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SINHALESE architecture has an unbroken tradition extending to about twenty five centuries. The greatest number of examples in the history of this art are religious, almost entirely Buddhist. Domestic architecture is fairly well-represented, at least for the recent centuries, and there are a few examples of public buildings. Ceylon being situated so close to the great sub-continent of India its works of art, including architecture, as are to be expected, bear a very close resemblence to those of the neighbouring land. Added to geographical reasons, there are also cultural facts which contributed to the close resemblence of the art of Ceylon with the art of India. The religion of the Sinhalese, namely Buddhism, originated in India, and the exponents of the Buddhist teachings came from that land, with the result that religious buildings which they were acquainted with were imitated in the land of their adoption. Inspite of these geographical, religious and cultural contacts, the architecture of the Sinhalese has preserved certain characteristic features of its own, and Ceylon has made a distinct contribution to this branch of art. The Hindu religion, especially the Saivite form of it, introduced some architectural forms to Cevlon, and also made its influence on the Buddhist architecture of Ceylon. The purely Hindu shrines in Ceylon are not discussed here as they have incorporated very little of special characteristics of the island's art. On the other hand, the Buddhist architecture of Ceylon, at least in some instances, has followed its own course.

No one can say with certainty what type of civilization the earliest Aryan colonists of the island met with when they came over. The indications are that there were both hunters and agriculturalists in Ceylon at the time of their first arrival which seems to have taken place round about the sixth century B.C. The hunters must have found ready shelter in the very spacious natural rock-caves that are found in abundance throughout most regions of the island. As the greater proportion of the population became tillers of the soil and began to grow crops, they had to live in close proximity to their cultivation plots. So they shifted closer to the fields. Here their first dwellings would have been platforms on trees, covered with a thatch of leaves, which gave the dwellers protection from the elements as well as from the wild beasts of the forests.

The Sinhalese families of ancient times did not live in separate individual houses, each in a separate plot of land, as the modern farmers of western countries do. Each family, which formed the basis of the society, put up its hut in a group, at a central position from which they could conveniently go to water their fields, and thus arose the collection of homesteads which formed the village (Sinhalese : gama). A wooden fence was created round the village to protect the inhabitants and their livestock from wild beasts. The village was located near a source of water supply and when the village was centrally situated, it developed into a city (Sinhalese : pura), provided with walls and moats. The streams which provided water for the villages and cities were often not perennial, and therefore, water had to be stored up for the dry season. This was done by damming a stream or river, and constructing an artificial lake, called a "tank". There were also tanks scattered all over the dry parts of the island to serve the needs of agriculture. Being rice growers, the Sinhalese preferred to live in dry areas, to use a controlled irrigation system, rather than depend on rain water.

On the banks of the Kirinda river in the south of Ceylon there was the large village of Magama, which became the capital of Rohana, the southern kingdom. In the north on the banks of the Malwatu-oya, Anuradhapura grew to be a city with walls and moats. At first the city walls were of rubble and earth. Later on brick walls have replaced the rubble walls. The city walls of Anuradhapura are not in a good state of preservation. There are examples of better preserved city walls at Polonnaruwa and Panduvasnuwara (Panduvasnuvara) both of the twelfth century. The city walls of Padaviya in the Anuradhapura and Galebedda in the Moneragala District have not yet been excavated. To these may be added the fortresses incorporating rock fastnesses at Sigiriya, Yapahuwa, &c. Fortresses on hills of more primitive construction built of rubble are found in such places as Ritigala (See below).

Of all cities and villages in the island, concerning Anuradhapura we can get a connected account at least from about the third or fourth century B.C. From the accounts in the chronicles we learn that the city was laid out with parks and streets, and there were several ponds and "artificial lakes". Prior to the establishment of Buddhism in the city during the reign of King Devānampiyatissa (250-210 B.C.), the important buildings were the royal residence, and some temples. Platforms were raised, possibly of bricks, round trees and these were known as *mālaka*. Burnt bricks have been used by the Sinhalese from very early times. A very few examples of the remains of domestic architecture have survived.

Even in other sites the larger number of buildings existing as abandoned ruins or as places of worship are of a religious nature, chiefly Buddhist. There are few Hindu shrines, chiefly Saivite and since these are more or less copies of similar shrines in South India and bear very little indegenous characteristics.

The oldest Buddhist edifice found in Ceylon is the $st\bar{u}pa$ (Pali: $th\bar{u}pa$, Sinhalese: $d\bar{u}g\bar{u}ba$). The word $d\bar{u}g\bar{u}ba$ of which the anglisized form is 'dagoba' literally means a relic-chamber, but in effect the edifice which encloses a chamber or chambers containing relics. The oldest dagoba recorded in the chronicles is the Thūpātāma-dāgāba in Anuradhapura built by King Devānampiyatissa (250-210 B.C.), the first Buddhist king of this kingdom. The dagoba at Thūpātāma as it now stands has been renovated in modern times, like many other small dagobas in various parts of the island whose first foundation goes back to pre-Christian times, but which have been repaired time and again, that one hardly knows what their original shapes were (Plate 1).

As time went on, the size of the dagoba increased, and we have three huge stupas in Anuradhapura alone: The Ruvanveliseya, also known as the Mahāthūpa (the "Great Thūpa") begun by King Duṭugämuņu (161-137 B.C.) and completed by King Saddhātissa (137-119 B.C.) is 179 feet high and has a diameter of 298 feet at the base and 253 feet at the dome. The Abhayagiri-dāgāba built by King Valagambāhu (89-77 B.C.) is 245 feet high and the diameter of its dome is 310 feet. The Jetavana-dāgāba built by King Mahasen (A.D. 276-303) rises to a height of 232 feet and the diameter of its dome is 325 feet. Some of the oldest dagobas are at Mihintale where almost every peak of the hill carries one, the largest being the Mahasāya.

The dagoba at Mahiyangane claims to have been founded during the half-time of the Master himself. A small stūpa at this site has been enlarged from time to time, and in the 13th century it is said to have been of *babble-shape*.

The dagobas of Ceylon were of various types : The following are the traditional shapes : ghantbākāra (bell-shaped), ghatākāra (pot-shaped), bubbulākāra (bubble-shaped), dbānyākāra (paddy-heap-shaped), padmākāra (lotus-shaped), āmalaka (shape of the nelli : emblic myrobalan fruit). Since as stated above, the early dagobas have been subject to renovation and enlargement in subsequent periods we are unable to say anything about their original shapes ; but the numerous reliquaries made in the shape of stupas, and miniatures of dagobas found enshrined in ancient stupas themselves or their architectural adjuncts such as the vāhalkaḍa (see below), give us an idea about the form of the old stūpa. (See Diagrammatic Shapes of Sinhalese Dagobas 1-6).

