top of bell-capital) §§ 3.18, 19; 4.18.
maṇḍikā (*Aj*): element of abacus § 3.19.
maṇḍita (*Rau*): = *maṇḍa* §§ 3.19; 4.14, 18, 20.
(maṇḍitastambha: ? § 3.20).
maṇḍya (*Rau*): = *maṇḍa* §§ 3.19; 4.14, 18.
matsya (*Aj*): figure formed by intersection of two circles § 2.22.
madhyahāra: third enclosure § 5.5.
mandira (*Rau*): sanctuary (of Viṣṇu) §§ 4.2; 5.1, 18.
maryādi: fourth enclosure § 5.5.
masūra (*Aj*): base § 3.14; 4.6.
mastaka (*Rau*): roof (fifth level of elevation) §§ 3.27; 4.6.
mahāgopura (*Aj*): gateway of fifth enclosure § 4.33.
mahānāsikā (°nāsī): large niche *or* large false dormer-window §§ 3.28, 44; 4.12.
mahāpaṭṭikā: upper string-course §§ 3.6, 26.
mahāpīṭha: main altar for offerings §§ 3.1, 2, 6–8, 11, 13, 41; 5.1, 11, 12.
mahāmaryādi (*Rau*): fifth enclosure § 5.5.
mātra: = *aṅgula* §§ 2.1–4.
mātrāṅgula (*Aj*): conventional unit used for ceremonies § 2.4.
mānasūtra (*Aj*): = *pramāṇasūtra* §§ 2.5, 23; 3.3, 14, 32, 33.
mānāṅgula (*Aj*): digit (absolute unit of measure) § 2.1.
mālā (*Aj*): entablature frieze § 3.26.
mālikā: cloister-shaped gallery §§ 3.12, 32, 33, 35; 4.2, 36; 5.8, 9.

Y

R

L

lambana (*Aj*): overhang (of a dripstone) § 3.23.
lalāṭa (*Aj*): gable §§ 3.12; 4.12.
līkṣa (*Aj*): nit (unit of linear measure) § 2.1.
lupā (*Rau*): rafter §§ 2.14; 3.29; 4.14, 18.
loha: metal §§ 2.9, 24.

V

vaktra:—1. = *āsya* (*Aj*) § 3.19.–2. door of sanctum (*Rau*) § 3.37.
vajrakhaṇḍa (*Aj*): type of pillar § 3.22.
vajrapīṭha (*Aj*): type of pedestal § 3.9; Tab. III.
vajrabandha (*Rau*): type of mortar §§ 2.16; 5.3.
varga:—1. level of elevation §§ 3.1, 12, 29; 4.9...—2. generic name of *āyādi* series § 2.6.
valka (*Aj*): peduncle (element of finial) § 3.31.
vasantaka (*Aj*): frieze of entablature § 3.23.
vasumatī (*Aj*):—1. thick plinth §§ 3.3, 7.—2. lower string-course § 3.5.
vastu (*Aj*): dwelling-place (in the broadest sense) § 2.6.
vastraśālā (*Aj*): edifice where statues are clothed §§ 4.40; 5.16.
vājana (*Aj*):—1. fillet §§ 3.11, 15, 23, 35.—2. string-course § 3.6.—3. fascia (at top of architrave) § 3.23.
vāra:—1. one of *āyādi* series §§ 2.6–7.—2. surrounding gallery (*Aj*) §§ 3.34; 4.22.
vālāgra (*Aj*): hair end (unit of linear measure) § 2.1.
vāsantika (*Aj*): type of pillar § 3.22.
vikalpa (*Rau*): category of *prāsāda* § 4.5.
vijayapīṭha (*Aj*): type of pedestal § 3.7; Tab. III-A.
vidyāsthāna (*Aj*): school § 5.10.
vimala (*Aj*): speck of metal (?) (defect in stones) § 2.10.
vimāna: temple § 1.8; 4.2.
viśāla:—1. width § 2.5.—2. kind of forepart (?) (*Aj*) §§ 3.35; 4.12.
viṣa (*Aj*): a colouring substance § 2.10.

