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Annotation	<p>This paper was originally written in Myanmar and read at the Saturday Literary Circle meeting held at the Po Wa Ziya Hall of the Hanthawady Press, Mandalay on 20th Sep, 1975. It was later read in English to the special meeting of the Burma Research Society on 15th October, 1975. Normally Bagan monuments are Ceti style with a solid structure or Ku, which were places of worship where people could enter the building to offer homage. In addition, there was also a House of the Law and House of the Monks of the Order. Many Bagan inscriptions record the donors as well as those who repaired the monuments. Some repairs were were necessary but others destroyed the original edifice. The author suggests three points for restoration of Bagan monuments:</p> <p>(1) Use no heavy materials on the top of time weakened brick supports.</p> <p>(2) Match the body with the correct finial and</p> <p>(3) Permit no mis-fit of materials or appearances</p>			
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PAGAN RESTORATION¹

by

THAN TUN²

LITHIC INSCRIPTIONS of Burma left from the period 11–13 centuries A.D. have a fairly frequent mention of religious buildings at Pagan (a paper entitled “Religious Buildings of Burma, A.D. 1000–1300” by the author using exclusively these epigraphic sources was read on 24–12–59 at an annual research conference of the Burma Research Society and published in *JBRS*, XLII, ii, December 1959, pp. 71–80). On the strength of these records we are inclined to think that the majority of the old buildings at Pagan belongs to this period 11–13 centuries A.D. The Directorate of Archaeology made an attempt to count them in 1973 and accordingly there are 2,217 ‘Red Brick Religious Edifices’ and 378 of them are conserved by the Directorate (Than Swe : *Pagan’s Historical Cetiys*, Rangoon, Sarpay Bihman, 1975, p.10).

Generally speaking Pagan monuments are either *Ceti* (*Cetiya*) – sepulchral monuments of solid structure or *Kū* (*Guha*) – places of worship where people could go inside the building to offer their homage to the Lord. In addition to them, there are also *Tryā Im* – House of the Law, and *Rahan Klon* – House of the Monks of the Order. For architectural style they all have their origin in those monuments of Buddhist sites in India and Śrī Lankā. Traditionally people also remembered that the Ānandā was built (in the first quarter of 12 century) in imitation of the Nandamūlapabbhāra cave in Gandhamādana of northern Himalayas; the Mahābodhi built (in the first quarter of 13 century) after the Great Mahābodhi at

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2. Professor of History, Arts and Science University, Mandalay.

Bodh Gaya; the Shwegugyi built (in the second quarter of 12 century) like the Gandakuṇi of the famous Jetavana monastery, Sāvatthi; and the Thatbyinnyu built (in the second quarter of 12 century) like the Migāramitupāsāda of Visikhā in the Pubbārāma to the east of Sāvatthi (see Myat Thwin: *Thamnine of 27 Big Pagodas of Pagan*, Mandalay, Tun Pe Press, 1971 Reprint, pp.28, 57, 59 and 61). Some scholars, however, might trace the origin to Śrīkṣetra, the archaeological site close to Prome (G.H.Luce: *Old Burma - Early Pagan*, I, New York, J.J.Augustin, 1969, p.301). Even then the common origin would be India.

The details of construction are given quite fully in the inscriptions of the 13 century. Usually the site for the building was enclosed by a brick wall (Pl. 12/5, Pl. 73/7, Pl. 194/7, Pl. 220/6 and Pl. 232/3). Some of these walls were circular in form though most of them were rectangular complete with doors and gateways. Such a wall could protect the building from fires (Pl. 122 a/2 a big fire at Pagan in A.D.1225) and some donors even put up a double enclosure to make the protection more effective. In such a case the inner enclosure would be reserved for shrines while the outer one was for monasteries of the monks of whom the majority would presumably be *cāsāṇ* (Pl. 152/5) - students. Sometimes a wall might enclose a banyan tree (Pl. 232/3) thought to be sacred. Monks were also provided with *caṅkram* (Pl. 73/8) - promenades, for walking exercise (Pl. 97/22, Pl. 102/8, Pl. 126/54 and Pl. 152/5).

As a foundation to put up a *kū* - hollow pagoda, a platform also called *caṅkram* (Pl. 73/7, Pl. 80/7, Pl. 194/7, Pl. 220/6, Pl. 234/6, Pl. 247/8 and Pl. 249/16) was raised. Usually a *kū* has four passages each leading to a sitting or standing Buddha image and the four images are placed back to back in the centre. Then it acquires the name of *kū 4 myaknhā* - a cave of four faces. Right beneath the images would be located the *thāpanā tuik* - relic chamber, where *sāriradhātu* (Pl. 17/8, Pl. 19b/2, 3, Pl. 73/8, Pl. 78b/7 and pl. 80/10, 12) - the bodily relics, were enshrined. As interior decorations the walls would have *khlyu pan* (Pl. 221/26) - floral designs, or *chaṅpu* (Pl. 73/15, Pl. 80/13, Pl. 194/11, 12, Pl. 238/8 and 364/16) - pictures of the Lord, or scenes from the *Jātaka* (Pl. 194/13 and Pl. 248/17) painted. The painted

kū would be called *kū prok* (Pl. 218a/11) – the variegated cave. A *Śikhara* (tower which is now called Pandaung) would go up over *garbhagriha* (central chamber which is now called Gandakuṭī). The *Śikhara* would have a *āmalaka* (melon like structure now called Hpayondon) above which comes the finial called *kalaśa* (pot like structure now called Kyathut-o). In Pagan inscriptions this finial is mentioned as the *athwat* (Pl. 80/17 and Pl. 97/12). It would be made of copper or covered with copper and gilded (Pl. 105a/10, Pl. 194/13 and Pl. 249/21).

Ceti (*Cetiya*) forms another type of pagoda which is built solid in structure. Perhaps the proper name of this type of monument would be *Stūpa* (*Thūpa*). We should look for its prototype in Śrīkṣetra or India and Śrīlankā. Such buildings would have the best of exterior decorations in plinth mouldings and stucco carvings of foliage and figurines of imagination in exquisite designs on arch pediments and friezes and around the whole building.

Kloṇ (monastery) is the name used for places where monks live and the contemporary records suggest that Pagan in the past would have many beautiful wooden monasteries with “multiple-roofs.” But at present we only have ruined brick monasteries. These brick ones are called *kulā kloṇ* (Pl. 64/6, Pl. 97/22, 25, 26 and Pl. 132 b/14, 15; *Pictorial Guide to Pagan*, Rangoon, Ministry of Culture, 1966 Reprint, p. 50 gives a sectional view and the ground plan of Somyingyi monastery which is “one of the typical monasteries of the Pagan period”) which literally means the Indian Monastery. A monastic establishment would have several other buildings in addition to homes for the monks. The establishment at Amanā (now called Minnanthu four miles east of Pagan) completed on 17 December 1223 served as a good example (Pl. 73/6–31; see also Pe Maung Tin: “Buddhism in the Inscriptions of Pagan”, *JBRS*, XXVI, i, pp. 55–6). The establishment had a Kū – Hollow Pagoda, a Piṭaka Tuik – Library, a Sim – Ordination Hall, a Dhammasā – Preaching Hall and a Thera Kloṇ – Home for the Chief Monk, in the inner enclosure. Cāsaṇ Kloṇ – Homes for the Students, a Carap – Alms House, a Tan Choṇ – Rest House and a Kappiya Kuṭī – Store House, were located in the outer enclosure. The plan of this establishment (see my article “Religious Buildings”,

JBRs, XLII, ii, December 1959, p. 75 for the plan of this establishment) discloses the fact that people in those days had an utter disregard for symmetry. Buildings were put up at random.

Princess Acawkrwam, daughter of King Uccana and Queen Sumlūla, founded another monastic establishment at Minnanthu in 1243 (Pl. 164) which consisted of a Kū - Hollow Pagoda, a Piṭaka Tuik - Library, and a Kulā Kloṅkrī U Chak - Big Brick Monastery with a Front Extension. Silver spent for the pagoda was 1747 ticals, for the library with a complete set of Piṭaka was 2027 ticals and for the big monastery was 392 3/4 ticals. The enclosure wall cost 432 1/4 ticals. We notice that the wall was more costly than the monastery and the complete set of Piṭaka was the most expensive item in the whole list.