We may also mention important stūpas at the other capital, Polonnaruwa. The Kirivehera, built by King Parākramabāhu (A.D. 1153-1186) has a circumference of

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263 feet. Its height up to the top of the broken kota is 80 feet (Plate 2). Rankotvehera built by King Kirti Niśśankamalla (A.D. 1187–1196) is 550 feet in circumference and its height is 125 feet. To the period of King Parākramabāhu belong three massive dagobas of special type, with a truncated dome on which stood a small dagoba: the Demalamahasäya at Polonnaruwa the Yudaganāvadagaba near Buttala in the South and the Sūtigharacetiva or Kotavehera at Dedigama in the Kegalla District. The Yudaganāva-dāgāba is 180 feet in diameter and 180 feet in height. The Kotavehera of Dedigama is 48 feet high and the diameter of its truncated dome is 253 feet. The Demalamahasava is the largest of the three. After the twelfth century no large dagobas were built. Their dimensions gradually decreased, and the bell-shaped dagoba became the most popular.

From the remains at ancient sites examined in conjunction with the accounts in old literature we gather that the dagoba was usually built on a square platform, raised sometimes up to nine or ten feet from the ground, as in the case of the Kirivehera at Kataragama. Sometimes dagobas are built on tops of natural hills, or on the summits of rocks, the caves on whose flanks are utilized as image-houses or dwellings for monks.

At the base, the dagoba was provided with three platforms (Sinhalese : $p\bar{e}s\bar{a}va$). (Some of the smaller dagobas may have had only one. In the South, the Kirivehera at Kataragama has one $p\bar{e}s\bar{a}va$). From the $p\bar{e}s\bar{a}va$ -platforms arose the dome. Then came a "square structure" (*hataräs-koţuva*) followed by a structure known as the abode of the gods ($d\bar{e}vat\bar{a}-kotuva$). From this

sprang the pinnacle, which was surmounted with a crystal set on a gilt minaret. The arrangement of the relic-chambers of the various dagobas differed from each other according to their size. The smaller dagobas had a smaller square chamber at the level of the lowest $p\bar{e}s\bar{a}va$, a larger chamber at the level of the dome, and yet another small square chamber at the level of the *hataräs-koţuva*, immediately above the dome. Sometimes there were satellite chambers. Walls of some of the relic-chambers contained paintings, some of these depicting incidents from the life of the Buddha. The paintings salvaged from the central chamber of the Mahiyangana dagoba belonging to about the twelfth century are good examples. The walls contained niches, on which were usually placed Buddha statues.

Some of the dagobas were provided with projections at the four cardinal points and later these developed into very beautifully ornamented structures (*vāhalkada*), very good examples of which are partly preserved at the Kanțaka-cetiya at Mihintale and the Mirisävați dāgāba at Anuradhapura. Some of the finest early sculptures of the Sinhalese, such as ornamented stelae, friezes of semi-divine beings, musicians and animals, are incorporated in the *vāhalkada*-structures.

In the very early stages of Buddhism in Ceylon, small thupas were built inside caves, so that they might not be exposed to the weather. The practice continues to the present time. Some of the early thupas were also provided with a circular structural buildings called the *vatadāgē* to give shelter to the thupa and the Buddha statues and flower altars that were placed by it. The vațadăgē was raised on concentric rows of pillars with capitals on which were placed wooden beams. The roof appears to have been domical and built of carved wooden rafters. This type of circular buildings is best illustrated by the vatadage at Mädirigiriya (Plate 3 and Plans No. 1). There is also another good example at Tiriyai (the former Nītupatpāņa) in the North-east of the Island. In the assemblage of monuments called the Quadrangle at Polonnaruwa is also a partly preserved vațadāgē (Plate 4). Examples of smaller vațadāgē-monuments with special features are found at such sites as Rājangane in the Kurunegala District and Menikdena in the Matale District. The pillars standing around the Thupārāma at Anuradhapura belong to an old vatadāgē. Similar pillars are found around a large number of smalldagobas in various ancient sites. Sometimes instead of pillars we have stone bases for wooden pillars.

As the stūpas of Ceylon became larger in size, and assumed colossal dimensions, the provision of vaṭadāgē buildings was not possible. At a late stage the very word vaṭadāgē was used to signify a completely different kind of structure, namely an enclosure with short thatched walls around a dagoba or some other edifice.

A branch of the *bodhi*-tree under which the Buddha attained enlightenment was brought down to Ceylon in the reign of King Devanampiyatissa and planted on a *mālaka* platform in Anuradhapura. This became the most important bo-tree in Ceylon soon after bo-trees were also planted at other important religious sites as well. smoothly polished slabs of stone to represent the 'throne of victory' (*vajirāsana*) on which the Master

sat for enlightenment were placed at the foot of bo-trees. This practice was evidently followed by the placing of Buddha statues on the "thrones". Symbols to represent the feet of the Master were also placed near bo-trees. The erection of a bodhighara (a house for the bo-tree to give shelter to the statues and other sacred objects as well as the tree) was the next stage in the process. According to the narrative of the chroniicles there have been bodhighara edifices over the great bodhi tree at Anuradhapura and another one at the Abhayagiri grounds, possibly where the well-known Samādhi statue now is. Very little now remains at these sites to enable us to know what a bodhighara looked like in ancient times. The only existing example of this type of edifice so far known is at the village of Nilakgama in the Kurunegala District, and the remains of this buildings have been excavated and conserved by the Archaeological Department in 1954 (Plate 5).

The worship of the throne of the Buddha, first placed at the foot of the *bo*-tree as stated above, developed into an important religious practice in Ceylon. An edifice, sometimes like the *valadūgē* and at times rectangular, involving special architectural features, was built to house these thrones, and it came to be known as the *āsanaghara*. Remains of circular *āsanaghara* buildings are preserved at Katuwannawa in the Kurunegala District (Plate 6) and Pulukunava in the Batticaloa District (Plate 7). *Āsanaghara* buildings which may have been rectangular in plan are also known from remains at such sites as Hammillawetiya and Uttimaduwa in the Anuradhapura District. As in the *valadūgē*, in the *āsanaghara* one is able to point out a distinct contribution which Ceylon has made to Buddhist architecture, and the examples of the two types of monuments still extant indeed have features which are not noticeable anywhere else in the history of the development of architecture.

We then come to the patimāghara, the shelters provided for Buddha statues, which have a very interesting history in the island, and which class of monument is represented by various types. In the very early stages rock caves themselves must have provided shelter for Buddha statues just as they provided shelter for the monks. The caves were walled in. To throw out the rain water which would otherwise pour down the cave, drip-ledges were cut. When a cave was not spacious enough, a lean-to roof was provided. Assembly halls (mandapa) were built in front of the cave. When the colossal reclining Buddha image was evolved, the long and spacious natural caves provided very suitable shelters for them. As good examples of cave temples we may mention the group at Dambulla in the Central Province. A fine example of an excavated cave is provided in the Vijjādharagubā in the Galvihāra group at Polonnaruwa. In order to provide shelters for rock-hewn colossal statues the semi-structural image-house was built, the rock out of which the statue is sculptured forming the back wall. The pilimage which housed the 47 feet high standing Buddha at Avukana, built of stone, is one of the finest examples of this class of semi-structural building. Separate shrines were provided for the seated, standing and reclining Buddha images in the Galvihāra group. Similarly, separate rooms had been built for the several figures in the group of Mahāyāna images at Buduruvegala near Wellawaya.