Ś

Ṣ

S

snānavedī: platform for bathing of the Liṅga or of images, placed in pavilion for installation or in *snānamaṇḍapa* §§ 4.25, 28, 29.

snānaśvabhra: pit for bathing of the Liṅga or images § 4.25.

snānāmbhaḥsthāna (*Aj*): place for storing water for bathing of the god § 5.10.

svastibandhana (*Aj*): type of *prāsāda* § 4.12.

H

harmya: temple §§ 4.2; 5.19.

(harmya: see *dvāraharmya*.)

harmyākāra: for qualifying a flat roof §§ 3.29; 4.35.

hasta: ordinary cubit (= 24 digits) § 2.1.

hastipṛṣṭha (*Aj*): type of apsidal *prāsāda* §§ 3.28, 32; 4.12; 5.13, 14.

hastihasta (*Aj*): railing of stairs § 3.41; 4.12.

hāra (*Rau*): exterior wall of aisle §§ 4.8, 10.

hārāntara (*Rau*): parts of walls of *prāsāda* visible between decorative aediculae § 4.10.

hīna (*Aj*): part of bell-capital (?) § 3.19.

homa (*Rau*): adjustment layer §§ 2.5, 25.

TABLE I

Moulded socles (*upapīṭha*) according to *Ajita* (§ 3.13)

I (*Aj* 11.5–7a)	
kampa: fillet	1/12
vājana: upper string-course	1/12
padma: (upright) doucine	1/12
kampa: fillet	½/12
gala: dado	5/12
kṣepaṇa: fillet	½/12
padma: (inverted) doucine	1/12
pāduka: plinth	2/12

II (*Aj* 11.7b–9)	
kampa: fillet	1/21
vājana: upper string-course	2/21
kampa: fillet	1/21
kaṇṭha: dado (a)	8/21
kampa: fillet	1/21
vājana: string-course	2/21
kandhara: groove	1/21
padma: (inverted) doucine	3/21
upāna: plinth	2/21

III (*Aj* 11.10)	
kampa: fillet	1/16
paṭṭikā: upper string-course	2/16
padma: (upright) doucine	2/16
kampa: fillet	1/16
kaṇṭha: dado (b)	5/16
kampa: fillet	1/16
kamala: (inverted) doucine	2/16
upāna: plinth	2/16

IV (*Aj* 11.11)	
kampa: fillet	1/19
paṭṭikā: upper string-course	2/19
padma: (upright) doucine	2/19
kampa: fillet	1/19
gala: dado	8/19
kampa: fillet	1/19
ambuja: (inverted) doucine	2/19
pāduka: plinth	2/19

V (*Aj* 11.12)	
kampa: fillet	1/14
paṭṭikā: upper string-course	2/14
ambuja: doucine	1/14
kampa: fillet	½/14
gala: dado	6/14
kampa: fillet	½/14
paṅkaja: doucine	1/14
pāduka: plinth (?) (c)	1/14
ambuja: doucine (?)	1/14

Notes

(a) reading of the Mss. B,C,E (instead of *karṇa*).

(b) ditto.

(c) the description is not clear; it seems that the two lower mouldings have been reversed (for the prosody?).

TABLE II (1)

Moulded bases (*adhiṣṭhāna*) according to *Ajita* (§ 3.15)

Pādabandha types

I (*Aj* 13.2–3)

Upper register:

kampa: fillet	1/28
paṭṭikā: upper string-course	3/28
padma: doucine	1/28
kampa: fillet	1/28
kaṇṭha: recessed strip	3/28
kampa: fillet	1/28
padma: doucine	1/28
kampa: fillet	1/28
kairava: torus	3/28
abja: doucine	1/28
kaṇṭha: groove	1/28
ambuja: (inverted) doucine	6/28
kṣudra upāna: false-plinth	1/28

Lower register:

pāda: string-course with miniature pilasters (?) (a)	2/28
upāna: plinth	2/28

II (*Aj* 13.4)

kampa: fillet	1/24
mahāpaṭṭikā: upper string-course	3/24
kampa: fillet	1/24
gala: recessed strip	3/24
kampa: fillet	1/24
kairava: torus	7/24
vasumatī: plinth	8/24