The construction of a hollow pagoda of moderate size like the Shwegugyi did not take long. The Shwegugyi inscriptions (Pl. 1 and Pl. 2) mention that the constructions began on Sunday 17 May 1131 and completed on Thursday 17 December 1131. It means that the Shwegugyi was built within seven months. It is also known as the Nan:ūceti - Pagoda at the Head of Palace, and as it was so close to the palace and as the King was most probably supervising the constructions himself, the work would have been finished with an unusual quickness. We should not therefore say that all other buildings would be done with such efficiency. Yet we have another record (Pl. 105a) claiming that Minister Ñāpaccaya asked permission from the King to start a monastic establishment at Shinbinbodi (near Minnanthu) with a variegated hollow pagoda, a preaching hall and five homes for student monks on Monday 13 April 1236 and he held the libation ceremony to mark off the finish of the establishment on Monday 14 May 1237. The efficiency here again was remarkable. But when the Mongol invasion came, we are told that a building was left unfinished for fifteen years (Pl. 277/1-9).

Natural calamities like earthquakes, floods and storms together with great fires and war ravages were quite frequent in central Burma. On earthquakes (U Thawbita - Shwegaingtha read a paper at the Saturday Literary Circle meeting of the Hanthawady Press on 6 September 1975 on "Historical Earthquakes

and Pagan Art" and he supplied a useful list of earthquakes compiled from the chronicles, etc.) our chronicles did make an effort to record them though they had a tendency to connect them with conception, birth and death of our heroes and with the happening of important events like the coronation of a king, the laying of the foundation stone to a religious edifice by the king, the pouring of libation water marking the successful end of a meritorious deed by the king, etc. When we look for the account of such calamities natural or otherwise in the lithic inscriptions after the fall of Pagan we find quite a number of them and some are very interesting (see my article "Historical Information from Ava Period Lithic Inscriptions", *the Takkatho Pyinnya Padaytha*, II, ii, May 1967, pp. 243-56).

The Sulaban Pagoda Inscription (with dates A. D. 1235, 1241, 1331 and 1361) at Pahkangyi Kyaungdwin village mentions that:

As the result of a mad water (quick swelling flood of high velocity) in the Ā-in Year S.693 (A.D. 1331), many a pagoda called Kū and monasteries fell down and many a pagoda called puthuiw and the Buddha images too were swept away (in the flood). (List 608b/1)

The Pinya Shwegyaung Inscription (with dates A.D. 1350 and 1372) records that:

On Thursday 25 November 1372 there was a big earthquake. (List 639b, P1.487/19-20)

Big earthquake would mean havoc and pagodas, etc. would be badly damaged.

The Sagaing Htupayon Inscription (with dates A. D. 1442, 1444 and 1456) mentions that the Shans of the north were

in discord that big wars were fought (among themselves) causing great harm to (everyone). (List 963a/26)

Perhaps that was one of the reasons which gave the Ava kings a chance to extend their political influence to the north in the later half of the 15 century.

The Sagaing Paduthingayaza Zigon Inscription (with date A.D.1410) mentions that the powerful monk made it his business to "renew the broken pagodas." (List 840a/10)

It is not unlikely that this Paduthingayaza like his modern counterparts, gave a new look to the edifices he "repaired" with utter disregard of old appearances. Until now, with the probable exception of the Archaeology Department, the idea of conservation or restoration is quite alien to the Burmese mind.

The Sagaing Myazigon Inscription (with date A.D.1482) puts on record that Queen Wimaladaywi "put up umbrella and top pieces, et cetra (on the pagoda)" (List 1001/16).

Usually a Stūpa has in its upper structure a series of rings and as a group the ringed part is known as a Chattrāvali – a series of umbrellas. So when there is a Chattrāvali (now called Hpaungyit) it would be simply superfluous to add some more. Above the Chattrāvali comes the Padmapattra – lotus, which is topped by a Varṣa Sthāla – rain vessel (called by the old Burmans as *Athwat* and modern Burmese as *Hngakpyawbu*) (see Luce: *Old Burma-Early Pagan*, I, Plate 454). This Moyaygan-rain vessel was the top-most thing on a pagoda made during the Pagan period. From the miniature pagodas found in the relic chambers of the ruined Pagan pagodas and from some of the wall paintings at Pagan belonging to the 11 – 13 centuries A.D., we are quite certain that pagodas of Pagan during the Pagan period did not have the Shwe Hti Magike – Crown Like Finial, as we see on pagodas to-day. With illustrations I have here, I will explain this point fully later.

In the Pagan Minmaye Pagoda Ink Inscription (with date A.D.1484) a monk called Dhammagutta who disliked the dirty look of the temple (both interior and exterior I suppose) claimed that:

Everything was completely whitewashed ... (A new) bulbous part (of the pagoda) together with five tiers of golden umbrella were fixed ... To create a pleasant atmosphere a complete set of golden bells was also hung (at the edges of the tiers of umbrella) ... Paints of bright colour were applied (to the whole edifice) (List 1005/6,9,16).

As a matter of fact he was admitting that he did an irreparable damage to the precious stucco carvings and wall paintings of old with his whitewash and bright colour.

The Sagaing Yadanazedi (Shinmyashin) Inscription (with dates A.D. 1304, 1425, 1426, 1431 and 1485) mentions two interesting points. In the obverse face of the inscription (at lines 22 to 25) the Shinmyashin pagoda was built on 25 February 1431 on the model of Ratanācetiya at Śrīlaṅkā built by King Duttagamani. Then on the reverse face it says :

On Thursday 14 July 1485 at dawn a terrific earthquake occurred and because of that quake the Lord (here used to mean the pagoda) collapsed down to the Flower Alter and shattered into pieces. The harmika (square top on the dome) of the front extension of the brick monastery had also broken and fell down with terrific noise (List 1014b/9-11).

When the pagoda collapsed and was shattered into pieces, the descendants of the founder (who were of the Royal Family) rebuilt it but they might not bother to restore it so that it might look like its original model the Ratanācetiya of Śrīlaṅkā. When it was again shattered by the 16 July 1956 earthquake, the committee to rebuild it very conveniently ignored the past record which is easily accessible as Stone Number Seventeen in the Sagaing Htupayon Inscription Shed.

One chronicle mentions a very severe earthquake, at Pagan during the reign of King Narapati Sithu (Caṅsū II ? 1169-1211).

At the time when Wajirabuddhi the Wise Minister whom the King used to consult died, there was a big earthquake. Pagodas both solid and hollow and monasteries fell. Starting from the southwest corner of the Palace down to the Shore of Lakpaṃ the earth cracked into numerous pieces. (Tun Nyo : *Yazawin Thit*, I, Rangoon, Mingala Press, 1968, p. 133)

Cañsū II's time, at least in the later part of his long reign, was taken as a prosperous period. One could imagine that pagodas like Ananda, Bu, Dhamayan, Gawdawpalin, Kyaukku, Lawkananda, Phietleik, Shwegugyi, Shwezigon and Thatbyinnyu which were already in existence before Cañsū II was king, would probably be destroyed by that earthquake and they were all repaired before long without any problem as to find out their former look, etc.

An ink inscription on the south wall of the entrance to the main hall of Aggaday in Myinpagan mentions an earthquake.

On 6 May 1330 there was an earthquake that caused the fall of (the Buddha's) head. I repaired it. The thigh and hand (of the Image) were destroyed by an unknown person. I had them also repaired. (Somebody) despoiled the belly (of the Image) and I had it repaired also. Thus I repaired (all) damages done (to the Image). (Than Swe: *Pagan's Historical Cetiya*s, pp. 123-4)

When images were repaired, I am almost sure that "the old look" would not be respected. The image would certainly lost the sharp facial features of pointed nose, thin lips and narrow chin but it would gain two elongated ear lobes going right down to the shoulders and four unnatural fingers having the same length "touching earth". The terracotta plaques bearing the name of King Aniruddha (?1044-1077) have the Buddha images in relief with sharp facial features in the bhūmiṣparśa mudrā (see Mya: *Votive Tablets of Burma*, I, Rangoon, Archaeology Department, 1961, Photograph Numbers 1a and 1b).