The complete image-house consisted of an inner-shrine or cell (garbha-grha), where the image was placed; then the antarāla, the porch or vestibule, and the mandapa or the open hall. There was a processional path round the garbha for the worshipper to circumambulate the image. The walls of the circumambulatory were usually provided with paintings depicting Jātaka stories and incidents from the life of the Buddha. These stories were also presented in sculptured or stucco figures. The images of the twenty eight Buddhas were also often placed in a circumambulatory.

Image-houses have been built at Anuradhapura in groups of five, the main building being in the centre and four subsidiary buildings in the four corners. The five smaller shrines may have also housed images of the Buddha. It may also be possible that they housed the images of the four guardian gods. These groups of five image-houses are known as the *pañuāyatana*.

The building of image-houses in brick had begun before the sixth century A.D. as these are mentioned by the commentator Buddhaghosa. A very good example of this type of *pilimagē* is found to the west of the colossal stūpa, the Jetavana-dāgāba (Plate 8 and Plan No. 2). The image-house with thick brick walls and vaulted roof at Māligāvila in the present Monaragala District may date from the seventh century A.D. Three good examples of the large image house of brick construction with the vaulted roof are found at Polonnaruwa. The smallest of these, the Thūpārāma, in the area called the Quadrangle possibly belongs to the reign of Parākramabāhu I (A.D. 1153-1186) (Plate 9). The vaulted roof of the garbha of this shrine is still found in almost its entirety. Only a fragment of the roof of the mandapa exists. The other image-house of brick construction with vaulted roof is the Tivanka-pilimagē (Plate 10). Hardly anything of the roof now exists. The exterior of the walls of this building is ornamented with mezzo reliefs of rows of ganas, facades of buildings, pilasters and figures of deities. The inner side of the walls has been painted chiefly with stories from the Jātakas.* The Lankātilaka is the largest of the brick image-houses at Polonnaruwa. It is also the loftiest among the ancient buildings of Ceylon. The full length of the Lankātilaka with the garbha and mandapa is 124 ft. (Plate 11[†]). Its greatest breadth is 67 ft. The Tivanka-pilimagē and the Lankātilaka were built in the reign of Parākramabāhu I.

There were also image-houses of two-floors, which appear to have had their origin with the arrival of the Tooth Relic of the Buddha in Ceylon. In a two-storeyed edifice the lower storey housed Buddha statues while the Sacred Relic was enshrined in the upper storey. Remains of two double-storeyed image-houses are found again in the Quadrangle of Polonnaruwa. One is the shrine popularly known as the Atadāgē built by Vijayabāhu I (A.D.1056-1111) (Plate 12). The other is the Häṭadāge, the Tooth Relic Temple of Niśśańka-malla (A.D. 1187-1196) (Plates 13 A & B). There is an example of a two-storeyed temple which in the thirteenth century housed the Sacred Tooth Relic, still being used as a shrine for Buddha images. This is the ancient temple of the Tooth at Dambadeniya, built by King Parākrama-

^{*} See The Literature of Ceylon in this series.

[†] See also Front Cover.

bāhu II (A.D. 1236–1270). Since the removal of the Tooth Relic both storeys are being used to enshrine Buddha images. This temple is provided with a mandapa of a single storey.

From the two-storeyed temple was evolved the shrine on pillars. Examples of temples which were originally built with two storeys in about the fifteenth century, but later converted into temples-on-pillars in the eighteenth century are found at Ambulugala in the Kegalla District (Plans No. 3) and Medawala in the Kandy District (Plate 14). Once this style of edifice had evolved, it became a favourite throughout the Sinhalese Buddhist country in about the seventeenth and the eighteenth centuries. Stone pillars were readily found from neglected and ruined buildings. Even pillars used for inscribing grants were made use of. Timber was available in plenty, and the building cost very little. A very good example of a temple-on-pillars so built is found at Dorabawila (Plate 15). Here two pillars bearing immunity grants of the tenth century have been used among the pillars employed to rear the shrine on. It has been noticed that originally a dagoba was not erected at the site of a temple-on-pillars, since an upper storey provided for the enshrinement of relics.

There are also unique image-houses built under foreign influence. Definite Andhra style is recognized in the temple at Gadalādeņiya built at the end of the fourteenth century and rebuilt in the early fifteenth century (Plate 16). The edifice on a rock not far from Gadalādeņiya, which also goes by the name of Lankātilaka, has also its peculiar characteristics. The original shrine here, built in the fourteenth century consisted of the cell, porch and hall, all covered by a vaulted roof. An outer building with a semi-vaulted roof was added later on, and the additional space between the two walls is taken up by the temples of the guardian gods (Plate 17). The unique imagehouse of the late eighteenth century at Galmaduwa near Kandy displays Sinhalese, South Indian, Islamic and European features (Plate 18). Over the *cella* of some later image-houses was a structure in the form of a dagoba, taking the place of the *vimāna* of Hindu shrines. At Palkumbura near Kandy there is a good example of such a shrine.

At the last stages of the development of the image-house, those meant for seated or standing images the edifice became somewhat square or slightly rectangular in plan. The entrance was through a doorway, surmounted by a *makara-torana* arch, and by the wall opposite was the main image. An enclosed corridor running round the shrine served as a circumambulatory. The shrines for reclining images are rectangular. Modern influences have by now begun to effect the plan and construction of Buddha-image-shrines as well.

The final achievement in the development of the image-house is the "Palace of the Tooth" (Daladāmāligāva) in Kandy. This edifice in its plan, roof and decorations retains features of ancient Buddhist shrines beginning from the earliest times, and it helps us to understand the purpose which the buildings in the older capitals served, and the ceremony carried out in them. A three-storeyed palace for the Sacred Tooth Relic of the Buddha was built by King Vimaladharmasūrya II (A.D. 1687-1707). This King's son, Śri-Vīraparākrama Narendrasimha (A.D.1707-1739), found the first temple in a neglected state, and reconstructed it as a two-storeyed building. King KIrti Śrīrajasimha improved the building by adding various architectural adornments by way of moonstones, *toraņa*-arches, &c. sculptured in stone. The last king of Kandy, Śri Vikramarājasimha (A.D.1798-1815) added the moat and the octagonal "watch tower" called the *pattirippava* which off-sets from the temple. This "octagon" does not really form a part of the Temple of the Tooth. It is said to have been built for kings to watch games from it, and to present themselves to the public.

The temple of the Bodhisattva Nātha, a Nātha-dēvālē (Plrte 19) existed in Kandy before it became the capital of a provincial king in the sixteenth century. The present temple of Nātha is in front of the Daļadā-māligāva, on a raised area surrounded by a brick wall of typical Sinhalese design, as in the Daļadā-māligāwa and elsewhere in Kandy. This temple, like the Temple of the Tooth, has been re-built and renovated from time to time. To the north of the Nātha-dēvālē is the temple of Vishnu, known as the Mahadēvālē.