III Unnamed type (*Aj* 13.5)

Upper register:

paṭṭikā: upper string-course	3/28
jalaja: doucine	1/28
kampa: fillet	1/28
kaṇṭha: recessed strip	3/28
āliṅga: fillet	1/28
kairava aṣṭāśra: chamfered string-course	7/28
jagativasumatī: lower string-course	7/28
kṣudra upāna: false-plinth	1/28

Lower register:

abja: (inverted) doucine	2/28
pāduka: plinth	2/28

IV Kapotabandha type (*Aj* 13.6–7)

Upper register:

vājana: fillet	1/31
prati: upper string-course (b)	2/31
antarita: groove	1/31
āliṅga: fillet	1/31
kapota: drip-stone (c)	3/31
padma: doucine	1/31
kampa: fillet	1/31
gala: recessed strip	3/31
kampa: fillet	1/31
padma: doucine	1/31
kumuda suvṛtta: "well rounded" torus	3/31
padma: doucine	1/31
dṛk: ?	1/31

Lower register

padma: doucine	1/31
avani: lower stringcourse	5/31
kṣudra upāna: falseplinth	1/31
padma: (inverted) doucine	2/31
pāduka: plinth	2/31

TABLE II (2)

Moulded bases according to *Ajita* (§ 3.15)

Pratibandha types

V (*Aj* 13.8)		VI (*Aj* 13.9)		VII (*Aj* 13.10)		VII Padmabandha type (*Aj* 13.11–13)	
				Upper register:			
kampa: fillet	1/21	*vājana*: fillet	1/15	*vājana*: fillet	1/20	*padmavājana*: lotus-decorated fillet (e)	1/18
prati: upper string-course	2/21	*prati*: upper string-course	2/15	*prati*: upper string-course	3/20	*prati*: upper string-course	2/18
antarita: groove	1/21	*antarita*: groove	1/15	*antarita*: groove	1/20	*antarita*: groove	1/18
ālinga: fillet	1/21	*ālinga*: fillet	1/15	*ālinga*: fillet	1/20	*ālinga*: fillet	1/18
kumuda: torus	8/21	*kairava*: torus	5/15	*kairava*: torus	4/20	*padma*: (upright) doucine	1/18
jagatī: plinth	8/21	*dhātrī*: plinth	5/15	*vasumatī*: lower string-course	5/20	*kumuda*: torus	3/18
				kṣudra upāna: false-plinth	1/20	*padma*: (inverted) doucine	1/18
				Lower register:		*kaṇṭha*: groove	1/18
				padma: (inverted) doucine	2/20	*padma*: (inverted) doucine	5/18
				pāduka: plinth	2/20	*pāduka*: plinth	2/18

Notes:

(a) or "doucine" (*padma*) § 3.15.

(b) decorated with *vyāla*.

(c) decorated with false dormer-windows (*nāsī*).

(d) to be read *dhṛk* (support)?

(e) see § 3.9.

TABLE III(A)

Mouldings of square pedestals according to *Ajita* and *Raurava* (§ 5.4)

Bhadr.apīṭha

Aj 1611-13 *Rau* 28.76-79

ghṛtavārī	*ghṛtavārī*	rim	1/16
paṭṭikā	*paṭṭikā*	upper string-course	2/16
kampa	*kampa*	fillet	1/16
kaṇṭha	*gala*	recessed strip	3/16
paṭṭikā	*kampa*	fillet	1/16
kairava	*kumuda*	torus	3/16
jagatī	*jagatī*	lower string course	4/16
pāduka	*pura*	plinth	1/16

Note:
(a) see § 3.5.