Another repair in 1400 made to an image is recorded in an ink inscription found on the wall of a kū close to the Hngetpyittaung pagoda. The treasure hunters did the damage but the work done by the person who claimed to repair it, I am afraid, is not of much help except that an entirely new image came into existence in the place of an old one and we do not appreciate his contribution (from my notes taken on 10 October 1957).

An ink inscription on the wall at the south building called Ahyongan attached to the Damayazika pagoda mentions:

In 1735 the monk who took the duty to serve the Buddha repaired the Image with great respect and had it painted red and yellow. It was a great effort to have it done. Bad people destroyed the other three images and they were also repaired. All repairs were finished on 5 October 1735 (from my notes taken on 31 July 1975).

Here again I would say that old works were effectively removed and the monk had "over-repaired" the Buddha images.

A copper plaque inscription (press report; *the Hanthawadi Daily*, 12 September 1975; and *the Loktha Nayzin*, 16 September 1975) that appeared as the result of the 8 July 1975 earthquake from the damaged part of the Shwezigon top mentions that there was an earthquake on 10 January 1778 and in as much as the same manner as it now happened, that earthquake caused damage to the top portion of the pagoda. The inscription continues to say that Pagan Myogine - an officer in charge of the town of Pagan, called by the name of Minnandamaitkyawdin got the king's permission to repair the pagoda. He finished his work on 13 July 1778. This officer certainly would not have the intelligence to look for old models when he did the repairs. A committee if one were ever appointed would fare worse. We are also told that some old wall paintings at the Sulamani were whitewashed and new ones were painted in that year 1778. Pictures of acrobats, boat races, Pwè performances and the Buddha's journey by boat came into existence but we cannot know what interesting scenes of old that they replaced.

King Badon (1781 - 1819) like any other self-styled Champion of the Religion repaired many old religious buildings throughout Burma and some Pagan pagodas were also included in his list of repairs. Shin Ariyāvaṃsaādiccaraṃsi (1766-1828) who was second of the Monywa Zaytawun Sayadaws compiled a history of famous

pagodas of Burma (*Cetiyakathā mañ so Rājawañkhyup*, Rangoon, Ngweyahmon Literature, 1965 Mimeographed Copy) and he mentioned in that work that King Badon had the Shwekwandā pagoda of Pagan repaired (Ariya: *Cetiyakathā*, p. 52). Then he had the Pagan Pitakat Tike repaired and put a new set of Piṭaka in it (Ariya: *Cetiyakathā*, p. 52). Ariya gave no date but tradition puts it at 1783 (Than Swe: *Pagan's Historical Cetiya*s, p. 30). Except for the lattice windows which date back to the 11 century, the building became new. Late 18 century Konbaung art was used to make it beautiful.

We do not know who repaired the U Pali Thein but the ink inscriptions on the wall of the north entrance mention that wall paintings which would most probably be the last in the process of repairs, were started on 4 March 1794 and it took a year to complete them at the cost of one viss and twenty ticals of silver (from U Thawbita's notes). Like the Pitakat Tike it certainly looks very beautiful after the repairs though nothing that belonged to the 13 century during which the building was supposed to be built could remain in existence. Everything old was effectively concealed and people took pride for being clever in doing that. They would not say exactly that but all exterior and interior decorations done in their own fancy proved it. Ariya continued to inform that it was "the Crown Prince (who died on 29 March 1809) who also made new the Nanda pagoda at the town of Pagan". (Ariya: *Cetiyakathā*, p. 53)

Notice that the Ananda pagoda was until then correctly called Nanda. He was also correct in using the phrase "made new". The wall paintings were all lost (Ba Tint of the Directorate of Archaeology successfully restored a few square feet of wall paintings on the walls of east passage to Ananda). Tall carved door panels became new. Of the four big standing Buddhas those of east and west supposed to be of the Buddhas Konagamana and Gotama were new. Judging by the form and style they belong to the 19 century. In the exterior decoration, except for the glazed plaques of Jātaka scenes, all stucco carvings would be new. All the lions look different. The Śikhara got a strange finial. After five hundred years

they would not know that on a *ṣikhara* there is an *āmalaka* and above it is a *kalaṣa* as the last piece.

The ink inscription on the right wall of entrance at the Nwamyā Gu left by Shin Pyinnyadippa says:

In A.D. 1816 the Image of the Lord at the Mimalaung monastery was found to be so ruined that only a heap of brick and earth was left. It was also remade to look better than what it looked when it was originally made. The chamber to shelter (the Image) was raised with "multiple roofs". A platform for any elephant rider to dismount was constructed. The stairway was repaired and railings were fixed to it. The guardian lions were also made. In fact everything bad was remade (from my notes taken on 27 March 1968).

Repairing a thing so that it would look better than what it looked when it was originally made seems to be the policy. Care should be taken so that it should not lose its former appearance was something Shin Pyinnyadippa did not understand. We still have many people like him today. This Shin Pyinnyadippa also repaired the Centre Image of the Nwamyā Gu on 13 October 1820.

A silver plaque inscription found inside the destroyed top portion of the Ananda in an earthquake of 1956 mentions that an earthquake on 22 March 1839 had destroyed this very portion of the Ananda. Repairs were undertaken by Poppa U Payamawunnatheikdi. He also repaired the Bu Hpya and Mahmawya. Repairs at all these pagodas were declared finish on 17 January 1965. We know very well that the repaired pagodas looked very beautiful.

After the 8 July 1975 earthquake we went to Pagan to make our own assessment of loss sustained. We walked among the ruins everyday during our ten days there and my general impression is that for reasons I have mentioned above the loss to the Pagan art was little while the loss to the Konbaung art was considerable. Another important point that I had noticed is that to use modern material like iron skeletons and cement concrete on brick mounds which are on an

average age of eight hundred years is a very bad policy. It is always a problem to fix a heavier and harder thing on a lighter and softer support and when that heavy thing topples off and falls down from a height of about a hundred feet, it does much more harm to the roof, ceiling and walls of the chamber below than the earthquake that shakes it off. Good building material was used without sound technical advice. There would have been less destruction if the "pagoda trustees" were better advised in the use of "pagoda money" for pagoda repairs.

We visited the New Museum located near the Gawdawpalin to have a look at the *thāpanā* – objects usually enclosed in a relic chamber. The objects collected from the debris and exhibited now are supposed to be sacred as well as old. This is, however, not true for all of the exhibited objects. The reason is that most of them came out of the top parts of the pagodas which were repaired at later times and many of them would be manufactured at the time when such repairs were done. What I thought old and interesting are:

1. five terracotta plaques (from the Chutaungbyi of Zaydan, Pagan) (see photographs 1 and 2),
2. stone plaque with eight scenes of the life of Buddha in high relief (from the Thatbyinnyu) (see photograph 3),
3. similar plaque (from the Gawdawpalin) (see photograph 4),
4. bronze Bodhisattva (from the Shwesandaw) (see photographs 5,6,7 and 8),
5. bronze Bodhisattva (from the Shwezigon) (see photographs 9,10,11 and 12),
6. bronze smiling and standing Buddha in the *abhayā mudrā* (from the Gawdawpalin) (see photographs 13 and 14),
7. bronze sitting Buddha on a simple throne and a back rest in the *bhūmi,parā mudrā* (from the Shwesandaw) (see photograph 15),
8. bronze sitting Buddha with a "flame" *uṇṇā* in the *bhūmi,parā mudrā* (from the Shwesandaw) (see photographs 16 and 17),

9. bronze sitting Buddha under the hoods of a naga in the bhūmiṣṭarṣa mudrā (from the Shwesandaw) (see photographs 18 and 19) and
10. four copper plaques each with a sitting Buddha flanked by two disciples in low relief – two in the bhūmiṣṭarṣa mudrā (see photographs 20 and 21), one in the darmacakrā mudrā (see photograph 22) and another in the vitarka mudrā (see photograph 23) (from the Myinbya Gu). (The photographs are supplied by Than Htay of Nyaung-U.)