The Saivite or Vishnuite temples of purely South Indian style, like the $d\bar{e}v\bar{a}laya$ shrines at Polonnaruwa need not be described in an essay on Sinhalese architecture. It is, however, proper to point out to a few temples dedicated to Hindu gods, which are built in the local style. These dieties themselves represent Sinhalese gods whom they have replaced, and it is little wonder that their shrines contain features of Sinhalese architecture. The temple of god Mahasen at Embekke (Ämbäkke) in Kandy District built by king Vikramabāhu of Gampola is well-known for the wood-carvings incorporated in the structure. In the *bevisi-mandapa* or hall for tom-tom beaters, there are four rows of seven wooden pillars in each row with four additional pillars at the entrance. The pillars end on top with drooping lotus capitals. On the central squares of the pillars are carved a great variety of patterns. The porch at the entrance to the enclosure of the temple has similar pillars. The construction of the wooden roof with curved rafters shows features which go back historically to those of the domical roofs of the vatadāge and the circular āsanaghara.

It is from the Kandyan buildings that one can infer what the ancient architecture of the Sinhalese was like. Although the late art was not entirely representative of the earlier forms, it nevertheless carried on several old features. Further this is the living example of an old, tradition, however much it may have been subjected to foreign influences during the course of centuries. In view of this a few general remarks on Kandyan dagobas, image-houses and temples are desirable.

It is not quite correct to assume that all architectural work, specially stone cutting, was undertaken by workmen from South India or those of South Indian origin. There were Sinhalese workmen who had carried on various trades traditionally from the earliest times of their history in the island. Further, although some of the last kings of Kandy had connections with South India, they had adopted the Buddhist religion, and the Hindu gods whom they worshiped were,—as has been

earlier observed-were local deities who had been transformed to Hindu gods. The usual temple in the Kandyan period is a small rectangular building, consisting of compartments of diminishing sizes, the innermost or sanctum surmounted by a small dome, (sometimes in the form of a dagoba when it is a pilimage) or by what usually takes its place, a small square chamber with a peaked roof. Sometimes a roof is added over the dome as over the cella. The dome was satisfactory in the country from where the style came; but it could not stand in the Kandyan country where the rainfall was heavier. A roof, therefore, was added over the dome. Over the domical and vaulted masonry roofs of Gadaladeniya and Lankatilaka, roofs of timber covered with tiles were added within a century of their original construction. In these shrines the decorations are usually confined to the doorways and pillars.

In the Kandyan districts one also comes across dagobas over which tiled roofs have been constructed. A good example of one such dagoba is at Gadaladeniya where there was also a roof over the dome of the shrine-room. There are similar examples in the district. This practice is to be considered as an extension of the roof over the dome, due to climatic necessity, rather than the evolution of the *vatadāgē*. Roofs with overhanging eaves are especially necessary in the wet Kandyan Districts.

We have so far looked into shrines and other edifices built for purposes of worship. We must now turn our attention to buildings used for purposes of living. In the old days it appears that only the dwellings meant for the priesthood and the royalty and nobles were built of durable material, and the houses of the common people, the proletariat, were mere thatched houses with wattle and daub walls. In a tropical country like Ceylon with heavy monsoon and convectional rains, nothing of the latter has remained in ancient occupational sites.

We will first take up buildings made to serve as residences for Buddhist monks, whether granted to an individual or to the community of monks. In regard to monks dwellings also some of the very earliest were rock caves. In the vast majority of these caves there is nothing of architectural value. The improvements are only the mud walls on the sides and front with a door, the cutting of the drip-ledge, and sometimes the provision of the lean-to-roof. Rarely the walls are of ashlar. Occasionally a wooden window or a stone one on a wall is provided. Caves used as dwellings of monks may be seen in sites like Mihintale, Dambulla, and Arankälē. The oldest of structural buildings meant to be dwellings of monks may be looked for in places like Mihintale, Anuradhapura and Magama (Tissamaharāma). The first monastery on record, the Dīghasanda Parivena, built for Mahinda at Anuradhapura is said to have been "enclosed by well-planned walls and beautiful railings". What may have been pieces of these railings were found at recent archaeological excavations at the site. There are hardly any other remains except those of walls and foundations as these early buildings were of wood. Later, stone was used for at least facings of the platforms, for flights of steps at the entrance and the pillars on which the building was reared. These buildings were called a pāsāda or palace. One of the most splendid buildings of this type is the Ratna-pāsāda at Anuradhapura founded in the second century A.D. and renovated in the eighth century (Plate 20). At Polonnaruwa, King Parākaramabāhu I built a 'palace' with "rooms, terraces and chambers" for the very learned Thera, Sāriputta. The location of this palace is doubtful. The palaces were meant for the great monks. The normal abode of the average bhikkhu was a kuți or chamber about 25 feet square. Some kuți rooms were rectangular. These are arranged symmetrically on lower levels by sacred edifices such as dagobas and image-houses. Such kuti dwelling rooms are found in sites at Anuradhapura and Polonnaruwa, and at various other places. The location of such dwellings are marked by the stone pillars, flights of steps, and in more important sites by moulded brick basements such as at Toluvila at Anuradhapura. At Polonnaruwa there are typical remains of kuti dwellings on the terraces to the east of the Lankatillaka in the Alahana-parivena area.

The general name for a dwelling of bhikkhus in Sinhalese today is *pansala*, "a house of leaves", being a modest term as bhikkhus are expected to be satisfied with the most simple of dwelling places. However, a *pansala* is generally well built according to the means of the owner or the donors. Today monks have their own residences built. Good examples of *pansala* dwellings of monks are found at the Malwatta and Asgiriya monasteries at Kandy. Like in the large houses of laymen which will be discussed below, the buildings had a central courtyard. The process of modernization is depriving the *pansala* buildings of their older and

more artistic features. Some of the monks' dwellings at the two monastic institutions today are fashioned completely on European patterns.

There are other buildings meant for the use of the Sangha, the community of monks. We read in literature about various common halls (Pali: sālā). One is the āsana-sālā, "seat of halls". The monks went on their round of begging for alms, and came to these halls to partake of what they got. According to the various anecdotes, it is noticed that a bhikkhu could go into any asanasala and occupy a seat there to eat his food or drink his gruel. As against the asanasala, there was the sannipāta-sālā, "the Convocation Hall" where the community belonging to a particular monastery came together and met for purposes connected with the order. In the latter class of halls seats were provided all round, while there was a seat on a raised platform for the Sanghathera or chief monk. The most important of all assembly halls was the uposathāgāra, "the Sabbath hall" where the community of monks met on the fast days (aposatha) for confession and on other occasions for various acts of the order. The uposathāgāra of the Mahāvihāra at Anuradhapura is the celebrated Lovamahapaya popularly known as the Brazen Palace, built by King Dutugemunu, and renovated from time to time until its stone pillars were posted in their present position by King Paräkramabāhu of Polonnaruwa (Plate 21). In addition to this building being used as an uposathāgāra it was also used as a residence for monks, and when necessary the ground floor was used as a preaching hall as well. The edifice is described in the chronicles as being originally built of nine storeys with hundred chambers in each storey.

The architectural embellishments of the building were of the costliest character and its wooden roof was covered with gilt copper-tiles. Thus it got the name Lovāmahāpāsāda, "the Great Palace of Metal (tiles)". Remains of a simpler building which may have served as an *uposatbāgāra* is found in the jungle by the Rāmakäle dagoba at Sigiriya. It is a building of rectangular ground plan with massive rough-hewn stone pillars. Remains of similar buildings are found at various ancient monastic sites.