Yakṣapīṭha (*Aj* 16.14-16)

ghṛtavārī: rim	½/16
paṭṭikābandha: fillet	½/16
padma: (upright) doucine	3/16
kampa: fillet	1/16
kairava: torus	2/16
kampa: fillet	1/16
padma: (inverted) doucine	3½/16
jagatī: lower string-course	3/16
pāduka: plinth	1½/16

Śrīkarapīṭha (*Aj* 16.22–25)

ghṛtavārī: rim	'/21
paṭṭikā: fillet	1/21
padma: doucine	1/21
mahāpaṭṭī: upper string-course	2/21
padma: doucine	1/21
kampa: fillet	1/21
gala: recessed strip	2/21
kampa: fillet	1/21
padma: doucine	1/21
kumbha: torus	3/21
kampa: fillet	1/21
kaṇṭha: groove	1/21
jagatīdala: lower string-course (a)	4/21
pāduka: plinth	1/21

Vajrapīṭha (*Aj* 16.17–21)

Upper register:

ghṛtavārī: rim	½/25
ājana: fillet	1/25
mahāpaṭṭī: upper string-course	2/25
padma: doucine	1/25
kampa: fillet	1/25
kaṇṭha: groove	2/25
kampa: fillet	1/25
ambuja: doucine	1/25
vṛttakumuda: torus	3/25
padma: doucine	1/25
kampa: fillet	1/25
padma: (inverted) doucine	3½/25
dharaṇī: lower string-course	4/25
kampa: false-plinth	1/25

Lower register:

padma: (inverted) doucine	1/25
pāduka: plinth	1/25

Vijayapīṭha (*Aj* 16.26-29)

Upper register:

ghṛtavārī: rim	1/16
mahāpaṭṭī: upper string-course	1½/16
padma: doucine	½/16
paṭṭikā: fillet	½/16
kaṇṭha: recessed strip	1½/16
kampa: fillet	½/16
padma: doucine	½/16
kumbha: torus	2/16
padma: doucine	½/16
kaṇṭha: groove	½/16
padma: (inverted) doucine	2/16
jagatī: lower string-course	3/16
kampa: false-plinth	½/16

Lower register:

padma: (inverted) doucine	½/16
pāduka: plinth	1/16

TABLE III (B)

Mouldings of circular pedestals according to *Ajita* and *Raurava* (§ 5.4)

Padmapīṭha

Aj 16.30–32

ghṛtavārī: rim	1/16
paṭṭikā: upper string-course	2/16
padma: (upright) doucine	4/16
vṛtta: reed	2/16
padma: (inverted) doucine	5/16
paṭṭikā: plinth	2/16

Rau 28.79–81

ghṛtavārī: rim	1/16
ūrdhvapadma: (upright) doucine	5/16
karṇavetra: champfered string-course (a)	2/16
adhaḥpadma: (inverted) doucine	6/16
upāna: plinth	2/16

Cakrapīṭha (*Aj* 16.33–35)

ghṛtavārī: rim	½/18
paṭṭikā: upper string-course	1½/18
padma: (upright) doucine	3/18
kampa: fillet	1/18
gala: dado	6/18
kampa: fillet	1/18
ambuja: (inverted) doucine	3/18
paṭṭikā: plinth	2/18

Vedipīṭha (*Aj* 16.36–38)

ghṛtavārī: rim	½/16
kampa: fillet	½/16
padma: doucine	½/16
paṭṭikā: upper string-course	1½/16
padma: (upright) doucine	1/16
kampa: fillet	1/16
kaṇṭha: dado	7/16
kampa: fillet	1/16
padma: (inverted) doucine	2/16
upāna: plinth	1/16

Saumyapīṭha (*Aj* 16.39–40)

ghṛtavārī: rim	1/14
paṭṭikā: upper string-course	1½/14
kampa: fillet	½/14
kaṇṭha: dado	8/14
kampa: fillet	1/14

Ramyapīṭha (*Aj* 16.41–45)

ghṛtavārī: rim	½/16
antarita: groove	½/16
āliṅga: fillet	½/16
prastara: upper string-course	1½/16
padma: doucine	½/16
kampa: fillet	½/16
gala: recessed strip	2/16
paṭṭikā: fillet	½/16
padma: doucine	½/16
vṛttakumuda: torus	2/16
padma: doucine	½/16
kampa: fillet	½/16
kaṇṭha: recessed strip	2/16
kampa: fillet	1/16
padmatuṇḍa: string-course with lotus like decoration (b)	2/16
pāduka: plinth	1/16

Notes:

(a) reading of Ms. C (instead of *karṇaveśa*) see § 3.7.