Of the five terracotta plaques, four are similar but one looks different. The central figures on them are probably the deities of Mahayanism. Some expert knowledge is necessary to identify them. The stone plaques with eight scenes from the life of Buddha on each are usually called Andagu (? Dolomite) Hpaya (see Luce: *Old Burma – Early Pagan*, I, Plates 400 to 406; *ASB*, 1954-5, Fig. 9; *ASB*, 1958-9, Fig. 59; and *ASB*, 1960-1, Fig. 10). A similar plaque (now in possession of Ye-U U Thaug; see Luce: *Old Burma – Early Pagan*, I, Plate 401) was sent to the Geology Department of the Arts and Science University, Mandalay, for identification and for finding out whether such stones are found plentiful in Burma or not.

According to the report (made by Dr Myint Thein on 8 August 1957) the so-called Andagu or Dolomite is only an indurated talc commonly known as kankūchan – steatite or soapstone and it is much harder than a normal talc. By composition it is an acid metasilicate of magnesium ($H_2Mg_3[SiO_4]$). It is found plentiful in India and China and only very little in Burma. The workmanship looks Indian. The bronze Bodhisattva (not Jambupati) from the Shwesandaw is fully dressed in a kingly robe plus an elaborate crown. The hands are in the dhyāna mudrā and the feet are in the dhyānāsana. Another bronze Bodhisattva from the Shwezigon is sitting in the dhyānāsana though the hands are holding a reliquary. Except for a few details in the dress, this Bodhisattva looks very similar to the one found at Arakan in 1958 (*ASB*, 1958-9, Figures 65 and 66 and Mya: *Apayratanā*, Rangoon, Archaeology Department, 1968, p. 112, Figure 3) which is thought to be of the 8-10 centuries A. D. The bronze smiling and standing Buddha in the abhaya mudrā from the Gawdawpalin probably belongs to the 11 century. A similar image was found

near the Shwesandaw in 1937 (Luce: *Old Burma - Early Pagan*, I, Plate 429). The bronze sitting Buddha on a simple throne and a back rest in the bhūmiṣparśa mudrā from the Shwesandaw probably belongs to the 16 century. Another sitting Buddha with a "flame" uṣṇīṣa in the bhūmiṣparśa mudrā from the Shwesandaw looks Cambodian. Burmans who went east in the 16 century to wage war might have brought such images back. The bronze sitting Buddha under the five hoods of a naga in the bhūmiṣparśa mudrā from the Shwesandaw is probably of the 18 century. The copper plaques of sitting Buddhas flanked by disciples look Indian. Moulds made in India might be used to produce them locally in the 11 - 13 centuries.

At the Lawkananda pagoda we found two more bronze images that came out of a big stone case kept at about the harmika of the pagoda (Photographs taken by Paw Oo The). The Buddha sitting in the bhūmiṣparśa mudrā looks Indian with affinity to the Gupta art (see photographs 24, 25 and 26). The other figure sitting with one hand in the varada mudrā and another holding a reliquary is possibly a Bodhisattva (see photographs 27, 28 and 29). (Because only those images having either a bhūmiṣparśa mudrā or a dharmacakra mudrā are to be identified as the Buddha).

From the Kyaukku U-min we brought back a chip of stone that fell down from a damaged part and it has been identified now (by Dr Myint Thein on 2 August 1975) as the micaceous sandstone found plentiful in the localities like Taywintaung and Tangyitaung which are small ridges close to Pagan. The Kyaukku is a 11 century stone building and the stones used were locally procurable. With the exceptions of the Nan Hpaya which is probably of the 12 century and a 11 century ruin close to the Mya Gan, Pagan has no more stone buildings. If there were master stone carvers in the 11 century and stones were plentiful, why Pagan people did not leave more stone buildings is a problem which we do not understand.

The Thandawgya is the only Buddha image at Pagan made of stone bricks. It is said to have been constructed in A.D. 1284. The plaster that worked the

details of the image had long been fallen off exposing greenish stone bricks. A chip from it has now been identified (by U Thaw Tint of the Geology Department, Arts and Science University, Mandalay) as Rhyolite or Aplite (an acid igneous rock, kaolinized, chloritized and weathered) found in areas only on the east of Irrawady at Popa, Singu and Madaya. Perhaps the use of such stones for making the Buddha images was found too late and therefore we do not have anymore stone brick image like the Thandawgya Pagan.

On the southeast of the Thatbyinnyu stand two pillars of stone (Luce: *Old Burma - Early Pagan*, I, Plates 379 and 380) commonly known as the "Bell-Pillars." Each had a floral design in V shape somewhat similar to what we find on the four central pillars inside the Nan Hpaya at Myinpagan. Now that the earthquake had reduced them almost to their foundations, we lost the beautifully carved portion that dates back to mid 12 century.

The plaster on the walls at some buildings fell off during the 8 July 1975 earthquake. If there were paintings on those walls, they would be destroyed beyond repair. A few workers from the Directorate of Archaeology were found collecting the fallen pieces in the U Pali Thein, perhaps in the hope that with patience they could be fixed again. I am afraid some pieces are so small that no amount of patience could bring them together and restore the scenes painted on them. Regarding this kind of loss, I think, the Thetkyamuni tops the list. It is situated at Chaukphala beyond Nyaung-U and it might have been constructed early in the 13 century. The paintings on the walls gave the story of how Buddhism was introduced to Śrīlankā. Supplementing the pictures were floral designs where playful birds and beasts were mingled in the foliage. They were now lost for ever. Close to the Thetkyamuni but on a slightly higher level is the Kondawgyi pagoda also belonging to the 13 century. The interior walls had the Jātaka stories plus floral designs. They were also lost now. Thus the earthquake had destroyed the wall paintings of the Pagan period in two places.

The wall paintings of the Ananda Ok Kyaung are datable. One ink inscription on the wall mentions that the whole structure including the

paintings for decorative purpose were finished on 4 January 1776. Plaster on some parts of the wall had fallen down taking away with it some lovely portions of the ceiling decoration in geometric patterns of bright and varied colours. Some measures should be taken to stop further deterioration.

The ceiling paintings at the U Pali Thein, as mentioned above, were done in 1794-5 and the plaster of almost the whole ceiling had fallen down and the paintings of the twenty eight Buddhas and the scenes from the life of Buddha were all gone. Even if the pieces could be fixed together again, there would certainly be several patches of blank so that one wonders whether the attempt to salvage them would be anything worthwhile.

The Nathtaung Kyaung Thein, situated close to the Shwezigon on its south has some good paintings on both its walls and ceiling. Most of the paintings on the wall are about the meritorious deeds done by the founder of this building. At one corner on the west wall is written an ink inscription stating that the founder died on 15 January 1825. Therefore we assume that the paintings were done before 1825. I had been to this place several times before and I noticed that the paintings are in a fairly good state of preservation. But when I was there this time after the earthquake I found cracks on the walls that could lead to some sorrowful loss in the immediate future if no conservation works are applied quickly.

The obvious thing to do now is to provide roofs and props or any suitable device to stop further deterioration and leave things as they are. People who are interested in the study of past cultures hate to see modern men doing anything to the antiques. But we are aware that there are people around who made it their business to repair the ruins. And to stop them, I think, would be well nigh impossible. As an alternative I suggest that they should do proper restoration. That certainly does not mean that they must appear again as they look just before the 8 July 1975 disaster.