There were also hermitages for the forest-dwelling monks. Good examples of such buildings are the so-called "Western Monasteries" along the Outer Circular Road at Anuradhapura. Similar buildings have been found in a good number of other sites also, for example at Arankäle in the Kurunegala District and Rahatgala at Pulukunava in the Batticaloa District. The principal feature of these hermitages is that they are double-platformed structures, and occupy rocky sites, and flattish granite outcrops.

Having so far dealt mainly with religious architecture we must deal with domestic architecture also. Here we have to make distinction between the dwellings of the royalty, nobility and the common man.

At Anuradhapura, we have remains of a royal palace of about the eleventh century, no doubt built on older foundations and incorporating older material, and sculptural adornment. The structure is mainly of brick construction. The area is surrounded by a wall ($pr\bar{a}k\bar{a}ra$), and on its inner side are guardhouses or outhouses. In the centre of the court is the important building, which would have contained the living quarters of the King and Queens (Plate 22). This palace evidently was meant as a temporary residence for a king who had his permanent palace in Polonnaruva. The palace of the Māpā or heir-apparent at Basavakkulama at Anuradhapura has preserved a complete plan of the house of a member of the royalty (Plate 23). This building is older than the palace described above.

Since the Māpā's palace at Anuradhapura is a very good example of the domestic architecture of Ceylon, the existing remains are very useful for reconstructing the dwelling of a nobleman in the country. For this reason a brief description of the building is added here. One enters the palace from the south and comes to a gateway, 23 feet × 19 feet, detached from the main group of buildings. What is now preserved is only the platform with a revetment of moulded stone-work. Thirty-seven feet northwards from the inner flight of steps of this outer gateway, there is another gateway at the centre of a prākāra (boundary wall) which encloses a quadrangular area of 215 feet north to south and 185 feet east to west. Round the quadrangle are galleries, measuring 19 feet in breadth. On these are ranges of rooms facing the central courtyard, with doors opening into a verandah. The total number of rooms in the galleries is twenty nine. In the centre of the inner courtyard is a detached building measuring 37 feet along its longitudinal axis. This is the main building in the whole complex.

There are examples of royal palaces at Panduvasnuvara and Polonnaruwa belonging to the twelfth century. In these the central building is larger by proportion and so are the rooms on the galleries.

The palace of the last Sinhalese kings of Kandy, now used as a museum after it had been the residence of British Government Agents for over a century, in outward appearance has very little Sinhalese architectural features. Its roof and porch are in the Dutch style of the coastal provinces. Yet the mouldings of the pilasters and walls buried beneath the modern plaster are excellent examples of Sinhalese art during its last phase. So are the friezes of animals beneath the modern plaster of the walls.

While dealing with buildings for the royalty we may also mention council chambers or audience halls, where the kings and their nunisters met in thir grandeur and royal pomp, and discussed state business. We have the remains of two at Polonnaruwa. In one of these, that belonging to King Niśśańka-malla, situated by the tank near the Rest-house, the seats of the various dignitaries are labelled. The lion-throne of the king himself is now at the Colombo Museum. The second is within the citadel. There is a paved way leading from the palace to the Council Chamber reminding those acquainted with the descriptions of Sinhalese poets the canopied paths spread with white cloth over which the kings came to their audience halls. The raised stylobate of the building with the stone faced mouldings with the rich sculpture remains. Most of the pillars still stand and one can conjecture what this structure, originally built in the twelfth century by Parākramabāhu I and reconstructed in the thirteenth century by a king of Dambadeniya would have looked like (Plate 24).

The Audience Hall of the kings of Kandy, which is now used to house the Supreme Court, consists of a high-pitched roof supported by four rows of wooden pillars arranged so as to form a nave with its aisles. supported on a stone platform and without walls, the building being open on all sides. The pillars are richly carved in different patterns and they are in shape partly square and partly octagonal. They support heavy beams and a king-post roof. The wall plates are elaborately carved and have carved terminals. The roof projects considerably over the pillars. As in most Kandyan buildings the slope of the roof over the aisles is at a less acute angle than that of the roof of the main part of the building. The whole roof thus assumes a more or less concave appearance. The construction of this hall, known in Sinhalese as the Magul-maduva (the Royal Assembly Hall) was begun by King Rajadhirājasimha in A.D.1784, continued by King Srī Vikramarajasimha, and completed a number of years after the British occupation of Kandy in 1815.

The above description provides a general idea of the architecture of a hall built by Sinhalese architects in their last phase. Smaller halls were found right through the country to serve as resting places for travellers and meeting places for the local people. These buildings, called *ambalama*, (Resting places) in Sinhalese were square or rectangular in ground plan, and built by the side of high ways, sometimes under a shady tree, or at times on a flat rock in a paddy field where a road went through a stretch of such land. Usually an *ambalama* is square in shape, and the number of pillars which support the roof is either four, eight or sixteen. In such buildings the roof ends in a gable surmounted by a final (kota) usually of clay kiln burnt. When the *ambalama* building is rectangular the roof ends in a ridge plate, and generally as the length of these buildings does not exceed their breadth very much this ridge plate is very short. The ridge of the roof ends in two finials.

At Panāvițiya in the District of Kurunegala, a fine example of a small ambalama has been recently conserved and restored by the Archaeological Department. On a rubble platform about two feet from the ground are placed stones, about two feet in height, and over these are stretched huge sawn wooden beams. These beams serve as the bases for pillars, benches to sit on and beds to sleep in. The outer measurements of the building are 321 feet by 261 feet. On the inner beams are posted nine pillars, each 91 feet high. On the outer beams are fifteen pillars each 81 feet high. The inner pillars are surmounted by richly carved lotus capitals. All the pillars, beams of the superstructure, king posts contain exquisite carvings. The building is entered through the East. The arrangement of pillars here differ from that in the western side. On the inner beam of the eastern side there are no posts, while there is one on the corresponding post on the western side. At the same time a semblance of a door-way is shown by providing two pillars close to each other on the outer beam on the East leaving the centre free, while a post stands at the centre of the corresponding beam on the western side. The roof rafters are also carry designs. Sinhalese flat tiles cover the roof. Ornamental tiles deck the eaves (Plans No. 4). There has been a similar ambalama on

a flat rock in the middle of the paddy fields near the $d\bar{e}v\bar{a}l\bar{e}$ at Embekke. The building had been reared on monolithic pillars. Only the pillars now remain, four on the inner rectangle and twelve on the outer. On the panels of the pillars are beautiful carvings of animals, both natural and mythical, and of floral and animal designs.

From the *ambalama* we must pass on to other buildings of public utility. One type of such are bridges. The ancient bridges remains of which now exist are of stone slabs placed on stone pillars. A good example of such a bridge is seen at Malvatu-oya, near Anuradhapura. A roofed wooden bridge which served the purpose of an *ambalama* as well is provided over a fairly large stream at Bogoda in the Badulla District. The construction of the roof on the beams of the bridge appears to be an evolution from the *ambalama* built on beams as the example from Panavitiya described above.