(b) see § 3.5.

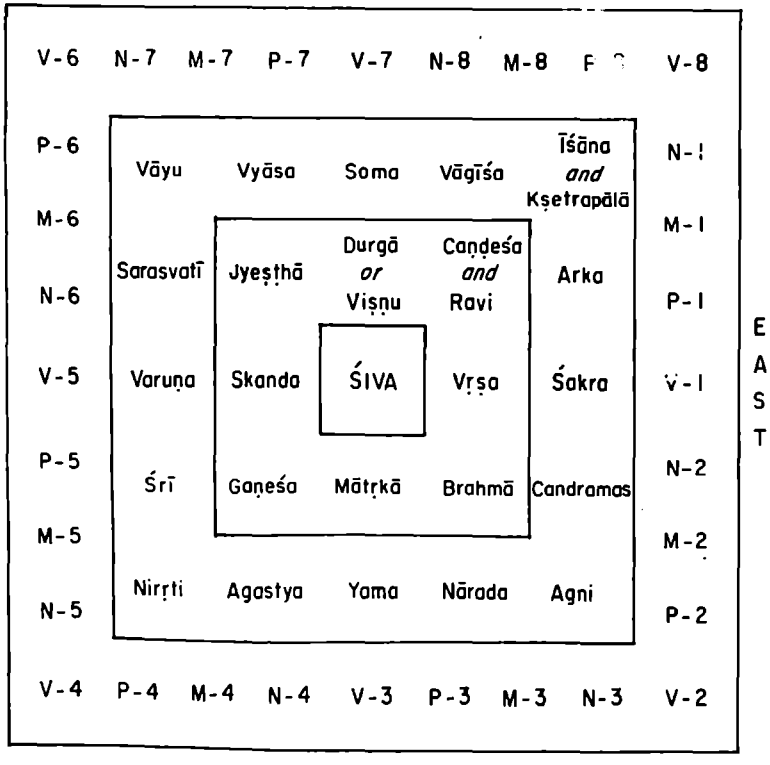
TABLE IV

Mouldings of the *mahāpīṭha* (main altar for offerings) according to *Ajita* and *Raurava* (§ 5.12)

Aj 39.45–50		*Rau* 33.17–19	
"lotus" (*kamala*):		"lotus":	
karṇikā: receptacle	?	*karṇikā*: receptacle	2/24
dala: petals	?	*dala*: petals	4/24
body of the altar:		body of the altar:	
ūrdhvapaṭṭikā: upper fillet	1/21	*kampa*: fillet	1/24
mahāpaṭṭī: upper string-course	2/21	*paṭṭikā*: upper string-course	2/24
paṭṭikā: fillet	1/21	*kampa*: fillet	1/24
gala: recessed strip	3/21	*kaṇṭha*: recessed strip	3/24
paṭṭikā: fillet	1/21	*kampa*: fillet	1/24
kaṇṭha: torus	3/21	*kumbha*: torus	4/24
jagatī: lower string-course	4/21	*jagatī*: lower string-course	5/24
pāduka: plinth	1/21	*upāna*: plinth	1/24
socle (*upapīṭha*):			
paṭṭikā: fillet	1/21		
padma: upright doucine	1/21		
kaṇṭha: recessed strip	1/21		
padma: inverted doucine	1/21		
upāna: plinth	1/21		

TABLE V

Disposition of the Attendants (*pa*[illegible]) according to *Ajita* (see §§ 5.14–[illegible])



V–1... = Vasu (Dhara, Dhruva, Soma, Āpa, Anila, Anala, Pratyūṣa and Prabhāsa).

M–1...= Marut (Gagana, Sparśana, Vāyu, Anila, Māruta, Prāṇa, Prāṇeśa and Jīveśa).

N–1... = Nāga (Ananta, Vāsuki, Takṣa, Kārkoṭaka, Gulika, Śaṅkhapāla, Mahāpadma and Padmaka).

P–1... = Pramatha (Vikṛta, Vivṛtāsya, Pavana, Gaṇapāvana, Pramatha, Mathakāri, Māruta and Mahendra).