With the help of a few illustrations I have here I would like to suggest some points on this subject of restoration. In a matter of few months from now, I

believe, most of the destructions would be repaired at more noted places like

Ananda,
 Bu,
 Gawdawpalin,
 Kondawgyi,
 Kyaukku,
 Htilominlo (Tilokamaṅgala),
 Laymyethna of Minnanthu,
 Lawkananda,
 Mahabodhi,
 Manuha,
 Mimalaunggyaung,
 Mingalazedi,
 Min-o-chantha,
 Myazedi,
 Nathlaunggyaung,
 Ngakywenadaung,
 Pahto~~tham~~ya,
 Pitakat Tike,
 Shwegugyi,
 Shwesandaw (Mahapeinnè),
 Shwezigon,
 Sulamani,
 Thandawgya,
 Thatbyinnyu,
 The~~kyam~~uni and
 U Pali Thein.

Altogether there are twenty six monuments that required restoration soon. For the sake of easy reference we would like to group them under five categories.

- (1) Dome (like the Sagaing Kaunghmudaw)
- (2) Straight Tower (like the Hmawza Baw Baw Gyi)

- (3) Reduced Top Tower (like the Mahabodhi)
- (4) Reliquary (like the Silver Model found in the Relic Chamber at Hmawza)
- (5) Bell (like the Scovell's Pawdawmu) found near the Damayangyi at Pagan)

Pagan has no building that could be strictly classified as a dome. Perhaps the Kyaukku, Manuha and Thandawgya should have the domes to cover them. The Pitakat Tike, Mimalaunggyaung and U Pali Thein are of the Konbaung architectural group and so we would leave them out of our discussion. The rest, I suggest, should be grouped like this.

- (1) Straight Tower : Lawkananda,
- (2) Reduced Top Tower : Ananda, Gawdawpalin, Htilominlo (Tilokamaṅgalā), Laymyethna of Minanthu, Mahabodhi, Shwegugyi, Sulamani, Thatbyinnyu and Thetkyamuni,
- (3) Reliquary : Bu and Ngakywenadaung,
- (4) Bell : Kondawgyi, Mingalazedi, Min-o chantha, Myazedi, Nath-launggyaung, Pahtothamya, Shwesandaw (Mahapeinnè) and Shwezigon.

For "Bells" the finial should be either like the Scovell's Pawdawmu or the model near the Nan Hpaya or the model near the Nagayon. In another words the bell (aṇḍa) has above it a series of umbrellas (chattrāvali) tapering to a lotus (padmapaira) covered by a rain vessel (varṣa sthāla).

The illustrations are from the pagodas of Dvāravatī, India, Java, Pagan, Rāmañā, Śrīkṣetra and Śrīlāṅkā. All of them are of pre-Pagan and Pagan periods. Because we do not want any anachronism here. What I mean to say is that only the pagodas shown here would serve as models for our purpose.

Illustration I : Old Monolith Stūpas (from A.Cunningham : *Mahabodhi or the Great Buddhist Temple under the Bodhi Tree at Buddha-Gaya*, Varanasi, Indological Book House, 1960 Reprint, Plate XXIII);

a stūpa is in fact a grave and as such it would be made out of one big stone with the appearance of either one of these figures.

- Illustration II :** The Thūpārāma of Anurādhapura (Elevation), Śrīlāṅkā, 246 B.C. (from Benjamin Rowland : *The Art and Architecture of India-Buddhist, Hindu and Jain*, London, Pelican, 1954 Third Rearranged Impression, p.199, Figure 32) ; this should be the proto-type of the "bell" pagodas.
- Illustration III :** The Stūpa in the Chaitya-hall of Kārli, 2 century B.C. (from Andreas Volwahn : *Living Architecture - Indian*, London, Macdonald, 1969, p.30) ; we notice that the umbrella is wooden and spread above the harmika.
- Illustration IV :** The Sāñchi Stūpa (Elevation), 2-1 centuries B.C. (from Rowland, p.47, Figure 4) ; we find that the umbrella is in three tiers.
- Illustration V :** The Conjectural Restoration of the Court of the Stūpa Takht-i-bāhi, Northwest Frontier of India, 2 century A.D. (from Percy Brown : *Indian Architecture - Buddhist and Hindu Periods*, Bombay, D.B.Taraporevals, 1956 Third Revised Edition, Plate XXXIII between pages 36 and 37) ; it seems that this pagoda is of the transition type from the dome to the tower; the tiers of umbrella have been increased to five.
- Illustration VI :** The Conjectural Restoration derived from the Bas-reliefs of the Amarāvati Stūpa, 3 century A.D. (from Brown, Plate XXXV between pages 36 and 37); we find the dome is covered by two umbrellas instead of one.
- Illustration VII :** The Restoration of Dhāmek Stūpa, Sārṇāth, 6 century A. D. (from Brown, Plate XL (vii) between pages 44 and 45); this pagoda has the form of a cylinder or straight tower and it seems that Śrīkṣetra stūpas have a close resemblance to it; the tiers of umbrella has been increased to nine.

- Illustration VIII :** The Conjectural Appearance of Mahābodhi at Bodh Gayā when first built, 7 century A.D. (from Brown, Plate XL (viii) between pages 44 and 45); the present Mahabodhi looks rather different.
- Illustration IX :** The Barabudūr (Vertical Section), Java, 8 century A.D. (from Rowland, p.246, Figure 48); it is one good suggestion to put a finial like this on a "bell" pagoda.
- Illustration X :** The Reduced Top Tower (Sikhara) used in Northern India in about A.D. 1000 (from Brown, Plate LXXX between pages 84 and 85); the Sikhara has above it an Āmalaka which in turn has above it a Kalaśa and this Kalaśa is definitely the top.
- Illustration XI :** The Silver Miniature Stūpas found in a relic chamber at Khin Ba Kon, Śrīkṣetra, 3 – 9 centuries A.D. (Directorate of Archaeology Photo negative Number 2833/1926-7); we find that their form is a variation of the relic casket with the middle a bit narrowed and it has eight tiers of umbrella with a kalaśa top.
- Illustration XII :** The Stone Relief on a Relic Chamber cover, Śrīkṣetra, 3 – 9 centuries A.D. (Directorate of Archaeology Photo negative Number 2818/1926-7); it is another version of the "dome" with a harmika and five tiers of umbrella.
- Illustration XIII :** The Stone Models and Bas-reliefs of Stūpas, Dvāravātī, a Mon Kingdom of the Lower Menam, 6 – 11 centuries A.D. (from *The Arts of Thailand* edited by Theodore Bowie, Bloomington, Indiana University Press, 1960 p. 49); most of these stūpas seem to have been evolved from the kalaśa pot.
- Illustration XIV :** The Miniature Stūpas found in the Relic Chamber of Botahtaung Pagoda, Rangoon, 7 century A.D. (*The Annual Report of Directorate of Archaeology, Burma, 1917-8*, Figures 2 and 3); the script on the terracotta found with them probably dates back to the 7 century A.D.; it is interesting to note that one is massive and another is tall.

Illustration XV : The Śrīlaṅkā Dagobas (an illustration in C.E. Godakumbura: *Sinhalese Architecture*, Colombo, Department of Cultural Affairs, 1963); the Dagobas at Pagan are the ṬAbeyadana, Pebingyaung, Petleik East and West, Sapda and Sein Nyet Nyima; if they are to be restored the look of these figures as well as the Thūpārāma of Anurādhapura should not be ignored.

Illustration XVI : The Pagodas in relief found on various terracotta plaques of the Pagan period (Than Tun: "Votive Tablets of Burma", *the Nation Daily*, Sunday Supplements of 4 and 11 February 1962); obviously one type of pagoda is derived from the kalaśa and another from the relic casket.

Illustration XVII : The Pagodas found painted on the wall at the Abeyadana, Myinpagan, ṬA.D. 109) (from Mya: *Apayratana Luṅgū Phurā*; Rangoon, Directorate of Archaeology, 1968, p. 161, Figure 94); we find that each pagoda is placed on a throne and Aṇḍa, Harmika, Chattrāvali, Padmapattra and Varṣa Sthāla come in succession.