There were other buildings meant for public purposes. We come across several sites of hospitals, and hospitals (Pali : $vejjas\bar{u}l\bar{a}$ = Sinhalese : vedabal) are mentioned in the literature and the inscriptions. Medicinal baths of stone are found in ancient sites like Mihintale, Mädirigiriya and Dīghavāpi. Although some of the hospitals were attached to monastic sites, it is quite possible that they catered for the lay sick also. Nothing special regarding the architecture of buildings used for hospitals can yet be stated. They also followed the pattern of other buildings which served a community.

There were then baths, several of them built of stone. The better baths were meant for the community of monks

and the royalty. Some of the baths were in the parks, which again were well planned with pavilions, paths, artificial streams and the like. The finest example of baths meant for monks are the twin-ponds. (Sinhalese : *Kuttam-pokuna*) in the Abhayagiri area at Anuradhapura. Examples of royal baths are to be found in the Tisāväva park at Anuradhapura, and the Kumārapokuņa by the citadel at Polonnaruwa. Another fine example of a pond built of stone is the Lotus pond also at Polonnaruwa.

In a study of the architecture of the Sinhalese, it is necessary to look into the dwellings of the common man also. This side of the subject is often apt to be forgotten. The poorest hut was of one slanting roof, thatched with grass or straw. It had one room protected with the bark of trees or thatched. The cooking was done under the eave. The next step was a structure with two roofs slanting on two sides. Wattle and daub walls took the place of bark or thatch. The roofs were better covered. The building was rectangular about 20 feet by 10 feet, and divided in two. One part was converted into a room with walls on all four sides, with a plain door to the front which was generally on the east. The other part was walled only on three sides. The eave in front was extended, and there was a platform, the pila, of about three to four feet in width, used for sitting on, sleeping and dining. The next stage was to have one structure divided into two rooms, and another structure built in front of it, or on one side, and enclosed on three sides with walls, serving as a hall (maduva). A barn was built on the other side. Usually the barn was on short stone pillars. In the final stage

another set of rooms was built on the fourth side and thus evolved the typical Sinhalese home with a court-yard in the centre.

The arrangement of rooms, halls and barns differed from each other in these houses, with the central courtyard, commonly known as a *valavva*. Usually there was a doorway in front facing the front court. In a better built house there was sometimes an upper storey over this gateway. The lower storey on this side was used as a hall. The rooms and kitchen were on one side. On one side was the barn built of timber and planks and standing on stone pillars about four to five feet high. The ground space was used for sleeping. The fourth side was also usually left as an open hall. It is from this type of house that the palace of the Māpā at Anuradhapura has developed. In examining an old *pansala* too we notice that there is very little difference, if any, between these buildings and the dwellings meant for householders.

Military architecture of the Sinhalese, which started with rude fortifications of rubble achieved unique success before the sixth century A.C. For added safety and strategic reasons, the fortifications were made on hills. We come across a good example of one of these on the top of Ritigala not far away from Anuradhapura (*see* above). Hill tops were chosen for retreat and guerilla attacks, and up to most recent times such primitive fortifications continued to be made. Thus fortifications of rubble or earth are met with in many hill tops right through the Island. The massive rocks of Ceylon have their dip side and scarp side clearly marked. When the side from which accent was possible is artificially protected they become very effective mountain fastnesses. The plain on the tope of the rock and sometimes the plain below also became a small city. Examples of such are Nuvaragala, "City Rock", one in the Eastern Province and the other in the Central Province. Other places which rose also to be the capital in the thirteenth and fourteenth centuries are Dambadeniya and Kurunegala. (The rock at the latter place is the Ätugala, which like Kurunägala means the Elephant Rock). The Rock Fortress of Sigiriya, well known for the paintings of heavenly damsels, is also about the best example of a Sinhalese military fortification. The plain on the summit of the hill about three acres in extent is completely built up, with palaces, baths, ponds, halls, &c. In the western plain are ponds, summer-houses, pleasure gardens, paths, &c. The slope between this plain and the rock is terraced and there have been buildings here, some incorporating the rocks. The southern side of the city is protected by the tank or väva. A most protects the west and the north. A fortification had enclosed the whole rock, formerly a separate city lay to the east of the rock. There has been an extra wall on the western side, turning a short distance along the south and north. The map provided illustrates the plan of Sigiriya (Plan No. 5).

Sigiriya was built by King Kassapa I in the fifth century A.D. (A.D.477-495). The place most likely existed as a rock fastness even earlier. A rock fortress strengthened by walls and ditches in a similar manner to Sigiriya is the Yapahuwa city in the District of Kurunegala. The fortifications of the thirteenth century to the south and south-east of the rock are a close second to those of Sigiriya in their strength and plan (Plan No. 6).

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The Sinhalese just as they took to rocks for defence, also built fortresses taking as natural means of safety forests and marshy places. The city of Kotte near Colombo was chosen in the fourteenth and fifteenth centuries as it was an area of high ground surrounded almost on all sides by marshy land. Sinhalese literary works present good descriptions of the walls, ramparts and ditches of this fortified city, but due to recent building activities very little of the old fortifications are left to us.

We may have left out several types of Sinhalese architecture, but what has been briefly related will, it is hoped, be sufficient to the careful observer to appreciate special characteristics of Sinhalese building techniques. We may finally dwell on the materials used by Sinhalese workmen.

Sinhalese buildings were at the beginning of wood. The simple hut was made of sticks and round timber. The walls were of mud, and later on supported for strength by sticks and posts of wood, the wattle and daub. Even when larger buildings were made with decorations, they were originally of wood. Before long wooden architecture was translated into stone. The top-heavy capital of the stone-pillar is a fine example to demonstrate the translation of wooden architecture into stone. So are the plain balustrades and guard stones of edifices of the earliest type. In the vābalkada of a thupa also one notices features of earlier decorative work in wood. We come again to a period when this stone work is again imitated in wood. So the transitions have been repeated.

The Sinhalese builders have also had special knowledge of sanitation. Just as they were clever from very early times in dealing with water in their irrigation works, they were also able to construct very effective and sure systems of drainage for their buildings.

Sinhalese architecture was not devoid of ornamentations. The stylobates of buildings were decorated with mouldings. They include the beak moulding, fillet, torus, cyma recta and cyma reversa. Pillars were provided with beautiful capitals. Pillars whether of stone or wood, contained exquisite carvings. The timber of the superstructure was often beautifully decorated. The ascent to buildings was through flights of steps which often contained friezes of dwarfs or other figures carved on them. These flights of steps were flanked by balustrades, the earliest type of which were plain, but developing into decorative ones of designs such as makara (mythical cod) gaja-simba (elephant and lion). In front of the balustrades were pairs of guardstones, usually with the figure of the anthropomorphic cobra, but with other signs like the lucky full pots (punkalas). The first step to an edifice was a slab of a stone in the form of the half-moon (=sandakadapahana). These too were originally plain, but in course of time they were carved with various designs, friezes of animals and birds and floral patterns. At first only the pilimage was provided with these sculptured stones, but later on they became a feature of all buildings.