Illustration XVIII : The pagoda found painted on the wall at the Lawkahteikpan on the north of Shwesandaw, ṬA.D. 1100 (from Ba Shin: *Lokahteikpan - Early Burmese Culture in a Pagan Temple*, Rangoon, Directorate of History Research, 1962, Plate 22a); it is the same Aṇḍa-Harmika-Chattrāvali-Padmapattra-Varṣa Sthāla pagoda.

Illustration XIX : The Pagoda in relief on the enclosure wall of Ananda, ṬA.D. 1110 (from Than Tun: "Religious Buildings of Burma A. D. 1000 - 1300", *JBR*, XLII,ii, December 1959, p. 73, Diagram II a and b); it is the same AHCPVS pagoda mentioned above.

Illustration XX : The Pagoda in relief above the niche on the left of the East Entrance to Sulamani, late 12 century A.D. (from my notes taken on 25 March 1967); we noticed that the harmika which late 13 century pagodas omitted was still retained.

Illustration XXI: The Model Pagoda of 12 century near the Nan Hpaya, Myinpagan; it is a slightly modified AHCPVS pagoda and modification is more pronounced in the padmapattra.

Illustration XXII: The Model Pagoda of 12 century near the Ngagayon, Myinpagan; it is also a slightly modified AHCPVS pagoda and modification is more pronounced in the chattrāvali. (from *Pictorial Guide to Pagan*, Rangoon, Directorate of Archaeology, 1966 Reprint of Second Revised Edition, p.46).

Illustration XXIII: The Scovell's Pawdawmu, 13 century near the Damayangyi; we notice that there is no more harmika.

Illustration XXIV: The Brass Model of a "Reduced Top Tower" Pagoda found from a Gu which was probably finished on 26 February 1293 and situated about twenty yards to the east of U Pali Thein (from *ARDAB*, 1954-5, Photograph Number 7).

Illustration XXV: The Brass Model of a "Bell" Pagoda found from the same Gu mentioned above (from *ARDAB*, 1954-5, Photograph Number 8).

Illustration XXVI: A Gu with a "Bell" Pagoda above it restored by the Directorate of Archaeology, Burma, late 13 century.

Illustration XXVII: Prince Myingun (from a photograph taken in about 1890); this is the best illustration I could find to show that a blend of two styles looks awkward.

In conclusion I have three points to make:

- (1) use no heavy material on top of time weakened brick support;
- (2) match the body with the correct finial; and
- (3) allow no anachronism

if people could not be persuaded to leave things as they are except so me conservation.

Photographs of Images



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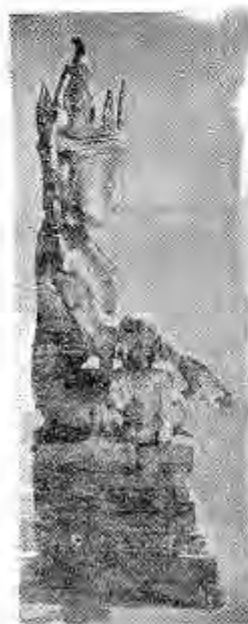
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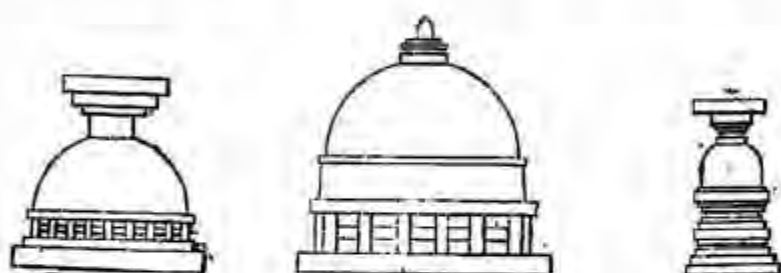
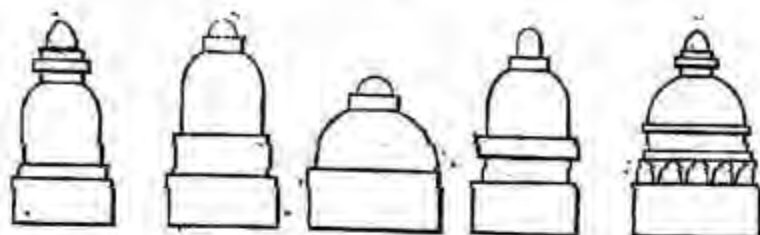


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Photographs of Stupas (Illustrations)



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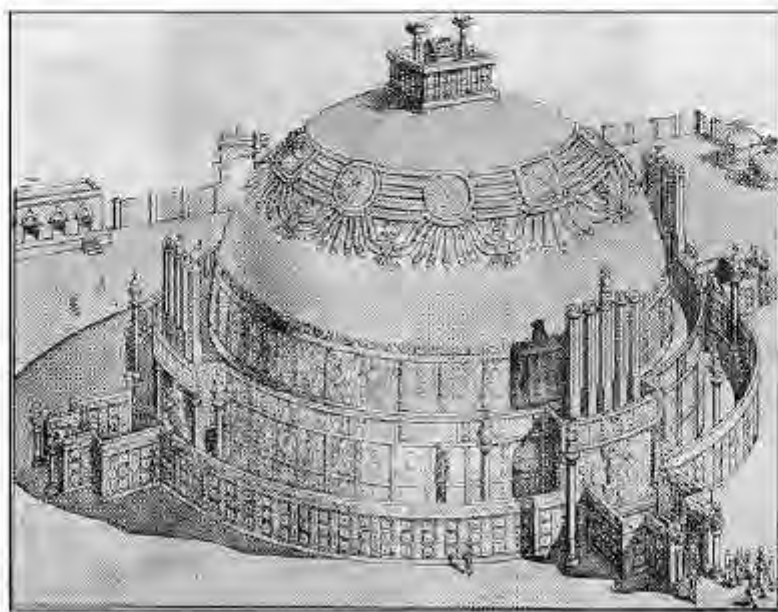
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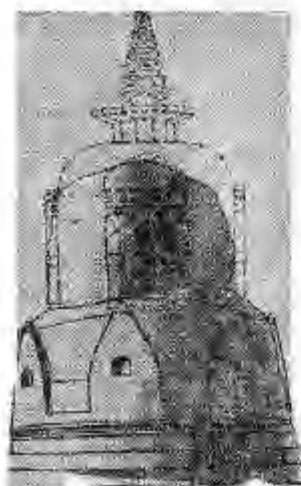


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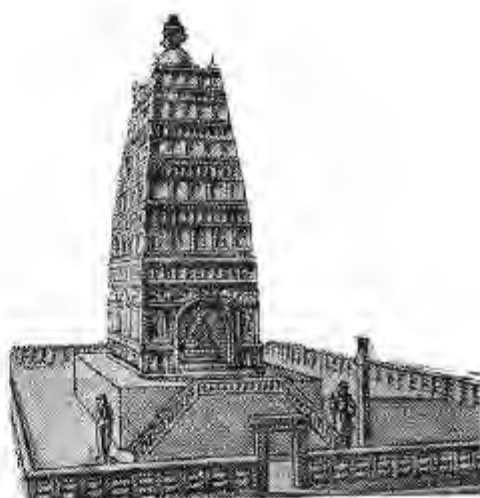


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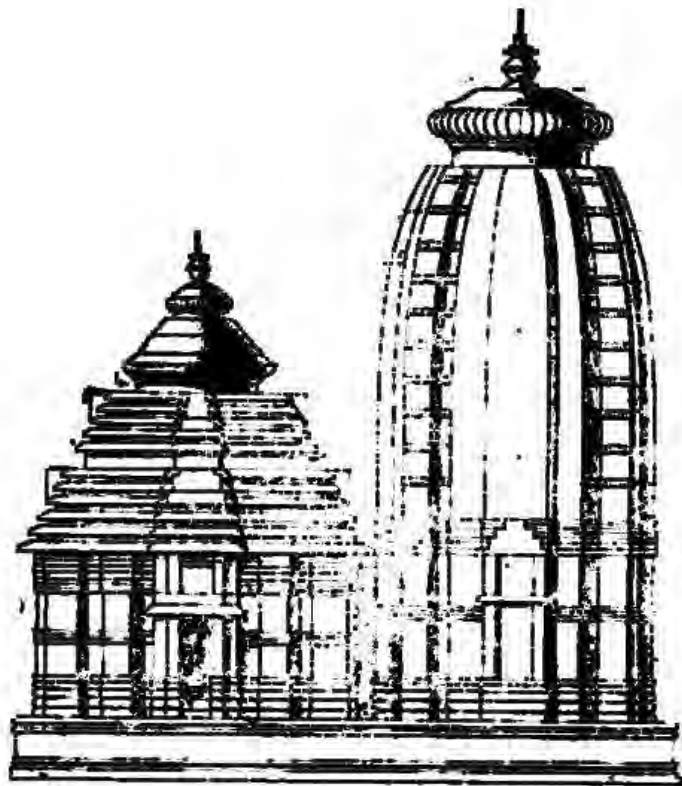
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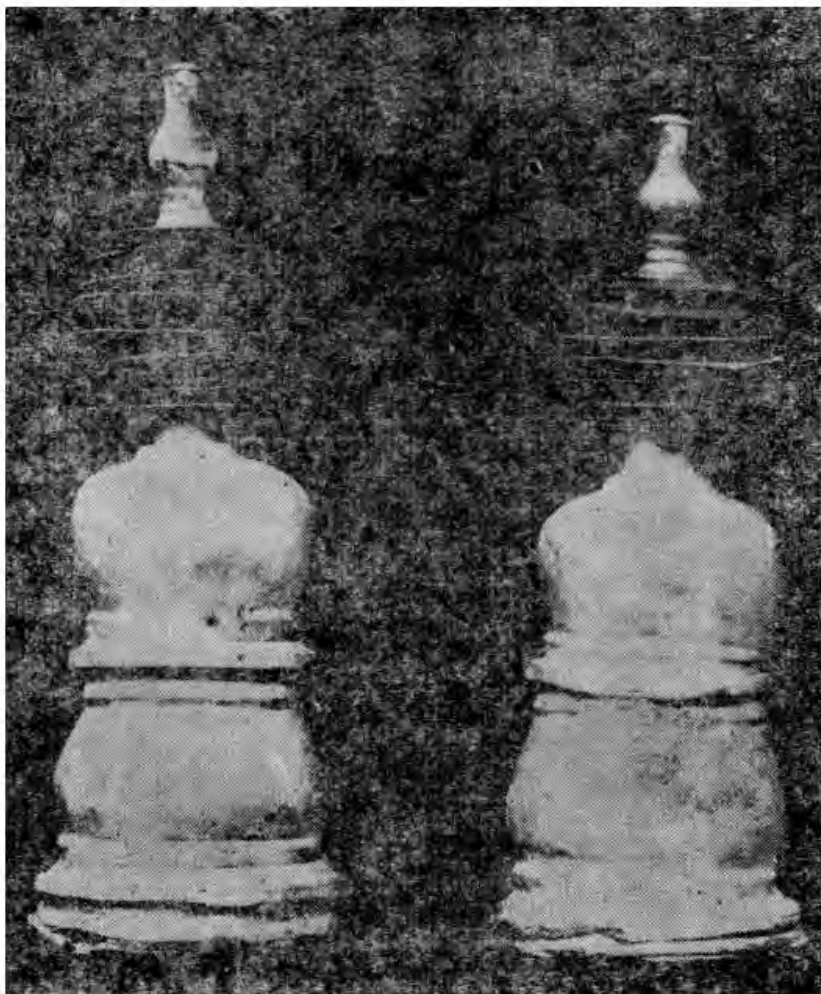


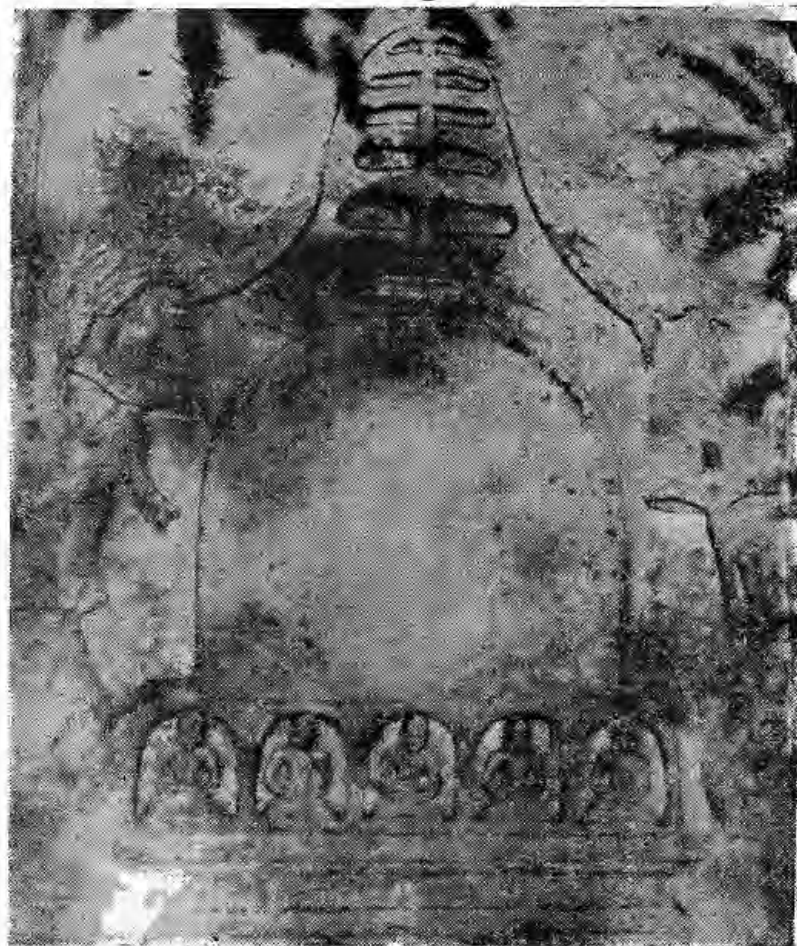
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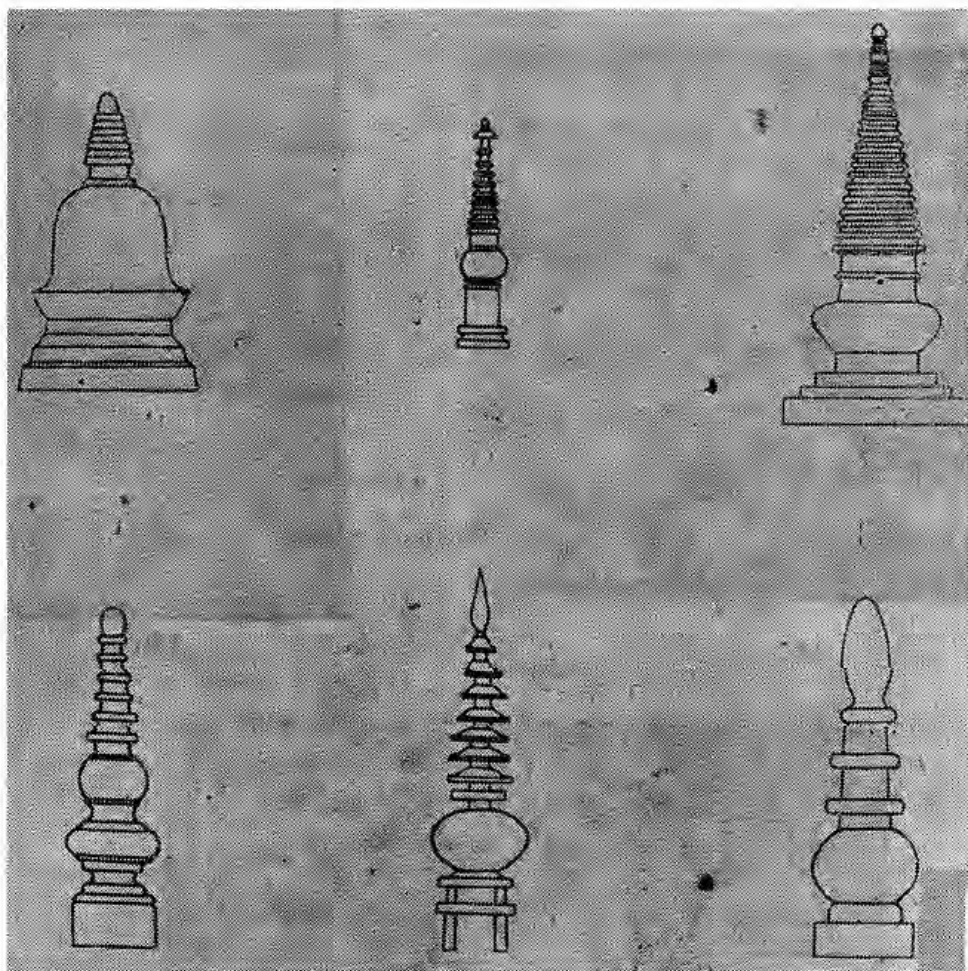