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With the coming of the Portuguese in the sixteenth century followed by the Dutch in the seventeenth, European architecture began to influence the Sinhalese builder. It was the Dutch that influenced Sinhalese architecture most. The craftsmen of the coastal regions learnt the art of building from their Dutch masters, and carried it to the interior hill country also. We get a blend of the European and Dutch styles in both religious and domestic architecture. The Assembly hall (digge) of Mahasaman-dövälö near Ratnapura has had a Kandyan roof on round Dutch pillars (Plate 25). The doorways here shew traces of Gothic influence. The palace of the last Sinhalese kings in Kandy shows signs of a house of European pattern built on a platform with traditional Sinhalese mouldings. The building materials also changed with the employment of workmen trained in the western pattern. For example, the old Sinhalese bricks of large size are replaced by western engineering bricks. The flat Sinhalese tile is replaced by the 'half-round' tile. Door and window shutters have changed from massive planks to light ones. With all these changes, some features of the old art still remain.

SINHALESE ARCHITECTURE

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4. Polonnaruwa : vațadāgē, showing the flight of steps.

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 - (b) details of carvings and rafter,
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5. Sigiriya :

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6. Yapahuwa :

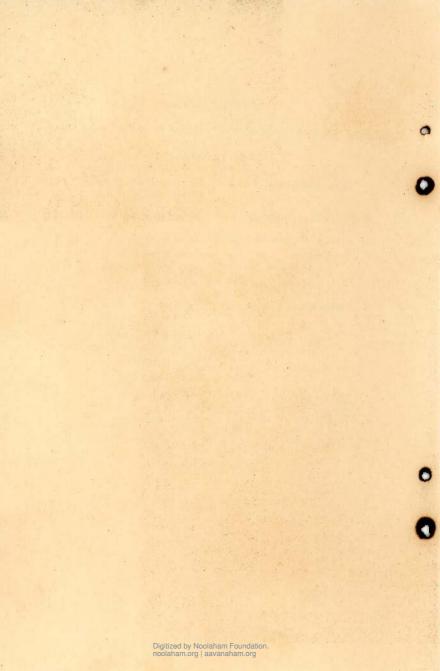
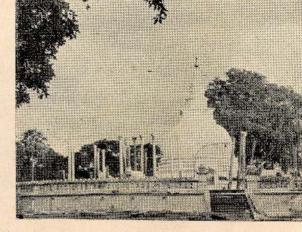


Plate 1— Thūpārāmadāgāba, showing pillars of the vatadāgē. (Anuradhapura)





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Digitized by Noolaham Foundation. noolaham.org | aavanaham.org Plate 2— Kirivehera. (Polonnaruwa)

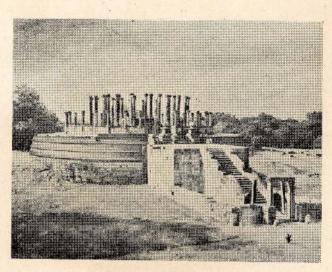
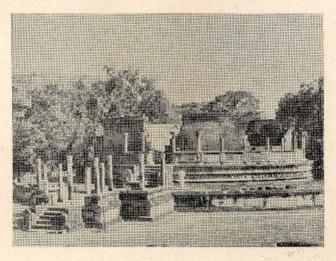


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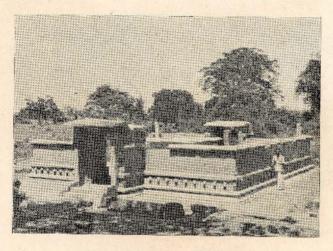


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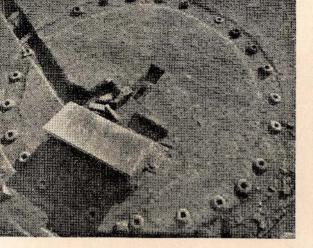


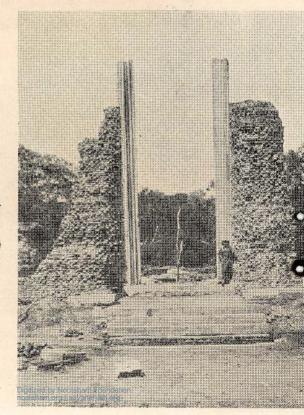
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Asanaghara, showing bases of pillars and asana. (Pulukunaya)

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Plate 9-Thūpārāma. (Polonnaruwa)

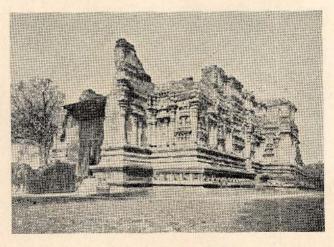
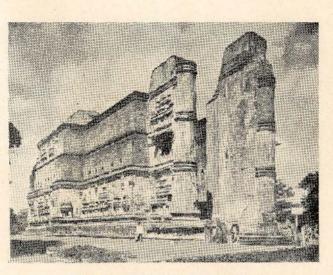


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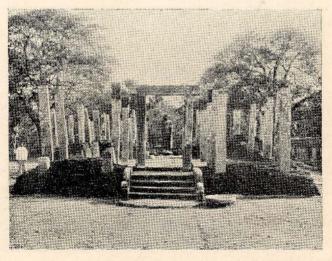


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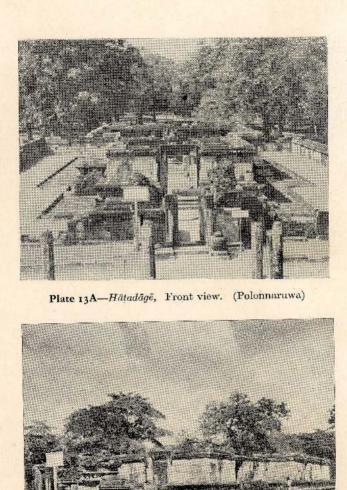


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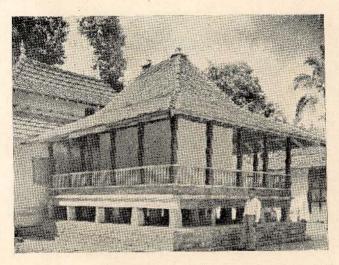


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Plate 17— $Vih\bar{a}rag\bar{s}$ with semi-vaulted roof covered by roof of timber and tiles. (Lankatilaka) \checkmark



Plate 18— Vihāragē in mixed styles. (Galmaduwa)





Plate 19— Nāthadēvālē. (Kandy)