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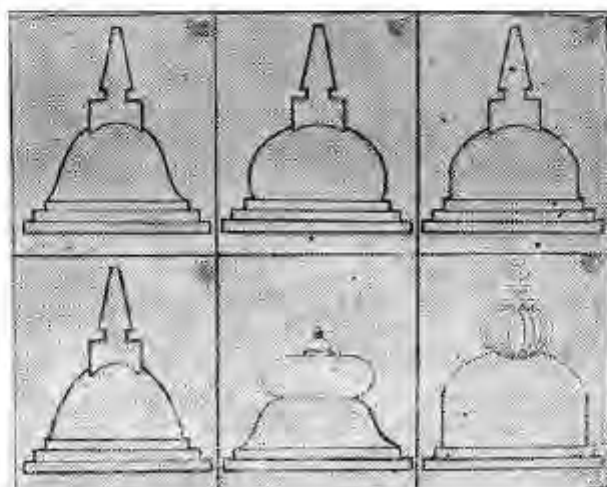


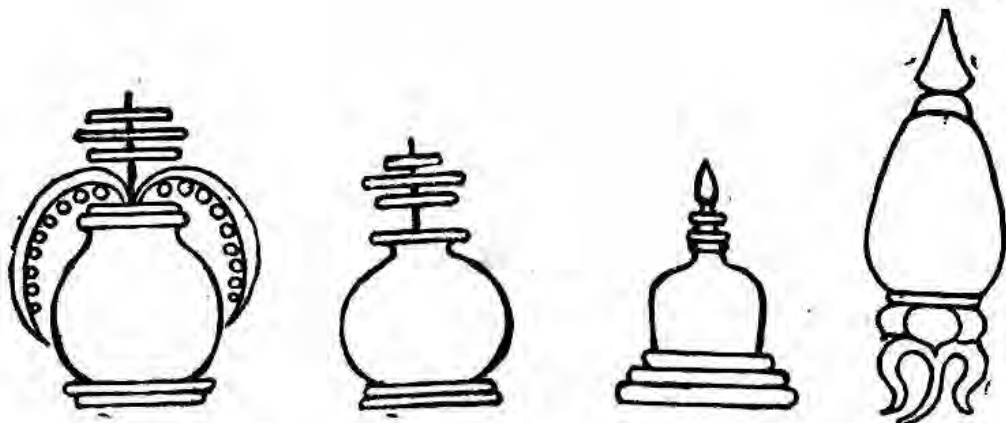


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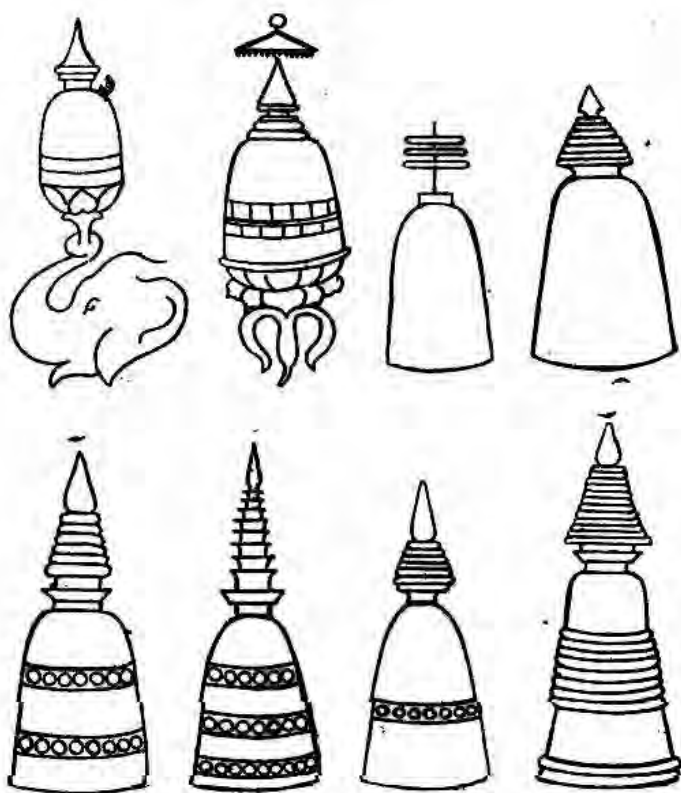


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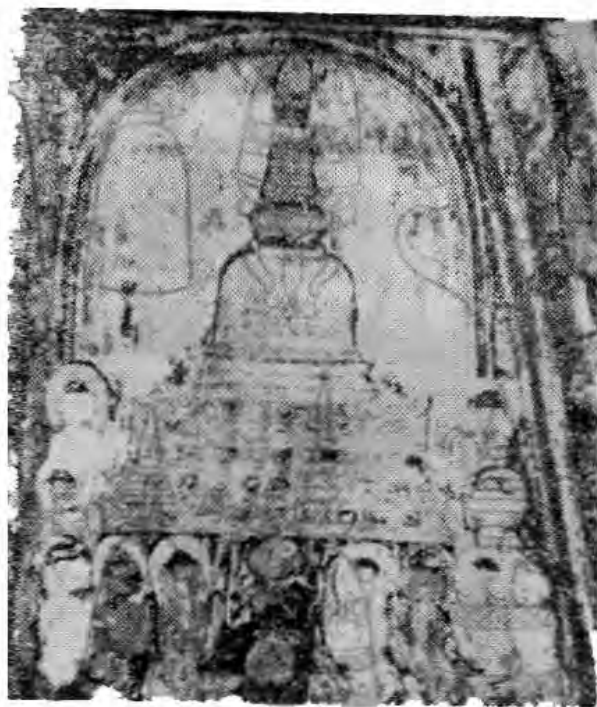
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16 b



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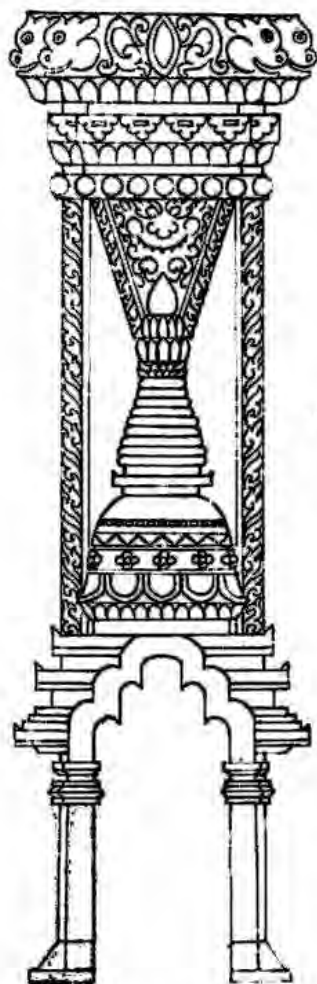


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JBRs, LIX, i & ii, Dec., 1976.



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JBRS, LIX, i & ii, Dec., 1976.