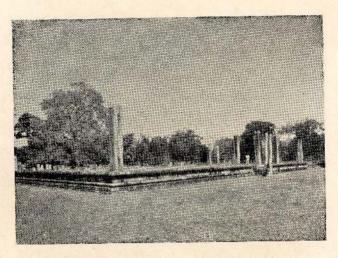


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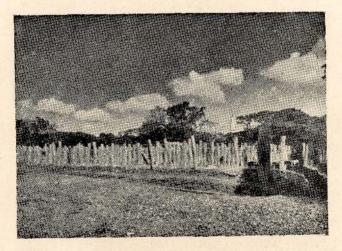
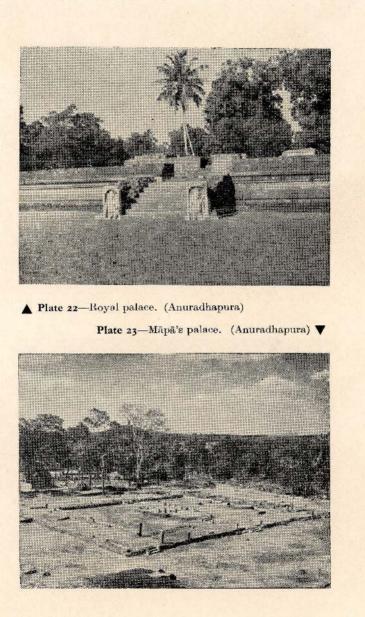


Plate 21-Brazen palace (Lovāmahäpāya) (Anuradhapura)



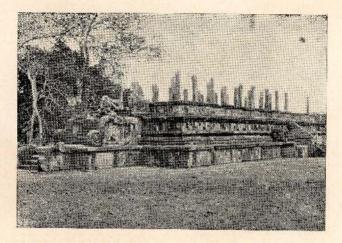
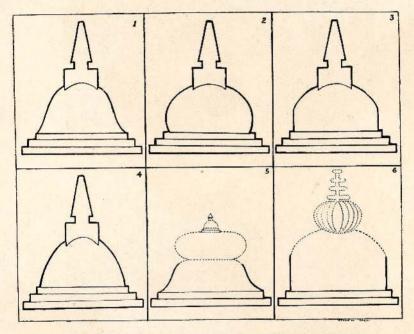


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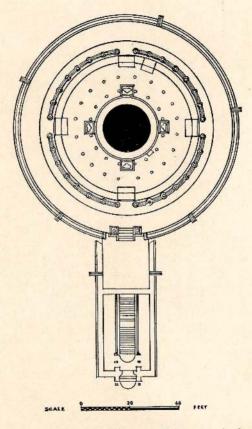


1-6. Diagrammatic Conjectural Shapes of Sinhalese Dagobas.

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- Dhānyākāra 4.
- 2. Ghatākāra Padmākāra 5.
- 3. Bubbulākāra 6. Amalaka

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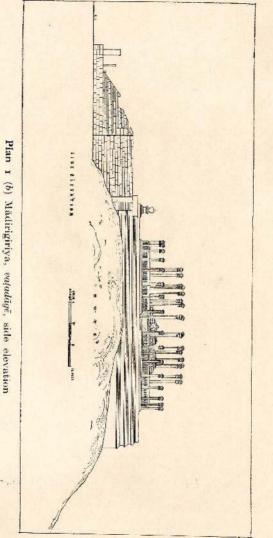
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Plan 1 (a) Mädirigiriya vațadāgē, ground plan

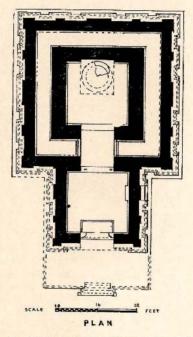


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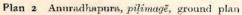
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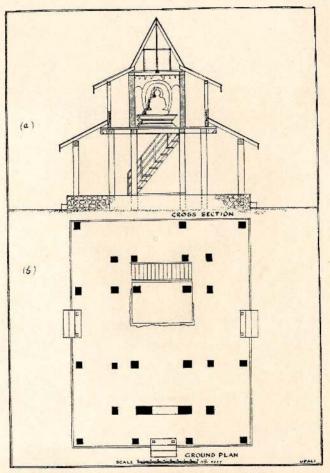
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Plan I (b) Mädirigiriya, valudāgē, side elevation

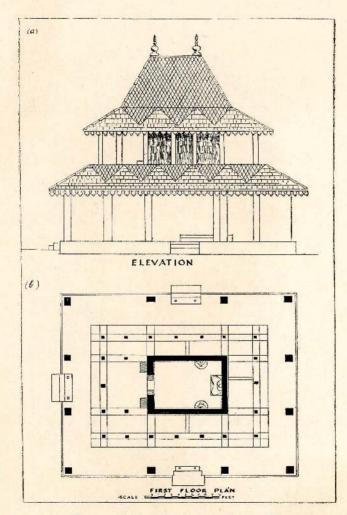


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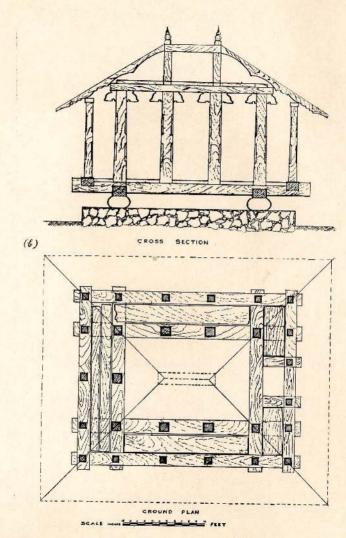


Plan 3 (1) Ambulugala, temple-on-pillars.

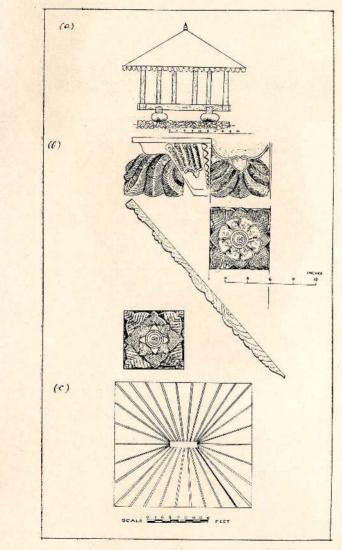


Plan 3 (2) Ambulugala, temple-on-pillars

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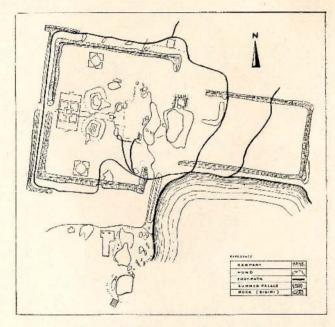


Plan 4 (1) Panāvițiya, ambalama



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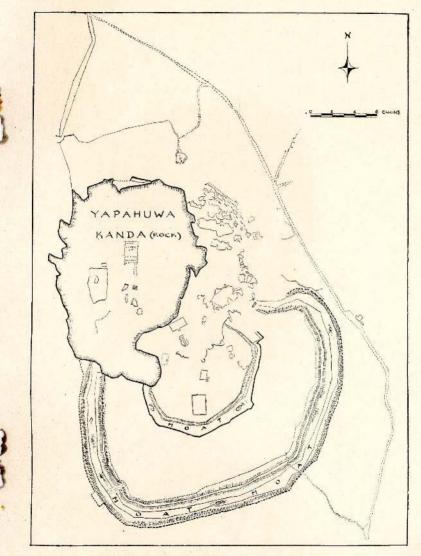
Plan 4 (2) Panāvițiya, ambalama-Details



Plan 5 Sigiriya : map of ancient site

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Plan 6 Yapahuwa : map of ancient site





